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Conjunct Consonants in
Sanskrit

Preview of

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Contents

Abbreviations

	Abbreviations of Works
ABh	Āryabhaṭīya (with Bhāskara commentary)
ABr	Aitareya-Brāhmaṇa
AHS	Aṣṭāṅga-Hṛdaya-Saṃhitā (Vāgbhaṭa)
AS	Āpastamba-Śrautasūtra
AV	Atharva-Veda
BhP	Bhāgavata-Purāṇa
BKS	Bṛhat-Katha-Śloka-Saṃgraha
BrP	Brahma-Purāṇa
BS	Baudhāyana-Śrautasūtra
BuC	Buddha-Carita (Aśvaghoṣa)
Hito	Hitopadeśaḥ
HYP	Haṭha-Yoga-Pradīpikā
KA	Kauṭilīya-Arthaśāstra
KS	Kāmasūtra
MBh	Mahābhārata (BORI edition as statistical reference) = 158,484 lines (= half-verses)
MS	Manu-Smṛti
MW	Monier-Williams Dictionary (checked against Böhtlingk's two Petersburg dictionaries)
RAM	Rāmāyaṇa
RV	Rig-Veda
SBh	Śaṃkara-Bhagavadgītā-Bhāṣya
SBr	Śatapatha-Brāhmaṇa

SK	Sanskrit-Kompendium by U.Stiehl
Var	Various: Kathāsaritsāgara, Meghadūta, Mahāsubhāṣitasaṃgraha (by L. Sternbach), etc.
VDh	Viṣṇudharma
YV	Yajur-Veda
	Other Abbreviations
Pali	Pali conjunct consonants <u>not</u> occurring in Sanskrit
Hin.	Hindi conjunct consonants <u>not</u> occurring in Sanskrit
Skt.	Sanskrit (both classical and Vedic Sanskrit, unless marked as Vedic: RV, AV, SBr etc.)
N.	name of person, people, plant, town, work, etc.
L.	lexicon word (= not attested in any of the Sanskrit texts listed in the table of contents)
*	In the main statistics sections (chapters 2 and 3): * = unusual conjunct consonant for various linguistic reasons
*	In the following quotation sections (chapters 4 seq.): * = misspellings and wrong sandhis, unattested words etc.

Abbreviations Relating to the Agenbroad Collection

A	Available in Agenbroad Collection
N	Not Available in Agenbroad Collection
X	Simple and conjunct consonants preceded by anusvāra, visarga, or anunāsika
US*	Examples invented by U.Stiehl for unattested conjunct consonants invented by I: ...
I: B1 I: B2, B3	Friedrich Ballhorn: Alphabete orientalischer und occidentalischer Sprachen zum Gebrauch für Schriftsetzer und Correctoren, Leipzig 1861 (B1), 1852 (B2), 1873 (B3)
I: B4	Theodor Benfey, A practical grammar of the Sanskrit language, London 1868
I: D1	Alix Desgranges: Grammaire sanscrite, Paris 1845
I: G1	Alphabete und Schriftzeichen des Morgen- und des Abendlandes, Wiesbaden 1969, reprinted in: Pijush K. Ghosh: Extra characters for high quality printing, Stanford 1983
I: G2	Jan Gonda, A concise elementary grammar of the Sanskrit language, Alabama 1966
I: ISO	Information processing: multiple octet coded character set, Paris 1989 (ISO DP 10646)
I: L1	Hester M. Lambert: Introduction to the Devanagari script for students of Sanskrit, Oxford 1953. L1s = Sanskrit, L1h = Hindi, L1m = Marathi
I: MW	M. Monier-Williams: A practical grammar of the Sanskrit language, Reprint 1964
I: R1	Mariano Rampolla del Tindaro, Lingua Sanscrita, Romae 1936
I: S2	Mishragiridhara Sharmā, Saṃskṛta śikṣāmañjarī, Prathamo bhāgaḥ, Bombay 1932
I: W1	Charles Wilkins, A grammar of the Sanskrita language, London 1808
I: VO	Georg F. van Ostermann, Manual of foreign languages, New York 1952

For further bibliographical data on the various works quoted by James E. Agenbroad see his treatise "Difficult characters: A collection of Devanāgarī conjunct consonants and consonant + vowel mātrā combinations" (International Association of Oriental Librarians, Bulletin 38, 1991, pp. 17-53)

1. Introduction

In 1991, James E. Agenbroad published his collection "Difficult characters: A collection of Devanāgarī conjunct consonants and consonant + vowel mātrā combinations". Agenbroad's collection is a compilation of 1018 combinations (mainly conjunct consonants and a few mātrā combinations) quoted from various other books. Yet, more than 300 of the approx. 1000 conjunct consonants, i.e. roughly 30% of the collection by Agenbroad, are entirely fictitious. These hundreds of conjunct consonants were invented by modern Sanskritists such as Wilson, Monier-Williams, Gonda, Lambert, etc. etc. in the same strange and unscientific manner as ancient Sanskritists such as Pāṇini invented hundreds of verbal roots. E.g. Monier-Williams invented the combinations ghl, ṅktry, ḍḍy, ḍṇ, ṇḍry, tsmy, dhnv, ṅkṣṇv, pṇv, plv, etc. that do not even appear in his own Sanskrit-English dictionary, let alone in real Sanskrit texts. E.g. Lambert in his "Introduction to the Devanagari script for students of Sanskrit" invented conjunct consonants such as khm, jhy, jhv, ṭhṇ, ṭhv, ṇs, tjh, nj, etc. etc. claiming that they occur in Sanskrit texts. But his fictitious combinations do not occur in any real Sanskrit text.

Example: Charles Wilkins (1808), Alix Desgranges (1845), M.R. Kale (1894), Richard Fick (1922), A.A. MacDonell (1926), H.M. Lambert (1953), Michael Coulson (1973) and Madhav M. Deshpande (1997) invented the conjunct consonant **"bn"**. If "bn" were no invention, then a Sanskrit word would exist containing "bn". But there does not exist any such Sanskrit word. Therefore "bn" has been invented. Yet "bn" could occur in a foreign-language word, e.g. in "abnormal", inserted into Neo-Sanskrit texts. But serious scientific research on Sanskrit conjunct consonants must dismiss such "abnormalities".

This book on "Conjunct consonants in Sanskrit" is the first scientific treatise which does not invent conjunct consonants, but proves which conjunct consonants **really occur** in original Sanskrit texts. All texts mentioned in the table of contents (Rig-Veda and Atharva-Veda, Śathapatha-Brāhmaṇa and Aitareya-Brāhmaṇa, Mahābhārata and Rāmāyaṇa, Brahma-Purāṇa and Bhāgavata-Purāṇa, etc. etc.) and the Sanskrit dictionaries by Böhtlingk and Monier-Williams were **completely** analyzed.

This book is useful for linguists, programmers and typographers:

1. **Linguistics:** The statistics prove which consonantal sound combinations actually occur in Sanskrit and they also reveal which combinations never occur. For instance the combination "sl" (as in the English word "slang") never occurs in Sanskrit texts.

2. **Spellchecker:** On the basis of the statistical data, spellcheckers for Sanskrit can be designed as far as misprints of conjunct consonants are concerned. Any consonantal combination in Sanskrit texts that is not listed in the statistics indicates a misspelt word with a probability of more than 99%.

3. **Typography:** Based on these statistics, font designers can decide which ligatures they should include into their Devanāgarī fonts for typesetting Sanskrit texts. For instance, the statistics reveal that ligatures such as ññ and ṇh never occur in any Sanskrit text (but e.g. in Pali texts).

Heidelberg, June 1st 2003

Ulrich Stiehl

Note: This book was written in 2003 as a scholarly preparation of the Devanagari font "Sanskrit 2003" described in the comprehensive "Technical Manual of Itranslator 2003" downloadable at my website www.sanskritweb.net as the document www.sanskritweb.net/itrans/itmanual2003.pdf (133 pages).

