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Morphology

Morphology and Syntax

Introduction

Morphology

Some basic notions in morphology.

- What does morphology study?
- What are the goals of morphological analysis?
- What is its place in general theory of grammar?

Morphology

- The term morphology
- Johann Wolfgang von Goethe (1749– 1832)
- Greek: morph- means ‘shape, form’,
- Morphology is the study of form or forms.

Morphology

In linguistics "morphology refers to

- The mental system involved in word formation

Or

- The branch of linguistics that deals with words, their internal structure, and how they are formed.

Morphology

According to Fabregas & Scalise (2012):

- Morphology is the part of linguistics that studies grammatical properties of words and how words relate to each other in a language.

Morphology

The chief task of morphology:

(1)a. deep

b. deepen

(2)a. dog

b. dogs

Morphology

- Deep and dog are morpheme that denote a property having to do with a physical dimension or referring to an animal.
- -en is a morpheme that forms verb and is associated with the meaning(causes to) become x
- -s is morpheme that makes –s plural

Morphology

- The central question in morphology
- How words are related to each other?
- Are there their some aspects of morphological research which have something to do with morphology?

END

Morphemes

Morphemes

Morphemes

Morphologists investigate words:

•Their internal structure

•How they are formed.

Morphemes

‘The smallest linguistic pieces with a grammatical function.’

Not inclusive definition

•A morpheme may consist of a word, such as hand,

•A meaningful piece of a word, such as the -ed of looked,

Morphemes

- Another way in which morphemes have been defined is as:
- ‘ a pairing between sound and meaning.’
- Some morphemes have no concrete form or no continuous form,
- Some do not have meanings in the conventional sense of the term.

Morphemes

The term morph: specifically to the phonological realization of a morpheme.

•-ed has various morphs

- [t] jumped

•[d] repelled

•[ed] rooted and wedded

Morphemes

- Let's consider

  Reconsideration.
- Re + consider + ation.

  Stem
- 'A stem is a base unit to which another morphological piece is attached.

Morphemes

- Root
- 'consider'
- A root is like a stem in constituting the core of the word to which other pieces attach, but the term refers only to morphologically simple units.

Morphemes

- For example, disagree is the stem of disagreement,.
- Disagree: agree is both the stem the root of the entire word.
- Affixes: re- and –ation
- -ation: -ate and -ion, (cf. *reconsiderate),

Morphemes

Consider the English words

- lovely and quickly. the suffix -ly.

Morphemes

- Two other sorts of affixes
- infixes and circumfixes.
- (1)Root -um /sulat/ /s-um-ulat/ ‘one who wrote’
- (2) /gradwet/ /gr-um-adwet/ ‘one who graduated’

Morphemes

- Circumfixes
- stem besar ‘big’ to form a noun ke-besar-an meaning ‘bigness, greatness’ (MacDonald 1976: 63; Beard 1998: 62).

END

Morphology in Action

Morphology in Action

Morphology in Action

- These are examples of morphology in action –
- Morphological facts of everyday life.
- Novel words and word play
- “Rebop,”

Morphology in Action

- Consider now the following phrases, taken from a Toni Braxton song:

- Unbreak my heart, uncry these tears

Morphology in Action

- All human beings have this capacity for generating and understanding novel words.

- Sometimes someone creates an entirely new word, as J. R. R. Tolkien ‘hobbit’

Morphology in Action

- But more often than not, we build new words from pre-existing pieces, as with unbreak and uncry, or as with hobbitish and hobbit-like, built by adding suffixes to the stem hobbit.

Morphology in Action

- We could easily go on to create more words on these patterns.
- Novel words are all around us.

END

Abstract morphological facts

Abstract morphological facts

Abstract morphological facts

1. I eat one melon a day.
2. We eat two melons a day.
3. *We eat two melon a day.

Abstract morphological facts

- No morphological plural
- Indonesian or Japanese
- two melon (three melon, four melon, etc.)

Abstract morphological facts

Indonesian:
Saiga makan dua buah semangka (se) tiaphari
I eat two fruit melon every day
'I eat two melons every day.'

Japanese:
mainichi futatsu-no meron-o tabemasu
every.day two- gen melon-obj eat.imp
'I eat two melons every day.'

Abstract morphological facts

- The evil giant at the top of the beanstalk eats two melons, three fish, and four children a day.
- Children

Abstract morphological facts

- Consider the following:
- Today they claim that they will fix the clock tower by Friday, but yesterday they claimed that it would take at least a month
- speaking Vietnamese
- speaking Chinese

Abstract morphological facts

- Today they say … but yesterday they said … tell us told us know knew
- That these verbs and others do not add -t, -d, or ed to make their past tense is an elementary fact about English morphology.

Abstract morphological facts

- It is a fact about English that there is a morphological distinction among universal quantifiers between the one designating all of two (both) or all of more than two (all) of a particular type of entity.

Abstract morphological facts

	Ancient Greek	English
Singular	stratiô:tes	One horse
Dual	stratió:ta	Two horse
Plural three or more than	stratiô:tai	Three or more horses

Abstract morphological facts

- Manam (Papua New Guinea: Gregersen 1976) and Larike (Central Maluku, Indonesia: Laidig and Laidig 1990) that distinguish not only singular, dual, and plural, but also trial.

END

Background & Beliefs

Background & Beliefs

Background & Beliefs

- A general introduction to morphology and morphological analysis from the point of view of a morphologist.

Background & Beliefs

- Some of our foundational beliefs about linguistics and linguistic methodology.
- First, we believe that languages differ from one another.

Background & Beliefs

- Second, that languages, which we can write with a small l, are different from Language, with a capital L.

Background & Beliefs

- Language vs language
- Individual languages have features that are not characteristic of Language in general.
- Linguists need to pay equal attention to both small-l language and capital-L Language.

Background & Beliefs

- Our next belief
- Morphology is a distinct component of languages or grammars.

Background & Beliefs

- We also have some that pertain to methodology.
- The first is that we should take an attitude of skeptical realism.
- Albert Einstein said that a physicist must be both a realist and a nominalist.

Background & Beliefs

- Our other methodological belief can be summed up as a motto: anything goes(Paul Feyerabend, a twentieth-century philosopher).

Background & Beliefs

- A noholds-barred approach to linguistics
- Our tools are not theory-based in that way.

END

Intro to morphological Analysis

Intro to morphological Analysis

Intro to morphological Analysis

Two basic approaches:

- Analysis
- Synthesis

Intro to morphological Analysis

Principle 1

- Forms with the same meaning and the same sound shape in all their occurrences are instances of the same morpheme.

Intro to morphological Analysis

Principle 2

- Forms with the same meaning but different sound shapes may be instances of the same morpheme if their distributions do not overlap.

Intro to morphological Analysis

Principle 3

- Not all morphemes are segmental.

Principle 4

- A morpheme may have zero as one of its allomorphs provided it has a non-zero allomorph.

END

Morphology and Syntax

What is a Word?

What is a Word?

- What is a Word?
- A single word can have multiple uses and interpretations.
- MINERS REFUSE TO WORK AFTER DEATH
- EYE DROPS OFF SHELF
- LOCAL HIGH SCHOOL DROPOUTS CUT IN HALF

What is a Word?

- Words like noun, verb, adjective, and adverb refer to what linguists call lexical category.
- They are labels that tell us how a word is generally used in a sentence.

What is a Word?

- A noun can be the subject of a sentence, but not so a verb.
- In many cases, identical-sounding or identical-looking words can belong to multiple categories, and that is what is going on in some of these sentences.

What is a Word?

- What is a Word?
- Various ways to define a word, but no definition is entirely satisfactory
- Defining words syntactically
- Harry coughs every time he steps outside.

What is a Word?



- "What is syntax?" If we think of syntax as the component of the human grammar that governs the ordering of items, then -s should be a word.

What is a Word?

- Another characteristic the smallest unit of language that can stand alone:
- A. When are you going to the store?
- B. Tomorrow.
- Affixes: units incapable of standing alone
- A. Whose book is this?
- B. *My.

What is a Word?

- In the musical Camelot, Queen Guenevere sings the following lines:
- (5) It's May, it's May, the month of "yes, you may" The time for every frivolous whim, proper or im … When all the world is brimming with fun, wholesome or un

What is a Word?

