

# METER, PHONOLOGY, AND ORTHOGRAPHY IN BUDDHIST HYBRID SANSKRIT

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## NOTE TO THE ELECTRONIC EDITION

*Some additions have been made for the electronic edition,  
they have been placed inside curly brackets {}.  
These include the Headings, the original page numbers, and a repetition  
of the rules at the beginning of the examples which exemplify them,  
so as to make reference to the rule easier.*

*All other material given in round () and square [] brackets, is the Author's own.*

*Edgerton's only footnote gave a list of abbreviations and a bibliography,  
which is reproduced just below for convenience.*

*Some of the abbreviations and quotations have been regularly spelt out  
in the electronic version, and so they are omitted from the list as given here.*

*Note that Edgerton's vocabulary sometimes differs from that used elsewhere  
on this website, most notably in calling syllables short and long metrically,  
whereas we prefer to refer to them as being light or heavy.*

*The first few times this occurs in the text I note it, but not thereafter.*

{**ABBREVIATIONS AND BIBLIOGRAPHY**}

(note that all references are to page and line of editions cited, except as stated under Bhad and Samādh below):

**AbhBAW** = Abhandlungen der Bayerischen der Wissenschaften

**Bhad** = Bhadracarī, edited Watanabe, Leipzig, 1912 (referred to by stanza number)

**BHS** = Buddhist Hybrid Sanskrit

**Dbh.g** = The Gāthās of the Daśabhūmika-Sūtra, edited Rahder and Susa, *Eastern Buddhist* 5.337-359 and 6.51-84 (reprinted with pagination 1 - 58; I cite first the pagination of the reprint, then in parenthesis that of the original)

**Divy** = Divyāvadāna, edited Cowell and Neil, Cambridge, 1886

**Geiger** = W. Geiger, Pali, Strassburg, 1916

**Gv** = Gaṇḍavyūha, edited by Susuki and Idzumi, Kyoto, 1934 +

**IF** = Indogermanische Forschungen

**KP** = Kāśyapa Parivarta, edited Staël-Holstein, Shanghai, 1926

**Lañk** = Lañkāvatāra Sūtra, edited Nanjio, Kyoto, 1923

**LV** = Lalita Vistara, edited Lefmann (**lefm.**), Halle, 1902 (sometimes also **Calc** = Lalitavistara, edited Rajendralala Mitra, Calcutta, 1877)

**Mmk** = Ārya-Mañjuśrīmūlakalpa, edited Gaṇapati Sastri, 3 vol., Trivandrum, 1920-5

**Mv** = Mahāvastu, edited Senart, 3 vols., Paris, 1882-97

**Pischel** = R. Pischel, Grammatik der Prakrit-Sprachen, Strasburg, 1900

**RP** = Rāṣṭrapālapariṣcchā, edited Finot, St. Petersburg, 1901

**Samādh**, followed by two simple numbers, = chapter (8, 19, 22) and section or verse of K. Régamey, Three chapters from the Samādhirājasūtra, Warsaw, 1938; **Samādh**, followed by 'p.—l.—' = (page and line of) Samādhirājasūtra, edited Das & Vidyābhūsan, Calcutta, 1896

**SBE** = Sacred Books of the East

**Śikṣ** = Śikṣāsamuccaya, edited Bendall, St. Petersburg, 1897

**SP** = Saddharmapuṇḍarīka, edited Kern and Nanjio (= **KN**), St. Petersburg, 1912 (occasional citations from **WT** = edited Wogihara and Tsuchida, Tokyo, 1934)

**Sukh** = Sukhāvātīvyūha, edited Müller and Nanjio, Oxford, 1883

**Suv** = Suvarṇabhāṣottamasūtra, edited Nobel, Leipzig, 1937

**Wackernagel** = J. Wackernagel, Altindische Grammatik

**Weller** = F. Weller, Über die Prosa des Lalita Vistara, Leipzig, 1915

## {PRELIMINARY CONSIDERATIONS}

{p. 197} 1. The meter of Buddhist Hybrid Sanskrit verses throws a flood of light on the phonology of the language, and must therefore be carefully analyzed. Unfortunately it has always been misunderstood. Even {p. 198} the scholars who have come closest to understanding it have distorted the facts by introducing irrelevant considerations. For example, Kern and Nanjio (SP Preface xi) assert: 'Regularly there is a secondary pause after the fourth or fifth foot [read 'syllable,' of triṣṭubh-jagatī pādas] ...; before the pause a short syllable has the value of a long one.' And Watanabe, Bhad 26: 'die einam Iktus vorangehende Silbe verliert leicht etwas an Dauer,' i.e. may be treated as short, even tho long. There is absolutely no truth in either of these assertions. I shall henceforth ignore all previous discussions, none of which have much importance, and merely state what seem to me the principles governing the meter, in their relation to phonology and to the orthography actually found in our texts.

2. These matters were first set forth (very briefly) by me in an article entitled 'The Meter of the Saddharmapuṇḍarīka,' in the Kuppaswami Sastri Commemoration Volume [Madras, 1936], pp. 39-45. Everything there stated applies in principle to all BHS verses, except that many meters occur in other texts which are not found in SP.

3. For the most part, BHS meters are quantitative, as are most classical Sanskrit meters. Fixed successions of long and short syllables {i.e. *light and heavy syllables*} are required in them, to approximately the same extent as in Sanskrit. In so far as such schemes apply, they apply rigidly. There are, I believe, no exceptions. Seeming exceptions are due either (1) to orthographic habits which misrepresent the actual pronunciation (somewhat in the tradition of Vedic verses), or (2) to corruptions in the tradition as found in our manuscripts and editions.

4. In spite of the obvious corruptions which distort all known manuscripts of our texts, it is generally possible without emendation to eliminate the second class of seeming exceptions, in the case of texts for which several manuscripts are available. In other words, the correct reading is, in the overwhelming majority of cases, found in some manuscript of most texts, when the readings of several manuscripts are reported. Unfortunately all the editors, even the best, have so uniformly misunderstood the metrical principles involved that their editions need to be constantly corrected from their critical notes.

