The Two and a Half Faces of Bangla Monosyllables

Mina Dan[1]

mina.dan@gmail.com

[1]Department of Linguistics, University of Calcutta, India

Abstract

Monosyllables are syllables as well as words. As syllables, they have a phonetic and a phonological representation - both together facilitate, first, checking legal combinations of segments in a language by devising a template, and second, revealing the phonotactics of the language. As words, monosyllables display at least four distinct features – meaning, overt structure, naming potentiality and orthography. These features assign monosyllables the status of an interface unit too. The present paper attempts to capture the two faces, viz., the syllable-like face and the word-like face of Bangla/Bengali monosyllables on various levels of language structure and treats the interface identity of them as an additional half face of the unit, as mentioned in the title of the paper.

Keywords: monosyllables, Bangla, rime, template, metrical phonology

1 Introduction

On the basis of their phonological component, more specifically the syllabic component, words are categorised as monosyllabic and polysyllabic, the latter being a cover term for disyllabic, trisyllabic, quadrisyllabic and so on. The self-explanatory attribute 'monosyllabic' designates the words that are composed of only one syllable. For example, words like [pa] 'foot', [am] 'mango', [o] 'that one', [gan] 'song', [ʃon] 'you-int. listen', [gram] 'village', etc., in Bangla. Until recently, the very concept of monosyllable was understood as a tool for phonological measurement, both quantitative and qualitative. Quantitatively, it marked the words, the real units of speech, with a minimum number of syllable-count, and qualitatively it identified the possible and impossible concatenation of sounds in syllables in a language. However, the uniqueness of monosyllabic words as units with a range of overlapping dimensions was explicitly unfolded by the researchers in the conference titled *Monosyllable: From Phonology to Typology*, organised by and held at Universität Bremen, Germany, in September 2009. With this backdrop, in the present paper we shall point to the uniqueness of monosyllables in Section 1, capture the various dimensions of Bangla/Bengali monosyllables in Section 2, draw a few generalizations on the segmental makeup of Bangla monosyllables in Section 3, and present a brief typological observation on Bangla monosyllables in the concluding section.

1.1 The Uniqueness of Monosyllables

According to the popular definition, syllables are units of pronunciation typically larger than a single sound and smaller than a word, whereas monosyllables, though a type of syllable, are never less than a word and they are often equal to a single sound. Thus, monosyllables are, universally, not only a kind of syllable but also a type of word.

As a kind of syllable, they are recognised as the lowest level macro-units of phonology, the micro-units being the sounds/phonemes. Thus, they have a phonetic as well as a phonological representation. Both the representations together put forward a field-test for, firstly, checking legal combinations of segments in a language, and secondly, framing a set of

laws for pointing at illegal partners in that same linguistic system. For example, in Bangla, as regards legal combinations, a syllable can begin with at the most three consecutive consonants, as in the word [stri] 'wife' but never with more than that. The law expressing this is *#CCCC.

In phonology, the former is achieved by devising a template that operates as a syllable-detector while the latter by detecting relevant constraints or template conditions which reveal the phonotactics[1] of the language. In the phonological literature, the framing of tools like syllable template and template conditions banks heavily on the various aspects of the concept of sonority.

Monosyllables are also identified as a type of word as they display at least four distinct features that are unlike syllable-features and like word-features. We would like to interpret the attribute *mono* (to *syllable*) in the term *monosyllable* as an acronym MONO that represents the four features as follows. M stands for meaning, O for overt structure, N for naming potentiality and O for orthography. Hence monosyllables are syllables which have meaning, overt structure, naming potentiality and orthographic implication.

First, unlike syllables and like morphemes, monosyllables have meaning – a feature that makes them morphologically relevant. For example, [din] 'day', [lal] 'red', [ke] 'who', [æk] 'one', etc. are morphemes as well as monosyllables with distinct meaning in Bangla.

Secondly, unlike syllables, monosyllables display overt internal structures at different levels – the levels of phonology and morphology. For example, the word [ʃi:p] 'sheep' in the English sentence *The sheep are grazing* is a morphologically complex monosyllable as it is composed of two morphemes, sheep and plural.

Thirdly, unlike syllables and like words, monosyllables can name something or some person, i.e., they are words with all privileges of a dictionary entry. One does indeed find all the monosyllables of one's language in a dictionary of that language.