- Defining words phonologically
- Words tend to be important units phonologically as well as syntactically.
- The word is typically the domain of stress assignment.

What is a Word?

- (6) a. o ánθropos ‘the person’
- b. o ánθropòs mas ‘our person’
- Grammatical words
- Despite the elusiveness of a definition of word, speakers – literate and illiterate – have clear intuitions about what is and what isn’t a word.

What is a Word?

- The term grammatical word or morphosyntactic word is virtually synonymous with word but is generally used to refer specifically to different forms of a single word that occur depending on the syntactic context.

END

Morphology and Syntax

Types of Words

Types of Words

- Words may be defined in different ways from different perspectives, with each perspective picking out a somewhat different object.
- Linguists distinguish phonological words, grammatical words and lexemes.

Types of Words

- Phonological words
- A string of sounds that behaves as a unit for certain kinds of phonological processes, especially stress or accent.
- Every phonological word has a main stress. Separate elements written as e words but do not have their own stress are not phonological words in English.

Types of Words

- The white dogs ran for the lake.
- white dogs ran lake
- No stress on *the* or *for*
- The string *for the lake*, written as three separate words, is a single phonological word.

Types of Words

- Items like *the* and *for*, phonologically dependent on adjacent words, are called **clitics**
- Syntactically, **clitics** pattern like distinct words, but they cannot stand alone phonologically
- **Proclitics** precede their host and enclitics follow it

Types of Words

- Well-known examples of clitics are the contracted form of the English auxiliary verb **be.**
- Mary's here or We're in this together.

Types of Words

- Distinguish between content words and function words

Content words	Function words
Nouns: baby, bargain , Josianne **Verbs: publicize , hurtle , sleep** **Adjectives: peaceful , quick , bright** **Adverbs: readily , carefully**	**Pronouns: I , him , our** **Verbs: am , was , should** **Demonstratives: this , those** **Adverbs:3 very , not** **Prepositions: in , by**

Types of Words

- If we took the function words out of speech, it would be hard to figure out what was going on:
- *took function words speech hard figure going on*

Types of Words

- Lexemes
- a. dog1: [noun], a canine
- b. dog2: [noun], a hooked or U-shaped device used for gripping heavy objects
- c. dog3: [verb], to follow closely and persistently

Types of Words

- When we want to distinguish among phonologically similar forms on the basis of their differing meanings, as in , we call each a separate lexeme.
- A lexeme is a theoretical construct that corresponds roughly to one of the • common senses of the term word .

END

Empirical Tests for Wordhood

Empirical Tests for Wordhood

- Empirical Tests for Wordhood
- Difficult to come up with a definition that tells us whether something is a word,
- Empirical tests that can tell us whether something is or isn't a word.

Empirical Tests for Wordhood

- Fixed order of elements
- unbreakable *breakableun or *unablebreak
- The same doesn't hold for sentences.
- "I see what I eat"
- "I eat what I see,"
- "I like what I get"
- "I get what I like"

Empirical Tests for Wordhood

- When we change the order of morphemes in a word, we generally end up with something ungrammatical.
- In English we cannot change the order of words in a sentence any way and still have a grammatical result. *get like I what I.

Empirical Tests for Wordhood

- Non-separability and integrity
- non-separability
- Words differ from larger units, such as phrases, in that they cannot be broken up by the insertion of segmental or phrasal material
- A shirt
- A *white* shirt

Empirical Tests for Wordhood

- Integrity
- Likewise, syntactic processes cannot be applied to pieces of words.
- a. *Possible, it's im-. * Which school did you see bus?

Empirical Tests for Wordhood

- Non-separability and integrity diagnostics tell us that compounds like *doghouse*, *greenhouse*, and *school bus* consist of a single word, rather than a pair of words.

Empirical Tests for Wordhood

- Stress
- The diagnostics given in the preceding section, non-separability and integrity, establish that hot dog (the edible kind) is a compound.
- The hot dog you are eating is hotter than mine,
- *You were eating a hotter dog
- *very hot dog.

END

Morphology and Syntax

Inflection Vs. Derivation

Inflection Vs. Derivation

- Inflection vs. Derivation
- Inflection involves the formation of grammatical forms – past, present, future; singular, plural; masculine, feminine, neuter; and so on – of a single lexeme.

Inflection Vs. Derivation

- The use of these grammatical forms is generally dictated by sentence structure. Thus is, are, and being are examples of inflected forms of the lexeme **be**,

Inflection Vs. Derivation

- Regular verb lexemes in English have a lexical stem, which is the bare form with no affixes (e.g., select) and three more inflected forms, one each with the suffixes -s, -ed, and -ing

Inflection Vs. Derivation

- Noun lexemes in English have a singular and plural form.
- Adjectives, adverbs, prepositions, and other parts of speech typically have only one form in English.
- Inflection can be realized through affixes.

Inflection Vs. Derivation

- Examples of words + inflectional morphemes
- Nouns: wombat + s
  ox + en
- Verbs: brainwash + es
- dig + s
- escape + d
- rain + ing

Inflection Vs. Derivation

- Derivation involves the creation of one lexeme from another,
- Compounding is a special type of derivation, since it involves the creation of one lexeme from two or more other lexemes.
- Bookshop,
- greenhouse

Inflection Vs. Derivation

- Derivation generally results in a change in lexical meaning or the lexical category of a particular word, while inflection does not.

Inflection Vs. Derivation

Examples of words + derivational affixes	
Noun to noun	New York + ese /fish + ery /Boston + ian /auto + biography/vice + president
Verb to verb	un + tie /re + surface/pre + register /under + estimate
Adjective to adjective	gray + ish/a + moral/sub + human/il +legible
Noun to adjective	hawk + ish /poison + ous/soul + ful /iron + like
Verbs to nouns:	acquitt + al /digg + er
Adjective to adverb	sad + ly/ efficient + ly

Morphology and Syntax

Two Approaches to Morphology

Two Approaches to Morphology

- Hockett (1954) Two Approaches to Morphology:
- Item-and-Arrangement
- Item-and-Process

Two Approaches to Morphology

- Developed by structuralists I&A proceeds from a picture of each language as a set of elements and the patterns in which those elements occur.
- with word analysis, using techniques for breaking words down into their component morphemes, which are the items.

Two Approaches to Morphology

- Morphology is the arrangement of these morphemes into a particular order or structure.
- For example, books results from the concatenation of the two morphemes
- book and -s.

Two Approaches to Morphology

- I&P is an approach in which complex words result from the operation of processes on simpler words.
- Working in an I&P model, we might say that ‘books’ results when the lexeme book undergoes the function ‘make plural’

Two Approaches to Morphology

- In regular cases, this function will add the segment /-z/ (cf. photos, lions), which is realized as /-s/ after most voiceless segments (cf. giraffes), and as /e z/ after sibilants and affricates (cf. roses).

Two Approaches to Morphology

- I& A and I&P are almost equivalent to one another mathematically.
- Everything you can express in I&A can be expressed in I&P and almost anything you can express in I&P can be expressed in I&A.

Two Approaches to Morphology

- Affixation in the I &P and I& A
-) X]$_V$ (er)≅]$_N$
- think]$_V$ er]$_N$, runn]$_V$ er]$_N$, fli]$_V$ er]$_N$, hunt]$_V$ er]$_N$
- We generally think of lexeme-formation functions as having a phonological, a syntactic, and a semantic component.

Two Approaches to Morphology

- Additive functions like this one are easily recast in the I&A model.
- Agent Noun
- Verb -er
- Noun
- Work -er

Two Approaches to Morphology

- Non-affixal phenomena and the I&P model
- Many languages have morphological phenomena that do not involve affixes.
- These can be represented within the I&P model but pose problems for some morphological frameworks based on I&A.

Two Approaches to Morphology

Verb	Noun
•Over□flow	□overflow
• con□duct	□conduct
•in□sert	□insert
•re□ject	□reject
•con□vict	□convict

Two Approaches to Morphology

Verb	Noun
Over□flow	□overflow
con□duct	□conduct
in□sert	□insert
re□ject	□reject
con□vict	□convict

END

Morphology and Syntax

The Lexicon

The Lexicon

- Greek lexikós ‘pertaining to words’ and often designates a book containing a list of words in a language along with their definitions.
- Linguists use the term in particular to refer to the mental dictionary.
- Within linguistics, lexicon has taken on multiple definitions.