5. It must be added that the Mahāvastu tradition is unique in the extreme corruption of its manuscripts. This is clearly recognized by its editor, Senart, in his Preface, i.ix. With a conscientious fidelity which we must acknowledge with appreciation, Senart records the exact readings of all six of his manuscripts as far as i.193.12, and after that of the two which he found the best and most representative. They are all so desparately (and in large measure uniformly) corrupt that it is quite pardonable that Senart failed to understand from them the principles of the meter, which can really be proved only from other texts. Once these principles are thus established, it does indeed become possible often to correct Senart's text by restoring the readings of his manuscripts, or some of them, as quoted in his notes. But very often this is not the case, and the text of Mv must either be emended, or at least recognized as corrupt, far more than is true of

any other text for which we have a reasonably responsible edition with critical apparatus.

6. We revert now to the first class of seeming exceptions to metrical regularity, those in which the traditional orthography clearly misrepresents the pronunciation.

7. By far the most important of these is the writing, as in Sanskrit, with initial consonant clusters of words which were evidently pronounced in Middle Indic fashion, with single initial consonants. This is so obvious that it could not escape, and has not escaped, the attention of any serious observer of the language. No one could read more than a few verses of any of the earlier BHS texts (such late texts as the Divyāvadāna require further study; the Divyāvadāna as printed in inconsistent and cannot be regarded as clear) without recognizing many such cases. No precise and correct formulation and interpretation of the facts has, however, been made.

8. This is not the only, tho it is the most obvious and omnipresent, way in which the usual orthography of our BHS manuscripts and editions misleads us as to the actual pronunciation. Others will appear in the statement of the metrical structure to which we now proceed. It must be understood that the rules about to be stated relate to actual pronunciation, not necessarily to conventional orthography. But when the latter is different, this fact will be made clear.

9. As stated above, most BHS metrical units contain rigidly fixed successions of long and short {p. 199} syllables. The most important exception (a partial exception, as in Sanskrit) is the anuṣṭubh or śloka. Also, the first syllable of the triṣṭubh-jagatī pāda may be either long or short. The āryā and its varieties, as in Sanskrit, are based on a count of morae (grouped in units of four), not of long and short syllables. And occasionally, in some texts (notably LV), we find other (Prakritic) meters based on a count of morae. Not all of these are clear in structure.

10. With certain minor restrictions, two short syllables may be substituted for a long; and conversely, in some meters (but not in the triṣṭubh-jagatī, at least normally), a long for two shorts (§36).

11. With a few exceptions of the sort just indicated, I think that it can reasonably be asserted that BHS verses, as originally composed, permitted no exceptions whatever to the quantitatively fixed scheme of meters.

12. This is, of course, equally true of Sanskrit metrics. But in the means adopted to apply this principle, BHS differs radically from Sanskrit.

{GENERAL RULES}

13. The general facts of BHS phonology and metrics, in so far as their relation to each other seems to me interesting and important, will now be briefly stated, in the part of the article ending with §35. Examples, so far as seems necessary, will be given later §§36-77. Statements on the orthography of our texts, and its relation to actual pronunciation, will also, for the most part, be postponed to the later place. Cross references will be provided between the two parts.

14. It is virtually certain that, as in Middle Indic, clusters of more than two consonants did not exist, at least in normal pronunciation. (§§37, 38)

15. At the beginning of a word, not more than one consonant could precede the first vowel. (§§39-47)

16. A (two-consonant) cluster was always divided, the first consonant belonging to the preceding syllable.

17. A single consonant always belonged to the following syllable—except anusvāra, if this be considered a ‘consonant’ (see presently).

18. A syllable that ends on a consonant is closed. In practice this means a syllable in which the vowel is followed by two consonants (or a double consonant). (§48)

19. A syllable containing a nasalised vowel (or, a vowel followed by anusvāra, which in BHS means the same thing) is also closed, even if a vowel follows it. (§§49-52)

20. All closed syllables, and all open syllables ending in long vowels, are long {*heavy*}.

21. All open syllables ending in short vowels are short {*light*}.

22. Contrary to standard Sanskrit usage, the metrically required quantity of a syllable may be, and very commonly is, provided by phonetic alterations which never, or rarely, occur in prose.

23. Such alterations are specially common at the end of words. In general, the constituent parts of a compound word, particularly a noun compound, count, or at least may count, as separate ‘words’ in this connexion. (§§43-47)

24. Most commonly, when the last syllable of a word is required to be long, a short final vowel is replaced by a long. So *a* is replaced by *ā*, or by *o*; *i* by *ī* or (perhaps) *e*; *u* by *ū* or *o*. (§§53-61)

25. Instead of lengthening of the final vowel, doubling of a following initial consonant may be used as a means of lengthening the final syllable. (§62)

26. Or, thirdly, the final short vowel may be nasalized, with the same effect. (§63)

27. The reverse of all three of these processes may be employed to shorten a final syllable which is prose would be long (always or usually), but which is required to be short by the meter.

28. So a naturally long vowel may be shortened metri causa: *ā* is reduced to *a*, *ī* to *i*, *ū* to *u*, *e* to *i*, *o* (which frequently represents Sanskrit *-as*) to *u* or *a*, and even *au* to *u*. Sometimes, but rarely, *e* and *o* are written in final position where the syllable is short; they may then have been pronounced as short *e* and *o*, or perhaps as *i* and *u* respectively. (§§64-68)

29. Or a word-final consonant is dropped. Cf. (13) §§18 and 48. In the prose of most texts, a final consonant of Sanskrit is regularly written. In verses there is less consistency; but in the middle of a pāda, before a word beginning in a consonant, a final Sanskrit consonant is regularly written if the syllable is required by meter to be long. The manuscripts {p. 200} and editions usually observe the rules of Sanskrit consonantal sandhi. Perhaps what was actually pronounced was a consonant assimilated in Middle Indic fashion (as if internally) to the following initial consonant. But if the syllable is metrically short, the final consonant is dropped (and the vowel before it, if long, is shortened). (§69)

30. Or, when a short syllable is required, a final nasal consonant may be dropped (with shortening of the vowel if it was long); or a final nasal vowel denasalized. (§70)

31. Generally speaking, all the above phonetic alterations may occur also in the interior of a word. (A 'word' here is defined as including, potentially at least, a constituent part of a compound word; §§45-47.) But they are much less common there.

