PREFACE

With its grounding in the "guiding pillars of Access, Equity, Equality, Affordability and Accountability," the New Education Policy (NEP 2020) envisions flexible curricular structures and creative combinations for studies across disciplines. Accordingly, the UGC has revised the CBCS with a new Curriculum and Credit Framework for Undergraduate Programmes (CCFUP) to further empower the flexible choice based credit system with a multidisciplinary approach and multiple/ lateral entry-exit options. It is held that this entire exercise shall leverage the potential of higher education in three-fold ways - learner's personal enlightenment; her/his constructive public engagement; productive social contribution. Cumulatively therefore, all academic endeavours taken up under the NEP 2020 framework are aimed at synergising individual attainments towards the enhancement of our national goals.

In this epochal moment of a paradigmatic transformation in the higher education scenario, the role of an Open University is crucial, not just in terms of improving the Gross Enrolment Ratio (GER) but also in upholding the qualitative parameters. It is time to acknowledge that the implementation of the National Higher Education Qualifications Framework (NHEQF), National Credit Framework (NCrF) and its syncing with the National Skills Qualification Framework (NSQF) are best optimised in the arena of Open and Distance Learning that is truly seamless in its horizons. As one of the largest Open Universities in Eastern India that has been accredited with 'A' grade by NAAC in 2021, has ranked second among Open Universities in the NIRF in 2024, and attained the much required UGC 12B status, Netaji Subhas Open University is committed to both quantity and quality in its mission to spread higher education. It was therefore imperative upon us to embrace NEP 2020, bring in dynamic revisions to our Undergraduate syllabi, and formulate these Self Learning Materials anew. Our new offering is synchronised with the CCFUP in integrating domain specific knowledge with multidisciplinary fields, honing of skills that are relevant to each domain, enhancement of abilities, and of course deep-diving into Indian Knowledge Systems.

Self Learning Materials (SLM's) are the mainstay of Student Support Services (SSS) of an Open University. It is with a futuristic thought that we now offer our learners the choice of print or e-slm's. From our mandate of offering quality higher education in the mother tongue, and from the logistic viewpoint of balancing scholastic needs, we strive to bring out learning materials in Bengali and English. All our faculty members are constantly engaged in this academic exercise that combines subject specific academic research with educational pedagogy. We are privileged in that the expertise of academics across institutions on a national level also comes together to augment our own faculty strength in developing these learning materials. We look forward to proactive feedback from all stakeholders whose participatory zeal in the teaching-learning process based on these study materials will enable us to only get better. On the whole it has been a very challenging task, and I congratulate everyone in the preparation of these SLM's.

I wish the venture all success.

Professor. Indrajit Lahiri

Vice-Chancellor

NETAJI SUBHAS OPEN UNIVERSITY
Four Year Undergraduate Degree Programme
Under National Higher Education Qualifications Framework (NHEQF)
& Curriculum and Credit Framework for Undergraduate Programmes
Course Type: Discipline Specific Elective (DSE)
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Course : Language and Linguistics

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Module–I : Basics of Linguistics

Module–II : Language Varieties

Module–III : Morphology & Syantax

Module–IV : Organization and Structure

Module 1

Basics of Linguistics

Unit 1 ❑ Definition, Scope, Levels and Branches of Linguistics

Structure

1.1.1. Introduction

1.1.2. What is Linguistics?

1.1.3. Interdisciplinary scope of Linguistics

1.1.4. Linguistic knowledge

1.1.5. Knowledge of sounds

1.1.6. Knowledge of words

1.1.7. Association of form and meaning

1.1.8. Knowledge of sentences and non-sentences

1.1.9. Avenues of linguistic exploration & analysis

1.1.10. Branches of Linguistics

1.1.11. Research in Linguistics

1.1.12. Summing Up

1.1.13. Comprehension Exercises

1.1.14. Suggested Reading List

1.1.1 Introduction

In this Unit, we shall briefly explore the fundamental ideas related to the study of Linguistics and discuss the immense interdisciplinary scope due to the multiple ways in which linguistic nuances influence several other fields of study. We will look at the major branches of linguistic study as well as succinctly highlight contemporary research trends.

After reading the Unit carefully, you will be able to:

- understand the importance of form and meaning in any linguistic analysis;

● appreciate the reciprocity amongst the multiple strands of linguistic study;

● differentiate between sentences and non-sentences; and

● realise how rich the arena of linguistics is, in terms of potential issues, research questions and ever-expanding applied branches of study.

1.1.2 What is Linguistics?

Before we try to understand what is linguistics or if it is possible to ever arrive at an exact understanding of what all comes under the purview of linguistics, we need to contemplate the incredible variety of functions that we as humans accomplish through language. From simply talking, arguing, debating, bargaining, buying, selling, teaching, questioning, answering to proposing, negotiating, criticising, defending and judging, we use language so very frequently and spontaneously, without even realising how vitally irreplaceable it is, as one of the cardinal human faculties. We operate in an inter-connected world where language serves a unique binding function. There are multiple perspectives and ideas as to how language underlies meaning, information, power, social and cultural capital, etc., and therefore we can argue that such a complex organic system is beyond simply the scope of structural and empirical study. We do not deny that there are objective attributes that need to be systemically explicated and recorded as part of rules, laws, procedures, standards, etc., that go on to shape theories, grammars, pedagogies and policies. However, there is also a subjective dimension to the study of language, whereby a plethora of philosophical stances and ideas deliberate on how messy and heterogeneous the reality of language is. Therefore, it would be biased if we were to understand Linguistics simply as the 'scientific' study of language, as a number of methodologies and frameworks, to study language, do not have a conventional empirical basis.

Every human language, regardless of which language family it belongs to, is an amazingly complex aggregation of knowledge (both historically preserved and evolving), abilities (cognitive basis), interpretations and community-specific licenses (tokens of social capital, indexes of aspiration as well as cultural sanctions). In light of so many aspects, we can broadly understand Linguistics as the critical exploration and study of these fascinatingly mosaic knowledge matrices from every possible perspective and in every possible aspect.

As we go through all the sections, you need to devote time to answer the questions given in 'Check Your Progress'. This will help you revisit what we have covered and also provide some much-needed practice in thinking yourself. We do hope you enjoy learning through this Unit

1.1.3 Interdisciplinary scope of Linguistics

Continuing our discussion, it is indeed impossible to find a human domain where we do not make use of language. Naturally, we need to acknowledge that language is essentially indispensable for humans to survive as well as function productively, and hence it is the key species-specific trait that enables us to be distinguished as humans. Since Linguistics explores the faculty of language and its use in every possible aspect, it has multifarious associations and overlaps with myriad disciplines including philosophy, literature, sociology, anthropology, psychology, neurology, statistics, computation, medical sciences and many more. This enhances the research agenda that an interested scholar or a group of scholars can pursue. Not only in terms of ideas and questions, but also with respect to methodologies and techniques, interdisciplinarity makes research as well as projects in Linguistics, exciting and challenging. Let us consider a few examples to understand this better.

(i) A linguist with a proclivity for psychology can explore how yes-no questions are processed by speakers of a particular language X learning language Y. The experimental setup can investigate how processing of questions in language Y, is influenced by the speakers' existing intuition of language X. This can be done through a reading experiment or an experimental task requiring participants to respond. The reading experiment can again be specialised with an eye-tracking setup and recording the times spent on specific words in the questions (gaze durations). Furthermore, we can incorporate neurological perspectives here by adding an EEG (Electro-Encephalography) module and looking at the ERP (Event-Related Potential) components (like N400, P600, etc.).

(ii) A linguist having interest in sociology can look at how language users change or attempt to change the way they speak (dialectal variation, accent, choice of words, tone, etc.) to realise their aspirations (social mobility, in-group/out-group capital, prestige and power, etc.).

(iii) A linguist enthusiastic about health sciences, can examine the sort of difficulties accident-survivors with brain damage (aphasics), experience in expressing oneself and understanding others, be it the medium of speech or writing.

(iv) A linguist passionate about computation can analyse crawled language data from different online forums to highlight issues like aggression, bullying, trolling, flaming, etc., which are greatly influencing the way we interact, react and share ideas online in an increasingly networked and digital world.

Let us just catch our breath here! These examples are to give you all a whiff of how overwhelming and stimulating researches in Linguistics can be!

1.1.4 Linguistic Knowledge

Knowing a language might appear to be something very ordinary, yet there are complex issues and questions that we need to seriously think about. For instance, how do kids as language users know and produce so much more, within such a short span of time, compared to the incomplete, inadequate and scattered input they receive? How do kids master knowledge of such a complex system within such a short time, where adults cannot even with great effort? How do language users know how to utilise knowledge of a language to comprehend complex and emotional messages without any training? How do language users know how to produce complex and emotionally-charged messages without any training?

Acknowledging the complexity of these questions, let us try to understand what is linguistic knowledge. When language users claim to know a language, they can not only express themselves, but also be understood by others members of the speech community, who also know the language and use it in a similar way. So firstly, in the modality of speech and spoken languages, this implies that they can articulate organized sequences of sounds that have historically-traceable, community-approved meanings (it can be the same meaning continuing throughout the ages or there can be changes in meaning at certain points of time) and they can also comprehend such sound sequences produced by others while keeping the context in mind. Secondly, in the modality of handshapes, facial expressions and signed languages, this implies that they can sign organized sequences of handshapes, coupled with facial expressions, in a certain expanse of space surrounding their bodies. These handshapes, in consonance with the appropriate facial expressions, have historically-traceable, community-approved meanings (it can be fixed or there can be changes in meaning at certain points of time). However, this is not the end of it. Simply debunking the stereotype of the auditory nature of languages is not sufficient, if we think about the deaf-blind. Therefore, we need to understand that language and linguistic knowledge are much more than just speech and form.

In order to function, no matter the nature of being specially-abled, a human being needs to know and, in some way, use at least one language. We are surprised by the extra-ordinary level of proficiency of five-year olds when they amaze parents, relatives and others by producing sentences as complex and lengthy as their parents, and even understanding most of what adults speak in their presence. However, if we think about it deeply, this very ability requires immense knowledge of the language, which becomes evident when we try to have a very simple conversation in another language that we have been learning for a few years. This applies equally for speakers of every possible language, from Spanish to Sanskrit. It is also quite intriguing how we produce highly

complex sentences containing three or more adverbial clauses without even understanding what adverbial clauses are. For instance:

(i) We need to find the university where Archana studied when she came to Delhi because she needed a scholarship.

(ii) Whether Mahesh pays for it or not, he will be sent a copy of the magazine because he helped the editor once when he was in a tight situation.

Quite interesting, right? Let us now look more specifically at knowledge of sounds. But before we do that, let us first answer the following questions.

Check Your Progress 1

1) Can you briefly explain what Linguistics deals with in general? (50-60 words).

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2) The interdisciplinary scope of Linguistics creates too many issues to be dealt with at once and therefore things become obscure. Agree or disagree? Provide arguments to support your perspective. (80-100 words)

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3) What is your understanding as a language user of the idea of linguistic knowledge? Give an example that can justify the point that language and linguistic knowledge are much more than just speech and form. (80-100 words)

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1.1.5 Knowledge of sounds

For the purpose of not burdening learners with too much at one go, we will

take it step by step. Let us first look at spoken languages that require the faculties of speech and audition. So, when we are dealing with spoken languages, knowing one or more of such languages implies knowing the sounds (phonemes) that are used for the composition of words in that or those particular language/s. Furthermore, it implies knowing which sounds are not a part of the inventory of sounds of that/those language/s (phonemic inventory).

This intuitive knowledge becomes evident when speakers of a particular language converse in another language and the pronunciation bears conspicuous traces of influence from the first language. For instance, speakers proficient only in Bangla, while trying to speak in English will unknowingly replace an English sound with a Bangla sound, in the process of articulating English words containing sounds outside the sound inventory of Bangla. This is quite easy to observe in the manner in which very and van are pronounced as bhery and bhan by Bangla speakers not proficient in English. However, there are speakers of Bangla who are equally or, in certain cases, more proficient in English, and they do pronounce very and van in the manner in which native speakers of English do. This clearly indicates that these speakers of Bangla are well aware of the sounds in both the English and the Bangla inventory and know exactly how they differ (although in most cases they will not be able to explain it technically).

Similarly, a native English speaker, not proficient in Bangla, would face relatable difficulties while articulating Bangla words like ধর্ম (dhormo) and ছেলে (chhele). The Bangla sounds represented by ধ and ছ in the word-initial positions in ধর্ম and ছেলে, are not part of the English sound inventory. Therefore, the difficulty in pronouncing them or their mispronunciation altogether, distinctly exhibits any native English speaker's intuitive cognizance of this very fact. Again, if he/she is able to pronounce them in the manner in which native Bangla speakers do, then we can be sure that he/she is well aware of the sound systems of both English and Bangla.

Moving on, a language user's knowledge of the sound system of his/her language entails more than simple awareness of which sounds are and which sounds are not a part of the sound inventory. There are additional sensibilities/linguistic intuitions which enable language users to instinctively know which sounds or sound clusters can occur in the word-initial position, which sounds or sound clusters can be in the word-final position, which sounds can follow each other or form clusters, and also which sounds cannot. For instance, if we consider the English word *jewelry*, the sound cluster *lr* (without any intervening vowel sound) is something not found in any Bangla word, as in the Bangla sound system the sounds *l* and *r* never occur successively and need the intervention of a vowel sound. As a result, native speakers of Bangla while uttering the English word jewelry, subconsciously modify the pronunciation with the insertion of a vowel sound,

like *jewel-a-ry* or *jewel-e-ry*, thereby effecting a correspondence with the Bangla sound system. This capacity to recognise, process and engineer sounds, develops incredibly fast in children. Even a one-year old kid learning Bangla will be aware that *lr* cannot occur in succession without the support of an intervening vowel sound. Similarly, a one-year old British kid will be certain that it can in English.

1.1.6 Knowledge of words

Now beyond the level of sounds, there lies the level where we put together individual sounds into innumerable possible sequences. From these, the sound sequences, which are accorded certain meanings (roughly understandable as the perceptual equivalent of an entity, idea, feeling, state or action, etc.) by a particular speech community, are considered to be meaningful and hence acceptable as words in that language and within that particular speech community. For instance, English speakers understand perfectly what the word ball refers to, and how ball is something very different from wall, hall and the teenagers' favourite hangout zone these days - mall. Moreover, English speakers can recognize that although ball, wall, hall and mall are acceptable and meaningful words in English, a construction like xall is not an English word. Knowledge of words equips a language user to readily identify sound sequences which have specified meanings in that language and also the ones which do not.

1.1.7 Association of form and meaning

Let us now try to understand how linguistic form (auditory/orthographic/signed) and meaning are associated. When we talk about form, keeping the variable of modality in mind, we can have auditory (speech), orthographic (written), signed (handshapes coupled with facial expressions) and even tactile (touch-based) classifications. The relationship between linguistic form and meaning is, to put it straight, a completely arbitrary one, which is also the reason why when we do not know a certain language, we cannot independently make any sense out of its words and sentences. There is no one-to-one correspondence between form and meaning. For instance, let us consider what English speakers refer to and describe as water, chemically H_2O. The exact same referent is used by Bengali speakers in a similar way (i.e., vital for life; for drinking, cooking, cleaning, etc.) and given similar importance, but referred to and described as জল (jol) or বারি (bari) or নীর (neer), and the list can continue. Parallelly, Hindi speakers refer to and describe the same referent as पानी (pani) or जल (jal). The foundation for this relational

trigger, whereby as soon as the referent is seen by a language user the word for it in that language is mentally retrieved, is laid when we are in the process of acquiring or learning the language, as we internalise that the sound sequences constituted by the letters w, a, t, e, r (in English), জ, ল (in Bangla) and জ, ল (in Hindi) signify the crucial chemical compound H_2O in its liquid form.

Keeping in mind the above statement, it is also interesting to note how the same sequence of sounds can at times be accorded different meanings and thereby signify different things in different languages. For instance, the sound sequence kaka, in Bangla and Hindi acts as the kinship term for 'uncle', in Icelandic means 'cake' and in Bulgarian refers to an older sister. Another interesting example is that of the sound sequence panna, which in Bangla refers to the 'emerald gemstone', in Italian means 'cream' and in Finnish means 'to put'.

So, as we can see from these amusing examples, there is no stringent linkage between a particular form and a certain meaning; meanings, in fact, get assigned by community-approved convention with a degree of historicity. There is no verifiable logic behind calling what is chemically H_2O as water. In fact, water could have been called anything else, for instance xug, and English speakers would have known it as xug had the same been maintained throughout the history of the English inventory of words.

Now, some people might want to argue here about certain words which closely resemble certain naturally occurring sounds or even sounds produced by living organisms. For instance, the hissing of snakes, the buzzing of bees, the clanking of buckets, the honking of horns, etc., are all words whose pronunciations can be readily identified with the auditory perceptions of certain worldly events, namely, the characteristic sound made by snakes, the sound made by the rapidly beating wings of flying bees, the sharp sound of metallic buckets striking against one another and the alarmingly unpleasant sound of the horns of automobiles. So, for words like hiss, buzz, clank, honk, rustle, boom, swoosh, etc., there exists the argument that their pronunciations hold clues to their meanings. This issue of sound symbolism is witnessed across languages and such words are termed as onomatopoeic words. But we need to understand that even with onomatopoeic words, there is no one-to-one correspondence between form and meaning, as there is no uniformity or universality in the way language users perceive these naturally occurring sounds or sounds produced by living organisms. For instance, if we consider the sound made by a dog, an English speaker describes it as bow-wow, a Bangla speaker as ঘেউ-ঘেউ (gheu-gheu) and a Hindi speaker as भाँ-भाँ (bhau-bhau). It becomes evident that even in case of onomatopoeic words and expressions, the sound sequences conform to the sound inventory of the particular language and the language user's perception too is accordingly unique.

Now, if we look at signed languages and tactile languages, the above discussed arbitrariness with respect to the association of form (signs with handshapes and facial expressions; tactile signs through manual touch) and meaning, holds absolutely true. For instance, a feeling or an action will have dissimilar signs for signers using Chinese Sign Language versus those using Brazilian Sign Language.

Before moving on to the next section where we talk about sentences and non-sentences, let us try to recollect the ideas we have discussed through an exercise.

Check Your Progress 2

Read the following statements carefully and using what you have learned so far, examine whether these are misconceptions or not. Provide clear arguments to justify your perspective:

1) The Rung community of the Rung valley needs to migrate at different times of the year to different altitudes within their own valley. Their repertoire of words has different verbs signifying movement according to the change of surface, namely movement on snow, movement on plain land, etc. Therefore, they cannot think abstractly about movement.

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2) The more words we know in a language, the better we know the language.

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1.1.8 Knowledge of sentences and non-sentences

Building on what we have learned about meaningful words, we now approach the next level - that of sentence - whereby meaningful words are further arranged in a specific order and following a language-specific finite set of rules (grammar), to convey a complete message. When we know a language, we are not only able to produce and comprehend an infinite, inexhaustible set of **well-formed** sentences (obeying the grammatical rules of

the language), but we are also able to identify and suggest amendments of the ill-formed ones (not obeying the grammatical rules of the language). Well-formedness here implies grammatical conformity and we need to be careful about not merging it with acceptability of meaning. In fact, a sentence may appear ridiculous or feel extremely weird from the point of view of meaning, but as long as it abides by the grammatical conventions of the language, it will be considered well-formed. Let us look at the following sentences:

i.   Rohit silently screamed as he witnessed blindfolded a peaceful murder.

ii.   The yellow elephant snored melodiously as it flew over the snow-capped peaks.

iii.   The adventurous patient somersaulted all over the operation theatre as the doctor applied anaesthesia.

iv.   My pet rhino playfully bumped my cottage into the Atlantic.

All of the above sentences are well-formed but have strikingly unusual meanings.

Let us now look at some more sentences:

v.   *Who ate the apple Mohan cooking lunch.

vi.   *Saturday on temple the to goes family the.

vii.   *Has he loves ever anything to life.

viii.   *The scientist predicts another week from tomorrow to appear the comet.

Any English speaker on the basis of his or her linguistic intuition will consider these sentences grammatically flawed and therefore ill-formed. Using the asterisk (*) is a convention to mark sentences which are ungrammatical. Considering the two sets of example sentences, we need to understand that simply putting together meaningful words is not enough, unless and until the way we organize (and at times modify) these words is in compliance with the rules of forming sentences in the particular language, which in our case is English. These rules are finite in number and vary across languages. However, these rules are crucial as they empower us as language users to generate and process an infinite array of sentences. Furthermore, it is on the basis of these very rules that we as language users decide whether a certain sentence in our language can be considered well-formed or not. Now, we do not purposefully invest any effort to get these rules, but we acquire them spontaneously and subconsciously as we go about picking up our first language (as per the language of our parents or the immediate surroundings) as kids, in the natural course of things. In linguistic terminology, these rules comprise the grammar of the particular language.

Having discussed what we have so far, let us try to look at an apparently simple question: what do we know when we know a language? On the basis of the ideas

explored, we can argue that knowing a language, till now seems to imply, knowing the sounds, the meaningful combinations of those to form acceptable words and then the grammatical rules which license infinite possibilities of the organization of words to form sentences. We are about to find out more in the following units and then contemplate if we can expand upon this understanding.

1.1.9 Avenues of linguistic exploration and analysis

There are several fields where the techniques and methods of linguistic analysis become significant. In the study of literature and discourse in general, stylistic analysis explores the various literary devices and the narrative structure, focusing on the choices made by an author in a particular text. For instance, while stylistically analysing a certain text, we can look at the different types of metaphors used and how they are positioned in the text to create the literary effect planned by the author. The tools of linguistic analysis also find great use in the study of mass media and more recently, social media. The language used in governance, political commentaries, advertisement campaigns, publicity stunts, etc., is meticulously dissected with reference to the Framing Theory (Chong & Druckman, 2007), the Agenda Setting Theory (McCombs & Shaw, 2004), the Ideological Square (Van Dijk, 1998), Frame Analysis (Goffman, 1974), etc., as interests, intentions, representational focus, power transactions and manipulation of meaning become evident with words and their purported use losing neutrality (Lakoff, 2000). Social media platforms are also being presently studied with a lot of critical interest, examining the choice of words, their connotations and the mode of argumentation with respect to issues like an individual's ideological alignment, cultural sensibilities, political awareness, emotional threshold, personal motivation, etc. The field of communication is another prominent avenue where language choices are closely analysed as interlocutors try to accomplish functions as complex as persuasion, negotiation, resolution of conflict, cross-cultural empathy in team-work, etc., within an organisational setup having a multi-layered hierarchy of power and roles. These examples are just to provide a rough idea of how open and flexible the avenues of linguistic analysis and exploration are. There are many more of such avenues and we will try to look at them as we move ahead with the following segments.

1.1.10 Branches of Linguistics

Trying to chronicle all the branches of linguistics or linguistic study is quite a task as with time and broadening associations; the number has been increasing steadily. Now, we can illustrate the important branches of linguistics using the frameworks of structural/

theoretical study, descriptive study, applied study and psychobiological study.

(A) From the perspective of structural/theoretical study (whereby the canonical and rule-governed functioning of the different aspects of a language are systematically explicated), the cardinal branches are as follows:

Phonetics: The branch of Phonetics deals with the language-independent classification of speech sounds (inclusive of vowels and consonants) along with a scrutiny of their articulation, transmission and perception.

Phonology: The branch of Phonology deals with a language-specific illustration of the patterning and distribution of speech sounds, alongside their properties, the laws governing them and the variations that are witnessed.

Morphology: The branch of Morphology is concerned with the study of the internal structure of words as well as the processes of word formation by looking at the smallest indivisible purposeful (the purpose could be that of conveying meaning or of serving a grammatical function) units called morphemes and the different ways in which they combine in a particular language.

Syntax: The branch of Syntax focuses on the explication of sentence structure and the rules governing the combination and ordering of word categories in a particular language as per the intuitive judgments of its native speakers.

Semantics: The branch of Semantics deals with the study of meaning while critically deliberating on its inception, interpretation, shift and negotiation by the users of a particular language.

Pragmatics: The branch of Pragmatics looks at the intriguing use of language in particular social contexts and thereby studies how interpretations vary in the course of interactions influenced by situational contexts.

(B) Moving on, from the perspective of descriptive study (whereby the use of a particular language is exhaustively delineated), the significant branches are as follows:

Historical Linguistics: The branch of Historical Linguistics (or Diachronic Linguistics) deals with the detailed chronological examination of language change over a substantial period of time, investigating the nature, causes and consequences of these changes with respect to a particular language or in the process of comparing two or more languages.

Anthropological Linguistics: The branch of anthropological linguistics explores the connection between language and culture through a focused probe of the nature of use of language in different cultures and how there are conspicuous cultural features encoded in the language(s) that they use or in the way these cultures use their language(s).

Sociolinguistics: The branch of sociolinguistics highlights the convoluted relationship between society and language, looking at how language users intentionally try to acquire or unwillingly lose power, prestige and social capital through the use of language in a variety of social situations.

Etymology: The branch of etymology deals with the study of the origin of words tracing the changes in their forms and meanings throughout their history of usage.

(C) Next, from the perspective of applied study (whereby the ideas and the knowledge of linguistics are implemented in tackling real-world language-related issues), the major branches are as follows:

Applied Linguistics: The branch of Applied Linguistics illustrates how a wide variety of language-related issues and concerns in real-life scenarios (e.g., translation, pedagogy, lexicography, learning disabilities, speech therapy, etc.) can be addressed or better understood by employing the principles and analytical tools of linguistics.

Computational Linguistics: The branch of Computational Linguistics deals with the application of tools and techniques of computation (computer science) in consonance with linguistic frameworks to better understand issues in spoken and written language, the insights of which can be used in the perfection of artifacts effective in natural language processing.

Forensic Linguistics: The branch of Forensic Linguistics involves the application of linguistic principles, methods and tools to the thorough scrutiny of any language use (written, spoken, recorded, signed, etc.) being cited as evidence/testimony/legislation in the forensic context of criminal and civil law and judicial proceedings.

Language Teaching/ Language Education: The branch of Language Teaching deals with the application of linguistic principles, ideas and methods to the process of teaching a specific language while effectively addressing common errors and unique learner requirements.

(D) Finally, from the perspective of psychobiological study (whereby the mental and the biological basis of language acquisition, learning, use and impairment are empirically probed), the leading branches are as follows:

Neurolinguistics: The branch of Neurolinguistics is concerned with the empirical study of how language is systematically processed in a human language user's brain, while monitoring the activity of the different areas of the brain using a number of interdisciplinary tools and technologies. Neurolinguistics also explores issues of language disruption or learning disability with respect to the affected areas of the brain in cases of accident, physiological damage, special learning needs, degenerative or old-age conditions, etc.

Psycholinguistics: The branch of Psycholinguistics broadly explores the mental facets of language inclusive of all of its modalities, through an interdisciplinary investigation of the manner in which language users process language amidst real-world activities demanding a singular or a combination of modalities, to throw light on the mental processes and frameworks responsible for our ability to produce and understand language.

Language Acquisition: The branch of Language Acquisition deals with the study of the process of acquiring a language with respect to the sequential completion of linguistic milestones as a child develops mastery over the five cardinal areas (knowledge of sound system, inventory of words, meanings of words, sentence structure and interpretation in situational context) during the first 6-7 years of his or her life.

Evolutionary Linguistics: The branch of Evolutionary Linguistics deals with an in-depth interdisciplinary exploration of how the human faculty of language became the way it is and how the present set of complex languages became the way they are, in the course of biological and historico-cultural evolution.

There are many more branches to talk about and there can in fact be a seemingly endless list of branches of linguistics! Let us, however, now move to our final topic of discussion for the unit - Researches in Linguistics.

1.1.11 Research in Linguistics

Funnily, this is again something about which we can go on for a couple of thousand pages and yet be merely scratching the surface!

Contemporary research trends in Linguistics question the centrality of conventional textual sources and explore new domains of language use like online forums, digital discourses, virtual gamified spaces, etc. Analysis of digital discourses highlights the state of languages in the networked virtual society, largely revolutionized by the Internet and 'Smart' devices. The global network of online users exhibits a highly diverse linguistic community, with the maximum number of first-language speakers of Chinese, followed by Spanish and then English. The multilingual and multicultural conglomerate of netizens reflects the dynamic nature of online speech communities, where code-mixing, code-switching, neologisms and language shifts are rampant and highly unpredictable. Online social surveys are also anonymously targeted at people from every stratum. Random extracts of language use in virtual social spaces are dissected to extrapolate the pragmatics of online interaction of different age groups, to probe neologisms, code-mixing and code-switching patterns, semantic extensions and manipulation of syntactic structures. Ethical considerations in research become cardinal while handling this mammoth volume of data

which does contain sensitive information, individual opinion (political and apolitical), confidential interpersonal exchanges, all of which is crawled or compiled without redaction. Therefore, it is imperative, to either conceal participant identities and randomize names of those involved in the online language data, or gather informed consent of the users, whose language, comments and virtual exchanges, are to be perlustrated.

Efforts to recognise language-power relationships, in these social platforms, is another critical point of inquiry. Now, virtual power in virtual social spaces can be appropriated to perpetuate Moderator-User or Administrator-Member dynamic, whereby inclusion-exclusion, upvote-downvote, promote-demote, subscribe-unsubscribe mechanisms are symbolic of power-flow in the virtual hierarchy. Virtual power can also be misappropriated, whereby there are ugly conflicts in the virtual social and gamified spaces. In fact, contemporary research in digital humanities deals with these trending issues of trolling, flaming, aggression in internet discourse, and cyberbullying.

A particularly unique domain of social interactions is the massively-multiplayer online gaming community, where language exchanges happen with cross-over of words from different languages and their incorporation in the most frequently used language in the game-specific chatrooms. Prof. Randall W. Sadler, of the University of Illinois, is one of many such researchers focusing on the role of such virtual gaming worlds in the language learning or teaching process. With this unprecedented proliferation of virtual social spaces and virtual gamified spaces into the lives of language users, a significant amount of contemporary research attempts to address the patterns of language use, shifting according to an individual's assigned role in a virtual online realm and how these influence online social relationships and linguistic exchanges.

1.1.12 Summing up

In this Unit we have discussed a number of fundamental ideas, the understanding of which is indispensable as you move on to the next couple of units. We have given you:

- a brief introduction to the study of linguistics, its goals and its interdisciplinary scope.

- an idea of what linguistic knowledge is and how we can possibly answer the question of what do we know when we know a language.

- a brief description of the different branches of linguistics along with their objectives.

- a flavour of how diverse the avenues of linguistic analysis can be and how exciting contemporary research work can look like.

In the next Unit we shall look at the notion of 'language' in further detail and explore some of the critical Saussurean notions which are building blocks in the discipline of Linguistics.

1.1.13 Comprehension exercises

Read the following questions and answer the questions in the space that follows:

1) A Bangla speaker's knowledge includes the sound patterns of the language as well as what could be a meaningful sequence. Suppose you have been hired as a linguist to come up with unique names for reality television shows incorporating the name of the host, like Mirakkel, Dadagiri, etc. Let your creativity speak! Name ten such future shows incorporating the name of the host while preserving the thematic focus of the show. Give reasons for the names you suggest.

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2) We have talked about onomatopoeic words. Let us again be a bit creative! Make a list of ten new onomatopoeic words in your language Bangla and tell us which sounds they signify. Additionally, test your list with at least ten of your friends to check their acceptability as well as your friends' perceptions of those same sounds.

    P.S. Your friends can be speakers of a different regional variety of Bangla (e.g., Birbhum/Medinipur/Purulia).

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3) Professor to student: Ei je mohasoy apni…

    As per our knowledge of Bangla, apni is a pronoun that is used for someone senior or out of respect (in linguistic terminology, we call it honorific). In the

mentioned sentence, is the professor addressing the student out of respect for him? Tell us what you think with reasons. In case you think that this use is not honorific, then does it defy the established convention? How can we study such anomalies? Can you find such anomalies in other languages that you know?

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4) The Bangla collection of songs is extremely rich. The lyrics of some very popular songs however do not follow the grammatical conventions of Bangla and if corrected, the songs would certainly lose their effect. For instance, let us look at the lyrics of one of Chandrabindoo's immensely popular songs:

<div align="center">

পিয়ে বিটি

ব্যর্থ চিঠি

অ্যাসিডিটি

আর ওঠে নিকোটিন

দাদা অংক কি কঠিন

[piye biti

byartho chithi

acidity

ar osthe nicotine

dada ongko ki kothin]

</div>

Think about the songs that you enjoy listening to frequently and illustrate at least five of such examples where the lyrics defy the grammatical conventions. You can also try to explain why they are ungrammatical and how different the effect would be if they were grammatical.

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1.1.14 Suggested Reading List

If you would like to read more on the fundamentals of linguistics, please refer to the following books:

- Akmajian, A., Farmer, A. K., Bickmore, L., Demers, R. A., & Harnish, R. M. (2017). *Linguistics: An introduction to language and communication.* MIT Press.

- Bloomfield, L. (1984). *Language.* University of Chicago Press.

- Yule, G. (2016). *The study of language.* Cambridge University Press.

Unit 2 ❑ Language- Definition and Features

Structure

1.2.1 Introduction

In this Unit, we shall expound on the idea of 'Language' as a faculty, as a construct and as a system. In this regard, the design features proposed by Charles Hockett (1950s and 1960s) shall also be discussed to understand how unique the human faculty of language is and how it distinguishes us from other creatures. Thereafter, we will deliberate on the Sapir Whorf Hypothesis which requires us to critically explore linguistic relativity and linguistic determinism.

After reading the Unit carefully, you will be able to:

● understand how human language is unique as a species-specific system of communication;

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- appreciate how language and thought interact in multiple ways;

- differentiate between langue and parole as well as competence and performance;

- realize how an abstract template or skeleton facilitates the effortless manner in which human beings pick up their native language and are able to judge whether a sentence in that language is correct or not; and

- recognize how despite several dissimilarities there are intrinsic features shared across human languages.

1.2.2. What do we understand as 'Language'?

In Unit 1, we had discussed at length what is Linguistics and in the process of doing so we had delineated the variety of functions executed through language. Now, continuing from where we had left, let us try to explicate how Language can be understood. At the very outset, we need to first differentiate between Language and language. Indeed, the capitalisation does lead to a significant distinction whereby,

Language: refers to the essentially human faculty enabling us as members of the same species to communicate via an organic system connecting forms with meanings; and language: refers to a particular member of the many 'families' of community-specific codes of conveying messages interpretable by the community members; for instance, the Bengali speech-community in West Bengal, India, uses the language Bengali (or Bangla), which is again a member of the Indo-Aryan group under the Indo-Iranian subfamily of the Indo-European family.

