

# A Comparative Study between English and Bangla: The Perspective of Phonemics and Morphology

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**Abstract:** *English and Bangla, while distinct in their linguistic structures, share numerous similarities that invite comparative analysis across phonemics, morphology, and syntax. Articulatory phonetics, a crucial aspect of phonemics, provides a gateway to exploring the vowels and consonant sounds in both languages. In English, nuances such as vowel length and reduced vowels significantly influence word meanings, highlighting the precision required in pronunciation. Conversely, Bangla showcases unique features like vowel doubling and nasalization, underscoring its own phonemic intricacies.*

*Morphology, the study of word forms and their structure, unveils further insights into how English and Bangla construct words. While English leans towards analytic forms with distinct morphemes for grammatical roles, Bangla employs a more synthetic approach, combining morphemes within words to convey complex grammatical information efficiently.*

*By comparing and contrasting these linguistic elements, this study aims to deepen our understanding of how language functions as a unique feature of human communication. Despite the mysteries surrounding its origin, comparative linguistics offers insights that may contribute to unraveling the ancient puzzle of language emergence.*

**Keywords:** *comparative linguistics, phonetics, morphology, vowels, consonants*

## Introduction

Comparative linguistics plays a crucial role in exploring the origin of human language, an endeavor that has intrigued scholars for centuries. As language is a distinctly human trait, it has drawn attention from a diverse array of academic fields,

including sociolinguistics, psycholinguistics, and evolutionary biology. Each of these disciplines approaches the question from different angles, employing various methodologies to unravel the complexities of language's origins.

Since the publication of Charles Darwin's pioneering work on evolution by natural selection, theories about the emergence of human language have evolved significantly. Darwin's ideas about biological evolution prompted a new wave of inquiry into how language might have developed. Early speculative theories, such as Max Müller's "cuckoo theory" from 1861, suggested that language arose from imitating natural sounds or animal calls. Müller's theory, though influential at the time, has since been superseded by more nuanced models.

In contemporary linguistics, Noam Chomsky's theory of Universal Grammar represents a significant advancement. Chomsky proposed that the ability to acquire language is innately programmed into the human brain, suggesting that all human languages share a common underlying structure. This idea has reshaped how scholars think about language development, emphasizing the innate aspects of linguistic capability.

Despite these advances, the exact origins of human language remain elusive. The challenge lies in piecing together evidence from various sources to construct a plausible narrative about how language emerged. This task has driven researchers to investigate a range of factors, including cognitive development, cultural evolution, and biological changes.

Comparative linguistics provides a key methodology for addressing this challenge. This field involves the systematic comparison of linguistic features across different languages to understand their historical relationships and developments. One of the central techniques used in comparative linguistics is "internal reconstruction," which examines variations within a single language to infer earlier stages of that language and its connections to other languages. This method allows linguists to hypothesize about proto-languages—reconstructed languages that are believed to be the common ancestors of various modern languages.

According to Lehmann (1993, p. 33), internal reconstruction involves analyzing linguistic data from within a single language to propose what its earlier forms might have looked like. This process helps in reconstructing proto-languages, which serve as the closest approximations to the ancestral languages from which contemporary languages have descended. Proto-languages are reconstructed through the

comparative method, which identifies regular correspondences in vocabulary, phonetics, morphology, and syntax across related languages.

The comparative method is a powerful tool for understanding the evolution of languages. By examining similarities and differences among languages within the same genetic family, linguists can gain insights into how languages have developed and diversified over time. This method not only sheds light on the historical development of individual languages but also contributes to broader understandings of the cognitive, cultural, and evolutionary factors that influenced the emergence of human communication.

In summary, comparative linguistics, through methods like internal reconstruction and the comparative method, offers valuable perspectives on the origins and evolution of human language. By analyzing linguistic features and their historical development, scholars can better understand the intricate processes that have shaped human communication throughout history.