The Lexicon

- Two widely accepted views of the lexicon.
- According to one, the lexicon is a list of the indivisible morphological units, or morphemes, in a language.

The Lexicon

- The second (Bloomfield 1933), is a list of irregular or arbitrary forms. As irregular or arbitrary, they must be memorized

The Lexicon

- [arbr]
- slide
- It would be an error to assume that the first definition is equivalent to the second and that the list of irregular forms is a list of morphemes, which is to say a list of indivisible units.

The Lexicon

- But where natural language is concerned, this position is too extreme.
- Evidence suggests that even morphologically complex forms are present in a speaker's lexicon.
- Representative
- re-,present, and -ative

The Lexicon

- Most words ending in -ative are adjectives
- "Meaning of a complex word is the sum of the meaning of its parts, because the difference between the meaning that we expect a word to have on the basis of the meanings of its parts and the meaning that it actually has is quite subtle.

The Lexicon

- The lexicon contains more than words. Affixes, such as English re-, can be assumed to be in the lexicon.
- Speakers know and understand such affixes and readily attach them to new stems. Some affixed inflected forms, like says, must also be in a lexicon.

The Lexicon

- We know this because says is an exception to the general rule "Add /-z/ to the basic stem of a verb to form the third person singular present."
- Say say and says out loud: say [sei] has a tense vowel, but says [sɛz] has a lax one.

The Lexicon

- Antidisestablishmentarianism
- anti-, dis-, establish, -ment, -ary, -an, and –ism
- We need to list some compounds

The Lexicon

- Fixed phrases (with respect to …,
- names of people and places
- proverbs all need to be memorized, too, and are arguably in the lexicon.

The Lexicon

- The most accurate conception of the lexicon
- a list of forms that you know.
- in some sense equivalent to your linguistic memory.
- It cannot simply be a list of indivisible morphological elements.

The Lexicon

- Instead, it contains irregular forms, forms that are in some way unpredictable.
- Some are indivisible or unanalyzable morphologically, and others are not.

END

Morphology and Syntax

Morphology and Phonology

Morphology and Phonology

- Some of the many interactions that take place between morphology and phonology.
- These interactions and the grammar that describes them are often called morphophonology or morphophonemics.

Morphology and Phonology

- By looking at phonological processes such as assimilation and the effect they have on the shapes of morphemes.
- Consider limitations on the phonological shape of morphological entities such as words and stems.

Morphology and Phonology

- Move on to two general types of affixes that are distinguished, in part, by phonological criteria.
- Their phonological behavior reveals details about their underlying structure and the point at which they attach to their bases.

Morphology and Phonology

- A look at secret languages in which morphology and phonology interact to disguise the shapes of words.
- Readers to have the rudimentary knowledge of linguistics

Morphology

- You need to know three terms that are often not introduced in such courses:
- onset, nucleus, and coda
- cat

END

Morphology and Syntax

Allomorphs

Allomorphs

- Kujamaat Jóola, the stem /baj-/ has two possible shapes, [baj-] and [b e j-], with [b e j-] occurring in the presence of a morpheme with an underlying tense vowel, and [baj-] elsewhere.

Allomorphs

- In English the plural marker comes in several shapes, among them [s] as in lips, [z] as in balls, [e z] as in roses, [n̩] as in oxen, and null as in sheep.
- Alternations based purely on phonological context, as with the Kujamaat Jóola facts.

Allomorphs

- In the English data, only the first three allomorphs of the plural suffix depend on phonological context.
- The last two, as in oxen and sheep, are lexical, and of no concern here.

Allomorphs

- Like the English plural suffix -s, the English past tense suffix has three forms: [d], [t], and [ed]:
- [d] blamed [blejmd],
- [t] jumped [dʒʌmpt],
- [ed] aided [eɪdɪd]

- The distribution of the three allomorphs is predictable.

Allomorphs

- We can formulate the distribution of the allomorphs in even simpler terms: the English past tense suffix is /d/.
- Where we find [t], the /d/ has assimilated to the preceding segment in voicing.

Allomorphs

- [e d], the [e] has been added by an automatic phonological rule of epenthesis that is triggered by the fact that the final segment in the verb and the suffix itself agree in both place and continuancy.

Allomorphs

- /d/ the basic form or the basic allomorph of the English past tense suffix.
- It is not always easy, or even possible, to determine the basic form of a morpheme.
- To do so, we must decide which form of a morpheme best accounts for the full range of data.

Allomorphs

- The forms coming below are in the nominative case, used for subjects, and those on the right are in the genitive case.
- (2) aithiops ‘Ethiopian’ aithiopos ‘of an Ethiopian’ phleps ‘vein’ phlebos ‘of a vein’
- phlep-, the stem of the nominative, or phleb-, of the genitive

Allomorphs

- Epenthesis
- The insertion of a sound or letter within a word, e.g. the b in thimble. Similarly if you say film as "FIL-um,"

Allomorphs

- As morphologists, we are used to dealing with cases like this. Unlike syntax, which tends to be very regular, morphology is full of irregularities and exceptions.

END

Morphology and Syntax

Prosodic Morphology

Prosodic Morphology

- Prosodic morphology deals with the interaction of morphology and prosodic structure.
- Prosodic structure is particularly concerned with the timing units of languages, for example, the word and syllable, and vowel length.

Prosodic Morphology

- From this general category we present three phenomena:
- phonotactic constraints,
- root-and-pattern morphology,
- reduplication

Prosodic Morphology

Phonotactic constraints

- Phonotactics is a branch of phonology that deals with restrictions in a language on the permissible combinations of phonemes.

Prosodic Morphology

- Phonotactic constraints
- twelfths /twɛlfθs/
- s/ + /t/ + /j/ (not in most accents of American English)
- /s/ + /p/ + /j ɹ l/
- /s/ + /k/ + /j ɹ l w/

Prosodic Morphology

- At their most basic, phonotactic constraints determine the minimum length of content words in particular languages.
- For example, in Mohawk, each content word contains at least two syllables (Michelson 1988, cited by Hayes 1995: 47).

Prosodic Morphology

- Other languages require that content words consist of at least a heavy syllable.
- In Mayan languages, roots are predominantly of the shape CVC and in Bantu they are generally CVCV.
- In Semitic languages, roots consist of three consonants: CCC.

Prosodic Morphology

- Root-and-pattern morphology
- In Semitic languages such as Hebrew and Arabic, roots generally consist of three consonants.
- To form words, vowels are superimposed on this consonantal pattern. We call this type of ‘morphology root-and-pattern’.

Prosodic Morphology

- Triconsonantal root, M-L-K./k/ is realized as the fricative [x].
- M-L-K: melex ‘king’ malkah ‘queen’
- malax ‘he reigned’ yimlox ‘he reigns, he will reign’
- malxut ‘royalty, royal power, reign, kingdom’
- mamlaxah ‘kingdom, sovereignty,

Prosodic Morphology

- Reduplication
- A continuous substring from either the beginning or the end of a word is copied.
- Languages may use reduplication for inflection or derivation. Plural reduplication in Ilokano, an Austronesian language.

Prosodic Morphology

- kaldíŋ ‘goat’ kal-kaldíŋ ‘goats’
- púsa ‘cat’ pus-púsa ‘cats’
- kláse ‘class’ klas-kláse ‘classes’
- jyánitor ‘janitor’ jyan-jyánitor ‘janitors’ róʔot
- ‘litter’ ro:-róʔot ‘litter (pl)’
- trák ‘truck’ tra:-trák ‘trucks’

END

Morphology and Syntax

Primary and Secondary Affixes

Primary and Secondary Affixes

- Over the years, our knowledge of morphological structure has been enhanced by work in phonology.
- By observing the phonological processes that take place or do not take place within particular sets of morphologically complex words.

Primary and Secondary Affixes

- One distinction that has come out of work that pairs morphology and phonology is between primary and secondary affixes, known as level 1 and level 2 affixes or class 1 and class 2 affixes.
- In English, this distinction is intimately connected with language history.

Primary and Secondary Affixes

- Primary affixes in English are often of Latin-Romance origin, secondary affixes are often of native Germanic origin.
- Etymology can only take us so far in morphological analysis.