2. Main statistics of conjunct consonants, sorted by alphabet

How to interpret the following statistics

Conjunct consonant	Absolute frequency	Relative frequency %		Primary Source	Examples from **all sources** evaluated: MBh, R, BrP, BhP, RV, AV, SBr, ABr, MS etc.
tny	61	0.038%	A	MBh	patnyā, patnya ūcuḥ, sakhibhiḥ śvitnyebhiḥ

The **frequencies** always refer to the **primary source** in column 5, e.g. "tny" occurs 61 times in MBh. Since the MBh contains 158,484 half-verse lines, the relative frequency is 61 / 156484 * 100 = 0.038%, i.e. in any text comprising 2564 half verses or 1282 verses (ślokas), "tny" occurs **once** (on an average). Frequencies of conjunct consonants from other works, e.g. from the RV, have been recalculated to the size of the MBh, so that a word occurring 61 times in the RV has same relative frequency of 0.038%. Examples in column 6 were drawn from **all sources**, i.e. they are not restricted to the primary source. In column 4, "A" means that the conjunct consonant is contained in James E. Agenbroad's collection.

(ṃ)		(2.56%)			
ṃk	1254	0.791%	X	MBh	(ṅk) alaṃkṛtam
ṃkr	432	0.273%	X	MBh	(ṅkr) saṃkruddhaḥ
ṃkl	18	0.011%	X	MBh	(ṅkl) saṃkleśān
ṃkṣ	159	0.100%	X	MBh	(ṅkṣ) saṃkṣipyate
ṃkṣṇ	1	0.001%	X	MW	(ṅkṣṇ) saṃkṣṇu (root)
ṃkṣy	2	0.001%	X	MBh	(ṅkṣy) vinaṃkṣyati
ṃkhy	645	0.407%	X	MBh	(ṅkhy) saṃkhyātāḥ
ṃg	847	0.534%	X	MBh	(ṅg) saṃgrahaḥ
ṃgr	636	0.401%	X	MBh	(ṅgr) saṃgrāme
ṃgh	416	0.262%	X	MBh	(ṅgh) saṃghātāt
ṃghr	1	0.001%	X	MW	(ṅghr) saṃghrā (root)
ṃc	380	0.240%	X	MBh	(ñc) saṃcarantam
ṃcy	1	0.001%	X	MBh	(ñcy) saṃcyāvayām_āsa
ṃch	100	0.063%	X	MBh	(ñch) saṃchidya
ṃj	2230	1.407%	X	MBh	(ñj) saṃjayam
ṃjñ	272	0.172%	X	MBh	(ñjñ) saṃjñām
ṃjy	1	0.001%	X	MW	(ñjy) kiṃjyotiḥ
ṃjv	20	0.013%	X	MBh	(ñjv) ko na saṃjvaret
ṃṭ	1	0.001%	X	MW*	(ṇṭ) saṃṭaṅkaḥ
ṃḍ	1	0.001%	X	MBh	(ṇḍ) saṃḍīnam
ṃt	1167	0.736%	X	MBh	(nt) saṃtatim
ṃty	96	0.061%	X	MBh	(nty) saṃtyajya
ṃtr	56	0.035%	X	MBh	(ntr) saṃtrāsāt
ṃtv	3	0.002%	X	MBh	(ntv) saṃtvaritaḥ
ṃd	765	0.483%	X	MBh	(nd) saṃdarśanaṃ
ṃdr	4	0.003%	X	MBh	(ndr) saṃdrakṣyanti
ṃdv	108	0.068%	X	MBh	(ndv) nānā-dvaṃdvaiḥ
ṃdh	673	0.425%	X	MBh	(ndh) jarā-saṃdham
ṃdhm	1	0.001%	X	MW	(ndhm) saṃdhmā (root)
ṃdhy	108	0.068%	X	MBh	(ndhy) ubhe saṃdhye

ṃdhr	10	0.006%	X	MW	(ndhr) puraṃdhri
ṃdhv	1	0.001%	X	MW*	(ndhv) puṃdhvajaḥ
ṃn	799	0.504%	X	MBh	(nn) saṃnidadhuḥ
ṃny	120	0.076%	X	MBh	(nny) saṃnyāsam
ṃp	1891	1.193%	X	MBh	(mp) vaiśaṃpāyanena
ṃpr	1313	0.828%	X	MBh	(mpr) saṃpratyācakṣate
ṃpl	18	0.011%	X	MBh	(mpl) saṃplutodake
ṃph	1	0.001%	X	MBh	(mph) kiṃphalāḥ
ṃb	305	0.192%	X	MBh	(mb) saṃbandhe
ṃbh	686	0.433%	X	MBh	(mbh) saṃbhūtaṃ
ṃbhr	169	0.107%	X	MBh	(mbhr) saṃbhramāt
ṃm	463	0.292%	X	MBh	(mm) saṃmataḥ
ṃy	1118	0.705%	X	MBh	saṃyutām (but my: gamya, kāmya, damya, etc.)
ṃr	397	0.250%	X	MBh	saṃroddhum (but mr: samrāj, āmra, tāmra, etc.)
ṃl	50	0.032%	X	MBh	saṃloḍanam (but ml: amla)
ṃv	1245	0.786%	X	MBh	saṃvṛddhāḥ
ṃvy	1	0.001%	X	MBh	evaṃ-vyūhaṃ sainyam
ṃvr	2	0.001%	X	MBh	evaṃ-vrato 'smīti
ṃvl	1	0.001%	X	MW	asaṃvlayaḥ
ṃś	2403	1.516%	X	MBh	saṃśitavratān
ṃśc	2550	1.609%	X	MBh	sarvāṃś_ca
ṃścy	6	0.004%	X	MBh	rājaṃś_cyutaṃ jyotiḥ
ṃśch	23	0.015%	X	MBh	tāṃś_chittvā
ṃśm	2	0.001%	X	MW	daṃśman
ṃśy	4	0.003%	X	MBh	rāja-vaṃśyāḥ
ṃśr	192	0.121%	X	MBh	saṃśritāḥ
ṃśl	25	0.016%	X	MBh	saṃśliṣṭām
ṃṣ	113	0.071%	X	MBh	havīṃṣi
ṃṣṭr	105	0.066%	X	MBh	tīkṣṇa-daṃṣṭrāḥ
ṃṣṭh	1	0.001%	X	MBh	pratyapiṃṣṭhāḥ (root piṣ)
ṃṣy	28	0.018%	X	MBh	dhanūṃṣy_ādāya
ṃs	2769	1.747%	X	MBh	praśaṃsanti
ṃsk	123	0.078%	X	MBh	saṃskāropagatām
ṃskr	1	0.001%	X	MW	saṃskriyā
ṃskh	1	0.001%	X	MW	saṃskhalita
ṃst	2186	1.379%	X	MBh	munīṃs_tāṃs_tu
ṃsty	50	0.032%	X	MBh	prāṇāṃs_tyaktum_icchāmi
ṃstr	116	0.073%	X	MBh	lokāṃs_trīn
ṃstry	2	0.001%	X	MBh	dvy-akṣāṃs_try-akṣān
ṃstv	216	0.136%	X	MBh	gatavāṃs_tvam
ṃsts	1	0.001%	X	MBh	hema-garbhāṃs_tsarūn
ṃsth	198	0.125%	X	MBh	saṃsthitāḥ
ṃsn	2	0.001%	X	BhP	pauṃsnam
ṃsp	76	0.048%	X	MBh	saṃsparśa-jām
ṃspr	3	0.002%	X	MW	puṃs-pravādaḥ