### **General Discussion on Phonemics**

Phonemics is a specialized area within the field of linguistics that focuses on the study of phonemes, which are the fundamental sound units in a language that can differentiate meaning between words. This aspect of linguistic study is crucial because phonemes are the building blocks of spoken language and play a key role in how words are recognized and distinguished from one another.

David Crystal (2008) defines a phoneme as “the minimal distinctive unit” in traditional phonological theories (p. 361). This implies that a phoneme is the smallest unit of sound that carries meaning in a language. For example, changing a phoneme in a word can result in a completely different meaning. This is evident in the English words “bat” and “pat,” where the initial sounds /b/ and /p/ represent different phonemes and lead to different meanings.

Dr. Binoy Barman (2009) expands on this by discussing the concept of minimal pairs, which are pairs of words that differ by only one phoneme, such as “pin” and “bin” (p. 20). In this example, the only difference between the two words is the initial phoneme /p/ versus /b/. Identifying such minimal pairs is a fundamental technique in phonemic analysis, helping linguists to isolate and define the distinct phonemes within a language.

Phonemics operates at the intersection of two broader linguistic domains: phonetics and phonology. According to David Odden (2013), phonetics deals with

the physical properties of speech sounds—their production, transmission, and reception—while phonology focuses on the abstract cognitive rules that govern how sounds are organized and used in a particular language (p. 2). Phonemics integrates these aspects by studying how sounds function both physically and mentally in language.

Within phonetics, there are different branches that explore various aspects of speech sounds. Articulatory phonetics, in particular, examines how speech sounds are produced by the movement and coordination of the speech organs, such as the tongue, lips, and vocal cords. This branch of phonetics provides insights into the physical processes involved in sound production, helping to understand how different sounds are articulated and categorized.

The study of phonemics, therefore, encompasses an exploration of both the physical and cognitive dimensions of sound. By examining phonology, phonetics, and specifically articulatory phonetics, researchers can gain a deeper understanding of how languages structure and articulate sounds. This knowledge contributes to a broader comprehension of linguistic phenomena and enhances our ability to analyze and describe the intricate ways in which human languages utilize sound to convey meaning.

### **Discussion on Vowels**

In linguistics, vowels are fundamental speech sounds characterized by their unique articulatory properties. Unlike consonants, which involve some form of constriction or closure in the vocal tract, vowels are produced with a relatively open vocal tract. According to Rahman (2008), a vowel is defined as a speech sound articulated with the air-stream passing freely through the oral or both oral and nasal cavities without significant obstruction or narrowing (p. 9). This openness allows vowels to be more sonorous and, often, more resonant than consonants.

The distinctive quality of vowels is influenced by several articulatory factors, primarily the position of the tongue and the shape of the lips. Islam (2019) explains that vowel quality is determined by the horizontal position of the tongue (whether it is towards the front or back of the mouth), the vertical height of the tongue (whether it is raised or lowered), and the rounding of the lips (whether they are rounded or spread) (p. 26). These features contribute to the overall sound of the vowel and its differentiation from other vowel sounds.

To systematically study and represent vowel quality, linguists use a set of reference points known as cardinal or pure vowels. These cardinal vowels are typically illustrated on a trapezoidal diagram called the “cardinal vowel chart” or “vowel quadrilateral.” This diagram serves as a visual representation of the tongue’s position and lip rounding during the articulation of different vowel sounds. The shape of the diagram reflects the physical shape of the mouth and tongue, providing a framework for comparing and contrasting vowel sounds.

For example, the cardinal vowel diagram includes vowels like [i], [e], [a], and [u], each representing extreme points in the vowel space. The diagram allows linguists to map monophthongs, which are simple vowels that maintain a single, steady articulation throughout their duration. By plotting vowels onto this chart, subtle differences in vowel quality across languages can be visually identified and studied. This comparative approach is crucial for understanding the vowel systems of different languages and for conducting phonetic and phonological research.

