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BENGALI PHONETICS

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A. THE SOUNDS OF BENGALI

§ 1. Bengali is spoken by over 48 millions of people, and naturally it has many dialects. These dialects range themselves into four main groups—Western, North Central, Northern, and Eastern (with a South-Eastern sub-group). The morphological differences between the four groups of dialects are slight, except in the case of the South-Eastern sub-group; but considerable divergences exist in sounds and phonology. These divergences, however, are not so great as to create mutual unintelligibility among speakers of Bengali in different parts of the country, except, perhaps, in the extreme east and south-east. The language which is commonly used in literature is a “high” dialect, which is composite in its inflections, although it is based mainly on West Bengali of several centuries ago. The grammar of this “high” Bengali—the *sādhu bhāṣā*, as it is called—is archaic, and explains most of the forms of the modern dialects as presenting the prototypes of these latter; but its pronunciation and intonation vary with the different dialectal areas.

§ 2. A study of Bengali phonetics, in order to be complete, must take into consideration the sounds of all the dialects. Such a task is beyond the scope of a short sketch like the following. Moreover, I cannot claim to possess enough knowledge of all the forms of spoken Bengali. Besides, in the study of the phonetics of a language, some dialect or other must be taken up as the basis or norm, even when the aim is to investigate historical or comparative phonology. I shall, therefore, take up one dialect

only—my own, which is that habitually spoken by the educated classes of Calcutta and of West Bengal generally. Like Southern English in Britain, this dialect is at present the dominant one, both in life and literature. It is understood all over the country ; it has already become the speech of the educated people everywhere, modified, no doubt, by local pronunciation and intonation in varying degrees ; the literary language has been profoundly influenced by it, so much so that present day literary Bengali is often nothing but the Calcutta colloquial, with only a few archaic inflections for the verb ; it is freely used in literature, especially in poetry, drama, and fiction, and there is a strong body of writers who advocate the supersession of the old literary language by this living and vigorous form of spoken Bengali. Grammatically it is more advanced than most other dialects. Besides, it is the pronunciation of this dialect alone which is the recognized standard for the literary language. For these reasons, the standard colloquial of Calcutta is particularly suitable as a basis for the study of Bengali phonetics as well as morphology.

§ 3. In phonetic studies, whether general or of a special language, the letters of the alphabet of the *International Phonetic Association* alone should be used as symbols for speech-sounds. The International Phonetic Script is the only phonetic system of writing that is based on the most up-to-date scientific treatment of the subject ; it has become within recent years the one recognized system to be employed in phonetic work, and has already become truly international by being used for languages of Europe, Asia, and Africa. Like the symbols for the elements in chemistry, the symbols for speech-sounds, the elements in spoken language, should be represented by the same letters, no matter what the language is ; and the I.P.A. script alone of all existing phonetic scripts supplies the best possible symbols, under the present circumstances. As such, I would advocate the employment of these symbols (p, t, f, ç, w, etc.), even in works on phonetics written in languages such as Bengali, Tamil, Persian, or Japanese, which do not use the roman script, upon the basis of which the I.P.A. alphabet is built ; just as every student of chemistry would insist on the employment of the symbols H, S, Na, K, etc., in a Bengali, Tamil, Persian, or Japanese book on that science.

§ 4. The principles as well as methods and terminology of the modern science of phonetics need not be recapitulated. These methods have been applied, so far, to three Indian languages—Panjabi (in Dr. T. Grahame Bailey's *Panjabi Phonetic Reader*, University of London Press, 1914), Sinhalese (in Messrs. H. S. Perera & Daniel Jones' *Colloquial Sinhalese Reader*, Manchester University Press, 1919), and Bengali. The I.P.A. alphabet has also been applied to some extent in recording the pronunciation of Tamil and Telugu, and of some of the languages of Burma. The late Dr. J. D. Anderson's paper on Bengali phonetics was published in the *Bulletin of the School of Oriental Studies* for 1917. I have expressed elsewhere (in the *Calcutta Modern Review* for January, 1918) some of my

views on Bengali phonetics and phonology. The present sketch is an attempt to record as accurately as possible the speech-sounds of the Bengali language as spoken by the educated classes, with a view to help foreigners to acquire a correct pronunciation of these speech-sounds by visualizing them, as well as to provide additional material in the study of general phonetics.

§ 5. The Bengali language has thirty-five essential "phonemes",¹ although the number of actual "speech-sounds" is greater. These are represented in the International Phonetic Script by the letters p, b, t, d, ʈ, ɖ, k, g, ɕ, ʝ (or c, ɟ with a conventionalized value), m, n, ŋ, l, r, ʀ, s, ʃ, h, ɔ̃, ɛ̃, ĩ, ī, e, ē, æ, æ̃, a, ă, ɔ̃, ɔ̃̄, o, ȯ, u, ū. To these may be added F, ʋ, f, v, z, ʌ: but these are non-essential sounds, although quite common; the first four occur as common substitutes for ph, bh, but they are not used by all speakers; z occurs mostly in foreign words, and occasionally as a variant of ʝ; and ʌ is sometimes found in borrowed words; but the use of ʝ for z, and of æ, a, or ɔ̃ for ʌ is quite normal.

§ 6. Several of these phonemes include more than one sound, e.g. the n phoneme, the ʃ phoneme, the l phoneme, the h phoneme.

§ 7. It would appear that the analysis of sounds as presented by the arrangement of the Indian alphabetic system (which referred to Indo-Aryan phonetics of several centuries B.C.) does not fully apply to Bengali, since Bengali sounds have developed a great deal, and the old Indian sound analysis, in spite of its wonderful scientific accuracy, is itself capable of restatement in the light of modern phonetics.

¹ "A *phone* or *speech-sound* is a sound of definite acoustic quality produced by the organs of speech. A given speech-sound is incapable of variation."

"A *phoneme* is a group of sounds which are related in character, and are such that no one of them ever occurs in the same position as any other in connected speech in a particular language."

Thus, l (front or "clear") and ɭ (back or "dark") are different speech-sounds, and to represent properly the South English words *let* and *well* in phonetic script we should write lɛt, wɛɭ. So *little*=litt. But, since in English l is not heard in positions where ɭ occurs, they are regarded as different forms of one l-*phoneme*. So, too, in Bengali, the l sounds in the words আলু lac-dye and উলটা upside down are different—in the first instance the sound is dental, because it precedes a dental ড—alta, in the second, it is rather retroflex, occurring between the back vowel u and the retroflex ট—uɭta. ɭ is not a sound which occurs in any other position in Bengali, and it and the more common "clear" l are members of one phoneme in Bengali. For practical purposes it is not necessary to represent in phonetic transcription all individual speech-sounds in a language, except where a very minute or comparative study is required, or where the different values of the same phoneme are based on complicated phonological laws which cannot be easily tackled by a foreigner. Otherwise quite a large number of symbols would be necessary for one single language. The most common and typical sound only of a phonemic group is generally adopted for visual symbolization by means of a letter: thus one l would do for both l and ɭ in English, and l and ɭ in Bengali. Ignoring l and ɭ pronunciation will not affect the meaning of the word, although a foreign speaker should try to pronounce them at the proper place.

§ 8. The sounds of standard colloquial Bengali can be arranged in tabular form as follows:—

CONSONANTS

	Bilabial	Dento-labial	Dental	Alveolar	Palato-alveolar	Palatal	Retroflex	Velar	Glottal
Plosive	p b		t d				t̪ d̪	k ɡ	
Affricate					ç ʃ				
Nasal	m			n				ŋ	
Lateral				l					
Flapped				r			r̠		
Fricative	(f ʋ)	(f ʋ)		s (z)	ʃ				h (h)
Semivowel	õ					ẽ			

VOWELS

	Bilabial	Front	Central	Back
Close . . .	[u]	i ī		u ũ
Half close .	[o]	e ē		o õ (ò)
Half open .	[ɔ]	æ æ̃ (Δ)		ɔ ɔ̃
Open . . .			ɑ	ã

THE CONSONANTS

§ 9. The voiceless plosives p t̪ k are, unlike the ordinary English voiceless plosives, unaspirated—there is not the accompaniment of slightest breath in their pronunciation.

§ 10. Initial and final b d̪ ɡ are only slightly voiced, but full voicing occurs in intervocalic position.

§ 11. There is complete explosion of the first element of a plosive group like pt̪ p̪t̪ kt̪ k̪t̪, etc. But where the same plosive occurs doubly, the first one is unexploded. In English, in a consonant nexus like kt̪ pt̪ tk̪ ɡd̪, etc., the first element is not fully exploded, e.g. compare Bengali bhokti ভক্তি *faith*, lipto লিপ্ত *smeared*, çitkar চীৎকার *shout*, bagdi বাগ্দি *a caste*, with English *fact* fækt̪, *apt* æpt̪, *begged* beg̪d̪ (the ̪ indicating the absence of plosion in the k p ɡ).

§ 12. p, b : pa: পা *foot*, ɔpɔr অপর *other*, pa:p পাপ *sin*; baba বাবা *father*, ʃi:b শিব *Śiva*.

§ 13. t̪ d̪ are true dentals, made by striking the point of the tongue against the back or the edge of the upper teeth. The tongue is fully spread out, as in pronouncing the English *th*=θ, ð. Examples—ta:p তাপ *heat*, pa:t পাত *leaf*, t̪t̪o তত *so much*; dada দাদা *elder brother*, çã:d চাঁদ *moon*.