32. Lengthening and shortening of internal vowels m.c. is not rare. (§§71,72)

33. But no nasal vowel (anusvāra) occurs before another vowel in the interior of a word.

34. Also: it is true that before consonants in the middle as well as at the end of a word, nasal vowel or short vowel plus anusvāra (or, plus nasal consonant of the class of the following consonant) varies freely with short unnasalized vowel plus consonant cluster (and at least could vary with long vowel, in theory). These alternations are however relatively infrequent. Furthermore, no syllabic quantitative difference is involved, and meter therefore plays no role. And otherwise there is hardly any variation between nasalisation and lack of it, internally. In short, this alternation seems rarely, if at all, to be employed for metrical convenience internally, but only, or almost only, in final-initial juncture. (§73)

35. Both doubling of single consonants and its converse, reduction of clusters to single consonants (presumably thru an intermediate stage of Middle Indic assimilation between the consonants), occur in the middle of a word, but much more rarely than in final-initial juncture. These alterations are utilized for metrical convenience, but appear to be not invariably conditioned thereby. (§§74-77)



41. In some of these the vowel of the preceding syllable is shortened metri causa (§28 {*So a naturally long vowel may be shortened metri causa: ā is reduced to a, ī to i, ū to u, e to i, o (which frequently represents Sanskrit -as) to u or a, and even au to u. Sometimes, but rarely, e and o are written in final position where the syllable is short; they may then have been pronounced as short e and o, or perhaps as i and u respectively.*}); *sarvi* (for *sarve*) *prāvrajan* SP 23.8; *bandhitva* (for *bandhitvā*) *kṣaṇasmi* 23.11; *sattvāna* (for *sattvānām*, genitive plural) *cyutopapādam* 24.2; etc. Contrariwise, if the preceding syllable is required by meter to be long but ends in a naturally short vowel (i.e. one which is short not only in Sanskrit but regularly in BHS prose), that vowel may be lengthened metri causa (§24 {*Most commonly, when the last syllable of a word is required to be long, a short final vowel is replaced by a long. So a is replaced by ā, or by o; i by ī or (perhaps) e; u by ū or o.*}), just as easily before what is written as an initial consonant cluster as before a single initial consonant: *vineṣyatī prāṇa-* SP 27.15 (so all Nepalese manuscripts; Kashgar recension *vineṣyate*; both editions *vineṣyati*, but this is Kern-Nanjio's false emendation; onlu *-tī* or *-te* is metrically possible here). In short, metrical shortening and lengthening of final vowels takes place before initial (written) clusters exactly as before initial single consonants. This must mean that the clusters are graphic only; a single consonant was pronounced.

42. Apparent counter cases, in which a short final vowel occurs in a metrically long syllable before an initial consonant cluster, are extremely rare. Some really concern noun compounds (see below). Thus in SP 9.8; 10.7; 15.5 read *ihasthita* instead of *ihasthita*; cf. the Sanskrit compounds *ihastha*, *ihasthāna*. (The actual pronunciation may have been something like *ihat-thita*.) In Chapter 1 of SP and in Bhad there are only about four other cases: *-kandareṣu praviśanti* SP 12.1, where the syllable written *-ṣu* must be long; similarly SP 27.8; 28.4; and *mama praṇidhānaṃ* Bhad 46, *-ma* being a long syllable. But at least equally numerous, indeed more so, are cases like *mama hitakāmā* Bhad 24, where *-ma* must also be a long syllable, tho the following word begins with a single consonant. No v.l. is here recorded, but we must certainly emend, probably to *mamā*, which is written elsewhere in such cases. In Bhad 46 we may similarly emend to *mamā praṇidhānaṃ*, or else understand *mamap-paṇidhānaṃ* (§25 {*Instead of lengthening of the final vowel, doubling of a following initial consonant may be used as a means of lengthening the final syllable.*}) or the like. And so in all similar cases, regardless of whether one consonant or more is written at the beginning of the next word.

43. In the seam of verb compounds, and in their noun derivatives, conditions are in general as in the middle of a word. So *abhiñña-* SP 12.4; *abhistavantīha* 12.6; *prasthita* 13.2, 10, etc.; *anusmarāmi* 23.3; *parityajantaḥ* 24.13, and so on; the syllable containing the final vowel of the preverb is made metrically long by the consonant cluster at the beginning of the verbal root. Cf. Pali *abhiññā* etc. But particularly when one preverb is prefixed to another, it may behave as if it were a separate word. So in *anuprāthayamāno* Bhad 48 the syllable *-nu-* is short; cf. such Pali forms as *anupavisati* besides *anuppa-* for Sanskrit *anu-praviśati*. Simplification of a double consonant (Sanskrit consonant cluster) in the seam of a close{*d*} compound may occur m.c., {*see*} §77.

44. In compounds of the root *grah* with preverb ending in a short vowel, *-gg-* seems to have been regularly pronounced (as it is regularly written in Middle Indic) even in forms which the BHS manuscripts and editions write with single *-g-*, imitating Sanskrit orthography. (The analogy of *grah-* forms has led to this habit in forms from Sanskrit *grh-*.) So (in the printed texts) *parigrhīta* SP 89.8; LV 158.12; 190.14; Śikṣ 43.6, 8; *pratigrhīta* LV 411,21, *-tvā* LV 387.7; *pratigrhṇe* Mv i.220.13 = ii.22.14; in all these *-gg-* was doubtless pronounced; certainly the syllable preceding *g* is long. In Samādh p. 49 1.26 *aviggṛhīta* is actually printed; in Divy 401.18 *nirgrhīta* is printed, which must be a false Sanskritization of *\*nigg-* for Sanskrit *nigrhīta* ‘checked, humbled.’