In this paper, the cardinal vowel diagram will be employed to analyze and compare the vowel systems of English and Bangla. By examining how each language articulates its vowels and mapping these vowels onto the diagram, we can highlight both the similarities and distinctive characteristics of their vowel systems. This analysis aims to enhance our understanding of how vowel sounds function within the phonemic structures of English and Bangla, providing insights into their phonetic and phonological distinctions.

The use of the cardinal vowel chart in this comparative study will offer a precise means of visualizing and analyzing vowel quality, thereby contributing to a deeper comprehension of the phonetic and phonological features of these languages

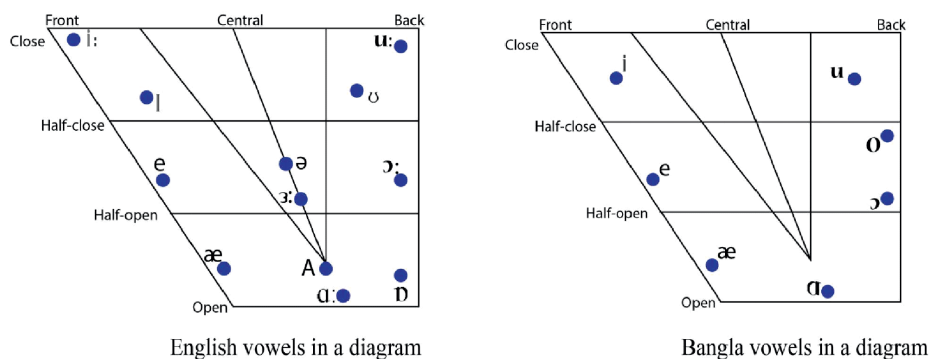
### **Differences in Monophthongs: English vs. Bangla**

The study of monophthongs in linguistics reveals significant differences between English and Bangla vowel systems. Currently, English is recognized for its 12 distinct monophthongs: /e æ ʌ ʊ u: ɔ: ɒ ɜ: ɑ: ə ɪ i:/. In contrast, the characterization of Bangla monophthongs varies among scholars. Abdul Hai (2007) identifies 8 monophthongs in Bangla: ই/i/, এ/e/, এয়া/æ/, আ/a/, অ/ɔ/, ও/o/, ঔ/ou/, উ/u/ (p. 12-35). Conversely, Barman (2009) simplifies this to 7 pure vowels without distinguishing nasalized counterparts: /ɑ i e o u ɔ æ/ (p. 21).

This paper adopts Barman’s categorization of Bangla vowels, highlighting a numerical disparity between English and Bangla vowel phonemes. Notably, the

English cardinal vowel diagram includes long vowels such as /u: ɔ: ɜ: ɑ: i:/, which are absent in the Bangla cardinal trapezium. Additionally, the schwa sound (/ə/) is a prominent feature in English but absent in Bangla. Another distinction is the absence of central vowels in Bangla compared to at least two present in English.

**Figure 1** illustrates a side-by-side comparison of the cardinal vowel diagrams for English and Bangla, visually emphasizing these differences. This comparative analysis underscores how the structural variations in vowel systems contribute to distinct phonetic characteristics between the two languages.



**Figure 1: Comparing the Cardinal Vowel Diagrams of English and Bangla Phonemes**

Both English and Bangla share some phonemic similarities, primarily due to the relatively limited number of vowel phonemes in each language. However, despite this overlap, the differences in their monophthongs become more pronounced and distinctive upon closer examination.

The limited inventory of vowel phonemes means that both languages must use similar vowel sounds to convey meaning effectively. This overlap can be observed in certain vowel sounds that appear in both English and Bangla, albeit with variations in pronunciation and contextual usage.

However, despite these shared phonemes, the contrasts between the monophthongs of English and Bangla are significant. The distinct ways in which each language uses and pronounces vowels contribute to their unique phonetic characteristics. These differences not only reflect the phonological rules and patterns within each language but also underscore their cultural and historical development.

In summary, while English and Bangla may share some common phonemes due to their limited vowel inventory, their divergent monophthongs underscore the distinct phonetic landscapes of each language. These differences are crucial for

understanding how language structures evolve and adapt across different linguistic contexts.