Primary and Secondary Affixes

- The primary–secondary distinction is a living process, regardless of its history, and in English, as in other languages of the world, it cannot be explained away as etymological residue.

Primary and Secondary Affixes

- Some examples from Kiparsky (1983) of words bearing -(i)an, a primary affix and ones bearing -ism, a secondary affix

Primary and Secondary Affixes

a. Mendel	→	Mendelian
b. Mongol	→	Mongolian
c. c. Parkinson	→	Parkinsonian
d. d. Shakespeare	→	Shakespearian
e. grammar	→	grammarian
a. Mendel	→	Mendelism
b. Mongol	→	Mongolism
c. Parkinson	→	Parkinsonism
d. national	→	nationalism
e. capital	→	capitalism

Primary and Secondary Affixes

- Primary affixes cause a stress shift, while secondary affixes do not.
- If primary and secondary affixes both occur in the same word, we can make a second prediction.
- The primary affix will occur closer to the stem than the secondary affix.

Primary and Secondary Affixes

- Traditional usage among morphologists is to use the symbol '+' to mark the juncture between a stem and a primary affix and to use '#' to mark the juncture between a stem and a secondary affix.

Primary and Secondary Affixes

Same stem (primary suffix) +able		Same stem(secondary suffix) '#' able	
reparable	capable of being repaired'(liable to be paid back or recovered')	repairable	capable of being repaired'(a broken appliance)

Primary and Secondary Affixes

+able	Base	#able	
prefer+able [prɛ ´f(e)r e bl̩]		prefer#able [pr e f ´ e ɾ e bl̩]	
compar+able [kɑ´mp(e)r e bl̩]		compar#able [kɑmpæ´r e bl̩].	
a. cultivable b. educable c. irrigable d. navigable e. demonstrable	Base Cultiv Educ irrig navig demonstr	cultivatable Educatable Irrigatable Navigatable demonstratable	Base cultivate Educate irrigate navigate demonstrate

Primary and Secondary Affixes

Prefixes can be primary or secondary as well.	
Primary Prefix In+ (not) (in+ has allomorphs)	Secondary Prefix un#(not) (Un# no allomorphs)
a. irregulable b. inviolable c. imperceptible d. indivisible	unregulatable unviolatable unperceivable undividable

Primary and Secondary Affixes

Primary	Secondary
Often of Latin-Romance origin	Often of Germanic origin
Cause a stress shift	Do not cause a stress shift
Usually occur closer to the stem	Usually occur outside of primary affixes secondary affixes
The semantics of the derived form tend to be less compositional	The semantics of the derived form tend to be compositional
May attach to a non-basic allomorph	Attach to a stem's basic allomorph of the stem
The affix itself may have allomorphs	The affix itself does not have allomorphs
May attach to non-lexical stems	Attach to lexical stems (i.e., words from lexical categories N, V, Adj/Adv)

Morphology and Syntax

Linguistic Exaptation, Leveling, and Analogy

Linguistic Exaptation, Leveling, and Analogy

- Rudes (1980) and Lass (1990) have both raised the question of what to do with “linguistic left-overs” (Rudes’s term) or “linguistic junk” (Lass’s term).

Linguistic Exaptation, Leveling, and Analogy

- In both cases, it has to do with morphemes that lose their semantic content or morphosyntactic function as a result of language change and are left as contentless, functionless strings of phonemes floating around in the system.

Linguistic Exaptation, Leveling, and Analogy

- They show that languages are in general intolerant of useless elements, and speakers reanalyze them as having a new role.
- Lass calls this process linguistic exaptation, extending a term of evolutionary biology to the study of language change.

Linguistic Exaptation, Leveling, and Analogy

- Cameron-Faulkner and Carstairs McCarthy (2000), in their work on inflectional classes and gender, and stem alternation, respectively, suggest that linguistic exaptation is pervasive.

Linguistic Exaptation, Leveling, and Analogy

- A natural consequence of a core psycholinguistic mechanism that makes it easier for speakers to master complex inflectional systems or to learn the meanings of new vocabulary items
- It plays an important role in the evolution of inflectional systems cross linguistically.

Linguistic Exaptation, Leveling, and Analogy

- Germanic family has exaptation
- Indo-European vowel alternations within verbal paradigms came to encode the present/past distinction (e.g., English write, wrote). originally been used to encode aspectual distinctions.

Linguistic Exaptation, Leveling, and Analogy

- The case:the verbal suffix -esc in Romance. Latin, where the suffix -sc attached to sequences of verb stem plus theme vowel to form the inchoative aspect (which has the general meaning ‘to begin to’).

Linguistic Exaptation, Leveling, and Analogy

Uninchoative aspect		inchoative aspect	
palleo	I am pale	- pallesco’.	‘I begin to pale’.
amo -	‘I love’,	amasco	‘I am beginning to love’,

Linguistic Exaptation, Leveling, and Analogy

- English doesn't have a productive inchoative aspect, but we do have pairs like white and whiten 'become pale; begin to be pale'.

Linguistic Exaptation, Leveling, and Analogy

- The tendency for languages to prefer regular paradigms over irregular ones sometimes leads to **leveling**, the elimination of sound alternations that do not signal important differences in meaning.

Linguistic Exaptation, Leveling, and Analogy

Grammatical Function	Prehistoric Latin	Old Latin	Classical Latin
Nominative	col-os	col-os	color
Genitive	*col-os-es	col-or-is	col-or-is
Dative	*col-os-ei	col-or-ei/-e	col-or-ı
Accusative	*col-os-em	col-or-em	col-or-em
Ablative	*col-os-i	col-or-e	col-or-e

Linguistic Exaptation, Leveling, and Analogy

- Hock gives the example of English plurals. It is because of four-part **analogy** that the plural of cow is cows, replacing the earlier form kine. The new plural cows generalizes the plural formation familiar from other words, such as stone, stones. stone :
- stone-s cow : X = cow-s

Linguistic Exaptation, Leveling, and Analogy

- Leveling and analogy are powerful forces in the development of languages over time driven by a seemingly innate preference in speakers for phonological and morphological similarity between members of a paradigm or a class of words.

END

Morphology and Syntax

Morphophonology and Secret Languages

Morphophonology and Secret Languages

- Permutations of existing languages
- Secret languages are found around the world and have been attested in English, French, Spanish, Dutch, Thai, Cuna (Sherzer 1970), and Haitian Creole, to name only a few.

Morphophonology and Secret Languages

- Examples of creative language use
- Considered external to the mental grammar.
- Speakers go from the existing language to the secret language through the regular application of phonological rules-a morphological derivation.

Morphophonology and Secret Languages

- Secret languages also exploit notions that are independently motivated in phonology and morphology, notably the syllable and onset.

Morphophonology and Secret Languages

- One secret language is Pig Latin. In one variation, words that start with vowels are suffixed with way [wej].
- Words that begin with a consonant or consonant cluster shift the entire onset sequence to the end and are suffixed with ay [ej]:

Morphophonology and Secret Languages

- Pig Latin: igpay atinlay ‘’
- ‘free form’ eefray ormfay
- inflectionway ‘inflection’
- Manipulate words in this fashion, they make use of their subconscious knowledge of linguistic entities such as onset and nucleus.

Morphophonology and Secret Languages

- Verlan [vɛʁlɑ̃], based on French.
- The word verlan is derived by reversing the syllables of l’envers [lɑ̃vɛʁ] ‘the other way around’.
- Verlan works best with words of two syllables, because in these the two syllables can simply be reversed:

Morphophonology and Secret Languages

pourri [puʁi]	ripou [ʁipu]	rotten' (generally refers to corrupt police)
. branché [bʁɑ̃ʃe]	. chébran [ʃebʁɑ̃]	plugged in, informed'
pétard [petaʁ]	tarpé [taʁpe]	cannabis joint'

Morphophonology and Secret Languages

Monosyllables are verlanized differently depending on whether they are open or closed.

Open monosyllables	Closed monosyllables(treated as if they end in a schwa underlyingly bisyllabic)
pue [py] 'stinks', the order of consonant and vowel is reversed, yielding forms like [yp]. Closed	femme [fam] 'woman', The syllables are reversed, and the final vowel is dropped: [fam e] → [fa.m e] → [m e .fa] → [mœf].