§ 14. *t̪ d̪* are slightly higher than the S. English alveolar *t d*, the point of articulation being just behind the teeth-ridge. They are therefore not the true retroflex sounds which are heard in Tamil, Telugu, Kannada, and perhaps Panjabi; they might be called "supra-alveolar" or "forward or pre-retroflex". The tip of the tongue, however, is just slightly curled up. *ṭaka* টাকা *rupee*, *boṭe* বটে *is indeed*, *ṣaṭ* ষাট *sixty*; *ḍa:b* ডাব *green coconut*, *aḍḍa* আড়া *rendezvous, club*.

ḍ final or intervocal, unless doubled in the latter case, becomes *r̪* in Bengali.

The English alveolar sounds are ordinarily regarded by all Bengali speakers as equivalent to their *t̪ d̪*, e.g. *ṭebil* টেবিল = *table* *t̪eibɪ*, *ḍepuṭi* ডেপুটী = *deputy*. The difference between the dental and retroflex sounds is of very great significance, e.g. *paṭ* পাট *jute, fold*, and *pa:t* পাত *leaf*; *kaṭ* কাট *awry*, and *ka:t* কাট *cut*; *dana* দানা *grain, oats*, and *ḍana* ডানা *wing*.

§ 15. *k g*. Articulation as in English. Before front vowels articulation more forward, but not sufficiently to produce *c, ɟ*. *ki* কি *what?*, *bo:k* বক *heron*; *ga:c̪h* গাছ *tree*, *ra:g* রাগ *passion*.

§ 16. The affricates *č̪ ʃ̪* are pronounced by the normally spread-out blade of the tongue well against the teeth-ridge where it commences from the hard palate. They are sounds in which the palatal plosive elements (*c ɟ*), produced at a rather forward position, are blended with *ʃ ʒ* glides. The English sounds of *ch j* = *t̪ʃ d̪ʒ*, are pronounced in the first instance by the tip of the tongue. *č̪ ʃ̪* are acoustically very similar to *t̪ʃ d̪ʒ* and other similar alveolar affricates, but there is some difference in their production. There is no accompanying lip rounding, which is present in the English sounds, except when the sound is emphasized. The Spanish *ch* is said to be a palato-alveolar sound like the Bengali *č̪*.

A Bengali speaker is accustomed to regard *চ জ* *č̪ ʃ̪* as simple plosive sounds, since the palatal plosives *c* and *ɟ* do not occur in the language by themselves, and the old Indian system of phonetics and the graphic system based on it recognize only palatal plosives. In fact, in Old Indo-Aryan (Vedic and Sanskrit) the sounds were plosives—*c ɟ*, or even *kj gj*; in Middle and New Indo-Aryan they became corresponding affricates. The theory of affricates is a recent one; but that the sounds of the Bengali letters *চ ছ* are not simple "stops" can be shown by continuing the *ʃ* (or *ʒ*) glide, e.g. *ma:c̪ʃʃʃʃ* . . . মাছ *fish*, *a:ʃ̪ʒʒ* . . . আজ *to-day*. Old Indo-Aryan possessed the palatal plosives *c ɟ* when the sounds of Vedic (Sanskrit) were first studied by the ancient Indian grammarians; but these sounds later became affricates, and it is the affricate values that have mainly come down to the New Indo-Aryan languages. *č̪a*: চা *tea*, *ač̪ol* আঁচল *skirt, hem*, *kā:c̪* কাঁচ, কাচ *glass*; *ʃ̪a*: যা *go*, *raʃ̪a* রাজা *king*, *ka:ʃ̪* কাজ, কায *work*.

c and ʃ do not occur as phonemes in Bengali; as a matter of convenience, when only the phonetics of Bengali, without any reference to that of Sanskrit or Vedic (i.e. Old Indo-Aryan), is studied, c ʃ might be employed to represent the affricate sounds of ʈ ʂ, as it has been done by Dr. Grahame Bailey in his *Panjabi Phonetic Reader*.¹ In this way the use of these cumbersome ligatures, which may not be found in every press, can be avoided.

§ 17. m. Fully voiced nasal. ma: মা *mother*, mama মামা *maternal uncle*, na:m নাম *name*. Intervocal m tends to pass into a nasalized ɔ, and even to a mere nasalization of the contiguous vowels in quick speech; cf. § 31. An unvoiced ɱ occurs in the exclamatory word হুঁঃ = hūh, pronounced ɱm, as in English.

§ 18. n. Ordinarily it is an alveolar sound. Before t d it is somewhat forward; before ʈ ɖ it is cerebralized, but acoustically that is not noticeable. na: না *no, not*, kanna কান্না *weeping*, ka:n কান *ear*, onto অন্ট *end*, kontho কণ্ঠ *neck*.

§ 19. ŋ. As in English *sing*. Can occur intervocally, but does not occur initially, e.g. ro:ŋ রং, *colour*, genitive roŋer রঙের, *বস্ত্রের*.

§ 20. l. Ordinary clear l, as in English *long*. The dark variety, as in English *cycle*, is not heard in Bengali. Before retroflex sounds ʈ ɖ, l has a subsidiary retroflex value, e.g. phulṭi ফুলটি *the flower*, but this need not be written by a special symbol, as it is found in no other position. The unvoiced ɭ is unknown. lekha লেখা *writing*, kola কলা *plantain*, la:l লাল *red*. In the speech of women and children and of the uneducated classes there is a tendency (noticed from early times, and now modified by education) to pronounce an n for an l, in initial positions. The reverse (change of n to l) is also to be noticed in the speech of the lower classes.

§ 21. r. It has two, or rather three, values. Initially it is an alveolar rolled r (with two or three taps of the tongue against the teeth-ridge); medially and finally it is just an alveolar flap. Before ʈ it has a slightly higher articulation. The genuine fricative ɹ is unknown, but a slightly fricative yet rolled r, not a flap, is sometimes the only one with some speakers. There is no unvoicing of r in Bengali. ri:n ঋণ *debt*, korā করা *to do*, ma:r মার *strike*.

§ 22. ɽ is a sound which cannot be called strictly a retroflex one. The tip of the tongue is curled up, and is brought near the point of articulation for ʈ ɖ, but is quickly made to move forward and strike against the teeth-ridge with the underneath side, and then lie flat; or, in other words, it is raised to the retroflex position and then made to fall flat, hitting the teeth-ridge with the underneath side on the way.

¹ Dr. Bailey, however, calls the Panjabi sounds plosives. They appeared to me acoustically to be identical with my Bengali sounds.

r and ɾ are distinct sounds in Bengali, and the distinction is retained in educated speech everywhere; e.g. pa:r পার *a going across* and pa:ɾ পাড় *border, bank*; ka:r কার *whose?* and ka:ɾ কাড় *snatch away!* But in certain class dialects in Calcutta and elsewhere, r and ɾ are confused; with the spread of education this is disappearing. In East Bengal, r, except in a few localities, always becomes r.

ɾ never occurs initially in Bengali, or doubly. ha:ɾ হাড় *bone*, gaɾi গাড়ি *carriage*, paɦaɾ পাহাড় *hill*.

§ 23. s. This is a rare phoneme in Bengali; it occurs in native words only before t d n l and r: ɔsto অস্ত *setting*, stɦa:n স্থান *place*, mesda, also mezda (মেজদা) *second elder brother*, sna:n স্নান *bath*, sɦi:l শ্লাল *decorous, genteel*, sri: শ্রী *prosperity, beauty*. s may occur also before p initially: spordɦa স্পর্ধা *presumption*, sphurti স্ফূর্তি *hilarity*. But ʃt ʃd (beside zd, and, with some, ʒd, but this is rare) ʃn ʃl and ʃr also occur; also ʃp. s may be regarded as a subsidiary member of the ʃ phoneme, and as such may be omitted from the list of essential phonemes. But s and ʃ serve to distinguish some words from each other, at least in the speech of some: although the feeling of the native speaker does not distinguish between s and ʃ ordinarily, in the standard colloquial form of Bengali. Thus: aʃto আস্ত *he used to come* and asto আস্ত *entire*, aʃte aʃte আস্তে আস্তে *while coming* and aste aste আস্তে আস্তে *slowly*; the verbal forms, however, may be pronounced with st, and the adjectival and adverbial words with ʃt. But since ʃ and s alone would distinguish words like above, the adoption of it as a distinct phoneme might be justified. In East Bengali s, corresponding to ɕɦ হ of West Bengali, forms a distinct phoneme.

s: occurs as an interjection as a variant of ʃ: in educated speech.

st of English becomes sɦt in the speech of those who know some English, and ʃt in that of ordinary people: maʃtar মাস্টার *master* (sometimes maʃtɔr মাস্টর), 'iʃɦiʃɔn, 'eʃɦeʃɔn, 'steʃɦn ষ্টেশন *station*.

§ 24. ʃ is without lip rounding; it is more forward than the English ʃ: ʃɔɦiʃeʃ ʃবিশেষ *in detail*; ʃundɔr হুন্দর *handsome*; bɔɦʃa বর্ষা *rains*.