### Unique Features of English

English and Bangla exhibit distinct phonetic characteristics that contribute to their unique linguistic profiles. Understanding these differences provides insight into how each language structures and utilizes its sound system.

#### *Vowel Length*

One of the notable phonetic features in English is vowel length, which plays a crucial role in distinguishing between words with otherwise similar sounds. Vowel length in English can create differences in meaning between homonyms, where a variation in the duration of the vowel sound alters the semantic value of the word. For example:

- The word “ship” /ʃɪp/ has a short vowel /ɪ/.
- The word “sheep” /ʃi:p/ features a longer vowel /i:/.

Here, the vowel length is phonemic—meaning that the length of the vowel directly affects the meaning of the word. In English, this distinction is significant because it helps differentiate between words that would otherwise be pronounced similarly.

In contrast, Bangla (Bengali) generally does not use vowel length as a phonemic feature. In Bangla, variations in vowel duration are often more stylistic or influenced by speech rate rather than serving as a means to differentiate between words. As Hai (2007) points out, vowel length in Bangla tends to be more about expressive or phonetic nuances rather than a crucial element of semantic distinction (p. 16). Consequently, Bangla homonyms are not distinguished by vowel length.

#### *Reduced Vowels*

Another distinctive phonetic feature of English is the presence of **\*\*reduced vowels\*\***. In English, unstressed syllables often contain the schwa /ə/, which is a mid-central vowel. The schwa is the most common vowel sound in English and occurs in many unstressed positions. For example:

- In the word “again” /ə'geɪn/, the vowel /e/ in the unstressed syllable is pronounced as /ə/, resulting in /ə'geɪn/.

This phenomenon of vowel reduction is a prominent feature of English phonology and contributes to its rhythmic and stress patterns. The schwa's presence allows for smoother, more fluid speech patterns, particularly in unstressed syllables.

In Bangla, however, reduced vowels like the schwa are not a common feature. Vowels in Bangla tend to maintain their full quality regardless of their stress or position in the word. This means that vowels in Bangla are pronounced with more consistency in their articulation, and there is less variability in vowel quality compared to English.

### ***Triphthongs***

While Bangla does not exhibit reduced vowels, it does include triphthongs, which are complex vowel sounds that glide through three distinct vowel qualities within a single syllable. According to Barman (2009), Bangla features several triphthongs, such as:

- /aIa/
- /ɔIa/
- /aIe/
- /ɔIe/
- /ɔIo/

These triphthongs involve a combination of vowel sounds that can alter meaning significantly based on their pronunciation (p. 35). The presence of triphthongs in Bangla highlights the language's ability to incorporate intricate vowel combinations, adding to its phonetic richness.

In summary, English's use of vowel length and reduced vowels contributes to its phonetic and semantic complexity. Vowel length serves as a key distinguishing feature between homonyms, while the schwa demonstrates the language's adaptability in unstressed syllables. Conversely, Bangla's phonetic structure emphasizes vowel consistency and incorporates triphthongs, reflecting its distinct approach to vowel articulation. Understanding these phonetic features provides valuable insights into the unique characteristics of each language and contributes to a broader comprehension of linguistic diversity.

### **Unique Features of Bangla**

Bangla, or Bengali, has several phonetic features that set it apart from English, contributing to its distinctive linguistic characteristics. Two notable features are

vowel doubling and nasalization, each adding unique dimensions to the language's phonetic system.

### **Vowel Doubling**

One intriguing phonetic feature of Bangla is vowel doubling, which occurs in specific grammatical contexts. This phenomenon is exemplified in the first person present indefinite conjugation of verbs. For instance, the verbs “dewa” (to give) and “newa” (to take) in their respective conjugated forms become “diyi” and “niyi” (Barman, 2009, p. 28). Here, the vowel sound is repeated within the verb form, a process termed “Vowel Doubling” by Chatterji (1988).

