

Course: Linguistics I

The study of language

PART I

UNITS 1 TO 10

PRODUCER: Dr. Hasan Iravani

(Shahriar Center)

Number of slides: 186

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Unit (1) The origins of language

- The divine source
- The natural sound source
 1. Bow-wow theory: Onomatopoeia
 2. Yo-heave-ho theory

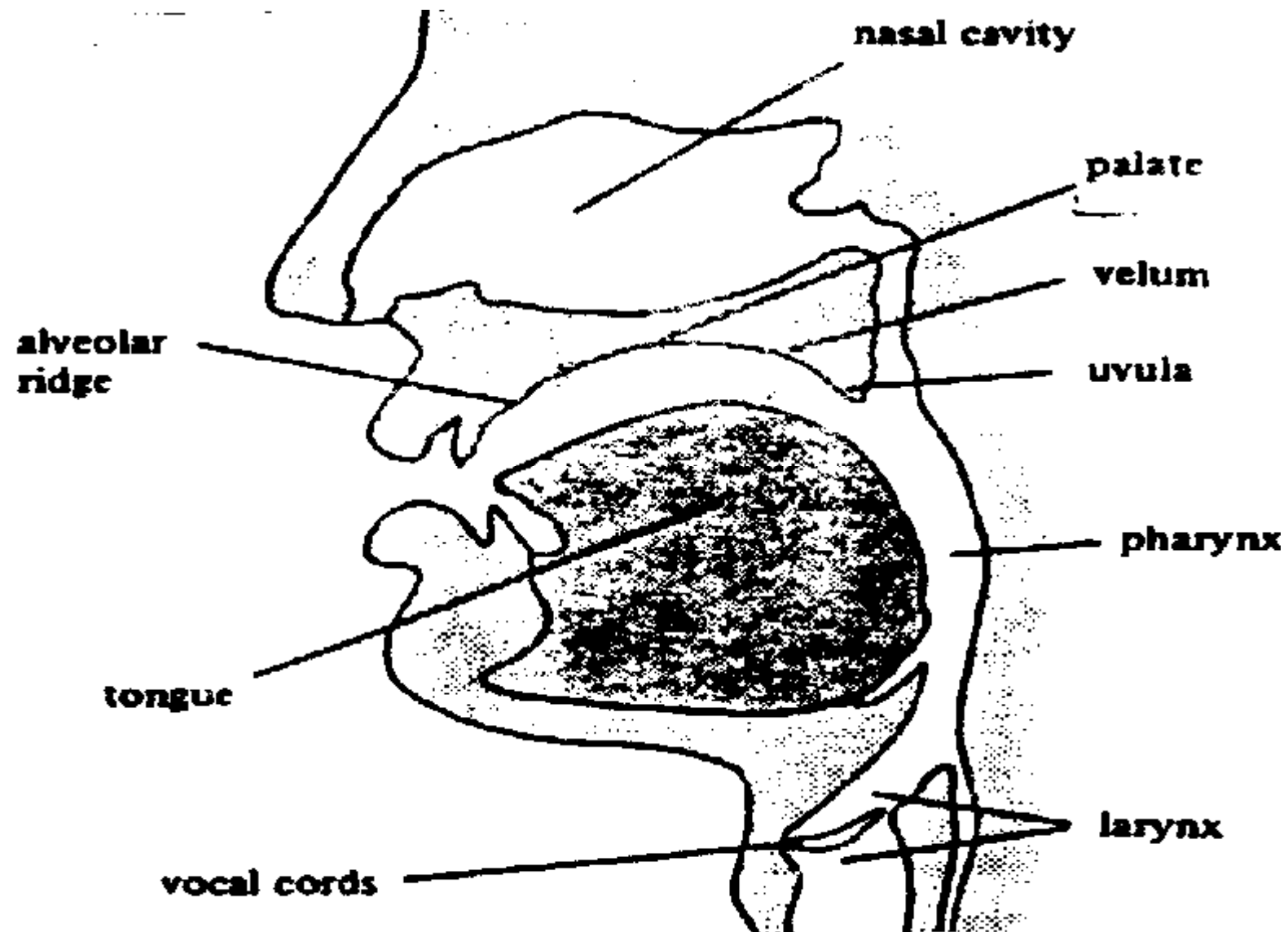
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- Oral-gesture source (pantomime)
- Glossogenetics (specific biological reforms unique to human beings)

