Lesson 10.A

10.A.1 Introduction to Sandhi

Sandhi ('placing together') is the principle of sounds coming together naturally and harmoniously, which is to say without awkwardness or tongue-twisting. This is the principle behind the nasal substitution for the **anusvāra** that was considered earlier, and for the various pronunciations of the English letter 'n' mentioned in that section (8.A.3).

Sandhi applies to other consonants besides nasals: for example, consider the English phrase 'cats and dogs', which is pronounced as 'cats and dogz'. Why should that be? Looking at it doesn't help; you need to sound it. Have you heard why it is so? Well, try swapping the sibilants around: 'catz and dogs'. Difficult, isn't it? So there is an English **sandhi** rule that a sibilant preceded by an unvoiced consonant is unvoiced, and preceded by a voiced consonant it is voiced (**ghoṣa**). It is quite natural, and for the ease of pronunciation.

Sandhi applies to vowels too: consider how "he is" becomes "he's". When sounded — and that's the key — you will hear that both vowels have the same sound: certainly one has a short measure, and the other a long measure, but the sound is the same. So, when a long ई meets a short इ, they are both replaced by a long ई. (The apostrophe functions somewhat like the **avagraha** (ऽ), inasmuch as it is not sounded.)

Sandhi applies whenever two sounds come together — and this is the point: it is sounds coming together. In the written form, the letters are symbols representing the sounds: in Sanskrit the notation changes when the sound changes, and thus it has an inherently phonetic script; the English script does not do this, and this is one of the reasons that foreigners mutter darkly about English spelling! The rules of **sandhi** only make sense in sound and not in writing: thus it is important, when reading the written word, to sound it aloud (or in the mind at least), and to hear that sound.

The rules of **sandhi** apply within a word as it is being developed from its elemental components to its fully inflected form: this is called internal **sandhi**, internal to an individual word. The rules also apply between words as they come together to form a sentence: this is called external **sandhi**, external to the individual words. The rules of internal and external **sandhi** are largely the same, but each has its own field of special cases and exceptions. We shall examine external **sandhi** broadly and

only lightly touch on internal **sandhi** as it affects the declension of formed words.

In these notes, the breve (˘) above the vowel indicates a short measure only, and the macron (¯) long measure only; combined (¯̆) they indicate a long OR short vowel. Also **V** stands for any vowel, unless explicitly restricted.

10.A.2 Guṇa and Vṛddhi

The grammatical terms **guṇa** ('secondary form') and **vṛddhi** ('increase') can be considered as degrees of strengthening of the three primary vowels. **Pāṇini** defines **guṇa** as the three vowels अ ए and ओ, and **vṛddhi** as आ ऐ and औ, and also gives the means for deriving the strengthened forms of the other two simple vowels ऋ and ऌ.

simple vowel	a	ā	ĭ̄ [1]	ŭ̄	r̆̄	ḷ [2]
guṇa form	a	ā	e	o	ar	al
vṛddhi form	ā	ā	ai	au	ār	āl [3]

[1] The breve (˘) and macron (¯) diacritical marks, used together (¯̆) indicate a long OR short measure of the vowel.

[2] In the grammatical formation of words, the **dīrgha** measure ॡ does not occur.

[3] The **vṛddhi** form of ऌ, namely आऌ, does not arise in the grammar.

A useful way of considering **guṇa**, is the strengthening of the five simple vowels by the addition of a single measure of अ (so as to leave अ itself unchanged), and **vṛddhi** as the strengthening of the **guṇa** by the addition of a further measure of अ. This process has been described in Section 1.A.5.

10.A.3 Vowel Sandhi

Vowel **sandhi**, as you would expect, arises when a word ending in a vowel is followed by a word beginning with a vowel, in the same sentence or line of poetry: a vowel final is not changed before a consonant or *in pausa*, for example, at the end of a sentence. There are only six principles that cover all cases: it is not necessary to learn these, but what is important is to understand them, and that means to work through each principle — in sound — and understand that they are simply statements of the obvious.