Vowel doubling in Bangla serves as a grammatical marker rather than a phonemic one. This means that the doubling of vowels in certain word forms is used to convey grammatical information, such as tense or aspect, rather than changing the word's meaning entirely. In contrast, English does not exhibit a similar vowel doubling phenomenon. English relies more on morphological changes, such as adding suffixes or prefixes, to indicate grammatical modifications.

### **Nasalization**

Another distinctive phonetic feature of Bangla is nasalization, which significantly impacts the phonetic and semantic aspects of the language. In Bangla, each of the seven pure vowels has a nasalized counterpart. This nasalization is indicated by the diacritic Chandra Bindu (◌̣) placed above the vowel in written text. For example:

- The word “তারা” (/thara/) can mean “stars” or, informally, “them”.
- When nasalized as “তাঁরা” (/thāra/), it transforms into a formal and respectful way of saying “them” (Alam et al., 2008, p. 9).

Nasalization in Bangla alters both the pronunciation and the meaning of words. The presence or absence of nasalization can change the formality or politeness of expressions, adding layers of nuance to the language. This contrasts sharply with English, where nasalization primarily occurs in consonants, such as in the nasal sounds /m/, /n/, and /ŋ/. English does not use nasalization in its vowel system to alter meaning in the same way Bangla does.

In summary, the phonetic features of vowel doubling and nasalization in Bangla contribute significantly to its linguistic richness and complexity. Vowel doubling acts as a grammatical marker, providing information about verb conjugation, while

nasalization affects both pronunciation and meaning, influencing how words are understood and used in different contexts. These features highlight the unique phonetic and grammatical characteristics of Bangla, distinguishing it from English and reflecting the cultural and historical influences that have shaped its phonetic structure and usage. Understanding these distinctions enriches our comprehension of Bangla's phonetic system and its place within the broader landscape of world languages. Bangla, or Bengali, has several phonetic features that set it apart from English, contributing to its distinctive linguistic characteristics. Two notable features are vowel doubling and nasalization, each adding unique dimensions to the language's phonetic system.

### Differences in Diphthongs

Diphthongs, combinations of two vowel sounds where one glides towards the other, exhibit notable differences between English and Bangla.

In English, there are generally recognized to be 8 diphthongs. These combinations involve a smooth transition between vowels, such as in words like “price” (/praɪs/) and “loud” (/laʊd/). However, the number and nature of diphthongs in Bangla are subject to disagreement among phoneticians. Scholars like Abdul Hai (2007) suggest there are 31 Bangla diphthongs, while others propose figures like 17 or 29 (Sarker, 1992; Ali, 2001; Morshed, 1997). Conversely, Islam (2019) argues for only two diphthongs in Bangla, /ঐ/ (OI) and /ঔ/ (OU), rejecting the broader categorizations due to differences in vowel length and the nature of constituent vowels compared to English (p. 31).

Indeed, the pronunciation of Bangla diphthongs /ঐ/ and /ঔ/ differs significantly from their English counterparts /ɔɪ/ and /aʊ/, respectively (Islam, 2019, p. 31). These distinctions underscore the divergence in how diphthongs are conceptualized and phonetically realized between the two languages.

Lastly, while there is disagreement among Bengali scholars regarding the exact number and categorization of Bangla diphthongs, it is clear that differences exist between English and Bangla diphthongs. These variations reflect distinct phonetic patterns and linguistic conventions that contribute to the unique phonological identities of each language.

### Differences in Triphthongs

Triphthongs, sequences of three vowel sounds pronounced within a single syllable, exhibit notable differences and controversy between English and Bangla.

In English, there is recognition of 8 triphthongs, where three distinct vowel sounds glide together in one syllable, as exemplified in words like “fire” (/faɪər/) and “power” (/paʊər/). However, their status as a cohesive unit of sound remains debated (Barman, 2009, p. 34).