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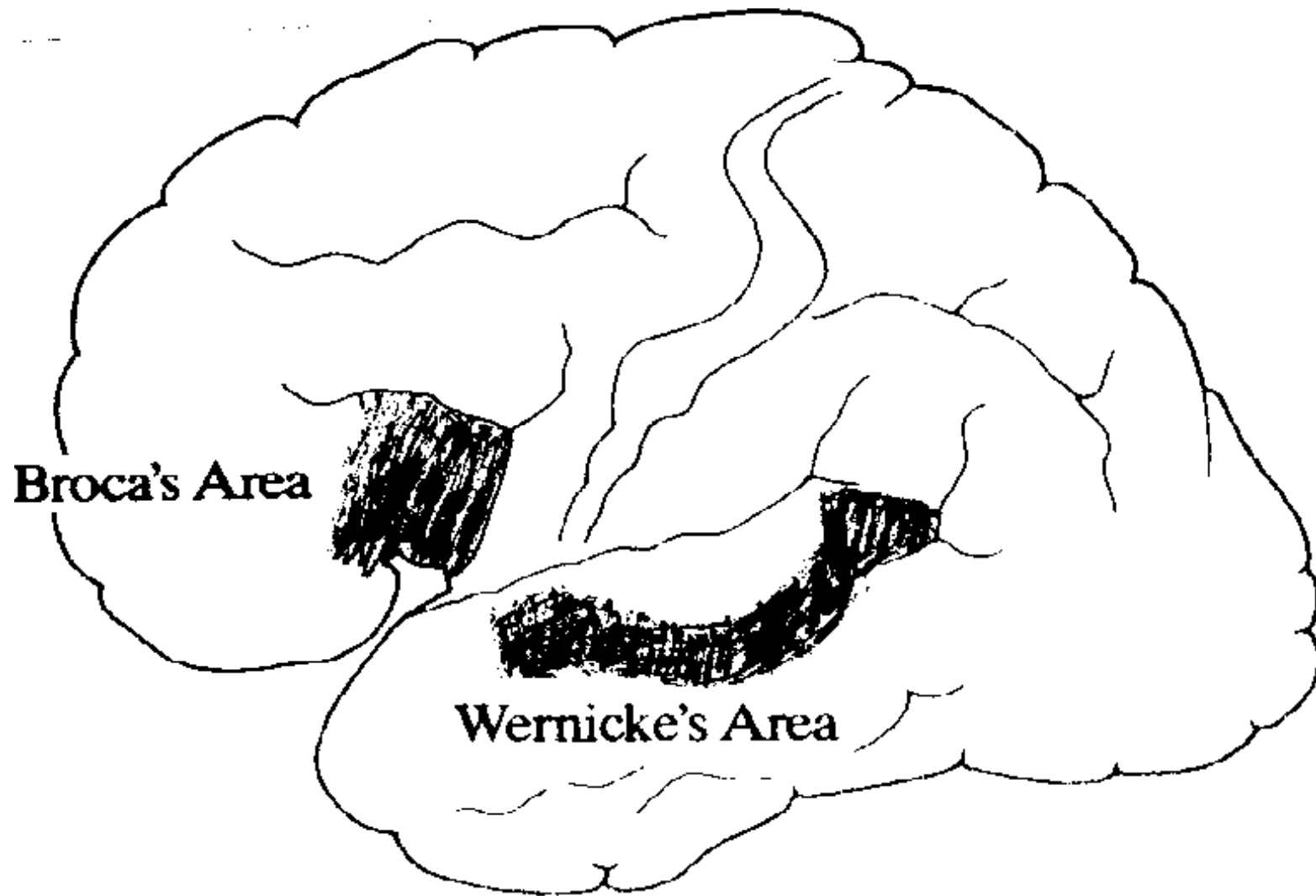
Physiological adaptations such as:

1. Upright teeth, intricate lips, small mouth and flexible tongue
2. Lower larynx (voice box) leading to a longer cavity (pharynx)



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- Lateralized brain: specialized functions in each of the two hemispheres
- ✓ Analytic functions-*tool using and language*-in the left hemisphere



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Linguistic functions:

1. Interactional function-social and emotional interaction
2. Transactional function-transfer of knowledge and information

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Unit (2) animals and human language

Chimpanzees and language:

1. Washoe (Ameslan/Gardeners)
2. Sarah (plastic shapes/Premacks)

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3. Lana (Yerkish/Rumbaugh)

4. Nim Chimpsky(Ameslan/Terrace)

Other animals and using signals:

5. Hans

6. Buzz and Doris

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7. Sherman and Austin
(Yerkish/Rumbaugh)

8. Kansi (Yerkish/Rumbaugh)

- Gardners tried to teach American Sign Language to Washoe. Ameslan has all the properties of a human language. Washoe enjoyed a natural comfortable home environment.

- In three and a half years she learned signs for 100 words and connected them to make simple two word sentences and some sentences were novel (productivity).

- She understood much larger number of signs than she produced (very normal in first and second language learning).

- She maintained rudimentary conversations.
A similar development was also reported
for a gorilla named Kako.

- Premacks taught Sara to use a set of plastic shapes which could be arranged to represent words.

- Sara learned to associate these shapes` with objects and actions. The symbols are arbitrary, no natural connection between symbols and meanings.

- Finally she learned to use symbols to make sentences and understand complex structures.

- Rumbaugh was taught a language called Yerkish which consisted of a set of symbols on a large keyboard linked to a computer.

- Sara and Lana's ability was to use logographic codes and symbols very similar to humans.

- The point is that they could use symbols without knowing the words. They used 'please' without knowing its meaning and without knowing that the sentence could be used without please.

- Nim Chimpsky was named after Noam Chomsky. Nim was `taught Ameslan. Nim could produce single and double word forms.

- Unlike human child, Nim did not start conversation and repeated the trainer's signs.

- Terrace: Both Washoe and Nim just repeated the trainer's signs. This learning may only be the result of stimulus (the reward) and response (repeating signs).

- Hans, Buzz and Doris also showed the similar linguistic development which is the result of conditioned or conditional learning: Stimulus Response

- The result: the animals could show a sort of human like linguistic behavior but the level of performance is not comparable to a human child of the same age.