ṃsph	1	0.001%	X	MBh	saṃsphālayañ_śanaiḥ
ṃsm	76	0.048%	X	MBh	saṃsmaran
ṃsy	270	0.170%	X	MBh	hiṃsyāt
ṃsr	29	0.018%	X	MBh	ahiṃsrām
ṃsv	6	0.004%	X	MBh	saṃsvedaḥ
ṃh	1292	0.815%	X	MBh	nānā-śāstropabṛṃhitām
ṃhr	18	0.011%	X	MBh	saṃhrādaḥ
ṃhl	1	0.001%	X	MBh	hṛdaya-saṃhlādī
ṃhv	1	0.001%	X	SBr	saṃhvāritā
(m̐)					(anunāsika of classical and Vedic Sanskrit)
m̐h	3	0.002%	X	RV	nṝm̐ḥ pāhi (= nṝn pāhi, Vedic sandhi: n + p = m̐ḥ + p)
m̐r	18	0.011%	X	AV	pitṝm̐r_upa (= pitṝn_upa, Vedic sandhi: n after ī/ū/ṝ = m̐r)
m̐ll	289	0.182%	X	MBh	asmim̐l_loke (anunāsika: n + l = m̐l + l), Classical Sanskrit
(ḥ)		(1.71%)			
ḥk	45	0.028%	X	MBh	manaḥ-kāntam
ḥkr	5	0.003%	X	MBh	manaḥ-kriyāḥ
ḥkl	1	0.001%	X	MW	manaḥ-klamam
ḥkṣ	23	0.015%	X	MBh	niḥkṣatriyām
ḥkṣṇ	1	0.001%	X	SBr	anyataḥ-kṣṇut
ḥkh	1334	0.842%	X	MBh	duḥkhitām
ḥp	96	0.061%	X	MBh	antaḥ-puram
ḥpr	52	0.033%	X	MBh	manaḥ-prahlādaḥ
ḥpl	1	0.001%	X	MW	anyataḥ-plakṣā
ḥph	1	0.001%	X	MBh	tapaḥ-phalam
ḥś	456	0.288%	X	MBh	duḥśāsanaḥ
ḥśm	1	0.001%	X	MW*	niḥśmaśru
ḥśy	8	0.005%	X	MBh	ekataḥ-śyāma-karṇānām
ḥśr	111	0.070%	X	MBh	uccaiḥ-śravasam
ḥśl	1	0.001%	X	SBr	antaḥ-śleṣa
ḥśv	130	0.082%	X	MBh	viniḥśvasya
ḥṣ	82	0.052%	X	MBh	catuḥ-ṣaṣṭiḥ
ḥṣṭ	7	0.004%	X	MW	āyuḥ-ṣṭomaḥ
ḥṣṭh	1	0.001%	X	MW*	duḥṣṭhu
ḥṣy	1	0.001%	X	MW*	niḥṣyandanam (= nisyandaḥ)
ḥs	392	0.247%	X	MBh	viniḥsṛtān
ḥsk	1	0.001%	X	MW*	retaḥ-skandanam
ḥskh	1	0.001%	X	MW*	retaḥ-skhalanam
ḥst	1	0.001%	X	MBh	niḥstutiḥ
ḥstr	1	0.001%	X	MBh	duḥstriyaḥ
ḥsth	44	0.028%	X	MBh	vayaḥ-stho 'pi
ḥsthy	1	0.001%	X	MW	dauḥsthyam (duḥstha)
ḥsn	11	0.007%	X	MBh	niḥsnehena
ḥsp	20	0.013%	X	MBh	nabhaḥ-spṛśam
ḥsph	1	0.001%	X	MW*	duḥsphoṭaḥ
ḥsm	1	0.001%	X	MW	duḥsmara (see Böhtlingk, PW, volume 7, column 1754)

ḥsy	1	0.001%	X	MBh	vidhanuḥ-syandanāsiḥ
ḥsr	11	0.007%	X	MBh	niḥsravāt
ḥsv	36	0.023%	X	MBh	tapaḥ-svādhyāya-śīlavān
ḥsvy	1	0.001%	X	MW	naiḥsvyam (niḥsva)
(k)		(2.12%)			
kk	111	0.070%	A	MBh	kukkurāś_ca, yata-vāk-kāya-mānasam
kkṇ	0	0.000%	A		I: R1, MW
kky	0	0.000%	A	US*	*bhiṣak_kyāku (I: D1, W1, R1, MW)
kkr	6	0.004%	N	MBh	pṛthak-kriyā, dhik_krodhaṃ
kkl	1	0.001%	N	BKS	yathā tāsām_asṛk-klinnaṃ yad_antas_tad_bahir_bhavet
kkv	1	0.001%	N	BhP	capala-dṛk_kva (BhP), kokkvoka (N., MW)
kkś	0	0.000%	A		I: D1
kkṣ	14	0.009%	N	MBh	vāk-kṣatam, asṛk-kṣarantau, yādṛk_kṣayam
kkh	1	0.001%	A	MBh	dhik_khalv alaghu-śīlānām
kkhy	0	0.000%	A	US*	*vāk_khyāti (I: R1, MW)
kc	101	0.064%	A	MBh	vāk_ca laghvī, asṛk-candana-digdhāṅgam
kch	2	0.001%	A	MBh	ṛk-chandasā, prāk_chāye
kj	0	0.000%	A		I: ISO
kṭ	7	0.004%	A	Hin.	ḍākṭara (doctor); Skt.: *vāk-ṭīkā (US*, kṭ could occur in Skt.)
kṭr	0	0.000%	A		I: ISO
kṇ	17	0.011%	A	RV	vṛkṇa-pātraiḥ samāvṛtām
kt	7686	4.850%	A	MBh	uktavān, avyaktam, kīrti-bhāk_tathā
ktc	0	0.000%	A		I: D1
kty	257	0.162%	A	MBh	śaktyā, pitṛ-bhakty-āśritaḥ, rtvik_tyajet
ktr	187	0.118%	A	MBh	vaktraṃ, yoktrāṇi, viśva-bhuk_tri-daśeśvaraḥ
ktry	1	0.001%	A	MS	arvāk_try-abdād_dharet_svāmī (arvāc + tri + abdāt)
ktv	1088	0.687%	A	MBh	ity_uktvā, muktvā hayān, dhik_tvām
ktvy	1	0.001%	N	RV	vṛktvy_api
kth	20	0.013%	A	MBh	tribhir_ukthaiḥ, bhagna-sakthāḥ, sakthinī bhaṅktvā
kthn	7	0.004%	A	AHS	śiraḥ-skandhoru-pṛṣṭhasya kaṭyāḥ sakthnoś_ca gauravam
kthy	2	0.001%	A	MBh	mahad_ukthyaṃ gīyate, kratur_bhavaty_ukthyaḥ
kd	0	0.000%	A		I: ISO
kn	161	0.102%	A	MBh	baddhuṃ nāśaknot, pāriṣeṇām_asiknīṃ ca
kny	3	0.002%	A	BrP	asiknyāṃ yajamāno na hotā, asiknyā marud-vṛdhe
kp	139	0.088%	A	MBh	ṛtvik_purohitācāryaiḥ, vāk-pāruṣyaṃ
kpr	58	0.037%	A	MBh	udak-pravaṇa-saṃsthitām, tiryak-prekṣī, vāk-pralāpā
kpl	1	0.001%	N	BhP	paryak_plutaḥ (BhP), pūrvodak-plava (pūrva+udak+plava)
kph	2	0.001%	A	MBh	ākarṣas_te 'vāk-phalaḥ, tvak_phalaṃ puṣpam
km	222	0.140%	A	MBh	rukmī, raukmiṇeyaś_ca, tvak_tokmāni
kmy	12	0.008%	A	RV	paritakmye dhane, paritakmyāyām, vakmyaḥ
ky	2073	1.308%	A	MBh	vākyam_abravīt, śakyā, lokyaṃ dharmam
kr	8253	5.207%	A	MBh	saṃparikramya, cakraṃ saṃparivartate, śakrasya
kry	2	0.001%	A	RV	akṣo na cakryoḥ, cakry_agrataḥ
kl	620	0.391%	A	MBh	kliśyatām pāṇḍavānām, śuklas_tvaṃ bahulaś_caiva
kly	1	0.001%	A	VDh	sarva-loka-maye 'cyute svecchayā śauklyam_āpanne