Before t, ʃ may be said to have a retroflex value, ʃɦ, but it is only a subsidiary form of the phoneme, which has no noticeably different acoustic quality. ʃɦ is the characteristic sound of Bengali when contrasted with other Indo-Aryan languages. Certain classes (Muselman working classes mainly) in Calcutta, through Upper Indian influence, use s for ʃɦ; this is avoided by the true Bengali speaker, and is as much a sign of vulgar speech as the dropping of h in words like *hall, hat, head* in English.

§ 25. ɦ (= ɦ̣). It is the voiced variety of the ordinary English h, which occurs in English in an intervocalic position, as in the words *behind, perhaps*. ɦ occurs in all positions, except finally after a vowel,

in Bengali, e.g. *h̄a:t হাত hand*, *āha আহা ah*, *b̄ha:r ভার burden*, *la:b̄h লাভ gain*. An unvoiced variety, a subsidiary form of this phoneme, *h*, also occurs, after the voiceless stops to form the unvoiced aspirates *ph th ṭh kh* and *çh*. In some interjections, in a final position, unvoiced *h* is also found, but the quality of the preceding vowel changes it to a fricative of the corresponding class, e.g. *a:h আঃ*, also *a:x*; *ih ইঃ*, also *iç*, occurring also as *if:*, *f: ইশ্*; *eh > eç: এঃ*; *uh, oh উঃ, ওঃ*, also *uf of*, *uf*, *of*.

In English loan-words *h* becomes *h̄*: 'haiko(r)† হাইকোট *High Court*, etc.

In very quick speech intervocalic *h̄* is unvoiced, or even dropped: *h̄atah̄ati হাতাহাতি a hand-to-hand fight*, also *h̄atah̄ati, h̄ataati*.

Medial *h̄*, prevocal, and after *m n l*, is very unstable and is commonly dropped, except in careful speech, the preceding consonant being doubled by way of compensation: e.g. *bram̄h̄on, bram̄m̄on ব্রাহ্মণ a brahman*, *ç̄in̄h̄o, ç̄in̄no চিহ্ন sign*, *al̄had allad আল্লাদ joy*.

This phoneme may be represented by *h*, with the necessary convention that it is a voiced sound, occurring unvoiced in interjections and in unvoiced aspirates.

§ 26. The aspirates *ph th ṭh kh çh*, *b̄h d̄h ḷh gh ṣh* are characteristic Indian sounds, and, as they have separate letters, to the average Indian they are simple sounds. The aspirated *ṛh* has hardly a place in modern Bengali phonetics, it being pronounced *r*, except by some careful speakers in Sanskrit words like *muṛḥo মূঢ় fool*, *gaṛḥo গাঢ় deep*. This aspiration has great semantic value, e.g. *pa:t পাট fold, jute* and *pha:t ফাট crack*; *ka:t কাত awry* and *kha:t খাত pit, trench*; *ta:l তাল palm-fruit, time beat*, and *tha:l থাল plate*; *ba:r বার day of the week, outside* and *b̄ha:r ভার burden*; *ḍa:l ডাল branch* and *ḷha:l ঢাল shield*; *ç̄a:l চাল rice*, *ç̄ha:l ছাল skin*; *ṣ̄ama জামা coat*, *ṣ̄hama জ্বামা charred brick*, etc.

§ 26a. There is, however, a strong tendency to deaspiration of aspirated consonants, especially in a medial or final position, in Bengali, and attempts to emphasize the aspiration in a final position would be looked upon as an affectation; e.g. *h̄a:t হাত hand*, cf. Hindostani *h̄a:th*; *b̄a:d̄h বাঁধ dyke*, also *b̄a:d*; *ma:ṣ̄(h) মাঝ middle*; *la:b̄(h)*, also *la:ṭ*, *la:v লাভ gain*; *d̄æ:k(h) দেখ see*; *ba:g(h) বাঘ tiger*; *kocç̄(h)e ক'ছে is doing*.

An aspirate when it occurs before another, or before the corresponding stop, loses its *h̄* or *h*, as the case may be: e.g. *roth̄ola রথতলা place where the car-festival is held*; so *kaṭ(h)ṭhokra কাঠটোকা woodpecker*.

§ 27. *o*. The sound of *w* (=consonantal *ü*) does not occur in Bengali, and groups like *wu we wi wo* can only be pronounced with difficulty

by Bengali speakers : attempt to pronounce wu will bring in the glottal stop, 'u. we, wi, wɔ will give œ, ui, ɔ: or uɔ. The language has a consonantal ɔ which occurs only intervocally, mainly before a, in native words, e.g. hɔɑ হওয়া to be, khaɔɑ খাওয়া to eat, relœ রেলওয়ে railway. This ɔ may be called the second element in a number of diphthongs (see § 48).

ɔ initially occurs in a few foreign words: ɔakɔph, ɔakɔF, ɔakɔf ওয়াকফ *Moslem religious trust property*, "waqf." -ɔ- was originally a glide; it can be dropped: hɑɑ হা to be, khɑɑ খা to eat, etc. (see § 49).

§ 28. ɛ. This is the Bengali equivalent of j (=consonantal i of English and other languages). The real fricative or semivowel j is unknown to Bengali, i being substituted for it. ji would become 'ʔi, je, ja, jo, ju would become 'ie, 'ia, 'io, 'iu. e.g. Persian ja:r friend > Beng. 'iar ইয়ার *boon companion*; 'iorop, 'iurop ইয়োরোপ, যুরোপ *Europe*. Medially ɛ is found between two a's, e.g. maœa মায়া *illusion, love* (not maja or maia), and between ɔ and a: dœa দয়া *pity*. Finally, it occurs after ɔ a e œ o, forming the second part of diphthongs (see § 49).

Except in words borrowed newly from the Sanskrit, ɛ in native words is more of a glide origin than anything else.

In modern Bengali ɛ very frequently occurs between two vowels to avoid a hiatus in a breath-group: Jeœelo সে এলো *he came*, par kœœɑ-mare পার কর আমারে *make me cross over*, etc. Cf. the intrusion of r in English ɔi andiœrœvit *the idea of it*, indœrœfis *India Office*, etc.

§ 29. z. As in English, with medium voice. Not a native sound in Bengali, i.e. it cannot be found as an original or essential sound in a single native word. Yet it has developed in a few words from ʃ or ʃh, e.g. jezda সেজদা *third elder brother*, from jeʃ(ɦ)ɔdɑɑ; buzte (also buzte buste) বুঝতে *to understand*, from buʃh(i)te. In a number of foreign names and words z occurs, but one can employ ʃ, or in certain cases s, in pronouncing them; but it would be regarded old-fashioned or uneducated to do so, especially in English and other European words not naturalized; e.g. nizam, niʃam নিজাম *the Nizam*, brezil, breʃil ব্রেজিল *Brazil*; ʃebɦiar, zebɦiar, zœviar, zœviar জেভিয়ার *Xavier*, etc.

z strictly should be regarded as a subsidiary value of the ʃ phoneme; but because it is a sound which is quite different in acoustic quality from the latter, and is quite common in educated speech, it is better to give it a place in the list of essential sounds in Bengali, although not a phoneme.

§ 30. f F, v ɔ. The aspirate ph is pronounced very commonly as a dento-labial f, or as a bilabial F, but all speakers recognize ph to be

the “correct” sound, and careful speakers say ph. f F ph, all these three are in fact used by the same person; except that f seldom occurs initially, but in the speech of the younger generation of people in Calcutta, it (f) is fast becoming common. F and ph, especially the latter, are the sounds heard in the villages and among those who know no other language, e.g. pho:l, Fɔ:l or fo:l ফল *fruit*, prophullo, profullo, profullo প্রফুল্ল *cheerful* (also a name). Final and intervocal ph tends to be deaspirated, hence we have hã:p, hã:ph হাঁফ *deep breath*, but very rarely hã:F or hã:f; but all the four in lafalafi, lafalafi, lafalaphi, or lapalapi লাফালাফি, *leaping and jumping* afif, afif, aphif, apif আফিস, আপিস = Eng. *office*.

v, ʋ are similarly used for bh. Effort to pronounce the full aspirate sometimes gives vʰ or ʋʰ. Initially, bh is more common than v or ʋ. bhai ভাই *brother*, bhalo ভাল *good*. Medially, ʃobha, ʃʋʋa, ʃʋʋa সভা *meeting, society*; obhibhabok, oʋibʋabok, ovivabok অভিভাবক *guardian*. Final bh is either deaspirated to b, or changed to ʋ or v, but rarely pronounced as a full-voiced aspirate: la:b, la:v, la:ʋ লাভ *gain*, fulob, fulov, fulʋʋ সুলভ *cheap*.

ph and bh should be used in phonetic transcriptions ordinarily, as f F and v ʋ pronunciations have not ousted the older aspirates, and as the aspirates are recognized to be the proper sounds, the best speakers avoiding the fricatives. For a foreigner to pronounce ph and bh initially and medially (see above, § 26a) would be perfectly proper, and no native speaker would notice anything un-Bengali, more so when in this matter the Bengali habit is capricious, and has not decided entirely for one of the three groups—ph bh, F ʋ, or f v.