Morphophonology and Secret Languages

- According to Bullock, the ‘rules’ of verlan are artificial compared to those of the standard – and natural – language.
- In Pig Latin, words with a consonant cluster postpose the consonat, then add the suffix -ay. (e.g., losetcay for closet).

Morphophonology and Secret Languages

- Any rule that operates on letters rather than on phonological entities such as onsets is unnatural.
- Languages are first and foremost oral, and orthographies are systems imposed on them by people.

Morphophonology and Secret Languages

- Secret languages must be looked upon as somewhat artificial and should not on their own be used to draw conclusions about the workings of natural languages.

END

Morphology and Syntax

The Saussurean Sign

The Saussurean Sign

- Ferdinand de Saussure (1857–1913), one of the first modern linguists, believed that language was a system of signs.

The Saussurean Sign

- He defined a linguistic sign as an arbitrary pairing between what he called the *signifiant 'signifier'*, a particular sequence of sounds, and the *signifié 'signified'*, the concept that is denoted by the sound sequence.

The Saussurean Sign

- These three terms, sign, signifier, and signified, are still standard in linguistics.

The Saussurean Sign

- Saussure (1969) distinguished between motivated and unmotivated signs.
- A sign is motivated to the extent that by inspection you can get clues as to what it means.

The Saussurean Sign

- A walk signal at a crosswalk is an example of a motivated sign, because the stylized image of a person walking indicates whether you should or should not cross the street.
- A stop sign is partially motivated.

The Saussurean Sign

- Signs can lose their motivation: consider the name of the basketball team, the Los Angeles Lakers.

The Saussurean Sign

- Motivation is not all-or-nothing, and signs can be partially motivated.

END

Morphology and Syntax

Motivation and Compositionality

Motivation and Compositionality

- Motivation is related to the logical notion of composition or compositionality.
- We say that something is logically compositional if it is defined entirely in terms of its parts.
- Doghouse
- Its meaning is derivable from its two components.

Motivation and Compositionality

- Another example of a compositional form is the Kujamaat Jóola dubitive-incompletive,

a. **ni- ŋar -ɛ:n**
1sg.sub- take -inc
'I was taking'

c. ni- ŋar -ɛ:n -ɛ:n
1sg.sub- take -inc –inc

e. 'I was taking (emphasis on incompletive aspect of action)' Expressing emphasis through doubling should be considered compositional.

Motivation and Compositionality

- A set of English words in light of partial motivation and compositionality:
- behead ‘to remove someone’s head’
- befriend ‘to make yourself a friend to someone’
- besiege ‘to lay siege to’
- bewitch ‘to place under one’s power as if by magic’

Motivation and Compositionality

- Compounding
- One derivational process. Here are some basic examples:
- English compounds tool + bar, amusement + park, puppy + love coffee + house
- An extreme example,
- What Violet does for a living?, we might respond:

Motivation and Compositionality

- She's a high voltage electricity grid systems supervisor.
- [a good N] or [N for hire].
- High voltage electricity grid systems supervisor behaves as a single unit for the purposes of wh-movement.

Motivation and Compositionality

Q: Which electricity grid systems supervisor did you see?
A: ?The high voltage one.
Q: Which systems supervisor did you see?
A: *The high voltage electricity grid one. c.
Q: Which supervisor did you see?
A: *The high voltage electricity grid systems one.
Contrast these with syntactic strings of modifier plus noun which are easily broken up, as shown in the following:
Q: Which supervisor did you see?
A: The tall one.
? A very high voltage electricity grid systems supervisor

Motivation and Compositionality

- The structure of high voltage electricity grid systems supervisor as evidence that it is a single noun formed by compounding.

Motivation and Compositionality

- Words in English are generally head-final, meaning that the lexical category of the form as a whole matches that of its final constituent.
- A dogsled is a kind of sled, not a kind of dog; the Red River Valley is a valley

Motivation and Compositionality

- “Is this noun in my lexicon?” Probably not. This compound is formed by a very productive process and there is nothing irregular involved in it.
- It is absolutely compositional and fully motivated.
- Words like this that are used but not stored are called nonce forms or *hapax legomena*.

Motivation and Compositionality

- Nonce means ‘a particular occasion’, and hapax legomena is a Greek term meaning ‘said once’ that is used to refer to words that occur only once in the recorded corpus of a given language.

Motivation and Compositionality

- In discussing compounds, linguists sometimes use the terms endocentric and exocentric.
- These terms are related to the notions of motivation and compositionality.

Motivation and Compositionality

- An endocentric compound is one that has a head.
- The head expresses the core meaning of the compound, and it belongs to the same lexical category as the compound as a whole.
- For example, goldfish is an endocentric compound.

Motivation and Compositionality

- Compounds whose lexical category or meaning are not determinable from the head are exocentric.

Motivation and Compositionality

Endocentric compounds	Exocentric compounds
jackknife board game bluebird high chair sailboat	funny farm lazybones loony bin scarecrow pickpocket

Morphology and Syntax

Zero-derivation

Zero-derivation

- English-speaking adults vocabularies of 20,000 to 50,000 words,
- Children ranging from about 50–600 words at age 2 to about 14,000 at age 6.

Zero-derivation

- Children frequently coin new words (Clark 1995: 393, 399–401).
- One way children do this is to use zero-derivation, or conversion, a productive derivational process in English.

Zero-derivation

- Zero derivation, is a kind of word formation involving the creation of a word (of a new word class) from an existing word (of a different word class) without any change in form, which is to say, derivation using only zero.
- Zero-derivation changes the lexical category of a word without changing its phonological shape.

Zero-derivation

Examples of novel verbs formed by 2- to 5-year-olds by zero-derivation
a. SC (2;4, as his mother prepared to brush his hair): Don't hair me.
b. JA (2;6, seated in a rocking chair): Rocker me, mommy.
c. SC (2;7, hitting baby sister with toy broom): I broomed her.
d. SC (2;9, playing with toy lawnmower): I'm lawning.
e. DM (3;0, pretending to be Superman): I'm supermanning.
f. FR (3;3, of a doll that disappeared): I guess she magicked.
j. KA (5;0): Will you chocolate my milk?

Zero-derivation

- A word formed by zero-derivation or any other productive derivational process becomes lexicalized:
- The English verbs: chair, leaf, ship, table, and weather.
- *Mail* from the French is another example:*I'm going to mailbox this parcel.

Zero-derivation

- Affixation
- The next type of derivational process we consider here is affixation. We have already looked at a number of affixes, the types of stems they attach to, and the words they produce. The affixation may involve prefixes, suffixes, infixes, and perhaps circumfixes.

Zero-derivation

Prefixes:	**un + do** **hemi + sphere**
Suffixes:	**rough + age** **arachno + phobia** **cut + ie**
Infixes:	**abso + effing + lutely**
Circumfix: **Kujamaat Jóola**	**u - … al (first person plural inclusive subject):** **ub c ɲ ɛ:n-ɛ:n c rut-al c 'We had not yet sent him'**

Zero-derivation

- We can characterize the stem an affix attaches to as bound or free and as belonging to a particular lexical category. Take the following words formed via prefixation with re-:
- a. reignite d.reanalyze
- b. reboot e. recertify

Zero-derivation

- Re- attaches to stems belonging to the lexical category Verb. It produces words that are also verbs. All of the stems to which it attaches in the preceding examples are free. Ignite, boot, read, analyze, certify,

Zero-derivation

- The same cannot be said for all stems that seem to bear the prefix re-, based on their meaning.
- a. repeat
- b. resuscitate
- c. recognize

END

Morphology and Syntax

Other Derivational Processes

Other Derivational Processes

- Derivational processes is not limited to compounding, zero-derivation, and affixation.
- Blending: a common derivational process also called portmanteau form word by combining parts of more than one word.

Other Derivational Processes

- a. smog < smoke + fog
- b. chunnel < channel + tunnel
- c. bit < binary + digit
- Theses processes are not limited to English.
- Rare or absent in many Indo-European languages but common in Hebrew.