kv	476	0.300%	A	MBh	kvāsi, kvacit, pakvāpakvena, sārisṛkva uvāca (N.)
kvy	0	0.000%	A		I: VO
kś	68	0.043%	A	MBh	dhik-śabdas_tu, vāk-śarair_iha, avāk-śirās_tathā
kśm	1	0.001%	N	BhP	tvak-śmaśru-roma-nakha-keśa-pinaddham_antaḥ
kśr	3	0.002%	N	MBh	vāk-śramaṃ kṛtvā, vaṇik-śreṣṭhaḥ, tvak_śrotram
kśl	1	0.001%	N	BhP	apsv_asṛk-śleṣma-pūyāni
kśv	1	0.001%	N	MBh	prāk_śvā bhavati
kśś	0	0.000%	A		I: D1
kṣ	15810	9.976%	A	MBh	upalakṣya, mahī-kṣitām, cakṣuh, didṛkṣuḥ
kṣṇ	483	0.305%	A	MBh	tīkṣṇa-hṛdayatvāt, uvāca vacanaṃ ślakṣṇam
kṣṇy	4	0.003%	A	MBh	taikṣṇyaṃ daśamam, taikṣṇyasya
kṣn	0	0.000%	A		I: D1
kṣm	392	0.247%	A	MBh	sūkṣmam, lakṣmīr_dhṛtiḥ, yakṣmāṇaṃ samapadyata
kṣmy	41	0.026%	A	MBh	lakṣmyā paramayā, lakṣmai, dharma-saukṣmyāt
kṣy	2339	1.476%	A	MBh	vakṣyāmi, vimokṣyāmi, sākṣyam, prekṣya
kṣr	1	0.001%	A	BhP	abhayam_ātmani bhūyiṣṭhā oṃ kṣraum (BhP)
kṣl	0	0.000%	A		I: D1, W1
kṣv	279	0.176%	A	MBh	manum_ikṣvākum, ṛtvikṣv_atha, mamācakṣva
ks	110	0.069%	A	MBh	ṛtvik-samo nāsti, viṣvak-senaś_ca, tvak-sārāḥ
ksṭ	0	0.000%	A		I: ISO
ksṭr	0	0.000%	A		I: ISO
ksḍ	0	0.000%	A		I: ISO
kst	2	0.001%	N	BrP	ṛk-stutāya namas_tubhyam, ānuṣak_stotā
kstr	1	0.001%	N	MBh	madhura-vāk_strīṇām, pṛthak_strīṇām
ksth	2	0.001%	N	MBh	tvak-sthaś_caiva, pṛthak_sthitaḥ, parāk_sthitaḥ
ksn	1	0.001%	N	MBh	pariśuṣka-māṃsa-tvak-snāyum
ksp	2	0.001%	N	MBh	tvak-sparśa-ceṣṭāś_ca, viṣvak_sphurantam
kspr	0	0.000%	A	US*	*tvak_spraṣṭavyā (I: ISO)
kspl	0	0.000%	A		I: ISO
ksph	1	0.001%	N	BhP	viṣvak-sphurantaṃ grahaṇāturaṃ harir_vyālaḥ
ksm	1	0.001%	N	MW	saṃpūrṇa-phala-bhāk_smṛtaḥ (MS), samyak-smṛtiḥ
ksy	1	0.001%	N	MBh	mitra-dhruk_syāt, yajamānasyartvik_syāt (ṛtvij)
ksr	7	0.004%	N	MBh	pratyak-srotā, sruk-sruvam, avāk-srotasa ity_ete
ksv	3	0.002%	N	MBh	oṃ nama ṛk-svarūpāya, samyak_svādhyāya-paramaḥ
(kh)		(0.15%)			
khkh	1	0.001%	A	RV*	akhkhalī-kṛtyā pitaraṃ na putraḥ (interjection)
(KHt)	39	0.025%	A	Hin.	taKHtā (plate), KH = kh with nukta
khn	1	0.001%	A	MBh*	gītaṃ rājñā vicakhnunā (N.)
khny	0	0.000%	A		I: B2
khm	0	0.000%	A		I: D1, W1, L1s
khy	2072	1.307%	A	MBh	ācakhyuḥ, ākhyāsyanti, upākhyānam, mukhyāḥ
khr	0	0.000%	A		I: B2, D1, W1
khl	0	0.000%	A		I: B2, D1
khv	1	0.001%	N	RV	cakhvāṃsaṃ navatiṃ ca (RV), ākhv-avaṭe nyasyati (BS)
(KHv)	4	0.003%	A	Hin.	tanaKHvāha (salary), KH = kh with nukta

khś	0	0.000%	A		I: D1, W1
khs	0	0.000%	A		I: D1, W1
(g)		(0.86%)			
gg	39	0.025%	A	MBh	dig-gajāḥ, vaṇig-gaṇānām, tiryag-gatābhiḥ
ggr	1	0.001%	N	BrP	vaṇig-grāma-gaṇāḥ sarve, vāg-grahaḥ
ggh	10	0.006%	A	MBh	vāg-ghīne (vāk-hīne), vaṇig-ghasta-sthitaṃ vittam
gghy	11	0.007%	A	SBr	vāg_ghy_anuṣṭub_vāg_ghi (vāk hi), vāg_ghy_eṣā
gghr	2	0.001%	N	MBh	tvag-ghrāṇa-śrotra-cakṣūṃṣi, prāg_ghradāt (hradāt)
gj	39	0.025%	A	MBh	pṛthag-janaiḥ, samyag_jagat, tādṛg_juhuyād_agni-hotram
gjñ	4	0.003%	N	MBh	samyag_jñānam, pṛthag_jñānam, samyag_jñāto 'si
gjy	47	0.030%	A	MBh	prāg-jyotiṣam, prāg-jyotiṣa-patim, vāg-jyeṣṭhasya
gjv	1	0.001%	N	MBh	tiryag-jvalitārka-varṇaḥ
gjh	0	0.000%	A	US*	*samyag_jhaṭiti (I: W1, L1s)
gḍ	2	0.001%	A	MW	tiryag-ḍīnaḥ, vāg-ḍambaraḥ
gḍh	0	0.000%	A	US*	*vaṇig_ḍhaukayati (I: L1s)
gṇ	31	0.020%	A	MBh	gadā-rugṇāḥ, vāta-rugṇa iva drumaḥ, anavapṛgṇā
gd	54	0.034%	A	MBh	prāg-dīkṣā-kālam, tādṛg_dṛṣṭa-pūrvaṃ, asṛg-dohāḥ
gddh	0	0.000%	A		I: W1
gddhv	0	0.000%	A		I: Y1 (Yates, Grammar of the Sunscrit Language, 1820)
gdy	1	0.001%	A	MS	mitra-dhrug_dyūta-vṛttiś_ca
gdr	6	0.004%	N	BhP	tiryag-druma-gharma-jātayaḥ, pṛthag_draṣṭā
gdv	11	0.007%	A	MBh	udag-dvāram, vaṇig-dvijau, samyag_dvaipāyanaḥ
gdvy	1	0.001%	N	BrP	ṛg-dvy-aṣṭaka-samanvitān
gdh	395	0.249%	A	MBh	dagdhum_arhasi, pṛthag-dharmāḥ, dhig_dhig_iti
gdhy	6	0.004%	A	RV	dogdhy_atha, yavasaṃ jagdhy_anudinam (root jakṣ)
gdhr	14	0.009%	A	MBh	gāṃ vai dogdhrīm, dogdhrīś_ca dhenūś_ca
gdhry	1	0.001%	N	Var	kathā-saṃstavāt_kāma-dogdhryaḥ (Sternbach: MSS, 9557)
gdhv	29	0.018%	A	MBh	ādīpya dagdhvā caiva, jagdhvā māṃsāni (root jakṣ)
gn	2044	1.290%	A	MBh	hutāgnayaḥ, bhagna-darpam, nagnaṃ śramaṇam
gny	129	0.081%	A	MBh	jāmadagnyena (N.), agny-arkopama-varcasam
gb	37	0.023%	A	MBh	dhig_balaṃ, samyag_bṛhat-tejā bṛhaspatiḥ
gbr	4	0.003%	N	MBh	samyag_bravīmy_aham, sarva-bhug_brahmā
gbh	160	0.101%	A	MBh	vāgbhir_ ṛgbhiḥ, srug-bhāṇḍam, ṛtvigbhiḥ
gbhy	28	0.018%	A	MBh	ṛtvigbhyaḥ, nānā-digbhyaḥ samāgatān
gbhr	3	0.002%	N	MBh	mlāna-srag-bhraṣṭa-vijñānaḥ, tiryag_bhrātaram
gm	577	0.364%	A	MBh	samājagmuḥ, tigma-vīrya-viṣā hy_ete, vāgmī
gmy	6	0.004%	A	RV	ā sugmyāya sugmyam prātā rathenāśvinā vā sakṣaṇī
gy	302	0.191%	A	MBh	vairāgyam, manda-bhāgyaḥ, samyag_yadā
gr	3888	2.453%	A	MBh	ugra-śravāḥ sūtaḥ, granthāḥ, tādṛg_rūpam
gry	238	0.150%	A	MBh	gatim_agryāṃ ca vindati, trātum_arhati viprāgrya
grv	1	0.001%	N	AHS	śigrv-ādi-nāvanaṃ cātra pūti-nāsoditaṃ bhajet
gl	83	0.052%	A	MBh	mā glāsīḥ, glāniṃ prāpya, glahān_dhanūṃṣi
gv	200	0.126%	A	MBh	pṛthag-vidhāḥ, sragvī, ṛg-vedaḥ, dig-vijaye rājan
gvy	7	0.004%	N	MBh	vāg-vyāyāmena, sragvy_api, samyag_vyavasitā
gvr	1	0.001%	N	MBh	samyag_vrata-viśeṣāc_ca