Fourthly, unlike syllables, each monosyllable is directly linked to a particular reference point in the orthographic convention of a language that has a script and lacks spelling pronunciation. For example, in English, the syllable [si:] has no fixed orthographic reference; it may refer to <sea> as in the word 'season', to <cea> as in 'ceasing', to <see> as in 'seeded', to <sei> as in 'seize', to <ce> as in 'cedar', or to <cei> as in 'ceiling'. But the monosyllable [si:] is linked either to <sea> when it is a noun, or to <see> when it is a verb.

These four features assign monosyllables the status of an interface unit too. The features mentioned above, viz., the syllable-like and the word-like features, are the general features of monosyllables in many languages. Monosyllables also present language-specific features. The present paper attempts to capture the language-specific features of Bangla monosyllables.

1.2 Bangla Monosyllables

The literature on Bangla metrical analysis and Bangla linguistics presents a few studies that deal with various aspects of Bangla syllables. Prabodh Chandra Sen, the grammarian metricist researching since 1922, identified syllables as the key units determining

various metrical patterns in Bangla and illustrated meticulously the basic concepts such as syllable, quantity-unit, mora, etc. (Sen, 1986). However, his studies hardly report any observation on Bangla monosyllables.

In the field of Bangla linguistics, Mallik (1960) and Hai (1964) deal with Bangla consonant clusters and sequences which have some bearing on the syllabification rules in Bangla. Hai (1964) also presents syllable-wise time duration of a handful of Bangla words using kymograph tracing. Sarkar (1979, 1986) throw light on the structure of Bangla syllables. Sarkar (1985, 86) illustrates Bangla diphthongs which have some relevance in the rime structure of syllables. Mallik et al. (1998) provide a frequency count of various syllables at different positions in words, and Dan (2004) presents a characterization of Bangla syllables based on the theory of metrical phonology. However, none of these works concentrates on Bangla monosyllables.

The current section aims to highlight the language-specific features of Bangla monosyllables with least theoretical complexities. It attempts to capture the two faces, the syllable-like face and the word-like face, of Bangla monosyllables by marking the features of monosyllables on various structural levels of the language, namely, phonetic, phonological, interface, morphological, syntactic, and lexical. The interface identity of Bangla monosyllables may be treated as an additional half face of the unit, as mentioned in the title of the paper. While the phonetic and phonological levels are directly related to the syllable-like face, the morphological, lexical, and syntactic levels are related to the word-like face of monosyllables.

2.1 Phonetic

Phonetic features include stress, vowel length, and aspiration.

2.1.1   Stress

Linguists on impressionistic grounds assessed Bangla as a syllable-timed language like Spanish and French and unlike German and English that are stress-timed. Stress is not phonemic in Bangla. According to Chatterji (1928) and Bykova (1981), stress plays no special role in Bangla so far as the individual words are concerned. Hayes and Lahiri (1991) state that stress in Bangla is predictable and dominantly initial in isolated words and is always subsidiary to sentence-stress.

2.1.2   Vowel length

Bangla vowels lack phonemic length. However, they have purely predictable phonetic length. In monosyllables, vowels tend to be long while in polysyllabic words non-long. For example, [du:d] 'milk', [bɦa:t] 'rice', but [dudbɦat] 'milk and rice', [tʰi:k] 'right', but [tʰikʰak] 'okay', [ti:n] 'three', but [tinʈe] 'three-Cl', etc. Thus, length in Bangla monosyllables adds to the phonetic duration of monosyllables, the arithmetical aggregate of the duration of the constituent segments.

2.1.3   Aspiration

Aspiration is phonologically relevant in Bangla, it is phonemic. All stop and affricate consonants have their aspirated counterparts, e.g. [k-kʰ, g-gɦ, ʈ-ʈʰ, ɖ-ɖɦ, t-tʰ, d-dɦ, p-pʰ, b-bɦ, c-

cʰ, j-jʰ]. However, word finally aspirated segments tend to lose aspiration almost entirely and appear to be unaspirated. For example, [du:d] 'milk', but [dudʰer] 'of milk', [maʈ] 'field', but [maʈʰe] 'in the field', etc. Compared to Hindi, a language in which monosyllables retain perceptually very strong aspiration word finally, e.g., [ʃudʰ] 'pure', [dugdʰ] 'milk', etc., Bangla monosyllables present a very mild, almost negligible amount of aspiration in their coda positions.

2.2 Phonological

Phonological features concern, on the one hand, the concept of markedness and on the other, the system of mora count in the domain of poetry.