- The idea of ‘using language’ is not very clear either. A child’s babbling is considered language but an animal’s two word sentence made by signals is rejected as a linguistic form.

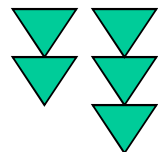
- We may cast doubt on Chomsky's idea that considers language species specific (specific only to humans).

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Unit (3) the development of writing

1. Pictograms 

2. Ideograms 

3. Logograms-cuneiform 

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Chronological order:

Pictographic system idiographic
system logographic system
phonographic system

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Phonographic systems:

1. Rebus writing
2. Syllabic writing
3. Alphabetic writing

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Written vs. spoken English:

Letter a in: agent, father, pad, above

Sound [u] can be represented in:

do, boo, two, new, you, true

The properties of language

This chapter is not present in the third edition but it is highly recommended for your general knowledge and MA exam

- Communicative signals versus informative signals:
 - ✓ Intentionality (reciprocity) vs. unintentionality

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Unique properties of human language:

1. Displacement
2. Arbitrariness
3. Productivity

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4. Cultural transmission

5. Discreteness

6. duality

- Displacement: It allows us to speak about things and events not present in the immediate environment.

- Arbitrariness: there is no natural connection between a linguistic form and its meaning. DESK could be used to refer to a “dog” and DOG could be used to refer to a “desk”.

- Productivity: Children are capable of producing totally new utterances and adults make new words for new inventions and events.

- Cultural transmission: language is passed on from one generation to another. Although some scholars believe in a sort of genetic disposition to acquire language, it is clear that they learn to produce the actual words and sentences in the society: Nature & Nurture

- Discreteness: sounds are meaningfully distinct. Men and pen are two distinct words although 'm' and 'p' are not very different. Humans can distinguish such minute differences.

- Duality (double articulation): at one level we have distinct sounds and at another we have distinct words so that with a limited number of sounds we can produce unlimited number of words.

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Other less reliable properties:

1. The use of vocal-auditory channel
2. Reciprocity
3. Specialization
4. Non-directionality
5. Rapid fade

- Like many other animals, humans use their voice and ears` to transmit meaning. And communication is almost always reciprocal in the sense that there is reader/write or speaker/listener.

- Linguistic forms are specialized and are not used for other purposes.

- Non directionality means that linguistic signals can be heard and understood by anyone in the nearby environment. Rapid fade means that those signals disappear very quickly/

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Unit (4) the sounds of language

Phonetics:

Why do we need phonetic alphabet?

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Because of: Lack of one-to-one
correspondence between letters and
sounds in English:

Letter a can be have different sounds
as in: agent, father, pad, above

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Vowel [u] can be represented in:

do, boo, two, new, you, true

Consonant [f] can be represented in:

Fat, photo, enough

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Phonetics:

- Articulatory phonetics
- Acoustic phonetics
- Auditory or perceptual phonetics
- Forensic phonetics

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- Articulatory phonetics: how speech sounds are articulated or produced.

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- Acoustic phonetics: physical properties of speech sounds as waves.

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- Auditory (perceptual) phonetics: deals with the perception of sounds through ears.

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- Forensic phonetics: application of phonetics in legal environment, identification and analysis of recorded utterances.

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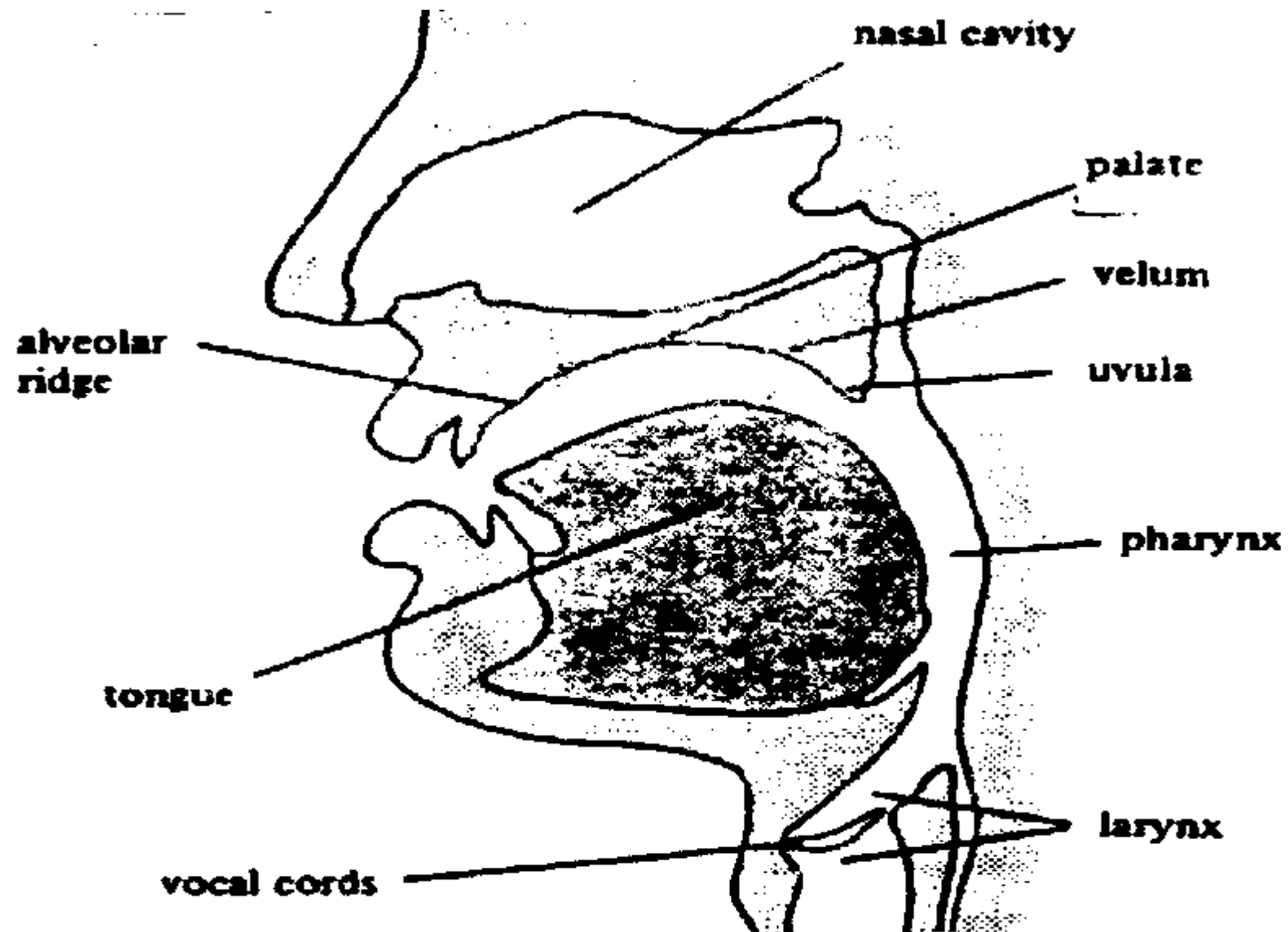
Articulation:

