The joining of two or more varnas to each other is called euphonic combination (sandhi). In sandhi, consonants without any vowel enter the following varnas.

Examples for consonants with vowels:

kaːtu - ɪvam - kurtivam; enna - araːn - enamaraːn
munne - irivam - munnirivam

Examples for consonants without vowels:

jæː - uŋtu - jenæntu, kurul - koːkætu - kurulkoːkæyte

In the following sutra, types of sandhi are given:

There are two types of sandhi:
1) Padamædhya (internal) sandhi: (2) padænta (external) sandhi. The first occurs within a word when the nominal base or verbal theme joins with suffixes. The second takes when a word joins with another.

The joining of the base and the suffix is called internal (padamædhya) sandhi. Joining of the two words is called the external (padænta) sandhi. There are two parts:

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2. S.D. sutra - 60.
The examples:

**Internal sandhi:**
- mētu - am - mētam, mētu - im - mētim
- nudida - an - nudidam

**External sandhi:**
- avanā altanam - avanāltanam
- kāmana - angale - kāmanangale
- madidar - avar - madidaravar

'This is the first section. The explanation of all the terms may not be found here. They will be explained along with the sūtras in the relevant sections.'

In the first sūtra under consideration, Kesirēja defines sandhi as joining of two or more varṇas. Joining of two varṇas is alright for sandhi. But what about joining of more than two varṇas? There certain examples given for the sandhi fault. For the sūtra 69, the example given for the sandhi fault is: barisi pradhānaram etc.

kullirisi priya etc.

In these examples after the vowel in the final position of the first word, the second word starts with a consonant clusters viz., pr and pr. He says sandhi like this is a fault. When he says 'palavum varṇam', Kesiraja, perhaps,

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3 S.D. sūtra - 61.
may be having such examples in question, in addition to the examples like vidvitstrī etc. (No.73)

After explaining the sandhi phenomenon, and the kinds of it, Kesirāja, in the following sutras, explains the sandhi rules governing the Kannada language:

'Elision of vowels at the end of the inflected and un-inflected words both in Sanskrit and Kannada, before vowels, generally takes place, when such an elision does not make the meaning uncertain.'

That is, if there is a vowel in the final position of the first word and initial position of the second word, one vowel is dropped provided the meaning is not affected.

Examples:

Sanskrit suffix vowel: krama - Ṛtu - kramaṛtu, Ṛvāra - ol avu-Ṛveranolevu

Kannada suffix vowel: nelādinde - uṃbām - nelādinduṃbām

Vowel of the verbal suffix: mādīdevu - olpam - mādīdevilpam

Vowel in the base: arasa - ḍā - arasāl, baḍabāḍa - ḍaṃ - baḍabāḍaṃ

4 S.D. sūtra - 62.
Examples:

Sanskrit suffix vowel: kramaṇa - aytu - kramaṇaytu, īsvarasūra - olavu - īsvaranolevu

Kannada suffix vowel: neladinde - unbam - neladinduñbäm
lesinge - oδeyam - lēsingeoδeyam

Vowel of the verbal suffix: mādivevu - olpam - mādivevulpevam

Vowel in the base: araṇa - ṛ - araṇi, brāhadeśa - edam - brāhadeśedam

There is no sandhi if it affects the structure.

patū - ekavēkyam - pattvēkavēkyam
vidhu - idv - vidhuvīdu

Though divided into Sanskrit and Kannada, and again base and suffix vowels for each, there is not any difference in the sandhi. The distinction is only a technical one.

'Y is inserted after i) ā, ii) i, ii) ɨ, iv) o, v) a, vi) e, vii) ə, and viii) after ə, when it is an affix of the genitive and followed by the emphasizing e.'

Examples:

5 S.D. sutra - 63.
Insertion of Y after a theme with final a and the affix -isu y is also inserted after imitative sounds with final a.

When any one of the vowels - u, ū, ū, o, au is succeeded by a vowel, v is inserted. There is no arbitrariness regarding the insertion of y or v in Sanskrit.

By saying that there is no arbitrariness regarding the insertion of y or v in Sanskrit, Kesiraja implies the arbitrary insertion of y or v in Kannada.

Examples:

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6 S.D. sūtra - 64.
For compulsory insertion:

before u: kuruṇu - udu - kuruduvudu

before ū: pū - in - a - pūvina

before ri: bhrātri - e - bhrātrive

before ṛī: ēndam - ēvendam

before ṝ: go - am - gōvam, go - ēndam - gōvindam

before au: nau - am - erīda - nauvērīda

In some cases, insertion of v is found after i and also e.g. i - ivu - ivivu, i - idu - ividu.