2.2.1 Less marked vs. more marked properties

A structure that is avoided in unrelated languages is said to be marked relative to those structures that are not avoided. The structures of Bangla monosyllables present the following less marked properties:

i)   Simple onsets are allowed, e.g., *ke* 'who'.

ii)   Monosyllables may be open, e.g., *ke* 'who', *na* 'not'.

iii)   The most preferred syllable pattern is CV.

iv)   Monophthongs serve as peaks, e.g., *kan* 'ear'.

v)   Complex codas are not allowed in native monosyllables.

vi)   They conform to the Sonority Sequencing Principle.[2]

More marked properties are:

i)   Onsetless syllables are allowed, e.g., *aj* 'today'.

ii)   Complex onsets are allowed, e.g., *bʰru* 'eyebrow'.

iii)   Diphthongs may serve as peaks, e.g., *teiʃ* '23'.

iv)   Closed syllables are allowed, e.g., *mon* 'mind'.

v)   Simple codas are allowed, e.g., *gʰum* 'sleep'.

vi)   In borrowed monosyllables complex codas are allowed, e.g., *bæŋk* 'bank'.

vii)   s+stop, the cross-linguistically attested cluster that violates the Sonority Sequencing Principle, is available, e.g., *stʰir* 'motionless'.

2.2.2 Controversy of more marked peaks

Monosyllables may have any of the (i) seven oral and (ii) seven nasal vowels and (iii) diphthongs as their peak. Among these three sets of segments, diphthongs are the more marked as well as controversial peaks.

Often a word with a diphthong as the peak followed by a simple consonant is ambiguous between two readings, monosyllabic and disyllabic, as the vocalic slot reflects the phonetic length, the usual phenomenon within a monosyllable, e.g., *deul* and *de-ul* 'temple', *baiʃ* and *ba-iʃ* '22', *gour* and *go-ur* 'a male name'.

Contrary to this, a diphthong followed by a single consonant followed by another vowel (in a disyllabic word, of course) is shorter and maintains its diphthongal character, e.g., *deu̯-le* 'insolvent, *bai̯-ʃe* 'on 22ⁿᵈ', *gou̯-ri* 'a female name'.

The script convention too contributes to this controversy. Bangla script has unitary graphemes for only two diphthongs, viz. [oi̯] and [ou̯]. Hence, while these two are visibly single units others are not, e.g. *pou̯ʃ* 'name of a Bengali month' <xx> but *kʰeu̯ɽ* 'vulgar song' <xxx>.

In fact, *kʰeu̯ɽ* is more prone to a disyllabic reading.

Another interesting gap in the system is that Bangla does not have any monosyllable with [oi̯] as its peak followed by a single consonant, i.e. *(C)oi̯C. So the scope of verifying the influence of script is restricted too.

However, double reading does not assign a questionable status to Bangla diphthongs altogether, because the monosyllables with word final diphthongal peaks categorically yield single reading regardless of the difference in their visual representations, e.g. *bou̯* 'wife' <x>, *doi̯* 'curd' <x>, *bʰɔe̯* 'fear' <xx>, *mæo̯* 'baby-talk item for cat' <xx>, *hae̯* 'alas', etc.

The interesting point here is that we do not really know whether or not *dou̯ɽ* and *kʰeu̯ɽ*, with reference to syllabification, behave the same way. As regards this, even speakers' opinions are not of much help – as out of the following four options only the last one would be rejected outrightly, whereas the other three would receive mixed responses.

Between *dou̯ɽ* and *kʰeu̯ɽ*

1. Both are monosyllabic.

2. Both are disyllabic.

3. *dou̯ɽ* is monosyllabic, while *kʰeu̯ɽ* is disyllabic.

*4. *kʰeu̯ɽ* is monosyllabic, while *dou̯ɽ* is disyllabic.

The above issue entails a valid question: do we really know the actual range of monosyllables in Bangla? Researches in this direction are yet to be taken up.

2.2.3   *Indigenous metrical literature*

In terms of mora counting, monosyllables receive the same treatment as any other syllable in the indigenous metrical literature. Bangla has three basic metrical patterns, viz. syllabic, moric and composite. A syllable with a final simple vowel, conventionally known as an open or light syllable, is considered monomoric in all these three patterns. But a syllable with either a coda or a diphthongal peak, known as a closed or heavy syllable, shows different mora count in different metrical patterns – in the syllabic pattern it is monomoric, in the moric pattern it is bimoric, and in the composite pattern it is positionally bimoric (word-finally) or monomoric (elsewhere). Thus, the closed or heavy syllables are of greater interest than the open or light ones in metrical literature.