1. Voiceless sounds: spreading vocal cords leading to little or no vibration(- voice)

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2. Voiced sounds (+ voice)

- In voiced sounds (all vowels and some consonants) the vocal cords are not far apart and they are drawn together creating a vibration effect.



- How are the following sounds are different?
- [p] [b]
- [s] [z]
- [t] [d]

- The first column consists of – voice sound while the second column includes + voice ones.

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- You can feel the vibration in your head while producing [z, d, b] by closing your ears with your hands while producing them or by touching your Adam's Apple in your neck.

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Place of articulation:

1. Bilabials: two lips involved

[b],[m] = voiced

[p],[w] = voiceless

We have lip rounding in [w]

2. Labiodentals: upper teeth and lower lip are involved (try to feel it)

[f] = voiceless; [v] = voiced

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3. Dentals (interdentals):

[] = voiceless; [] = voiced

Tongue tip behind the upper front teeth

Interdental: tongue tip between the upper and lower teeth

4. Alveolars:

[t],[s] = voiceless

[d],[z],[n],[l],[r] = voiced

Front part of the tongue on the
alveolar ridge(the tough bumpy
part behind your upper teeth

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5. Alveo-palatal:

[š], [] = voiceless (front-palate)

[ž], [] = voiced (front-palate)

[y] = voiced (mid-palate)

Tongue at the very front of the palate,
the hard part behind the alveolar ridge

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6. Velar:

[k] = voiceless; [g], [ŋ] = voiced

Back of the tongue against the velum
which is a soft area behind the hard
palate (feel it with your tongue)

7. Glottal:

[h] = voiceless

‘glottis’ is the space between vocal cords in the larynx. [h] is produced when the glottis is open.

- Place of articulation concerns the position of articulation of sounds. We can describe them as to how (manner) they are articulated.

- This is important so that we can make distinctions for the sounds put in the same category in the previous slides.
- [t] and [s] are both voiceless alveolar sounds but how do they differ?
- [t] is a ‘stop’ while [s] is a ‘fricative’

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Manner of articulation:

1. Stops:

[p],[t],[k] = voiceless

[b],[d],[g] = voiced

- For stops we have complete stopping of the airstream and then letting them go suddenly.
- Try to pronounce [p] and feel the stopping and sudden release.

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2. Fricatives:

[f],[θ],[s],[š] = voiceless

[v],[ð],[z],[ž] = voiced

We block the air stream and have the air push through a narrow opening to make a friction like noise.

Try to pronounce [s]. Do you hear the snakes around!

3. Affricates (a stop + a fricative):

[] = voiceless; [] = voiced

A brief stopping plus an obstructed release.

- [] is the combination of [t] and [š]
- while [] is the combination of [d] and [š]
- In both we have a stop + a fricative

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4. Nasals:

[m],[n],[ŋ] = voiced

Here the velum is open and the air is allowed to go through the nasal cavity.

- When we catch cold the velum can not be open and all + nasal sounds become denasalized. “the man came home” is pronounced as the /bad keb hob/

5. Approximantes:

[w],[y] = semivowels or glides (+ V)

[l],[r] = liquids(+ V)

[h] = voiceless

- [w, y] are sometimes called semi-vowels or glides because they are produced with the tongue gliding to or from the position of a nearby vowel.

- [l, r] are sometimes called liquids.
In [l] we have the air move through sides of the tongue. In [r] we raise the tongue tip and curl it back behind the alveolar ridge.