§ 31. In unstressed syllables intervocal b d g m have a tendency to become a sort of ʋ ð g ʋ, with very little audible friction, when words are pronounced carelessly; e.g. baba বাবা *father* = baʋa, or even baʋa; cf. in the Calcutta slang kiʋaʋa, even kiʋa, for kibaba = *I say, old chap*; oʋibʋabok = obhibhabok অভিভাবক *guardian*; dada দাদা *elder brother* = daʋa; kagoʋi কাগজ *paper*; mama মামা *uncle* = maʋa. k intervocal in some words similarly becomes a voiced g; and occasionally the spirants are elided: e.g. dada ʃhakur দাদা ঠাকুর *revered elder brother* (an address of respect to Brahmans among lower classes) becomes daʋaʃhakur, with no friction in ð and g, and even daʋaʃhaur. Compare dialectal (Eastern) Bengali hɔ:l, hɔ:l = hɔ:ɔ:l হুগল *all* for ʃokol সকল. The dialect of Chittagong favours the spirantization and elision most, but in the standard language this spirantization is not universal.

§ 32. There is *regressive assimilation* when stops and aspirates of the same class occur side by side: e.g. æ:k gu:n > æggun এক গুণ *one fold*; me:gh koreʃhe > mekkoreʃhe মেঘ ক'রেছে *it's cloudy*; pã:ʃi

ʃʒo:n > pāʃʒon পাঁচ জন *five people*; so kaecalano for ka:ʃʒ- কাজ চালান *carrying on work*, ʃoppaõa for ʃo:b- সব পাওয়া *get-all*, babbæta for ba:p- বাপবেটা *father and son*, haddækha for ha:t- হাত দেখা *seeing one's palm*, etc. Assimilation by voicing or unvoicing when the consonants belong to different classes is rare, since the first stop in the group is fully exploded: e.g. ad̪hpoʃa আধফোটা *half-open bud*; ʃādpal চাঁদপাল *a name*; lokʃʒon লোকজন *people, attendants*; haʃbaʃʒar হাটবাজার *market*; but it is found in a case like ubgar for upokar > up-gar উপকার *benefit*.

Progressive assimilation is rare, but it is sometimes found, e.g. ʃʒõbdõ জব্দ *punishment* from Pers. zābt (= ضبٹ).

z, however, as a foreign sound, becomes unvoiced before t and ʈ in the speech of many: buzte, buʒte, buste, also buzde বুঝতে *to understand* (from buʃʒhite); kazta, kaʒta, kaʃta কাজটা *that work* (from ka:ʃʒ ʈa).

§ 33. Doubling of consonants, or, rather, their length, is significant; e.g. dibi দিবি *thou wilt give* and dibibi, dibbi দিবি *oath* (also *handsome*) (= Skt. divja *divine*); pata পাতা *leaf*, patta পাত্তা *trace* (a recent borrowing from Hindostani); aʈa আটা *flour*, aʈa আট্টা *eight ones, eight pieces*; ʃokor চকোর *a bird*, ʃokkor চক্কর *whirl, sea-sickness*; mala মালা *wreath*, malla মাল্লা *crew of a boat or ship*; kana কানা, কাণা *one-eyed, blind*, also *edge of a pot*, kanna কান্না *crying*; kāc̣iā কাঁচা *raw*, kācc̣iā কাঁচা *a weight*, etc.

The groups, a plosive followed by the same sound aspirated, like tth, kkh, ddh, etc., are very common.

The mark for indicating length is (:), and instead of doubling the consonants, as is the ordinary practice, it would be more scientific to mark them long: e.g. dib:i, pat:a, aʈ:a, c̣ok:or, kan:a, mal:a, kā:c̣i:fa. In the present paper, however, the old practice has been followed.

Before l r, a consonant is doubled; this doubling is not phonemic, but it may be written in transcriptions, e.g. ɔmmlo (ɔm:lɔ) অল্প *sour*; bhōddro ভদ্র *gentle*; puttro পুত্র *son*; nōmmro (nɔm:ro) নম্র *humble*, etc.

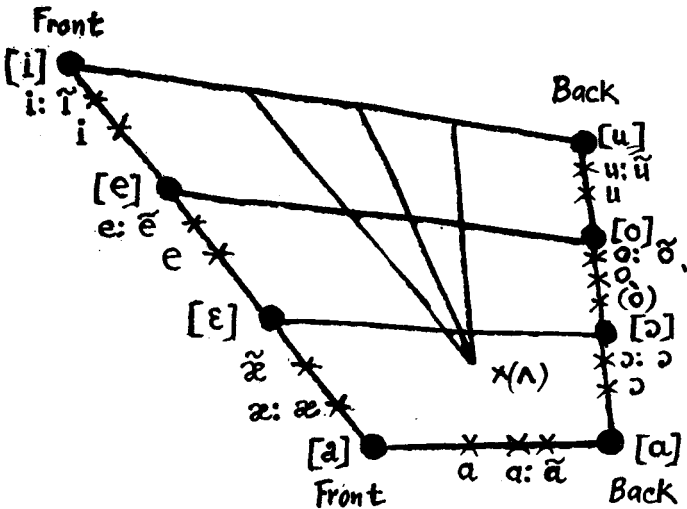
§ 34. Foreign sounds. This is how they are treated in Bengali: z = z or ʒ (or s, e.g. when in English words and names the original spelling has s); alveolar t d = retroflex ʈ ɖ; fricative ɹ = ordinary trilled and flapped r; ʈf dʒ = ʃ ʒ: ʒ = z or ʒ; θ ð = th d; x = kh; ɣ = g. f in foreign words is written by the letter ফ ph, and pronounced ph F or f; v is ordinarily written ভ bh, and pronounced indifferently bh, ʒ, or v.

VOWELS

§ 35. The formation of the Bengali vowels can be shown with greater precision by comparing them with the *Cardinal Vowels* in the

cardinal vowel figure, as below. The theory of the cardinal vowels is a very recent one in phonetics, and one familiar with the cardinal vowels will have no difficulty in making out the approximate values of the Bengali vowels in the vowel figure.

§ 35a. The cardinal vowels are sounds which have certain fixed and definite tongue positions as well as known acoustic qualities. Vowel sounds produced by certain tongue positions, high, low, or middle, front, back, or central, are taken as the standard, and the vowels of different languages are studied with reference to that standard. For a study of the question of cardinal vowels, see G. Noël-Armfield, *General Phonetics*, 2nd ed., 1919, Heffer, Cambridge; D. Jones, *Pronouncing English Dictionary*, 1917, Dent, London; and H. S. Perera & D. Jones, *Colloquial Sinhalese Reader*. The cardinal vowel figure has been used with the kind permission of Mr. Daniel Jones, who has systematically worked and established the idea.



Cardinal vowels [in square brackets], ●.
 Bengali vowels (approximate positions), ×.
 Bengali i tends to be slightly retracted from the cardinal position,
 and Bengali u to be slightly advanced, like Southern English
 i and u.

The tongue positions for the Bengali vowels in the above diagram are only approximate. Exact positions can only be determined by means of X-rays photographs of the mouth in articulating the sounds. The above are the seven (including ʌ, eight) vowels heard in educated speech.

§ 36. i, i. Bengali i: (the long sound) is slightly lower than the cardinal sound. It is a pure vowel, not diphthongized as it frequently is in English.

The short *i* of Bengali is lower than the long one, about halfway or slightly below halfway between cardinal *i* and cardinal *e*. Short *i* in initial syllables very commonly tends to become *e* in the dialect of the city of Calcutta, e.g. *bh̄etor*, *c̄helo*, *petol*, etc., for *bh̄itor* ভিতর *within*, *c̄hilo* ছিল *was, were*, *pitol*, *pitol* পিতল *brass*, etc.

Some people pronounce a long *i*: as only a lengthened form of the short vowel, without any difference in quality, i.e. without raising the tongue for the long sound.

Long *i*: *ri:n* ঋণ *debt*, *ti:n* তিন *three*, *ri:t* রীত *custom*; in reading aloud the literary language, words like *moli:n* মলিন *pale, dirty*, *sthobi:r* স্থবির *old*, etc.

Short *i*: *difi* দিগি *native, country-made or -born*; *biliti* বিনিতি *foreign*; *didi* দিদি *elder sister*; *hiḥibiḥi* হিজিবিজি *scrawls*, etc.

The emphatic particle *i* in words like *tinii* তিনিই *he indeed*, *ḥiabo* যাবোই *I shall go indeed* has a tongue position nearly as high as the long *i*.

§ 37. Bengali *e*: is slightly higher than Bengali *e*, and Bengali *e* (short) is about halfway between cardinal *e* and ϵ . In the standard colloquial, *e* is carefully distinguished from ϵ , but in East Bengal ϵ is substituted for both ϵ and ϵ . *c̄ole* চলে *walks*, *খেয়ে* *kheēe* (also *khee*, and in the pronunciation of some, *kheie*) *having eaten*, *h̄ēfekēde* হেঁসেঁকেঁদে *laughing and weeping*; *ke:ʃ* কেশ *hair*, *be:t* বেত *cane*, *teʃtə* তেষ্টা *thirst*; *onnes̄ɔn* অন্বেষণ *search*; *bekti* ব্যক্তি *person*, *kheti* ক্ষতি *injury*.