Conversely, Bangla purportedly features 17 triphthongs, according to some sources (Barman, 2009). However, Islam (2019) challenges this notion, arguing that Bangla triphthongs are actually combinations of a diphthong plus the schwa sound (/ə/), rather than true triphthongs as recognized in English. For instance, in words like “প্লেয়ার” (/pleɪər/) meaning “player,” the sequence /eɪə/ is considered a combination of the diphthong /eɪ/ and /ə/ (Islam, 2019, p. 32).

This rejection by Islam suggests a fundamental difference in how triphthongs are conceptualized between English and Bangla. While English maintains distinct triphthongs as single phonetic units, Bangla’s alleged triphthongs are viewed as composite structures involving a diphthong plus a schwa.

Despite the numerical disparity and controversy surrounding their classification, the differences between English and Bangla triphthongs reflect distinct phonetic structures and interpretations within each language’s phonological system.

### Discussion on Consonants

Consonants are fundamental units of speech sounds categorized by several key characteristics: whether they are aspirated, their place of articulation, and their manner of articulation. According to Barman (2009), the manner of articulation determines how air is expelled through different parts of the mouth, while the place of articulation refers to where obstructions are created to modify the airflow (p. 36).

The manner of articulation is classified into six main categories:

1. **Plosives:** Sounds produced by a complete closure at some point in the vocal tract, followed by a sudden release of air (e.g., /p/, /t/, /k/).
2. **Affricates:** Sounds characterized by a plosive followed immediately by a fricative at the same place of articulation (e.g., /tʃ/ as in “church”).
3. **Fricatives:** Sounds produced by forcing air through a narrow channel, creating friction (e.g., /f/, /s/, /ʃ/).
4. **Nasals:** Sounds produced with complete closure in the oral cavity while allowing air to escape through the nasal passage (e.g., /m/, /n/).

5. **Laterals:** Sounds produced by allowing air to escape around the sides of the tongue (e.g., /l/).
6. **Approximants:** Sounds produced with less constriction in the vocal tract than fricatives or plosives (e.g., /w/, /j/).

Similarly, consonants are classified by their place of articulation, which identifies where in the vocal tract the obstruction occurs. The eight main places of articulation are:

1. **Bilabial:** Sounds produced by bringing both lips together (e.g., /p/, /b/).
2. **Labiodental:** Sounds produced with the lower lip against the upper teeth (e.g., /f/, /v/).
3. **Dental:** Sounds produced with the tongue against the upper teeth (e.g., /θ/, /ð/).
4. **Alveolar:** Sounds produced with the tongue against the alveolar ridge (e.g., /t/, /d/, /s/, /z/).
5. **Postalveolar:** Sounds produced with the tongue near or touching the back of the alveolar ridge (e.g., /ʃ/, /ʒ/).
6. **Palatal:** Sounds produced with the middle of the tongue against the hard palate (e.g., /j/ as in “yes”).
7. **Velar:** Sounds produced with the back of the tongue against the soft palate or velum (e.g., /k/, /g/).
8. **Glottal:** Sounds produced with the vocal cords at the level of the glottis (e.g., /h/).

While Bengali scholars may vary in their categorization of consonants by place and manner of articulation, for the purposes of this research, Barman’s classification will be used as a reference. This systematic approach provides a framework for analyzing and comparing consonantal systems across languages, facilitating a deeper understanding of their phonetic structures and linguistic diversity.

### Similarities Between English and Bangla Consonants

English and Bangla share several consonantal sounds, demonstrating some phonetic similarities despite their distinct linguistic origins and structures.

1. **Bilabial Plosives:** Both languages include the sounds /p/ and /b/, represented in Bangla as /প/ and /ব/.