We will talk about families later and the example was just to offer some clarification in discerning Language from language. Now, from the discussion in Unit 1, we can all agree that Language is a fascinatingly complex conundrum although it does not seem so, provided the ease and spontaneity with which we manoeuvre languages in our daily lives in myriad situations. We need to be aware here that there are multiple opinions, definitions, philosophical stances and recurrent debates about what Language is and also about what Language is possibly not. Therefore, while trying to wade through the existing ideas and form our own, it is necessary for us to don the jacket of pluralism. There are aspects of any language that can be physically examined and again there are also aspects which go beyond mere physical description or structural scrutiny. From a pluralist perspective, we try to make sense of the metaphysical character of Language through the descriptive lens (organization of sounds, formation of words, structure of sentences, etc.), the social lens (a language as a social entity with connected notions of power, prestige, social/community capital, etc.) and the abstract lens (the abstract perceivable

patterns in the use of languages). We will now look at some of the definitions given by prominent linguists and thinkers. The purpose is to appreciate the multiple strands of understanding that led to these definitions over the years as more and more schools of thought contributed to this age-old deliberation.

As we go through all the sections, you need to devote time to answer the questions given in 'Check Your Progress'. This will help you revisit what we have covered and also provide some much-needed practice in thinking yourself. We do hope you enjoy learning through this Unit.

1.2.3. Exploring a few definitions of Language

The following definitions have been put together for us to try and appreciate how over the course of time linguists, philosophers and anthropologists have refined the way or the number of ways in which we can understand language.

According to Sapir (*Language,* 1921: 8), "Language is a purely human and non-instinctive method of communicating ideas, emotions and desires by means of a system of voluntarily produced symbols."

Trager (1949) defines language as "...a system of arbitrary vocal symbols by means of which the members of a society interact in terms of their total culture."

According to Mario Pei and Frank Gaynor (*A Dictionary of Linguistics,* 1954), "Language is a system of communication by sound, i.e., through the organs of speech and hearing, among human beings of a certain group or community, using vocal symbols possessing arbitrary conventional meanings."

In the words of Chomsky (1957), "Language is a set of finite number of sentences, each finite in length and constructed out of a finite set of elements."

For Jack et al. (*Longman Dictionary of Applied Linguistics,* 1985), "Language is the system of human communication by means of a structured arrangement of sounds (or their written representation) to form larger units, e.g. morphemes, words, sentences."

According to Muharrem Ergin (1990), "Language is a natural means to enable communication among people, a living entity that it has its own peculiar laws, by means of which alone can it develop, a system of contracts whose foundation was laid in times unknown, and a social institution interwoven with sounds."

As per Sweet (1993), "Language may be defined as the expression of thought by means of speech sounds."

For Hadumod Bussmann (*Routledge Dictionary of Language and Linguistics*,

1996), "Language is a vehicle for the expression or exchange of thoughts, concepts, knowledge, and information as well as the fixing and transmission of experience and knowledge. It is based on cognitive processes, subject to societal factors and subject to historical change and development."

Michael Halliday (2003) defines language as "...a system of meaning - a semiotic system."

1.2.4. Hockett's Design Features

Charles Hockett's elaboration of the design features of language remains one of the most influential statements in the field of Linguistics. It first appeared in *A Course in Modern Linguistics* (1958), a textbook recommended for college students, followed by "The Origin of Speech" (1960) and finally in the most comprehensive manner in "Logical considerations in the study of animal communication" (1977), whereby "[a] set of 13 design-features is presented..." and "[t]here is solid empirical justification for the belief that all the languages of the world share every one of them" (90). Parallel to the discussion on design features of language, we also need to briefly talk about Lenneberg (1967) whose objective was to "reinstate the concept of the biological basis of language capacities" (*Biological Foundations of Language* p. viii). Of the five general premises proposed by Lenneberg in support of his biological theory of language development, the very first premise - "Cognitive function is species-specific" - lays the foundation for subsequently appreciating language as species-specific, because the cardinal factor here is the specialised state of human cognition, the consonance of whose processes combined, determine whether the faculty of language will be functional or not, i.e., whether an individual (without any artificial or unnatural suppression) will be able to use language or not. So, we can argue that the features of language demarcated by Hockett conceptually outline how specialised human cognition is, and how this essentially human faculty is characteristically different from animal systems of communication.

1. Vocal-Auditory Channel: Apart from languages depending on visual and tactile signs, the majority of human languages function on the basis of the vocal-auditory modality. The specialized vocal apparatus (larynx, vocal cords, epiglottis, etc.), as a result of evolutionary changes in human physiology, enables us to transmit language-specific sounds that further constitute language-specific words in our speech. This use of sounds is quite characteristic but humans are not the only species to use sounds. A great number of other species use sounds for communication, which is very different from the way humans use sounds. The sounds that we produce as part of our speech are received by our listeners (which includes us as speakers too) via the auditory channel (tympanic membrane,

cochlea, etc.). There is also the medium of writing which makes use of the visual channel, similar to visual sign languages. But writing is a secondary and sort of marginal way of using language.

2. Broadcast Transmission and Directional Reception: The soundwaves produced while speaking, are transmitted in all directions but these soundwaves are received in a limited or particular direction. In fact, we experience this regularly in the classroom when the teacher stands and speaks from a particular position and students sitting across the room are able to listen to him. However, we also find that the clarity of listening is better when the teacher is infront of us. When he decides to move to the middle of the classroom for a change, we find ourselves turning behind if we are in the frontside rows.

3. Rapid Fading: The sound waves emitted in the process of speech production have an extremely limited span of existence. They are transitory and fade away almost instantaneously, which implies that the message being conveyed is temporal and can only be perceived at the time of utterance (unless it is stored electronically or in written form for accessing later).

4. Interchangeability: In any human conversation or situation requiring use of language, speakers do also become listeners at some point of time, and vice versa. There is periodic alternation of speaker-listener (or sender-receiver) roles as participants take turns (turn-taking) in the natural conversational flow.

5. Total Feedback: Human beings as speakers are also listeners to their own messages, which is evident when they self-correct in case of an unintentional error in speech. This is distinctly different from physical gestures and non-verbal cues where the speakers are evidently not in a position to monitor and perceive their own in the spontaneous flow of speech.

6. Specialisation: The language-specific sounds produced by human beings are for the exclusive function of communication and not to serve, nor connected to any other physiological function. Our use of language is intentional and not always triggered by, nor strongly linked to the behavior of those being addressed by us as speakers. According to Hockett, the extent of specialization of a communicative system can be ascertained by juxtaposing the trigger conditions and the spontaneous real effects elicited by the communicated message. If the two are closely associated, then according to Hockett, the communicative system is not specialized as it becomes dependent on an overt situational switch. On the contrary, the communicative system is specialized if the two have no evident relationship, as is the case with the strikingly specialized system of human language.

7. Semanticity: To preserve intelligibility of messages, there are community-approved correspondences between specific forms (words, sentences, visual signs, tactile signs) and specific meanings. According to Hockett, whenever a particular communicative 'behavior' is linked in a definite manner with elements in the domain of communication, the 'behavior' has to be categorized as 'semantic'.

8. Arbitrariness: There is no fixed, logical relationship between the linguistic representation (i.e., symbol) and the meaning accorded to this representation in a particular language, which is precisely why a thing or an entity or an idea has different representations in different languages or even within the same language. The substance which is chemically $C_{12}H_{22}O_{11}$ (sugar of regular use), is known as 'sugar' in English, 'sucre' in French, 'gula' in Malay, 'zucchero' in Italian and so on. Again, if we consider Hindi, interestingly we have चीनी (cheenee) as well as शक्कर (shakkar) referring to the same 'sugar'.

9. Discreteness: The actual use of language can be differentiated into levels which are further constituted of minimal, functionally distinct units. At the phonological level, a language has its phonemes and at the morphological level, its morphemes. Varying the order of different phonemes brings us to the level of morphemes with different meanings. Varying the organization of different morphemes leads us to the level of sentences with different meanings and purpose. The variation (both at the phonological and the morphological level; alternately at the level of realization and that of meaning) is abrupt with there being rarely any scope of a gradient or continuum. For instance, at the level of phonology, a listener perceives either /p/ or /b/ while the actual sound occurs somewhere between the two.

10. Displacement: Human language is able to capture and expound what lies beyond immediate spatial and temporal coordinates. We can easily talk about the past, comment on the present and make predictions about the future. The properties of human language also enable us to describe things or entities or ideas that are distant or absent (such as an Indian talking about the Eiffel Tower in Paris, you talking about your friend who is missing the high school reunion, etc.).

11. Productivity: Human beings, through the use of language, are able to produce potentially-infinite novel utterances, which are intelligible to other speakers of the same language, who might not have encountered them before. Parallel to productivity (or creativity), there is also the aspect of reflexiveness, whereby humans make use of language to introspect, critique and highlight the very language itself alongside the process of communication.

12. Traditional Transmission: While human beings are biologically endowed with the capacity to acquire a language, beyond the genetic predisposition it is the immediate

familial (parental, elderly, sibling, etc.) and the social trigger (surroundings, playgrounds, classrooms, etc.) that propel the transmission of the language-specific rules and conventions, from the preceding to the present generation. This is further supported by numerous case studies (e.g., Genie, Victor, etc.) that show how unnatural isolation disrupts, and in extreme cases, blocks the language acquisition process.

13. Duality of Patterning: The discrete units of the sound system combine in accordance with the morphological rules to form words, which are further ascribed meanings by the speech community. This double-layered organization or duality of patterning implies directional operation at two rule-governed levels: the level of sounds without assigned meanings, to the level of words with assigned meanings.

Now that we have talked in detail about the features that make human language so special, let us move on to a brief discussion of the modalities of language. But before we do that, let us first try to answer the following questions and check where we stand as per our understanding of concepts.

Check Your Progress 1

1) With the help of a few expressions that you use regularly, show how we find arbitrariness in action around us all the time. (70-80 words).

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2) Suppose while reading an article, we come across both language and Language. Do we need to make a distinction because of the difference in upper case and lower case? Do we always need to make this distinction? Explain with an example. (100 words)

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3) How do interchangeability and total feedback come into play in a group discussion where you are a participant? (70-80 words)

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4)   In his definition of Language, Sapir describes it as "a purely human" method. Do you agree? Explain with at least four strong arguments, backing them up with examples. (150-200 words)

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1.2.5. Modalities of Language

Human language is unique not only with respect to the features that we just covered, but also considering the ways in which it is produced and understood. While animal systems of communication can function in the four modalities of auditory, visual, tactile and chemical, human language is to a great extent independent of modality as it can be simultaneously manoeuvred across multiple streams. Even hearing people in the course of a conversation throw in a few hand and facial gestures, which carry significant non-verbal implication and add to the ongoing exchange, shaping responses from the inter-locutors. We do know by now, that in course of our language-mediated exchanges, forms or expressions can be relayed verbally, visually and tactilely, whereby human language utilises these three modalities in context-driven permutations and combinations:

	Production	Reception
SOUND	Vocal channel	Auditory channel (ears + auditory nerve)
VISION	Signs using handshapes and facial gestures	Visual channel (eyes + visual nerve)
	Writing/Printing	Visual channel (eyes + visual nerve)
TOUCH	Signs using touch	Tactile channel (skin as sensory organ with nerve endings)
	Braille script	Tactile channel (skin as sensory organ with nerve endings)

However, it is not to be implied that touch is only used by the deaf-blind and only in situations where verbal or visual communication is impossible. For instance, many of us have had the experience of a parent suddenly touching our arm somewhat covertly, in the presence of other people, as an act of negation, to prevent us from saying something unintended. Although the parent is perfectly capable of speaking and we as listeners also do not have any auditory issue, still the situation demands a non-verbal and non-visual reminder of where we need to be careful with what we want to share. If we carefully look into our eventful daily lives, there can be plenty of such examples where multiple modalities are simultaneously involved.

1.2.6. Sapir Whorf Hypothesis

Before we move on to discuss the intriguing premise of the Sapir-Whorf Hypothesis, named after Edward Sapir and his student Benjamin Lee Whorf, we need to be aware of the long-continuing scholarly debate on the connection between how an individual speaks and what the individual thinks or is capable of thinking. The behaviourists in the early 1900s advocated how an individual's thoughts or patterns of thoughts are influenced and conditioned by the native language of the individual. While trying to explore the nature of this influence and conditioning as well as understand a language-user's perception of reality, Sapir and Whorf postulated on the twin strands of *linguistic relativity* and *linguistic determinism*, which together constitute the Sapir Whorf Hypothesis.

Linguistic relativity deals with how different speech communities and their members experience or perceive the same thing in multiple unique ways. At the level of form, this concerns the relation between language and thought. At the level of discourse, this concerns how culture-specific patterns of language use influence a language-user's thought. Multiplicity of perceptions begets the need to have different expressions in the same language to capture the range of experiences or perceptions. For instance, the Scottish lexical inventory has an amusing range of words to describe bad weather: *dreich, snell, jeelit, oorlich, smirr, stoating, mochie, plowetery,* etc., being some of them! Then in Hawaiian, there are as many as 47 words for banana: *maia, kapule, palaku, lele, halane, pola,* etc., being a few of them! And that's not all. Innumerable such instances can be found in languages like Turkish, Somali, Baniwa, Greek, etc. These examples lead us to the realisation that there is no singular inviolable comprehensive way to label worldly experiences and entities surrounding us as language-users.

Linguistic determinism predicates that due to this amazing heterogeneity of perceptions and resultant expressions, an individual's native language provides the mental framework for his or her thought processes and there is no way for the individual to

think beyond this framework. For instance, the process of smoking from the culinary perspective (e.g., smoking chicken) is something alien to Bangla language, following from the fact that Bangla culinary practices never had smoking as a part of it. Therefore, from the point of view of linguistic determinism, it is impossible for a Bangla speaker to be able to think about culinary smoking. Now that we have a preliminary understanding of linguistic relativity and linguistic determinism, let us look at the two readings or interpretations of the Sapir Whorf Hypothesis.

The strong version of the Sapir Whorf Hypothesis, following from a strong absolutist stance of linguistic determinism, claims that our thoughts and expressions are constrained by the limits of our language, whereby a particular idea natural in language X but non-existent in language Y, can in no way be understood or perceived by speakers of language Y.

This inflexible point of view is reflected in the words of Whorf in "Science and Linguistics" (*Technology Review* 42): "We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds - and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way - an agreement that holds throughout our speech community and is codified in the patterns of our language. The agreement is, of course, an implicit and unstated one, but its terms are absolutely obligatory; we cannot talk at all except by subscribing to the organization and classification of data which the agreement decrees." (1940: 213-14)

On the other hand, Sapir in Culture, *Language and Personality* (1958) states: "Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of the particular language which has become the medium of expression for their society. It is quite an illusion to imagine that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication or reflection. The fact of the matter is that the 'real world' is to a large extent unconsciously built upon the language habits of the group. No two languages are ever sufficiently similar to be considered as representing the same social reality. The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached... We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation" (69).

The interesting thing to notice is that while Sapir treads wisely on "the language habits of our community" predisposing "certain choices of interpretation", Whorf feels the terms

of our language-specific "agreement" to be "absolutely obligatory" and that "we cannot talk at all except by subscribing to the organization and classification of data which the agreement decrees". Whorf's basis for such a firm claim was his investigation of the Hopi language which treated time in a unique manner, totally different from most European languages - the Hopis did not quantify the flow of time into smaller units but considered it as a continuum and the passage of time was contemplated by focusing on change. However, later anthropological studies on Hopi revealed their understanding of time as not remarkably different from the conventional Western interpretation.

Although widely studied and accepted in the 1950s and 60s, this hypothesis came under criticism with the growing significance of cognitive psychology and the Chomskyan theories in the 1970s. One of the conspicuous shortcomings of the Sapir Whorf Hypothesis is the flawed basis of the strong version. Let us return to the very example we discussed to explain linguistic determinism. Although there is no specific word for culinary smoking in Bangla and it is a concept foreign to Bangla culinary tradition, these in no way can restrict Bangla speakers from understanding the concept of culinary smoking. Furthermore, if ideas, cultural contexts and perception of reality in a different language were absolutely uninterpretable by outsiders (i.e., speakers of a different language), then translation as we know it and the massive archives of translated works would be unimaginable. In course of time, the strong version was replaced by the weak version of the Sapir Whorf Hypothesis which states that an individual's native language influences to some arguable extent the world view of the individual (the perceptual framework for realizing worldly experiences and exchanges).

1.2.7. Language and Thought

Now that we have discussed the Sapir Whorf Hypothesis, let us focus on the broader interaction between language and thought, one of whose manifold strands is the Sapir Whorf Hypothesis. The language-thought interface has long been problematised by philosophers, linguists, psychologists as well as cognitive scientists to better understand the myriad aspects of this cardinal association. While there are innumerable staunch proponents of language-dependent thought, there are also those who advocate the idea of language-independent thought.

The cognitive view of language appraises language as primary and essentially the 'enabler' of thought. As early as the 1830s, Humboldt highlighted the centrality of language in his prolific work, The Heterogeneity of Language and its Influence on the Intellectual Development of Mankind (republished in 1999 as On Language. On the Diversity of Human Language Construction and its Influence on the Mental Development of the Human

Species) where he asserts: "Language is the formative organ of thought. Intellectual activity, entirely mental, entirely internal, and to some extent passing without trace, becomes, through sound, externalized in speech and perceptible to the senses. Thought and language are therefore one and inseparable from each other. But the former is also intrinsically bound to the necessity of entering into a union with the verbal sound; thought cannot otherwise achieve clarity, nor the representation become a concept" (54-55). The cognitive view emphasises how language supplies the unitary blocks that constitute a language user's thoughts and consequently, the range of ideas or experiences encoded in the inventory of that language, defines the perceptual limits of the users of that very language. This limit constrains not only expression but also understanding, and at the same time enforces a template on the language-users' thoughts. For instance, a Bangla speaker, being part of a community dwelling on plain land with tropical maritime climate, will face difficulty in processing the multiple expressions for snow contained in the Inuit inventory. While Bangla speakers conceptualise 'snow' as তুষার (tushar) or বরফ (baraf) without any significant qualitative variation between the two words, the Inuits have a rich variety of words describing the different types of snow they deal with, given the testing conditions in which they have to survive. Some of the words for snow in the Inuit languages are qanipalaat (light pile-ups of falling snow), sillik (snow which is not firm but sort of fragile), pukaan-gajuq (the perfect snow for building igloos), qali (snow accumulated on the tree boughs), and this list includes many more.

While the words of Humboldt, that we have quoted above, can be critiqued as him being inconsiderate about visually-signed and tactilely-signed languages, we can peruse a subsequent rephrasing of his stance, as he addresses "more accurately...the connection of thought and language" and we need to look beyond Humboldt's limitation of 'verbal sound':

"Subjective activity fashions an object in thought. For no class of ideas can be regarded as a purely receptive contemplation of a thing already present. The activity of the senses must combine synthetically with the inner action of the mind, and from this combination the idea is ejected, becomes an object vis-a-vis the subjective power, and, perceived anew as such, returns back into the latter. But language is indispensable for this." (56)

About a hundred years later, in the 1930s, Vygotsky added to this interrogation by suggesting the interdependence of language and thought. However, while propounding on this line, Vygotsky made it clear that social and cultural conditioning are instrumental for conjoining language and thought, leading to their interdependence. Mulling over this interdependence, he rejected any directionality and instead explicated it as 'continual': "The relation of thought to word is not a thing but a process, a continual movement back and forth from thought to word and from word to thought....Thought is not merely

expressed in words; it comes into existence through them. Every thought tends to connect something with something else, to establish a relation between things. Every thought moves, grows and develops, fulfills a function, solves a problem. This flow of thought occurs as an inner movement through a series of planes. An analysis of the interaction of thought and word must begin with an investigation of the different phases and planes a thought traverses before it is embodied in words." (Thought and Language, 1934: 218)

Contrary to the cognitive view, the communicative view of language foregrounds thought as primary and depreciates language as merely a portal through which thoughts can cross over from the private (mental/inner) to the public space and be intelligible to others. The point of language-independent thought and language-independent ideation follows from the communicative view, which reduces language to being just a tool or an outlet. Piaget (1926) strongly backs the claim of language-independent thought: "How could words, confined as they are by usage to certain precise meanings (precise, because their object is to be understood), eventually come to veil the confusion of thought, even to create obscurity by the multiplication of verbal entities, and actually to prevent thought from being communicable?" (The Language and Thought of the Child, p.1). That we naturally engage in an incredible amount of mental activity like determining causation, intention, solving a problem, planning to accomplish an objective, examining the manner of something or the sequence of events, etc., exhibits how much of mental processing actually goes on without us putting these into intelligible linguistic form. The artistic and aesthetic expressions in sculpture, painting, dance, etc., involve intricate and refined thoughts without any intelligible linguistic formulation. This language-thought disjunction is aptly addressed by Pinker (1995) in The Language Instinct: "We have all had the experience of uttering or writing a sentence, then stopping and realizing that it wasn't exactly what we meant to say. To have that feeling, there has to be a "what we meant to say" that is different from what we said. Sometimes it is not easy to find any words that properly convey a thought. When we hear or read, we usually remember the gist, not the exact words, so there has to be such a thing as a gist that is not the same as a bunch of words. And if thoughts depended on words, how could a new word ever be coined? How could a child learn a word to begin with? How could translation from one language to another be possible?" (58)

Further, Pinker convincingly supports his arguments on language-thought disjunction with a variety of instances relating stalwarts from the liberal arts as well as the sciences:

"Many creative people insist that in their most inspired moments they think not in words but in mental images. Samuel Taylor Coleridge wrote that visual images of scenes and words once appeared involuntarily before him in a dreamlike state (perhaps opium-induced). He managed to copy the first forty lines onto paper, resulting in the poem

we know as "Kubla Khan," before a knock on the door shattered the images and obliterated forever what would have been the rest of the poem. Many contemporary novelists, like Joan Didion, report that their acts of creation begin not with any notion of a character or a plot but with vivid mental pictures that dictate their choice of words. The modern sculptor James Surls plans his projects lying on a couch listening to music; he manipulates the sculptures in his mind's eye, he says, putting an arm on, taking an arm off, watching the images roll and tumble.

Physical scientists are even more adamant that their thinking is geometrical, not verbal. Michael Faraday, the originator of our modern conception of electric and magnetic fields, had no training in mathematics but arrived at his insights by visualizing lines of force as narrow tubes curving through space. James Clerk Maxwell formalized the concepts of electromagnetic fields in a set of mathematical equations and is considered the prime example of an abstract theoretician, but he set down the equations only after mentally playing with elaborate imaginary models of sheets and fluids. Nikola Tesla's idea for the electrical motor and generator, Friedrich Kekule's discovery of the benzene ring that kicked off modern organic chemistry, Ernest Lawrence's conception of the cyclotron, James Watson and Francis Crick's discovery of the DNA double helix-all came to them in images. The most famous self-described visual thinker is Albert Einstein, who arrived at some of his insights by imagining himself riding a beam of light and looking back at a clock, or dropping a coin while standing in a plummeting elevator." (70-71)

Check Your Progress 2

Read the following questions and answer the questions in the space that follows:

1) How do linguistic determinism and linguistic relativity differ in principle? Provide at least one example to support your argument. (120-150 words)

   …..

   ....

   ....

   ....

2) How do Piaget and Vygotsky vary in their basic stance on the interaction of language and thought? (120-150 words)

   ....

   ....

   ....

   ....

1.2.8. Langue-Parole & Competence-Performance

After our discussion on the language-thought interface, we now need to look at the crucial distinction between langue and parole propounded by the Swiss linguist Ferdinand de Saussure (from Cours de linguistique générale/Course in General Linguistics, published posthumously in 1915), parallel to which there is Noam Chomsky's formulation of competence and performance. Before addressing the notions, let us take recourse to the previous unit where we discussed the branches of linguistics. Now if we remember what we discussed there, the langue-parole and competence-performance dichotomies can be somewhat understood on the line of systemic vs. applied linguistics. So how do we exactly approach this?

Saussure's la langue captures the abstract systematised and ideal form of a language, on the basis of which utterances (or visual signs or tactile signs) become comprehensible and acceptable. Parole represents these very utterances (or visual signs or tactile signs) produced in actual situations by interlocutors to facilitate linguistic exchanges in their particular contexts. So, while langue is systemic and structural, parole involves application, activity and is contextual.

Delving deeper into this, we find that Saussure did not just explicate the langue-parole dichotomy, but he also took into account langage, the species-specific human faculty of Language (l in upper case; capitalised) that we differentiated from language (l in lower case) in the earlier part of the unit. Therefore, Saussure effectively dealt with three perspicuous notions - langage, langue and parole:

langage: the unique human capacity that differentiates us as a species from other sentient beings

langue: the abstract and ideal language structure held tightly together by the different rules, laws and prescriptive norms

parole: the real-world use of a language conditioned by the context in which the interlocutors are situated, inclusive of interlocutor-specific modifications as well as errors

To better appreciate this tripartite classification, let us look at what Saussure himself stated in Course in General Linguistics: "But what is language [langue]? It is not to be confused with human speech [langage], of which it is only a definite part, though certainly an essential one. It is both a social product of the faculty of speech and a collection of necessary conventions that have been adopted by a social body to permit individuals to exercise that faculty...." (1959: 9), whereas for parole he says that, "[s]peaking, on the contrary, is an individual act. It is wilful and intellectual" (1959: 14), while clearly

cautioning readers that "[i]n separating language from speaking we are at the same time separating: (1) what is social from what is individual; and (2) what is essential from what is accessory and more or less accidental" (ibid).

Parallel to the langue-parole duality, runs Chomsky's closely similar differentiation between competence and performance. In the words of Chomsky, quoted from his Aspects of the Theory of Syntax (1965): "Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech-community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance.... To study actual linguistic performance, we must consider the interaction of a variety of factors, of which the underlying competence of the speaker-hearer is only one....

We thus make a fundamental distinction between competence (the speaker-hearer's knowledge of his language) and performance (the actual use of language in concrete situations). Only under the idealization set forth in the preceding paragraph is performance a direct reflection of competence. In actual fact, it obviously could not directly reflect competence. A record of natural speech will show numerous false starts, deviations from rules, changes of plan in mid-course, and so on." (3-4)

Therefore, it comes evident that Chomsky's competence-performance is in more than one way a 20th-century re-rendition of the Saussurean langue-parole dichotomy. Competence entails the unconscious and ideal language schema, in a language-user's mind, which is accessed repetitively in real-time to make sense of the virtually limitless set of sentences, produced in actual situations, most of which may not have been previously encountered by the language-user. Performance entails the actual use of a language-user's knowledge to produce and comprehend expressions in the context in which the language-user is situated. We need to realize over here that while competence is ideal and mental, performance is real-time and actual. In actual situations of language use, there can be a plethora of issues that are not even remotely 'ideal' - speakers losing track of the conversation, listeners running out of patience and becoming inattentive, interlocutors becoming emotionally unsettled, etc. In course of all of this, or even otherwise, there are chances of errors distorting or even destroying the message altogether. There can also be issues with articulation like stammering, stuttering, pausing abruptly and unex-pectedly. Another interesting issue, that we all have experienced at some point, is that of slips of the tongue, referring to spontaneous, unintentional errors in production caused either by the selection of a wrong lexical item (selection error) or by the wrong organization of the correct sounds (assemblage error).

For example	Correct expression	Expression with *selection error*
	bread and butter	bed and butter
	nice to meet you	nice to beat you

For example	Correct expression	Expression with *assemblage error*
	dear old queen	queer old dean
	missed the history lesson	hissed the mystery lesson

1.2.9. Language Universals & Universal Grammar

Moving on from Chomsky's Competence-Performance dichotomy, we will now briefly look at the idea of Universal Grammar and also talk about Language Universals. While acknowledging the great variety of languages across the world and the bewildering ways in which they differ, we also need to realize that there are certain conspicuous regularities (patterns, features, categories or even rules) in the manner in which these languages are structured as well as used. Let us try to understand this better with an actual classroom example.

When a teenaged native speaker of Bangla attempts to learn English as a second language, he/she is particularly worried about the differences to be encountered while learning English and how with an internalised schema of Bangla he/she is going to tackle learning the new aspects of the chosen second language (for instance, the use of prepositions instead of postpositions, the inflexible subject-verb-object order, the use of a separate helping verb to support the main verb in the process of conjugation, etc.). So, the learner's attention is fully on mastering the differences that characterize the second language English and individuate it from the learner's internalised Bangla. In this process, the learner totally misses out on appreciating the set of features that quite strikingly appear similar to both English and Bangla, and as an extension of the statement, universal (i.e., common/regular) across languages. To explicate this further, there are so many things that the learner is already unconsciously aware of, before he/she has even started learning English or for that matter decided on English being the language which he/she wants to learn and not Mandarin. The learner is well aware that like Bangla, English too must have its own inventory of sounds, which when written will appear in the specific script (modern Latin alphabet), whose individual characters combine in accordance with the language-specific templates of word-formation and these very words are further organised following the language-specific sentence-construction rules to generate sequences (phrases

and sentences) understandable by other speakers of that language. From his/her existing knowledge of Bangla, the learner instinctively expects to discover names (in the form of nouns) and actions (in the form of verbs) in English. In the same way, he/she has the intuition that, like Bangla, English too must have its own grammatical strategy of asking questions (interrogatives), giving orders (imperatives), moving back and forth in time (using tenses and conjugating verbs), negating a possibility (negation). Above and beyond these, the learner is certain that, like Bangla, in English too there is a rule-matrix, the cognizance of which will enable him/her to generate as well as comprehend a virtually inexhaustible set of sentences.

So, the point that we have been trying to arrive at, is there are particular aspects and features that constitute the mental faculty for a human being to be capable of learning any language with or without the knowledge of a first language (the symbolic convention of denoting which is L1). As Chomsky explains in Rules and Representations: "Universal grammar is taken to be the set of properties, conditions, or whatever, that constitute the "initial" state of the language learner, hence the basis on which knowledge of language develops" (1980: 69). Now, the implication of "initial" here is not pre-lingual but pre-learning; it could be learning the first, the second, the third, upto the n-th language. Furthermore, in his 1975 interview by Wiktor Osiatynski (published in 1984 as part of Contrasts: Soviet and American Thinkers Discuss the Future), Chomsky describes ongoing work exploring universal grammar to be the greatest achievement in the field of linguistics, while clearly delineating universal grammar as: "...general properties of language that reflect a kind of biological necessity rather than logical necessity; that is, properties of language that are not logically necessary for such a system but which are essential invariant properties of human language and are known without learning. We know these properties but we don't learn them. We simply use our knowledge of these properties as the basis for learning" (1984: 98). Clarifying on Osiatynski's question whether "we genetically inherit this knowledge" or not, Chomsky strongly affirms while adding that "by universal grammar" he means "...just that system of principles and structures that are the prerequisites for acquisition of language, and to which every language necessarily conforms" (ibid).

Therefore, we can understand Universal Grammar as the mental blueprint that all languages intrinsically conform to and that comes as an innate package in human beings as part of their species-specific biologically-endowed faculty of language. Universal Grammar stipulates the various constituents of grammar, how these constituents are inter-connected, how the rules defining these constituents are framed, how the network of all of these has its own interactions and so on.

Contrary to Universal Grammar which we understand as a mental blueprint, Language Universals are explored by actually looking at what features the languages of the world

share and therefore have in common. While differences are obvious considering how unique the languages of the world are with respect to their histories, properties, grammars and usage, what is more interesting for linguists are the puzzling similarities, which lead us to think more about language universals. Joseph H. Greenberg (1963) in his seminal contribution "Some universals of grammar with particular reference to the order of meaningful elements" (as part of the edited volume Universals of Language, Cambridge, Mass.: MIT Press), listed a total of 45 universals inferred from his analysis of data across a set of 30 languages (Basque, Berber, Burmese, Burushaski, Chibcha, Finnish, Fulani, Greek, Guarani, Hebrew, Hindi, Italian, Kannada, Japanese, Loritja, Malay, Maori, Masai, Maya, Norwegian, Nubian, Quechua, Serbian, Songhai, Swahili, Thai, Turkish, Welsh, Yoruba, Zapotec). It is beyond the scope of this unit for us to discuss the 45 universals proposed by Greenberg with examples. However, you are all encouraged to read the cited chapter by Greenberg as it is easily available as an online resource. Although you are not yet equipped to understand all the expressions used and ideas suggested by Greenberg, still at times you need to simply do things to fuel an interest further. It is not always in our capacity nor is it possible in every situation for us to understand everything. But that should not dissuade us from the joy of exploring new ideas or discovering something that we cannot fully comprehend.

1.2.10. Summing Up

In this Unit we have discussed several intricate ideas as well as stances which are fundamental for the subsequent study of linguistic theories and frameworks. We have given you:

- an idea of how we can attempt to define Language followed by certain definitions given by distinguished scholars.

- a detailed explanation of the design features of Language as proposed by Hockett.

- a brief account of how language and thought interact along with the controversial Sapir Whorf Hypothesis.

- the crucial distinction between langue and parole as well as competence and performance.

- a preliminary idea of language universals and how universal grammar functions as the abstract mental template.

In the next Unit we shall explore the different features of Spoken and Written English.

1.2.11. Comprehension Exercises

Read the following questions and answer the questions in the space that follows:

1) With the help of at least 5 examples in your native language, explain how slips of the tongue influence performance.

   ....

   ....

   ....

   ....

2) "Universal grammar is taken to be the set of properties, conditions, or whatever, that constitute the "initial" state of the language learner..." What does "initial" imply? On the basis of this, how can we understand the idea of universal grammar?

   ....

   ....

   ....

   ....

3) Are the ideas of langue and competence different? Explicate with the help of coherent arguments.

   ....

   ....

   ....

   ....

4) Why was the stronger version of the Sapir Whorf Hypothesis replaced by the weaker version? How are the two versions different? Support each of your arguments with at least one example.

   ....

   ....

   ....

   ....

1.2.12. Suggested Reading List

If you would like to read more on the discussed ideas, you may consult:

- Akmajian, A., Farmer, A. K., Bickmore, L., Demers, R. A., & Harnish, R. M. (2017). *Linguistics: An introduction to language and communication*. MIT Press.

- Chomsky, N., & Hornstein, N. (2005). *Rules and Representations.* Columbia University Press.

- Fromkin, V., Rodman, R., & Hyams, N. (2018). *An introduction to language.* Cengage Learning.

- Greenberg, J. H. (1963). *Universals of Language.* MIT Press.

- Hockett, C. F. (1958). *A Course in Modern Linguistics.* Macmillan.

- Pinker, S. (2003). *The language instinct: How the mind creates language.* Penguin UK.

Unit 3 ❑ SPOKEN AND WRITTEN ENGLISH

Structure

1.3.1 Introduction

In this Unit, we shall delve into the various aspects of spoken versus written language with reference to English. We will start at the unitary level and gradually build up on concepts as we attempt to finally understand the influence of contextual factors and non-verbal cues.

After reading the Unit carefully, you will be able to:

● understand the different features of spoken and written English and how they come into play in our regular language use;

● appreciate the importance of the different grammatical categories in English;

● differentiate between formal and informal use of language;

● acknowledge how different indigenized varieties of English (e.g., Chinese English, Indian English, African English, etc.) reflect the status of English in its non-native settings; and

● realize how context specificities and non-verbal information shape our understand-ing of a certain spoken or written message.