1. When one of the five simple vowels (**hrasva**, short or **dīrgha**, long) meet a vowel of the same kind (**hrasva** or **dīrgha**), they are both replaced by the **dīrgha** measure of that vowel.

$$\breve{\bar{a}} + \breve{\bar{a}} \Rightarrow \bar{a}$$

$$\breve{\bar{\imath}} + \breve{\bar{\imath}} \Rightarrow \bar{\imath}$$

$$\breve{\bar{u}} + \breve{\bar{u}} \Rightarrow \bar{u}$$

$$\breve{\bar{r}} + \breve{\bar{r}} \Rightarrow \bar{r}$$

Note that ॡ is not shown here. It was mentioned earlier that the **dīrgha** measure of ऌ is not used in the grammar (Section 1.A.4) and that ऋ and ऌ are **savarṇa** (Section 8.A.2), so that when ऋ meets ऋ or ऌ, the result is ॠ.

2. When अ (**hrasva** or **dīrgha**) is followed by one of the five simple vowels other than अ (**hrasva** or **dīrgha**), **guṇa** replaces both.

$$\breve{\bar{a}} + \breve{\bar{\imath}} \Rightarrow e$$

$$\breve{\bar{a}} + \breve{\bar{u}} \Rightarrow o$$

$$\breve{\bar{a}} + \breve{\bar{r}} \Rightarrow ar$$

$$\breve{\bar{a}} + \breve{\b{l}} \Rightarrow al$$

3. When अ (**hrasva** or **dīrgha**) is followed by a **guṇa** or **vṛddhi** sound, the **vṛddhi** sound replaces both.

$$\breve{\bar{a}} + e \ \Rightarrow ai$$

$$\breve{\bar{a}} + o \ \Rightarrow au$$

$$\breve{\bar{a}} + ai \Rightarrow ai$$

$$\breve{\bar{a}} + au \Rightarrow au$$

4. When a simple vowel (**hrasva** or **dīrgha**) other than **a** is followed by a different vowel, the first vowel is replaced by the **antaḥstha** of the same mouth position:

$$\breve{\bar{\imath}} + V \Rightarrow yV$$

$$\breve{\bar{u}} + V \Rightarrow vV$$

$$\breve{\bar{r}} + V \Rightarrow rV$$

$$\b{l} \ + V \Rightarrow lV \quad \text{where } V \text{ stands for any different vowel.}$$

5. When a compound vowel (**e ai o au**) is followed by another vowel, it splits
   into its component parts (**a** or **ā**, and **i** or **u**) and the second of those parts
   is replaced by the **antaḥstha** of the same mouth position. The **antaḥstha**
   may then optionally be elided: generally it is only retained when the preceding
   vowel was **au**.

   $$\mathbf{e} \; + \mathbf{V} \Rightarrow \mathbf{a} + \mathbf{i} \; + \mathbf{V} \Rightarrow \mathbf{ayV} \Rightarrow \mathbf{a} \; \mathbf{V}$$

   $$\mathbf{ai} \; + \mathbf{V} \Rightarrow \mathbf{\bar{a}} + \mathbf{i} \; + \mathbf{V} \Rightarrow \mathbf{\bar{a}yV} \Rightarrow \mathbf{\bar{a}} \; \mathbf{V}$$

   $$\mathbf{o} \; + \mathbf{V} \Rightarrow \mathbf{a} + \mathbf{u} + \mathbf{V} \Rightarrow \mathbf{avV} \Rightarrow \mathbf{a} \; \mathbf{V}$$

   $$\mathbf{au} + \mathbf{V} \Rightarrow \mathbf{\bar{a}} + \mathbf{u} + \mathbf{V} \Rightarrow \mathbf{\bar{a}vV} \qquad \text{where } \mathbf{V} \text{ stands for any vowel.}$$

6. As a quite non-obvious exception to the above rule, and overriding it, when ए
   or ओ are followed by **hrasva** अ, the अ is elided and replaced by an **avagraha**.

   $$\mathbf{e} \; + \mathbf{a} \; \Rightarrow \mathbf{e}'$$

   $$\mathbf{o} \; + \mathbf{a} \; \Rightarrow \mathbf{o}'$$

All the information on vowel **sandhi** may be conveniently displayed in tabular
form — called a **sandhi** grid — which, though useful in its own way, is no substitute
for understanding the principles in sound.