§ 38. ϵ :, ϵ . Position a little above cardinal No. 4, somewhat lower than the Southern English sound of ϵ in *mæn* (*man*). Long ϵ : has mouth open wider than in the case of short ϵ . ϵ :k এক *one*, *dæ:kh* দেখ্, *d̄yāḥ* দ্যাখ্ *look thou*, *tæ:g* ত্যাগ *renunciation*, *ottæ:ʃar* অত্যাচার *oppression*, *biggæ:n* বিজ্ঞান *science*, *obbhæʃ* অভ্যাগ *habit*, *hottæ* হত্যা *murder*, *rokkhæ* (commonly *rokkhe* in Calcutta) রক্ষা *preservation*.

α is frequently heard for ϵ when it represents in the middle of a word Middle Bengali $\epsilon\alpha$, written ঙ (i.e. *-yā*), for Sanskrit *-ja*: e.g. *kollan*, besides *kollæn* কল্যাণ *well-being*; *hotta*, *hottæ* হত্যা *murder*; *rokkhā*, *rokkhæ* রক্ষা *preservation* (from earlier *rokkhεα*, Sanskrit *kḥ* becoming *kkh*).

§ 39. ϵ is a sound rarely heard among speakers of standard Bengali, although it is common in East Bengal dialects, e.g. *ke:n* for *kæno* কেন *why*, *te:l* for *te:l* তেল *oil*, *de:ʃ* for *de:ʃ* দেশ *country*, ϵ :k for ϵ :k এক *one*. But the interjection of address, *he* হে *oh*, when used finally at the end of a sentence, is frequently *hē*; but this is not universal, *hæ* being pronounced by many; e.g. *boloto hē* or *hæ বল তো হে* *you say*,

here! dækho to hē or h̄æ দেখতে হে *look here!* h̄æ h̄ε or h̄æ (also h̄e) হাঁ হে *I say!*

In English words like tʃɛə(r), ʃɛə(r), kʰɛə(r) (*chair, share, care*), the ə diphthong becomes ear in Bengali: c̄ɛar, ʃɛar, kear.

§ 40. Bengali a is a clear sound, halfway between the cardinal a and a: mā:, ma: মা *mother*; baba বাবা *father*; amar আমার *my*; hāt হাত *hand*; ga:c̄h গাছ *tree*, etc.

In the “cockney” of Calcutta, a in an initial syllable, with the syllable following having another a, has a frontal pronunciation, that of the cardinal a, in a great many words, and this frontal value is commonly changed to a full æ. This is a characteristic of speech which is avoided by the best speakers. The modification a > a > æ is not consistently carried out, but it is noteworthy that a large proportion of the words showing æ for a have the vowel nasalized; e.g. kātāl > k̄ǣtāl কাঁটাল *jack fruit*, bāka > b̄ǣka বাঁকা *crooked*, kāʃari > k̄ǣʃari কাঁসারী *worker in bell metal*, ʃākharī > ʃ̄ǣkharī শাঁখারি *worker in shells* (but ʃākha শাঁখা *a conch shell* is rarely ʃ̄ǣkha, and kāʃa কাঁসা *bell metal* is never k̄ǣʃa), kākṛa > k̄ǣkṛa কাঁকড়া *crab*, ṭaka > ṭ̄ǣka টাকা *rupee*, etc.

In the pronunciation of some, final a tends to be raised to ʌ, but this is not common; the low a is retained.

a through the influence of a preceding i and u always becomes e and o. This change takes place through vowel-harmony, and is recognized in Bengali; e.g. bina > bine বিনা, বিনে *without*; ninda > ninde নিন্দা, নিন্দে *blame*; Persian xari:dar *buyer* > *khoidar, *khoiddar, khodder খদ্দের; puṛiā > puṛiō পূজা, পূজো *worship*; ṛiuta > ṛiuto রুতা রুতো *shoe*. Similarly, when there is æ in the preceding syllable, a through vowel-harmony is fronted to a, but this is not noticed; e.g. bæbʃa > bæbʃa ব্যবসা *trade*; ækla > ækla একলা *alone*. This fronted a, approaching æ, is a subsidiary form of a, and ordinarily it is not necessary to indicate it in phonetic transcription.

§ 41. ɔ short is slightly lower than the cardinal vowel ɔ, but considerably higher than the English sound in *not*. Ordinarily there is very little or no lip rounding, but long ɔ: has a certain amount of lip rounding, but not so much as in S. English ɔ:. With some among the best speakers of Bengali, ɔ tends to move forward towards ʌ. ɔ is the most characteristic vowel-sound in Bengali, distinguishing it, with the ʃ and b pronunciation of s and ʃ or w, from other Indian languages. A final ɔ at the end of a syllable or word becomes a very lax and open kind of o, and this may be written ɔ or o according to preference in individual pronunciation. This lax o may also be rendered by ò. The more common pronunciation among speakers of the standard colloquial is o. In reading a literary composition in prose or verse, however, ɔ or ò pronunciation is more common than o.

জি:ল জন *water*, bo:r বর *bridegroom*, koto, koto কত *how much*, উপর upr (Calcutta cockney opor) উপর *above*, udô উদয় *rise*, obôfônnô, obôfônnô অবসন্ন *tired*, obôfôfô obôfôfô obôfôfô অবশ্য *certainly*, onôbôrotô onôbôrotô অনবরত *continuously*.

The English short vowel in *not hot* has a guttural quality which is lacking in the Bengali ɔ, because the latter is pronounced with a higher position of the tongue.

§ 42. There is a half-distinct form of ɔ, which results from an attempt to slur a syllable containing ɔ in quick pronunciation. It is at the present day occasionally heard in rapid pronunciation of learned words which when fully enunciated will retain the ɔ, and in common words (which have already dropped the ɔ) when the latter occur in literary composition in high style with a too Sanskritized vocabulary. This indistinct sound may be written °. gombhir'nadi gombhironadi গম্ভীর নাদী *deep sounding*; jagor'toroggo জাগরতরঙ্গ *ocean billows*, çikur'bhâr চিকুরভার *heavy tresses*; ap'nar আপনার *of self*; sut'rang সূত্রাং *therefore*, tar'kesh'or তারকেশ্বর *Tarkeshwar* (a name), up'kar উপকার *benefit*, am'ra আমরা *we*, dor'an दरওয়ান (also dor'an) *gate-keeper*.

§ 43. The o phoneme in Bengali has three values: when it is long, it is a vowel of rather high quality, but slightly lower than the cardinal o; the lip rounding is not so great as in the case of the cardinal sound. Ordinary short o has a lower position than long o, perhaps a little above the middle point between cardinal o and ɔ. There is a third kind, a lax form of o, which may be written ô, slightly above the cardinal ɔ, and which occurs mainly as a modification of an ɔ in a final syllable—in fact, which is a sort of ɔ tending to become an o. Ordinarily, a single letter, o, would be enough for the three varieties. ô is an extremely volatile sound, and no definite rule can be laid down as to its occurrence. e.g.: ro:g রোগ *illness*; bo:n বোন *sister*, বন *forest*; ro:ô রোজ *day, every day*; jio:m যম *Yama (the God of Death)*; soro:ô সরোজ *the lake-born (=lotus)*; oti অতি *much*; ponero, ponero পনের *fifteen*; loha লোহা *iron*; bo:ôha বোঝা *load*; kolu কলু *oilman*; biog বিয়োগ *subtraction, loss*.

§ 44. u: and u present a parallel to i: and i; du:r দূর *distant*, bhut ভূত *ghost*, bhuto, bhuto ভূত *past*, ku:p কুপ *well*, ru:p রূপ *beauty*, sadhu সাধু *good, honest*; nupur নুপুর *anklet*, mukut মুকুট *crown*, kukur কুকুর *dog*, dhonuk ধনুক *bow*, bosu বসু *wealth (a surname=Bose)*. u short interchanges with o in a few words, especially through laws of vowel harmony, e.g. joê শোয় *he lies down*, but su-e শুয়ে *having lain* from juia শুইয়া; gona গোণা *counting*; but guni গুণি *I count*.

u: has no tendency towards diphthongization.

§ 45. ʌ, as in English, Hindostani, etc., occurs in a few foreign words. English ə becomes ʌ when any attempt is made to pronounce in the English way. ʌ is not universal in Bengali, in fact, it is distinctly a foreign sound; ɔ, a, and occasionally æ are substituted for it. bas, also bas, bæś (with ś as well) বাস্ বস্ *enough*!; sar, sɔr, sɔr, sɛr সর্, সর্, সার, সার *Sir*.

§ 46. Nasalized vowels. All the seven vowels of Bengali, i e æ a ɔ o u, can be nasalized, and thus we have seven more phonemes—i ē ã ā ǝ ō ũ. A vowel preceded or followed by a nasal generally has a slight nasalization; and this nasalization by contact need not be represented. In the speech of some, however, this nasalization by contact is not present. Nasalized vowels have higher tongue position than the simple ones: ã has more backward a tongue position than a: or a. e.g. pīɽa, pīɽe পিঁড়া, পিঁড়ে a wooden board to sit on; kēde কেঁদে having wept; pã:c̣i পঁচ turning, screwing; pã:c̣i পাঁচ five; śɔpa সঁপা surrendering; śɔron স্মরণ remembrance; thō:t তৌট lip; kū:c̣i কুঁচ a red berry.

§ 47. Bengali vowels generally are pronounced in a lax way. This laxness of enunciation gives the Bengali vowel-system its characteristic timbre, when contrasted with ordinary educated Southern English or Panjabi or Hindostani.