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6. Glottal stop:

[ʔ]

The glottis (the space between the vocal cords) is closed completely then released as in the middle of oh-oh and Batman.

- Try to produce a glottal stop by saying butter or bottle without pronouncing the –tt- in the middle.

7. Flap:

Represented by [D] or [r] symbols

Some Americans pronounce butter
as budder.

The tongue tip touches the alveolar
ridge for a moment.

- Some Americans flap middle *t* or *d* between vowels so that in casual speech *latter* and *ladder* or *writer* and *rider* are almost equal in pronunciation.

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Diphthongs: a vowel + a glide

Varieties of English (accents)

- These combined sounds can be found in **my**, **cow**, **boy** (the sounds after the consonants m, c and b).

- In diphthongs, we move from one vocalic position to another as in [ay] in ‘my’. You begin with ‘a’ and end in ‘y’.

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Unit (5) The sound patterns of language

Phonology vs. Phonetics

Phonemes vs. allophones

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- Phonology is the description of the systems and patterns of speech sounds in a language.

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- Phonetics was discussed in the previous chapter.
- Phonology is concerned with the abstract or mental aspects of the sounds rather than with the actual physical articulation. Phonology is more concerned with sounds which help distinguish meanings.

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- Phonology is concerned with distinctive features. Each phoneme is considered as consisting of a group of these features.

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- Each phoneme is different from another in at least one feature.
- Phonology also deals with how sound patterns are affected by combining words: /givim/ for ‘give him’

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- Phonology also discusses intonation patterns (rising in yes/no questions and falling in statements and *wh*-questions).
- Some scholars use phonology as another term for Phonemics.

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Broad vs. narrow transcription

In broad transcription we do not include phonetic differences which do not make minimal pairs: /pɪn/

This is also called phonemic transcription.

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- In narrow transcription we do include finer and detailed distinctions as in [p^hm]
- Here superscript ^h represents aspiration in English which does not make a minimal pair.

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Assimilation as in seen with
nasalized [i]

همگونسازی: شنبه پنبه

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- Input as /input/
- Bet you as /be u/
- Would you as /wu u/
- This year as / IŠer/

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Minimal pair: ship & sheep; pick & peak

We can find the number of phonemes of a language by minimal pair.

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- Short and long /i/ in English are two different phonemes since they make two meaningful words as in /šip/ and /ši:p/

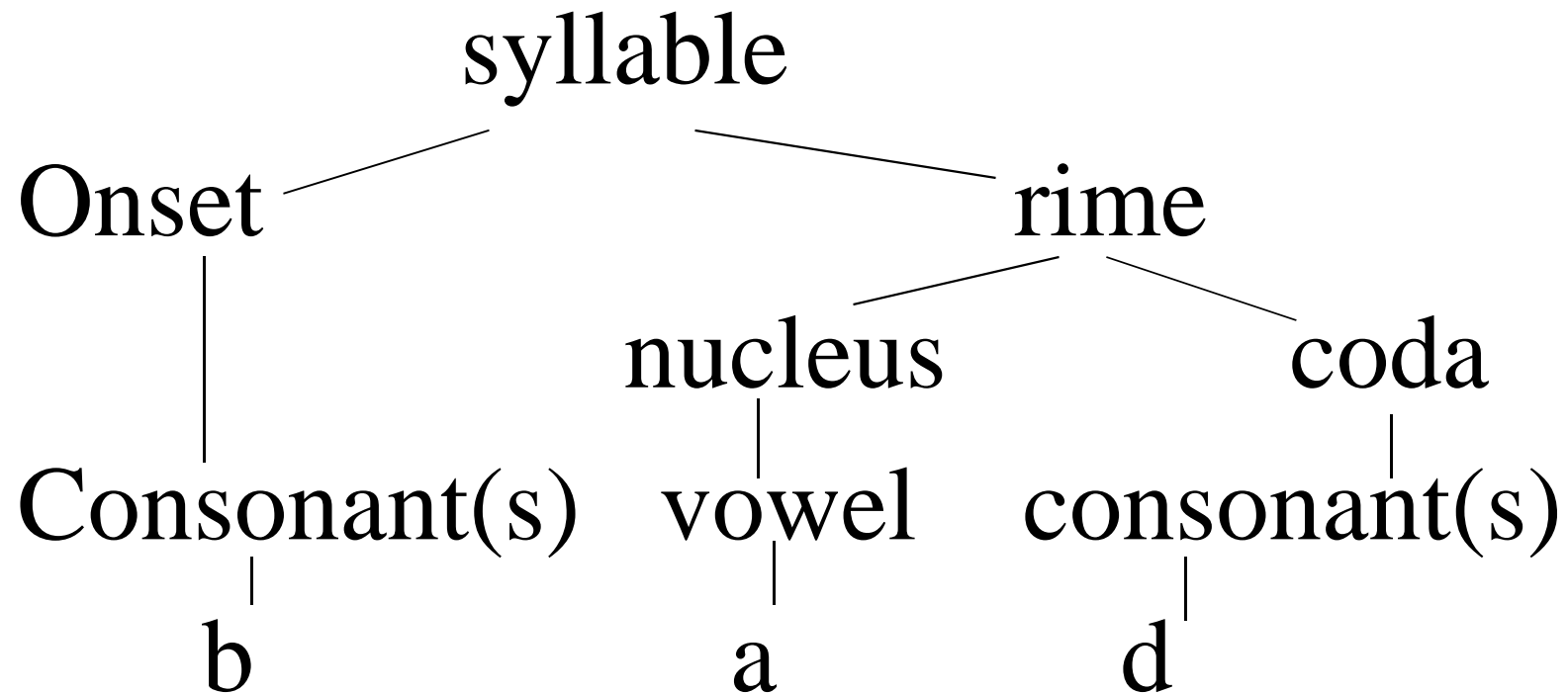
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- But in Persian short and long /i/ can never make a minimal pair.
- For example /pir/ and /pi:r/ are not different.
- So in Persian we have one phoneme as /i/ while in English we have two morphemes as /i/ and /i:/.