45. But in the seam of noun compounds, while usage varies, in the majority of cases conditions are as in final-initial juncture. That is, a syllable may be, and usually is, short if it contains a short vowel that is final in the prior member of a noun compound, even tho the following member begins with what is written Sanskritically as a consonant cluster; which can only mean that a single consonant was pronounced instead of the intial cluster. So Pali has compounds like *su-paṭipanna* (beside *suppaṭi-*) for Sanskrit *su-prati-* (see Geiger 67, end); in BHS *su-prati-* would usually be written, but the syllable *su-* would or at least might be short, indicating the pronunciation *-pa-* rather than *-pra-* after it. E.g. *udāra-sthāmā* SP 10.3 (*-ra-* is a short syllable) etc.; at least 16 such cases were counted in SP chapter 1, against 12 (besides *iha-sthita*, above) in which the vowel is short but the syllable long in this position, as in *aṣṭādaśakṣetra-* {p. 202} SP 9.3 (the syllable *-śa-* is long; pronounced no doubt something like *-śak-khetra-* or *-sak-khetta-*). In Bhad the figures are much more one-sided: 30 cases where a syllable with stem-final short vowel remains short before a written initial cluster in a noun compound, and not more than two or three where it seems to be long, counting out six occurrences of what the edition prints as *Bhadra-* (or *eka-*, or *bodhi-*) *cari-praṇidhānaṃ*, where the syllable *-ri-* is long, but the true reading was surely *-rī-* or *-rīm-* (or *-rīm-*) as read by several manuscripts in every occurrence (verses 2, 23, 41, 49, 54, 61).

46. The varying treatment of compounds in this respect was no doubt originally determined, in BHS as in Middle Indic generally, by whether the compound was inherited as such from a pre-Middle Indic stage, in which case the consonant cluster remained (with possible assimilation), and the preceding syllable was long; or whether it was formed in Middle Indic, in which case the cluster was reduced to a single consonant before formation of the compound. That is, e.g. Pali (typical) *suppaṭipanna* goes back to Sanskrit *supratipanna*, but *supaṭipanna* is a compound of Pali *su* and Pali *paṭipanna*. No doubt analogy has changed many individual cases (cf. Edgerton, On the doubling of consonants in the seam of Pali compounds, JOAS 41, 462ff.), and metrical convenience may also be concerned (any single consonant could be doubled in this position and for this reason, §25 {*Instead of lengthening of the final vowel, doubling of a following initial consonant may be used as a means of lengthening the final syllable.*}; cf. Apabhraṃśa *mayañabbhavaṇa* = *madana-bhavana*, Sanatkumāracarita 507, edited Jacobi, AbhBAW 31.2, München, 1921).

47. That the inheritance of compounds as such was the primary reason for retention of consonant clusters at the beginning of their posterior members seems confirmed by the marked difference in this regard between noun compounds and verb compounds (with

their noun derivatives). The latter were mainly ancient inheritances, so that in them the consonant clusters in question were internal in Middle Indic and BHS. The majority of Middle Indic noun compounds, on the other hand, were of late, Middle Indic origin, so that their posterior members could not begin in more than one consonant.

48. (On §18. {*A syllable that ends on a consonant is closed. In practice this means a syllable in which the vowel is followed by two consonants (or a double consonant).*}) It is likely that, as in Middle Indic a consonant could not exist in absolutely final position, before a pause (unless anusvāra be called a ‘consonant’, see just below). To be sure it is often written there, but this may be mere imitation of Sanskrit orthography. However since the quantity of final syllables in verse-pādas is indifferent, the question has no importance for metrics, and so metrics throws no light on phonology {*here*}.

49. (on §19. {*A syllable containing a nasalised vowel (or, a vowel followed by anusvāra, which in BHS means the same thing) is also closed, even if a vowel follows it.*}) It seems certain that, as in Middle Indic, every word-final nasal (if preserved at all) ‘became anusvāra’ (in terms of writing); or, as I prefer to put it, resulted in nasalization of the preceding vowel: except that before a following initial vowel it *could* remain as a nasal consonant. Such is the case in Middle Indic, notably in Pali—prose as well as verse.

50. This option before a vowel is constantly utilized for metrical convenience in BHS verses. (I have thought I detected a similar custom in the Apabhraṃśa verses of the Sanatkumāracarita, but have not studied them sufficiently as yet.) If the word-final syllable is required to be long, they write e.g. *-am̐, im̐, um̐*; if short *am, im, um* (before initial vowel). Meter almost invariably shows that in this respect the orthography of the texts corresponds to actual pronunciation. E.g. *'ham̐* (long) *iha* SP 61.7; *'ham̐* (long) *imu* 62.11; *ghoṣam̐* (long) *aham* 63.3 but in the same line *aham adya -am* being a short syllable; *katham̐* (long) *imam̐* (long) *adbhutam* (short) *īdr̥śam̐ te* 313., etc. There are very few counter cases; they should be emended, as mere errors of tradition.

51. On the other hand, in word final position before a consonant and in sentence-final position, *n, m,* and *m̐* are written rather haphazardly, but the variation is probably meaningless; doubtless only anusvāra (i.e. a nasal vowel) existed there. Internally before a consonant there is also much orthographic irregularity. Not only is anusvāra often written for any nasal consonant before another consonant; this is true of most ordinary Sanskrit manuscripts. But contrariwise, we quite often find *n* written for nasalization (anusvāra) as *mānsa* = Sanskrit *māṃsa*, and the like. This may be only a hyper-correction, a reflex of the writing of *m̐* for final *n*. At any rate I am not inclined to attribute linguistic importance to the variations in spelling mentioned in this paragraph.