In Kannada, insertion of g or v is found optional, e.g. otte - ittam - ottittam, otteyittam
tagave - appode - tagaveyappode, tagavappode
matu - elam - mātvellam, mātelam
sovadu - ondu - sovadu ondu, sovadondu.

Compulsory insertion in Sanskrit: surasindhuve, vidhuvidhurdīrul.

There is no sandhi when a word denoting particle (nī-pāta), emphasis (avadhārane), or doubt (visanke) ending with the vowel e, ē, o or ō is followed by a vowel. Sandhi does not take place also when a pluta ending word is followed by a vowel.

8 S.D. sutra — 66.
Examples:

For particle: arane alalda, elē idalte, are ede
For emphasis: nuēdane adu, atane Indram
For suspicion: ivane ah, ērerey adriyo
For plute: rāmā ē endu, kūl endu

'Sandhi does not take place when ending words expressing approval or reproach, the word ema expressing consent, and the ē which comes in the place of gadē (surprise) are followed by vowels. Sandhi does not take place in lamentation also.'

Examples:

For approval: entento ēdine
For reproach: ēdā ridano avane, muttidanē inde
For consent: singamakama anjen...
For surprise(a): palē amardinē inidu gadē
For lamentation: eyyē akatē

'When the words poragū, olagū, posatu, paladu and elēdu after dropping their final syllables gu, gu, tu, du and du respectively are followed by a vowel, sandhi does not take place'. For example: pora adi, ola attam, posa adake, palalagu, ēla sene.

10 S.D. sutra - 68.
When the initial varṇa of the second word is doubled and the final varṇa of the first is short, the sandhi that is made is faulty. If the initial varṇa of the second word is a consonant with r, this doubled consonant is considered as slack'.

Here, Kesirāja gives the faulty sandhi.

Examples:

barisi pradhanaram, kullirisi priya

For consonant with r: misuguttirpe trisūlam
preṇayade tripathaṇe

'The persons who are not discriminate allow such usages in prose compositions saying that in prose such strictness is unnecessary. On the other hand, the persons who are discriminating do not allow such usages in both prose and verse compositions'.

Kesirāja rebukes the persons who are using the sandhis which are considered as faulty in the above sūtra. The faulty sandhi in this case is: making a sandhi between the first-word-final short vowel and the second word-initial

11 S.D. sūtra - 69.
12 S.D. sūtra - 70.
double consonant. The persons making use of such a sandhi are termed indiscriminate by Kesirīja. The discriminating persons do not make use of it either in prose or in poetry.

'Sandhi is optional for the word kare when it is followed by al, and ira followed by ade. Sandhi is optional also when a half-verse, quotation from Sanskrit, or when imitative sounds are followed by a vowel. In words followed by ri also, sandhi is optional.'

Examples:

kare al, meygareyal
ira ade, irendu

For quotation etc. no sandhi: kōrthi kō daridraṇ enutum
for sandhi: na dēv e caritam carēnisci ma

Imitation - no sandhi: kavakkava ele

sandhi: chummemba, chāchaṭeṭeṇa
ri - no sandhi: esegum riyeṭem
ri - sandhi: sarasamrijuvive

'There is no sandhi when it creates a bad expression.
And also there is no sandhi if it spoils the form.'

13 S.D. sutra - 71.
14 S.D. sutra - 72.
The idea expressed here is extra-grammatical. Grammatically there is no bar for sandhi just because the resultant form gives a different meaning or bad meaning, or the current form is spoiled. It is only from the point of view of the reader that he just points out such areas.

Examples:

For faulty sandhi:
- teru - ḍakkege - terudākkege (X)
- teru - dāņege - tarudāņege (X)
- ḍalātākūmalānγi (X)

For visandhi: ponnandām

'If there are two r's, there should not be sandhi, as it will be harsh to the ear.'

This is also in line with the above sutra. That is, he is talking in general, not from the point of view of grammar.

Examples: rephadvitva: banderrāmar, dēverrakṣisuge

Hars for the ear: vidvitstrijyar

Such sandhis should be avoided, according to Kesirējā.

'There is sandhi when the e of emphasis gives the sense of action and the particle are giving the sense of proximity.'

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15 S.D. sutra - 73.
is used in the sense of proximity, is used in the sense of the part of the object.

Examples:

aniyoga sandhi : māmaranalladilla, melligeylladilla
niyoga visandhi : māmaranade
are of part : dhareyareyen

Niyoga means 'action'. aniyoga means 'no action'.
a niyoga vyayavahriti' means using it though there is no necessity'. In the examples 'māmaranallade - illa' and 'melligeyllade - illa' according to Kāśirāja e at the end of the first words is for emphasis. But here it has no work. There is sandhi - i.e. the elision of e. Hence, it is 'aniyoga sandhi'.