2.3 Interface Properties

These properties function in the interface area between phonology and morphology and include a few phonological processes, viz. vowel harmony, deletion and semivowel formation, which may operate even within the domain of monosyllables.

2.3.1 *Vowel harmony*

In this phonological process, a high vowel trigger, viz. *i* and *u*, raises the vowel height of the syllable immediately preceding it by one degree. For example, *ʃo* 'sleep' + *i* '1Pres'= *ʃui̯* 'I sleep'.

Vowel harmony is so pervasive in Bangla that the process even blocks [*æi̯, *æu̯, *ɔi̯, *ɔu̯] diphthongs as peaks of monosyllables.

2.3.2 *Deletion*

A suffixal vowel is deleted in morphologically complex monosyllables, e.g. *kʰa* 'eat' + *en* '3Pres-For' = *kʰan* 's/he eats'.

The process of deletion has other morphological implications too. Deletion applies to the verbal sector and invariably converts CV-VC into monosyllabic CVC (*kʰa-en = kʰan*). As a consequence of this, the canonical shapes CVVC (e.g. *tei̯ʃ* '23') and VVC (e.g. *ai̯n* 'law') of monosyllables are rightly predicted as belonging to the nominal sector of the language.

2.3.3 *Semivowel formation*

In semivowel formation, a simple peak becomes complex, i.e. diphthongal, e.g. *hɔ* 'be' + *o* 'Pres-Ord-Imp' = *hɔo̯* 'you become'.

2.4 Morphological

Morphological properties refer to the morphological structure and grammatical category of monosyllables.

2.4.1 *Structurally simple or complex*

Morphologically, monosyllables may be simple or complex. Examples of simple forms are *nak* 'nose', *boi̯* 'book', *maʃ* 'month', *rɔŋ* 'colour', *nil* 'blue', *kʰub* 'very', *stri* 'wife', *stʰan* 'place', etc.

Morphologically complex monosyllables are almost always of the portmanteau type, where the number of morphemes exceeds the number of morphs. For example, *kʰa* 'eat' + *o* '2Pres-Ord-Imp' = *kʰao̯* 'you eat', the monosyllable is composed of two morphs but five morphemes.

2.4.2 *Part of speech*

Monosyllables in Bangla may belong to any part of speech, e.g. noun (*din* 'day', *rat* 'night', *gacʰ* 'tree', etc.), pronoun (*ʃe* 's/he-Ord', *tui̯* 'you-Inf'), verb (*nao̯* 'take', *bɔl* 'speak'), adjective (*tʰik* 'right', *bɔd* 'bad', numerals from 1 to 10, etc.), adverb (*kʰub* 'very', etc.), postposition (*pɔr* 'after', etc.), and others (*ba* 'or', *na* 'not', *hæ̃* 'yes', *cʰih* 'fie!', *to* 'so', etc.).

2.5 Syntactic

Syntactic implications include the case assignment and verbal agreement properties and the holophrastic aspect of Bangla monosyllables.

2.5.1   Case assignment

Monosyllables may assign case to a relevant syntactic category, e.g. the monosyllabic postposition *pɔr* 'after' assigns genitive suffix to its immediately preceding noun, *gan-er pɔr* "song-Gen after" 'after the song'.

2.5.2   Verbal agreement

In Bangla, monosyllables may play an active role in verbal agreement. The verbal agreement may vary depending on a monosyllabic subject of the sentence, e.g. *tui̯ likʰbi* "you-Inf write-will" 'you will write', but *ʃe likʰbe* "s/he-Ord write-will" 's/he will write'.

2.5.3   Holophrase

A holophrase is a one-word sentence. In Bangla, monosyllables may be used as holophrases, e.g. *ma* 'Oh mother!', *ki* 'What?'**,** *to* 'So what?', etc.

2.6 Lexical

Bangla has a segmented lexis. With reference to the source, the words, including the monosyllables, are commonly classified into three strata:

1)   Direct adoptions from Sanskrit, traditionally termed *tatsama* 'equal to that' (*tat* 'that', *sama* 'equal'). Examples of monosyllables are, *rup* 'beauty', *gun* 'quality', etc.

2)   Native Bangla words rooted in Sanskrit and Prakrit, termed *tadbhava* 'derived from that' (*bhava* 'derived'), e.g. *dui̯* 'two', *tin* 'three', *car* 'four', *pãc* 'five', etc.