52. I find little evidence tending to show the distinction noted in the authorities for both Sanskrit and Prakrit (Wackernagel I §§223-4; Pischel 178ff.) between nasal vowels, anusvāra, and anunāsika. Practically always, what is written as either anusvāra or a nasal consonant makes a syllable long metrically (in the case of a nasal consonant, only {p. 203} when a consonant follows). The only exception I have noted is the word *kumbhāṇḍa* or *kumbhāṇḍa* (= Sanskrit *kuṣmāṇḍa, kūṣmāṇḍa*), the first syllable of which is regularly, tho not always, metrically short; in customary Prakrit transliteration it

would be written *kūbhaṇḍa* (with Middle Indic *a* for *ā* in the penult). If this somehow represents *\*kumhaṇḍa*, which we should expect as a normal Middle Indic development of *kuṣmāṇḍa* (or *kūsmāṇḍa*), we may recall Tedesco's suggestion as to the etymology of Sanskrit *mil-* from *\*milh-* with loss of *h* (Language 19.7). Here, however, the aspiration in *bh* doubtless is due to the older *h* for metathetized *s*.

53. (On §24. {*Most commonly, when the last syllable of a word is required to be long, a short final vowel is replaced by a long. So a is replaced by ā, or by o; i by ī or (perhaps) e; u by ū or o.*}) Examples are common everywhere. Note that they occur just as regularly before what is written as an initial consonant cluster in the next word, as before a single consonant; cf. §41. So *ā* for *a*, in indeclinables: *cā* for *ca* SP 57.16; LV 220.9; RP 54.22; *hantā* for *hanta* LV 110.17; *ivā* for *iva* LV 175.22; *ihā* for *iha* LV 324.5, etc. In inflected forms, any final *a* is often lengthened; and the stem-final of noun-stems in *a* frequently appears as *ā* in the prior members of noun compounds.

54. We also find *o* for final *a*. This has been supposed to be a *saṃdhi*-combination of final *-a* with the particle *u* (Kern, SP translation [SBE 21], Introduction xvii; La Vallée Poussin, MadhK 166 n. 4; Hultzsch, Inscriptions of Asoka, lxxiii). The same scholars connect BHS *co* (m.c.) = *ca* with Asokan *cu*, which appears to be adversative, meaning 'but'; it is replaced in Girnar Asokan by *tu*, and was explained by Michelson (IF 23.261) as a blend of *ca* and *tu*. In any case it never appears as *co*, and BHS has no *cu*. In passing: *u* is attached to *ca* only once in Ṛg Veda (6.66.3) according to Grassman, never in Atharva Veda according to Whitney; and there is no record of *u* after *ca* in BR or pw {*sic, both unidentified references*}, which state that in classical Sanskrit *u* occurs only after *atha*, *na*, and *kim*.

55. In my opinion there is no possibility of any connexion between BHS *co* and Asokan *cu*, whatever be the origin of the latter. BHS *co* is purely *metri causa* for *ca* and means just what *ca* means. We find many other cases of final *o* m.c. for *a*, and in most of them a particle *u* would be inconceivable. This metrical alteration is a reflex of the frequent use of final *a* for Sanskrit *as* (Middle Indic regularly and BHS commonly *o*), in most cases *metri causa*; but there is also some morphological confusion; e.g. the 1st plural verb endings *-mas* (*-mo*) and *-ma*, which in BHS are no longer distinguished as in Sanskrit. This condition led in BHS to the rather free use of final *o* as a mere metrical lengthening for *a*, on a par with *ā*.

56. The frequency of this problem varies in different texts, if we accept the testimony of the manuscripts and editions. In SP it is common, even in the Kern-Nanjio edition, and would be still commoner in a proper edition; often Kern-Nanjio read *-a* unmetrically when the metrically correct *-o* is read by most or even all of the manuscripts. It is also common in Gv, but less common in LV, and rather rare in Mv.

57. A few examples: *co* SP 13.15; 14.12; LV 43.3; Gv 213.17; 254.18; Śikṣ 260.10; *adyo* = *adya* SP 118.13; 169.14; LV 92.8; 283.2 (Lefmann emendation *adyā*); *ivo* = *iva* LV 333.16; *iho* = *iha* Śikṣ 4.15; Gv 384.8; *hanto* = *hanta* Dbh.g 7 (343).14; 21 (357).16; *pañco* = *pañca* SP 14.11; *sapto* = *sapta* Gv 255.23; *daśo* {= *daśa*} SP 67.14; 98.10 (manuscripts); *teno* = *tena* SP 119.1; 195.4; *yeno* {= *yena*} Sp 92.2; 231.16; *keno* {= *kena*} SP 175.5 *niveśanasyo* = *niveśanasya* SP 114.2 (manuscripts); *tasyo* = *tasya* SP

118.12, and often: Mv ii.377.9 = 378.3; *jīnasyo* = *jīnasya* SP 194.7 (so with v.l.); Gv 255.22; *yasyo* { = *yasya* } SP 165.2; *mamo* = *mama* SP 326.4; Gv 231.18; *gaccho* = *gaccha* Gv 208.11; *anuśikṣatho* Gv 481.22 (m.c. for *anuśikṣatha*, 2nd person plural imperative, instead of more usual *anuśikṣathā*).

58. Examples of *ī* for *i*, m.c.: *pratī* LV 119.7; *hī* SP 97.4; Gv 240.19; *yadī* SP 305.13; *apī* LV 46.3; *koci* = *koci(d)* = Sanskrit *kaścid* Mv i.166.10 (followed by vowel; vv.ll. *koci*, *kocid*, both unmetrical); in noun inflection occur such forms as *adhvanī* for *adhvani* (locative singular), *trīṇī* = *trīṇi* and other neuter plurals; in verb inflection the endings *mī*, *sī*, *tī*, *ntī*, *hī* are very often lengthened to *mī* etc., m.c.

59. Whether *e* occurs strictly m.c. for final *i* is not certain. Often the verb endings *se* and *te* for *sī* and *tī* are probably due to meter (e.g. *bhavate*, *jahate* Mv ii.382.16; *pravadase* iii.346.2). but morphologic alternation (middle : active) of course also plays a part. Otherwise I have noted only one or two doubtful cases.