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Minimal set: pit, pat, pot, pet, and
put

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Open syllables vs. closed syllables:

Syllables like *me* have an onset and a nucleus but no coda. They are ‘open’ syllables.

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- When a coda is present as in *cup* and *hat*, they are ‘closed’ syllables.

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Consonant cluster (C + C) as in:

Black, bread, twin (C + /l,r,w/)

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CCC: **stress**, **splat**, **square**:

S + voiceless stops /t,p,k/

+ approximants /r,l,w/

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Co-articulation effects:

1. Assimilation as in seen with nasalized [i]

همگونسازي: شنبه پنجه

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- In assimilation two phonemes occur in sequence and some aspects of one phoneme is copied by the other.

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2. Elision as in:

friendship [frenʃIp]

Aspects [æspeks]

Blind man [blaymæn]

We asked him [wiæstIm]

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- The deliberate omission of a sound segment for the purpose of facility and ease in pronunciation. The main purpose is biological. We try to use less energy.

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Unit (6) Words and word-formation processes

1. Coinage

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- Coinage is the invention of totally new terms. This is one of the least common processes.

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- *Nylon* and *kleenex* were first used as brand names; later they were used for similar products (from narrow to broad meaning).

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2. Borrowing (loan-translation or calque)

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- Borrowing means taking words from other languages.
- Alcohol (Arabic), yogurt (Turkish);
- lilac (Persian)

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3. Compounding

4. Blending

5. Clipping

6. Back formation (Hypnecorism)

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- Compounding is joining two words to make one:
- *Bookcase, sunburn, wallpaper*

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- Blending is taking the beginning of one word and adding it to the end of another:
- *smog* from smoke and fog
- *Brunch* from breakfast and lunch

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- Clipping: when a word of more than one syllable (doctor) is reduced to a shorter form (doc).
- Fax from facsimile
- Fan from fanatic
- Gas from gasoline
- Auto from automobile

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- Backformation: a reduction process by which a word of one type (noun) is reduced to a word of a different type (verb).
- Television televise
- Donation donate
- Babysitter babysit

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7. Conversion

8. Acronyms

9. Derivation (affixes)

And multiple processes

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- Conversion: a change in the function of a word-when, for example, a noun, without any reduction, is used as a verb.
- Paper (n) paper (v)
- Butter (n) butter (v)
- Vacation (n) vacation (v)

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- Acronym: words made from the initial letters of a series of words (the purpose is to have an easier use so that we can save energy and time).
- NATO
NASA
UNESCO

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- Derivation: the most common word formation process developed by adding prefixes and suffixes (affixes). In some languages they also have infixes.

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Disrespectful

Pre

Suf

Fool**ishness**

pre1+pre2

Misrepresentations (one prefix and
two suffixes)

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- In the production of a particular word, multiple processes might be at work. In the sentence ‘the problems have snowballed’ first ‘snowball’ is made by compounding and then conversion process has changed it into a verb.

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Unit (7) Morphology

- Morphology is the basic elements used in a language. Literally it means the study of forms and initially it was taken from biology.

Morphemes:

A morpheme is a minimal unit of meaning or grammatical function.

A morpheme can be free or bound.

Free morphemes can stand by their own. They can be **lexical** or **functional**.

Lexical free morphemes form the content words or the open class of words: Nouns, verbs, adjectives and adverbs.

- Functional free morphemes include function words: conjunctions, prepositions, articles and pronouns.

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Bound morphemes can **derivational**
or **inflectional**.

- Derivational ones are used to make words of a different part of speech from the stem.
- ‘Good’ as an adjective changes to ‘goodness’ as a noun.

- Inflectional morphemes do not change the part of speech; they modify aspects of a grammatical function.
- Sisterss; Sister's
- Baking, Worked, taken, takess
- Younger, youngest

Problems in morphological
description:

What is the inflection that makes
‘went’ ‘men’

If ‘al’ is the derivation of legal, leg
should be the stem, but it isn’t.

- Since a large number of forms come from Latin and Greek, so in English morphology historical influences and borrowed elements should be taken into consideration.

Morphs and allomorphs:

Morph is the actual form realizing morpheme. ‘Cats’ consists of two morphs, realizing a lexical and an inflectional morpheme.

- Plural morpheme has at least three realized versions or **allomorphs** in /bʊks/, /hɛnz/ and /bɛn ɪz/ for ‘books’, ‘hens’ and ‘benches’. Past tense morpheme in /wɜːkt/, /kleɪmd/ and /ləndɪd/ for ‘worked’, ‘claimed’ and ‘landed’ has three allomorphs.