1.3.2. Phoneme-Grapheme Disjunction

This is the third Unit of your first module and we are going to discuss in general the distinction between Spoken and Written form of a language. To introduce the opposition, let us first engage with the Derridean proposition on the speech-writing antithesis. As Derrida clarifies his stance in "Plato's Pharmacy" (in Dissemination) with reference to Plato's Phaedrus and Timaeus, he attributes an ambivalent or paradoxical character to writing through the trope of pharmakon (equivalent to a drug), simultaneously a poison and a cure; by providing an outlet for our expressions in the eventuality of an individual's absence, but being performatively repetitive, writing dilutes truth and exists in traces (inscriptions) doubly displaced from truth:

"...[W]riting, at least insofar as it sows "forgetfulness in the soul," turns us toward the inanimate and toward nonknowledge. But it cannot be said that its essence simply and presently confounds it with death or nontruth. For writing has no essence or value of its own, whether positive or negative. It plays within the simulacrum. It is in its type the mime of memory, of knowledge, of truth, etc. That is why men of writing appear before the eye of God not as wise men (sophoi) but in truth as fake or self-proclaimed wise men (doxosophoi)....[W]riting-written speech-has had no other status, as it were, than that of an orphan or moribund parricide. And while it becomes perverted in the course of its adventures by breaking with its origin, nothing has yet indicated that that origin was itself already bad. But it now appears that written discourse, in its "proper" meaning-that which is inscribed in sensible space-is deformed at its very birth. It is not well born: not only, as we have seen, because it is not entirely viable, but because it is not of good birth, of legitimate birth. It is not gn?sios. It is not exactly a commoner; it is a bastard. By the voice of its father it cannot be avowed, recognized. It is outside the law." (1981: 105-148)

Between the spoken and the written, philosophers like Plato, Saussure, Levi-Strauss, Rousseau, have foregrounded the purity of the spoken while depreciating the written to be an inauthentic and often unreliable re-presentation. The spoken is the first derivative of the experienced truth, while the written is derivative of the spoken; the written is thereby doubly derived and doubly distanced from the experienced. Now, that we have a very brief idea of the philosophical perspective, when we deal with the written and the spoken form of language as linguists, we need to know about the smallest functional units of both. This is where we look at phonemes and graphemes.

What is a phoneme?

When we are dealing with spoken language, i.e., with steady and continuous human speech in any language, we tend to overlook the fact that this speech is in fact possible because of a language-governed configuration of language-specific sounds, each of which exists as a discrete unit. While studying the spoken form of any language, these smallest, discrete and perceptually unique units are called phonemes.

What is a grapheme?

On the contrary, when we are dealing with (or learning) the written form of any language in the language-specific script, we work on strings of visually distinct markings or symbols which textually represent sounds (as per the sequences in which they occur) and changes in which bring about changes in utterance or meaning. So, with reference to written English, a grapheme is an individual letter or a combination of letters of the alphabet, with the purpose of representing a phoneme and thereby these graphemes constitute the writing system of English.

We need to be careful about the emphasis on represent in the way we have discussed the notion of a grapheme. Graphemes have a purely representational function (from the point of inscription) and there is no one-to-one correspondence or equivalence between a grapheme and a phoneme. Although it is true that when language teachers instruct at the beginner level, they instil a sense of a rough grapheme-phoneme equivalence, this is done for the sake of initial simplification as a teaching strategy and in no way implies any actual relevance. Let us look at a few examples from English to better understand what we are talking about.

The word cat in English has the grapheme <c> in the word-initial position but the utterance has the phonemic realisation of /k/. Now, if we consider another word with the grapheme <c> in the word-initial position - city - we find the phonemic realisation is different in its utterance; in city, <c> has a phonemic realisation of /s/. Let us also look at an example with multiple-letter graphemes, where more than one letters together function as one grapheme representing one phoneme, as in the case of the digraph (2-letter grapheme) <sh> in ship, the trigraph (3-letter grapheme) <igh> in night and so on. Coming to the example, the digraph <ch> in the word-initial position in chip and character have different phonemic realisations - /t?/ and /k/ respectively. These are just two of innumerable such examples from English to show that there really is no one-to-one correspondence between letters and sounds. On a secondary note, although we did not state the convention but after the above examples, you know that we put a grapheme within < > whereas we put a phoneme within / /.

Now, you must be wondering what is /t?/? It does not look like anything English! That it looks strange to you for the first time is natural as we are used to only the

English graphemes, i.e., mainly the letters in the English alphabet, which we find in books, newspapers, websites, etc. Here, we need to be careful about the fact that graphemes are at the level of what we see and phonemes are at the level of what we hear. /t?/ is a phoneme that we have put on paper following the universally accepted convention of the International Phonetic Alphabet or the IPA, first officialised in 1888 by the Association Phonétique Internationale. As future linguists, the IPA and its notations are going to be indispensable whenever you work with any sort of language data, be it in the form of an experiment, a field survey on an undocumented language, transcribing someone's recorded speech, and the list can continue further on. The IPA was created to be able to establish a one-to-one correspondence between a particular sound in a language and a phonetic symbol. A full-scale elaboration of the IPA will be undertaken in subsequent blocks.

Another interesting inconsistency that we can easily notice is that several single-letter graphemes or digraphs or trigraphs can represent the same phoneme, contrary to how we found in the previous examples how the same grapheme can represent different phonemes. For instance, if we consider the words cent, sent and scent, the graphemes <c>, <s> and <sc> represent the same phoneme /s/. Furthermore, we should note how for the words cent, sent and scent, not just the word-initial sounds but their entire utterances are homophonous (i.e., exactly similar pronunciation). Their meanings and usages, though, are entirely different and through this very example, we fathom how with the smallest of changes graphemes can effect a transformation of meaning. As David Crystal (2005) puts it precisely: "Graphemes are the smallest units in a writing system capable of causing a contrast in meaning" (*How Language Works: How Babies Babble, Words Change Meaning and Languages Live or Die*, p. 105)

As we conclude our discussion on phonemes and graphemes as the smallest discrete units of spoken and written form of any language, we need to know that while we focused on the letters of the alphabet as the main graphemes, there are other graphemes too. The punctuation marks like the full-stop (.) the question mark (?) the semi-colon (;) the comma (,) etc. as well as special symbols like &, @, etc. are also categorized as graphemes.

We will now explore the concepts of stress, intonation and accent. As we move through the different sections, you must answer the questions given in 'Check Your Progress'. This will help you revisit the discussed ideas and provide some practice in expressing yourself using your own words. We do hope you enjoy learning through this Unit.

1.3.3. Stress, Intonation & Accent

When we are in a conversation, we often find certain words articulated more loudly or stretched over a slightly longer duration compared to other words. For instance, let us try to read the sentence "This is my house!" three times, being louder and slightly increasing the duration over which we pronounce 'This', 'my' and 'house' for the three separate readings.

1. This is my house! (This being louder and more stretched than the other three words in the sentence)

Here, the speaker implies a particular house (This serving the function of pointing out or specifying the speaker's house) being owned or resided by him, and not any other house.

2. This is my house! (my being louder and more stretched than the other three words in the sentence)

In this case, the speaker implies the house being owned by him, and not by anybody else (my serving the function of strongly claiming sole possession or ownership).

3. This is my house! (house being louder and more stretched than the other three words in the sentence)

Finally, the speaker clarifies the domain of interaction being his/her house, and not any other domain like his/her workplace or the market, etc. (house serving the function of reminding the interlocutor of the nature of the domain where the conversation is taking place, and thereby how the conversation, or whatever triggered the conversation, is inappropriate or undesirable in that very domain).

From these three separate interpretations, we do realise that this in the first reading, my in the second reading and house in the third reading, are identical in the sense that they all have been attributed emphasis. This emphasis highlights the particular word as more prominent than the other words in the context of the sentence. The differential emphasis also gives rise to the three dissimilar meanings in the contexts in which these are produced.

Now, that we have a rudimentary understanding of how emphasis can create a contrast, we are going to look at the idea of stress using the criterion of emphasis. While dealing with the spoken form of any language, stress can be roughly understood as the added 'emphasis' that is accorded to a word in a sentence (sentential stress), to a word in a phrase (phrasal stress) or to a syllable in a word (word stress or lexical stress). The English sentences with the three varied emphases, as we read above, exemplify sentential

stress.

R. L. Trask (1996) in A Dictionary of Phonetics and Phonology explicates stress using the notion of relative "prominence" in lieu of "emphasis", and characterizes stress phonetically as being "variously associated with greater loudness, higher pitch and greater duration, any of which may be most important in a given case, and sometimes also with vowel quality" (p. 336). We will talk about what is pitch in a while, to prepare the ground for understanding what is intonation, but before we do that let us briefly explore the types of stress. Trask initially addresses the idea of word stress or lexical stress as he defines it as "[a] certain type of prominence which, in some languages, is present upon certain syllables" (ibid). Now, to fully grasp this, we need to know what is a syllable.

We do realise without formal training that we do not articulate all words at one go; for certain words we do break them down into smaller parts. A syllable is the smallest discrete unit at the level of pronunciation. Let us consider the English words man, super, terrible, military.

Word	Breakup into syllables (Roman)	Breakup into syllables (IPA)
man	man	/mæn/
super	su-per	/suʔ-pʔ /
terrible	ter-ri-ble	/ter-ʔ-bʔl/
military	mil-i-tar-y	/mʔl-ʔ-ter-i/

If we listen to ourselves very closely as we pronounce these words, we find that there are these fleeting periods of complete lack of sound (called syllable boundaries or syllabic boundaries) while articulating su-per, ter-ri-ble and mil-i-tar-y, between su and per, ter and ri, ri and ble, mil and i, i and tar, tar and y. These soundless windows syllabify the words super, terrible and military. What about man then? The word man is articulated at one go and consists of just one syllable unlike super (2 syllables), terrible (3 syllables) and military (4 syllables). The example of man can also be used to show that the most frequently found syllable type is structurally a consonant (C) sound followed by a vowel (V) sound followed again by a consonant (C) sound, or, in short CVC. This example also highlights that the vowel sound is most commonly in the central position, forming the core of the syllable and is termed as its nucleus (N). The initial and the final sounds of the syllable are termed as the onset (O) and the coda (C) respectively.

By convention, a syllable is represented using ? (the Greek sigma). Therefore, for the monosyllabic word man, we have the onset-nucleus-coda distinction in the following way:

σ (syllable)

O (onset)   N (nucleus)   C (coda)

m   æ   n
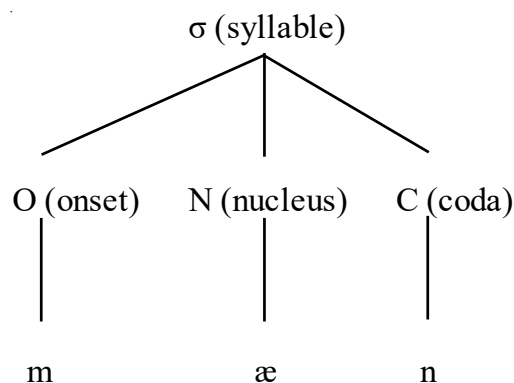
So, from this very brief discussion we do gather that syllables represent the minimal articulatable units (comprising one or more phonemes) at the level of organization of speech sounds. It is beyond the scope of this unit to elaborate on syllables any further and we must now return to the topic of word stress. Word stress or lexical stress concerns relative emphasis or relative prominence of a particular syllable in comparison to the other syllables constituting the word. Laver (1994) in Principles of Phonetics clarifies that "[o]ther things being equal, one syllable is more prominent than another to the extent that its constituent segments display higher pitch, greater loudness, longer duration or greater articulatory excursion from the neutral disposition of the vocal tract" (p. 511).

Now, word stress does not have a uniform pattern across all languages. Some languages exhibit fixed stress whereby a definite syllable is assigned stress by default in case of multisyllabic words. For instance, in Finnish the first syllable, in Turkish the final syllable and in Polish the penultimate syllable are stressed by default for multisyllabic words. English, our focus for this unit, has on the contrary variable stress whereby the occurrence of stress is not by default on a fixed syllable and therefore stress placement does not follow a predictable, specific pattern.

For English words with multiple syllables, certain syllables are stressed, certain syllables are unstressed and then there are those which lie in between. The stressed syllables are auditorily the loudest and are said to be accorded primary stress, marked by convention with a tiny vertical line in the superscript position [?] at the beginning of the very syllable which is given primary stress. Another representational convention is to use an acute accent (´) on the vowel that is accorded primary stress. For monosyllabic words, the only syllable available gets primary stress by default.

The unstressed syllables are short, quiet and absolutely devoid of any stress. Between

the stressed and the unstressed syllables lie syllables which are not completely devoid of stress while also being not as prominent and loud as the syllables with primary stress. These syllables are said to be accorded secondary stress, marked by convention with a tiny vertical line in the subscript position [?] at the beginning of the very syllable receiving secondary stress. Another representational convention is to use an grave accent (`) on the vowel that is accorded secondary stress. Let us take a look at a few examples from English to understand better what we just discussed.

Word	Representation of stress (Roman)	Representation of stress (IPA)
information	ˌinforˈmation	/ˌɪn.fəˈmeɪ.ʃən/
temporary	ˈtempoˌrary	/ˈtem.p ə.ˌrer.i/
independence	ˌindeˈpendence	/ˌɪn.dɪˈpen.dəns/
entrepreneur	ˌentrepreˈneur	/ˌɒn.trə.prəˈnɜːr/

The variable stress pattern of English also reveals how stress can be a cue to grammatical contrast. We can find evidence of this easily in the noun-verb and adjective-noun distinction effected by altering stress placement on the syllables. Let us consider the following sentences:

(i)   My brothers tran?sport vehicular spare parts to the nearest factory.

(ii) The government plans to invest more in improving the state of public ?transport.

(iii) The workers always pro?test against reduction of annual leaves.

(iv) The workers organised a ?protest in solidarity with the students.

(v) Samir has a com?pact office and we should take ideas from him.

(vi) The board members made a ?compact not to disclose identities of employees.

From (i) and (ii) we observe that transport functions as a verb with primary stress on the final syllable and as a noun with primary stress on the initial syllable. Similarly, in (iii) and (iv), protest functions as a verb with primary stress on the final syllable and as a noun with primary stress on the initial syllable. However, we need to be careful here and not fall into the trap of generalisation where we infer every case of stressed initial syllable to be a noun and every case of stressed final syllable to be a verb. Again, in (v) and (vi), we interestingly find that compact functions as an adjective with primary stress on the final syllable and as a noun with primary stress on the initial syllable. Now, you might be feeling curious as to how one can master this elaborate and varied system

of word stress in English. The fact of the matter is that knowledge of which syllables will receive primary stress, which will receive secondary stress and which will be unstressed, is part of a native speaker's intuition and it comes naturally in the process of acquisition.

Moving on, along with word stress (or lexical stress) we also have sentential stress in English, exemplified to a certain extent through sentences 1, 2 and 3 as we started the discussion. Sentential stress entails emphasis on or prominence of a certain word within a sentence. Trask describes it as "[p]rominence attached to a single syllable in a single word of a complete sentence in an unmarked style of pronunciation - in English, normally to the last lexical item" (1996: 320). Now, sentential stress can be used to foreground a specific word to amplify its significance in the context of the interpretation of the whole sentence (contrastive stress), or it can be used to emphasise a word as part of a phrase (phrasal stress) thereby distinguishing between, for instance, a compound noun and a simple adjective & noun pairing. We have already witnessed in sentences

Compound Noun	(Adjective + Noun) phrase
'White House (the residence of the President of the United States of America)	white 'house (a white coloured house)
'black hat (a hacker with malicious or criminal intent)	black 'hat (a black coloured hat)
'green room (a room in a theatre or a studio for the performers to rest or prepare when not performing)	green 'room (a green coloured room)
'Blue Book (the official annual report of the accounts of the British economy)	blue 'book (a blue coloured book)

1, 2 and 3 how contrastive stress can induce changes in the interpretation of the sentence with a change of the word receiving the stress in the sentence. So, let us now look at a few examples of how phrasal stress differentiates between a compound noun and a simple phrase combining an adjective and a noun.

From the above examples, we can easily observe that when it is a compound noun (of adjective+noun configuration) the primary stress is on the adjective. On the other hand, when it is a simple phrase combining an adjective and a noun, the primary stress is on the noun. What we do note, interestingly once more, are how stress is a definitive cue in the process of interpretation and how distant these meanings are, making mis-interpretation an expensive error.

Now, we will try to understand what is pitch, followed by what is intonation. In the process of speaking, we as homo sapiens essentially produce two broad categories of speech sounds - vowels and consonants. Here, we need to unlearn <a>, <e>, <i>, <o>, <u> being vowels and the remaining 21 letters being consonants, as we mentioned previously that in English there is no one-to-one correspondence between a letter (grapheme) and a speech sound (phoneme). So, how do we understand vowels then? Well, vowels are those speech sounds for whose articulation the vocal tract is open and the airstream from our lungs does not encounter any obstruction. The vocal tract acts as a resonating chamber and as the airstream is not restricted at any point, there is no audible friction. For instance, try pronouncing the word fit and focus your attention on the short yet distinct sound between the initial /f/ and the final /t/. Now that we have an idea of vowels, let us look at consonants. Consonants are those speech sounds for whose articulation the airstream from our lungs is either completely obstructed or significantly restricted by being forced through a constriction in the vocal tract resulting in conspicuous audible friction. For instance, while pronouncing the word bad, focus your attention on how we restrict the airflow while producing the initial /b/ and the final /d/.

In the production of these vowels and consonants, we need to be aware of the particularly salient role of the vocal cords or the vocal folds situated within the larynx. The vocal cords, being elastic muscular structures, can be made to vibrate as per the requirement of the sound being produced, while the vocal tract acting as a resonating chamber amplifies and further modifies the articulated sound, thereby giving an individual his or her characteristic voice. Now, this rapid vibration of the vocal cords, to add an extra bit of distinctive noise, is called voicing or phonation. The sounds produced thus are identified as voiced or phonated. All vowel sounds are voiced; however, consonants can be both voiced and voiceless (i.e., produced without voicing or phonation). Like all other vibrating bodies (or objects) in nature, the vocal cords or the vocal folds too have a certain frequency, i.e. the number of times the vocal cords can rapidly vibrate

per unit time. Pitch can be understood as what we, as listeners, perceive humanly of the natural frequency of vibration of the speaker's vocal cords, or in other words, pitch is "[t]he perceptual correlate of the frequency of a sound - in speech, of the fundamental frequency of the vocal folds" (Trask, 1996: 278).

Now that we have an idea about what is pitch, let us come to what is intonation. Intonation can be simply understood as how we, as speakers, intentionally alter our vocal pitch to accomplish a range of syntactic and semantic functions, thereby influencing the manner in which our utterances are interpreted. We need to remember though that this variation of pitch is not for the purpose of discerning words. What are the functions then that language users accomplish with the help of intonation? Well, intonation can convey crucial information about the utterance type and purpose, e.g., whether it's a declarative (statement) or an interrogative (question), whether the speaker offers clarification, seeks confirmation or emphasizes a point, etc. For instance, let us look at the following utterances:

(a) You did not give him shelter.

(b) You did not give him shelter?

(c) You did not give him shelter!

While listening to an English speaker produce these utterances, it becomes clear that although the words constituting these three utterances are exactly similar, the manner in which the speaker's pitch varies or in other words, the pitch movement, makes the listeners interpret them differently and thereby respond to the speaker in accordance with the purpose. To look at it a bit more carefully, we as listeners can find that in case of utterance (a), a medium pitch is maintained throughout with a tendency to slightly fall as the final word is reached, whereas in case of utterance (b), the pitch keeps gradually rising and peaks on the final word. Furthermore, different types of interrogatives (wh-questions, yes/no questions, choice questions, etc.) have different intonation patterns.

Apart from this, intonation also holds cues regarding the attitude and the emotional state of the speaker, e.g., if the speaker is trying to intimidate the listener, being passively aggressive, being defensive or if the speaker is sad, frustrated, angry, etc. Speakers also at times vary pitch to highlight a certain word or a certain phrase in the utterance to elevate its relevance in the context of the utterance or to force listeners to focus more on that word or that phrase as part of conversational strategy. Summing these points up, intonation "is used for a variety of purposes: for marking grammatical boundaries (phrases and clauses), for signalling sentence types (e.g., statements and questions), and for conveying the speaker's attitude (surprise, irony, anger, etc.)" (Trask, 1996: 184).

Finally, let us now try to understand what is accent. The way we, as native speakers of a particular language, (for instance Bangla) articulate sounds of not only our first language (Bangla) but other languages (English, Hindi, etc.) too, is influenced by factors like:

(i) the geographical area where we are born and where the speech community, of which we are members, resides;

(ii) our social profiles (inclusive of ethnicity, economic status, cultural influences, etc.) and the social background of the speech community of which we are members, taking into account class and familineal (caste in the Indian context) influences;

(iii) the transference of phonetic features from our respective native languages to non-native ones.

So, if we try to sum up these influences, we will find that accent, in the words of Trudgill, "refers to the way in which people pronounce when they speak..." and is "...simultaneously both social and geographical" (Encyclopaedia of Language and Linguistics, 2005: 14). Accents revolve solely around differences of pronunciation. Trudgill additionally emphasizes that although there is a tendency to treat the various named accents (for instance, in case of Bangla, we have the Kolkata/Calcutta accent, the Birbhum accent, the Sylheti accent, etc.) as distinct varieties, a thorough linguistic exploration reveals "continua of geographical and social accents, with no sharp dividing line between them" (ibid).

Even within the same city or the same district (for instance, Kolkata/Calcutta), there can be subtle differences in accent amongst those in the Northern, the Southern, the Eastern and the Western parts (for instance, the subtle differences characterizing the South Kolkata accent and the North Kolkata accent).

Social background too comes into play whereby we find the elite or the aristocratic accent (the middle class, the upper middle class, the upper class, etc., receiving private/ elite schooling and the pronunciation marked by standard influences) being somewhat dissimilar from the lower-class or the working-class accent (the lower class, the lower middle class, etc., receiving public/free schooling and the pronunciation marked mostly by non-standard influences). This example is just for us to be reminded of the social reality and thereby the existence of social variations in accent. As linguists, we must always steer clear of any prejudice or hegemonic alignment and, as much as possible, be objectively and empirically motivated in stating what we find.

Lastly, the phonetic features of an individual's native language can influence the individual's pronunciation when using a non-native (or foreign) language resulting in a transfer of phonetic features from the native to the non-native (or foreign) language. For

instance, we often find native Bangla speakers pronouncing the English word <very> as /b?eri/ instead of /veri/, and thereby we describe such individuals to be speaking English with a Bengali accent.

Let us next discuss the grammatical categories of English. But before we do that, let us first try to answer the following questions.

Check Your Progress 1

Read the following questions and answer the questions in the space that follows:

1) How are <beg> and /beg/ different? Explain with at least 5 more of such examples from English. (120-140 words)

   ....

   ....

   ....

   ....

2) Differentiate between primary and secondary stress with the help of at least 4 English words clearly marking the stress positioning according to the convention. (100 words)

   ....

   ....

   ....

   ....

3) What are the different ways in which speakers of the same language, for example English, can have different accents? (125-150 words)

   ....

   ....

   ....

   ....

1.3.4. Grammatical Categories in English

Before trying to understand, what grammatical categories are, we need to briefly know about the two most fundamental morphological processes - inflection and derivation.

If you remember Unit 1, we did fleetingly talk about how in morphology we deal

with words, the various ways in which they change as well as the formation of new ones. We had also passingly mentioned about morphemes being the smallest indivisible purposeful (the purpose could be that of conveying meaning or of serving a grammatical function) units in the study of the internal structure of words.

Now, morphemes can be of three different types: free, bound and zero.

A free morpheme is in the simplest sense, self-sufficient, i.e., it can exist on its own and be used as an independent word without any extraneous help. For instance, man, dog, at, the, clever, etc., are free morphemes.

A bound morpheme cannot exist on its own and cannot be used as an independent word. It can only occur as part of a larger conglomerate of multiple morphemes, wherein it requires the support of free morphemes. For instance, -s (morpheme marking plurality), -ed (morpheme marking past tense), -ing (morpheme marking continuous sense or the sense of incompletion), im- (morpheme marking negative or opposite sense), un- (morpheme marking negative or opposite sense), etc., are bound morphemes and we can find them as part of multi-morphemic words like boys (plural form of boy), played (past form of play), doing (continuous form of do), impossible (not possible/opposite of possible) and unlimited (not limited/opposite of limited) respectively.

Bound morphemes are also termed as affixes. Now depending on its position in a word, an affix can be a prefix (when an affix precedes the morpheme to which the affix is attached; e.g., im-possible, un-limited, in-definite, etc.), a suffix (when an affix follows the morpheme to which the affix is attached; e.g., rare-ly, brother-hood, intern-ship, etc.), an infix (when an affix intervenes and occurs between parts of the morpheme to which the affix is attached; there are no actual infixes in English and the ones we have are colloquial ones, e.g., abso-freaking-lutely, fan-bloody-tastic, etc.) and a circumfix (when an affix is realised partially in the preceding position and partially in the succeeding position, i.e., a part of it occurs as a prefix and the remaining part occurs as a suffix; the existence of circumfixes in English is debated with many ruling it out completely, while some citing the en--en and the em--en circumfix as in words like enlighten, enliven, embolden, embrighten, etc.).

Beyond positioning, affixes are also classified on the basis of purpose - inflectional and derivational. And this is where we return to talking briefly about the processes of inflection and derivation.

Inflection is the morphological process of the alteration of independent lexical items by adding certain affixes to them bringing about a change in their grammatical function or purpose but generally never changing the word class of the lexical item to which the affix gets attached. For instance, the addition of affixes like -ed and -ing to the

verb play gives us played (the simple past form of play) and playing (the continuous or imperfect aspect of play), and there is no change of word class. A few more examples are tabulated for us to understand what sort of functional changes can be accomplished through inflection.

Initial lexical item (word class)	Final lexical item after inflection (word class)	Type of grammatical /functional change
dog (noun)	*dogs* (noun)	change of number (from singular to plural)
Suniti (proper noun)	*Suniti's* (proper noun)	indicating a sense of possession of the following lexical item (e.g., Suniti's book / Suniti's opinion)
rich (adjective)	*richer* (adjective)	change of the degree of comparison, i.e., being qualitatively or quantitatively more or enhanced

Derivation, on the contrary, is the morphological process of the formation of new lexical items by adding certain affixes to independent lexical items bringing about a significant change in meaning and in most cases changing the word class of the lexical item to which the affix gets attached. For instance, the addition of the affix -able to the verb perish gives us perishable which can be both an adjective and a noun depending on how we want to use it.

	Lexical item	Word class	Meaning	Usage
What we started with	*perish*	verb	to die in an accident or be killed; to decay and disintegrate;	Many crops *perish* due to the lack of proper irrigation in my village.

	Lexical item	Word class	Meaning	Usage
What we got after the addition of the suffix *-able*	*perishable*	adjective	liable to decay, rot or disintegrate	You must quickly refrigerate the raw fish that you bought today. It is highly *perishable*.
		noun	something, particularly food, that is likely to decay, rot or disintegrate	We moved the *perishables* into the temperature-controlled room for storage.

So, we can see that inflection leads us to new words that have grammatical functions or purposes different from the words that we start with. On the other hand, derivation leads us to new words that have meanings different from the words that we start with. Following from the discussion above, therefore, we are in a position to grasp that the affixes whose addition causes an inflectional change are inflectional affixes and those whose addition causes a derivational change are derivational affixes.

There is a lot more to the processes of inflection and derivation that you will explore in detail later. Here, we have achieved our goal of learning about the basic nature of these processes.

Let us now return to understanding what grammatical categories are. There are two ways in which we can make sense of the idea of grammatical categories.

The first, absolutely simple way is to consider words, sharing significant grammatical properties, to belong to one particular category. For instance, words that are names with which we identify things, places, objects, entities, different people, abstract ideas, emotions, etc., are inflected for case and share the property of denotation, belong to the category of nouns. In other words, grammatical categories in English refer to the part-of-speech categories that we all have been learning as part of English grammar from a very young age, namely, nouns, pronouns, verbs, participles, adjectives, adverbs, prepositions, conjunctions and interjections. We are not going to indulge in a description of these categories here as it will be taken up in subsequent units.

Now let us come to the second way of understanding what grammatical categories are. When we use words as part of a sentence (or sentences), there are properties or features beyond the part-of-speech categories of these words, and those properties or features bring about changes in form of these very words or other words that occur in relation to them within the context of the sentence (or the sentences). Now, the changes in form of words are purely for grammatical reasons. In other words, these changes are inflectional. For instance, let us look at a few sentences.

1. The boy eats his breakfast.

2. The boys eat their breakfasts.

3. The girl eats her breakfast.

4. The girls eat their breakfasts.

We can notice how eats changes in form to eat as boy changes in number from singular to plural boys. There is also a change in pronoun from his to their reflecting the change in number from boy to boys. One can very rightly argue that - The boys eat his breakfast - is also a grammatically acceptable sentence. Yes, it is! But here we are trying to convey that the boys have their individual breakfasts made according to their preference, and not all the boys eating or rather sharing one particular boy's breakfast. Also, when boy gets replaced by girl, the pronoun before breakfast changes from his to her, as the property of gender comes into play.

By now, you must be feeling that, yes! we already know these things since school! Yes, we have all gone through the motions in our school days without offering too much thought to what caused these changes or why did these changes happen at all. We just internalised them as rules that we needed to follow to be grammatically correct and not let our scripts be mercilessly smeared by the dreaded cross marks in red ink.

Well, if we think about it now, we will find that it is the property of number of the noun (or the noun phrase) acting as the subject of the sentence that influences the verb to change in form in accordance with it. The term that we linguists use for this change in verb form is agreement. So, we say that the verb agrees with the subject in number to describe what is happening in these sentences with respect to the change of verb form. But it is not just number agreement that we need to be aware of; in English, we also have subject-verb agreement on the basis of person. For instance, let us look at a few sentences keeping the number of the subject singular but varying the person.

5. I eat my breakfast.

6. You eat your breakfast.

7.   He/she eats his/her breakfast.

We can clearly see that for the 3rd person singular, the verb agrees differently compared to the 1st person singular and the 2nd person singular. Now, the purpose of putting up these examples and supplementing them with brief explanations is to explicate how words do change in form or bring about a change in form of other words, because of certain properties or features which are realised in the context of a sentence (or sentences). So, these properties or features are essentially syntactic. Apart from the simple part-of-speech classification, the expression grammatical category is also used to describe a set of characteristic syntactic properties or features of words which can effect an own change in form or a change in form of connected words for grammatical purposes (inflectional). The different grammatical categories that we come across include number, person, gender, definiteness, case, tense, aspect and mood. We will not be elaborating on any of these individually here due to the introductory nature of this module as well as the limitation of space.

We will next move on to the notion of formality in language and how it leads us to distinguish formal utterances from informal ones.

1.3.5. Formal vs. Informal Structures

While using both the spoken and the written form of English, we need to be careful about the domain where the conversation is taking place or the domain being addressed through the use of written words and sentences. A domain is any social space of interaction or the space where the action takes place. For instance, our workplaces, our homes, the cafes where we meet our friends, the markets which we frequent for buying essential commodities, etc., are all different domains. According to Hudson (1980), "each domain is a congruent combination of speaker(s), addressee(s), context of the conversation, and the topic".

To clarify this further, our homes are extremely personal spaces which we share with our immediate family members (in rare situations with extended family members), and therefore the domain of home is characterised by the greatest degree of intimate relationships and displays of intimacy. Consequently, we very rarely need to be serious, precise and courteous while interacting and conversing in the home domain (except for extraordinary circumstances like a medical emergency, an accident, etc.).

On the contrary, our workplaces or our offices are impersonal and professional spaces which we share with our colleagues positioned varyingly in the organisational or workplace hierarchy. Therefore, we almost always need to be serious, precise, structured and

courteous in the way we use language to initiate or to participate in a professional conversation, to propose a partnership or to negotiate the terms of a collaboration, etc., (except for those rare moments when a joke or a frivolous exchange of words or a light banter is acceptable to break the monotony) within the workplace or the official domain.

Now, domains can be categorised as formal and informal on the basis of formality. How do we understand formality? Well, there are a few approaches to understanding it. As Judith Irvine attempts to summarise the tenets of these approaches comprehensively in her paper "Formality and Informality in Speech Events" (1978), she describes how formality can be deciphered "in the sense of an increased structuring and predictability" of our use of language, and also "as a way of describing characteristics of a social situation...so that a "formal" situation requires a display of seriousness, politeness, and respect."

Bricker (1974) and Gossen (1974) on the basis of their work on the Mayan speech community, and Fox (1974) looking into the Rotinese speech community, infer "formal speech" as distinct due to "special structuring" particularly "redundancy and syntactic or semantic parallelism". Rubin (1968) in her paper "Bilingual usage in Paraguay" delves into how people switch between Spanish (treated as high variety) and Guarani (treated as low variety) in Paraguay, and while doing so she analyzes formality in language based on what kinds of linguistic behaviour are acceptable in formal situations and how much of deviation from a defined standard can be permitted with regard to language use in such situations.

Fischer (1972), in his paper on how the Trukese and the Ponapean speech communities use language to interact, explicates a formal situation as linguistically marked by the incorporation of "respect vocabulary" and "formal etiquette" to demonstrate politeness in language use. Fishman (1972) outlines formal situations as "lecturelike" and associates formality with non-frivolous and impersonal use of language. Like Fischer, Ervin-Tripp (1972) also considers the display of linguistic politeness to be characteristic of formal situations alongside "the seriousness of such situations".

On the basis of these observations, we do realise that formality is a variable affecting the situation or the domain where the language users are physically or virtually placed, and it influences the way we use language in an empirically verifiable manner. Formal domains are those social spaces of language use where we need to be serious and precise about the topic of conversation keeping in mind the professional context and we also need to display linguistic politeness and respect in accordance with the organizational hierarchy and the standard organizational etiquettes.

Informal domains are the exact opposite in nature. Informal domains are those social spaces of language use where we are relaxed and spontaneous about the topic of conversation due to the personal and intimate context and we are free to display a variety of linguistic emotions in accordance with the private and frivolous nature of such interactions. Social etiquettes are also quite different from organizational etiquettes. So, over here, we are going to understand the use of language in formal domains (and formal situations) as the formal use of language, and contrarily the use of language in informal domains (and informal situations) as the informal use of language.

Some of the observable features, distinguishing the formal use of language from the informal use in both writing and speech in English, are tabulated with examples.