60. Examples of *ū* for *u*, m.c.: *tū* SP 97.7; *suṣṭhū* SP 213.4; *khū* (= *khu* for *khalu*) SP 308.9; *jātū* LV 120.9, 10; in compounds, *sū-rata-* LV 110.4; 193.10; *sū-dhana* (proper name, otherwise *Sudhana*) Gv 208.11; 215.14; in inflectional endings, *grheṣū* LV 57.1, and other locative plurals; the {p. 204} imperative endings *tu*, *ntu*, and the 3rd person plural aorist endings *ṣu*, *su*, may also lengthen to *-ū* m.c.

61. In a few instances we seem to find *-o* m.c. for final *-u*; they are confirmed by a number of similar cases for internal *u*. So *bhāṣato* for *bhāṣatu* LV 7.11, and *paripūryato* = *paripūryatu* LV 235.19, both 3rd person singular imperatives; *sādho* = *sādhu* (adverb) LV 41.14; *so* = Pali *su* (= Sanskrit *svīd*) Mv iii.370.1 (the corresponding Pali verse, Jātaka v.141.10, has *sū*, m.c. for *su*).

62. (On §25. {*Instead of lengthening of the final vowel, doubling of a following consonant may be used as a means of lengthening the final syllable.*}) So: *caj* (= *ca*)*jino* SP 68.7; Samādh 8.28; *cat tahī* SP 294.5 (so read with 3 manuscripts, editions *cā* with one manuscript); *kadāci pij* (= *pi* for *apī*) *jāti-* SP 48.8 (so read with WT and all Nepalese manuscripts, KN *-pi-*, unmetrical); *daśasud* (= *daśasu*, locative plural) *diśāsu* SP 55.11; 207.11 (here KN *-su di-*, unmetrically, without v.l., but WT *-sud di-* with their manuscript K<sup>1</sup>); 222.7; in noun compounds, *daśad-diśāsu* SP 32.14; Gv 475.19, 21; *daśad-diśe* SP 190.13; *daśad-diśi* Bhad 1, 9, etc.; *mīdhag-girī* LV 197.3 (? so best manuscript A, text *mīdham-girī*, both = *mīdha-girī*); *sarvaj-jagābhimukharūpa* Gv 285.9 (name of a Jina; Sanskrit \**sarva-jagad-abhimukharūpa*).

63. (On §26. {*Or, thirdly, the final short vowel may be nasalized, with the same effect.*}) So: *iham* (= *iha*) *śṛṇohi* SP 94.2; *naṃ* (= *na*) *hi* LV 329.22 (v.l. *na hi*, unmetrical); *sādhuṃ* (= *sādhu*) *ti* SP 55.12; *suṣṭhuṃ khalu* (read *khalū* with WT) SP 114.12; *śirī ham asmim* (= *asmi* ‘I am’; so manuscripts; Senart emendation unmetrically *asmi*) *manujeṣu sammatā* Mv ii.57.2 ‘I am glory, highly respected among men’; repeated with *śraddhāham asmim* . . . 57.18; *divim* (= *divi*, locative singular) *gataḥ* (or *gatāḥ*) Mmk 618.26; 625.7; 627.14; *anubhūya divim* (= *divi*) *sukham* Mmk 629.16 (here only a locative could be construed; this proves that the preceding should not be emended to *divaṃ*). Also at the end of a prior member of a noun compound: *krśaṃtanuḥ* =

*kṛśatanuḥ* LV 157.21; *śvetamaṣīro* LV 188.8; *dhutaṃguṇa* Śikṣ 328.2; *saṃparivāram* = *sa-parivāram* Śikṣ 343.15; *śīlmaṣrutajñāna-susthito* (m.c. for *śīla-śrutajñāna-susthito*; note cluster *śr-* written, but obviously not pronounced, after the stem *śīla(m)-*) KP 36.7; etc.

64. (On §28. {*So a naturally long vowel may be shortened metri causa: ā is reduced to a, ī to i, ū to u, e to i, o (which frequently represents Sanskrit -as) to u or a, and even au to u. Sometimes, but rarely, e and o are written in final position where the syllable is short; they may then have been pronounced as short e and o, or perhaps as i and u respectively.*}) Examples of *a* for *ā*: *tada* = *tadā* SP 68.1; Mv i.111.16; *tatha* {= *tathā*} LV 49.8; Mv iii.136.15; Suv 23.10; *va* = *vā* LV 111.1; *mithya* {= *mithyā*} LV 38.1; *ma* = *mā* LV 123.5; etc. etc. In noun declension, very commonly for any final *ā*, whether or not followed originally in Sanskrit by a consonant; and for stem-final *ā* in the prior member of compounds.

65. Examples of *i* for *ī*: *idāni* Mv i.154.15, and more often *dāni* SP 113.3 etc., for *idānīm*; often in the nominative singular of *ī*-stems, and as stem final of such stems as prior members of compounds.

66. Long *ū* is a rare final, and I have only noted shortening of it m.c. only in forms (particularly the nominative singular) of *ū*-stems (of which in Sanskrit the nominative singular ends in *ūs*); here morphological confusion with *u*-stems may also be concerned.

67. We find shortening of final *e* to *i* very commonly in the locative singular of *a*-stems; in *mi*, *ti*, *si* for the pronouns *me*, *te*, and (BHS and Middle Indic) *se*; in the nominative plural masculine of generic pronouns, as *(e)ti* for *(e)te*, *sarvi*, etc. In verb endings, substitution of *i* for final *e* usually may be regarded as substitution of active for middle endings. Note also *saci* for *sace* = *sacet* SP 448.5, 7; Sukh 22.3 etc.

68. Examples of *u* (*a*) for *o* (and *au*): *ahu* = *aho* (interjection) SP 62.4, 16. Otherwise *u* (and also *a*, which may of course be regarded as derived directly from *aḥ* etc.) often represents *o* as generalized (Middle Indic) saṃdhi-form for Sanskrit *as*, in the nominative singular masculine of *a*-stems, the ablative ending *tu* (also *ta*) for *to* = *tas*, and other noun case-endings; also *nu* for *no* = *nas*, enclitic 1st person plural pronoun; and in adverbs like *bhūyu* (and *bhūya*) for *bhūyo* = *bhūyas* SP 95.1, etc. We even find sporadically *antu* and *imu* for *antau*, *imau* (duals).