<div align="center">Final Vowel</div>

-ă[1]	-ĭ	-ŭ	-ṛ̆	-ḷ	-e	-ai	-o	-au	Following Vowel
-ā-	-ya-	-va-	-ra-	-la-	-e'-	-ā a-	-o'-	-āva-	a-
-ā-	-yā-	-vā-	-rā-	-lā-	-a ā-	-ā ā-	-a ā-	-āvā-	ā-
-e-	-ī-	-vi-	-ri-	-li-	-a i-	-a i-	-a ī-	-āvi-	i-
-e-	-ī-	-vī-	-rī-	-lī-	-a ī-	-ā ī-	-a ī-	-āvī-	ī-
-o-	-yu-	-ū-	-ru-	-lu-	-a u-	-ā i-	-a u-	-āvu-	u-
-o-	-yū-	-ū-	-rū-	-lū-	-a ū-	-ā ū-	-a ū-	-āvū-	ū-
-ar-[2]	-yr̥-[2]	-vr̥-[2]	-r̥̄-	-r̥̄-	-a r̥-	-ā r̥-	-a r̥-	-āvr̥-	r̥-
-ar-	-yr̥̄-	-vr̥̄-	-r̥̄-	-r̥̄-	-a r̥̄-	-ā r̥̄-	-a r̥̄-	-āvr̥̄-	r̥̄-
-al-	-yḷ-	-vḷ-	-r̥̄-	-r̥̄-	-a ḷ-	-ā ḷ-	-a ḷ-	-āvr̥̄-	ḷ-
-ai-	-ye-	-ve-	-re-	-le-	-a e-	-ā e-	-a e-	-āve-	e-
-ai-	-yai-	-vai-	-rai-	-lai-	-a ai-	-ā ai-	-ā ai-	-āvai-	ai-
-au-	-yo-	-vo-	-ro-	-lo-	-a o-	-ā o-	-a o-	-āvo-	o-
-au-	-yau-	-vau-	-rau-	-lau-	-a au-	-ā au-	-a au-	-āvau-	au-

¹ The breve (˘) above the vowel indicates a short measure only, and the macron (¯)
long measure only; combined (᷄) they indicate a long <u>OR</u> short vowel.

² Optionally, the basic vowel may be replaced by its **hrasva** equivalent, and the **ṛ**
retained, for example: **mahā** + **ṛṣi** ⇒ **maharṣi** or **maharṣi**.

Note: **ḷ** does not occur as a word final, and neither **r̄** nor **ḷ** as a word initial, but they
are included in the table for completeness.

One thing that the table does illustrate, is that resolving a given **sandhi** into its
components is not at all straightforward: for example, while it is clear that **-a + a-**
produces **-ā-**, the grid cannot determine from **-ā-** whether either (or both) of the
original **a**'s were long or not.

10.A.4   Exceptions to Vowel Sandhi

There are some exceptions, called **pragṛhya** ('to be taken separately'), where
sandhi rules do not operate. For external **sandhi** these are:

a. Particles consisting of a single vowel, or ending in ओ: these are usually
   interjections or exclamations, rather like the English 'Ah' and 'Oh'.
b. The terminations of duals (whether nouns, pronouns, or verbs) ending in
   dīrgha ई, ऊ or ए.
c. Prolonged (**pluta**) vowels.

10.A.5   Samprasāraṇa

Samprasāraṇa is the process whereby an **antaḥsthaḥ** is replaced by the simple
vowel of the same mouth position (and the following vowel is elided). This is the
complement to rule 4 in 10.A.3. Examples of this are **ij-ya** derived from **dhātu yaj**,
sup-ta from **dhātu svap**, **uc-atha** from **dhātu vac**, and **pṛcch-ati** from **dhātu
prach**.

A similar process occurs in English when a final 'y' is replaced by 'i' before adding
another suffix, as for example, easy and easily, beauty and beautiful, holy and
holiness.

Lesson 10.B

10.B.1 Introduction to Compound Words

The **dhātu** (root) is the basic form of a word denoting verbal activity: in order to form a noun (**nāman**) or adjective (**viśeṣaṇa**) etc., this activity needs to 'freeze', as it were, to make it into an object that is manifest and knowable. This 'fixing' of the meaning is accomplished by the addition of a suffix (**pratyaya**); the process in English is similar; for example, from the verb 'attend' given in 8.B.1, are derived:

attendant	one who attends,
attendance	the action of attending,
attention	the quality of attending,
attentive	having the quality of attending,
attentiveness	the state of having the quality of attending.