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Unit (8) phrases and sentences:
Grammar

Three levels of description:

1. Phonetic level
2. Morphological level
3. Syntactic level (grammar)

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Types of Grammar:

1. Psychological view
2. Sociological view
3. Linguistic view

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- Psychological or mental grammar is the subconscious knowledge of grammar in the mind of a native speaker.
- Sociolinguistic view deals with what considered to be ‘proper’ grammar or ‘best’ grammar that can be found in books.

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- Linguistic perspective deals with study and analysis of the structures of a particular language.

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The parts of speech:

Content words: Nouns, adjectives,
verbs, adverbs

Function words: prepositions,
pronouns, conjunctions

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Traditional grammar, traditional
categories:

Agreement, number, person, tense,
voice, and gender (natural or
grammatical)

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The problems of traditional analysis

Approaches to Grammar:

1. Prescriptive approach (traditional)
2. Descriptive approach (modern)

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- Prescriptive grammar deals with the ‘proper’ grammar only found in grammar books and very formal sermons.

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- Descriptive grammar is the kind of grammar we find in everyday and casual speech that is considered ‘wrong’ in prescriptive grammar. ‘It is me’ is correct according to descriptive version but in prescriptive version we should say ‘It is I’.

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Immediate constituent rules:

The approach is used to show how small constituents or segments go together to make larger constituents.

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- You can show the constituents by bracketed sentences (pages 95 and 96) or three diagrams (chapter 10).
- $[s[Np[Art^{t}the] [N^{N}dog]] [vp[v^{v}followed] [Np[Art^{t}the] [N^{N}boy]]]]$

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Unit (9) Syntax

Generative grammar:

Noam Chomsky (1950s)

Generative grammar is an explicit grammar trying to present the set of rules that lead to well formed sentences

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- The rules are similar to what we find in mathematics.
- With limited number of rules (negation, questioning,) and limited number of words, you can make an unlimited number of sentences.

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- This ideal grammar should generate all and only well formed sentences. It has a finite (limited) number of rules to generate an unfinite number of sentences (productivity).

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- This grammar has the capacity of recursion. Rules can be recurred again and again as in ‘This is the dog that chased the cat that killed the rat that ate the maze that ...’

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Now try to define these properties:

1. 'All and only' criterion
2. Productivity
3. Recursion

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Deep and surface structure

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The two sentences ‘Jack killed the cat’ and ‘the cat was killed by Jack’ are superficially different-different in **surface structure**.

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- But they are the same at an underlying level. That is, the deep structure where the basic components shared by the two sentences can be represented. This is the level of abstraction.

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- This abstract level is called deep structure level that happens to be in the native speaker's mind.

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Paraphrases

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- The active and passive forms of the previous sentences are paraphrases of each other.

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Paraphrases have distinct surface structures but rather identical deep structures.

Surface 1

Surface 2



Deep structure

The diagram consists of two diagonal lines. One line starts from the bottom of 'Surface 1' and extends downwards and to the right. The other line starts from the bottom of 'Surface 2' and extends downwards and to the left. These two lines converge towards a central point positioned directly above the text 'Deep structure'.

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- In structural ambiguity we have one surface structure with two or more deep structures. ‘Mary fed her lion meat’ has two meanings.

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- In the first interpretation, *her* and *lion meat* are two objects, but in the latter interpretation *her lion* and *meat* are two objects.

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- In 'flying airplanes can be dangerous', *flying* can be the adjective for airplanes or the gerund acting as subject.