69. (On §29. {*Or a word-final consonant is dropped. Cf. (13) §§18 and 48. In the prose of most texts, a final consonant of Sanskrit is regularly written. In verses there is less consistency; but in the middle of a pāda, before a word beginning in a consonant, a final Sanskrit consonant is regularly written if the syllable is required by meter to be long. The manuscripts and editions usually observe the rules of Sanskrit consonantal sandhi. Perhaps what was actually pronounced was a consonant assimilated in Middle Indic fashion (as if internally) to the following initial consonant. But if the syllable is metrically short, the final consonant is dropped (and the vowel before it, if long, is shortened).*}) As to the writing of final consonants, the manuscripts of Mv are exceptional in that very often omit them even in prose (e.g. *yāva* = *yāvat* i.8.14; 20.4; *ci*

for *cit* i.328.8; 364.7; etc. etc.). In other texts the statement of §29 holds good in general, tho not invariably. So *tāva* SP 92.10, and (in a metrically indifferent position) 355.9; *ci* for *cid* SP 34.10; Samādh 8.25; LV 37.21 etc.; *dhi* for *dhik* SP 351.6; *samyā* = *samyak* Dbh.g. 20(356).15.

70. (On §30. {*Or, when a short syllable is required, a final nasal consonant may be dropped (with shortening of the vowel if it was long); or a final nasal vowel denasalized.*}) So *katha* = *katham* SP 314.4; LV 233.4; *eva* = *evam* LV 55.21; *evārūpa* = *evamrūpa* is a very common compound, SP 83.14; LV 55.9, etc., and is even recorded in the prose of LV at 13.22 and 307.13 (so all Lefmann's manuscripts and Weller's manuscript; hardly to be dismissed as a misprint with Weller 16; rather, because it was so common in verses m.c., {*that it*} carried over occasionally into prose diction). Common in inflectional endings, usually m.c.: accusative singular masculine and nominative-accusative singular neuter of *a*-stems; *mahya* for {p. 205} *mayham*, *iya* and *ida* for *iyam* and *idam*; in 1st person singular verb endings, *anbhūva* = *abhūvam*, *-eya* for *-eyam* in optatives (here partly morphological confusion, 3rd person singular form spreading to 1st person singular), etc.

71. (On §32. {*Lengthening and shortening of internal vowels m.c. is not rare.*}) Lengthening: *anābhībhūto* (= *an-abhībhūto*) SP 69.4; *anābhībhūḥ* SP 128.4; 190.7; *ātrīrekāḥ* (= *atīrekāḥ*) LV 49.15; *nirāparādheṣu* (= *nir-aparādheṣu*) LV 342.16; *samāyata* (= *samayataḥ*) LV 371.19; *-pāripūrṇam* (= *-paripūrṇam*) Mv ii.299.19; *nirābhiramyāḥ* (= *nir-abhiramyāḥ*) Suv 60.1. —*bahubhīr* (= *bahubhir*) *acintyair* SP 385.3; *su-pīthita* (= *su-pīthita*) Gv 55.1; *śoṇīta* (= *śoṇita*) LV 208.14; *īhamutra* (= *ihāmutra*, 'in this and other existences') Laṅk 268.15. —*anūpalīptāḥ* (= *an-upalīptāḥ*) SP 313.3; *śrūnate*, which is semi-Middle Indic for *śrūnute*, which several manuscripts read unmetrically); *kūhanām* Samādh p. 49 l. 22, and *a-kūhaka-* Dbh.g. 16(352).18, both for *-kuh-*. —*lokadhātva eyam* (for *iyam*) SP 355.4; *teṣu*, or better *teṣa*, perhaps for Ardha-Māgadhī *tisā*, Sanskrit *tr̥ṣā*, Dbh.g 28(54).3, 11; *anopapanna* = *anupapanna* Gv 334.3; *nirōpadhi* = *nirupadhi* SP 307.1, and similar forms.

72. Shortening: *syamu* = *śyāmaḥ* (proper name) LV 166.3 (cf. *śyāmo* Mv ii.220.11, where the story referred to is told); *duyamanu* = *dūyamānaḥ* LV 166.8; *bhasi* = (*a*)*bhāsi*, (*a*)*bhāṣis*, aorist of *bhāṣ* 'speak' LV 235.8; *-saṃsarī* = *-saṃsarīnaḥ* LV 324.17; *ā* in verb-forms ending in *āmi*, *āmas* (*āmo*), *āma* is often shortened to *a* m.c. —*suśīlā* = *suśīlā* LV 114.15; *bibhatsa* = *bībhatsa* LV 206.2; *bibhatsana* {= *bībhatsana*} Gv 213.26; *apīḍita* = *apīḍita* LV 361.16; *tire* = *tīre* Mv i.70.17; *kṣitiśa* = *kṣitīśa* RP 45.7. —*bhuta* = *bhūta* LV 54.3; Gv 334.20; *udbhuta* {= *udbhūta*} LV 282.2 (read with manuscripts *gātrodbhūtā*); *saṃbhuta* LV 419.9; Gv 255.12; Śikṣ 347.8; *bhuyo* = *bhūyas* LV 54.9; *puja* = *pūjām* Gv 215.3; *śrūyāt* = *śrūyāt* Mmk 207.3 —*maitriyo* = *maitreyo* Suv 239.6; *praṇitāro* = *praṇetāro* Mmk 167.17; *ukiranti* Sukh 49.7, so all manuscripts, for *okiranti* (which is read in edition unmetrically, by emendation) = *avakiranti*.