	Formal use of language	Informal use of language
Contractions are strictly not preferred in the formal domain or in formal situations.	The results will not be announced till the end of the year.	The results won't be announced till the year end.
	The manager is going to announce an early retirement.	The manager's gonna announce an early retirement.
Phrasal verbs are not used in the formal domain or in formal situations.	The lack of cheaper options is frustrating the targeted segment of customers.	The lack of cheaper options is putting the targeted segment of customers off.
	The store-in-charge gave the keys to the security guard.	The store-in-charge handed over the keys to the security guard.
Colloquial expressions and slangs are never allowed in the formal domain or in formal situations.	The newcomer's presentation was absolutely unimpressive.	The newbie's presentation absolutely sucked.
	The engineer lost his job for his irrelevant excuses.	The engineer got fired for his lame excuses.

	Formal use of language	Informal use of language
First person pronouns are avoided in the formal domain or in formal situations. To achieve this, the passive form of the verb is used. It also bypasses the issue of claiming responsibility of the action.	The interns were questioned about their past work experiences and job profiles.	I asked the interns about their past work experiences and job profiles.
	Our journalists have been trained to investigate incidents regardless of the actual ground challenges and adversities.	We have trained our journalists to investigate incidents regardless of the actual ground challenges and adversities.

We will next focus on discussing a very interesting issue! It is something that we all have experienced a lot, yet we have never thought about it critically. It is about the way we, as Indians, and people from other non-English-speaking countries, use English. Before moving on, let us take a break and try to answer the following questions.

Check Your Progress 2

Read the following questions and answer the questions in the space that follows:

1) How do inflection and derivation vary fundamentally as morphological processes? Explain with at least 4 examples from English. (100-120 words)

    ....

    ....

    ....

    ....

2) What are the ways in which we can understand what grammatical categories are? (150 words)

    ....

    ....

    ....

    ....

3) How is the formal use of language different from the informal use of language? Support your arguments with the help of at least two observable features in English that distinguish the use of language in formal and informal domains. (150-175 words)

....

....

....

....

1.3.6. World Englishes

It is quite possible that while you were in high school, your English teacher corrected some of your sentences like:

1. I am giving my final test tomorrow.

2. My father takes tea in the morning.

3. Last evening I was in home only.

4. We are passing out of school this year.

Your teacher might have given you the reason that the sentences are in Indian English. It is equally probable that your teacher might not have used the expression Indian English but simply advised you to stop formulating what you want to express in your native language (Bangla/Hindi/Marathi/Gujarati/Tamil, etc.) and then translating it mentally into English. Your teacher wanted you to think and express directly in English without the interference of your native language. Well, let us return now from our trip down the memory lane.

So, what exactly is this Indian English? Most of us till now have been under the impression that English is simply English and if some of us have come across the term Indian English in some way, we have simply processed it as something to do with the way we Indians use English. Now, here comes a few interesting questions: is there a difference between the way we Indians use English and the way say Americans or Britishers or Australians or even Chinese use English? If there indeed is any difference, then what causes it and what are the implications of these differences?

Let us go back a few centuries in time. English arrived in India with the British East India Company and Christian missionaries in the early 1600s. It was clear in Lord Macaulay's Memorandum on Education, as a lead up to the English Education Act of

1835, how the Britishers wanted to create "a class who may be interpreters between us and the millions whom we govern - a class of persons, Indian in blood and colour, but English in taste, in opinion, in morals and in intellect" (2nd February, 1835). The grand design of the British imperial expansion had at its core the tool of English whose knowledge was systematically injected into the colonies across the globe including the United States of America, the Caribbean, Canada, Australia, New Zealand, East, West and South Africa, South East Asia as well as islands in the South Pacific. In fact, the incredible spread of English and its prominence worldwide is firstly due to British colonialism and secondly due to the economic and the technological rise of the United States of America. So, English acquired the status of a lingua franca or a globally-accepted common international medium of communication for speakers of immensely varied indigenous languages.

The spread of English in so many colonies with varying cultural and linguistic backgrounds resulted in situations where it came in contact with the native languages of the respective colonies, was accultured in those unique sociolinguistic contexts and its use was influenced by linguistic features of those native languages. This gave rise to indigenised varieties of English characterised by the differences (phonological, morphological and syntactic) that emerged in the multitude of linguistic contexts across the world. The expression World Englishes takes into account all such indigenised or localized varieties of English that came into being quite organically amidst myriad sociolinguistic environments, each variety having its own history, influence and algorithm of innovation. Indian English is one such indigenised variety of English having its own unique status, history and influence.

The idea and the very expression of World Englishes were propounded by Braj Kachru (1984, 1986, 1988, 1990, 1991, 1997) through methodical interrogations of the sociolinguistic reality of former British colonies and the process of indigenisation of English in a non-native context. Before formally presenting the term in 1984, Kachru thoroughly explored how Indian English is noticeably dissimilar from both British and American English in his research paper "The Indianness in Indian English" (1965) to prepare the ground for the idea of World Englishes to eventually flower. His subsequent works, "Models of English for the third world: white man's linguistic burden or language pragmatics?" (1976) and The Other Tongue: English Across Cultures (1982) built up on idea of acculturation of English in non-native contexts. Finally, in March 1984, Kachru spoke about World Englishes officially while presenting his invited position paper "World Englishes and TESOL: Contexts, Attitudes, and Concerns" at the 18th Annual Teachers of English to Speakers of Other Languages (TESOL) Convention in Houston, Texas. His subsequent publications like The Alchemy of English: The Spread, Functions and Models of Non-

Native Englishes (1986) and "World Englishes and applied linguistics" (1990) highlight how language as an organic entity evolves, conditioned by its surrounding influences in a non-indigenous setting, alongside the theoretical, descriptive, conceptual and power-related issues of such indigenized varieties.

Furthermore, Kachru put forth the brilliant Concentric Circle Model to represent "the global diffusion of English" as the native speakers systemically lose "the exclusive pre-rogative to control its standardization" and increasingly "become a minority" (1985). The following illustration has been taken from Kachru's paper "World Englishes and applied linguistics" (1990) published in the journal World Englishes Volume 9, issue number 1.

The "Expanding Circle"

China	1,088,200,000
Egypt	50,273,000
Indonesia	175,904,000
Israel	4,512,000
Japan	122,620,000
Korea	42,593,000
Nepal	18,004,000
Saudi Arabia	12,972,000
Taiwan	19,813,000
USSR	285,796,000
Zimbabwe	8,878,000

The "Outer Circle"

Bangladesh	107,756,000
Ghana	13,754,000
India	810,806,000
Kenya	22,919,000
Malaysia	16,965,000
Nigeria	112,258,000
Pakistan	109,434,000
Philippines	58,723,000
Singapore	2,641,000
Sri Lanka	16,606,000
Tanzania	23,996,000
Zambia	7,384,000

The "Inner Circle"

USA	245,800,000
UK	57,006,000
Canada	25,880,000
Australia	16,470,000
New Zealand	3,366,000

Fig. 1.

According to Kachru, along with the native English speakers of Britain, the first wave of diaspora of monolingual (having knowledge of only one language) English speakers from Britain, settling in and eventually replacing the indigenous people of Canada, America, Australia and New Zealand, constitute the Inner Circle. These are the native English-speaking countries with English being used as the primary language.

The second wave of diaspora of English speakers resulted in the further expansion of British colonies in Asia and Africa. In Kachru's opinion, English speakers in countries like India, Nigeria, Philippines, Sri Lanka, etc., which were formerly under British rule, with an elaborate colonial past, constitute the Outer Circle. In these countries, erstwhile British policies injected English into administrative, official, commercial and legal practices while creating the need to recruit English-proficient individuals with a specific skillset. In course of time, knowledge of English was associated with intellectual elitism, credibility, social capital and mobility.

Finally, there are countries like China, Japan, South Korea, Russia, Saudi Arabia, etc., which do not have a colonial past and English is neither their primary nor their official language. Nevertheless, these countries do use English consistently for international communication and there is increasing focus on mastering English for expanding business, sharing scientific research, collaborating in the development of advanced technology, pursuing higher education in international institutions, etc. Kachru places English speakers of such countries, where English is still growing in significance and is considered a foreign language, in the Expanding Circle.

This tripartite Concentric Circle model beautifully projects, in the words of Kachru, "a vital concept of pluralism, of linguistic heterogeneity, of cultural diversity, and of dramatically different theoretical and methodological foundations for teaching and research in English" (*TESOL Newsletter,* Vol. 18, 1984: 26).

Let us now move to the final topic in this unit - how non-verbal cues and contexts influence the interpretation of messages.

1.3.7. Influence of contexts and non-verbals

Many of us, at some point of time in our lives, have experienced that what we expressed verbally, failed to elicit a desired response even though we used apt expressions in grammatically correct sentences and articulated them in a manner that was perfectly understandable to the interlocutor.

Beyond possible occasional factors like being known to the interlocutor, or having a strained personal or professional relation with the interlocutor, or the interlocutor being

in an emotionally unstable situation at the time of the conversation, there is more to such experiences and therefore simply holding the mentioned occasional factors or similar ones responsible, cannot always justify how and why the conversation transpired the way it did.

In those startling experiences, our verbal messages were not considered as legitimate or serious or actionable. The interlocutor did not directly state that he or she found the relayed information questionable or unreliable. However, the nature of the interlocutor's response clearly revealed the manner in which our messages were treated and we felt we were not being believed or taken seriously. For instance, it could have been a request for some monetary help or a message being relayed on behalf of somebody else or some previously inaccessible information being disclosed now in a changed circumstance, etc. In all such situations that we lived through, we are still pretty sure that our choice of meaningful words and construction of sentences were appropriate as well as adequate to convey the intended message in an intelligible manner. Yet, from all such episodes we realised that somehow it was not sufficient to be perfect with our words, sentences and grammatical sense. Then, what more is there to the process of verbally conveying meaningful messages and being able to get a desired response, and, so to speak, to the process of any positive, productive conversation?

In Unit 2, while discussing the modalities of language, we did very briefly talk about non-verbal cues. You will be surprised to know that it is these very non-verbal cues that influenced the interpretation and the subsequent response to our verbal messages, i.e., in all of those experiences that we were mulling over, the non-verbal cues, that our interlocutors picked up from the way we conveyed the messages, were not powerful enough to support the verbal part of the messages, to be taken seriously, or to be found credible. Now, how exactly can we understand what is 'non-verbal'? Well, for this, we need to approach the expression from two perspectives. The first is when we consider the aspects of communication (i.e., the process), non-verbal cues are essentially those whose production or relay does not involve the vocal tract and the speech apparatus. So, from the point of view of communication, non-verbal cues include, for example, facial expressions, eye contact, hand movements, physical posture, etc. The second perspective is when we deal with the features of speech (i.e., the medium), non-verbal cues are essentially those which have nothing to do with the recognition of individual words in the speech stream. So, from the point of view of speech, non-verbal cues include, for example, accent, intonation, loudness, etc.

Now, all these non-verbal cues (from both the perspectives of aspects of communication and speech) constitute that aspect of human language, which lies beyond the articulation of words and sentences (and the production of signs considering signed

languages), but still significantly influences the interpretation of verbal messages (or signed messages) and therefore has an undeniable impact on the overall communicative effect. The term paralanguage is broadly and simply used to refer to this. Abercrombie in his paper "Paralanguage" (1968) writes:

"We speak with our vocal organs, but we converse with our entire bodies; conversation consists of much more than a simple interchange of spoken words. The term paralanguage is increasingly commonly used to refer to non-verbal communicating activities which accompany verbal behaviour in conversation" (55).

But Abercrombie at the same time warns of the potential danger of considering paralanguage as an independent "homogeneous entity" parallel to that of language. He also finds the expression paralanguage problematic as it is not something parallel to language or capable of being separately investigated, rather it is deeply intertwined and hence needs to be explored in relation to language and in relation to the conversations that we engage in, through the use of language. So, instead of paralanguage, Abercrombie prefers the use of the expression paralinguistic phenomena to broadly account for all the non-verbal cues that underlie the words and sentences which we articulate while conversing:

"Paralinguistic phenomena are non-linguistic elements in conversation. They occur alongside spoken language, interact with it, and produce together with it a total system of communication. They are not necessarily continuously simultaneous with spoken words. They may also be interspersed among them, or precede them, or follow them; but they are always integrated into a conversation considered as a complete linguistic interaction. The study of paralinguistic behaviour is part of the study of conversation: the conversational use of spoken language cannot be properly understood unless paralinguistic elements are taken into account" (ibid).

Apart from non-verbal cues, context also has a powerful influence on the way our utterances are interpreted. We can understand context in two ways - linguistic context and social context.

Most of the time when we speak or write, our sentences are not solitary. They are accompanied by more sentences and the totality of it forms the discourse. When our listeners or readers try to make sense of what we have already articulated or written, they do not interpret sentences in isolation. They interpret our words and sentences in connection with the other words and sentences in the discourse. Linguistic context comprises these surrounding words and sentences that influence the interpretation of a particular utterance in a discourse. For instance, let us consider the following sentence: I'm going to die. Now let us look at the same sentence in two different linguistic contexts.

1st context: I have been having these terrible bouts of splitting pain in the back of my head. My doctor instructed me to undergo a few diagnostic tests. Finally, he revealed that I am at the last stage of head-neck cancer. I'm going to die. I don't know how to tell this to my family members. They depend on me so much. This is going to be incredibly hard for them to accept.

2nd context: It's been more than a year now that I have been working under Mr. Phillips. He never understands my personal problems. He keeps pushing more and more work even when I am clearly in need of a break. Today he gave me a dozen new manuscripts and asked me quite sternly to ensure that they're done by the weekend. I'm going to die. This is just too much to handle now. Then again, I can't resign. I need money to pay my college tuition fee.

In the first linguistic context, "I'm going to die" evidently signifies the speaker's impending death due to an irreversible and untreatable stage of cancer. However, in the second linguistic context, "I'm going to die" does not signify death. The statement reflects the immense mental pressure that the speaker is under and can hardly cope up with.

Now, that we have a brief idea about linguistic context, let us move to the idea of social context. Social context, very simply, takes into account the features of the domain where the interlocutors are situated, the social profiles of the interlocutors and the moment when the interlocutors engage in a language-mediated interaction (e.g., it could be an ordinary moment that is typical of the regular state of affairs, or it could be a special moment like a colleague's wedding, or it could be a moment of grief like a funeral, etc.). For instance, let us again consider the sentence: I'm going to die. An individual who has just been in a road accident and is being taken to the hospital in an ambulance, is just being extremely anxious and scared about the nature of his or her injuries, when he or she says, "I'm going to die". On the other hand, when a perfectly healthy and medically fit man, about to get married in the next few hours, says "I'm going to die" to his friends, he is just being nervous and jittery about marital life and the responsibilities that come with it. It is in fact a frivolous statement, ridiculously equating marriage and death, in the second context.

1.3.8. Summing Up

In this Unit we have covered many important ideas along with relevant examples. While some of these ideas are theoretical, a lot of them have practical significance in terms of how we find language being used around us. We have given you:

● the idea of how we can differentiate between phonemes and graphemes along with their representational conventions.

- an account of the different types of stress and how its variation leads to grammatical contrast as well as change of meaning.

- an explanation of what is pitch and how its variation helps us accomplish a range of syntactic and semantic functions.

- an overview of the factors that underlie the variety of accents that we come across.

- a number of perspectives on how formality can be understood, followed by a discussion on how language use in formal domains or situations is unlike that in informal domains or situations.

- an idea of the indigenised or localised varieties of English, each of which has its own history, sociolinguistic setting and influence.

- a very brief description of the manner in which non-verbal cues and contexts influence the interpretation of our utterances.

In the next Unit, we shall explore the different issues related to the process of second language acquisition.

1.3.9. Comprehension Exercises

Read the following questions and answer the questions in the space that follows:

1) What are the characteristics of the three concentric circles as per Kachru's model distinguishing the varieties of English spoken across the globe?

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    ....

2) "We speak with our vocal organs, but we converse with our entire bodies; conversation consists of much more than a simple interchange of spoken words" (Abercrombie, 1968). Explicate with the help of at least two personal experiences, how we can understand the quoted words of Abercrombie.

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3) How are linguistic and social contexts different? How do they influence the interpretation of words and sentences? Use one example from English and one example from your native language to highlight the difference in interpretation.

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1.3.10. Suggested Reading List

If you would like to read more on the discussed ideas, you may consult:

- If you would like to read more on the discussed ideas, you may consult:

- Akmajian, A., Farmer, A. K., Bickmore, L., Demers, R. A., & Harnish, R. M. (2017). Linguistics: An introduction to language and communication. MIT Press.

- Fishman, J. A. (1972). Sociolinguistics: A brief introduction. Newbury House Publishers.

- Fromkin, V., Rodman, R., & Hyams, N. (2018). An introduction to language. Cengage Learning.

- Kachru, B. B., Kachru, Y., & Nelson, C. L. (Eds.). (2006). The handbook of world Englishes. Blackwell.

- Knapp, M. L., Hall, J. A., & Horgan, T. G. (2013). Nonverbal communication in human interaction. Cengage Learning.

- Trudgill, P. (2000). Sociolinguistics: An introduction to language and society. Penguin UK.

Unit 4 ❑ SECOND LANGUAGE ACQUISITION

Structure

1.4.1 Introduction

In this Unit, we shall discuss the various aspects of the process of second language acquisition. We will first try to get acquainted with a few basic terminologies and then move on to the cognitive stages in the process of acquisition. Building up on these, we will look into some of the important factors influencing the process of second language acquisition and how the final state of an individual's performance is conditioned by these.

After reading the Unit carefully, you will be able to:

● understand the fundamental difference between the processes of acquisition and learning;

● realise the significance of the different stages of cognitive development in the process of acquisition;

- appreciate the role of the linguistic environment as well as input in the process of acquisition;

- acknowledge how an individual's first language interferes in the process of second language acquisition; and

- gauge how critical period, cultural competence and creativity are intricately linked with the process of second language acquisition.

1.4.2. Learning & Acquisition

Before, we talk about the fundamental distinction between learning and acquisition, we need to be familiar with a few basic ideas, namely first language, second language, mother tongue and foreign language. First language (abbreviated as L1), is quite literally the language which we acquire 'first' in the sequence of mastering the number of languages that we know by the time we die. An individual acquires his or her first language very naturally from his or her immediate surroundings and it becomes the language that he or she spontaneously uses to communicate with others. An individual's mother tongue implies his or her cultural identity and is not necessarily the first language. For instance, the 3rd or 4th generation of Punjabis settled in Canada, speak English as first language (L1) but retain Punjabi as their mother tongue.

Second language (abbreviated as L2) is quite literally second in the order of acquisition, i.e., it follows after the first language, and it usually implies the language which may or may not be immediately native to an individual but he or she still decides to acquire it for the ease of communicating with either the surrounding speech communities or the wider international speech communities.

Foreign language (abbreviated as FL) is that which is non-indigenous to the geographical and sociocultural setting in which we are born. There is always a motivation or an objective when we decide to learn a foreign language - we learn it to increase our knowledge, or to expand our world-view, or to enhance employability.

We all know how incredibly rich the linguistic landscape of India is. However, the status of official language is accorded to Hindi and English. Hindi is indigenous whereas English is non-indigenous to the subcontinental setting. But official languages also vary in each of the states, as every state has a different official language for its internal functioning. So, when we consider the issue of first language for Indians, it varies according to state, and at times even at the level of districts within a state.

Acquisition (or acquiring) as a process is subconscious, effortless, without guided instructions and occurs spontaneously at an individual's own pace using the immediate environmental input which includes parents, siblings, close neighbours, etc.

Learning is a conscious process, guided by a teacher's active involvement in an institutional setup (or could be domestic too) and occurring at the pace dictated by the teacher, further factored by the learner's affective filters, intention, capacity, etc. Language learning involves becoming able to form grammatically and contextually appropriate sentences as well as enhancement of communication skills.

1.4.3. Cognitive Stages in Language Acquisition

Now, that we have understood what language acquisition, we need to have a succinct idea about the different stages in this elaborate process. However, before addressing the topic, we need to be clear here that we are not going to describe in detail the stages of first language acquisition, namely:

(i) babbling (6-8 months), characterised by repetitive utterance of the same syllable or a repetitive cycle of a pattern or a combination of syllables, without any recognizable words;

(ii) holophrastic stage or one-word stage (9-18 months), characterised by the production of recognizable mono-morphemic or one-word utterances;

(iii) two-word stage (18-24 months), characterised by recognizable two-word utterances, an expanded vocabulary and beyond the two-word stage, the basic word order is figured out;

(iv) telegraphic stage or early multiword stage (24-30 months) characterised by recognizable three or four-word utterances and the ability to initiate the construction of sentences, as infants start to fill extra elements of clause structure into their sentences;

and (v) advanced multiword stage (beyond 30 months), characterised by recognizable longer utterances along with the expression of complex thoughts in simple forms; beyond 48-60 months, the ability to rectify grammar and learn irregular forms is noticeable.

Our focus in this unit is the process of second language acquisition. So, we will briefly go through the different stages of cognitive development that prepare individuals to be able to acquire languages subsequent to their first language, i.e., the acquisition of a second language, or even a third language in rich multilingual settings. Prominent linguists vary in their delineation of these stages. Psycholinguists have their own unique way of recording these stages.

According to Piaget (1952, 1959), there are four stages of cognitive development underlying the process of language acquisition and language learning. These stages are namely, Sensorimotor stage, Preoperational stage, Concrete Operational stage, and Formal Operational stage.

Sensorimotor stage: This stage covers the developmental period from the time of birth till an individual is 2 years old. In this stage, a child acquires the capacity to differentiate between him/herself and the object which is referred to. For instance, if the child is asked where an object like the ball is, the child responds by pointing it out or the child produces some gestures which specifies the location of the ball. In the circumstance of his/her name being called out, the child produces gestures that clarify that it's his/her name (there is a smile or an action of pointing themselves out).

Preoperational Stage: This stage comprises the developmental period of an individual from 2 years of age till 7 years of age. It has been observed that in this stage, children are able to classify objects as single entities and associate them variously with several symbols. On being instructed to bring a specific item from a specific place, they are able to do so without difficulty. For instance, if a child is asked to bring pink flowers from the garden, the child is able to follow, execute and quickly return with a number of pink flowers. Children also begin processing events in the timeline. They are able to perfectly comprehend the past and the future sense.

Concrete Operational Stage: This stage deals with the developmental period of an individual from 7 years of age till 11 years of age. It is characterised by individuals being able to think logically about objects and events as well as use their knowledge of symbols to solve problems. They acquire the ability to conserve numbers and other quantitative measures like length, volume, etc. By conservation, we mean the quantity being unchanged regardless of how objects, associated to those numbers, change in appearance. Individuals are able to put things in order, manage what they need to do and classify things.

Formal Operational Stage: This stage continues from 11 years of age and onward. It is interestingly observed that individuals start getting concerned about hypothetical situations, thoughts about the future and even about ideological problems. Individuals are able to respond to complex, subjective questions like what they want to become when they grow up, how they are going to achieve that, etc.

According to Werker and Lalonde (1988), children concede their respective phonetic perceptions from "universal" to "language specific" between the age group of six months to twelve months of age. Children create their own way of understanding by being in the interactional mode with the world.

We will next analyse the role of the linguistic environment in the process of acquisition. But before we do that, let us first try to answer the following questions.

Check Your Progress 1

Read the following questions and answer the questions in the space that follows:

1) Acquisition is subconscious whereas learning is conscious. Explicate this statement with the help of at least one example. (100-120 words)

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2) How are the preoperational and the formal operational stages different as per Piaget's model of stages of cognitive development? (150 words)

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3) Briefly describe the stages of first language acquisition along with their timelines. (120-140 words)

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1.4.4. Role of the Linguistic Environment in the Acquisition process

Many of us have found our parents and grandparents awing at the pace and the precision with which very young members of the family acquire their first and second languages. Children acquire a language even with minimal immediate environmental input and at times that input too lacks in quality. To try to deduce how such an incredibly complex system can be so effortlessly acquired by newborns and infants, Chomsky, in 1964, postulated that a hypothetical Language Acquisition Device (abbreviated as LAD),

which human beings are endowed with species-specifically as part of their innate mental capacity to acquire and use any human language, has an indispensable role in the process of language acquisition.

The Language Acquisition Device is to be understood as a hypothetical tool, present species-specifically, hardwired into the brain, that empowers children to acquire language at a mind-boggling pace and understand the complexities of language without any external supervision. Chomsky used it to justify how children are able to acquire linguistic abilities, regardless of the 'poverty of stimulus'. He also illustrated the inherent understanding of grammar and syntax, that all children surprisingly exhibit. Every child is born with the innate capacity to acquire a language and Language Acquisition Device posits the fundamental rules for language acquisition in every child. In other words, children are born with an understanding of the rules of language; they just need to master the vocabulary and expand their inventory of words. Chomsky supported his theory with an impressive number of evidences. He suggested that language is intrinsically similar across all human beings. For instance, every language has words representing names of objects and entities, i.e., nouns and words representing actions and states with reference to a timeline, i.e., verbs. Also, every language has the ability to affirm or negate propositions. Chomsky also observed that when children are in the process of learning how to speak, they do not intriguingly get trapped in the cycle of errors one would expect. He figured out the fascinating manner in which young children, well before becoming fluent, would carefully follow if adults in their immediate surroundings produced grammatically incorrect utterances. Another peculiar finding was the way in which children try to test grammatical rules on words which are marked as exceptions in their language.

The brain with the 'language acquisition device' configured into it, requires linguistic stimuli from the surrounding environment, as the crucial switch to trigger it and acquire a language. The Language Acquisition Device is highlighted to make sense of the multitudes of underlying processes that we have simultaneously going on in our brains in real time. This is possible due to the evolutionary advantage over centuries increasing our brain mass and equipping us, as a species, with the cerebral capacity to be remarkably good at learning and understanding language. After proposing the idea of a Language Acquisition Device in the 1950s, Chomsky subsequently moved on to the advanced theory of universal grammar (abbreviated as UG) to describe the incredibly fast process of development of a system as complex as human language.

Triggering of the Language Acquisition Device by social and linguistic stimulus, sets in motion the process of first language acquisition. Although first language acquisition is the most effortless since neural plasticity is at its peak in the initial years of our life, acquisition of additional languages (second language, third language, etc.) continues even

in the later stages of life. Every individual is capable of acquiring or learning languages beyond the first language in the native context and even foreign languages. However, the efficiency of this acquisition or learning is conditioned by various factors like age, critical period, affective filters of motivation, environment and others.

1.4.5. Role of Input

Krashen's Input Hypothesis (1982) continues to be a cardinal theory of Second Language Acquisition. "Language acquisition, first or second, occurs only when comprehension of real messages occurs, and when the acquirer is not "on the defensive"" (1982: 6). As per this theory, there are five hypotheses which Krashen elaborates.

The Acquisition - Learning Hypothesis

Krashen (1982) suggests that knowledge of a second language (SL) is accumulated in "two distinct and independent ways" (1982: 10). 'Acquisition' promotes fluency and is a "subconscious process" (1982: 10), through which the acquirer gains expertise in the language in an informal, inherent and natural manner. Similar to the process of first language acquisition, error correction has negligible or no impact. 'Learning' is a conscious process requiring active involvement and effort. Learners are familiar with the rules and the working knowledge of the language. This 'explicit learning' is considered useful only for 'monitoring' and it is believed to not augment an individual's language fluency. In Krashen's opinion, there is no interface between these two modes of mastering knowledge of the second language, as learned language cannot be magically altered in status to become acquired language.

The Monitor Hypothesis

Crucially connected to the Acquisition-Learning hypothesis, the Monitor Hypothesis elucidates how acquired and learned language are actually employed in linguistic exchanges. Acquired knowledge 'initiates' utterances and determines fluency, while learned knowledge only facilitates as a "monitor, or editor" (Krashen, 1982: 15) that assesses the acquired language output, carrying out necessary adjustments and amendments wherever required.

The Natural Order Hypothesis

Drawing on the observations of Dulay and Burt (1974, 1975), Krashen (1982) asserts that there is a predictable, natural, and essential order in which linguistic rules and grammatical structures are acquired. This proposition highlights the former stance that acquisition is central to second language learning. The reason behind such a claim is that 'natural order' is "a result of the acquired system" (Gass and Selinker, 2001: 199) and it is free from any dependency on instruction.

The Input Hypothesis

The idea that second language acquisition continues following a 'natural order' through informal and implicit learning, indicates that language input, not language use, is central to the process. Supplying input to learners that is somewhat "beyond (their) current level of competence (i+1)" and which can be discerned "with the help of context or extra-linguistic knowledge" equips them to be able to acquire the intrinsic structures (Krashen, 1982: 21). Krashen does not advocate in favour of directly teaching speaking as it will automatically "'emerge' once the acquirer has built up enough comprehensible input" (Brown, 2000).

The Affective Filter Hypothesis

It is just not adequate for individuals to simply be exposed to comprehensible input. They also need to 'let in' the input for the process of second language acquisition to flow. Krashen (1985) warns that affective factors like an individual's state of motivation, anxiety, attitude and self-confidence will not only affect the proportion of comprehensible input that learners are able to access, but they will also ascertain the strength of the filters. This in turn regulates the quantity of 'comprehensible input' being available to the Language Acquisition Device. Lowering these affective filters (e.g., by strengthening self-belief, or decreasing anxiety) is therefore absolutely crucial for the process of second language acquisition to be without any resistance and hindrance.

Krashen's overall perspective

According to Krashen, acquiring a second language (L2) is in a number of ways similar to the process of acquiring a first language (L1). No conscious efforts need to be undertaken to concentrate on the language, since "when the filter is 'down' and appropriate comprehensible input is presented (and comprehended) acquisition is inevitable" (Krashen, 1985, p. 4). Consequently, Krashen is in favour of the argument of a Chomskyan Language Acquisition Device that is instrumental in second language acquisition. However, he disagrees with the ideation of a Critical Period, beyond which language acquisition is labored and unpredictable. Krashen, on the contrary, feels that adults are likely to be performatively less successful than children while acquiring a second language, as the "affective filters" of these adults are greater and more difficult to negotiate with. To make up for this, adults quite characteristically resort to their abstract problem-solving skills to consciously untangle the grammatical intricacies of the second language.

1.4.6. Native Language Influence in Second Language Acquisition

Reinecke (1935) introduced the word "Inter-language" in his doctoral dissertation, Language and Dialect in Hawaii. Selinker (1972) further developed this concept within the theory of Second Language Acquisition. The objective was to explore how 'inter-language' influences the process of Second Language Acquisition. The term inter-language (abbreviated as IL) was employed by Larry Selinker to refer to the linguistic system, evident when an adult acquiring a second language attempts to express meanings in the language being still acquired. Inter-language is viewed as this separate linguistic system, clearly different from both the learner's 'native language' (abbreviated as NL) as well as the 'target language' (abbreviated as TL) being acquired, but linked to both the 'native language' (NL) and the 'target language' (TL) by inter-lingual identifications in the perception of the learner. Selinker (1972) explicated it as a separate system structurally somewhere between native and target languages. According to Selinker, the challenges of acquiring a second language (L2) are quite unlike the challenges of acquiring a first language (L1). There is absolutely no hesitation in case of first language acquisition (L1) but in case of second language acquisition, inter-language appears as the mechanism involving influence or, more appropriately, interference of the first language (L1) and the process of fossilization. Fossilization is the unintended internalisation of errors due to the lack of corrective feedback. In the process of acquiring a second language, often while mentally formulating rules and checking hypotheses, an individual tends to overlook errors. As a result, there is no rectification on behalf of the individual, even when errors are still present. If the individual receives positive feedback, i.e., he or she is understood, even with mistakes, he or she will not correct himself or herself. This is typical of individuals who are no longer at the initial level in the process of acquisition and have reached an advanced stage, without the errors having been corrected for a long time. The factors affecting fossilization include sex, specialization of cerebral hemispheres, ability to listen, age, state of motivation, personality traits, lack of opportunities to learn, etc.

Interlanguage is crucial when acquiring a second language and also while learning a foreign language, since it helps in the detection and analysis of errors. In pedagogy, it is important for a language teacher to identify the reason for the appearance of a certain error and also to investigate the learner's perspective.

According to Brown (2000), the ecology of language acquisition, input and output system illuminate the question of second language acquisition L2 and even subsequent foreign language learning under the influence of the inter-language.

In 1967, a seminal paper entitled "The significance of learners' errors" by Stephen Pit Corder, described that errors were often regarded as an undesirable but inevitable part of acquiring or learning a language and there was a general view that they should simply be corrected or eradicated with as little argument as possible. The natural process of acquiring something new is to establish a relation between the new idea and what already exists in the mind. This centres around similarity in comprehension and similarity in production. Corder (1967) focused on a positive approach towards errors committed by language users. The analysis of these errors is helpful in determining how an individual is processing the target language and his current state in the process of language acquisition. It gives instructors a measure of the individual's progress. So, it should not be discarded with a negative mindset. Based on this very perspective, we realise that a language acquirer or a language learner's errors can be pedagogically useful.

It is quite possible that first and second language acquisition processes are conditioned by similar learning mechanisms but the second language acquisition process is influenced by some additional extraneous factors such as insufficient input, poor motivation, interference of the individual's first language, etc. This is where Pit Corder's idea of "transitional competence" (1967, 1971) becomes relevant. Acquiring or learning a second language are seen as procedures whereby the Language Acquisition Device is involved and from the linguistic input to which an individual is exposed, a particular "transitional" system is created. The transitional system is modified, when new input provided to the individual is found to disagree with the rules of the transitional system. The older hypotheses formulated by the individual lose validity in course of time as new hypotheses replace them. By resorting to this transitional system, the individual generates systematic utterances (that conform to the grammatical requirements of the second language mixed with other non-conforming features), labelled by the teacher as systematic "errors". The transitional rules are quite similar to the rules of the second language. The individual is also subject to self-correction.

The habit of resorting to the first language, whenever an individual is trying to express something, interferes in the process of acquiring the second language or learning the foreign language.The second language acquirer regularly tries to facilitate his or her work by using his or her internalised knowledge of the first language (which could be, Bangla or Assamese or Bhojpuri, etc.).

Intonation, structure and phonetic inventory of the first language influence how a second language is processed and whenever an individual tries to communicate in the target language i.e., the second language for our discussion here. His or her previous linguistic knowledge decides how he or she comprehends the target language which is the second language being acquired. When the learner responds to what has to be acquired or learned

by subconsciously retrieving previous linguistic knowledge, cross-linguistic as well intra-linguistic likeness is of essential importance.

Contrastive analysis hypothesis takes into account the structural similarities between an individual's first language and the target second language, to predict that acquisition of the target second language is easier when there are similarities between the first language and the target language.

In Linguistics across cultures, Lado (1957) mentions the question of contrastive analysis. The main propositions are: (1) "One can account for errors by considering difference between the first language and the second language. The greater the differences, the more errors will occur." (2) "Practice makes perfect." (3) "Teachers need to focus their teaching on structures which were believed to be difficult and difficult structures would be those that were different in the first and second languages". Lado further remarks: "Those elements that are similar to his native language will be simple for him, and those elements that are different will be difficult" (1957: 2).