gs	0	0.000%	A		I: ISO
(gh)		(0.13%)			
(g+h)	0	0.000%	A		I: D1, W1
ghn	863	0.545%	A	MBh	nighnantam, amitra-ghnam, jaghnuḥ, vighnaḥ
ghny	11	0.007%	A	MBh	śata-ghnyaś_ca, aghnyā iti gavām
ghm	2	0.001%	A	RV	daghma rathyo vibhāge (root dagh), drāghmā
ghy	11	0.007%	A	MBh	ślāghyam, arghyam, dairghyaṃ hrasvatvam
ghr	1178	0.743%	A	MBh	śīghram, nara-vyāghraḥ, gandham_ājighranti
ghry	2	0.001%	A	MBh	balaṃ śaighryaṃ ca mohaś_ca ceṣṭā
ghl	0	0.000%	A		I: B2, D1, W1, MW
ghv	26	0.016%	A	MBh	laghvī vasumatī, raghvī, raghv-ambarīṣa-sagarā
ghvy	1	0.001%	N	ABh	laghvyā jyotiś-cakra-gatyā
(ṅ)		(0.09%)			
ṅk	800	0.505%	A	MBh	kaṅkaḥ, janayaty_aṅkuram, paṅkaje
ṅkt	145	0.091%	A	MBh	bhuṅkte, upayuṅkte, eṣo 'nuyuṅkte, paṅktayaḥ
ṅkty	9	0.006%	A	MBh	paṅktyaḥ śaradi, stotra-paṅktyā
ṅktr	1	0.001%	A	YV	pāṅktraḥ (a mouse) kaśo mānthīlavas_te pitṛṇām
ṅktry	0	0.000%	A		I: R1, MW
ṅktv	6	0.004%	A	MBh	bhaṅktvā prāsāda-śikharam, nāṅktvā dvitīyam
ṅkth	2	0.001%	A	BhP	paryabhuṅkthās_tvaṃ, yuṅkthās_tv_evāsmākam (SBr)
ṅky	8	0.005%	A	MBh	samaś_ca nābhiśaṅkyaś_ca, śaṅkyatām
ṅkr	10	0.006%	A	MBh	caṅkramyate (root kram) kaccid_enaṃ smaranti
ṅkl	5	0.003%	N	BhP	saṅkleśa-nirvāṇam_uśanti, ati-saṅkliṣṭaḥ
ṅkv	14	0.009%	N	ABh	śaṅkv-agram, candrāgrācandra-śaṅkv-agrayoḥ
ṅkṣ	309	0.195%	A	MBh	dhvāṅkṣasya vāg_iva, kāṅkṣitaḥ, kāṅkṣante
ṅkṣṇ	1	0.001%	A	Var	daṅkṣṇavaḥ paśavaḥ (Vājasaneyi-Saṃhitā 15-15)
ṅkṣṇv	0	0.000%	A	US*	*daṅkṣṇv-ahiḥ (I: R1, MW)
ṅkṣm	2	0.001%	A	BhP	vayam_ayuṅkṣmahi kilbiṣeṇa (root yuj, aorist)
ṅkṣy	12	0.008%	A	MBh	raṇe pāpo dhārtarāṣṭro vinaṅkṣyati, daṅkṣyati
ṅkṣr	0	0.000%	A		I: D1
ṅkṣv	40	0.025%	A	MBh	bhuṅkṣva rājyam, yuṅkṣva divyāny_astrāṇi
ṅks	2	0.001%	N	SBr*	pratyaṅk_somaḥ, prāṅk_somaḥ (Vedic sandhi: ṅ+k+s)
ṅkh	523	0.330%	A	MBh	citra-puṅkhaiḥ, śaṅkha-śirāḥ, sa vā aṅkhayan
ṅkhn	0	0.000%	A		I: D1
ṅkhy	82	0.052%	A	BhP	sāṅkhya-yogābhyām, saṅkhyātāni, saṅkhye
ṅkhr	0	0.000%	A		I: ISO
ṅg	3314	2.091%	A	MBh	maṅgalam, sthāvara-jaṅgamam, gaṅgā-hrade
ṅgdh	1	0.001%	N	RV	yuṅgdhi, bhaṅgdhi, aṅgdhi, riṅgdhi, parivṛṅgdhi
ṅgdhy	1	0.001%	N	SBr	vṛṅgdhy_arciṣā , aṅgdhy_eṣaḥ, bhaṅgdhy_eṣām (AV)
ṅgdhv	4	0.003%	N	RV	yuṅgdhvaṃratheṣu, kośe aṅgdhve, riṅgdhve
ṅgm	0	0.000%	A		I: D1
ṅgy	29	0.018%	A	MBh	śṛṅgy_uvāca, vilapantīṃ samāliṅgya
ṅgr	30	0.019%	A	BhP	saṅgrāma-mūrdhani, indriya-saṅgrahaḥ
ṅgl	0	0.000%	A	US*	*prāṅ_glānaḥ (I: D1)
ṅgv	1	0.001%	N	MBh	priyaṅgv-āmra-vanopetā