73. (On §34. {*Also: it is true that before consonants in the middle as well as at the end of a word, nasal vowel or short vowel plus anusvāra (or, plus nasal consonant of the class of the following consonant) varies freely with short unnasalized vowel plus consonant cluster (and at least could vary with long vowel, in theory). These alternations are however relatively infrequent. Furthermore, no syllabic quantative*

*difference is involved, and meter therefore plays no role. And otherwise there is hardly any variation between nasalisation and lack of it, internally. In short, this alternation seems rarely, if at all, to be employed for metrical convenience internally, but only, or almost only, in final-initial juncture.*}) My records contain only a single case, which I consider clear, of internal dropping of nasal m.c. In Mv i.305.21 we must, I think, read *prāsādiken' ijitena*, m.c. for *iñjitena* (-iñj-); Senart prints *imjitenā*, unmetrically, but see his note; the manuscripts read *-kena ijitena* or *-kenejitena*, agreeing in lack of nasal. Examples of nasalization before consonant substituted for double consonant (Sanskrit consonant cluster), without change in syllabic quantity, and occurring in prose, are *mahaṃgata* (-tā) Gv 320.19; 349.24; 518.2, for *mahadgata* (which also occurs in BHS) = Pali *mahaggata*; *-mātraṃjñātā* (read *-jñātā*?) LV 430.3-4, for *-mātrajñātā* (which also occurs in BHS) = Pali *mattaññūtā*.

74. (On §35. {*Both doubling of single consonants and its converse, reduction of clusters to single consonants (presumably thru an intermediate stage of Middle Indic assimilation between the consonants), occur in the middle of a word, but much more rarely than in final-initial juncture. These alterations are utilized for metrical convenience, but appear to be not invariably conditioned thereby.*}) Double for single consonant internally, for what may be metrical reasons, has been noted only in *ṛjju* = *ṛju*. In Mv ii.63.15 the reading indicated somewhat corruptly by the manuscripts is certainly *asath'* (or *asadh'* ?) *ṛjjubhūto*. Here *ṛjju* may be used m.c. And in Mv ii.80.13 we should doubtless read *ṛjjubhūtaḥ* for the unmetrical *ṛjubhūtaḥ*. However, Pali *ujju* (besides *uju*) seems not to be limited to use m.c. —We also find *-yy-* for *-y-* after *-e-*, as in Pali (the *-e-* being presumably short), as in *peyya* = Sanskrit *peya*, and in optative verb forms in *-eyya* etc.; but this, of course, cannot be due to metrical requirements.

75. Commoner is reduction of a (Sanskrit) consonant cluster (a Middle Indic double consonant) to a single consonant when meter requires a short syllable. BHS very often uses *dukha* (sometimes written so, more often *duḥkha* in the manuscripts and editions) under such circumstances, like Pali (see Childers s.v. *dukkho*). Forms of *darś-* (Middle Indic *dass-* *daṃs-*) may appear as *daś-*: *dinadaśi* must be read LV 362.13, with several manuscripts including A, the best, for the unmetrical *dinadarśi* of the edition; read in Mv i.43.12 = 242.22 *viyākare atthadaśi* (manuscripts unmetrically *-darśi*) *malīnāṃ*; *daśayi* Dbh.g. 42(68).19, so correctly edition for *darśayi*, which is an unmetrical v.l.

76. Other cases: *śayāto* 'from the bed,' ablative to *śayyā*, LV 230.11; *catuthāya* (no v.l. here; Middle Indic recorded only as *catuttha*); *vedakamāpanītam* Dbh.g 29(55).2, so read with Rahder, *vedakammā-* = Sanskrit *-karmā-*, which Susa reads, unmetrically (but interpreting correctly); *bhajiṣyati* Mv iii.23.19, so Senart with one manuscript, = *bhajiṣyati*, Sanskrit *bhaji-*; (*a*)*thi* probably to be read with v.l. LV 46.18 (for Middle Indic *atthi* = Sanskrit *asti*): *pratipūrṇa thi ye*, 'who are filled (with all virtues)'; the only other metrically possible reading in the manuscripts is *si ye* (meaning?); Lefmann's *siddhye* is impossible metrically. —In such forms as *ādhyeṣami* Bhad 10; *ādhyeṣaṇa* Bhad 12 (so printed in edition; the first syllable is metrically short), we must understand {p. 206} something like *ajhesami*, *ajhesaṇa*, m.c. for *ajjh-*. (The penult of the former word has *a* by metrical shortening for *ā*, §72.)

77. Here, rather than above (cf. §43), belong cases of metrical shortening in the seam of close{d} compounds (verb and noun) which primarily contain two consonants or a double consonant: *visaṃdetsuḥ*, so read Mv i.220.20 with {one} manuscript (v.l. *visaṃhetsuḥ*), to Pali *vissandeti*; Senart reads *viśyandensu*, which is unmetrical; *tiryagata* and *tiryagati* = *tiryagg-* Samādh 19.17; Suv 48.1; RP 27.10; 32.8; *madharmaṃ* RP 17.15, Finot's probably correct emendation for manuscript *mudharmaṃ*, = *maddharmaṃ*; read *sadharmam* Bhad 26 with several good manuscripts, for edition's *sāddharmaṃ* (so printed); read *tanimnaḥ* Śikṣ 106.13 for edition's *tannimnaḥ*, unmetrically; *utiṣṭha* LV 397.1, 10, so read with best manuscript, other manuscripts and both editions *uttiṣṭha*, unmetrically; *upīḍa* = *utpīḍa* Samādh 19.17 (and contrary to manuscripts and edition read *upādo* 19.22, *upanno* 19.25, for utp-); *samupādayetsuḥ* (Nobel *samupādayitsuḥ*) = *samutp-* Suv 151.11; *utaptavati* Śikṣ 337.12 = *uttaptavati* Śikṣ 337.12 = *uttap-*, ibid. 7; *utapta* = *uttapta* Dbh.g 41(67).10; *vinigatu* LV 232.17 = *vinirgatu* (Pali *vinigg-*); *nikaruṇā* LV 235.8, apparantly with all manuscripts, for Pali *nikk-*, Sanskrit *niṣk-*; *nisaṃśayaṃ* LV 316.10 = *niḥs-*; *nimūlayitum* RP 45.1 = *nirm-*; etc.