Other Derivational Processes

Common example in Hebrew,and and Japanese:(Bat-El 1996)
a. prígurt ‘fruit yogurt’ < prí ‘fruit’ + yógurt ‘yogurt’
b. kadurégel ‘football’ < kadúr ‘ball’ + régel ‘foot’
c. maškár ‘cold drink’ < maške ‘drink’ + kár ‘cold’
d. kalcéfet ‘easy-to-make < kál ‘easy, light’ + kacéfet ice cream’ ‘whipped cream’
e. ramzór ‘traffic light’ < ramáz ‘to hint’ + ʔor ‘light’
f. pomelít ‘hybrid of pomelo < poméla ‘pomelo’ + and grapefruit’ ʔeškolít ‘grapefruit’
g. šmanmúx ‘dumpy’ < šmanmán ‘plump’ + namúx ‘short’

Other Derivational Processes

- Blending is an example of creative language use.
- Not adhere to strict constraints, as does affixation.
- Acronyms: formed by initial letters of a string of words and to form a new one.
- Dependent on orthography rather than pronunciation.

Other Derivational Processes

- It is external to the general phenomenon of lexeme formation or a special case of lexeme formation that is among literate users of a language.

Other Derivational Processes

- If acronym formation is orthographically based, just say the NATO aloud the pronunciation of the *A* and *O* reflects the name of the letters, not the initial sounds of the words.

Other Derivational Processes

How many acronyms can you recall?
a. self-contained underwater breathing apparatus
b. radio detecting and ranging
c. North Atlantic Treaty Organization
d. Acquired Immune-Deficiency Syndrome
e. Federal Bureau of Investigation

Other Derivational Processes

- FBI differs from the other acronyms in in being pronounced letter by letter, rather than as a word *[fbi], *[fbaj].
- While it is still an acronym, some people prefer to call it an abbreviation or alphabetism for this reason.

Other Derivational Processes

- A characteristic of acronyms in some languages is that they can serve as the base for further morphological operations, particularly affixation, as in the following French examples:
- cégétiste someone from the CGT

END

Morphology and Syntax

Clipping & Backformation

Clipping & Backformation

- Clipping: creation of a new word by truncation of an existing one.
- Many nicknames are formed via this process:
- Rob (< Robert) Trish (< Patricia) Sue (< Susan)
- Other nouns,
- ad, co-ed, typo. or fan.

Clipping & Backformation

- Folk etymology
- This happens when speakers reinterpret a form – typically a borrowing from another language – on the basis of words or morphemes that already exist in the language.

Clipping & Backformation

- Examples of folk etymologies:
- cockroach < Spanish cucaracha
- witch hazel < wych [= weak] hazel
- A historical process of reanalysis and a source of words, but not a true derivational process.

Clipping & Backformation

- Backformation: the creation of a word by removing what appears to be an affix.
- An example of historical reanalysis and not a productive derivational process responsible for the occurrence of words such as surveil, from surveillance, or liposuct from liposuction.

Clipping & Backformation

- Some very familiar words
- Peddle: peddler
- Edit editor,
- Historically, cherry comes from Old Norman French cherise, minus the s, which English speakers mistook for the plural affix.

Clipping & Backformation

- Pea from pease,
- In order to recognize whether a form has resulted from backformation or clipping, it is often necessary to know its history.

Clipping & Backformation

A	B	word-formation processes
garage, sale	garage sale	a. compounding,
refuse + nik	refusenik	b. affixation (suffixation)
d. baby-sitter	baby-sit	d. backformation
e. blanket (n)	blanket (v)	e. zero-derivation or conversion
f. cheese, hot dog	cheese dog	f. blending
g. Asparagus	sparrow grass	g. folk etymology

Morphology and Syntax

Derivation and Structure

Derivation and Structure

- Having considered the issue of lexical storage of derived forms, let's go back to the notion of derivation and structure.
- We can schematize derivation as follows:
- Input → Output
  Lexeme X Lexeme Y

Derivation and Structure

- If we can have lexeme X as an input and lexeme Y as an output, then it should also be possible to take lexeme Y as an input to a second function:
- Input → Output
  Lexeme Y Lexeme Z

Derivation and Structure

- This is precisely what we do when we form words like unfriendly:
- Function 1: add -ly friend → friendly
- Function 2: add un friendly → unfriendly
- Even unfriendly → unfriendliness via a function that adds -ness.

Derivation and Structure

- In each case, the output of one derivation serves as the input to the next.
- To determine the order of functions leading to a form, it helps to consider other words that contain the same parts.

Derivation and Structure

- Un- attaches to nouns only in exceptional cases: uncola,
- It regularly attaches to adjectives.
- We use this fact in determining that the function ‘Add -ly’, which forms adjectives, must come before the function ‘Add un-

Derivation and Structure

- The fact that speakers of many languages can add phonological material to either end of a word sometimes leads to complex structures.
- Take the two English words below:
- a. reinterpretation
- b. poststructuralist

Derivation and Structure

- These words have the following structures:
- a. [[re- [interpret]V]V -ation]N
- b. [post- [[[structur]N -al]A -ist]A]A
- (a) tells us that reinterpretation is the act of reinterpreting, from reinterpret, not re- the act of interpreting.

Derivation and Structure

- We start out with a verb, interpret, form a new verb via the prefix re-, and finally form a noun by adding the suffix -ation.

Derivation and Structure

- N



V -ation

- re- interpret

Derivation and Structure

- Combining prefixation and suffixation leads to other potentially ambiguous forms in English.
- Three famous examples are given in below:
- a. undressed
- b. unpacked
- c. unzipped

Derivation and Structure

- Prefix un- has at least two distinct roles in English, depending on what it attaches to.
- When prefixed to a verb, un- is a so-called reversative with the basic meaning '*undo the action of the verb*.

Derivation and Structure

- If you unpack a suitcase, you return the suitcase to the state it was in before the packing action took place.
- When attached to adjectives, including participial adjectives like wounded or stressed, un- means 'not'.

Derivation and Structure

- If you untie a package, you return it to the state it was in prior to being tied.
- If a soldier leaves the battlefield unwounded, it is not the case that he was first wounded and then unwounded, because it is impossible to unwound a person

END

Morphology and Syntax

Words and grammar

Words and Grammar

- Some complex words have meanings that are so predictable that they do not have to be listed in a dictionary.
- Such words illustrate the fact that a word need not be a lexical item.

Words and Grammar

- They are merely *grammatically conditioned variants of a word* that is more basic, in some sense –and which itself may or may not be listed, depending on whether its meaning is predictable or not.

Words and Grammar

The notions ‘more basic’ and ‘grammatically conditioned variant
(1) This pianist performs in the local hall every week.
(2) Mary told us that this pianist performed in the local hall
(3) The performance last week was particularly impressive.
(4) *This pianist perform in the local hall every week.
(5) *These pianists performs in the local hall every week.

Words and Grammar

(7) The performer last week was particularly impressive.
(8) The concert last week was particularly impressive.
(9) These pianists perform in the local hall every week.

Words and Grammar

- We need a new term for the more abstract kind of word of which the word forms performs, performed and perform are all inflectional variants.
- Let us call this more abstract kind of word a lexeme.

Words and Grammar

- We can now say that performs, performed and perform are all inflected forms of the lexeme *perform*, and we can describe the grammatical function of performed by calling it the past tense form of the verb *perform*.

Words and Grammar

- Being abstract in this sense, a lexeme is not strictly speaking something that can be uttered or pronounced.
- Only the word forms that belong to it can be.
- We refer to lexemes in English by means of their bare, unaffixed forms.

Words and Grammar

- Two words can be pronounced the same but spelled differently in English, and vice versa
- It follows that the same word form can belong to two quite different lexemes, as does rows in:
- There were four rows of seats.
- One person rows the boat.

Words and Grammar

- One lexeme may be represented by more than one word form, and one word form may represent more than one lexeme.
- What links a word form with a lexeme in a given context is the grammatical word that the word form expresses there.

END

Morphology and Syntax

Regular and irregular inflection

Regular and Irregular Inflection

- The words that have to be listed in a dictionary and words that do not.
- One does not have to list performs and performed alongside perform, or pianists alongside pianist, because they are merely *grammatically conditioned variants* of one basic word – of one lexeme, in fact.

Regular and Irregular Inflection

- But it is not correct to say that dictionaries never have anything to say about inflectional morphology.
- There are two reasons why a word form such as pianists does not have to be listed, and these reasons are independent.