§ 48. The vowels i e a o u can occur twice within the same word, side by side: tiniি তিনিই he indeed; khee খেয়ে having eaten; khac খাখা eating; bolboo ব'লবোও and I shall say; kuu কুউ onomatopoeic—cry of the cuckoo. An ẽ glide is usually intruded between two e's, and an ǝ glide between two a's, but it is not essential.

§ 49. The Bengali system of writing, which is that of Sanskrit, recognizes only two diphthongs—oi ঔ and ou ঐ. But the number of diphthong (and triphthong) sounds actually found in the language is remarkably large. These are mostly falling diphthongs, the stress being on the first element. But a few of them can be called rising ones. In deliberate speech, it is quite possible to pronounce the diphthongs either as level ones, or as two syllables; the latter thing would be encouraged by the spelling. But in ordinary speech of sufficient rapidity the sounds are nothing but diphthongs, of which the unstressed part is a consonantal vowel.

When the two vowels do not form a diphthong, a hyphen may be employed between the vowels to indicate that they form two syllables.

ie: gie গিয়ে having gone; a rising variety also makes the syllable ultimately ge গে < gīe, gje.

ia: iar ইয়ার boon companion; e:ia এশিয়া Asia.

io: dio দিও give (precativ future), iorop ইয়োরোপ Europe.

iu: fiuli শিউলি a flower.

- ei: nei নেই *is not*, also *indulgence, affection*.
- ea: c̣ear চেয়ার *chair*. In some words like beala বেয়ানা বেহানা *violin*, it becomes æe, bæela.
- eo: j̣eo যেও *go* (future precativ). Cf. *Mayo Hospital* = meo h̄ājpatal.
- eu: keu কেউ *somebody*.
- æe: dæe দেয় *gives*.
- æo: dæor দেওর, দেবর *husband's younger brother*, kæṭ keṭ a caste; bæora বেওরা *affair* (slang).
- ai: bh̄ai ভাই *brother*.
- æe: khæe খায় *eats*, paera (p̄æra) পায়রা *pigeon*.
- ao: dao দাও *give*.
- au: lau লাউ *gourd*.
- æe: h̄œe হয় *is, are*; bh̄œe ভয় *fear*; bæf বয়স *age*.
- oa: soa সআ, সওয়া, সহা *endure*, boate বআটে *loafer*.
- oo: h̄oo হও *be*.
- oi: boi বই *book*, doi দই *curds*.
- oe: doe দোয় *milks*, noe নোয় *bends*, koe (also ko-e) ক'য়ে *having spoken*; occasionally heard as a rising diphthong.
- oa: koaf̄a কোয়াসা *mist*, doat (also do:t) দোয়াত (দোত) *inkpot*.
- ou: bou বুউ, বৌ (newly-wed) *wife*; douf̄ দৌড় *run*.
- ui: j̣iui জুই *jasmine*, dui দুই *I milk, two*; uil উইল *will*, huil হইল *wheel* (in fishing) (the last two are English words).
- ue: dhue ধুয়ে *having washed*, sue শুয়ে *having lain, lying*; a rising diphthong frequently.
- ua: duar (also do:r) দুয়ার, দ্বার *door*; j̣ua জুয়া *gambling*; rather a rare diphthong in the Calcutta dialect, frequently changed to uo, o.
- uo: dh̄uo ধুয়ো *burden of a song*, kuo কুয়ো *well*; a rising diphthong originating from the preceding, which is frequently simplified to o:

§ 50. The above twenty-five diphthongs can have nasalized forms, the first element being always the one to have nasalization.

§ 51. In addition to the diphthongs, the following triphthongal combinations are found in native words: iei, ieo, iæe, eie, eio, eao, eoi, euo, æei, æoi, aie, aio, æei, aoi, aui, œei, œoi, œeo, oie, oei, oeo, oai, oæe, oui, uie, uio, uei, ueo, uæe, uao, uoe. Some of these are frankly two syllables, others are compressed into one.

§ 52. In the following tetraphthongal groups, eoai, eoæe, aoi, aoiæe, oai, we have two diphthongs really, the push on the a giving a division of the group into two parts. The groups œoai, œoai similarly are œo-ai-o, œo-ai-o.

SOUND ATTRIBUTES

Length

§ 53. Length of consonants, commonly described as “doubling”, has been treated in § 33. A consonant can also be lengthened or doubled in some cases, when the word is emphasized: e.g. *ʃokol* সকল *all*, also *ʃokkol*; *ʃobai* সবাই *everybody*, also *ʃobbai*; *kiĉhu* কিছু *a little*, also *kiccĉhu*. This doubling is represented in writing in Bengali.

§ 54. On the other hand, length is not a significant sound attribute for vowels. Quantity of Bengali vowels depends on the rhythm of the sense group. Except in the case of Sanskrit words, quantity is not consistently indicated in Bengali orthography. Vowel quantity is an extremely baffling thing, and there are various shades of length, but ordinarily three are recognized, long (:), half-long (·), and short. Except *ʌ*, all Bengali vowels can have all the three quantities.

§ 55. Spoken Bengali has also a characteristic habit which I have called *bimorism* or *dimetrisism* (*dvi-mātrika-tā*). Isolated words tend to take up a standardized time-beat or *mora* (space of time). A normal Bengali word takes two time-beats, or units of time, or *mora*. Words of three *mora* are also common. In case of monosyllabic words, there is a lengthening of the syllable; and polysyllables are cut short or divided into groups of syllables which take each the normalized length of time. e.g. *k*: *k* (2 *mora*, with rather long stop for *k*), *k*:*k*ar *ককর* *the letter k* ($\frac{3}{4}+1\frac{1}{4}$ *mora*), *opra-ṛjite* for *oporaṛjita* *অপরাজিতা* *a flower*, etc.

§ 55a. Monosyllabic words pronounced as separate words always have the vowel long: e.g. *k*: *k* *ক* *the letter k*; *ti:n* *তিন* *three*; *ke*: *কে* *who?*; *æ:k* *এক* *one*; *ka:r* *কার* *whose*; *pho:l* *ফল* *fruit*; *ṛĥo:l* *রোল* *soup*; *rup*: *রূপ* *form, beauty*. Foreign monosyllabic words naturalized obtain the long quantity in Bengali; e.g. Pers. *gul* *flower* > *gu:l* *গুল*; English *foot* > *phu:t* *ফুট*; *iⁿtin* > *ti:n* *টিন*; *wul* *wool* > *u:l* *উল*. When these monosyllables occur in a sense group, in composition or otherwise, the long quantity is curtailed; e.g. *tinṭi* *তিনটি* *three pieces*; *rup-kotha* *রূপকথা* *fairy tale*; *du-phuṭ* *দুফুট* *two-foot*; *ul-bona* *উলবোনা* *to knit wool*; *tin-mistri* *টিনমিস্ত্রী* *tin-worker*.

§ 56. It has been found out from kymographic mouth-tracings that in disyllabic and polysyllabic words and sense groups like ‘*ekṭi* *একটি* *one piece*, ‘*pata* *পাতা* *leaf*, ‘*paka* *পাকা* *ripe*, *bagda* *বাগ্দা* *prawn*, ‘*manot* *মানত* *vow*, ‘*ĉjondɔn* *চন্দন* *sandal*, ‘*bonduk* *বন্দুক* *musket*, ‘*dek(h)te* *দেখতে* *to see*, *dib’bendro* *দিবেন্দ্র* *a name*, ‘*koṭokṭa* *কতকটা* *a little*, ‘*toṭkṭa* *তক্তা* *that plank*, ‘*kæmon-āĉhen* *কেমন আছেন* *how do you do?*, ‘*ami-debo* *আমি দেবো* *I shall give*, ‘*se-elo* *সে এল* *he came*, etc., the final vowels, although not stressed, are invariably longer than those

preceding. The length of these final syllables is not so great as that of an isolated monosyllable, and they can as such be described as half-long.

§ 57. Long and half-long quantity may be indicated in isolated words, but it is extremely difficult to determine the exact quantity of words in connected speech in a sense group. When there is no doubt, length or half-length may be indicated, but the best thing would be to omit length marks and to divide the sentence into portions by vertical lines | and ||, indicating sense groups, the double line expressing a slight pause. Stress also may be expressed where it is pronounced. General rhythm of the sentence, which is based on the speaker's emotion, comes into play in adjusting the lengths of the different syllables in a sense group, and high pitch of voice is accompanied by long quantity.

Stress

§ 58. Stress (denoted by ' before the syllable which bears it) is not significant, i.e. presence or absence of it does not alter the sense of a word. In Standard Bengali, stress is dominantly initial. Word-stress is always subsidiary to sentence-stress; and this sentence-stress is always on the initial syllable of the first important word in a sense group. The stress on individual words comprising a sense group is sacrificed, the initial syllable in the first important word being the only one that retains its stress. A Bengali sense group, viewed from the standpoint of stress, has been compared to a railway train, the first stressed syllable being the one which draws the rest. Normal Bengali versification is based on this principle of division of the sentence into sense groups with strong initial stress. But this is changed in giving emphasis to a particular word. In learned as well as common words from Sanskrit, the root syllable generally has stress (and length), to the exclusion of the prefix—a state of things which is out of harmony with the native Bengali habit of initial stresses. Examples: ʒi'o'ti:ndro যতীন্দ্র *a name* (familiarily 'ʒioti:n); o'pra:ʒita অপরাজিতা *unconquered* (colloquially 'opraʒite *the name of a flower*); a'ra:dhona আরাধনা *adoration*; o'pra:c'jurʒo or oppra'c'ju:rʒo অপ্রাচুর্য *paucity*; bi'be:k বিবেক *conscience*; o'ne:k অনেক *much, many*; o'tu:l অতুল *incomparable* (but 'otul as *a name*); onu'ra:g অনুরাগ *affection*; o'bofso অবশ্য *certainly* (colloquially 'obiffi, 'obbiffi).