In 'māmaranade - inidappa' e has work. Hence, it 'niyoga visandhi'.

In 'dhareyare - am' according to suṭra 66 there should not be sandhi. Here, its meaning is 'half' and not 'many'. Hence, there is sandhi. All this about 'are' amounts to this that there is no sandhi are used in the sense of 'many', whereas there is sandhi if used in the sense of 'half'. Such statements will be difficult for acceptance for modern linguistics.

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16 S.D. suṭra - 74.
The first varṇas of the varga excepting ṭ, ṭh become the third varṇas in sameśa.

In the sameśa k, t, p become g, d, b.

For example: pala - kannaśa - pāḷàkannaśa
ksṇ - terevū - kaśyđerevū
kaṇ - pari - kaṇbāri

But, he is aware of the exceptions to this rule. The expressions like talekattu, besēkōl edupandi.

Any way, he is aware of such expressions. But in spite of them he has made a rule knowing well that in a language, such exceptions are bound to be there.

c, t do not change to j, d.

For example: kadu - cāgi - kaḍucāgi, kadu - ṭakkū - kaḍuṭakkū

In the next sutra, he gives another type of exceptions: k, t, p coming after ondu, eradu, after r substituted for r, l (ra la) coming in place of d, will not change to g, d, b.

17 S.D. sūtra - 75.
18 S.D. sūtra - 76.
Examples:

For ondu: orkkaisi, orpidi
For erdu: irkōdiyuṁ, irtalegojāṁ
For rofr: mārkorabalhairevaṁ, mārtale, ērpettarerpēttaṁ
For l or d: kālksi, kōktti, nātuduguni, nālpagaraṇam

The 'linkage' - am in 'ralakkam' also permits kil of kelagan e.g. kilkere.

Whether there is a vowel or unmutated consonant, the following p becomes v in samāsa. By 'behulegraṇa' it applies to sentence also.

Examples:

ele - perē - elavere, milirpa - elavalli -
milirpelavalli, belē - polē - belevole

p v eft-r natural consonant: bāy - pare - bōyvare
   bēr - perasī - bērverasī

No v for mutated consonant: kil - pāde - kilpade,
   ir - bāl - irbāl

19 S.D. sutra - 77.
There is no \( v \) in some cases where there is unmutated con-
sonant, and vowel.

\( p - \) palpareguttidam, pūpunumbu

\( b - \) kanbida, kanbētam

\( m - \) pālmane, bālmane

By 'bahulagrahaṇa' \( v \) in sentence:

\( \text{tamārūrge} - \text{pōpa} - \text{tamārūrgevōpa} \)

\( \text{kēlāsakke} - \text{bārpa} - \text{kēlāsakkevārpa} \)

'S following the consonants other than \( y \) and \( l \), becomes,
mostly \( c \). In some cases, there is \( j \); in some other cases
where it is numeral, it is always \( ch \).'

\( s \ c : \) nun - sarada - nuncarada

\( s \ j : \) pon - surige - ponjurige

\( s \ ch : \) padinen - sasira - padinenchāsire

optionally \( s \) remains as \( s \): - e.g. kaṇṣolam peravēnsuravadhū,
pavansari, kilserige, belsari.

No change for \( y \) and \( l \): bāyēsavige, melsaram

By 'bahulagrahaṇa', \( s \) after a vowel also becomes \( c \)
or \( j \).

- e.g. muccēre, muccēl, tuđujodar.

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20 S.D. sūtra - 78.
'tuṣṇijodar' is the correct example for the sūtra as there is a vowel in the final position of the first word. But the same is not true with the other two. Because, the two components in them will be muś-sere and muś-sāl. The form muś is a mutation form of mūru. Hence, the examples refer to the mutation form of mūru. If so, it is according to the rule viz., occurrence of consonant other than y and l. Hence, no necessity of 'bhaulagrahaṇa'.

'If there is a short vowel in the first word, and a vowel follows, n, n, l, y and l are doubled. If the first vowel is long or the word is indeclinable, or polysyllabic, there is no doubling.'