Regular and Irregular Inflection

- The first: once an English word is a noun denoting a kind of thing that can be counted like pianist or cat not astonishment or rice.
- We can be confident that it will have a plural form with no idiosyncrasies of meaning: it will mean simply ‘more than one X’, whatever X may be.

Regular and Irregular Inflection

- The second: unless otherwise specified, we can be confident that the plural form of any countable noun will be formed by adding to the singular form the suffix -s (or rather, the allomorph of this suffix); in other words, suffixing -s is the regular method of forming plurals.

Regular and Irregular Inflection

- Any native speaker of English, after a moment's thought, should be able to think of at least two or three nouns that form their plural in some other way than by adding -s:

  child >children,

  tooth> teeth,

  man > men.

Regular and Irregular Inflection

- A dictionary entry for tooth will look like this: tooth noun (plural teeth). One of a set of hard white structures set in the jaw and used for biting and chewing.

Regular and Irregular Inflection

- George Orwell envisages the eradication of morphological irregularity so

  man > mans not men

- In reality as opposed to fiction, this sort of regularisation is a well-known feature of the speech of young children and of non-native learners.

Regular and Irregular Inflection

- If all this does not inhibit us from recognizing them as allomorphs of one morpheme, what about the different plural suffixes exhibited by nouns such as pianists, oxen, formulae and cacti?

Regular and Irregular Inflection

- Can we not classify -s, -en, -ae and -i as all allomorphs of a single ‘plural’ morpheme?
- Should we not also recognise a further allomorph that we might call ‘vowel change’, to accommodate men and teeth, which lack a suffix?

Regular and Irregular Inflection

- Admittedly, these allomorphs are quite unlike each other in pronunciation – but if allomorphs are allowed to be differ somewhat, why cannot we allow them to be differ considerably?
- At what point, if any, does phonological divergence become too great?

Regular and Irregular Inflection

- How the term ‘morpheme’ is used is important: whether in a more concrete sense, oriented towards pronunciation (in terms of which -s, -en, -ae and -i represent different morphemes),

Regular and Irregular Inflection

- Or a more abstract sense, oriented towards meaning or grammatical function (-s, -en, -ae and -i are all allomorphs of one morpheme).
- A good way to avoid any confusion is to use terms such as ‘root’, ‘suffix’ and ‘prefix’, wherever possible, rather than ‘morpheme’.

Regular and Irregular Inflection

- Because the role of inflectional morphology in English is much smaller than in languages such as German or Russian (although greater than in Chinese), what needs to be said about each word class is relatively limited.

END

Morphology and Syntax

Forms of nouns

Forms of Nouns

- Most countable nouns in English have two word forms: a singular and a plural. Inflectionally, for any noun lexeme X, there are just two grammatical words, ‘singular of X’ and ‘plural of X’, contrasting in number.
- Lexeme cat >cats
- Root and suffix -s

Forms of Nouns

- The suffix -s is the regular suffix for forming plurals. Irregular suffixes expressing plurality include-i, -ae and -a found Latin or Greek;
- The suffix -(r)en in oxen, children and brethren;
- The Hebrew -im in cherubim and kibbutzim.

Forms of Nouns

- Some countable nouns that express their plural with no suffix at all but with a change of the vowel of the root like the (teeth, men) – or, more precisely, an allomorph of the root with a different vowel from the singular.

Forms of Nouns

- Also some whose plurals display not even a vowel change: for example, sheep, fish, deer, trout.
- How can we tell whether they are singular or plural?
- The answer is: according to the syntactic context.

Forms of Nouns

- A deer was visible through the trees.
- Two deer were visible through the trees.
- The class of nouns unchanged in the plural (called ‘zero-plural’ or carrying a ‘zero suffix’) could conceivably be just as random as the class of those with vowel change (tooth, man, etc).

Forms of Nouns

- Nouns have plural forms that refer to entities that are countable like cats and pianists, but not *astonishments or *rices – except perhaps in contexts interpreted as denoting countable entities, such as astonishing events or varieties of rice.

Forms of Nouns

- Not all nouns referring to countable entities have both singular and plural forms.
- A few nouns such as scissors and pants which exist only in an -s-plural form, and which appear only in plural syntactic contexts.

Forms of Nouns

- This idiosyncratic lack of a morphological singular form (except in compounds such as scissor factory) creates a problem in contexts where the syntax seems to require such a form, as when the noun is preceded by the indefinite article a or an.

Forms of Nouns

- We can say neither *a scissor nor *a scissors, and likewise neither *a pant nor *a pants.
- For these lexemes, there is a conventional circumlocution or periphrastic form: pair of pants and pair of scissors

Forms of Nouns

- The unusual nouns scissors and pants provide an opportunity to deal with a possible doubt concerning whether the singular–plural contrast in nouns really deserves to be called inflectional.

Forms of Nouns

If inflection is a matter of grammatically conditioned variation, as is thought generally, it is easy to agree that the contrast between performs in (This pianist performs …) and perform in (These pianists perform …) is inflectional, because it is a contrast imposed by the grammatical context.

Forms of Nouns

- But what about the noun phrases themselves? The choice between singular and plural there is determined not by grammar but by meaning, one may think – by what the speaker wants to say.
- If so, does this contrast really deserve to be called grammatically conditioned?

Forms of Nouns

- The singular–plural distinction is the only grammatical distinction that is expressed morphologically in English nouns.

END

Morphology and Syntax

Forms of pronouns and determiners

Forms of pronouns and determiners

- In morphology we are mainly concerned with the behaviour of words which belong to open classes, namely nouns, adjectives, verbs and adverbs.
- Their membership can be added to as new words come into use.

Forms of pronouns and determiners

- By contrast, in English a new pronoun or a new preposition is not added.
- Determiners deserve a mention as some like nouns, display a singular–plural contrast as Pronouns.

Forms of pronouns and determiners

- We have already encountered the distinction between this and these, as *in this pianist* and *these pianists*.
- These are the singular and plural forms of the determiner lexeme *this*.

Forms of pronouns and determiners

- Other determiners include the, *a* (*an*) and *some*, but only one other determiner exhibits a singular–plural contrast: that, with singular and plural forms *that* and *those*.

Forms of pronouns and determiners

- The determiners *that* and *this* demonstrate that number contrasts can have a grammatical effect inside noun phrase as well as between subject noun phrases and their accompanying verbs.
- *This* table is…
- *That* table is…

Forms of pronouns and determiners

- In many languages, the distinction that English expresses by word order in:
- ‘John loves Mary’
- ‘Mary loves John’
- is expressed by inflectional means on the words corresponding to *Mary* and *John*.

Forms of pronouns and determiners

- In English, the same technique is used for one small closed class of lexemes, namely *personal pronouns*.

Forms of pronouns and determiners

- If one replaces John and Mary with the appropriate pronouns in these two examples, the outcome is as in following (1 & 2):
- (1) He loves her.
- (2) She loves him.
- *He* and *him* are sometimes said to contrast in ***case.***

Forms of pronouns and determiners

- This kind of inflection has only a marginal role in English, being limited to pronouns; but, if we treat (say) *he* as a lexeme, we must recognise it as having two forms: *he* and *him*.

Forms of pronouns and determiners

- Relationship between nominative and accusative forms is consistently suppletive, as in *I/me*, *she/her*, *we/us*, and *they/them*, except that for *you* the two forms are identical (you).

Forms of pronouns and determiners

- This is consistent with the fact that pronouns are very common, and suppletion affects only very common words such as *go*.

Forms of pronouns and determiners

- If *he* and *him* are forms of the lexeme he , and *we* and *us* are forms of we, what are we to say about corresponding words with a possessive meaning: *his* and *our*, as well as *my*, *her*, *your* and *their* ?

Forms of pronouns and determiners

- Syntactically and semantically, these words fulfil just the same role as noun phrases with the apostrophe-s : *his bicycle* means '*the bicycle belonging to him*' just as that man's bicycle means 'the bicycle belonging to that man'.

Forms of pronouns and determiners

- One possibility is to say that these are pronoun forms belonging to a third case, the genitive or possessive, which stand in for apostrophe-s forms in noun phrases that consistently of a personal pronoun.

Forms of pronouns and determiners

- Another is to classify these words as determiners, because they perform a determiner-like role and cannot be combined with other determiners (we cannot say **the my hat* any more than we can say **the that hat*).
- But these are issues of syntax rather than morphology.