§ 59. Pronominal words, conjunctions, and other particles, as a rule, are not stressed even when they begin a sense group; also auxiliaries in compound verbs. An adjective which precedes its noun takes the stress, the following noun generally losing it.

§ 60. In spite of the literary influence of Sanskrit noted above, stress in Bengali is initial, and phrasal accent is the dominant thing in connected speech. This initial stress has given rise to umlaut and vowel harmony on a very large scale in modern spoken Bengali; these properly come under Bengali Phonology. As in English and French and other

languages, polysynthetic expressions as a result of slurring of unstressed syllables abound in Bengali: e.g. 'æddin অদিন for æto din এত দিন *such a long time* (lit. *so many days*); 'ʒiacʃhetai যাচ্ছেতাই *very bad*, for যাহা ইচ্ছা তাই ʒiɦa icʃɦa tai *as one would wish, most wilful*; 'koʒʒaccʃo 'কোজ্জাক' *where are you going?*, for kotha ʒiʒaitecʃɦo কোথা যাইতেছ; 'ʒæggge যাজ্জ *as you command*, for ʒe aggẽã যে আজ্ঞা, etc.

§ 61. Sentence rhythm in colloquial Bengali is extremely varied and picturesque, there being the musical quality of speech—pitch—always present. But in the literary language when it is read out, there is an approximately equal interval of time for the various sense groups with the strong initial phrase stress, which gives rise to a certain rhythmic quality to a Bengali line, e.g. the opening line of Pandit Ishwar Chandra Vidyasagara's *Sitār Banabās*: 'ra:m || 'ra:ʒpode | 'protiʃɦito h̄oia || 'oprotiʃɦoto bhabe | 'raʒʒo ʃa:ʃon | 'korite lagile'n || রাম রাজপদে প্রতিষ্ঠিত হইয়া অপ্ৰতিহতভাবে রাজশাসন করিতে লাগিলেন *Rāma, established in the dignity of kingship, began to rule the kingdom without any obstruction*; or, from the same writer's *Kathāmālā*, in a simpler style: 'ekoda | '(ẽ)æk || 'bagher golaẽ || 'ɦa:r phuɽia|cʃɦilo || একদা এক বাঘের গলায় হাড় ফুটিয়াছিল *Once a bone got stuck within the throat of a tiger*.

Intonation

§ 62. Intonation or pitch of voice is not a significant element of speech in Bengali. In one or two isolated cases, however, intonation has a significant value; such cases of words having different meanings owing to difference in intonation are the two syllables m (sometimes written উ̄, i.e. ũ), and h̄ã হাঁ *yes*; e.g.

- 'm with high rising tone, indicates a query. So 'h̄ã = *yes?*
- 'm with mid rising tone, with abrupt ending, indicates annoyance or disgust.
- ˘m with low falling tone = the English expression *I see*.
- ˘m with mid fall-rise tone = *yes, it may be so, but—*.
- ˘m: with high falling tone = *very well, I shall see* (threatening, used jocosely or seriously).

§ 63. But in a sentence intonation is a highly expressive speech attribute in the language, possibly to a greater extent than in English. The laws of intonation in the Bengali sentence have not been studied at all, but the following sentences are given as illustrative of Bengali intonation. These are taken at random from Girish Chandra Ghosh's drama *Bilwamangal*:—

'aʒamɑ:r 'cʒokkhukhulecʃɦe!

আজ আমার চক্ষু খুলেছে! *To-day my eyes have opened.*

'tuikikore 'ʒanli? or tui'ki·kore 'ʒanli
তুই কি ক'রে জানলি? *How did you know?*

cʃheleṭi ma·bolle
ছেলেটি মা ব'লে *The little boy called "Mother!"*

aɦa, 'ki fundɔ:r
আহা, কি সুন্দর! *Ah, how beautiful!*

'ʃebina(ə)ar'neima:nei
সে বিনা আর নেই মা নেই । *There's none else but he, none, mother!*

tomar 'ʃamike·ma:?
তোমার স্বামী কে মা? *Who is your husband, little mother?*

'gotakɔtɔk'taka(ə)eno
গোটা কতক টাকা এনো *You will bring some rupees.*

'bæbʃaṭa figgir 'ʒombe
ব্যবসায়ী শীগগির জ'মবে *The business will flourish quickly.*

'ɔlo, 'a:ʒi brin'da:bonʒattra kori .
চল, আজই বৃন্দাবন যাত্রা করি *Come, let's start for Brindaban even to-day.*

'kæno bɦai? 'ækla kæno bɦai? 'amiʒe tomar'ʃoŋgeroecʃhi'bɦai?
কেন ভাই? একলা কেন, ভাই? আমি যে তোমার সঙ্গে র'য়েছি ভাই?
Why, brother? why alone, brother? Here am I in your company, brother!

§ 64. I conclude this sketch of the phonetics of Modern Bengali by giving the transcription of a connected text. I give a short prose poem (reproduced and translated with the kind permission of the author) by the greatest writer of Bengali, Rabindranath Tagore; it was published in the

Sabuj Patra for Bhādra and Āshwin, Bengali year 1326. ħ h have been used; h might be used for both. Also ò has been employed; o would do ordinarily.

kothika

'phōṭa phōṭa | 'brifti hoe | (ë)akafer | 'megh name, || —'maṭir kaṭhe | 'dhōra debe bole. || temni | 'kotha theke | 'meëera (ë)afe | 'prithibite | 'bādha porte. ||

'tader ḥonno | 'olpò ḥāēgar | ḥōḡot, || 'olpò manufer. || 'oitukur moddhe | (ë)apnar | 'fo:btake | 'dhōranò c̣ai | — apnar 'fo:b kotha, | 'fo:b 'bætha, | 'fo:b bhāb(ò)na. || 'tai tader | 'mathaē 'kapòr, | 'hate 'kākò, | 'aṅinaē 'bæra. || 'meëera holo | 'sima(f) ṣorger 'in'drani. ||

kintu | 'ko:n deb(o)tar | 'koutuk(ò)hāffer motò | çporimitò 'çonçòlòta nie(ë)amader | 'paraē oi | 'çhoto me(ë)etir | 'ḥonno? || 'ma take rege bole | "'doḥfi", || 'ba:p take heḥe bole | "'pagli". ||

se po'la:toka | 'ḥhōrnar | 'ḥō:l, || 'saṣoner pathòr | 'diṅie c̣ole. || tar 'monṭi ḥænd | 'benuboner | 'upòr ḍaler | 'pata, || kebolì 'ḥhir ḥhir kore | 'kāpçhe.

'aḥ dekhì | sei 'duròntò me(ë)eti || 'barandaē | 'reliḡe | 'bhōrdie || 'çupkore | 'dārie || — baddl sefer | 'indrò dhonuṭi bollei 'hōē. || tar 'bòrò bòrò duṭi | 'kalo | 'eḥo:kh || aḥ | ç'çonçòl, | 'tòmalər ḍale | 'briftir dine | 'ḍanabheḥa | 'pakhir motò. ||

* * * * *

'kiçhu din·age | 'rouddrer | 'saḥon c̣hild | 'prokhor; || 'digonter mu:kh | 'bibòrnò | ; 'gaçher hō'taḥḥaḥ patagulo || 'jukie | 'holde hoe gaçhe. ||

'æmon somçè | 'hōṭhat | 'kalo aluthalu | 'pagla 'me:gh | 'akafer 'kone kone | 'tābu phelle. || 'surḥaster ækta | 'roktòròḥfi || 'khaper bhitor theke | 'tòlòarer motò | 'berie (ë)elo. ||

'ordhek rattle dekhì || 'dòr(ò)ḥagulo | 'khōrkhor | 'çobde 'kāpçhe. || 'somostò 'çhōrer | 'ghumṭake | 'ḥhōrer ḥa(ò)a || 'ḥhūṭi dhore | 'ḥhākie dile. ||

'uṭhe dekhì, || 'golir aloṭa | 'ghòno briftir moddhe | 'mataler | 'ghola çokher motò | 'dekhte. || ar 'girḥer ghōrir | 'çobdò(ë)elo || ḥænd | 'briftir çobder | 'çadòr muṛi die. ||

'çokale | 'ḥōler dhāra | 'aro 'ghonie (ë)elo || —rouddrò (ë)ar | 'uṭhlo na. ||

* * * * *

ei 'badlaē | amader paṣar 'me(ë)eti | 'barandar reliḡ dhore | 'çup kore | 'dārie. || -

tar 'bo:n eḥe take | 'bolle, || "'ma'ḍakçhe." || se kebòl | 'çobege | 'matha narlo, || tar 'beni | 'dule (ë)uṭhlo. | 'kagòḥer nouko nie | tar 'bhāi | tar 'hāt dhore | 'ṭanle. || se hāt 'çhinie nile. || 'tobu tar 'bhāi | 'khēlar ḥonne | 'ṭanaṭani korte laglo. || take (ë)æk 'thapòr boḥie dile. ||