3. Main statistics of conjunct consonants, sorted by frequency

pr	33555	21.172%	A	MBh	proktāḥ, pravakṣyāmi, priyam, prabhuḥ
tr	22283	14.060%	A	MBh	citrāḥ, tatra, triṣu lokeṣu, kṣatriyo 'haṃ, tri-divam
st	21811	13.762%	A	MBh	stambhayitvā, vistaraiḥ, munis_tasya, bhūyas_tato
sy	21369	13.483%	A	MBh	ākhyāsyanti, tanayas_tasya, rahasyaṃ trividham
śc	20602	12.999%	A	MBh	paścimām, paścāt, niścayam, yaś_ca, pitaraś_caiva
nt	20474	12.919%	A	MBh	viśrāntam, dīpayanti, antike (n+t never word-internal)
rv	18856	11.898%	A	MBh	sarvān, durvṛttam, pūrvam, gaur_variṣṭhā, ṛṣer_vibho
kṣ	15810	9.976%	A	MBh	upalakṣya, mahī-kṣitām, cakṣuḥ, didṛkṣuḥ
ty	15473	9.763%	A	MBh	namas-kṛtya, saṃpraty_ācakṣate, satyam, tyajati
rm	14445	9.114%	A	MBh	dharmaḥ, karma, varmāṇam, āhur_manīṣiṇaḥ
tv	12877	8.125%	A	MBh	bhūtvā, śrutvā, tvayā, śrutvāham, tv_ekam
tt	11830	7.464%	A	MBh	nimittam, dattām, uttarām, balavattarāḥ, pravṛttiḥ
ny	11448	7.223%	A	MBh	tāny_eva, anye, nyavasat, asmin_yajñe, tān_yodhān
ry	10512	6.633%	A	MBh	dhāryate, brahma-caryeṇa, vīryavān, sthitir_yatra
ddh	9754	6.155%	A	MBh	yuddham, vṛddheṣu, nagarād_dhāstina-purāt
vy	9659	6.095%	A	MBh	vyaktāvyaktam, avyayam, divyam, vyūham, sevyate
dr	9133	5.763%	A	MBh	narendrāṇām, mahā-drumaḥ, ayajad_rājā
śr	8881	5.604%	A	MBh	āśrayaḥ, śrutvā, āśramam, arāḥ śritāḥ, śreyaḥ
dy	8861	5.591%	A	MBh	abhivādya, ādyaṃ puruṣam, dyauḥ, yad_yad_yathā
kr	8253	5.207%	A	MBh	saṃparikramya, cakraṃ saṃparivartate, śakrasya
dv	8181	5.162%	A	MBh	dvijāḥ, vidvāṃsaḥ, vidvān, kaścid_vadhyate
nn	8060	5.086%	A	MBh	annavān, tasminn_uparate, śreṣṭhatamān_nihanti
sm	7867	4.964%	A	MBh	gatavān_asmi, tasmāt, smṛtaḥ, loke 'smin, sma
rth	7738	4.883%	A	MBh	tīrthāny_āyatanāni, dharmo 'rthaḥ, pārthānām
ṣṭ	7694	4.855%	A	MBh	nirdiṣṭam_āsanam, puru-ṣṭutam, śiṣṭāḥ, sṛṣṭiḥ
kt	7686	4.850%	A	MBh	uktavān, avyaktam, kīrti-bhāk_tathā
sv	7609	4.801%	A	MBh	devīṃ sarasvatīm, tapasvinaḥ, svasthā, svayam
jñ	7354	4.640%	A	MBh	asmin_yajñe, jñānaṃ pratiṣṭhitam, rājñaḥ samīpam
br	7264	4.583%	A	MBh	bravīmi, abravīt, brahma, brāhmaṇāś_ca
ṇḍ	7242	4.570%	A	MBh	pāṇḍavānāṃ kurūṇāṃ ca, bṛhad_aṇḍam_abhūt
ṣṭh	7165	4.521%	A	MBh	pratiṣṭhitam, jyeṣṭha-prītyā, variṣṭhān, śreṣṭhatamān
rt	6837	4.314%	A	MBh	saṃvatsarartavaḥ, parivartate, kīrtiḥ, ārtām
cch	6810	4.297%	A	MBh	apṛcchat, śrotum_icchāmaḥ, carma cchittvā
tm	6598	4.163%	A	MBh	mahātmanām, neti nety_ātmā, vīḍu-patmabhiḥ
rṣ	6524	4.117%	A	MBh	rājarṣeḥ, paramarṣiṇā, harṣāc_cukruśuḥ
sth	5534	3.492%	A	MBh	sthāṇuḥ, sthāvara-jaṅgamam, saṃsthāpayati, tasthuḥ
śv	5474	3.454%	A	MBh	viśvam, bṛhad-aśvasya maharṣeḥ, aśvattha-patram
ṣy	5452	3.440%	A	MBh	śiṣyam, apradhṛṣyam, puṣyasi, tariṣyati, bhaviṣyate
rṇ	5321	3.357%	A	MBh	karṇaḥ, varṇāḥ, nistīrṇām, pūrṇam, cīrṇāni
ts	5310	3.350%	A	MBh	saṃvatsaraḥ, jayatsu, etat_satyam
śy	5192	3.276%	A	MBh	dṛśyate, paśyāma saṃtatim, kliśyatāṃ pāṇḍavānām
bhy	5135	3.240%	A	MBh	tebhyaḥ, śiṣyebhyaḥ, mātṛbhyām, abhyasūyanti

hm	4723	2.980%	A	MBh	brāhmīm, brahma-caryeṇa, jihmagān, suhmeṣu (N.)
nm	4442	2.803%	A	MBh	janma, man-mukhena, āsīn_mahān, dārān_mūḍhaḥ
str	4381	2.764%	A	MBh	trayas-triṃśat, śāstrāṇi, mahāstram, tvaṃ nas_trāṇam
dhy	4248	2.680%	A	MBh	adhyāyam, medhyān, madhyena, dhyātvā, vadhyate
pt	4222	2.664%	A	MBh	sapta, prāpte, guptam, suptān, dīpta-ketuḥ
nv	4200	2.650%	A	MBh	anvitam, manv-ādi, kṛpānvitāḥ, tasmin_vipre
nd	4171	2.632%	A	MBh	bindum, skandan, manda-pālasya, nandana, bahūn_deśān
gr	3888	2.453%	A	MBh	ugra-śravāḥ sūtaḥ, granthāḥ, tādṛg_rūpam
ndr	3846	2.427%	A	MBh	indraḥ, candraḥ, corān_dravyam, kṛtavān_droṇaḥ
ndh	3798	2.396%	A	MBh	skandhaḥ, gandhāḥ, bandham, bhagavān_dharmaḥ
py	3621	2.285%	A	MBh	prāpya, vilapya, ratham_āropya, cāpy_uktam
rj	3550	2.240%	A	MBh	arjunaḥ (N.), ārjavam, parjanyaḥ, nirjane, ūcur_jahi
my	3357	2.118%	A	MBh	gamyate, caṅkramya, samyak, paśyāmy_enam
hy	3357	2.118%	A	MBh	guhyakāḥ, sarve mahyaḥ, vapur_hy_etat_satyam
ṅg	3314	2.091%	A	MBh	maṅgalam, sthāvara-jaṅgamam, gaṅgā-hrade
jy	3070	1.937%	A	MBh	satyaṃ jyotiḥ, pūjyaḥ, hṛta-rājyam, jyeṣṭha-prītyā
tp	3040	1.918%	A	MBh	utpādya, savidyut-pavaneritāḥ, so 'bravīt_patañcalaḥ (SBr.)
tk	2985	1.883%	A	MBh	sat-kṛtām, utkaḥ, tat_karma, etat_kathitaṃ sarvam
rd	2969	1.873%	A	MBh	nirdiṣṭam, nirāmardaḥ, nirdahantam, dhanur_dṛṣṭvā
ṣṇ	2842	1.793%	A	MBh	viṣṇuḥ, kṛṣṇaḥ, śītoṣṇa-kṣut-tṛṣṇā-duḥkha-sahaḥ
ñc	2820	1.779%	A	MBh	pañca śloka-sahasrāṇi, manaś_cañcalam_asthiram
ns	2800	1.767%	A	MBh	devān_sa, tantūn_satataṃ (n+s never word-internal)
ṃs	2769	1.747%	X	MBh	praśaṃsanti
cc	2720	1.716%	A	MBh	asac_ca sac_caiva, trayas-triṃśac_ca, tac_ca
rg	2691	1.698%	A	MBh	sargāḥ, mārgān, bhārgavam, svar-gatim, etair_guṇaiḥ
rh	2675	1.688%	A	MBh	na tvaṃ hiṃsitum_arhasi, arhaṇāni, ṛṣer_hi
dbh	2673	1.687%	A	MBh	sadbhiḥ, adbhiḥ, adbhutam, abravīd_bhāratam
ṃśc	2550	1.609%	X	MBh	sarvāṃś_ca
ṇy	2414	1.523%	A	MBh	puṇyam, vareṇyam, araṇye, kārpaṇyāt, trīṇy_etāni
ṃś	2403	1.516%	X	MBh	saṃśitavratān
ṣm	2383	1.504%	A	MBh	āyuṣmantaḥ, bhīṣmam, arciṣmantam, haviṣmatī
sr	2347	1.481%	A	MBh	sraṣṭāram, dve sahasre, tisraḥ (MBh), asridhaḥ (RV)
kṣy	2339	1.476%	A	MBh	vakṣyāmi, vimokṣyāmi, sākṣyam, prekṣya
rś	2287	1.443%	A	MBh	darśanam, darśitaḥ, dadarśa, vimarśaḥ, sparśaḥ
rdh	2272	1.434%	A	MBh	sārdham, spardhate, svakair_dhanaiḥ, lakṣmīr_dhṛtiḥ
ṃj	2230	1.407%	X	MBh	(ñj) saṃjayam
ṣṭv	2227	1.405%	A	MBh	dṛṣṭvā, iṣṭvā, spṛṣṭvā, pṛṣṭvā, anuśiṣṭvānugatvā
ṃst	2186	1.379%	X	MBh	munīṃs_tāṃs_tu
ttv	2122	1.339%	A	MBh	bhittvā, tattvataḥ, mahat_tve, yasmāt_tvam
stv	2122	1.339%	A	MBh	purohito 'stv iti, kārya-garīyastvāt, bhartus_tvam
ky	2073	1.308%	A	MBh	vākyam_abravīt, śakyā, lokyaṃ dharmam
khy	2072	1.307%	A	MBh	ācakhyuḥ, ākhyāsyanti, upākhyānam, mukhyāḥ
gn	2044	1.290%	A	MBh	hutāgnayaḥ, bhagna-darpam, nagnaṃ śramaṇam
rbh	2036	1.285%	A	MBh	kusumair_bhāntiḥ, caturbhiḥ, bahubhir_bhṛśam
ṣṭr	1984	1.252%	A	MBh	rāṣṭrāṇi, dhṛta-rāṣṭraḥ (N.), uṣṭreṣu, viśva-daṃṣṭraḥ