But contrastive analysis hypothesis received a lot of criticism. In fact, error analysis and contrastive analysis are not enough for distinguishing languages, even though we consider all linguistic differences between them, with respect to the interference of one in the acquisition or learning of another. A change of focus to the study of the basic methods of the acquirers' language is defended; we should not just concentrate on the similarities. From Lado (1957) onwards, researchers had shifted focus to the analysis of differences rather than similarities, even though linguists had emphasized on similarities. The differences between a learner's internalized language and the target language should be considered significant for the problem at hand. A language has its own unique set of principles and parameters. Comparing the principles and parameters of different languages (which may or may not belong to the same language family) comprises sub-fields of linguistics like linguistic typology, contrastive linguistics and comparative linguistics. Comparative linguistics is diachronic in its approach, with an emphasis on historical account and strictly theoretical in its premises. On the other hand, contrastive linguistics is synchronic in its approach and shares applied linguistic concerns. The typological view involves synchronic research of the language and it traces the language universals. It overlooks historical concerns. Ringbom (1987) claims that when two languages are typologically close, it is easier for the learner to identify cognate forms (cognates are words that share a common etymological point of origin, being from familially-related languages or borrowed from different languages; e.g., Spanish ganso and German gans are cognates, meaning goose) and structures across the two languages. However, when they are typologically remote, then learners are not able to make the necessary tie-ups between the languages.

Before we move on to discuss how creativity features in the process of second language acquisition, let us take a breather and answer a few questions based on what we have covered so far.

Check Your Progress 2

Read the following questions and answer the questions in the space that follows:

1) How, according to Krashen, do affective factors determine the amount of 'comprehensible input' available to the Language Acquisition Device? (120 words)

    ....

    ....

    ....

    ....

2) What is interlanguage? How does fossilization come into the picture while considering the interference of the first language in the process of second language acquisition? (200 words)

    ....

    ....

    ....

    ....

3) How can a language acquirer or a language learner's errors be pedagogically useful? (150-175 words)

    ....

    ....

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    ....

1.4.7. Creativity in Second Language Acquisition

Contrastive analysis emerged as a consequence to Lado's (1957) seminal work Linguistics Across Cultures. The contrastive analysis hypothesis argues in favour of literally analysing the similarities and differences between native and foreign languages, and the difference is important for studying the process of second language acquisition or even foreign language acquisition in greater detail. This hypothesis is grounded in structural

linguistics and behaviorism that flourished in the 1950-60s. Structural linguistics was founded on the premise of uncovering underlying structures of languages and studying a linguistic system as having a definite pattern of interwoven units. Comparative and contrastive analysis of the similarities and differences interspersed within the structures of languages marked the beginning of applied linguistics. Saussure and Bloomfield are the stalwarts in the arena of structural linguistics. Behaviorism explores the psychological or behavioral perspectives in the relationship between the stimulus and the response. Skinner's (1957) Verbal Behavior is a landmark text in the paradigm shift to behaviorism. When living organisms are subjected to multimodal stimuli, there is a set of responses, which can be reinforced by repeated exposures to identical stimulus. Reinforcement over a certain period of time results in the formation of a habit (artificial/conditioned). The behaviorist considers the formation of any kind of habits, such as acquisition and learning processes, including language acquisition and language learning in the light of stimulus-response mechanism. So, acquiring a second language or learning a foreign language, from a behavioral perspective would involve training to elicit certain expected responses, reinforcing these responses to replace the internalised linguistic patterns, leading to the acquisition of the second language or the learning of the foreign language, as a habit in addition to the already internalised background language. However, this behaviorist perspective is flawed in the sense that it fails to acknowledge the dynamic nature of human language faculty, which is extremely complex.

We, as humans, do not convey a particular message using the same utterance mechanically over and over. We are able to express it in multiple ways using a virtually inexhaustible set of novel utterances, probably subconsciously resorting to a new utterance every time. Our use of language is essentially creative and it is one of the design features described by Hockett. The creativity of language involves comparing the language by looking at the surface structure of the language to simplify the expressions. Language simply surrounds us multimodally as stimulus and stirs our creativity; it is not internalized as a habit but rather as a contextually appropriate and domain-specific set of reactions. Human use of language is creative, and therefore it cannot be simply analogous to 'imitation' or 'habit formation'. Children listen to or produce a limited amount of text to constantly create new sentences that are never learned. This issue is also known as the problem of Plato.

1.4.8. Critical Period for Second Language Acquisition

In Language acquisition theories in the 17th century, the philosophers emphasize both language thought and language innateness. In the 18th century, language acquisition emerged as a paradigm for the study of linguistics. In the 19th century, biologists and

psychologists inquired about the phonetic aspects and linguistic milestones during various stages of language acquisition. One of the classic debates in the study of language acquisition is that of nature versus nurture. Nature theorists believe in language being hard wired into our brains (innateness factor of language). On the other hand, nurture theorists believe that we are born with tabula rasa (i.e., the state of the mind being devoid of any imprint or innate framework, comparable to a clean or a blank slate) and language is learned or acquired by gathering all the linguistic knowledge/information as the outcome of processing natural and environmental stimuli-response patterns. The nature vs. nurture debate is also known as innatism vs. nativism debate.

After Chomsky's scathing critique of Skinner's Verbal Behavior, there was a paradigm shift from behaviorism to cognitivism. In this very context, Lenneberg (1967) in his monumental Biological Foundations of Language explored the biological and evolutionary premise for understanding the extremely sophisticated state of the human faculty of language. While doing so, he also refined the critical period hypothesis for language acquisition, actually introduced by Penfield and Roberts (1959). The critical period hypothesis, to put it simply and directly, establishes a biological link between an individual's ability to acquire a language and the individual's age.

According to Lenneberg, the period of time from two years of age till the age at which an individual reaches puberty (varying on the basis of biological gender), is the time when neural plasticity is at its peak. The peak point of neural plasticity conditions the learning potential of an individual to be at its optimal. Therefore, within this period of time, the process of language acquisition occurs effortlessly and the fluency developed, as a result, is performatively more enhanced compared to the fluency of any language acquired outside this period. This very time span, during which an individual can comfortably acquire a language even with minimal input and without the need for any arduous toil, is called the critical period for the specific capacity of acquiring a language. In the words of Lenneberg, "the individual appears to be most sensitive to stimuli at this time and to preserve some innate flexibility for the organization of brain functions to carry out the complex integration of subprocesses necessary for the smooth elaboration of speech and language" (1967: 158).

We need to be cautious here though, as crossing the critical period for language acquisition, does not imply a cessation or the impossibility of acquiring a language anymore. It is actually a continuum whereby beyond puberty, neural plasticity and learning potential gradually start declining. This decline continues till the death of an individual. Correspondingly, the effort that individuals need to invest to acquire or learn a language beyond the critical period keeps increasing significantly; this escalation of effort is inversely proportional to the decline of neural plasticity and learning potential.

The Critical Period Hypothesis and the importance of acquiring a language within a particular time frame, are backed by cases of feral children (like Victor) and artificially isolated and language deprived children (the most prominent case being of Genie). In such cases, due to prolonged isolation unnaturally imposed on the children, the social stimulus to trigger the faculty of language is missing for a very long period of time (e.g., for approximately 13 years and 7 months in the case of Genie). Later rehabilitation and language lessons show varying results across such cases but the process is extremely tedious and time-consuming. For instance, in the case of Genie, even after four years of planned language training, she demonstrated the level of linguistic performance of a two-year old. Ultimately, despite a lot of effort, she was unable to satisfactorily acquire a first language.

In general, the first language (L1) is found to influence the acquisition process or the learning process of the subsequent languages like second language (L2), foreign language (FL) and so on. However, according to the nature of exposure to a speech-community or to a certain surrounding environment, acquisition of multiple languages can occur simultaneously, depending on an individual's age, motivation and requirement. During the critical period, when learning potential is at its zenith, upon being exposed to a bilingual or a multilingual community, an individual could grow up to be a fluent bilingual or multilingual. The degree of fluency (highest state being that of flawless use of native nuances like idioms and proverbs) is proportional to the time-period of exposure.

1.4.9. Second Language Acquisition & Cultural Competence

According to Krashen (1977), when the second language is naturally learned within the specific cultural background (native environment), it becomes acquisition and when it takes place in a non-native environment or non-indigenous setting, like in a classroom, it becomes learning. So, when individuals are situated in the actual cultural context of the target language or are immersed in a virtually recreated cultural setting of the target language (e.g., live interactive and content-sharing groups with native speakers of the language, geographically located in countries where the target language is the primary language), they become aware of the cultural nuances and associations that are intricately tied with the real-world use of the language. With this cultural competence, linguistic competence transcends the boundaries of mere classroom understanding of correct versus incorrect usages and grammatical rules. The more culturally competent an individual becomes, the more he or she moves closer to the state of having acquired the second language, rather than just having learned the second language.

1.4.10. Summing Up

In this Unit, we have deliberated on a number of interesting ideas as well as issues in order to give you all a succinct, but appropriate, impression of the mosaic nature of the process of second language acquisition. We have given you:

- an idea of how acquisition and learning are dissimilar with respect to conscious involvement and effort.

- a brief description of the stages of first language acquisition followed by the four stages of cognitive development as put forth by Piaget.

- an overview of the roles of the linguistic environment and the input along with a thorough discussion of Krashen's Input Hypothesis.

- an explanation of how an individual's first language or native language interferes in the process of second language acquisition.

- the context for the emergence of Lenneberg's Critical Period Hypothesis and how the ability to acquire a language is biologically linked to an individual's age.

- a brief account of how creativity and cultural competence are closely tied with the state of second language acquisition.

1.4.11. Comprehension Exercises

Read the following questions and answer the questions in the space that follows:

1) How is the behaviorist perspective flawed in its treatment of the nature of the human language faculty?

   ....
   ....
   ....
   ....

2) What do you understand by the expression 'critical period'? How is it significant in the process of second language acquisition? What are some of the evidences in favour of the existence of a critical period?

   ....
   ....

....

3) Why, according to Krashen, is cultural competence so important while learning a language?

....

....

....

....

1.4.12. Suggested Reading List

If you would like to read more on the discussed ideas, you may consult:

- Akmajian, A., Farmer, A. K., Bickmore, L., Demers, R. A., & Harnish, R. M. (2017). *Linguistics: An introduction to language and communication.* MIT Press.

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- Fromkin, V., Rodman, R., & Hyams, N. (2018). *An introduction to language.* Cengage Learning.

- Krashen, S. (1982). *Principles and practice in second language acquisition.* Pergamon Press.

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Module 2

Language Varieties

Unit 5 ❑ Dialect and Non-standard Varieties

Structure

2.5.1 Objective

The aim of this unit is to make you aware of:

- The concept of Dialect
- The difference between a dialect and language
- The varieties of dialect

2.5.2 Introduction

Is one thinks of language as a phenomenon including all the languages of the world, the term variety of language can be used to refer to different manifestations of it. What makes one variety of language different from another is the linguistic items that it includes.

So a variety of language is a set of linguistic items with similar social distribution. The very notion of 'variety' includes languages, dialects and register.

2.5.3. Non-Standard Varieties

When we talk about the term standard form of a language there can be an understanding that other forms are somehow substandard. This is however not the case. Many poems that are forbidden by grammarians are commonly used throughout the community without any sense of of error. For example the use of the pronoun they to refer to reference that are unspecified for gender. Ponds that are widely used that carry no negative connotations are not necessarily non-standard. Therefore the use of the term non-standard merely indicates that the particular form lacks positive prestige in the speech community. It does not imply not indicate that the forms are somehow defective.

Priscriptivist claim that non-standard forms do not follow the coherent logic or systematicity. For example the double negatives used below:

a. She didn't see nobody   c. She saw somebody

b. She didn't see anybody   d. She saw nobody

From a priscriptivist's point of view, where sentence is marked for negation twice, as in a, a the double negative will give the sentence and affirmative meaning, as in C. However, as we know, this is patently false. Both a and b are universally recognised by even highly standard speakers of the language as having meaning in d. In fact both the negative sentences, standard and non-standard, show parallel grammatical marking. It is just the form that differs. We can see that in both cases the negative pronoun differs from that found in an affirmative sentence such as c. Neither a nor b is any more or less logical than the other.

In other words we can say non-standard varieties are not dramatically less important or less valued, but since they generally represent the speech of a politically less powerful group, they may be socially less valued. There is a possibility that two relatively standard varieties can coexist in one speech community.

2.5.4. Dialect

Speakers can give a name to whatever it is they speak. On occasion, some of these names may appear to be strange for those who take scientific interest in languages, but we should keep in mind that human naming for practices has a large, 'unscientific'

component to them. At times many speakers experience difficulty in deciding whether what this speaks should be called a language or a dialect of a language. Questions arise in our minds: exactly how do you decide what is a language and what is a dialect of a language? What criteria can you possibly used to determine that, variety X is a language, variety Y is only a dialect of a language? What are the essential differences between a language and a dialect?

Haugen (1966) has pointed out that language and dialect are ambiguous terms. People at time use them quite freely to speak about various linguistic situations, but learned Scholars of an experience considerable difficulty in deciding that one term should be used, rather than the other in certain situations.

The variety of a language according to the user is called Dialect. It is determined by a speaker's social and geographical background. Language spoken at one geographical area may vary from language spoken at another. This is why it is difficult to talk about a single entity called British English. In Britain itself, there are numerous dialects of English according to the area where these are spoken. We have the Lancashire Dialect, the Scottish Dialect, the Yorkshire Dialect and so on.

It is social hierarchy and social class that determines the dialectical variations.. The upper class in London for example uses one variety of English and the lower class uses another variety. The so-called Received Pronunciation (RP) used to be the dialect of the aristocrats of England, although it has now expanded its regional and social boundaries. Dialects are at times conditioned by religion and caste also.

In other words within a given language we have a number of dialects. Between two dialects there may be grammatical, lexical and phonological differences, even though they may have the same core system of language in common. Let us see how these variations occur at different levels:

1. Phonological differences:

	RP	General American
Last	/la:st/	/laest/
Dance	/da:ns/	/daens/

2. Differences at the level of syntax

US	British
different than	different from
check that out	check up on that

3. Lexical difference

US	British
gas	petrol
elevator	lift

4. Morphological differences

US	British
dive-dove	dive-dived

2.5.5. Dialect Map

On the basis of such differences in phonological, morphology, syntax, etc., it is possible to draw imaginary boundaries separating the geographical areas using divergent linguistic items. The boundary line that separates the users of one area using a particular linguistic item from the area using the other linguistic item is called and Isogloss

2.5.6. Sociolect

Dialogues based on social stratification are called sociolects: class dialects and caste dialects are language varieties used by the members of certain classes and 'castes' (e.g., Upper-class dialect, Brahmin dialect). It used by a number of particular groups of a speech community.

2.5.7. Diglossia

Sometimes a speech community uses to dialects, but there is a strong tendency to use one of these for special, prestigious or formal occasions. This prestigious dialect is called high, and the informal, commonly spoken dialect is called low. These two were not allowed to intermingle. Search a use of two dialects by a speech community is called Diglossia, e.g., 'high' and 'low' Tamil, 'high' and 'low' Arabic.

2.5.8. Idiolect

Every individual has for unique style of speaking that is why it is easy to recognize familiar voices on telephones even when the speaker does not reveal his identity. The voice of a famous film star or a popular politician can be easily recognized without seeing them. This is possible due to the idiosyncratic mixture of voice quality. Pronunciation and preferential usage of words by an individual speaker make his/her speech stand out as different from another to a large extent. No two speaker speak exactly alike. The term 'idiolect' is used to refer to the idiosyncracies of an individual speaker.

This uniqueness can be those of pronunciation, grammar, vocabulary etc. Language variations are present in individual as much as in societies, and they can become regular and systematic in terms of the individual's own use of the linguistic code. Though the notion of idiolect and style may overlap, idiolect is different from style in the sense that style is more often a matter of choice. A speaker's style can vary in different situations of speech and writing. A poet may choose one type of style for one poem and another style for other poems. Idiolect is consistent over the whole of an individual's use of the language and is often like an unconscious mannerism.

2.5.9. Language and Dialect: Difference

At times it becomes difficult to say whether A and B are different languages or just different dialects of the same language. The partial solution to this problem is provided by the concept of mutual intelligibility. If two speakers are mutually intelligible, they are using the same language even if they are using different dialects. If they are not intelligible to each other, then they are using different languages. It is, in fact, difficult to draw rigid boundary lines between languages. At times dialects of the same language may be so divergent that speakers of the same language may find each other mutually unintelligible.

A dialect gets the status of a language depending upon the community that uses it. If the community speaking it is socially and politically powerful, then the said dialect rises to the status of a language. The speakers may force the government to acknowledge their variety as a separate language. This was the case seen in India with the case of Hindi dialect of western Uttar Pradesh. A large number of influential leaders in free India belonged to this area so the Hindi dialect of the region became the national language.

2.5.10. Reading list

1. Ferguson, C. A. (1994). Dialect, Register and Genre: Working Assumptions about Conventionalization. In D. Biber and E. Finegan (eds.), Sociolinguistic Perspectives on Register (pp. 15-30). New York: Oxford University Press.

2. Halliday, M. A. K. (1988). On the Language of Physical Science. In M. Ghadessy (ed.), Registers of Written English (pp. 162-178). London: Pinter.

3. Hill, J. H. (1998). "Today There Is no Respect": Nostalgia, "Respect," and Oppositional Discourse in Mexicano (Nahuatl) Language Ideology. In B. B. Schieffelin, K. A. Woolard, and P. V. Kroskrity (eds.), Language Ideologies: Practice and Theory (pp. 68-86). New York: Oxford University Press.

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7. Wardaugh, Ronald. 1998. An Introduction to Sociolinguistics. Cambridge: Blackwell Publisher

2.5.11. Questions

1. Write a short note on Non-Standard Varieties.

2. What do you understand by the term 'language variation'?

3. Explain the following:

Idiolect

Diglossia

Dialect map

4. Explain in detail the difference between language and dialect.

Unit 6 ❑ Standard English, Style and Register

Structure

2.6.1 Objective

This unit is designed to help you understand:

   i)   the notion of standard language

   ii) In this unit, we shall discuss how register is a social linguistic construct where a speaker uses language differently in different circumstances.

   iii) get an insight into the process involved in standardization

   iv) understand the use of standardized language

   v) develop a critical perspective on standardization

2.6.2. Introduction

When we come across this term standard English, many questions come to our mind like: what is standard English, can there be a standard English, how does a language qualify to become standard language? It is probably fair to say that the only kind of variety which would count as a proper language is a standard language. Standard languages for interesting in as much as they have a rather special relation to society-one which is quite abnormal when seen against the context of tens of thousands of years during which language has been used. Whereas one things of normal language development as taking place in a rather haphazard way, largely below the threshold of consciousness of the speakers, standard languages are the result of a direct and deliberate intervention by society, this intervention called standardization produces a standard language which before there was just "dialects'. The term register is widely used in sociolinguistics to refer to varieties according to use, in contrast with dialects defined as varieties according to user. One's dialect shows who or what you are, whilst one's register shows what you are doing.

Another linguistic concept that characterises the use of language is the concept of register variation, and its uses are found to occur according to social characteristics of the speaker, such as his social class, ethnic group, and gender. Variations are found to occur also according to the context of the speech. These variations are mainly and the totality of linguistic varieties used in this way by a speech community may be called the speech community's verbal repertoire. Many social factors influence and control decisions with regard to which variety from this verbal repertoire is to be actually used on a particular occasion.

For example, if a person is talking to people he works with about their work, their language is likely to be rather different from that which they will use when at home with their family. Occupational situations will produce a distinct linguistic variety. Occupational linguistic varieties of this sort have been termed "registers." Registers are usually characterised solely by vocabulary differences, either by the use of particular words or the use of words in a particular sense. Registers may be considered a rather social case of a particular kind of language being produced by the social situation.

A register is used to denote language viewed from the point of view of its use. It is assumed that the different kinds of language use lead to the use of different kinds of linguistic features. Register is the result of the combination of context, sense, medium, tenor, and style.

2.6.3. Process of standardization

The notion standard language is somehow imprecise, but a typical standard language will have passed through the following processes

    a.   Selection

    b.   Codification

    c.   Elaboration of function

    d.   Acceptance

2.6.3.1 Selection

A particular variety is selected as the one to be developed into a standard language. It may be an existing variety, such as the one used in an important political or commercial centre, but it could also be an amalgam of various varieties. The choice is a matter of great social and political importance. The chosen variety necessarily gains prestige, and so the people who already speak it share in this prestige. If we trace the origin of the standard variety of English, we would have to go back to the merchant class based in London. They communicated in East Midlands dialect. The peasants, however, spoke a South Eastern dialect. The two dialects were similar in many respects, with some regular differences too. By the end of the 14th century, the East Midland dialect was considered the written standard. There were variations within this East Midlands dialect. It was in 1930 when one of these variations became increasingly popular in government and official documents. The selected variety was further strengthened by the advent of the printing press. This dialect became more popular because of its use in educational institutes. Students from all over the world came to Oxford and Cambridge and were in contact with the East Midland dialect, making it "the standard English".

2.6.3.2 Codification

Some agencies, such as an academy, must have written dictionaries and grammar books to fix the variety, so that everyone agrees on what is correct. For example, the Dictionary by Dr. Johnson in the 18th century. Dr. Johnson's dictionary is not only of importance in the field of spelling standardization but also in the realm of codification of words and meaning. An alphabetical list of all the words in the standard language along with their meanings is provided. This was a unique achievement. The second half of 18th century belongs to the codification of grammar. Joseph Priestley's The Rudiments of English Grammar (1761), Robert Loweth's A Short Introduction to English Grammar (1762) and John Ash's Grammatical Institutes (1763) were a notable few that appeared on the scene to begin with. By the end of the 18th century, the production of pronouncing

dictionary, a book in which the pronunciation of words in the standard variety could be looked up, came into being. Johnson's Dictionary had codified the spellings of the words, making it easier for their pronunciation. This idea of pronunciation being based on spellings, as advocated by Dr Johnson, was further enhanced by John Walker in his book, A Critical Pronouncing Dictionary (1791). This process of codification involved the elimination of certain kinds of pronunciation. For example, the most barbaric kind of pronunciation was that associated with the Cockney speech of London, with people being asked not to follow it. By the early 19th century, the institution of public schools had developed where a pronunciation may be described as qualified grew up, cultivated and taught. Once codification has taken place, it becomes necessary for any ambitious citizen to learn the correct forms and not use in writing any incorrect forms that may exist in nature.

2.6.3.3 Elaboration of function

The most powerful use of standard language is in the education sector. Textbooks, learning materials, lectures, seminars, and conferences: all these require the use of standard language. Any higher education, be it, technical or scientific, requires the use of standard language only. Government agencies, law and judiciary, diplomacy, trade and commerce, and bureaucracy-all these call for the use of standard language.

The selected variety is used in all the functions associated with the state and central government. This may require extra linguistic items to be added to the variety. For example, English draws much of its technical/ lexicon from Latin and Greek, while in the case of Hindi, the source is Sanskrit. It is also necessary to develop new conventions for using existing forms-how to formulate examination questions, how to write formal letters, etc.

2.6.3.4 Acceptance

It has to be accepted by the relevant population as the variety of the community. The speakers do belong to diverse dialect groups, and must come to recognise and accept it as their language. A standardised language, when recognised as a national or official language, gives its users a national-linguistic identity. English, in its standardised form, is the national and official language in England, the USA, and Australia; Hindi is the "national official" language in India, while languages like Bangla, Gujarati, Marathi, Kannada, and Manipuri are recognized, used, and accepted as official languages in their respective states. The standard language then serves as a strong unifying force for the entire state, a symbol of independence from other states, and a marker of distinction from other states.It is precisely the symbolic function that makes states go to some lengths to develop one.

This analysis of the factors typically involved in standardisation has been quite widely accepted by social investors. It is to be noted here that it is not essential items that standardisation should involve matters of pronunciation as well as writing for that the standard language should be presented as the only "correct" variety.

2.6.4. Models

Michael Halliday (1988) distinguishes three general types of dimensions: field, mode, and tenor. Field is concerned with the purpose and subject matter of the communication. It refers to 'why' and 'about what' a communication takes place. Mode refers to the means by which communication takes place notably by speech or writing. It is about 'how' communication takes place. Tenor is about the relations between participants. It is about "to whom" the communication takes place. In the terms of this model, the two examples of letter-openings are:

'I am writing to inform you that...

'I just wanted to let you know that

Such examples could be multiplied endlessly, and suggest that the amount of variation due to register differences is small.

According to this model, register differences are at least two-dimensional. Another widely used model has been proposed by Dell Hymes (1972), in which no fewer than 13 separate variables determine the linguistic items selected by a speaker, apart from the variable of dialect. It is very doubtful if even this number reflects all the complexities of register differences. Nevertheless, each of these models provides a framework within which any relevant mention of similarity and difference may be located. For example, the relations between speaker and addressee involve more than one such dimension, including the dimension of 'power' on which the addressee is subordinate, equal, or superior to the speaker, and the dimension called 'solidarity' which distinguishes relatively intimate relations from more distant ones. In English, the speaker locates his relations with the addressee on these two dimensions largely by means of a choice of the terms of address: Mr. Smith, Sir, John, and so on.

The register is normally used as the name of one kind of variety that is parallel to a dialect. Generally, dialects do not exist as discrete varieties, but registers do not seem to have any more reality than dialects. For example, it is easy to see that the selection of items within a given sentence results in different factors depending on which items are involved. One item may, for instance, reflect the formality of the vocation while another reflects the expertise of the speaker and audience.

For example in the sentence- 'We obtained some Sodium Bicarbonate', obtained is a formal word (in contrast with got) and sodium bicarbonate is a technical expression (in contrast with baking soda). The dimension of formality is totally independent of the dimension of technicality, as reflected by the fact that the choice between obtain and get has no connection at all with that between Sodium Bicarbonate and baking soda. The combination of formality with technicality can be represented by the following perfect normal sentences below:

1. We obtained some Sodium Bicarbonate- formal, technical.

2. We obtained some baking soda- formal and non technical.

3. We got some sodium bicarbonate- In formal, technical.

4. We got some baking soda- In formal, non-technical.

It suggests that different linguistic items are sensitive to different aspects of communication.

2.6.5. Classification of registers

(i) Register according to the field of this course

Such register include the register of science, the register of law, the register of religion, the register of journalism, etc. Some examples are listed below:

The register of science: Equal volumes of all gases, under similar conditions of temperature and pressure, contain an equal number of molecules.

The register of journalism: Sam, 49, and his wife Richa, 40, residents of Dwarka Sector 5, Delhi, escaped with minor injuries when their SUV crashed into to a parked truck on Monday evening at NH 36.

The register of religion: O Lord our heavenly father! We seek your mercy and guidance on thy people.

(ii) Register according to the module of discourse

This refers to the register variations determined by the medium used. We can talk about different varieties of language in a telegraphic message, telephone conversation, a mobile message, a radio television or newspaper. We can also have differences between the spoken language and the written language. For example:

1. On arrival, submit the file (a telegraphic message).

2. Hello! Is it Mohan? Oh, it's you Rakesh. How are you? Where is Mohan? He seems busy all the time. Ok, see you soon. (Telephonic conversation)

We can therefore say that a single speaker may use a number of register for different situations. The use of an appropriate register is determined by the situation in which the speaker is and conditioned by the situation and needs of the speaker. It shows what you are doing.

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2.6.5. Questions

1. What is the difference between standard language and dialect?

2. Can there be only one acceptable way of saying/writing things? Discuss.

3. Discuss the processes of 'elaboration of function' involved in standardization of English.

4. How does a standard language get accepted in the speech community?

5. . Define the term 'Register' in language use.

6. What is the classification of registers?

7. 'Register is the result of the combination of context, sense, medium, tenor and style'- Explain.

8. Distinguish between 'register' and 'dialect'.

Unit 7 ❑ Pidgin and Creole

Structure

2.7.1. **Objectives**

2.7.2. **Introduction**

2.7.3. **Pidgins**

2.7.4. **Creole**

2.7.5. **Reading list**

2.7.6. **Questions**

2.7.1 Objective

In this unit, we shall discuss in detail what pidgin and creole are, their origin, formation, and acceptance as a form of language. We will discuss some features of Creole and the process of creolization.

2.7.2. Introduction

Among the many languages of the world, some are assigned a somewhat marginal position: the various lingua francas, pidgins, and creoles. Such languages have existed from time immemorial, but in comparison to other "fully-fledged languages', not much is known about them. There are many reasons for this; scarcity of historical records, lack of research, little social importance. The scarcity of research is due to the linguistic features they have been said to 'lack', e.g., articles, the copula, grammatical inflections, etc. The history of the serious study of such languages goes back only a few decades. Because of the circumstances of their use, they have often been regarded as being of little value or interest. People who speak them have often been treated with disdain and even contempt. Before the 1930s, pidgins and creoles were largely ignored by linguists, who considered them as marginal languages which did not require much attention. It is important to understand the reason for this 'marginality'. According to Del Hymes, pidgins and creoles were marginal in their circumstances of origin and in the attitudes of those who spoke one of the languages from which they descended. They are also

considered marginal in terms of our knowledge of them, even though these languages are of central importance to our understanding of language and central too in the lives of millions who use them as their only means of communication.

2.7.3. Pidgins

There are many ways in which varieties may get mixed up with each other, namely by the process of creating a new variety out of two (or more) existing ones. This process may take a number of different forms, for instance, the creation of artificial auxiliary languages like Esperanto and Basic English. However, by far the most important manifestation is the process of pidginisation, whereby pidgin languages or pidgins are created. The reason for this creation is for practical and immediate purposes. These are varieties that are created for communication between people who otherwise would have no common language. These are learned by one person from within the communities concerned as the accepted way of communicating with the people of the other communities. Since the reason for communication with the members of the other linguistic community is often trade, a pidgin is also referred to as a "Trade Language". But it is important to note that not all pidgins are restricted to being used as a trade language, nor are all trade languages pidgins. It is interesting to note this difference. For example, English and French, which are widely used as a trade language in many parts of Africa, do not qualify as a "pidgin". Similarly, Tukano, a language used by one of the twenty-odd tribes in the north-west Amazon area, is also used as a trade language by all the others. In fact, a pidgin is a variety specially created for the purpose of communicating with some other group and not used by any community for communicating among them. It is exclusively used for a fixed purpose.

There are a large number of pidgin languages spread throughout the continents, including Europe, where migrant workers in places like Germany have developed pidgin varieties based on the language of the host country. It is important to note here that each pidgin created is to suit the needs of its users. It must have all the terminology and constructions needed for whatever kind of contact arises between the two communities. It need not go beyond these demands to anticipate any other needs. For instance, if the need for pidgin is for the buying and selling of cattle between two different linguistic communities, then only linguistic items to do with this are needed. There will be no way of talking about the quality of fruit, or emotions, or the weather, or any other things that one can talk about in any normal language. The fixed purpose for which the pidgin is created, i.e., trading cattle, shall have all the terminology and constructions pertaining to it only.

Since the need for pidgin is to ease communication between two different communities, it should be as simple to learn as possible, especially for those who benefit least from it. As a result, the pidgin's vocabulary is always based on the vocabulary of the dominant group.For instance, a group of migrant workers from Turkey living in Russia will not benefit much from a pidgin whose vocabulary is based on Turkish, since few Russians would be willing to make an effort to learn it. Therefore, the Turkish migrant workers take their vocabulary from Russian. Similarly, in a colonial situation like that of India, where representatives from England needed to communicate with the local population (Indians) in matters of trade and administration, and if it was in the interest of the local population to communicate, then the pidgin which developed was based on the vocabulary of the colonial power. This is the reason why a very large number of pidgins spread round the globe based on English, French, Portuguese and Dutch.

It is very interesting to note the relationship between pidgins and the societies that create them. As discussed earlier, pidgins often developed as trade languages, as varieties used for trade and administration. This is how Neo-Melanesian Pidgin or Tok Pisin developed during the present century for communication between English administrators of Papua New Guinea and the local population. The local population themselves spoke a large number of mutually incomprehensible languages. So Tok Pisin itself became a language, which became a common thread for the entire local population who conversed with the English-speaking administration. What is to be noted here is that not all pidgins have arisen as trade languages like Tok Pisin. There exists another situation in which pidgins are needed, when people from different linguistic backgrounds are put together and have to communicate with each other or with a dominant group in order to survive. Africans taken as slaves to the New World found themselves in a similar situation. The slavers would break up the slaves from tribal groups to minimise the risk of rebellion. Slave communication, whether with one another or with their masters, was now to be done through a pidgin, which they generally learned from the slavers and was based on the latter's language. The slaves had no opportunity or resources to learn the languages of their masters, hence the pidgin became closely associated with them, acquiring a poor reputation as a result. The pidgin is now widely used in a variety of situations, and it is gradually gaining the status of a Creole language.

2.7.4. Creole

When a pidgin language comes to be used for a long period by a community as a whole and it develops its own vocabulary and structures, it becomes a creole. A pidgin which has acquired native speakers is called the creole language or creole, and the process

whereby a pidgin turns into creole it's called "creolization." Since a pidgin has acquired a considerable number of speakers, it is easy to see how this pigeon goes on to acquire the status of a new language. It is now spoken by couples who have children and rear them together. This is seen in cases where pidgin is widely used, for example in urban communities in places like Papua New Guinea.

Even from a social point of view, creoles tend to be of more interest than pidgins. Creole languages are spoken by the descendants of African slaves because they are the main sources of information on their origins and also as a symbol of their identity. A similar interest can be seen in people who speak varieties whose origins are in a creole but which have since been "decreolised. Decreolised is when the speakers of the said creole language move towards the dominant variety at the expense of the most distinctive characteristics of that creole. Because it is more prestigious than creole, creole speakers tend to favour it.

It is possible that the English of Afro-Americans in the United States is such a variety, and because of this, creole and decreolised languages are of particular interest to many American linguists. There is also an increasing interest in Creoles in terms of language education. For example, in the case of minority groups in Britain, where the members of the West Indian immigrants speak some form of creole. If their creole is based on the majority language of the country into which they have migrated (England), where the creole is an English-based creole, then serious educational problems may arise if neither teachers nor students can be sure if this creole is a different language from the majority one or a dialect of it. If the creole is a different language, then it may be appropriate to use second-language teaching methods to teach the majority language. But this is by no means an appropriate method if the said creole is a dialect of the majority language (English). Therefore, proper research is required in order to establish the extent of the difference between the creole and the majority language. In many Caribbean countries, a similar problem arises where the majority language itself is a creole.