* * * * *

'brif̥ti por̥t̥ʃe. || 'ond̥h̥õk̥a:r | 'gh̥õnd̥õ hoe (ë)elo. || 'me(ë)eti | 'sthi:r
d̥ãrie. ||

'adi ʃ̥uge | 'sriʃ̥tir mukhe | 'proth̥õm k̥õtha | 'ʃ̥egec̥h̥ilõ || 'ʃ̥õler
bh̥ãʃ̥aë | 'h̥aãar k̥õñthe. || 'lokk̥h̥õ k̥õti b̥õc̥h̥õr | 'pa:r hoe | sei 'ʃ̥õrõn
'biʃ̥ʃ̥õrõner | o'ti:t k̥õtha | (ë)aʃ̥ 'badlar k̥õlõʃ̥õre | oi 'me(ë)etike (ë)ese |
'ðak dile. || 'o: tai | 'ʃ̥õk̥õl bæra:r 'baire | 'ç̥ole gie | 'h̥arie g̥ælo. ||

'k̥õtõ b̥õrõ 'ka:l, || 'k̥õtõ b̥õrõ ʃ̥õg̥õt, || 'prihibite | 'k̥õtõ ʃ̥uger | k̥õtõ
'ʃ̥ib̥õlila. || sei su'du:r, || sei bi'ra:t̥, || aʃ̥ ei 'durõntõ me(ë)et̥ir | 'mukher
dike 'takalo, || 'megher ç̥h̥aëãe | 'brif̥tir k̥õlõʃ̥õbde. ||

o tai 'b̥õrõ b̥õrõ | 'ç̥õkh̥ mele | ni'stõb̥h̥õ | 'd̥ãrie roilo || —ʃ̥ænd̥õ
õn'õntõkaleri | 'protima. ||

sri: robindrõnath ʃ̥hakur.

STORIETTE

The cloud in the sky comes down in drops of rain, to be held by the earth below. So women come, no one knows from where, and get bound to this earth.

For them the world of a small space, and of a few people. That small area must hold their all—all their story, their suffering, their fears. That is why they have the wimple on the head, the bracelet on the arm, and the wall round the yard. Women are queens of the heaven of narrow bounds.

* * * * *

But that little girl in our neighbourhood was born with a brimming liveliness,—what god's mirthful laughter was it like? Her mother gets cross and calls her "naughty", but her father laughs and calls her "my madcap darling".

She is the water of a running fall, defying the rocks that would check her. And her heart is as the leaf on the topmost branch in a bamboo grove, which is always ashiver with the slightest breath of air.

This day I saw that sprightly little girl standing quietly leaning upon the rails of the balcony—one might say she was like the rainbow after rain. Her two big black eyes were without their merry twinkle to-day, like birds on the branch of the *tamāl* tree, with wet wings in a day of rain.

* * * * *

For some days the sun's heat was oppressive; the face of the ends of the sky was pale; the leaves of trees, with all hope dead, had become dried up and yellow.

At such a time quite of a sudden, an erratic cloud, black, dishevelled, pitched its tent in the corners of the sky. A red ray of sunset issued forth like a sword from the sheath.

At midnight I found the doors and windows trembling and groaning with a rattling noise. The storm wind shook by the forelock the sleep of the whole town.

I rose and saw the light in our lane looking through the thick rain like the dull eye of a drunkard. And the sound of the church bell came as if shrouded in the patter of rain.

In the morning the streams of rain became greater and still greater, and no sun rose.

* * * * *

In this rainy weather the little girl in our neighbourhood was standing quietly by the balcony rails.

Her sister came and said to her, "Mother is calling." She only vigorously shook her head, her plait of hair swung round. Her brother came with a paper boat and drew her by the hand. But she snatched her hand away. But still her brother pressed her for play. She gave him a slap.

* * * * *

It was raining. The darkness became deeper and deeper. The little girl stood still.

In the primeval age, at the beginning of creation, the first word awoke in the speech of the waters, in the voice of the wind. Through millions and millions of years that word of days beyond remembrance and forgetting, came and called the girl to-day in the gentle sound of the rain. That is why she passed beyond all barriers and lost herself.

How vast the time, how great this world, the life of how many ages on this earth! That far-off, that vast magnitude looked at the face of this sprightly girl, under the shadow of the cloud and in the gentle sound of the rain.

She therefore remained standing, with her big eyes wide open, silent—as if an image of eternity.

Rabindranath Tagore.

কথিকা ।

ফোঁটা ফোঁটা বৃষ্টি হয়ে আকাশের মেঘ নামে,—মাটির কাছে ধরা দেবে বলে। তেমনি কোথা থেকে মেয়েরা আসে পৃথিবীতে বাঁধা পড়তে।

তাদের জন্ম অল্প জায়গার জগৎ, অল্প মাহুষের। ঐটুকুর মধ্যে আপনার সবটাকে ধরানো চাই—আপনার সব কথা, সব ব্যথা, সব ভাবনা। তাই তাদের মাথায় কাপড়, হাতে কাঁকন, আঙিনায় বেড়া। মেয়েরা হল সীমান্বর্গের ইন্দ্রাণী।

* * * * *

কিন্তু কোন্ দেবতার কৌতুকহাস্যের মত অপরিমিত চঞ্চলতা নিয়ে আমাদের পাড়ায় ঐ ছোট মেয়েটির জন্ম? মা তাকে রেগে বলে "দস্তি", বাপ তাকে হেসে বলে "পাগলী"।

সে পলাতক ঝরনার জন, শাসনের পাথর ডিক্রিয়ে চলে। তার মনটি যেন বেগুননের উপরডালের পাতা, কেবলি ঝির্ ঝির্ করে কাঁপচে।

আজ দেখি সেই ছরস্তু মেয়েটি বারান্দায় রেলিঙে ভর দিয়ে চুপ করে দাঁড়িয়ে—বাদলশেষের ইন্দ্রধনুটি বলেই হয়। তার বড় বড় ছুটি কালো চোখে আজ অচঞ্চল, তমানের ডালে বৃষ্টির দিনে ডানা-ভেজা পাখীর মত।

কিছুদিন আগে রৌদ্রের শাসন ছিল প্রথর; দিগন্তের মুখ বিবর্ণ; গাছের হতাশাস পাতাগুলো শুকিয়ে হুন্দে হয়ে গেছে ।

এমন সময় হঠাৎ কাল আলুথালু পাগলা মেঘ আকাশের কোণে কোণে তাঁবু ফেললে । সূর্য্যাস্তের একটা রক্ত-রশ্মি থাপের ভিতর থেকে তলোয়ারের মত বেরিয়ে এল ।

অর্ধেক রাত্রে দেখি দরজাগুলো খড়খড় শব্দে কাঁপচে । সমস্ত সহরের ঘুমটাকে ঝড়ের হাওয়া ঝুঁটি ধরে ঝাঁকিয়ে দিলে ।

উঠে দেখি, গলির আনোটা ঘন বৃষ্টির মধ্যে মাতালের ঘোলা চোখের মত দেখতে । আর গিঞ্জের ঘড়ির শব্দ এল যেন বৃষ্টির শব্দের চাদর মুড়ি দিয়ে ।

সকালে জলের ধারা আরো ঘনিয়ে এল—রোদ্র আর উঠল না ।

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এই বাদলায় আমাদের পাড়ার মেয়েটি বারান্দার রেলিঙ ধরে চুপ করে দাঁড়িয়ে ।

তার বোন এসে তাকে বলল, “মা ডাক্চে” । সে কেবল সবেগে মাথা নাড়ল, তার বেণী ছিলে উঠল । কাগজের নৌকো নিয়ে তার ভাই তার হাত ধরে টানলে । সে হাত ছিনিয়ে নিলে । তবু তার ভাই খেলার জন্তে টানাটানি করতে লাগল । তাকে এক থাপড় বসিয়ে দিলে ।

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বৃষ্টি পড়চে । অন্ধকার আরো ঘন হয়ে এল । মেয়েটি স্থির দাঁড়িয়ে ।

আদি যুগে সৃষ্টির মুখে প্রথম কথা জেগেছিল জলের ভাষায়, হাওয়ার কণ্ঠে । লক্ষ কোটি বছর পার হয়ে সেই অরণ বিস্মরণের অতীত কথা আজ বাদলার কলস্বরে ঐ মেয়েটিকে এসে ডাক দিলে । ও তাই সকল বেড়ার বাইরে চলে গিয়ে হারিয়ে গেল ।

কত বড় কাল, কত বড় জগৎ, পৃথিবীতে কত যুগের কত জীবনীনা । সেই হুঁচুর সেই বিরাট, আজ এই ছরস্তু মেয়েটির মুখের দিকে তাকাল, মেঘের ছায়ায় বৃষ্টির কলশব্দে ।

ও তাই বড় বড় চোখ মেলে নিস্তব্ধ দাঁড়িয়ে রইল,—যেন অনন্তকালেরই প্রতিমা ।

ত্রিবেদীনাথ ঠাকুর ।

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