Examples:

-na : pon - ullavane - pongullavane
-nn : kən - am - kəŋəm
-li : kal - alləm - kələlləm
-yy : mey - a - meyyə
-li : mul - agi - mulədə

No doubling where long vowel:

-n : tən - e - təne, mən - əgi - mənədə

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21 S.D. sūtra - 79.
n : nān - an - nānăn, jān - am - jānăn
l : kāl - al - kālăm, kōl - am - kōlăn
y : tāy - orval - tāyorval, bāy - ol - bēyol
l : āl - āl - ālăl, tōl - ūṭam - tōḷăṭam

indeclinable: kali - dal - ivam - kalidālivam

polysyllabic word: saran - arum - saranănum
paral ēllum - paralēllum

In some indeclinables, there is doubling:

in - um - innum, in - ēvudā - innēvudā

Here, the polysyllabic means words with more than one syllables.

After giving the rules in the above sutras, Kēsirōja gives the exceptions to them in the next two sutras: 'If after the root ending in n, ā, l, y, ū, -al comes, there is no doubling. After -y ending roots sandhi is optional. After the roots uy, ney, suy, bay, even if -al comes, and vowel follows, doubling is compulsory'.

Examples:

For non doubling: en - al - tākkam - enaltākkam

22 S.D. sutra - 30.
According to the previous sutra, even if the initial vowel is long, though it is polysyllabic, if -al or any other vowel, comes after āray, optionally it is doubled.

\[ \text{āray - al um - ārayalum - ārayyalum} \]
\[ \text{ārayim - ārayyim, āraye - ārayye} \]

**Compulsory doubling:** uyyalum, neyyalum

\[ \text{suyyalum, bayyalum} \]

Vowel of tense suffix: uyyam, neyyam

\[ \text{suyyam, bayyam} \]

'Even if the suffix comes after the negative root, or \( \text{āde} \) comes after the past tense form, \( \text{n, n, y, l, l} \) are doubled always.'

The statement: 'No doubling if the previous word contains a long vowel, or it is polysyllabic' continues here also.

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23 S.D. sutra - 8i.
Examples:

For suffix: en - an - ennam, en - ar - ennar
bay - evu - bayevu

For ade: en - ade - ennade, tin - ade - tinnade

By the statement 'also', there is no doubling for kal.
E.g. kal - al - kalak, kal - ade - kalade

Now, let us see what is meant by sandhi. Kesiraja defines it as 'the joining of two or more varnas.' The etymological meaning of Sandhi 'to join' from sam dha' with noun - formative suffix i. Another equivalent for sandhi viz., saṃhitā is also from the same root. So, sandhi means pronouncing two (or more words) words without any base between them. Pāṇini defines saṃhitā as 'parrassannikarassamhitā'.

The explanation of Patanjali on this sutra is: After pronouncing the first varṇa for the pronunciation of the second one, if half the mātrā time required usually is not taken is called the sandhi.

Kesiraja groups sandhi phenomenon into many types. Firstly, there is a binary division into i) internal, and ii) external sandhi. The internal sandhi is between the base and the suffix. For example, maṭu - am - matam.

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24 Astādhyāyī - 1.4. 109.
Sandhi that is taking place between two words is called external sandhi. For example, *avane - ṛṭanam = avanṛ-ṛṭanam.

Secondly, he divides the sandhi into (i) vowel Sandhi and (ii) consonant Sandhi. Vowel Sandhi is that one where varṇas in question are vowels only e.g. avanā - ivana = awanivana. Consonant sandhi is where one of the varṇas in question is a consonant. For example, Jān - uṇṭi = jānuṭu. Technically, four types can be recognised in Sandhi. viz., (i) Vowel - Vowel sandhi, (ii) vowel - consonant Sandhi, (iii) consonant - vowel sandhi and (iv) consonant - consonant sandhi. First one is the vowel sandhi and the rest are consonant sandhis. He also has doubling (dvita) sandhi where the consonant in conjunction with a vowel is doubled. For example pon - ulla - ponulla.

There is another division in Sandhi viz., (i) Lopa-sandhi, (ii) āgama sandhi and (iii) adesa sandhi. Lopa-sandhi is that where one of the vowels is dropped. As this elision takes place only in case of vowels, it is also called 'avaraopasandhi', e.g. avanā - māṭanam = avanṛmāṭanam.

Āgama Sandhi is that where a new varṇa comes between the vowels without affecting the form of the word e.g. ē - irda = ayirda. i - al = iyāl.
In adesa sandhi a different form is substituted e.g. kilpotte for kelagana - potte.

After considering the definition etc., of Sandhi, all the material on Sandhi treated by Kesirāja may be put in a following manner:

(1) Areas where sandhi does not take place:

(1) There is no sandhi if a vowel comes after a pluta vowel e.g. kū - endu = kū√endu.

(2) If ri and lri come after the vowels like a etc., there is no sandhi e.g. a riksram.