As seen above, a creole is a pidgin that has native speakers. But will a speaker of a creole use the language in its same form as it was when it was a pidgin? Let us consider a situation in which a couple in New Guinea speaks Tok Pisin to each other for lack of any other common language, but each has a native language of their own. They now have a child who is starting to speak Tok Pisin. The difference between the language of the baby and its parents is that the baby is learning Tok Pisin as its first language, whereas when they learned it they already knew another language (native language). Will the Tok Pisin that the child speaks now as an adult be different from the Tok Pisin spoken by its parents? Linguists are divided in their opinions on this question. We have linguists who follow Noam Chomsky and believe that every child is genetically

programmed to learn a human language. When a child is born into a family where the only language they hear is a pidgin, their genes push them to upgrade it to a full language by adding it with relative clauses and other complexities that were absent in the pidgin earlier. Another school of sociolinguists who are opposed to this view question the view that there are similarities between creolisation and the process of ordinary first-language acquisition. A somewhat different view is that pidgins can become richer to the extent of being similar to ordinary languages without the intervention of infant language-learners. On this notion, the only difference between a creole and an enriched pidgin is that the former has native speakers and the latter does not.

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2.7.6. Questions

1. Write a note on how development process of Pidgin.
2. Write a note on the features of Pidgin.
3. Distinguish between a Pidgin and Creole.
4. Explain the process of Creolization.
5. What is Decreolization?

Unit 8 ❑ Indian English

Structure

2.8.1.   Objectives

2.8.2.   Introduction

2.8.3.   Bilingualism

2.8.4.   The Indianness in Indian English

2.8.5.   Reading list

2.8.6.   Questions

2.8.1 Objective

In this unit we shall discuss about the establishment and development of English in India. We shall also describe the present scenario vis-à-vis English and regional languages in India. We shall also discuss some features of Indian English and word formation.

2.8.2. Introduction

In a country like India, which is linguistically and culturally very diversified, we can see the case of language acculturation involving the Indianization in the case of English. The result of such an acculturation is the development of what we now term "Indian English'. This term is understood both in a geographical sense and in a linguistic sense. In a geographical sense, it refers to those varieties of English which developed in what was traditionally called the Indian subcontinent and now includes Bangladesh, India, Nepal, and Pakistan. In linguistic terms, the modifier Indian refers to the linguistic processes used by the Indians toward the Indianization of English, which then resulted in the Indianness of the language.

Since the time English was established in India during the British, the language has always been used as a second language (L2) rather than as a mother tongue (L1). A second language is a language which one acquires after one has learnt the first language, for what is usually called the mother tongue. A speakr who can speak two languages

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with ease is called a bilingual speaker. Therefore, the development of English in India essentially created bilingual and, at times, multilingual speakers depending upon the environment in which the speaker is. English in India functions in different sociolinguistic settings:

1. As a second language
2. As a link language, it is used both intra-nationally and internationally.
3. As a language used in Indian English writings

2.8.3. Bilingualism

Indians use English as a complementary language depending upon the context in which they are. In the case of written discourse, the use of English is conditioned by the writer-reader relationship. This is evident in the case of Indian English writers, where we can see the existence of two forms of Indian English. One that is written in India and the reading public of which is exclusively Indian. The other, which is either written in or outside India, and whose reading public may include Indians or non-Indians.

As stated above English in India is acquired after one has learnt a first language. Therefore, English in India is always in a "contact situation" with other Indian languages. This results in a 'transfer' from the native language (L1) or mother tongue to that of the second language (L2), which is English in our case. The process of transfer may result in:

1. Transfer of context
2. Transfer of formal items
3. Transfer of form/context components.

"Transfer of context" means the transfer of "elements" of certain context from the native culture and L1 to L2. If the participants, however, belong to different cultural and language backgrounds, as in the case of Hindi-English or Bengali-English, this may involve transfer of certain contextual units which may be non-belonging elements of the culture of L2, like the caste system of India, the hierarchy, social and religious views, and the like. Let us see a few examples below:

'Cherisher of the poor', 'king of pearls', 'government', 'huzoor', 'ma-baap', 'Policewala' and 'pundit'.

All the above words are not only contextually transferred to L2, but even the meanings of these Indian English words take the form of L1 when used in L2.

The transfer is also seen in the case of formal items, where the structural features of L1 are transferred to L2. There are transfe from L1 at the level of sentences, clauses, phrases, fixed collocations, compounds. etc. A few examples can be; 'salt giver', 'spoiler of my salt', 'bow my forehead', 'turmeric ceremony' etc. Meanings are too transferred from L1 to L2. There are terms which have affixed meaning in British English but when used in the Indian context it acquires new meaning for even at times multiple meanings. The word 'brother-in-law' is used as a kinship term in British English but the Indian use has varied meanings such as i) abuse, ii) intimacy or endearment, and iii) kinship.

English today is widely used in India, making its speaker an Indian English bilingual. A Standard Indian English bilingual is one who is intelligible not only to other Indians across the subcontinent but also to the educated native speakers of English. It does not mean that the command of English of the Indian English bilingual must be equal to that of the native speaker (British). In fact, it is the effective use of the language for social control in all those social activities in which English is used that makes the speaker intelligible.

2.8.4. The Indianness in Indian English

As we have discussed above some features of context-oriented indiannisms, now we shall consider the formal features of some of the transferred indiannisms.

Indianisms can be described in many ways. The transfer, in terms of lexical structure and grammatical structure, results in collocational or/and grammatical derivations. The transfer of Indiannisms in Indian English may involve equivalence of formal items in L1 and L2 in two ways:

1. i) it may be translation of an Indian item

2. ii) it may be a shift based on an underlying Indian source item.

3. Translation: Translation may be defined as rendering from one language to the other. As establishing equivalent or partially equivalent formation in Indian English from other Indian languages. It is seen that there is not necessarily an exact correspondence between the items of L1 and L2. As is seen in the case of Mulk Raj Anand, who uses the term 'namak haram' as 'the spoiler of salt', 'Ishwar prem' is translated as' god love'. They can also be translations where the nearest equivalent of English is attempted along the lines of the patterns of L1. For example, 'car-festival', 'caste-mark', 'caste-dinner', 'cow-worship', 'cousin-brother', 'cousin-sister', etc.

4. Shift: In translation, an attempt is made to establish a formal equivalent or partial equivalent, but a shift is different in a sense that there is no attempt made to establish any formal equivalence. It is an adaption of an underlying formal item of an Indian language, which provides its source. Here, context plays a vital role. Let us consider the following sentences: 'may the vessel of your life never float in the sea of existence'; "you cock-eyed son of a bow-legged scorpion'; 'a crocodile in a lion-cloth'. We see that the underlying source item for the shift is usually a fixed or location in an Indian language.

In forming Indian English collocations, there is an underlining regular syntactic process involved. A syntactic unit of a higher rank in English is reduced to a lower rank in Indian English in a large number of indianisms. This production involves the process of deletion and permutation of lexical items. For example, in English we have i) ' an address of welcome', ii) 'a bunch of keys', and iii) 'love of God'. In Indian English, these are reduced to: i) 'welcome address', ii) 'key-bunch', and iii) 'God-love'.

The indianisms that have a specific meaning and function in the Indian context may be termed contextually determined or contextually loaded indianisms. These contextually determined indiannisms are unintelligible to the users of other varieties of English because they are not familiar with the Indian context in which they are used. Here, the role of native culture is immense because there is a transfer of meaning from it, in addition to the transfer of collocations from Indian languages. For example, formations like: 'alms-bowl', 'black-money', 'bride-showing', 'sacred-ash', 'upper-cloth', 'village-elders', 'wedding-house', 'wrist-band', 'rice eating ceremony', etc.

There is another form of formation where we have two or more elements. In such formations, there is at least one element from an Indian language and one from English. For example: 'Congress-pandal', 'kumkum-mark', 'police-jamadar', etc.

It is interesting to see the use of varieties of a language in different cultures. The term "English language" is therefore used as a cover term for L1 varieties of English and, at times, also for the 'other Englishes' which have slowly developed in countries like India, Malaysia, West Africa since these countries are in contact with English-speaking countries. In a country like India, the English language has moulded itself into the cultural and social life of the country and has become, as Raj Rao says, as the language of the intellectual make-up of Indians. Despite growing political pressures to give more importance to regional languages, English continues to be used by Indian intellectuals avidly. Today, English is used in almost all the states of India, reinforcing the cultural and social-political aspirations of Indians. Today, it acts as a bond that binds the nation even though its origin was foreign.

2.8.5. Reading list

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2.8.6. Questions

1. Write a note on the development of English in India.

2. What do you think is the role of English vis-a-vis the Indian languages in India?

3. What do you understand by the term bilingualism?

4. Explain the Indianness in Indian English.

5. Explain the role of L1 in the development of Indian English.

Module 3

Morphology & Syantax

Unit 9 ❑ Definition and Scope

Structure

3.9.1 Objective

In this unit, we shall discuss the definition and scope of morphology to understand how it stands to a broader framework of language analysis. This is further extended with a discussion of basic concepts of morphology. These concepts are crucial in analyzing a language structurally and functionally. A discussion on the different morphological processes is done thereafter to understand the word formation processes of a language. Finally, six principles of morphological analysis are discussed with examples drawn from the English language. This unit also focuses on the definitions pertaining to syntax and its scope within linguistics to capture phenomena in natural languages. The unit primary begins with basic definitions and introduces the notion of category, categorization and a brief history of syntactic theories.

After completing this module on morphology, one will be able to understand:

    (i)   the scope of morphology in studying the English language

    (ii) the way morphology stands in relation to the other modules of linguistics, namely phonology, syntax, semantics, etc.

    (iii) the basic concepts of English morphology

    (iv) the processes involved in the English word formations

    (v) the method for analyzing a language morphologically

At the end of each sub-unit, exercises can be found to check the learner's progress. Towards the end of this module, a set of model questions are also given.

3.9.2. What is morphology?

The English word 'morphology' is derived from 'morpho-' (= shape) and '-logy' (= study of). Etymologically, the word 'morphology' means 'the study of the shape'. This term is borrowed from Biology, where it is used to refer to the scientific study of the forms and functions of the constituting structures of an organism. Likewise, in linguistics, morphology is the study of forms and functions of the constituents of words. The significance of studying morphology lies with those formal and functional constituents of a word that determine its syntactic and semantic significance in a language. Say, for example, the word 'teacher' has the phonetic form \?t?-ch?r\ which functionally refers to 'one who teaches'. Both the form and function, associated with the word 'teacher', are derived from the forms and functions of its constituent parts. In Figure 1, the complex structure of the word 'teacher' is shown in terms of its (orthographic) forms and the functions:
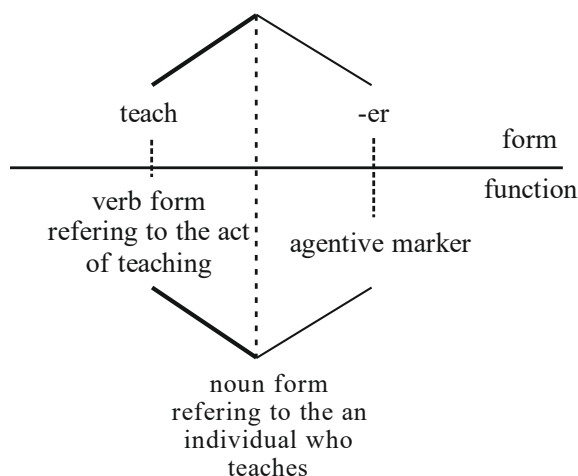
Figure 1: Morphological Structure of 'teacher'

Note that for a given language, the morphological structure of a particular expression is preconditioned by certain conventional principles of that language. In the case of English, no one can decompose 'teacher' into 'teac' and 'her', or 'teache' and 'r' - since none

of these expressions are legitimate morphemes of the English language. It is also not possible in English to break 'teach' further into 'te' and 'ach' since none of these parts are meaningful. Therefore, we can now say, morphemes are the smallest meaningful units of a language. In morphology, we study the forms and functions of morphemes of a particular language. A word can be made up of a single morpheme (ex. 'cat', 'walk' etc.) or multiple morphemes (ex. 'cat-s', 'walk-ed' etc.)

3.9.3. Scope of Morphology

Both comprehension and production of language presuppose an intuitive understanding of the basic units of that language. Anumber of these basic units is often finite. Out of these finite numbers of basic units, we can produce infinite numbers of complex expressions. For example, English has a finite number of sounds but with the aid of this finite set of sounds, a user of the English language can produce infinite numbers of complex grammatical expressions. Similarly, the number of the morphemes is also finite in English - though we can produce infinite numbers of complex grammatical expressions, i.e. the words, in the English language. Much like the way phonology is the scientific study of the phonemes of a language, morphology is the scientific study of morphemes of a language.

Our understanding of morphemes often helps us in constructing grammatically well-formed sentences. Consider the following examples:

(1) The teacher has not yet arrived.

(2) I teach morphology.

Consider the words written in italics in (1) and (2). Is it possible to interchange their positions in (1) and (2) without destabilizing the status of these two sentences? - NO, because the resultant constructions will then become grammatically ill-formed - as is shown below:

(3) *The teach has not yet arrived.

(4) *I teacher morphology.

Note, '*' is used to mark the constructions of (3) and (4) as grammatically ill-formed. But, then, the following question will arise: why are these two sentences grammatically ill-formed? - From an intuitive understanding of the English language, we can say that the word 'teach' cannot appear in the subject position of a sentence, and the word 'teacher' cannot appear in a position that is specified for a verb. These intuitive understandings are the consequences of the knowledge of respective forms and functions associated

with 'teacher' and 'teach'. Morphology provides a systematic and scientific method for studying forms and functions associated with the morphemes of a particular language.

3.9.4. Basic definitions of Syntax

Syntax is the study of the phrases or clauses in natural languages. Syntax is the part of linguistics that studies the sentence structure. It is an interface that permeates between the sounds (phonemes) and the meaning (semantics) conveyed during language production.

The word syntax derives from the Greek word syntaxis, syn (together) and taxis (arrangement). It deals with phrase and sentence formation out of words. (Vajda).

For example, consider the usage of the suffixes -ra and -gulo in Bangla word as in pakhi-ra vs. pakhi-gulo. Now, the speakers of Bangla would use the first one when they would like to talk about the generic class of birds whereas the second one would be used to denote a plural but indefinite set of birds. Speakers also know that these two words cannot co-occur, the choice is subconscious but the meaning is well deciphered. This is categorized as the knowledge of syntax.

Given a sentence like the cat hunts the mouse, speakers of English know that English bare singular nouns need to be expressed with determiners. The determiners come from a limited set {a, an & the}. 'Hunt' is a transitive verb that takes two arguments and cat must be the agent of the verb and the mouse as the patient despite both the words belong to the same category i.e. nouns. Speakers of English also know that English is an SVO language and hunt takes the form hunts when the verb occurs in the present tense and the subject is third person, singular.

All of these trigger a couple of major questions;

i) how do speakers identify the categories in a given language and

ii) how do they apply the rules in order to convey a meaningful utterance. The second question will be discussed in unit 15(Structural grammar-background, IC Analysis and PS rules) at length.

3.9.5. What is a category?

A category is a minimal unit in syntax that selects a particular word or lexical item to be put under it. For example, N(oun)s and V(erb)s are called categories as they allow a proper noun or a pronoun to be inserted under the first one and only a verb under the latter.

In other words, a category comprises of a set of features which are responsible for distinguishing the words into the traditional word classes of Noun, Verbs, Adjectives etc. (Adger, 2002).

3.9.6. Category and categorization

In this section, I am going to discuss the process of categorization in human languages. According to (Rauh, 2010), 'Categorizing is a fundamental aspect of how humans process reality and the formation of categories gives structure to the enormous amount of sensory input.'

Lexical items that share properties are combined into the same category. So a category essentially helps to capture the generalization of a particular type. By this means John, him, assassination would all be classified as nouns and reading, putting and sleeping be classified as verbs. This notion enables a child to acquire a language effectively and an adult learner to learn a second language.

It is also argued that because of their generalizing properties, categories are indispensable in any area of scientific study. (Rauh, 2010) has stated that 'forming categories and describing the relations between them' yields a structure and give us 'insights into the object of study.'

However, there is no uniformity in the analysis of the categories by linguists. Instead a variety of terminologies can be found including the terms 'parts of speech', 'word classes', 'form classes', 'lexical categories', 'grammatical categories', and 'syntactic categories'.

3.9.7. Part of Speech

According to (Carnie, 2002) part of speech acts like 'how a word is going to function in the sentence.' The most common parts of speech discussed in descriptive grammars are nouns, verbs, adjectives, adverbs and prepositions. This triggers a pertinent question as in how do we classify them? Often the traditional definitions will fail to account for certain classifications. Consider the following examples:

1) The assassination of the prime minister
2) Singing is a quality.

These two underlined words cannot be classified as nouns if we delimit our notion of nouns as name of place, object or a thing. (Carnie, 2002) argues that semantic criteria often inadequately captured part of speech. Consider the example from Bangla.

3) Choto-Ta   douro-cch-e

    Small-CLF   run-HAB.PRS-3P

    'The small one is running.'

Normally, we expect to see nouns occupying the subject position. In 6) instead of a noun an adjective has occupied the nominal position and it indicates that a word might change its category depending upon the position that it is going to occupy in a sentence.

Based on these examples syntacticians propose a distributional criteria for identifying the part of speech. The criteria comprises of morphological distribution and syntactic distribution. The first refers to the morphological marking namely the affixes that appear with a particular word help to identify that word. For example, the suffix -ing in English can either appear as a derivational morpheme or as an inflectional morpheme. However, their categorical nature will be ultimately decided based on their occurrence in a sentence. If singing appears at the beginning of a sentence then it is highly likely that it is going to act like a derived nominal or gerund as show in 2) above. However if it appears after a subject then it shows up as a verb as in 4). Rakhi was singing.

Classification of the major part of speech based on morphology and syntax (Carnie, 2002)

POS	Morphological distribution	Syntactic distribution
Nouns	*ment (basement), -ness (friendliness), -ity (sincerity), -ty (certainty),* *-(t)ion (devotion), -ation (expectation), -ist (specialist), -ant (attendant)* *-s (cats), -es (glasses), -en (oxen), -ren (children), -i (cacti), -a (addenda)* In Hindi -e as in larke (boys)	often appear after determiners such as the, those, these, (e.g., these peanuts/ yeh kitabe 'these books') and can appear after adjectives (the big peanut)/ woh lal topi 'the red cap'. Nouns can also follow prepositions (in s chool) or precede post positions (school se (Hindi) or (school theke in Bangla) 'from school').

Categories or part of speech take part in the formation of phrases and sentences. The section below describes the transition and developments of syntactic theories.

POS	Morphological distribution	Syntactic distribution
Verbs	*derivational endings such as -ate* (dissipate), and -ize/-ise (regularize) *-ed or -t ending for past.* *In the present tense, third person singular (he, she, it), they take the -s ending.* In Hindi, gender and person marking Larka jat-**a** he 'boy goes' Larki jat-**i** he 'girl goes'	Verbs can follow auxiliaries and modals such as *will,* *have, having, had, has, am, be, been, being, is, are, were, was, would, can, could,* *shall, should,* and the special infinitive marker *to.* In Hindi, verbs can follow negation me khana nehi **khaunga** 'I will not eat' In Bangla, negation appears post verbally ami khabo na I will eat not 'I will not eat'
Adjectives	*derivational endings such as* *-ing (the dancing cat),-ive (indicative), -able (readable), -al (traditional), -ate (intimate),* *-ish (childish), -some (tiresome), -(i)an (reptilian), -ful (wishful), -less* *(selfless), -ly (friendly). -er and –est as in happier and happiest*	Adjectives can appear between determiners such as *the, a, these* etc. and nouns: (*the big peanut*)
Adverbs	*adverbs end in -ly: quickly, frequently* In Indian languages adverbs are often reduplicated – dhire dhire (slowly slowly)	The syntactic distribution of adverbs is most easily described by stating where they can't appear. Adverbs can't appear between a determiner and a noun (*the quickly fox*) * oi taratari beral 'that quickly cat'

3.9.8. Summary

In this module categories and the constituents which are considered as the objects of syntax (phrase and clause formation) are discussed along with the basic definitions of syntax and its scope.

● A category is a minimal unit in syntax that selects a particular word or lexical item to be put under it.

● Lexical items that share properties are combined into the same category.

● Syntacticians primarily distinguish categories into lexical categories e.g. noun, verb, preposition and adjective.

● Part of speech acts like how a word is going to function in the sentence.

● The current argument shows that the categories can be identified in terms of their morphological and syntactic distribution in a language.

● Two sets of rules in grammar can explain the categories, categorial rules and lexical rules.

3.9.9. Learning outcome

The students are expected to learn the premises of syntactic theories and its objectives to define natural languages in the sense of the ways by which the speakers identify the categories in a given language and the knowledges of the rules to formulate a meaningful utterance.

3.9.10. Possible problem sets

1. Describe the differences between LFG and HPSG
2. Traditional word classes
3. Morphological and syntactic distribution of the POS categories
4. How is the concept of 'word' different from the concept of 'morpheme'?
5. How many morphemes are there in each of the following words? beautiful, got, reborn, dysfunctional, good, best
6. Count the number of the words and the morphemes of the following sentences:

(i) The heavenly body nearest to the earth is the moon.

(ii) Some of these imaginary lines have special names.

(iii) The surface of the earth is made up of water and land.

7.   How is zero morph different from the empty morph? Give examples.

8.   What is portmanteau morph? Give examples.

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List of abbreviations

N	noun
V	verb
Det	determiner
Adj	adjective
Adv	Adverb
NP	noun phrase
VP	verb phrase
PP	prepositional phrase
POS	Part of Speech

Unit 10 ❑ Types of Morphemes and Morphological Processes

Structure

3.10.1. Introduction

A typological classification of morphemes can be done from three different perspectives:

(i) from the perspective of form-function mapping, (ii) from the perspective of the structure, and

(iii) from the perspective of meaning. Since morphology is concerned primarily with the structure of the word and the way new words are formed from a given word, in this section, we will discuss certain morphological processes specific to the English language.

3.10.2. Types of morphemes from the perspective of form-function mapping

Ideally, a morpheme is an assemblage of a form and a function. However, it is often noticed that the form-function pairing varies from one morpheme to another morpheme in a language. For instance, consider example (13), where a case of zero morpheme is discussed: A zero morpheme has a function associated with it but it lacks an overt phonological form. These types of non-audible morphs are known as zero morphs. Contrarily, an empty morph has an overt phonetic realization while lacking covert semantic content. For example, the phonetic manifestation [?] of the first 'o' in 'psychology' [sa??k?l??i] is a typical instance of an empty morpheme.

It is not always the case that the relation between the phonetic form and the semantic function is always one-to-one. There are instances where more than one meaning component is represented by a single phonetic representation. This type of phonetic representation is termed portmanteau morph. In English, a verb form is inflected with [-s] in present tense if the subject of the verb is in the third person singular number. This [-s] is an instance of the portmanteau morph, since it encodes more than one semantic information (i.e. third person singular number in present tense) relevant to the subject-verb agreement in English.

3.10.3. Types of morphemes from the perspective of the structure

Morphemes can be classified into two broader categories on the basis of either their structural distribution or their functional contribution to meaning.

The morphemes - which can stand alone while conveying the meaning - are known as free morphemes. For example, consider the word 'boy' which has the status of the free morpheme, as against the plural marker '-s' which cannot occur alone. The latter one is the instance of the bound morpheme. A morpheme that needs the support of a free morpheme to occur in language while conveying meaning is known as a bound morpheme. Bound morphemes are again classified into four categories depending on their distribution or their ability to get added with the free morphemes. These three categories are prefix, suffix, infix and, circumfix. Out of these four types of bound morphemes only the first two will be discussed here: Prefixes are attached to the beginning of a free morpheme; whereas suffixes are attached at the end of the bound morpheme.

(1) anti- + establish + -ment

(2) run + -s

In (14) and (15), we can see two different free morphemes - namely, {establish} and {run}. In (14), {anti-} is a prefix and {-ment} is a suffix. Both of them belong to the bound morpheme class. In (15), {-s} is a suffix. Note that, the addition of the bound morphemes to the free morphemes often plays a significant role in changing a word into another word. This issue will be addressed in the following section.

It is also noticed that prefixing and suffixing of a word are governed by some ordering principles. For example, 'antiestablishment' is derived from the word 'establishment' by adding 'anti-' with it. 'Establishment' is derived from 'establish' by adding '-ment' to it. The addition of the affixes to the word 'establish' in an orderly manner can be represented in the following way:

(3) (anti-((establish)-ment))

The free morpheme with which affixes are attached is known as a stem. In (16), 'establish' is the stem. Consider the following example, now:

(4) (((morph)-o)-logy)

In (17), '-logy' is attached to 'morpho-' to create the word 'morphology'; therefore, 'morpho-' has the status of stem. But, then, an empty bound morpheme '-o-' is attached to 'morph' to derive the stem 'morpho-'. What would then be the status of the 'morph'? - To distinguish the structural significance of 'morph' and 'morpho' in the word 'morphology', we will now introduce the concept of the root. In (17), 'morph' has the status of root and 'morpho' is the stem. Needless to say '-o-' will then have the status of the stem formative.

3.10.4. Types of morphemes from the perspective of the meaning

Functionally, bound morphemes can be classified into two different categories - namely, inflectional morpheme and derivational morpheme. Inflectional morphemes are category preserving, whereas the derivational morphemes are not.

(5) Narayan walks every day

(6) Narayan walked every day.

The bound morphs of (18) and (19) - i.e. '-s' and '-ed' representing {third person} and {singular number} on one hand and {past tense} on the other hand - neither changes

the meaning of 'walk' nor changes its grammatical category. Hence, both of them will be identified as inflectional morphemes and the process through which 'walks' and 'walked' are formed is known as the inflectional process. Now consider the following example:

(7) Narayan purchased a walker.

In (20), '-er' is a derived morpheme. The addition of '-er' to 'walk' has changed both the meaning and the grammatical category of 'walk'. To determine the type of an affix one needs to take an account of its capacity to change the grammatical category and the meaning of the word - to which it is about to affix. For example, consider the case of 'rewrite' which is a verb and is produced with the prefixing of 're-' to 'write': Prefixing 're-' to 'write' does not involve the change of the grammatical category. Both 'write' and 'rewrite' are verbs though they differ in terms of their respective meanings.

Inflectional and derivational morphemes play crucial roles in creating newer words which, in turn, are useful in expressing our thoughts coherently. To express a linguistically coherent thought, often we have had to follow the constraints imposed by the inflectional morphology. Plural marker '-s' is one such inflectional morpheme which, on getting added with a word, say for example 'book', does not change its grammatical category. Producing 'syntactical' from 'syntactic' with the aid of '-al' does not involve the change of the grammatical category. Both of them are adjectives. As a consequence, '-al' will have the status of the inflectional morpheme.

3.10.5. Reduplication

In reduplication, either a whole or a part of a morpheme is repeatedly used one after another to form a reduplicated morpheme. In (21), a few such reduplicated forms are mentioned:

(1) bye-bye, ta-ta, blah-blah, knock-knock, etc.

These are the instances of complete reduplication. In partial reduplication, a certain part of a morpheme is repeated:

(2) tik-tok, hip-hop, hanky-panky etc.

Needless to say, reduplicated forms are significant from the viewpoint of rhythmic conversation.

3.10.6. Suppletion

Most of the linguistic processes are systematic. For example, while producing the

past form, generally we add '-ed' with the verb. Similarly, comparative and superlative forms are produced using '-er' and '-est' suffixes with an adjective, respectively. Quite contrarily, certain past forms, as well as the comparative and superlative degree forms of English do not show any systematic patterns in their forms:

(3) walk : walked; but, go : went

(4) nice : nicer : nicest; but, good : better : best

(5) hand : hands; but, foot : feet

To have an answer to this problem of irregularities, one needs to expand the scope of the linguistic investigation beyond synchronic linguistics.

3.10.7. Clippings

As the name suggests, the newer forms are produced by clipping an existing word:

(6) telephone > phone

(7) refrigerator > fridge

(8) advertisement > ad

Clippings are extremely useful in maximizing the ease of articulation for the speaker.

3.10.8. Abbreviations

Unlike clippings, in abbreviations, a new word is formed by extracting the initial expressions of the words of a phrase.

(9)   Master of Arts > MA

(10) Head of the Department > HOD

(11) Prime Minister > PM

3.10.9. Blending

In blending, two different words are mixed to form a new word:

(12) breakfast + lunch > brunch

(13) smoke + fog > smog

(14) motor + hotel > motel

Note that blending is different from compounding.

3.10.10. Compounding

Unlike blending, two or more-word forms are combined in compounding. In compounding, one of the two constituents has the status of the head which is marked with bold fonts in the following examples:

(15) noun-noun : horseshoe

(16) noun-verb : troubleshoot

(17) adjective-verb : highjump

3.10.11. Summing up

Morphology is the study of words in a language. It studies the structure of words and how they stand in relation to each other in a complex construction. The basic concept of morphology is the morpheme which is often defined as the smallest meaningful unit of a language. Morphemes are distinguished from each other in terms of their respective forms and functions. Morphemes can be classified into two broad categories - namely, (i) free morphemes, and (ii) bound morphemes. Bound morphemes are again categorized depending on their ability to get affixed with a free morpheme. These categories are: (i) suffix, (ii), prefix, (iii) infix, and (iv) circumfix.

From a procedural viewpoint, morphology is of two types: (a) inflectional morphology and (ii) derivational morphology. Inflectional morphology is crucial in expressing those relations which are syntagmatic in nature; whereas, derivational morphology is concerned primarily with the derivation of the words from the existing ones.

3.10.12. Exercise

1. How is the concept of 'root' different from the concept of 'stem'? What is stem formative? Give examples.

2. Underline the empty morphs in the following words: psychology, philology, morphology

3. How is inflectional morphology different from derivational morphology? Explain with examples.

4. Identify the allomorphs in the following pair of expressions: impossible, intolerant, and irreducible

5. How is affixation central in inflectional and derivational morphology? Explain in your own words with examples drawn from the English language.

6. Explain how bound morphemes are different from free morphemes. Give some examples of free and bound morphemes from the English language.

7. Distinguish inflectional morphology from derivational morphology with examples drawn from the English language.

8. Write short notes on the followings: (a) empty morph, (b) portmanteau morph, (c) zero morphemes.

9. Discuss different morphological processes in your own words drawing data from the English language?

10. Distinguish the following pairs of morphological processes with examples: (a) clipping vs. abbreviations, (b) blending vs. compounding

11. Which one of the following morphological processes namely blending and compounding is the instance of portmanteau morph? Provide an explanation in support of your argument.

3.10.13. Suggested readings

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Unit 11 ❑ Morphological Description and Analysis

Structure

3.11.1. Morphological Description

3.11.2. Six Principles of Morphological Analysis

3.11.3. Exercises

3.11.1. Morphological Description

Morphology is concerned with identifying and describing the morphemes and the morphological structures of a particular language. In our earlier sections, we have discussed different types of morphemes with examples drawn from English. In this section and the following one, we will show how the concepts of different morphological types evolved due to the types of data encountered during the analysis of a language. In other words, morphological descriptions presuppose a rigorous analytical method.

3.11.2. Six Principles of Morphological Analysis

To perform morphological analysis of an unknown language, we follow six different principles. These principles vary from each other in terms of the complexities involved in the data set. The first principle states that (i) the formally or phonetically identical and (ii) functionally or semantically similar forms will be considered as the different allomorphs of a single morpheme. This is probably the most trivial case. Consider the occurrences of '-s' in the following example:

(1) cat-s, bat-s, mat-s, hat-s

All occurrences of '-s' in (38) are phonetically identical and semantically indistinct. Therefore, they will be considered as the member of a single morpheme - namely, {plural}. But, then, what about the following set of forms marked bold in (39):

(2) [kæt] + [-s] 'cats'; [d?g] + [-z] 'dogs'; [r??z] + [-?z] 'roses'

In (39), the forms which are marked bold, are semantically identical in virtue of conveying the sense of plurality - but, phonetically different. How will one conceptualize these instances? - According to the second principle, to understand the status of these

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forms, one needs to introduce the concept of distribution to check if alternating forms are phonologically predictable. As we can see from the examples of (36), [-s] can occur only after an unvoiced consonant; [-z] can occur only after a voiced consonant. Finally, [-iz] can occur after a voiced fricative sound. Since each of these suffixes are conveying a semantically similar sense and their phonetic differences are predictable from their distribution - they will be considered as three different allomorphs of a single {plural} morpheme. Note, these allomorphs are in complementary distribution - i.e. no one can appear in another's phonological environment in normal speech. This concept of complementary distribution, according to the third principle, is also critical in identifying the morphological status of those forms having common semantic distinctiveness with non-identical phonological forms whose distributions are not phonologically predictable (but lexically conditioned) as in (40):

(3) children: [?a?ld] + [-r?n] 'children'; [?ks] + [-?n] 'oxen'

Note, both the suffixes convey the sense of plurality and they cannot occur in other's lexical environment; in other words, 'child-en' and 'ox-ren' are grammatically ill-formed.

The fourth principle deals with a particular type of problem which can be explained with the help of those plural forms of the English language for which we do not have any overt plural suffix. For example, 'sheep' has no overt marking for plural. Consider the following:

(4) book : book-s :: sheep : sheep

A similar type of situation can also be noticed, in the case of the past tense marker:

(5) walk : walked :: cut : cut

For all such cases, zero morph is to be presumed for the maintenance of the regularity. As per this principle, the past form of 'cut' is derived by adding a zero allomorph to it. A zero morph, as discussed earlier, has no overt phonological realization though it has covert semantic content. It is often represented with the Greek alphabet ?. The Fourth principle is also significant for the identification of those morphemes which are not morpho-phonologically predictable. For example, the past form of the English verb 'go' is 'went'. Instead of having 'go-ed' as the past form of 'go', we have 'went' as the past form. These types of morphological instances are typical examples of replacives or suppletion. Some other examples are 'gave', 'kept' etc.

The Fifth principle is concerned primarily with the homophonous words like 'by' vs. 'buy', 'dew' vs. 'due' etc. The Fifth principle argues that the homophonous forms will have the status of two different morphemes if and only if they have two different distributions in virtue of having two different meanings. For example, 'buy' can be inflected

with '-s' when it is preceded by a subject who is in the third person singular number. Clearly, this is not possible with the form 'by'. Both, 'buy' and 'by' differ from each other not only in terms of their respective structural meaning, just discussed above, but also are distinguishable in terms of their respective meanings. Hence, 'buy' and 'by' will be considered two distinct morphemes. The Fifth principle also helps in identifying those homophonous forms (as the manifestation of a single morpheme), which are in complementary distribution. For example, consider the occurrences of 'sketch' in the following two sentences:

(6) I sketch this painting.

(7) This sketch is drawn by me.

Both the 'sketch's are in contrastive distribution in the sense that none of them can structurally behave like the other: When the first appearance of sketch is sensitive to the tense or to the addition of the inflection marker '-s' in present tense being preceded by a subject in third person singular number, the second appearance of sketch is sensitive to the plural marker '-s'. Instead of having these differences, they will be considered as two different manifestations of {sketch} because of being semantically connected.

The Sixth principle is about those morphemes which can occur in the entire language in conjunction with a particular type of morpheme. The forms say for example 'cran-' and 'rasp-' can occur only in conjunction with 'berry'.