3)   Other borrowed stocks that include Turko-Perso-Arabic items and items from English, Dutch, Portuguese, French, Chinese, Gujarati, Tamil and other, even forgotten, origins, e.g. *lai̯n* 'line', *dost* 'friend', *ca* 'tea', *ʈæks* 'tax', etc.

Bangla has a very receptive nature as far as the fortification of lexis is concerned. These three strata build up the active vocabulary of the native speakers. In the borrowed stock, degrees of naturalization are identified, e.g. *lai̯n* 'line', *bæŋk* 'bank' do not stand out as loans, while *jerɔks* 'xerox' shows semi-naturalization, and *sɔfʈoær* 'software' almost zero-naturalization (Dasgupta, 2003). While commenting on lexical diversity of Bangla, Dasgupta (2003) uses the numerals, a representative sector, and notes that in Bangla

i)   cardinals are *tatsama* at 0 and 1

ii)   *tadbhava* from 2 to 100

iii)   Persian at 1000

iv)   *tatsama* for ordinals from 1 to 10

v)   *tadbhava* for date (*pɔe̯la* '1st', *doʃra* '2nd'**...**) and playing cards cardinals (*duri* '2', *tiri* '3' **....**), and

vi)   English for ordinals in academic and other competitive contexts (1st, 2nd, 3rd)

Bangla phonology comprises reflections of all these stocks, e.g. complex onsets identify loans from Sanskrit, English, etc. while complex codas loans from English and Persian. Thus, the canonical shape of a monosyllable gives clue for the strata which it belongs to.

3 Generalizations

The current section will present a few general observations on the canonical shapes and optimal pattern of Bangla monosyllables. Though in this regard the tools and concepts of the theory of metrical phonology play a significant role, we decide to stay away from the theoretical complications as far as practicable in this paper. The data and claims made in this paper are empirical in the sense that anyone knowing Bangla as one's 1st or 2nd tongue can always check them intuitively – a fact that well justifies our decision.

3.1 Canonical Shapes

Though a number of studies have already highlighted the various aspects of Bangla syllables, for example, the phonetic length and sequences at the boundaries of syllables (Hai, 1964), the segmental composition and frequency of occurrence of syllables (Mallik, 1960; Mallik et al., 1998), the canonical shapes and their metrical relevance (Sarkar, 1979, 1986), analysing Bangla syllables in the metrical framework (Dan, 2004) and in the Optimality framework (Kar, 2009), none of the studies provides any statement on monosyllables.

The studies mentioned above attest 16 canonical shapes of Bangla syllables of which 15 are found in monosyllables. The canonical shapes may be broadly categorised into three groups, viz. vowel final, e.g. *ne* 'you-Inf take', diphthong final, e.g. *bʰai̯* 'brother', and consonant final, e.g. *pʰul* 'flower'. The last group may further be categorised into two sub-groups, viz. with a simple vowel as the peak, e.g. *pʰul* 'flower', and with a diphthong as the peak, e.g. *tei̯ʃ* '23'. A notable point here is that the initial consonant or consonants, i.e. the onset part, hardly play any role in this categorization, a point that gained sufficient justification in the fields of both phonology and metrical study.

In the phonological literature, the diphthongal peaks of Bangla monosyllables are represented as VV, more visibly V_1V_2, sequences, in which

1)   the V_1 is always [+syll], i.e. a pure vowel

2)   the V_1 is always higher than the V_2 in term of vowel height

3)   the V_2 is a semivowel with the feature [-syll], i.e. more like a consonant

4)   the 2nd V is more like a consonant in many respects, viz. phonetically, morphophonemically, and metrically.

In metrical phonology, the segmental makeup of syllables is represented hierarchically in terms of tree diagrams, where the highest node syllable branches into onset and rime; then at the next level, the rime node branches into peak and coda. Treating every [-syll] segment under the rime as coda, a decision which would not yield any adverse

consequence in Bangla phonology, the tree structures of the above groups and sub-groups of Bangla monosyllables will be as follows:

i)   Vowel final monosyllables will have nonbranching rime, i.e. the rime branch will contain only the peak, the V, but no coda.

ii)   Diphthong final monosyllables will have branching rime, i.e. the rime will branch into the peak, the V_1 and the coda, the V_2.

iii)   Consonant final monosyllables with a diphthongal peak will have branching rime, i.e. the rime will branch into the peak, the V_1, and the coda. Further, the coda will branch into two coda segments, the V_2 and the C.

iv)   Consonant final monosyllables with a simple vowel peak will have branching rime, i.e. the rime will branch into the peak, the V, and the coda, the C. The coda may further branch if it contains more than one consonant.