(3) If after ā, a or ai or au come, no sandhi takes place e.g. a arasam, a aisvāryam, a sunyatyam.

(4) If a vowel follows the vowel ending particle, no sandhi takes place e.g. etc., idalte etc. are ede.

(5) If a vowel comes after the ending forms of posatu, poragu, olagau, paladu and eladu there is no sandhi e.g. pore aḍi, ol a aṭṭam etc.

(6) There is no sandhi when o ending words expressing consent etc. (ref. sutra 67) are followed by vowels e.g. ententō обытиa, muttidanō indē. ayyō aκaṇā.

All these are the examples of vowels where sandhi does not take place.
There is no sandhi in respect of consonants in the following environments.

(7) In the samēsas, if the c and t are in the initial position of the second word e.g. kaducāgli, kaduṭakku.

(8) If after 1 and r which are as a result of mutation, k, t, p are coming, they do not change to g, d, b e.g. mērkōl kālkioccu, kilpotte.

(9) If it is intolerable to the ears, e.g. a segmīta.

(10) If it jars on the ears e.g. bandārrēmar.

Barring the above places, sandhi takes place regularly.

Then there are the areas where sandhi is optional. That is, where both sandhi and no sandhi are found. Sandhi is optional in the following environments.

(1) If ade comes after ir: e.g. ira ade - irāde.

(2) If al comes after kare, e.g. kare al, kareyal.

(3) After the words gēḍa etc., nīnālade ēvāṁ, nīnāllēḍa-vam.

(4) In the sentence: e.g. kah kēṁērthī kō doridraḥ emotenitum (no sandhi)
na dēva carītam caretenisiday (sandhi).
The description of the treatment of sandhi by Kesiraja reveals that it is a mixture of both formal and non-formal aspects. Sometimes, he takes form into consideration, sometimes meaning into consideration. As such, it suffers from the point of view of precision. An attempt will be made to present the sandhi phenomenon on the formal basis.

Sandhi rules on the basis of the form are as follows:

1) After the dyssyllabic words ending in a, i, u and having a long vowel, if a vowel comes, the previous vowel is dropped.
   e.g. dēva - emba - dēmba
   bhōga - isu - bhōgisu
   lēsu - alam - lēsallam.

2) After the dyssyllabic words ending in a, i, u have a consonant cluster before the final vowel or if a vowel comes, the previous vowel is dropped.
   e.g. hattu - entu - hattentu
   alli - irdam - allirdam
   bēnga - isu - bēngisu

3) After the polysyllabic words ending in vowel, if another vowel comes, previous one is dropped.
   e.g. kramade - ēyu - kramādytu.
   isvarana - olavu - isvaranolavu
4) After the monosyllabic word or dysyllabic word containing short vowel in the beginning, if a vowel comes, either y or w is inserted.
   a) After the front vowels, if another vowel comes, y is inserted:
      e.g. kali - ar - kaliyar
           pase - irdam - paseyirdam
           ë - irdam - ëyirdam
           ì - al - ìyal
           të - isu - tëyisu
   b) After the back and central vowels, if another vowel comes, w is inserted.
      e.g. vidhu - idu - vidhuvidu
           manu - ina - manuvina
           pũ - ina - puvina
           kartri - āda - kartrivāda

5) The second component-initial k t p g, d, b. In the compound, (k, t, p, between two vowels are changed to g, d, b.)
   e.g. pala - kannada - palagannada
        ali - kavi - aligevi
        kaŋ - teravu - kanderavu
Exceptions: talekattu, besekol, edupandi.

6) p, b, m between two vowels changed to v or between y, r, l, l and vowel.

   e.g. ela - pare - elevere
        bele - pola - belevola
        kadu - belpu - kaduvelpu
        mare - menega - maravanege
        bøy - pare - bayvare
        bør - perssi - børverasi
        mel - mëtu - melvatu
        bøj - penam - bøjvenam

7) After the words ending in consonants other than y and l, if the fricative comes, it is changed to an affricate.

   e.g. nüu - sara - nüucara
        in - sara - încara
        pon - surige - ponjurige
        mun - sür - munjür
        nür - sasira - nücsira
        ir - sësira - irocsira
8) If after the consonant ending word, a vowel comes, then both are combined.

   e.g. jāŋ - ūŋtu - jāŋūŋtu

9) After the monosyllabic word ending in a consonant and having a short vowel, if a vowel comes, then the consonant is doubled.

   e.g. kan - am - kannam
   pon - ullava - ponnulava
   kal ellam - kallem
   mey - a - meyya
   mul - āgī - mulāgī