(8) cran-berry vs. rasp-berry

Since, 'cran-' and 'rasp-' play a crucial role in distinguishing the types of 'berry' with their presence in the respective constructions, both of them will be treated as two distinct morphemes of the English language.

3.11.3. Exercise

1. Consider the following examples from the Zulu language: umfundisi "teacher," abafundisi "teachers," fundisa "to teach." Give the Zulu correspondences for the following English morphemes: {teacher}, {plural}, {teach}. Compare the morphological structures of Zulu and English from the viewpoint of inflectional and derivational morphology.

2. Discuss six different principles of morphological analysis with examples in your languages.

Unit 12 ❑ Structural Grammar-Background, IC Analysis and PS Rules

Structure

3.12.1. Introduction

This module covers the definition and the history of structural grammar at the beginning. After giving a brief description of Immediate constituent analysis (IC), I have discussed the more modern approaches i.e. generativity in syntax known as phrase structure in sections 15.4.1-15.4.2.

3.12.2. Structural grammar

The beginning of structural grammar can be traced back to Astadhyayi written by Panini (estimated 4th century B.C.). In 3rd Century BC, a scholarly work known as Erya is found in China. The Greek tradition recognizes Dionysius Thrax (2nd century B.C.) and Apollonius Dyscolus (2nd century A.D.) as the pioneers of the tradition. In Rome, the important initial grammarians include Donatus (4th century A.D.) and Priscian (6th century A.D.). In 1660, an important piece of grammar was published by Lancelot et al (1660) known as Grammaire générale et raisonnée (Port Royal). Refer to unit 14, also for the development of theories.

The early Sanskrit grammars, while on the one hand, are said to be short and complete but definitely included topics as syntax, morphology, phonology and pragmatics. For example, Astadhyayi describes algorithms that can be applied to lexical items to form words. It is considered quite systematic and highly technical. This text is stated to have influenced the foundations of many aspects of modern linguistics such as Structuralism (Ferdinand de Saussure and Leonard Bloomfield), History of Phonology (Paul Kiparsky) to the Optimality theory and Generative grammar (Noam Chomsky).

The discovery of Sanskrit and its obvious resemblance to Latin and Greek had led to the development of comparative linguistics. The growing interest in other languages stimulated the researchers to describe language and aspects related to phonology and morphology. We observe that during this time there was a gradual shift of interest: from prescriptive to descriptive Grammars.

The beginning of this modern approach to linguistics was pioneered by a great Sanskrit scholar, Ferdinand D. Saussure. His course notes were published posthumously by his students in a book called the Cours de Linguistique générale (1916). This text also turned the attention from diachronic linguistics (history of languages) to synchronic linguistics (language as it exists in contemporary time). Saussure formulated a concept called the arbitrariness of sign. A sign comprises of a signifier (the articulated form) and a signified (concept associated with it). For example, the English word /kaet/ 'cat' represents a domestic animal but there is no apparent connection between the sounds and the object it represents.

The other two concepts associated with this approach are known as "langue" and "parole". Saussure had defined that language comprises of two elements the langue and the parole. Consider the Language as the faculty of speech and it is a heterogeneous entity consisting of certain physic, physiological and psychological facts. A Langue, in that case, is a homogeneous system of symbols that may be mapped to meaning, it

is a social product, exterior of individuals.

On the contrary, Parole is the act of using language; it is also an area where psychology comes into play. Saussure's work is seen as the commencing point of 'structuralism', introducing "syntagmatic analysis". The analysis comprises of which elements can occur in a particular context and how do these elements contribute to the meaning?

The methods suggested by Bloomfield influenced the development of structural linguistics in America between the 1930s and the 1950s. In his most influential work 'Language' (1933), Bloomfield concentrated on the theory and techniques of linguistics as an established and defined science. In terms of syntax, he argued that free forms such as words in a language appear as bigger free forms like phrases. Any syntactic construction can be analyzed by four elements i.e. modulation, phonetic modification, selection and order. He introduced the notion of immediate constituent, a constituent that is not bound and contributes to the building of syntactic constructions. A further illustration of this analysis is outlined in section 15.3.

In terms of phonology, the most recent theory is known as Optimality Theory (OT) proposed by (Smolensky & Prince, 1993). The main architecture of this theory aims to construct a predictive theory of natural language sound systems. It is rooted in a finely-detailed account of the principles defining linguistic representations and the possible relations between them. (OT) develops in the context of specific empirical theses about the ways by which phonological systems are organized in natural languages.

The most influential theory of modern linguistics in the form of structural grammar was propagated by Noam Chomsky in his various books e.g. Syntactic Structures, (The Hague: Mouton & Company, 1957), Aspects of the Theory of Syntax, (Cambridge, Massachusetts: The Massachusetts Institute of Technology Press, 1965), Topics in the Theory of Generative Grammar, (The Hague/Paris: Mouton, 1972), Lectures on Government and Binding: The Pisa Lectures, (Holland: Foris Publications, 1981) & The Minimalist Program: Current Studies in Linguistics, (Cambridge, Massachusetts: The Massachusetts Institute of Technology Press, 1995) among several others. Syntactic constructions in his earlier theories were considered as building blocks of constituents and constituency hoods. Passive sentences were thought to have come into surface level by the process of transformation. More and more empirical work relinquished Transformational rules and focus shifted to the idea of Universal grammar comprising of a set of principles and parameters. The Minimalist program considers two basic operations merge and move as syntactic operations.

In the following couple of sections, I will introduce the immediate constituent analysis (Leonard Bloomfield) and phrase-structure rules (Noam Chomsky) briefly.

3.12.3. Immediate Constituent Analysis

The immediate constituent analysis or IC analysis is a method of sentence analysis that was first presented by Leonard Bloomfield and developed further by Rulon Wells. (Bloomfield, 1933 (reprint 1973)), based on sentences of English, proposed a syntactic analysis of phrases. The process reached a full-blown strategy for analyzing sentence structure in the early works of Noam Chomsky.

Forms like words and phrases are free forms which contribute to building a larger free form called the phrases. Syntactic constructions are formulated by meaningful recurrent set of taxemes. A Taxeme is an element of speech that differentiates one utterance from another with a difference in meaning, in the form of a particular phoneme, the presence of a certain intonation, or distinctive word order.

In English, a meaningful utterance gets generated by actor-action sequence such as

1) Bill sneezed

   Actor Action

2) The man in the red suit Arrived

Constituents (see also 15.4.1 below) like (Bill, The man in the red suit) form nominative expressions and (sneezed, arrived) form finite verb expressions. The taxeme of order is Nominative expression> Finite verb expression

Since these two expressions are adjacent, they are called immediate constituents. They are not interchangeable and the category of a word is decided based on whether they occupy the actor or the action position. Actor and action positions are ordered strictly and they are differentiated by a pause. An element like it's eight of clock or John's ready is known as sandhi forms, as phonetic modulation plays an important role in syntax.

3.12.3.1. Identifying the constituents

Step 1. Given a sentence like 'the cat hunted the mouse in the room'-

Let us first identify the immediate constituents counting from the left and use ( ) to demarcate them.

(The) (big) (cat) (hunted) (the) (mouse) (in) (the) (room).

Step 2.

Now you can see the relationship of actor action and identify the NP constituent and VP constituents.

((The) (big) (cat))   ((hunted) (the) (mouse) (in) (the) (room))

Step 3.

Propose the following structure combining the two and drawing a syntactic tree.

```
            S
3
        NP              VP
3       3
D  Adj    N        VP                PP
          3        3
The big Cat  V   NP          P1        NP
              3in              3
    Hunted D     N          D         N
   the       mouse    the        room
```
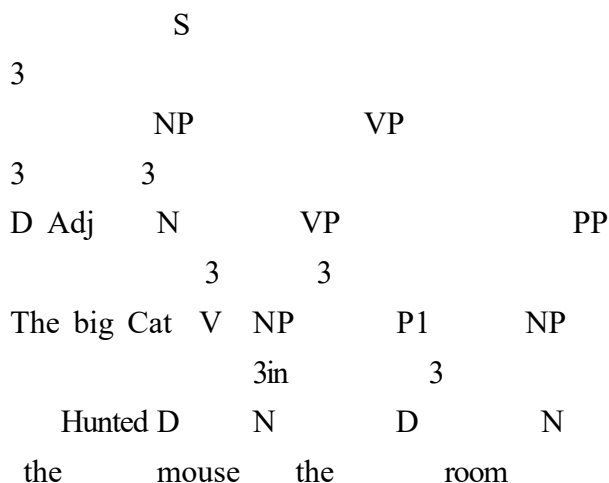
This tree illustrates the manner in which the entire sentence is divided first into the two immediate constituents this tree and illustrates IC-analysis according to the constituency relation; these two constituents are further divided into the immediate constituents this and tree, and illustrates IC-analysis and according to the constituency relation.

3.12.3.2. Selective use of taxemes

Singular nominative expressions can combine with singular finite verb expressions. Thus it will rule out -

*The boys runs

In natural languages, this phenomenon is called concord or agreement. The other important property to consider here is government, which says that finite verb expressions govern the forms of nominative expressions (the contrast between I, She, him).

3) I ran

4) She runs

5) I hit him

3.12.3.3. Resultant phrase

When a nominative phrase combines with a finite verb construction, it does not project as either nominative phrase or finite verb phrase but rather as a third phrase. Bloomfield argues that the resultant phrase is an exocentric compound when actor and action combine.

The resultant phrase can result in an endocentric compound in case of coordination

and subordination phrases. For example the boys and the girls are type of the same nominative expressions. As subordination Poor Seema and bare nominative Seema belong to the same clause.

3.12.3.4. In a nutshell

The immediate constituent analysis is a form of linguistic review that breaks down longer phrases or sentences into their constituent parts, usually into single words. This kind of analysis is sometimes abbreviated as IC analysis. This kind of analysis of utterances has applications for both natural languages or traditional linguistics, and natural language processing in the field of computer science and artificial intelligence.

Note that immediate constituent analysis often requires separating parts of a sentence or phrase into groups of words with semantical synergy or related meaning. For example, the sentence, "the car is running fast," could be broken down into two groups of words: "the car" and "is running fast." In this case, the first group contains an article applied to a noun, and the second group contains an auxiliary, a verb followed by an adverb.

IC analysis has limitations as it negates its own argument of binary cutting in the structure proposed in Step 3 Above. The analysis largely relies on meaning but the meaning, in general, is quite arbitrary and cannot be considered the basis of any structure. Hence proposing a structure-based grammar, Noam Chomsky proposed Phrase Structure rules as part of his initial syntactic analysis of the English Sentences.

3.12.4. PS rules

Phrase structure rules involve categorizations i.e. these rules can either generate a category from another category or they may simply allow the categories to be filled in

Categorial rules	Lexical rules
S-> NP (aux) VP	N-> girl, boy , John
NP-> (Det) (AdjP) N (PP)	V -> see, like, sleep
VP-> V (NP) (PP)(Advp)	Adj->big, red
Adjp-> (Adjp) Adj	Adv-> quickly
Advp-> Adv	Aux-> am, can
PP-> P(NP)	P-> to, from
	Det> this, the

by the lexical items. Essentially then it predicts that a grammar of any language is a combination of these Categorial rules and Lexical rules.

Some of the sentences in English that these rules will generate can be seen as under:

1) The girl likes John.

2) The big boy is sleeping.

3) John is coming from School quickly.

What is observed in 1)-3) that these sentences are not the mere summation of lexical items. Words have been selected by categories and these categories are combined hierarchically. This hierarchy is explained through a technical notion in syntax known as constituents.

3.12.4.1. Constituent

As (Carnie, 2002) puts it a Constituent is a group of words that functions together as a unit. In example 1) above, we can see that 'the' and 'girl' are closely related and they are capable of forming one unit. Likewise likes and John combines as a unit; john being the direct object of the verb. Let me show this structure in terms of a syntactic tree in 4).

4)   S
        eu
NP   VP
2   3
Det   N   V   NP
The   girl likes |
                         N
                         John
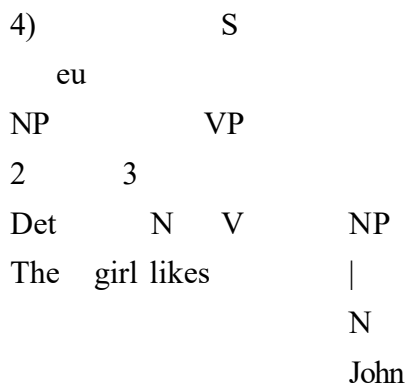
In order to determine the constituents (Bhatt, 2008) formulates the following principle:

A. A set of nodes can combine into a unit called as a constituent a common node exhaustively dominates them.

B. A is a constituent of B if B dominates A.

From 4) it can be said that a sentence is the highest level constituent noted here as S. S comprises of two constituents i.e. an NP and a VP. In turn the subject NP constituent is formed by combining two categories that is a determiner and a noun. The VP comprises of a category and another NP constituent.

3.12.4.2. Constituency tests

In the section above we noted that a set of nodes that are dominated by a single node is known as a constituency. Thus NP,VP, ADjP, AdvP and PPs are all called constituents and these constituents in various combinations ultimately form a bigger constituent known as S or sentence.

Now we turn to a discussion which will focus on how to decide a combination of nodes as a constituent. These tests are noted as tests for the constituency.

i)   Replacement test

If group words can be replaced by single word or lexical item then the group of words will qualify as a constituent. This test is called a replacement test.

5)   The big red balloon is flying high in the sky.

6)   It is flying high in the sky.

It can replace the entire unit The big red balloon in 5) the unit stands as a constituent namely an NP constituent.

ii)   Stand-alone or fragment test

If group words can be produced as an answer to a question, then that group of words can form one constituent.

7)   John ate at the rooftop view restaurant.

8)   Where did John eat?

The answer to 8) will be ate at the rooftop view restaurant but not *ate at or *ate at the. Hence, we can clearly say that at the rooftop view restaurant is a constituent.

iii) Movement test

If a group of words can be moved within a sentence then that will confirm the group as a constituent. There are three kinds of movement tests. i) Clefting which involves putting a string of words between It was (or It is) and a that at the beginning of the sentence.

9)   Mohan bought a new shirt

10) It is a new shirt that Mohan bought.

a)   Preposing or the so-called pseudoclefting) involves putting the string of words before a is/are what or is/are who at the front of the sentence.

11) A new shirt, Mohan bought.

b)   Constituency hood can also be attested through passivization. In the case of

passives, the subject NP and the object NP interchange positions and it can establish them as constituents.

12) A new shirt was bought by Mohan.

iv) Ellipsis test

Ellipsis test is widely used for the constituency hood of the VP. In this test, the VP is dropped from the second clause and replaced with did too/so. That is the reason this test is also called as did so test.

13) Subbarao went to the shop and Mohanty did it too (went to the shop).

14) Sita- ne ram ko bulawa aur gopi-ne vi (ram ko bulawa)

Sita-ERG Ram-ACC called and Gopi-ERG too

'Sita called ram and Gopi did so too.'

v) Coordination test

Coordinate structures are constituents linked by a conjunction like and or or. Only constituents of the same syntactic category can be conjoined e.g. an NP can be conjoined with another NP and a VP with a VP but say not with an AdjP.

15) [The woman] and [the man] went to the shop yesterday.

16) The woman [went to the shop] and [bought ice creams].

17) [The woman] and [*the grey] went to the shop yesterday.

18) [The woman] went to the shop and [*the purple].

3.12.5. Summary

- An immediate constituent is a word or a group of words that functions as a single unit within a hierarchical structure

- The Ultimate constituents are the smallest meaningful units which any construction/ utterance can be broken down to comprising of a morpheme at the level of a word and a word at the syntactic level.

- The process by which a sentence is analyzed into their component parts is known as IC analysis.

- In other words, the segmentation of a sentence as its immediate constituents by using binary cuts (two at a time) i.e., its ultimate constituents is called the immediate constituent analysis.

- A constituent is a group of words that functions together as a unit. NP, VP, ADjP, AdvP and PPs are all called constituents.

- If group words can be replaced by single word or lexical item then the group of words will qualify as a constituent. This test is called a replacement test.

- If group words can be produced as an answer to a question, then that group of words can form one constituent.

- In case a group of words can be moved within a sentence then that will confirm the group as a constituent. iii) Constituency hood can also be attested through passivization.

- Ellipsis test is widely used for the constituency hood of the VP. In this test, the VP is dropped from the second clause and replaced with did so too.

- Coordinate structures are constituents linked by a conjunction like and or or. Only constituents of the same syntactic category can be conjoined.

3.12.6. Learning outcome

I have started this module by providing a brief history of structural grammar and articulated the first-ever recognized syntactic analysis of sentences known as the immediate constituent analysis.

In this module, one is expected to learn the definition of the category and various views on how categorization is described by the linguists. Alongside, the notion of part of speech and the shortcomings of the traditional classification system is shown. The current view about categories and categorization draw much insight from the morphology of a particular language at one hand and syntax on the other.

This idea also has given prominence to the fact that sentences of any language are not a mere summation of words. Rather a group of words within a sentence acts like a unit which is called a constituent. Finally, some diagnostic tests are represented to prove the existence of the constituents in natural languages.

3.12.7. Problem sets

Try doing the IC analysis of the following sentences

1. An important aspect of IC-analysis in phrase structure grammars is that each individual word is a constituent by definition.

2. John said that Bill was not going for a movie

3. The man in the natty suit is going to give his lectures at the university tomorrow.

Challenge sets

1. Do you think IC analysis will prevail for the following

    a. Don't hit yourself!

    b. What constitutes you is a body of knowledge

2. By contrast, what do the following facts tell us about the parts of speech of leather and water:

    a) the leather

    b) the water

    c) the very leather couch (cf. the very red couch)

    d) the very water spout (cf. the very big spout)

    e) The more leather couch / *The leatherer couch (cf. the bigger couch)

    f) The more water spout.

3.12.8 Works Cited

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Unit 13 ❑ Transformation Generative Grammar

Structure

3.13.1. Introduction

The development of the enterprise of syntax has evolved in two major ways. On one hand, studies in syntax have focused primarily on language issues such as development of language over a period of time and data collected from the child language acquisition. On the other hand, the syntactic theories have grown due to the description of syntax and describing the natural language data. The latter has developed largely due to the notable works done by Noam Chomsky and his followers and often these generative theories have challenged the previous theories and caused paradigm shifts.

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3.13.2. Transformational Generative grammar

3.13.2. 1. Introduction

(Chomsky, Syntactic Structures, 1957) argued that any goal of a linguistic theory pertains to the segregation of linguistic utterances from ungrammatical utterances in a given language. The description of a natural language would be a formal descriptive theory which would contain a set of grammatical rules that could generate the infinite set of sentences of the language. Such a theory is called generative as its aim is to construct a device that would generate all and only the sentences of a language. The objective of generative grammar is to reflect the speaker's knowledge of how to produce and understand sentences, her linguistic competence. The goal of it is to specify the grammatical rules underlying the construction of sentence through the methods of evaluation procedure. Transformational grammar is an approach to the use of grammar involving a logical and analytical process to grasp the meaning behind the words selected. From this perspective, it goes beyond the process of structural grammar, which tends to focus on the proper construction of sentences as the device for communication. In order to understand the transformational grammar, one needs to understand the phrase structure (1957) as proposed by Chomsky.

3.13.2. 2. Phrase structure grammar

A phrase structure tree in transformational grammar is a diagrammatic representation of sentences distinguished by their syntactic characteristics. Thus we can divide sentences into verb phrases (VP), noun phrases (NP), prepositional phrases (PP) and so on. Most of the sentence structures in a language are governed by phrase structure rules. For example, sentences in English are governed by the rule that they should contain a Noun Phrase (NP) and a Verb Phrase (VP).

I. Rules

Phrase structure grammar assumes that any set of sentences can be generated by a finite state grammar. Phrase structure grammar is more powerful than finite-state grammar as they do everything that finite-state grammars do and more. Let us consider the sentence The boy likes the girl.

Now we can represent the structure of this sentence in the form of the following tree diagram:

(1)   S(entence)

3

```
        N(oun)P(hrase)        V(erb)P(hrase)
              3       3
              ART         N      V       NP
              |           |      |
              The         boy   likes     3
                                          ART        N
                                          |          |
                                          the        girl
```
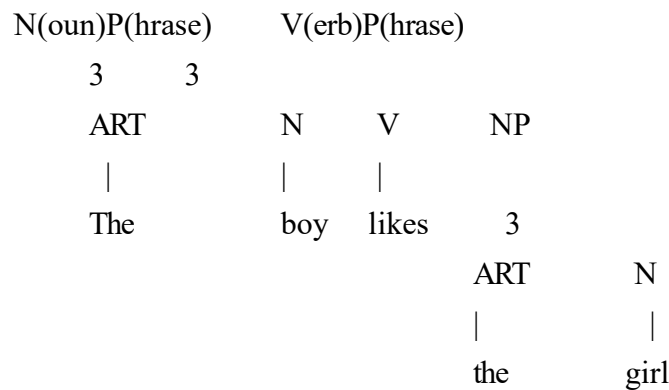
The above structural description of the sentence under consideration is called the Phrase Marker (PM) of the sentence. It shows how many different ways a sentence can be distributively analysed. A sentence comprises of a noun phrase and verb phrase and the verb phrase is again composed of a verb and another noun phrase. A noun phrase can be composed of an article plus a noun, and that among nouns are boy and girl.

It helps us to show which constituents belong to the same type and which to other types.

The grammar postulates that the structural description of a sentence depends upon a hierarchical classification of linguistic elements.

The aim of linguistic analysis According to (Chomsky, Syntactic Structures, 1957) is to separate out grammatical sentences from ungrammatical sentences. The goal of a structural grammar is not simply to account for an infinite number of sentences. This is the reason, Chomsky distinguishes between grammar and corpus of natural languages. A corpus is an arbitrary and accidentally selected set of utterances of a language. It is even possible that in a corpus one can leave out many interesting features of the language. In this sense, a description of a corpus is hardly a description of a complete language. (Khautn, 2003) has stated that Chomsky in Syntactic Structure had attempted to spell out the hollowness of such a mechanical device for discovering the grammar of a language, which is provided by corpus. The argument is a linguistic theory 'should be identified with a manual of useful procedures, and not to provide mechanical procedures for the discovery of grammar'. Secondly, grammar is not equivalent to semantics or meaning. Grammar should account for ungrammaticality and not anomaly. For example sentence 1) colourless green ideas sleep furiously is grammatical but semantically anomalous whereas 2) furiously colourless sleep ideas green is ungrammatical. A syntactic theory must explain the wrong derivation of 2).

(Chomsky, Syntactic Structures, 1957) posits that any phrase structure with certain rules can be considered as a derivation of a string. The rule will have the form X' Y, where X can be rewritten as another symbol or string of symbol Y. So the rule sentence -> NP + VP tells us that the symbol sentence can be rewritten as the symbols NP + VP. Any rule of this kind is said to be a phrase-structure rule (PS-rule).

Accordingly, the following PS-rule will allow us to derive the sentence like the following:

     1. Sentence → NP+VP

     2. NP → Art+ VP

     3. VP → V+NP

     4. ART → 'the,a,an'

     5. N → 'boy', 'girl', 'John'

     6. V → 'see,hit'

Following these rules, the sentence under consideration the boy sees the girl can be derived in the following way. The number of rule employed in the course of derivation is placed on the right.

Sentence

NP+VP	(1)
ART+N+VP	(2)
ART+N+V+NP	(3)
The +N + V +NP	(4)
The boy + V + NP	(5)
The boy + V +ART + N	(2)
The +boy + V +ART + N	(2)
The boy sees the girl	(6)

Now, it is important to point out here that the above derivation corresponds exactly to the derivation that we have in the PM of the sentence shown above. Given the rules stated just now, we are now in a position to define a grammatical sentence within the framework of a phrase structure grammar. Any utterance we obtain by applying PS-rules is called a string. A string is said to be well formed if all of its components traced back to the level sentence at the top of a tree diagram. The last line of a PM is called a terminal string. The boy likes the girl,! for example, is said to be a terminal string

as it is placed at the bottom of the tree diagram. A string is called terminal when there are no more PS-rules, which can be applied to the sentence.

A terminal string is said to be grammatical if and only if it is generated in accordance with the PS-rules of the grammar. Since the sentence under consideration is a terminal string of a PM, it is supposed to be a grammatical sentence being used in English.

As far as the position of the in terms of the PS-rules is concerned, we get two different types of a verb, viz., transitive verb and intransitive verb. A verb phrase may be composed either of a transitive verb together with a direct object noun, or simply of an intransitive verb.

Consider the structure John sneezes as below:

(2)   S

3

NP   VP

| |

N   V

| |

John   Sneezes
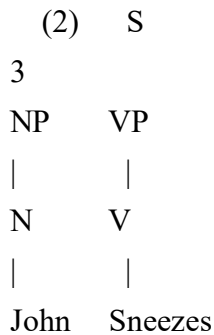
Secondly, a PS-rule is said to be context-sensitive in the sense that one symbol may be rewritten as another irrespective of what other symbols occur in the string to which the rules are applied. For example if there is an auxiliary in a sentence like 4) John is sneezing, we need to give the following structure to it in (3).

(3)   S

3

NP   Aux   VP

| | |

N   is   V

| |

John   Sneezing
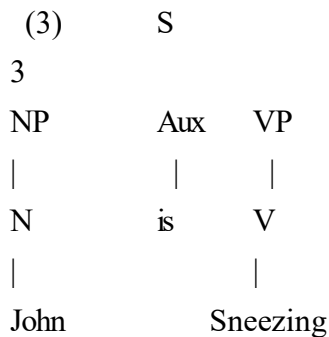
3.13.2.3. The Inadequacy of Phrase structure grammar

The Phrase structure Grammar potentially generates a large number of sentences, but it requires more rules for generating grammatical sentences. Let us consider a passive sentence to make this point clear. No PS rule can predict the generation of a sentence

such as Bill was hit by the rock. It is important to note that the formation of a passive sentence is based on a number of constraints, viz., the verb must be an intransitive one; the first NP must be the object of a transitive verb possessing a logical subject. We can say 'A student is admired by his teacher', but we do not say that 'A student is admired by his honesty'. In the passive form the verb is followed by by and occurs with a passive (-en/-ed/-d) morpheme.

Now if we consider the model of PS Grammar, we have to postulate rules and restrictions twice. We have to follow one set of rules when we derive active sentences; follow a different set of rules when we derive passive sentences.

For example, the sentence the girl was hit by the boy is the passive form of the boy hit the girl. The structure of the active sentence could be represented as- NP1 + V + NP2. In PS-Grammar, we have a rule which tells us of a sentence having that grammatical structure. It Shows the following grammatical structure in another sentence as NP2-+V+en - by NP 1

Thus we have a rule in PS-Grammar, which allows us to transform an active sentence into a passive one. This rule is said to be a transformation rule (T-rule). It helps us to transform one sentence into another. See a detailed description of transformational rules and grammar in 16.2.4.

Furthermore, there are many cases of ambiguous sentences for which a single analysis explicates incorrectness. The sentence, for example, the man saw the woman with the binocular is ambiguous as the sentence has more than one meaning. The ambiguity arises due to the possession of the binocular with either the man or the woman.

(Chomsky, Aspects of the Theory of Syntax, 1965) propagates a syntactic structure with two representational levels of deep structure and surface structure. He argues that these two levels reflect our intuitive understanding of sentence structure in natural languages. In the following sections, I will discuss the structure of Transformational grammar.

3.13.2.4. Structure of TG grammar

It is an approach to language analysis that establishes a relationship with the different elements in the sentence of a language and makes use of rules or transformations to recognize these relationships.

Transformational grammar describes the syntax (structure of phrase and clauses) with the help of transformational rules. It involves logical reasoning to understand fully the meaning of the selected words. Apart from the use of correct sentence structure, transformational grammar analyses the words or the lexical items with reference to its underlying thoughts.

3.13.2.5. Levels of representations

The transformational grammar involves two levels to represent the structure of sentences known as the "deep structure" and the "surface structure". The "deep structure" implies a more abstract form underlying the structure of a sentence. It is represented by a "phrase structure tree" in which the abstract relations between words and phrases of a sentence are depicted in a "hierarchical tree diagram". The "surface structure" refers to the actual form of the structure of a sentence used. Besides the two levels of sentence structure, transformational grammar consists of a body of formal rules that account for transforming the deep structures into the surface structures.

3.13.2.6. Mechanics of Transformational Grammar

Transformational grammar is used routinely to understand the grouping of words in a particular context. For example, look at the sentences, "John wrote a poem on the spring season" and "A poem on the spring season was written by John". According to Chomsky these sentences originate from a deeper and more abstract grammatical structure. Transformational grammar explains how actual sentences evolve by manipulating the common form of sentence structures. A number of different theories have since evolved but they are all based on the Chomsky's original theory of transformational grammar.

(Chomsky, Aspects of the Theory of Syntax, 1965) holds that there are three essential parts of grammar, namely, a syntactical component that generates and describes i) the internal structures of the infinite number of sentences of the language; ii) a phonological component that describes the sound structure of the sentences generated by the syntactical component, and iii) a semantic component which describes the meaning structure of the sentences. Likewise, a theory of language consists of three components, namely, the phonological, the grammatical (syntactic including morphological) and the syntactic phonology.

Syntactic phonology is the first step in learning a language. It is a description of how speakers vocalize language. The second step of learning language is grammatical. It is a description of its grammatical nature. The third step is semantic which is supposed to be a description of its meaning.

As stated that grammar operates at two levels deep and surface, these two levels require some explanation. The surface structure is the aspect of description that determines the phonetic form of sentences; while deep structure determines semantic interpretation. The rules that express

the relation of Deep and Surface structures in sentences are called Grammatical Transformation and hence the terms Transformational Generative Grammar.

Final Dummy [CPP] 13/02/2025

II.   Transformation Rules

T- rules may be categorized into four types. These are:

(i) Transformation by changing the place of the elements of a sentence. For example, for the generation of the sentence: The man slept:

```
      (4)   S
3
NP      AUX       V
 3       |       |
T               N   Past  Sleep
|        |
The          Man
```

```
                        OR
                        (5)     S
                        3       /
                        NP    V           AUX
                        3Sleep   ed
                        Art       N
                        |         |
                        The     Man
```
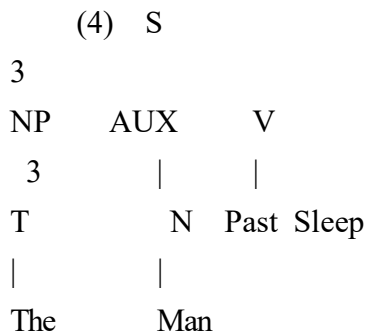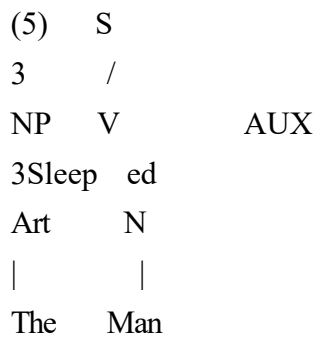
(ii) Transformation in terms of substitution.

Using a pronoun in place of a noun, Pro-verb in the place of verb, such as I like football, so does my child.

(iii) Transformation in term of deletion

For example, from John went to the school and Mary did so too, went to the school is deleted in the second clause.

(iv) Transformation in terms of addition

Introducing be+ in, by in the case of a passive sentence.

Chomsky (1957) cited in (Adetuyi & Fidelis, 2015) discussed the following five transformational rules:

i.   T and: This is the rule for conjoining two sentences of similar constituents, for example, consider the honest boy and the best girl will be rewarded.

ii. I nf: This is the transformational rule for deriving the correct form of the verb in a sentence. For instance, in the sentence? He has a book. "has? and not "have? is the correct verb.

iii. Tp: This is the transformational rule for deriving the passive sentences from the active forms. For example, Ade killed a goat will be a transformed to "A goat was killed by Ade.

iv. T not: This is the rule for forming the negative version of positive sentences. For example, He could eat the meat will have the negative form of "He could not eat the meat.

v. Tq: This is the rule for forming questions from positive sentences. For example, We eat our food. Do we eat food?

3.13.3. Further advances in Syntax

The major issue that remains unsolved is not every structure proposed in TG grammar was binary. Also, in the following two sentences, John arrived and John arrived in the evening, there was no mechanism to distinguish that the phrase in the evening is optional whereas arrive is not. Hence in the extended standard theory, Chomsky proposed a theory known as X-bar /X' Syntax.

XP
3
    X'
    3
 X'   ZP
        3
   X   WP
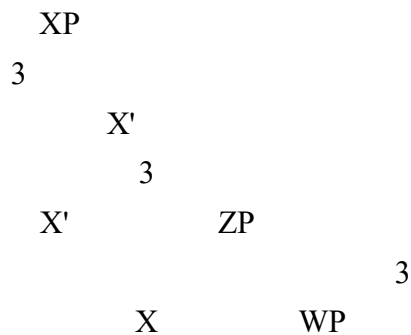
Here XP stands for any phrase call it Noun phrase, verb phrase or prepositional phrase. X is the main element of that phrase which can be projected twice maximum. The term Sentence was replaced by TP. Compare the following structure with the one given in (1)-(5) above.

(6)   TP
        3

```
NP                          T'
3       3
N'              T       VP
 |                      -ed      3
N                              V'
John                                  3
                                  V
                              arrive
```
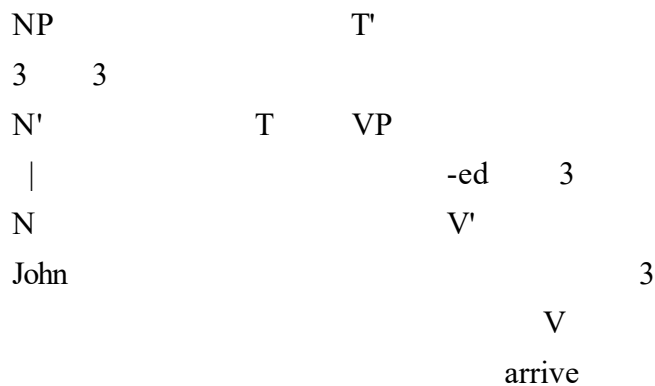
Another development we need to consider after X-bar syntax is its universal application to all the natural languages. This was proposed in the form of principle and parameter approach in 1979 by Chomsky. For example, a transitive clause requires minimally a subject, a verb and a direct object. Depending upon the positions of these, languages can be categorized into following types-

Consider the examples from (Whaley, 1996)

SVO

Bill likes Avengers   {English}

SOV

Bil avengers pochondo kore   {Bangla}

VSO

Bara Elohim et ha-shamayim   {Hebrew}

created God OBJ ART-heavens

'God created the heavens.'

VOS

Manasa lamba amin'ny savony ny lehilahy   {Malagasy}

washes clothes with.the soap the man

'The man washes clothes with the soap.'

OVS

Toto yahosiye kamara   {Hixkaryana}

man it-grabbed-him jaguar

'The jaguar grabbed the man'.

OSV

pako xua u'u   {Urubu}

banana John he. ate

'John ate bananas.'