4. Conjunct consonants from Mahābhārata

539 conjunct consonants were found. In addition, 93 anusvāra and visarga combinations were found.

a) Anusvāra and Visarga combinations from Mahābhārata

ṃk	01001026 alaṃkṛtaṃ śubhaiḥ śabdaiḥ samayairdivyamānuṣaiḥ
ṃkr	01002184 anvadhāvata saṃkruddho bhāradvājaṃ guroḥ sutam
ṃkl	01056005 prayujyamānānsaṃkleśānkṣāntavanto durātmanām
ṃkṣ	01001036 punaḥ saṃkṣipyate sarvaṃ jagatprāpte yugakṣaye
ṃkṣy	07050053 raṇe vinihataṃ śrutvā śokārtā vai vinaṃkṣyati
ṃkhy	01001179 śrūyante 'yutaśaścānye saṃkhyātāścāpi padmaśaḥ
ṃg	01001161 saṃjayaivaṃgate prāṇāṃstyaktumicchāmi māciram
ṃgr	01001148 sadā saṃgrāme spardhate yaḥ sa kṛṣṇaṃ tadā nāśaṃse vijayāya saṃjaya
ṃgh	01002079 tejoṃśānāṃ ca saṃghātādbhīṣmasyāpyatra sambhavaḥ
ṃc	01001152 yadāśrauṣaṃ vividhāṃstāta mārgāṅgadāyuddhe maṇḍalaṃ saṃcarantam
ṃcy	07143004 gātrātsaṃcyāvayāmāsa tadadbhutamivābhavat
ṃch	01055011 yadā prabuddhaḥ kaunteyastadā saṃchidya bandhanam
ṃj	01001095 dhṛtarāṣṭraściraṃ dhyātvā saṃjayaṃ vākyamabravīt
ṃjñ	01001159 saṃjñāṃ nopalabhe sūta mano vihvalatīva me
ṃjv	01084007 tasmāddiṣṭaṃ balavanmanyamāno na saṃjvarennāpi hṛṣyetkadā cit
ṃḍ	08028024 niḍīnamatha saṃḍīnaṃ tiryakcātigatāni ca
ṃt	01001075 svāgataṃ sarvathā diṣṭyā pāṇḍoḥ paśyāma saṃtatim
ṃty	01057053 saṃtyajya matsyarūpaṃ sā divyaṃ rūpamavāpya ca
ṃtr	01026003 sa tadvināśasaṃtrāsādanupatya khagādhipaḥ
ṃtv	06045049 tatrārjunaḥ saṃtvaritaḥ śaṅkhasyāsītpuraḥsaraḥ
ṃd	01002125 saṃdarśanaṃ ca kṛṣṇasya saṃvādaścaiva satyayā
ṃdr	02006015 kiṃdravyāstāḥ sabhā brahmankiṃvistārāḥ kimāyatāḥ
ṃdv	02011021 ādityāḥ sādhirājāno nānādvaṃdvairudāhṛtāḥ
ṃdh	01001086 ghātayitvā jarāsaṃdhaṃ caidyaṃ ca balagarvitam
ṃdhy	01001200 ubhe saṃdhye japankiṃ citsadyo mucyeta kilbiṣāt
ṃn	01002130 dṛṣṭvā saṃnidadhustatra pāṇḍavā āyudhānyuta
ṃny	01002228 dharmarājaṃ samāsādya saṃnyāsaṃ samarocayet
ṃp	01001009 kathitāścāpi vidhivadyā vaiśaṃpāyanena vai
ṃpr	01001024 ācakhyuḥ kavayaḥ ke citsaṃpratyācakṣate pare
ṃpl	01027009 kliśyamānānmandabalāṅgoṣpade saṃplutodake
ṃph	13071008 kīdṛśāḥ kiṃphalāḥ kaḥ svitparamastatra vai guṇaḥ
ṃb	01002190 sauptikaiṣīkasaṃbandhe parvaṇyamitabuddhinā
ṃbh	01001035 yaccānyadapi tatsarvaṃ saṃbhūtaṃ lokasākṣikam
ṃbhr	01001090 yatrāvahasitaścāsītpraskandanniva saṃbhramāt
ṃm	01001096 śrutavānasi medhāvī buddhimānprājñasaṃmataḥ
ṃy	01001017 bhāratasyetihāsasya puṇyāṃ granthārthasaṃyutām
ṃr	01003028 ayamasmyatra kedārakhaṇḍe niḥsaramāṇamudakamavāraṇīyaṃ saṃroddhuṃ ...
ṃl	01026009 lokasaṃloḍanaṃ ghoraṃ kṛtāntasamadarśanam
m̐ll	01001165 asmim̐lloke yaśaḥ prāpya tataḥ kālavaśaṃ gatāḥ (anunāsika!)

ṃv	01001035 saṃvatsarartavo māsāḥ pakṣāhorātrayaḥ kramāt
ṃvy	06077015 evaṃvyūhaṃ mahārāja tava sainyaṃ mahārathaiḥ
ṃvr	03112013 evaṃvrato 'smīti ca māmavocatphalāni cānyāni navānyadānme
ṃś	01001002 samāsīnānabhyagacchadbrahmarṣīnsaṃśitavratān
ṃśc	01001084 sa sarvānpārthivāñjitvā sarvāṃśca mahato gaṇān
ṃścy	01006007 vadhūsareti bhagavāṃścyavanasyāśramaṃ prati
ṃśch	03217003 sa bhūtvā bhagavānsaṃkhye rakṣaṃśchāgamukhastadā
ṃśy	02013005 ailavaṃśyāstu ye rājaṃsthaivekṣvākavo nṛpāḥ
ṃśr	01001010 śrutvāhaṃ tā vicitrārthā mahābhāratasaṃśritāḥ
ṃśl	01064020 nadīmāśramasaṃśliṣṭāṃ puṇyatoyāṃ dadarśa saḥ
ṃṣ	01003006 nāvekṣe havīṃṣi nāvaliha iti
ṃṣṭr	01016002 nānāvihagasaṃghuṣṭaṃ nānādaṃṣṭrisamākulam
ṃṣṭh	08048003 ānīya naḥ śatrumadhyaṃ sa kasmātsamutkṣipya sthaṇḍile pratyapiṃṣṭhāḥ
ṃṣy	01123047 śīghraṃ bhavantaḥ sarve vai dhanūṃṣyādāya satvarāḥ
ṃs	01001007 kālaḥ kamalapatrākṣa śaṃsaitatpṛcchato mama
ṃsk	01001017 saṃskāropagatāṃ brāhmīṃ nānāśāstropabṛṃhitām
ṃst	01001004 abhivādya munīṃstāṃstu sarvāneva kṛtāñjaliḥ
ṃsty	01001161 saṃjayaivaṃgate prāṇāṃstyaktumicchāmi māciram
ṃstr	01007018 tvaṃ dhārayasi lokāṃstrīnkriyāṇāṃ ca pravartakaḥ
ṃstry	02047015 dvyakṣāṃstryakṣāṃllalāṭākṣānnānādigbhyaḥ samāgatān
ṃstv	01003191 evaṃ pituścāpacitiṃ gatavāṃstvaṃ bhaviṣyasi
ṃsts	06050050 ghaṇṭāśca vividhā rājanhemagarbhāṃstsarūnapi
ṃsth	01015010 amṛtārthe samāgamya taponiyamasaṃsthitāḥ
ṃsp	01069038 sa mudaṃ paramāṃ lebhe putrasaṃsparśajāṃ nṛpaḥ
ṃsph	03044025 muhurmuhurvajradharo bāhū saṃsphālayañśanaiḥ
ṃsm	01057038 cacāra mṛgayāṃ kāmī girikāmeva saṃsmaran
ṃsy	01011012 tasmātprāṇabhṛtaḥ sarvānna hiṃsyādbrāhmaṇaḥ kva cit
ṃsr	05029042 api vācaṃ bhāṣamāṇasya kāvyāṃ dharmārāmāmarthavatīmahiṃsrām
ṃsv	01084010 saṃsvedajā aṇḍajā udbhidāśca sarīsṛpāḥ kṛmayo 'thāpsu matsyāḥ
ṃh	01001017 saṃskāropagatāṃ brāhmīṃ nānāśāstropabṛṃhitām
ṃhr	01059018 prahrādaḥ pūrvajasteṣāṃ saṃhrādastadanantaram
ṃhl	02010008 manohṛdayasaṃhlādī vāyustamupasevate
ḥk	01214010 yadbabhūva manaḥkāntaṃ karmaṇā sa cakāra tat
ḥkr	01002239 indriyāṇāṃ samastānāṃ citrā iva manaḥkriyāḥ
ḥkṣ	01058004 triḥsaptakṛtvaḥ pṛthivīṃ kṛtvā niḥkṣatriyāṃ purā
ḥkh	01001106 yadāśrauṣaṃ draupadīmaśrukaṇṭhīṃ sabhāṃ nītāṃ duḥkhitāmekavastrām
ḥp	01003109 praviśyāntaḥpuraṃ kṣatriyā yācyatāmiti
ḥpr	01026046 asurapuravidāraṇāḥ surā jvalanasamiddhavapuḥprakāśinaḥ
ḥph	13130024 yadi sevanti dharmāṃstānāpnuvanti tapaḥphalam
ḥś	01001065 duḥśāsanaḥ puṣpaphale samṛddhe mūlaṃ rājā dhṛtarāṣṭro 'manīṣī
ḥśy	03115014 ekataḥśyāmakarṇānāṃ pāṇḍurāṇāṃ tarasvinām
ḥśr	01002073 kṣīrodamathanaṃ caiva janmocchaiḥśravasastathā
ḥśv	01011008 muhuruṣṇaṃ viniḥśvasya susaṃbhrāntastapodhanaḥ
ḥṣ	01002129 catuḥṣaṣṭistathā ślokāḥ parvaitatparikīrtitam
ḥs	01002242 dvaipāyanauṣṭhapuṭaniḥsṛtamaprameyaṃ puṇyaṃ pavitramatha ...