As shown by the last word in this list, these suffixes may be concatenated; and further prefixes may be added, as for example, 'inattentiveness'. Words thus 'fixed' by a suffix (**pratyaya**) may be joined together to form a compound word, as in the following English examples:

bedroom	fireside	headache	screwdriver
blackbird	gingerbread	housekeeping	sightseeing
breakfast	greenback	newspaper	songwriter
daydream	haircut	paperback	sunrise
dressmaker	handwriting	rattlesnake	wheelbarrow

The compound word may simply be a conveniently brief way of expressing a longer phrase (e.g. gravestone : stone marking a grave), or express a specific idea related to its parts (e.g. fireman), or may have a meaning quite different from its parts (e.g. pigtail : a plait of hair hanging down from the back of the head [from its resemblance to the tail of a pig]).

When a compound is not yet fully accepted in English writing (e.g. where it may cause one to stumble when reading it), it is hyphenated, as:

bread-winner	full-grown	light-weight	roof-garden
break-down	ginger-beer	old-fashioned	single-minded
double-decker	heart-shaped	pony-tail	store-room
far-fetched	hot-house	red-hot	whole-hearted
fire-fly	lamp-post	right-handed	world-wide

In **devanāgarī**, a compound word (**samāsa**) is always written without a break, but in transliteration these are often shown hyphenated, for example:

प्रथम-पुरुष **prathama-** (first) **puruṣa** person = first person.

A **samāsa** is formed by simply placing the **prātipadika** (stem) forms together and applying the **sandhi** rules at the junction. One exception to this should be noted: if the **prātipadika** ends in **-an**, then the **n** is dropped, for example:

ātman (self) + **jñāna** (knowledge) ⇒ **ātmajñāna**, self-knowledge.

In declining the compound word, the **vibhakti** ending is added to the end of the compound as a whole, i.e. only the last member appears to decline, while earlier members retain their **prātipadika** form.

Sanskrit makes extensive use of the **samāsa**, very extensive use indeed; so much so, that it is unusual to find a sentence without a **samāsa**. This makes expressions in Sanskrit at once concise and precise.

Although a **samāsa** may comprise many words, all the principles are covered in considering the joining of just two words (call them 'A' and 'B'); a more complex **samāsa** is simply a case where A and/or B is itself a **samāsa**. If the principal (more important) word of the compound is underlined, then the four classes of **samāsa** may be indicated as:

> <u>AB</u> **dvandva** (meaning 'A and B')
> A<u>B</u> **tatpuruṣa** (A is in some case relationship to B)
> <u>A</u>B **avyayībhāva** (forms indeclinable (**avyaya**) functioning as an adverb)
> AB **bahuvrīhi** (serves as an adjective qualifying an external principal)

Other types of **samāsa** are subdivisions, or special cases, of these four main classes.

There are few exceptions to the above: words such as **ātmane-pada** and **parasmai-pada** where the case-affix of the first word is not dropped, are called **a-luk samāsa**.

10.B.2 Joining Words in Writing

Sanskrit is spoken without any break between words, and the written form reflects this: after the operation of **sandhi**, words are joined together in writing except after words ending in a vowel, **anusvāra** or **visarga**. For example:

नरान् अल्पेन अश्वेन गच्छामि ⇒ नरानल्पेनाश्वेन गच्छामि

Ideally, the **virāma** (्) may only be used at the end of a sentence.

10.B.3 Exercises

(a) Practise sounding the alphabetical order while following the consonants on the alphabet chart on page 74.

(b) Write out the alphabet chart on page 74 once per day from memory.

(c) Join the following word pairs using vowel **sandhi**: this exercise is most usefully done in sound alone, i.e. by repeatedly pronouncing the word pairs aloud very swiftly, and then writing down what is heard: the results may afterwards be checked against the rules or the **sandhi** grid.
Do remember that the purpose of the exercises is a practical understanding: one learns from mistakes, not from right answers!

1. वि + अञ्जन
2. सत्य + आनन्द
3. साधु + ईश
4. कर्तृ + ऌकार
5. अत्र + एव
6. भू + आदि
7. आनन्द + एतद्
8. कपि + इन्द्र
9. महा + ऋषि
10. हरे + अथ
11. शान्ति + अमृतम्
12. नदी + ईश
13. महा + ईश्वर
14. माया + एव
15. हस्ते + अस्ति
16. देवी + आनन्द
17. विष्णो + आस्य
18. परम + आत्मन्
19. न + इति
20. पितृ + आनन्द
21. पौ + अकः
22. मधु + आचार्य
23. महा + इन्द्र
24. कर्तृ + आनन्द
25. का + इयम्
26. न + एव
27. शिव + ओदनम्
28. गुरु + एकत्वम्
29. परम + ईश्वर
30. प्रति + एकम्