2. **Alveolar Plosives:** Both English and Bangla feature the sounds /t/ and /d/, represented in Bangla as /ট/ and /ড/.
3. **Alveolar Fricative:** The sound /s/ exists in both languages.
4. **Palatal Fricative:** Both languages have the sound /ʃ/, represented similarly in Bangla.
5. **Velar Plosives:** Both English and Bangla include the sounds /k/ and /g/, represented in Bangla as /ক/ and /গ/.
6. **Nasal Sounds:** Three similar nasal sounds /m/, /n/, and /ŋ/ are present in both English and Bangla, indicating obstruction at the lips, alveolar ridge, or velum with airflow passing through the nose.
7. **Lateral Consonant:** Both languages include the lateral consonant /l/.
8. **Glottal Sound:** The sound /h/ is present in both English and Bangla.
9. **Approximant Consonants:** Both languages share the approximant consonants /r/, /w/, and /j/.

Regarding the /r/ sound in Bangla, there are variations noted by linguists. Chatterji (1921) observed three different values of the Bengali /r/, suggesting it exhibits variations including post-dental trill, flap, and retroflex sounds (Chatterji, 1921, p. 6-7). Ferguson and Chowdhury (1960) also acknowledge these variations and attribute their reduction with increasing education and standardization (Ferguson & Chowdhury, 1960, p. 32).

### Differences Between English and Bangla Consonants

English and Bangla exhibit significant differences in their consonantal inventories, reflecting distinct phonetic systems and linguistic structures.

1. Absence in English, Present in Bangla:

**Bilabial Plosives:** Bangla includes aspirated bilabial plosives /ph/, /b<sup>h</sup>/ represented as /ফ/, /ভ/, which are absent in English.

**Alveolar Plosives:** Bangla features aspirated alveolar plosives /t<sup>h</sup>/, /d<sup>h</sup>/ represented as /ঠ/, /ঢ/, also not found in English.

**Velar Plosives:** Bangla includes aspirated velar plosives /k<sup>h</sup>/, /g<sup>h</sup>/ represented as /খ/, /ঘ/, which are absent in English.

2. Absence in Bangla, Present in English:

**Bilabial Fricatives:** English has the fricatives /f/ and /v/, absent in Bangla.

**Alveolar Fricative:** The sound /z/ is present in English but not in Bangla.

**Palatal Fricative:** English includes the sound /ʒ/ (as in “vision”), which is absent from Bangla.

### 3. Distinct Sounds

**Dental Sounds:** English has the dental fricatives /θ/ (as in “thing”) and /ð/ (as in “this”), while Bangla has dental plosives /t/, /tʰ/, /d/, /dʰ/ represented as /ত/, /থ/, /দ/, /ধ/.

**Post-Alveolars:** Bangla features post-alveolar plosives /ʈ/, /ɖ/ represented as /চ/, /জ/, while English uses these articulations for fricatives /tʃ/ (as in “church”) and /dʒ/ (as in “judge”).

However, the differences between English and Bangla consonants highlight distinct phonetic systems and articulatory patterns. These differences contribute to the unique phonological identities of each language, influencing pronunciation and linguistic expression.

## General Discussion on Morphology

In linguistics, morphology encompasses the study of how words are formed and their internal structure, focusing on morphemes, which are the smallest units of meaning within a language.

### Types of Morphemes

Morphemes are categorized into two main types based on their lexical status:

1. **Free Morphemes:** These are morphemes that can stand alone as independent words with meaning, such as “flower” in English or “ফুল” (phul) in Bangla, meaning “flower”.
2. **Bound Morphemes:** These morphemes cannot stand alone and must be attached to other morphemes. They include prefixes, suffixes, and infixes. For example, the plural marker /-s/ in English (“flowers”) or plural markers in Bangla like /-রা/ (ra), /-গুলো/ (gula) for inanimate objects (“ফুলগুলো”, flowers).

### *Singular and Plural Affixes*

**English:** In English, the plural marker is usually /-s/ (e.g., “flowers”). It attaches to nouns to indicate plurality.

Singular nouns typically do not require a specific marker; the noun itself often serves as the singular form.

**Bangla:** Bangla has markers for both singular and plural forms, differentiated by whether the noun refers to sentient beings or inanimate objects.

Plural markers for sentient beings include /-রা/ (ra), /-এরা/ (era), while for inanimate objects, markers like /-গুলা/ (gula), /-গুলি/ (guli) are used.