5. Additional conjunct consonants from Brahma-Purāṇa

14 additional conjunct consonants were found.

kny	3	0030071 asiknyāṃ janayāmāsa dakṣa eva prajāpatiḥ
kmy	1	2010160 rukmyuvāca
kst	2	0590492 ṛkstutāya namastubhyaṃ nama ṛksādhanāya ca
ggr	1	0440281 vaṇiggrāmagaṇāḥ sarve nānāpuranivāsinaḥ
gdvy	1	2270281 bhogānnānāvidhānviprā ṛgdvyaṣṭakasamanvitān
gdhy	1	1781892 ekāgramānasaḥ samyag_dhyātvā taṃ puruṣottamam
ṭkh	1	1760121 tasminkāle tadā śakro devarāṭkhecaraiḥ saha
ṭtv	1	1781561 sahasrapādastvaṃ devastvaṃ virāṭtvaṃ suraprabhuḥ
ḍm	1	2151102 kuḍmalaṃ nāma narakaṃ pūrṇaṃ viṇmūtraśoṇitaiḥ
ḍvy	1	1870312 prāvṛḍvyatītā vikasatsarojā cābhavaccharat
bhv	1	1291231 ākhyānaṃ viṣṇuśaṃbhvośca jñātvā snānācca muktidam
ṣṭry	1	0890302 atikramya bhayodvignā tvāṣṭryabhyagācca gautamīm
sthn	4	1100601 asthnāmupādānamatha prayāṇaṃ
sry	1	2410121 yugaṃ dvādaśasāhasryaṃ kalpaṃ viddhi caturyugam

The Mahābhārata contains 539 conjunct consonants and comprises 154,484 lines of text.
The Brahmapurāṇa contains 461 conjunct consonants and comprises 31,352 lines of text.
The Bhagavadgītā contains 258 conjunct consonants and comprises 1,456 lines of text.

6. Additional conjunct consonants from Bhāgavata-Purāṇa

50 additional conjunct consonants were found.

kkv	1	07090403 ghrāṇo 'nyataścapaladṛk_kva ca karmaśaktir
kpl	1	10160073 paryak_pluto viṣa-kaṣāya-bibhīṣaṇormir
kry	1	10060231 cakryagrataḥ sahagado harirastu paścāt (kry of cakrī also in RV)
kśm	1	10600451 tvakśmaśruromanakhakeśapinaddhamantar
kśl	1	07120252 apsvasṛkśleṣmapūyāni kṣitau śeṣaṃ yathodbhavam (apsu + asṛj + śleṣma)
kṣr	1	05180081 oṃ namo bhagavate ... ātmani bhūyiṣṭhā oṃ kṣraum
ksph	1	07080291 viṣvaksphurantaṃ grahaṇāturaṃ harirvyālo yathākhuṃ kuliśākṣatatvacam
gdr	6	03280412 ātmā tathā pṛthagdraṣṭā bhagavānbrahmasaṃjñitaḥ
ṅkth	1	01140431 api svitparyabhuṅkthāstvaṃ sambhojyānvṛddhabālakān
ṅkl	5	01050403 prākhyāhi duḥkhairmuhurarditātmanāṃ saṅkleśanirvāṇamuśanti nānyathā
ṅkṣm	2	03160254 ye 'nāgasau vayamayuṅkṣmahi (aorist) kilbiṣeṇa
ṅkhy	82	01030103 provācāsuraye sāṅkhyaṃ tattvagrāmavinirṇayam
ṅgr	30	01150301 gītaṃ bhagavatā jñānaṃ yattatsaṅgrāmamūrdhani
ṅghry	16	01050193 smaranmukundāṅghryupagūhanaṃ punarvihātumicchenna rasagraho janaḥ
ṅdhv*	1	11040143 āsām_ekatamāṃ vṛṅdhvaṃ savarṇāṃ svarga-bhūṣaṇām (vṛṇudhvam)
ṅnr	1	04020151 citābhasmakṛtasnānaḥ pretasraṅnrasthibhūṣaṇaḥ (srak + nṛ + asthi)

16. Statistics of vowels and consonants

Based on the evaluation of the BORI Mahābhārata text which contains 6,046,612 letters net, (i.e. **without** punctuation marks – except avagraha –, spaces and carriage return linefeeds and counting the aspirates kh, gh, th, dh etc. and the diphthongs ai, au as **one** letter each.) The Mahābhārata comprises 8,615,803 letters, if spaces etc. would be counted as letters.

Percentages refer to the net size of 6,046,612 letters, e.g. 12292 / 6046612 * 100 = 0.2033%.

a	1208991	19.9945%		dh	61898	1.0237%
'	12292	0.2033%		ṇ	58844	0.9732%
ā	473767	7.8352%		ī	54897	0.9079%
t	397146	6.5681%		g	51900	0.8583%
r	354295	5.8594%		ṛ	47992	0.7937%
i	254144	4.2031%		th	44225	0.7314%
n	253093	4.1857%		l	43331	0.7166%
v	252758	4.1802%		ai	40004	0.6616%
y	240250	3.9733%		b	29348	0.4854%
m	235110	3.8883%		ū	28006	0.4632%
s	212544	3.5151%		au	17195	0.2844%
u	161939	2.6782%		ṭ	15026	0.2485%
e	157064	2.5976%		ñ	13165	0.2177%
p	157057	2.5974%		ḍ	9683	0.1601%
ṃ	155066	2.5645%		kh	9324	0.1542%
d	138074	2.2835%		ch	9095	0.1504%
k	127918	2.1155%		gh	7784	0.1287%
ḥ	103489	1.7115%		ṭh	7566	0.1251%
ś	100004	1.6539%		ṅ	5582	0.0923%
c	96954	1.6034%		ph	2132	0.0353%
o	90756	1.5009%		ḍh	1304	0.0216%
ṣ	86870	1.4367%		ṝ	504	0.0083%
h	83978	1.3888%		jh	70	0.0012%
bh	69607	1.1512%		ḷ	29	0.0005%
j	64542	1.0674%				