In metrical phonology, syllables with branching and non-branching rimes are termed heavy and light, respectively. Thus, the diphthong final and both the types of consonant final monosyllables, i.e. (ii), (iii) and (iv), together are considered heavy syllables, while the vowel final ones, i.e. (i) light.

Following the above principle of metrical phonology, viz. syllables with branching rimes are heavy, and those with nonbranching rimes are light. The 15 canonical shapes of Bangla monosyllables may be grouped as light and heavy as follows.

Light			Heavy		
V	e	'this person'	CVC	gac^h	'tree'
CV	ki	'what'	VC	aʈ	'8'
CCV	sri	'Mr.'	CCVC	gram	'village'
CCCV	stri	'wife'	CVVC	douɽ	'run'
			CCVVC	praij	'prize'
			CVCC	last	'last'
			CCCVC	strir	'wife's'
			VVC	ai̯n	'law'
			VV	ae̯	'income'
			CVV	boi̯	'book
			CCVV	prae̯	'almost'

3.2 Optimal Pattern

Based on the 15 canonical shapes shown above, a generalization on the structure of Bangla monosyllables may be drawn as follows:

(C)(C)(C)V(V)(C)(C)

It means at the onset position, i.e. before the peak, a monosyllable may have maximum three consecutive consonants and minimum no consonant at all; at the peak position, it may have at the most two segments and at least one, and at the coda position, i.e. after the peak, maximum two consonants and minimum no consonant at all. This may also be expressed as follows:

$$C_0{}^3V_1{}^2C_0{}^2$$

On the basis of the above generalization, we propose below the optimal pattern of Bangla monosyllables:

CCCVVCC

However, the optimal pattern has no exponent in the language. Other generalities are furnished below.

i)   The most preferred canonical shape in Bangla is CV.
ii)   Complex onsets single out loan monosyllables from English and Sanskrit.
iii) Complex codas single out loan monosyllables from English and Persian.
iv)   Complex onsets and codas are simplified in the non-standard varieties of Bangla by means of either deletion or epenthesis though they are generally retained in the standard tongue.

4. Conclusion

In conclusion, we provide a few typological statements on Bangla monosyllables in comparison with the syllables of other languages.

i)   Bangla monosyllables like those in Sanskrit and Gujarati register has word-final deaspiration, unlike languages that retain aspiration word finally, such as Hindi.
ii)   Bangla has light and heavy monosyllables, unlike languages with a three-way division of syllables, viz. light, heavy, and extra heavy, as in Arabic.
iii) Bangla allows both open and closed monosyllables, unlike languages like Shona and Fijian that allow only open syllables.
iv)   Bangla has four semivowels, viz. i̯, u̯, e̯, and o̯, unlike languages with two semivowels, such as English, Hindi, Gujarati, Tamil, Khasi, Angami, etc.
v)   Bangla monosyllables allow restricted voicing in obstruent clusters, both the members being either voiced or voiceless, unlike languages that reject any voicing, such as Maori, Ainu, as well as languages that allow unrestricted voicing, such as Kannada, Tulu, etc.
vi)   In Bangla monosyllables, onsets are optional, unlike languages with obligatory onsets, such as Arabic.
vii) Bangla monosyllables invariably reject geminate onsets and codas, unlike languages that allow geminate onsets, such as Leti, Trukese, or geminate codas, such as Hungarian.

viii)   Bangla monosyllables allow complex onsets and in borrowed items even complex codas, unlike languages that invariably reject complex onsets and codas, such as Japanese.

Notes

1. Phonotactics determines the set of permissible arrangements of sequences of speech sounds in a given language. It rejects the unacceptable sound sequences by means of phonotactic constraints which are highly language specific. For example, [st] is not a permissible cluster in Japanese, though it is a permissible one in Bangla.

2. The Sonority Sequencing Principle imposes restrictions on segment sequencing in syllables. It states that the peak of a syllable has the highest sonority value, while between the peak and the syllable boundary, on both sides, the sonority values increase as one nears the peak and decrease as one moves away from the peak, e.g. #12321#. Each sound segment is assigned a sonority value on the sonority scale, the low vowels being assigned the highest value while the voiceless stops the lowest. For a detailed discussion, see Dan (2012).

Abbreviations

1   1st person

2   2nd person

3   3rd person

Cl   classifier

For   formal

Gen   genitive

Imp   imperative

Inf   informal

Ord   ordinary

Pres   present tense

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