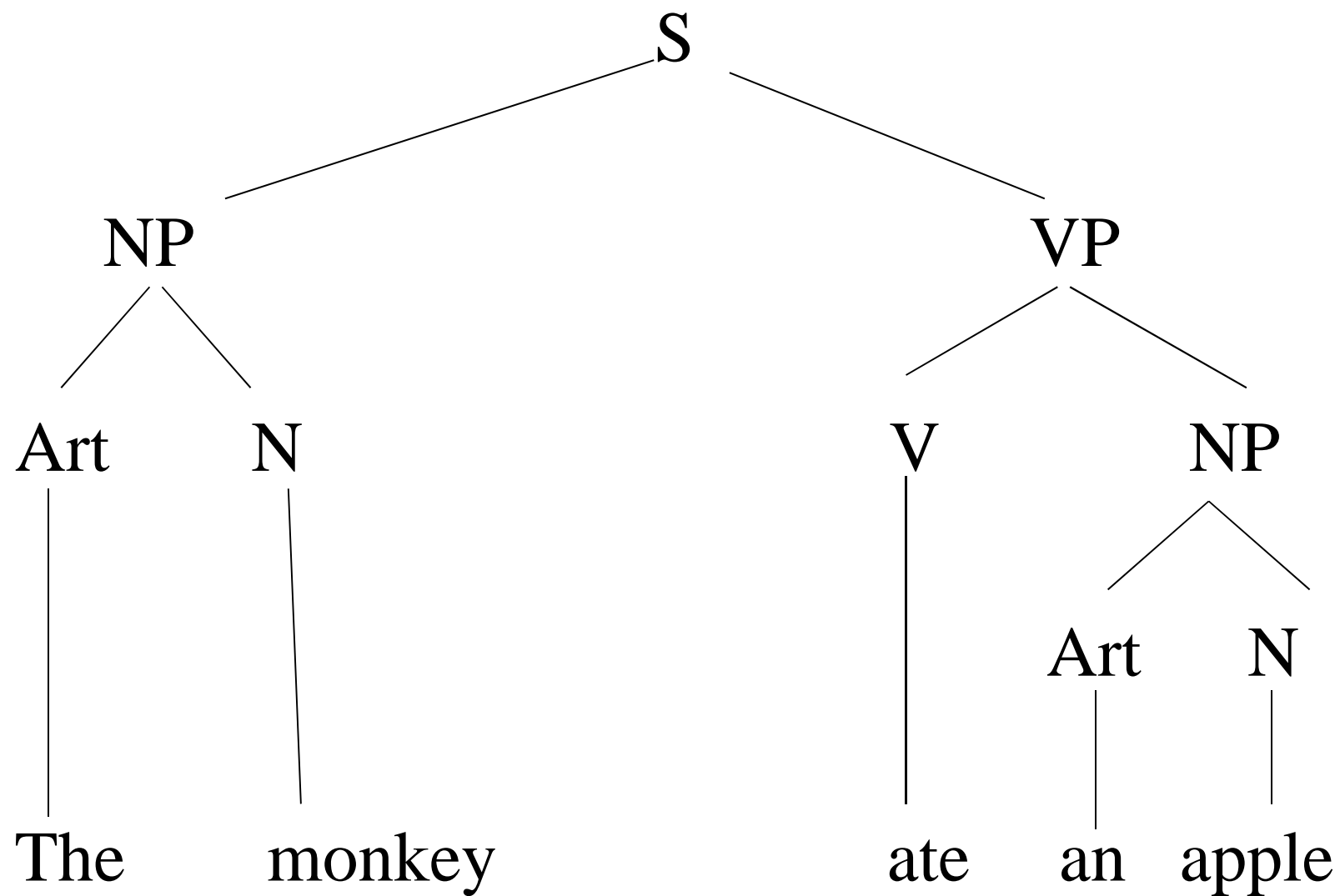
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- In ‘careless politicians and soldiers can be dangerous’, *careless* can refer to *politicians* alone or both *politicians* and *soldiers*.

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Tree diagram and its advantages:

Three diagrams have an advantage over labeled bracketed forms (previous chapter) in that they show the structures at different levels.



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- Phrase structure rules
- The rules that help us generate an infinite number of sentences with only a small number of rules.

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- Transformational rules:
- They change a basic syntactic structure into a sentence like structure. Then the phonological component is applied to supply the rules for pronouncing a sentence.

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- They are the rules that change or move constituents in the structures derived from the phrase structure rules.

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- For example in changing ‘George helped Mary yesterday’ to ‘Yesterday George helped Mary’ we applied ‘movement’ transformation.

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Chapter 10

Semantics

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- Conceptual meaning
- Essential components of meaning; literal or dictionary meaning; denotational meaning
- Needle: sharp, thin, steel

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- Associative meaning:
- Associative connotations related to a word.
- ‘Pain and blood’ for needle
- Associative meaning is used in poetry and prose. (Rose as the symbol of beauty)

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The sentence:

‘The hamburger ate the boy’. Is syntactically correct and well formed but semantically strange. Since the conceptual meaning of ‘hamburger’ is such that it can not be used as the doer of an action, it is inanimate.

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- Like phonetic features (+ or – voice), we may use semantic features in binary distinction or opposition.
- + / - adult, male, human,

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- Semantic roles:
- We can think of roles that words play.
- Agent: an NP performing an action
- Theme(patient): an NP affected by that action as in ‘the boy ate the cake’.

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- Instrument: the NP used by the agent to do an action. He drew the picture with A CRAYON.
- Experiencer: the NP experiencing a feeling. 'THE BOY feels sad'.

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- Location: the book is ON THE TABLE.
- Source: He came FROM CHICAGO.
- Goal: He went TO NEWYORK.

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- Lexical relations:
- Synonymy, Antonymy, Hyponymy, Prototypes, Homophones and homonyms, Polysemy, Metonymy, Collocation

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- Synonymy: two or more words have very similar semantic features (freedom and liberty).
- Antonymy: two or more words have opposite semantic features (gradable antonyms as big/small; non gradable ones as dead and alive).

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- Hyponymy: one word is included in another (animal and dog; canary and duck are co-hyponyms of *superordinate* bird)
- Prototype: the most characteristic instance of a category (Robin for bird). It is based on people's experience so it is culture bound.

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- Homophones: two words have the same pronunciation but different meanings (bare and bear or meat and meet).
- Homonyms: one word has two or more unrelated meanings (bank as in river bank and central bank).

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- Polysemy: two or more words with related meanings (*foot* of a person, mountain and bed).

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- Metonymy: close connection between words.
- 1. container-content (bottle/water)
- 2. whole-part (car/ wheels)
- 3. representative-symbol (king/crown)
- Using one of these words to refer to another is METONYMY.

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- Collocation: words frequently occurring together (needle and thread).
- Corpus linguistics- study of a large collection of texts specially in computer for linguistic analysis- has helped a lot in finding words that go together.

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THE END