In 1981, Chomsky proposed government and binding theory to give account for syntactic binding and case markers. The three binding principles are

i)   An anaphor must be bound in its binding domain

a.   John likes himself.

Here himself is an anaphor that is bound within the sentence by its antecedent John.

ii)   A pronoun must be free in its binding domain.

a.   John likes him

The pronoun him and John cannot refer to the same person.

iii) An R-expression must be free in its binding domain.

a.   Sita likes Fatema

Proper nouns like Sita and Fatema cannot corefer and indicate the same person.

The latest trend in syntactic theory is known as the Minimalist program (1995). Language is considered as part of our cognitive system and comprises of a computational system. The phrases are formulated by two major operations known as merge and move.

3.13.4. Summary

I have started this module by giving a general introduction to TG grammar. The approach is distributed over two modules PS rules and TG rules which have been discussed in two subsequent sections. Given the shortcomings of PS, TG rules once became important to understand the syntax of natural languages. However, newer approaches in syntax have also evolved through substantial research and I have discussed major milestones such as extended standard theory, principle and parameter approach, GB theory and minimalist programme.

3.13.5. Learning outcome

You are expected to learn the basics of syntax and work out the sentence structures of natural languages in terms of transformational grammar.

3.13.6. Possible problem sets

1) Describe the shortcomings of IC analysis

2) Do you agree with the glitches shown in PS rules?

3) Draw trees of the following structures from the structures given in (1-5)

    a. The big red book is kept under the table

    b. I am the teacher

    c. Jon is a carpenter

    d. Maria laughs loudly

    e. The dog jumps high

3.13.7. Works Cited

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Module 4

Phonetics

Unit 14 ❑ Transformation Generative Grammar

Structure

4.14.1. Introduction

4.14.2. What is Phonetics, Organs of Speech, Phonemes

    4.14.2.1 What is Phonetics

        4.14.2.1.1 Articulatory System: Physiological Basis of Sounds

    4.14.2.2 Organs of speech

        4.14.2.2.1 Articulatory phonetics

        4.14.2.2.2 Airstream mechanism

        4.14.2.2.3 Phonations

        4.14.2.2.4 Strictures

4.14.3 Phonemes

4.14.4. Exercise

4.14.1. Introduction

In this module, an outline of phonetics will be presented with a special reference to the English language. We will discuss in detail the scope of phonetics in studying the speech sounds used in English. More specifically, an outline of phonetic concepts will be given here to explicate the practices followed in defining as well as representing the speech sounds of English. This discussion will help in understanding the fundamental concept of 'phoneme' which is defined as the smallest meaningless unit of a language. Since our articulations are not monotonous, we will discuss the 'stress' and 'intonation' with a reference to the syllable.

4.14.2. What is Phonetics, Organs of Speech, Phonemes

4.14.2.1 What is Phonetics

Phonetics is the scientific study of speech sounds. The word 'phonetics' is originally derived from Modern Latin phoneticus meaning "representing vocal sounds". Phonetics studies only those vocal sounds which are used in communicating thoughts through speech.

A sound which is produced with the help of the speech organs during the speech to communicate thoughts is recognized as a speech sound. Speech sounds are produced by the articulatory system. They travel the distance between the speaker and the hearer through the medium of air as a sound wave. On reaching the ear, the sound wave gets translated into a complex electro-chemical wave. These three events which take place successively in a speech event provide the essential basis for studying the phonetic aspect of speech from three different but interrelated perspectives (Fig. 1):
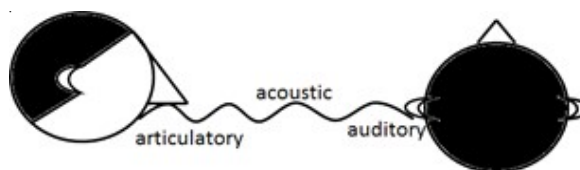
Figure 1: Different aspects of speech

A speech sound is decomposable into a complex system of representations from three distinct perspectives, namely, (i) articulatory, (ii) acoustic, and (iii) auditory. Needless to say, the first and the third perspectives are physiological, whereas the second one is physical in nature. Investigation of speech sounds from these three perspectives seeks to invoke different sets of concepts. Here in this module, we will focus on the articulatory phonetics primarily with occasional mentions of acoustic and auditory phonetics. Therefore, by the term 'phonetics', if not specified otherwise, 'articulatory phonetics' will be referred to.

4.14.2.1.1 Articulatory System: Physiological Basis of Sound

Articulatory system consists of organs of speech. These organs can be discussed structurally and functionally. The structural descriptions are useful in understanding the relevant parts of the human physiology crucial in the production of the speech sounds; whereas the functional descriptions are crucial in understanding the contribution of each of these organs in distinguishing different sounds on the basis of certain attributes.

4.14.2.2 Organs of speech

Production of speech sounds depends on the generation of the airstream. In most of the cases lungs are used to generate the airstream. This stream of air, while moving in the upward direction in the windpipe, also known as trachea, reaches the larynx - a box-like area made up of thyroid cartilage. Inside this bony cage, vocal cords or folds are situated. The passage through the vocal cords is known as glottis.

Both the windpipe and the food-pipe (esophagus in the picture) open up in a common area called laryngo-pharynx. In this area, one can notice epiglottis which works as a valve to regulate the flow of the air through the windpipe as a protective measure against the food particles. Laryngo-pharyngeal region leads us to the (oro)pharynx region which is then divided into two passages through which air can flow: These two passages are known as the oral cavity and the nasal cavity. In between these two cavities lies the palatal region as the divider.

Tongue is a muscular body kept inside our mouth on its floor. It is divided into five different parts namely (i) the root of the tongue, (ii) the back of the tongue, (iii) the front of the tongue, (iv) the blade of the tongue, and (v) the tip of the tongue. The root of the tongue is the region just above the epiglottis. Remaining parts of the tongue are identified with reference to the different parts of the palatal region - the roof of the oral cavity: The part of the tongue opposite to the soft palate region is the back of the tongue. Note that soft palate, i.e. velum, ends in uvula which plays a crucial role in controlling the flow of air through the oral passage and the nasal passage. The region opposite to the hard palate is known as the front part of the tongue. Before the frontal part and just opposite to the alveolar ridge lies the blade of the tongue. The tip of the tongue is known

Figure 2: Organs of Speech

as apex. Towards the anterior part of the mouth, we have teeth and lips. Inside the oral cavity, the structures belonging to the roof are classified as upper articulators as opposed to the structures belonging to the floor are classified as the lower articulators. Upper articulators are passive articulators and the lower articulators are active articulators.

4.14.2.2.1 Articulatory phonetics

The most significant aspect of speech sound is its production through the use of organs creating the stream of air capable of causing fluctuations in pressure. Articulatory phonetics discusses three aspects of sound productions:

(i)   airstream mechanisms (ASM),

(ii) Phonation,

(iii) Stricture.

4.14.2.2.2 Airstream mechanism

Lungs are selected as the primary generator of air stream due to its capacity in generating ingressive and eggressive air streams during respiration. Unlike respiration where nasal passage is predominantly used for streaming the air, both or any one of the oral and the nasal cavities are used as passages of the air in case of producing the speech sounds. Besides lungs, glottalic as well as the velaric regions are also used in producing the air streams. Therefore, three different types of airstreams mechanisms are involved in the production of different types of speech sounds. These three different types of airstream mechanisms are (i) pulmonary airstream mechanism, (ii) glottalic airstream mechanism, and (iii) velaric airstream mechanism. Primary classification of any speech sound is done on the basis of the identification of the air stream mechanism involved in its production.
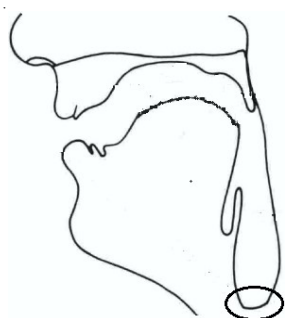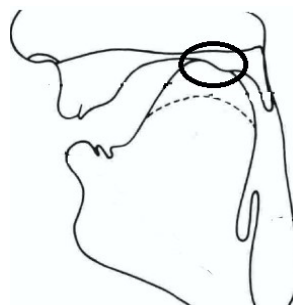
Glottalic Closure   Velaric Closure

Figure 3: Closures in Non-pulomonary Airstream Mechanism

Depending on the directions, i.e. in-coming or out-going, each of these airstreams can be classified further as ingressive and eggressive. Speech sounds are predominantly produced by the eggressive airstream mechanisms. In English, we use pulmonary eggressive air-stream mechanism to produce speech sounds.

4.14.2.2.3 Phonations

After its production, an air stream attains the eligibility of getting modified in the supra-pulmonic region of the vocal tract. Just below the epiglottal region lies larynx. Inside the bony cage of larynx two muscular flaps, with an ability to interfere with the airflow through it, are kept. These flaps are known as vocal cords as well as vocal folds. The passage through the vocal cords or the vocal folds is identified as glottis. During the production of the glottalic airstream mechanism, glottis remains closed by the vocal folds. Tightly held vocal folds, then, can act as the piston either to suck the air inside the mouth or to expel air out of the mouth through its downward or upward movements, respectively. Beside its role in producing the air stream, it can modify the air stream generated by the pulmonary air stream mechanism by adding certain features, like voiced, creaky etc., to the stream of the air. These features are clubbed under the cover term of phonation which is crucial in secondary categorization of sounds. While producing sounds, vocal cords can organize themselves in five different ways, resulting into five different phonation types: (i) closed glottis, (ii) open glottis, (iii) vibrating glottis, (iv) murmur and (v) whisper. In case of English, we will focus primarily on two glottis positions, namely, open and vibrating.

Open glottis

Vocal cords are kept wide apart to prevent the provision of any blocking during the release of air through the glottis.

Figure 4: Open glottis

The glottis is open in case of unvoiced or voiceless sounds like /p/, /t/, /k/, /s/, /?/, /?/, /f/, /?/ etc.

Vibrating glottis

In this state, vocal cords are kept together in a manner that the air stream can pass through it. During the release of the air stream, the vocal cords vibrate. This vibration results into the attribution of voiced property to the air stream.

Figure 5: Vibrating vocal cords

The vibrating glottis is characteristic in the production of voiced sounds like /b/, /d/, /g/, /z/, /ʔ/, /ʔ/, /v/, /ʔ/ etc. Note that vowels, nasals, laterals and rhotic sounds are voiced. During their articulation vocal cords remain in vibrating state.

4.14.2.2.4 Strictures

Final modification of the air stream is done in the supra-glottalic or better to say in the supra-epiglottal region. Through the creation and the release of the constriction in the supra-epiglottal region or the characteristic regional narrowing, a series of compression and rarefication is induced to the air stream. Each speech sound has its characteristic pattern of compression and rarefication. To form a constriction or a stricture two different articulators are required - one of which are selected typically from the set of upper articulators and the other from the set of the lower set of articulators. Upper articulator is often considered as the passive articulator in contrast to the lower articulator recognized as active articulator. Upper articulators are upper lip, upper teeth, upper teeth ridge, hard palate, soft palate, uvula and pharynx; whereas the lower lip and the tongue act as the lower articulators. Strictures can be classified on the basis of the closures they formed: (a) closed, (b) approximant, and (c) open. Voiced sounds are formed with the closed or nearly closed strictures, whereas unvoiced sounds are produced with open strictures. Sounds like /j/, /l/ etc. are produced with approximant strictures. In the following unit, the sounds of English language are given along with their place and manner of articulations and constriction types.

4.14.3 Phonemes

Till now, we have discussed the frame of reference with respect to which a particular sound segment of a language is described and classified. The application of this referential framework will be shown in detail in Unit 18 below. Here in this section, we will try to draw an important distinction between the phone and the phoneme. Phones are the concrete speech sounds. Say for example, if Sumedha and Hasnara both articulate the speech sound /k/, then we will get two distinct phonetic realizations of two distinct k-sounds. Both of these two instances of /k/ will be identified as two distinct phones. Phones are written within the third brackets, and are useful in narrow transcription to capture the articulated sounds with greater degree of precision. In contrast to the narrow transcription, we use broader tran-

/k/   phonemic level description

[k̟]   [k]   phonetic level descriptions
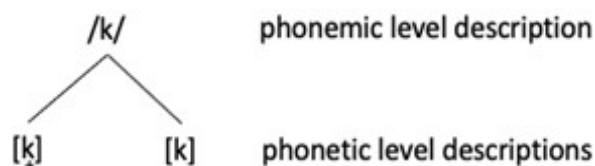
Figure 6: -etic vs. -emic level representations

scription to capture the necessary and sufficient features of a sound segment. Slanted lines are used to do the broad transcription.

Unlike phones, phonemes are written within the right-aligned slanted lines. At the level of phonetics, phones might have differences mainly because of the differences in the individual speech behaviors. However at the phonemic level, differences which are contingent are ignored to attain a higher degree of generality in terms of the necessary and sufficient features. Otherwise, the issue of mutual intelligibility will remain a problem. Going back to our example: let's assume further, that the variety of /k/ produced by Sumedha in comparison the variety of /k/ produced by Hasnara is more fronted. That means, Sumedha used to produce /k/ sound from a place which is anterior than the place used by Hasnara to produce /k/ sound. To capture this specification at the phonetic level a small '+' sign is put just beneath the /k/ produced by the Sumedha. This finer grain analysis is important to distinguish individual speech habits. But to address the issue of mutual intelligibility, one needs to keep aside those specifications which are contingent on the context. At the phonemic level representation, we talk about the phonemes. The phonemic inventory of a language contains information about those segments which are distinct from each other to the extent that their appearances in a speech play a crucial role in bringing out the differences in meaning. Going back to our example, now: At the phonetic level, for the word 'kit', here in this case, we will have two distinct phones for /k/ sound because of the individual variations. But this in no way changes the meaning of the word 'kit'. In a situation like this, it will be argued that both the varieties of the /k/ sound are in complementary distribution. And, therefore, they will be considered as two different allophones of a single phoneme /k/ as is shown in figure 10. In comparison to the complementary distribution, if we found two segments such that in an identical environment, their appearances are crucial in bringing out the semantic differences of the resultant forms, then those two segments will be in contrastive distribution. They will not be in allophonic relation and will be considered as the representatives of two distinct phonemes. Compare the words 'kit' /k?t/ and 'bit' /b?t/: Both, [k] and [b] appear in same phonetic environment, i.e. [__?t]. And, the resultant forms, i.e. [k?t] and [b?t] refer to two distinct semantic concepts. Therefore, [k] and [b] will be the representatives of two distinct phonemes, i.e. /k/ and /b/. Under this situation, then, one can define phoneme as a class of phonetically similar phones which are in complementary distribution. The branch of linguistics which deals with the concept of phonemes and phoneme inventory of different languages are known as phonology. Unlike phonetics, phonology is language specific. This essentially means that the allophonic relations vary from one language to another language. For example, [p] and [ph] are in complementary distribution in word initial position when followed by a stressed vowel; therefore, they are the allophones of a single phoneme /p/. Contrarily, [p] and [ph] in Bengali are the two allophones of
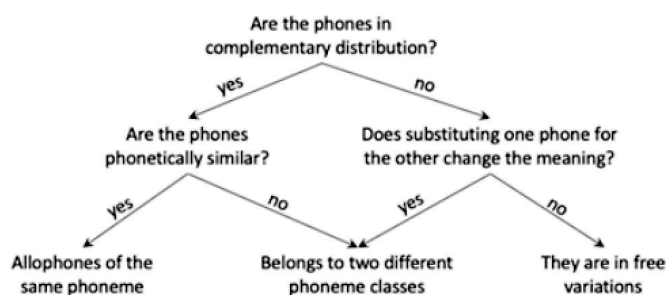
Figure 7: Classifying a phone

two distinct phonemes, namely /p/ and /ph/, because of being in contrastive distribution.

If it happens that variations are not phonologically explained in terms of the complementary and contrastive distribution, then those variations are considered as the free variations. Free variations are often explained in terms of certain extralinguistic factors. For example, consider the Bengali words [kag] and [kak] for 'crow'. Since the substitution of [g] in the word final position of [kag] with [k] is not resulting in any meaning alteration, both [k] and [g] will be considered as the two allophones of a single phoneme. In other words, they are in complementary distribution. This is contrary to the phonological knowledge of the Bengali language - because both of them show contrastive distribution. Example, [kal] 'tomorrow' vs. [gal] 'cheek'. Therefore, these two sounds cannot be considered to be in complementary distribution. These types of situations are often classified as free variations. The type of free variation we have discussed just now can be explained in terms of sociolinguistic parameters - such as [kag] is used by the people of central/north Kolkata whereas [kak] is used in south Kolkata.

4.14.4. Exercise

   (i)   Describe the organs of speech with the help of a diagram.

   (ii)   How is articulatory phonetics different from the acoustic and auditory phonetics?

   (iii) What are the different types of airstream mechanisms? discuss them with help of the diagrams.

   (iv) What is stricture? How is stricture crucial in producing sounds? How strictures can be classified into different types?

   (v)   What is phoneme? How is the phonemic status of a phone determined?

   (vi) Distinguish complementary and contrastive distributions. What is free variation?

Unit 15 ❑ English Consonants and Vowels

Structure

4.15.1. Introduction

In this module, we will discuss the sounds of the English language, with an emphasis on their productions, to show how they are classified in different categories depending on the place and manner of articulations. In doing so, we will show how organs of speech remain salient in this process of defining and classifying English sounds in different classes.

4.15.2. Classification of English Speech Sounds

4.15.2.1. Classification of English speech sounds from the viewpoint of place of articulation

English speech sounds can be classified in terms of their places and manners of articulation. While classifying the sounds, following few things need to be kept in mind:

(i) Which articulators are used to form stricture?

(ii) Where are the strictures formed?

(iii) How are the strictures formed?

Answers to the first two questions result in an understanding of the place of articulation

and the answer to the last question is useful for an understanding of the manner of articulation. In the next page, the discussion on the English speech sounds is given in a tabular form (Tab. 1), from the viewpoint of the places of articulation.
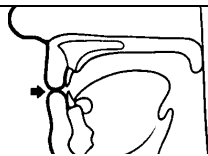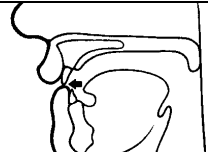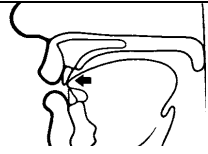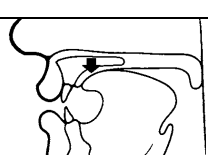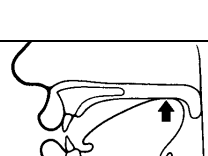
sounds	place	articulators	diagram
/p/ as in *pin*, /b/ as in *bin*	bilabial	Upper and lower lips	
/f/ as in *fin*, /v/ as in *vein*	labiodental	Upper teeth and lower lip	
/θ/ as in *thin*, /ð/ as in *this*	dental	Upper teeth and tip of the tongue	
/t/ as in *talk*, /d/ as in *done*, /s/ as in *soon*, /z/ as in *zoo*, /n/ as in *not*, /l/ as in *lip*	alveolar	Alveolar ridge and either tip or blade of the tongue	
tʃ / as in *cheap*, /dʒ/ as in *joy*, /ʃ/ as in *sheet*, /ʒ/ as in *measure*	palato-alveolar	Alveolar, palatal regions and tongue	
/k/ as in *kin*, /g/ as in *goose*, /ŋ/ as in *king*,	velar	Soft palate and tongue	

Table 1: Closed stricture

Unlike the above-mentioned sounds produced with the closed strictures, the sounds represented in table 2 are produced with approximate strictures:
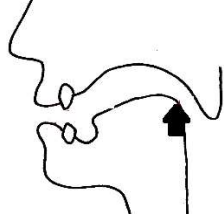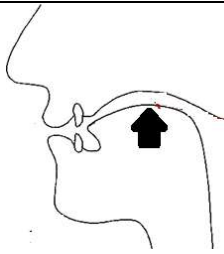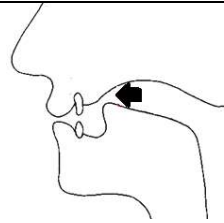
sound	place	articulators	diagram
/w/ as in *weep*	Velar	narrowing of the region inside the oral cavity with the raising of the back of the tongue towards the soft palate	
/j/ as in *you*	Palatal	narrowing of the region inside the oral cavity with the raising of the front of the tongue towards the hard palate	
/r/ as in *rest*	Post Alveolar	narrowing of the region inside the oral cavity with the raising of the tip of the tongue towards the alveolar ridge so that it can vibrate rapidly against the alveolar ridge	
/h/ as in *hall*	glottal	Closed approximation as against the open approximation of the sounds listed above. Note, here the difference is of degrees.	

Table 2: Approximant stricture

Note, when in closed stricture, completely closed obstacles are formed to increase the pressure, an arrangement for the continuous release of the air stream through a narrow opening is confirmed in case of the approximants. The patterns of air streams required to produce a sound are determined by the type of oral cavity internal configuration of the passage by the articulators. Unlike consonants, we do not create strictures while producing vowels. Hence, they are produced with open strictures:

| [i] as in *inn*, [e] as in *met*, [æ] as in *cat* |
| [ʊ] as in *could*, [ə] as in the first vowel of *about*, [ʌ] as in *hut*, |

Table 3: Open stricture

The vowels of the first row in comparison of the vowels of the second row are relatively more anterior. Unlike the consonant system, the vowel system is discussed in terms of front~back and high~low parameters. Tongue body plays a crucial role in categorizing the vowels in different categories. In each row of table 3, as we move from left to right, height of the tongue body is lowered; whereas across the rows as we move from top to down the orientation of the raised tongue body changes from front to back.

4.15.2.2. Classification of English speech sounds from the viewpoint of manner of articulation

As is mentioned earlier, another way of classifying speech sounds is manners of articulation. According to the manners of articulation, sounds can be classified in following categories: (i) plosives, (ii) nasals, (iii) trills, (iv) taps, (v) fricatives, (vi) affricates, (vii) approximants.

(i) plosives

During the production of the plosive sounds, both upper and lower articulators are kept together tightly. This results into the building up of the air pressure behind the stricture. With the sudden opening of the stricture the pressurized air released with explosion through the oral cavity. The examples of plosive sounds are: [p, b, t, d, k, g].

(ii) nasals

While producing nasals, one follows the manner similar to the plosives' one with an exception of releasing air stream from both oral and nasal cavities. English has the following nasal sounds: [m, n, ?].

(iii) trills

Trill sounds are articulated with a vibrating lower articulator against the upper articulator. Unlike plosives, here in this case, the pressurized air is realized with a series of explosions inside the oral cavity. Example of trill sound is [r] in English

(iv) tap

In certain dialects, tap [?] sound is available. While articulating a tap sound, the tongue hits alveo-palatal region with the lower part next to the tip or the apex.

(v) fricatives

Unlike plosives, in case of fricative sounds air stream is continuously released through a small opening along the midline of the oral cavity while holding the lateral sides of the lower articulator tightly against the upper articulator. During the release of the air friction takes place resulting into a hissing effect. English has following fricative sounds: [f, v, ?, ?, s, z, ?, ?]. In certain dialectal form [x] is also available.

(vi) affricates

Affricates are produced with the help of complex articulatory processes. During their articulations, manners of articulating plosives and fricatives are simultaneously performed. In English, following two affricates are available: [?] and [?].

(vii) approximants

During the articulations of the approximants, no strictures are formed. Both the articulators come closer to each other without resulting into the complete closer of the air passage. Example, [r] as in rest. Two other approximants are [w] and [j].

Unlike the consonants, vowels are classified in terms of (i) the tongue height and (ii) the orientation of the height of the tongue body inside the oral cavity. Height of the tongue body is measured in terms of its getting raised or lowered from its neutral positions. Note, (ii) is crucial in parametric classification of the vowels oriented towards either front or back. In Table 3, while exemplifying the sounds produced with open stricture, few vowel sounds are mentioned. Here is a diagrammatic representation of English monophthongs along with a picture to show the basis of the frame of reference with respect to which basic vowels are distributed in the vocoid space:
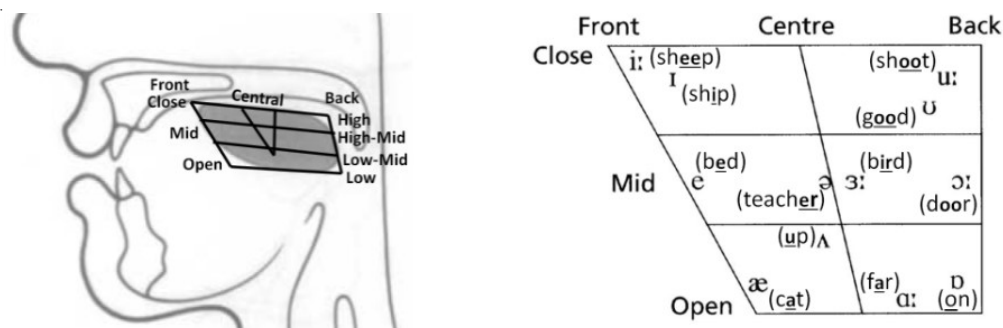

Figure 8: Vocoid Space as the frame of reference for English monophthongs

Monophthongs are not the only vowels that we have in English. We also have diphthongs - which are often considered as the result of the complex articulations. Few such instances are shown in Figure 11.
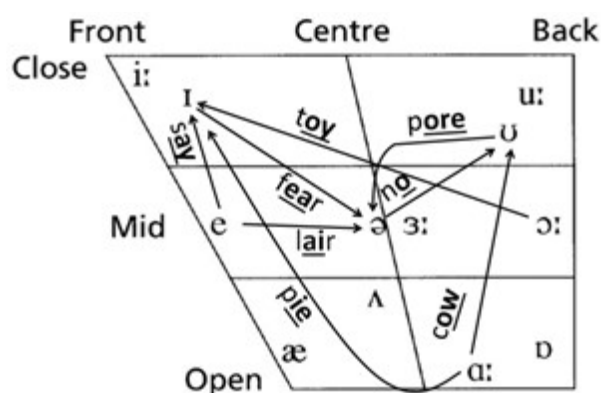
Figure 9: dynamic articulations and English diphthongs

Combinations of consonants are known as consonant clusters and combinations of vowels are discussed under the headings of the diphthongs, triphthongs etc. Note that all combinations are not legitimate in a language. Legitimate combinations are discussed in phonotactics.

4.15.3. Exercise

(i)   What are the different parameters for classifying sounds of the English language?

(ii)   Distinguish following English sounds in terms of their respective phonations and strictures: [d], [ʃ], [i], [n].

(iii) How English phonemes can be classified into different categories from the viewpoint of places and manners of articulation?

(iv) How are diphthongs different from the monophthongs? Discuss the productions of diphthongs with examples drawn from the English language?

Unit 16 ❑ Syllable Division, Stress and Intonation

Structure

4.16.1. Introduction

Till now, we have restricted our discussion to the sound segments of the English language. This type of discussion falls within the scope of the segmental phonology. When these segments are stringed together following certain conventions of the English language, the string results in word. These strings of sounds now can carry information of stress. The concepts of intonation, stress is discussed in suprasegmental phonology with a reference to the syllable.

4.16.2. Suprasegmental phonology

Unlike the segmental units of a language, as is discussed above, a supra-segmental unit remains extended across the segment size units. Suprasegmental units are instrumental in indicating the emotional engagement of the speaker. These units are often crucial in bearing certain types of communicative intentions. For an understanding of suprasegmental phonology, a grasp of syllable and prosody is must.

4.16.3. Syllables

A unit of a speech which can be pronounced with a single effort initiated by the airstream mechanism is known as syllable. A syllable consists of one vowel which may or may not be preceded or followed by consonants following the phonotactic constraints of a language. For example, [???gl??] 'English' is a disyllabic word. Note the syllable break is shown with [?]. In both the syllables [?] remains the nucleus. The position preceding the nucleus is identified as onset; whereas the position following the nucleus is coda. Nucleus and coda jointly form rhyme. In case of the first syllable of 'English', onset remains empty and the coda position is occupied with [?]. The onset position of the second syllable contains a consonant cluster [gl] and the coda position is occupied by [ʃ].
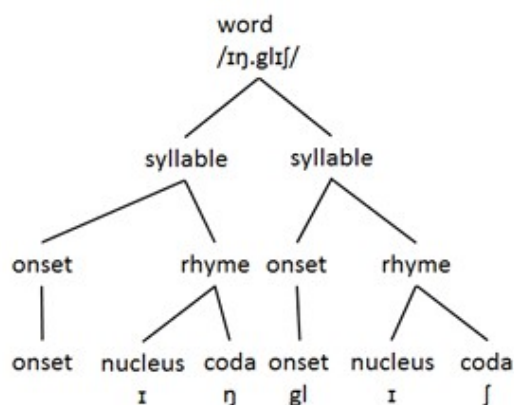

Figure 10: Structure of 'English'

English can have different types of syllable structures. They are as follows:

syllable structure	examples
V	a, etc.
CV	two, to, etc.
VC	an, in, etc.
CVC	cat, bat, etc.
CCV	stay, three, tree, etc.
VCC	act, etc.
CCVC	trip, stop, etc.
CCCVC	strip, etc.
etc.	

Table 4: Syllable structure in English

If a syllable ends with a vowel then it will be categorized as open syllable (ex. two) - otherwise, the syllable will be categorized as closed (ex. at). If a word or morpheme is made up of one syllable then the word will be classified as monosyllabic (ex. cat, in, etc.). Words or morphemes with more than one syllable are known as polysyllabic (ex. friendly, cataract etc.).

4.16.4. Stress

To emphasize certain portion of speech wave, the speaker often modulates the pitch pattern, or the length, or the loudness involved with the speech wave. This is known as stress. More specifically, stress is a way to highlight certain portion of the speech phonetically to draw the attention of the hearer while communicating speaker's intention. Stress can be of two types, namely word/lexical stress and sentence/prosodic stress. Changes in stress pattern often result into the changes in the meaning. For example, if the first syllable of 'august' is stressed then it would mean the eighth month of the

Georgian calendar; otherwise, it would refer to something grandeur or dignified. Sentence or prosodic stress also results into the change in meaning.

I didn't write this letter. (Someone else wrote this letter)

I didn't write this letter. (I did something else)

Word stress can be of two types, namely primary stress and secondary stress. To mark the primary stress a diacritic ['] is used as superscript just before the stress bearing syllable. For secondary stress a diacritic [,] is used as subscript just before the stress bearing syllable. Consider the following example: [?kæ??g????u:].

4.16.5. Exercise

(i) What is supra-segmental phonology?

(ii) Discuss the structure of syllable with examples drawn from English language.

    (i) What is stress? How is stress useful in communicating speakers' intentions in a conversation?

4.16.6. Intonation

Suprasegmental phonology is not confined to the discussions of stress and syllables only. Sounds are stringed together to form the words and words are put together to form the sentence. Relative saliences of the different parts of a word are discussed in terms of the stress. And the relative saliences of the different parts of the sentence are discussed in terms of the intonation. This unit is dedicated to the discussion of intonation.

4.16.7. Intonation as the changing pattern of the speech

Intonation of a speech form is often measured in terms of the changing pattern of the pitch. The rise and fall of pitch across a speech signal are useful in cuing the speaker's intention relevant to the corresponding speech act. Following the convention of the International Phonetic Alphabets, rising and falling intonations are represented with [↗] and [↘]. Another way to capture intonation is given below:
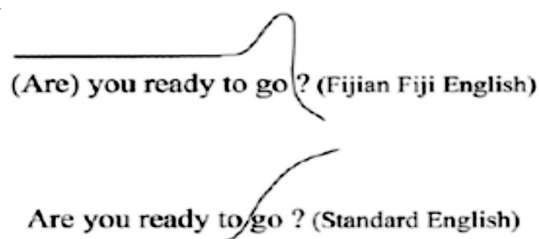

Figure 13: Intonation patterns for yes/no questions in Fijian and Standard English (from Tent and Mugler (2008: 249))

Intonation is thought to have different functions during communication. These functions are attitudinal function, grammatical function, focusing function, discourse function, psychological function and deictic function.

4.16.8. Accent

Accent is a distinct way of pronouncing thought with language. Accent may vary from one geographical region to another geographical region. American way of pronouncing is quite different from the British one. And, it is due to their respective accent systems. Note accent wise differences are not restricted to the phonetic aspects only - it includes phonology, morphology, and syntax as well. For our purpose, we will concentrate only on those aspects which are strictly phonetic in nature. Difference in accent can be noticed both at the level of sociolects as well as at the level of ideolects. We will concentrate on the sociolect level.

The differences in British and Amerian accent are well-studied. Rhoticity is one of the major feature along which American accent differs from the English accent: It is noticed that American accent preserved the rhotic sounds like [r] and [r]-colored vowel (i.e. [?]) before the consonants and the syllable final position. For example, hard and singer are pronounced in American English as [h??d] and [?s???] in contrast to the British English pronunciations [h??d] and [?s???]. Flapping of [t] and [d] is also frequent in American English: latter and ladder are pronounced in American English as [?læd?] or [?læ??] whereas [t] and [d] remain intact in their corresponding British articulations.

In case of Indian English, the influence of vernaculars seems to be significant in determining the accent. Rhoticity is retained in Indian English. Distinction between [?] and [??] are no more retained. Diphthongs [e?] and [??] are reduced to [e:] and [o:] respectively. Unlike 'native' English, unaspirated unvoiced plosives prefer to remain unchanged. Alveolar [t] and [d] are transformed into [?] and [?] respectively. Besides these, there are several other peculiarities which make Indian English unique.

4.16.9. Exercise

(i) What is Intonation? Do you think intonation plays a crucial role in conveying meaning? - Provide evidences in support of your answer to this question.

(ii) Distinguish intonation from accent?

4.16.10. Summary

Here in this module, we have discussed the fundamental concepts of phonetics with a special reference to the English language. Phonetics of the sounds of the English language is discussed primarily from the viewpoint of articulatory phonetics. In articulatory phonetics, a speech sound is discussed in terms of its pace of articulation and manner of articulation. Two other parameters, such as phonation and airstream mechanisms are useful in distinguishing sounds. The discussion of phonetics is not restricted to the study of individual sounds only. One also needs to know how these sounds are combined together to form complex phonological units like syllables. The basic structure of a syllable is discussed in terms of onset, nucleus and coda. Syllables are significant from the viewpoint of the assignment of the stresses. Syllable and word level suprasegmetal phonology is further augmented with the discussions on intonation and the accent.

4.16.11. Comprehensive questions

(i) Describe the speech sounds of the English language from the viewpoint of the place of articulations.

(ii) How are the speech sounds of the English language categorized on the basis of their respective manners of articulations?

(iii) What is a syllable? How is the syllable structured? Which types of syllable structures are available in the English language?

(iv) Distinguish stress, intonation and accent.

4.16.12. Suggested readings

● Carr, P. (2013). English Phonetics and Phonology: An Introduction. Wiley-Blackwell.

● Jain, C. Classification and description of Speech Sounds: English Consonants. UGC MHRD e-PGPathshala.

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