Singular markers in Bangla include /-টা/ (ta), /-টি/ (ti), /-খানা/ (khana) for objects like “ফুলটা” (phulta, a flower), “বইখানা” (boikhana, a bookshelf).

### *Comparison*

**English:** Uses a simple /-s/ marker predominantly for pluralization, with nouns generally remaining unchanged in the singular.

**Bangla:** Exhibits a more nuanced system with distinct markers for singular and plural forms, accounting for both sentient and inanimate nouns.

In this case, the morphological systems of English and Bangla differ notably in how they mark singular and plural forms of nouns. English tends to use a single suffix /-s/ for pluralization, whereas Bangla employs various suffixes that distinguish between animate and inanimate nouns, reflecting a more intricate morphological structure for noun formation.

### *Conclusion*

Comparative linguistics is crucial for understanding the origins and evolution of human languages. This field involves examining similarities and differences between languages to reconstruct their historical development and uncover potential ancestral connections. By comparing languages like English and Bangla, linguists aim to trace their historical roots and the paths they have taken over time.

### *Investigating Shared Ancestry*

Despite the geographical and cultural distance between English and Bangla, notable similarities in their linguistic features suggest the possibility of a shared historical ancestry. These similarities might reflect a common linguistic heritage or

a proto-language from which both languages have evolved. Comparative linguistics examines these features to hypothesize about how languages might be related.

**Phonetics:** Both English and Bangla have intricate vowel systems, although their specific phonetic characteristics differ. For instance, English uses vowel length as a phonemic feature to differentiate meanings, such as in the minimal pairs “ship” /ʃɪp/ versus “sheep” /ʃi:p/. Bangla, on the other hand, employs vowel doubling and nasalization, which play significant roles in grammatical and semantic distinctions. The comparative study of these phonetic features might reveal underlying patterns that suggest a deeper linguistic connection.

**Morphology:** The morphological structures of English and Bangla showcase their unique evolutionary paths. English morphology has been influenced by historical events, such as Norman Conquest, resulting in a rich vocabulary and complex verb forms. Bangla, with its own set of morphological rules, including suffixation and vowel doubling, reflects a different developmental trajectory. Comparing these morphological features helps linguists understand how languages adapt and evolve over time while retaining traces of their ancestral forms.

**Syntax:** Syntax, or sentence structure, can also reveal connections between languages. English and Bangla exhibit different syntactic rules and sentence constructions. For example, English typically follows a Subject-Verb-Object (SVO) order, whereas Bangla often uses a Subject-Object-Verb (SOV) order. Analyzing these syntactic structures can offer insights into how languages have diverged from a common ancestor or developed unique syntactic patterns independently.

### *Independent Developments and Unique Features*

Despite possible shared roots, English and Bangla have developed independently, acquiring distinctive features that reflect their unique histories and cultural contexts.

#### *English*

**Vowel Length and Reduction:** English uses vowel length as a crucial phonemic feature, where variations in vowel duration can change word meanings. Additionally, English employs vowel reduction, particularly the schwa /ə/, in unstressed syllables, which affects pronunciation and rhythm.

#### *Bangla*

**Vowel Doubling and Nasalization:** Bangla features vowel doubling, a grammatical marker that affects verb conjugation and other grammatical aspects. Nasalization,

indicated by the Chandra Bindu diacritic, significantly influences pronunciation and meaning in Bangla. These features contribute to the language's phonetic and semantic richness.

Comparative linguistics plays a pivotal role in understanding how languages like English and Bangla have evolved and how they might be related through a common ancestral language. By examining similarities and differences in phonetics, morphology, and syntax, linguists can reconstruct historical connections and trace the development of these languages. While English and Bangla have each developed unique linguistic characteristics, their shared traits provide valuable insights into their historical evolution and the broader patterns of human language development. This comparative approach enriches our understanding of both languages and contributes to the broader field of historical linguistics.

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