Morphology

- For present purposes, we need merely note how *his*, *our* and the rest behave, while leaving their exact grammatical classification undecided.

END

Morphology and Syntax

Forms of Verbs

Forms of verbs

- Already discussed some forms of English verbs such as performs, performed and perform.
- In English, a verb lexeme has at most five distinct forms, as illustrated here with *give*:

Forms of verbs

Verb Form	Example Sentence
a. third person singular present tense: gives	e.g. Mary *gives* a lecture every year.
b. past tense: gave	e.g. Mary *gave* a lecture last week.
c. progressive participle: giving	e.g. Mary is *giving* a lecture today.
d. perfect or passive participle: given .	e.g. Mary has *given* a lecture today. The lecture is always given by Mary.
e. basic form (used everywhere else): give	e.g. Mary may *give* a lecture. Mary wants to *give* a lecture. Mary and John *give* a lecture every year.

Forms of verbs

- The contrast between present at (a) and past at (b) is a contrast of tense.
- The other dimensions of contrast manifested in (a) are person (third person versus the rest) and number (singular versus plural, just as for nouns and pronouns).

Forms of verbs

- However, because only one word form (gives) exhibits these contrasts, they play a much smaller inflectional role in modern English verbs than in Old English verbs.

Forms of verbs

- For the form labelled ‘perfect or passive participle’, two examples are given, because perfect and passive contexts can be distinguished clearly,
- However, it is a peculiarity of English verb morphology that the corresponding forms are always the same.

Forms of verbs

- Another way of putting this is that, for any verb V, the grammatical words ‘perfect participle of V’ and ‘passive participle of V’ are expressed by the same word form.

Forms of verbs

- A verb lexeme has at most five forms. In fact, most verbs have only four forms, the past tense and the perfect (or passive) participle forms are the same.

Forms of verbs

Perform
a. third person singular present tense: performs
b. past tense: performed
c. progressive participle: performing
d. perfect or passive participle: performed
e. basic form (used everywhere else): perform

Forms of verbs

- When two grammatical words that are distinct for some lexemes are systematically identical for others, as here, these forms are said to be *syncretised*, or to exhibit *syncretism*.

Forms of verbs

- The same syncretism also occurs with some irregular verbs, such as d*ig* and *sting* (past = perfect participle *dug*, *stung*) and all those that use the suffix -t, such as bend, feel, and think (bent, felt, thought).

Forms of verbs

- In all, 150 or so verbs are irregular in that they do not use the -*ed* suffix.
- The study of these irregularities belongs to grammar rather than to word formation.

Forms of verbs

- Other verbs or verb-like words whose behaviour belongs to grammar rather than word-formation are the auxiliaries, such as be and have, and modals, such as can, must, may.

Forms of verbs

- Instead of the usual verbal maximum of five forms, modals distinguish only two (e.g. can, could) or even just one (e.g. must), while be distinguishes eight (am, is, are, was, were, being, been, be).

END

Morphology and Syntax

Forms of adjectives

Forms of adjectives

- Many English adjectives exhibit three forms, for example *green* here:
- Grass is *green*.
- The grass is *greener* now than in winter.
- The grass is *greenest* in early summer.

Forms of adjectives

- The grammatical words that green, greener and greenest express are the positive, comparative and superlative of green, contrasting on the dimension of comparison.

Forms of adjectives

- All these exhibit a regular pattern of suffixation with -er and -est, except for better and best, which are suppletive.

Forms of adjectives

- Comparative and superlative forms of adjectives belong to inflectional rather than to derivational morphology
- In some grammatical contexts in which comparative or superlative adjectives are unavoidable, anything else being ill-formed:

Forms of adjectives

a. This field is greener than that one.
b. *This field is green than that one.
c. *This field is fertile than that one.
a. The greenest fields of all are here.
b. *The green fields of all are here.
c. *The superior fields of all are here.

Forms of adjectives

- Should every adjective lexeme possess a comparative and a superlative form (or, at any rate, every adjective denoting a property that can be present to a greater or lesser degree).

Forms of adjectives

- It is striking that many adjectives lack these forms:
- *Curiouser !
- *This field is fertiler than that one.
- *The fertilest fields of all are here.
- we use periphrastic forms with more or most

Forms of adjectives

- More and more curious!
- This field is more fertile than that one.
- The most fertile fields of all are here.

Forms of adjectives

- Broadly speaking, the suffixes -er and -est appear on adjectives whose basic form has one syllable, or two provided that the second syllable ends in a vowel (e.g. tidy, yellow), while longer adjectives usually require the periphrasis.

END

Morphology and Syntax

Relationships between lexemes

Relationships between lexemes

- *Perform*: perform, performs and performed are grammatically conditioned variants of one lexeme perform, but *performance* was not one of these variants.

Relationships between lexemes

- The reason was that, whereas there are grammatical factors that determine the choice between perform, performs and performed (in appropriate contexts), there is no grammatical factor that requires specifically the presence of *-ance* on performance.

Relationships between lexemes

- The contexts determine where –s, -ed or –ing appear
- No contexts where, if a noun appears, it must carry the suffix -ance.
- The suffix -ance is not one of the small class of suffixes (so-called ‘inflectional’ suffixes) whose use is tightly determined by grammar.

Relationships between lexemes

- What sort of suffix is it, then?
- A short answer: not being inflectional, it must be derivational, since the term ‘derivation’ is used for all aspects of word-structure involving affixation that is not inflectional.
- Let’s see how derivation works in English.

Relationships between lexemes

- Since performance is not a variant of the lexeme perform, it must belong to some other lexeme, which may itself have more than one form.
- What lexeme could this be?
- performance, there is a performances(plural form).

Relationships between lexemes

- Just as cat and cats are the two forms (singular and plural) of the lexeme cat,
- It makes sense to regard performance and performances as the two forms of a lexeme performance.

Relationships between lexemes

- This tells us something about the relationship between perform and performance: it is a relationship not between word forms but rather between lexemes.
- In typographical convention, it a relationship between perform and performance.

Relationships between lexemes

- Thus derivational morphology is concerned with one kind of relationship between lexemes.
- Many ways in which lexemes can be related.

Relationships between lexemes

- Not concerned here with relationships solely of meaning AUBERGINE and EGGPLANT)
- Or of sound (such as the homonymy of ROW' and ROW).

Relationships between lexemes

- Rather, we are concerned mainly with relationships involving affixation, and the grammatical and semantic tasks that such affixation can perform.

Relationships between lexemes

- The term base for the partially complete word form to which an affix is attached so as to create either an inflected word form or a new lexeme.
- Equivalently, the base for an affixation process is what remains if the affix is removed.

Relationships between lexemes

END

- Some bases are roots, whether bound (e.g. wive-, the base for wives) or free (e.g. cat, the base for cats).
- Others, however, already contain a root and one or more affixes, such as helpful in its capacity as the base for helpfulness.

Morphology and Syntax

Word classes and conversion

Word classes and conversion

- How word change classes?
- *The word class to which a lexeme belongs is mainly determined by its meaning.*
- *That belief is however incorrect.*

Word classes and conversion

- Verbs are ‘doing words’, while nouns are ‘thing words’ and adjectives ‘describing words’.

Word classes and conversion

- The trouble with these meaning-based definitions is that, if one takes them seriously, they require us to lump together lexemes whose grammatical behaviour is quite different, and distinguish between ones whose grammatical behaviour is similar.

Word classes and conversion

- Lexeme perform, which looks like a prototypical ‘doing word’, denoting something that actors and musicians do.
- The lexeme performance denotes the same activity, surely.
- Does that mean that perform and performance belong to the same word class?

Word classes and conversion

- Perform has four forms: perform, perform, performing and performed
- Performance has two: performance and performances

Word classes and conversion

- This classification can be made, solely on the basis of their syntactic and inflectional behaviour, with no appeal to meaning
- Meaning may be positively misleading, since a performance is not obviously a ‘thing’.

Word classes and conversion

- Compare now the lexemes perform and resemble
- Resembling, one may think, hardly counts as an activity.
- My great-uncle William resembles a giraffe is not to report some action of his, but rather to describe him.
- ‘describing words’ – adjectives?

Word classes and conversion

- The meaning-motivated conclusion falls foul of syntactic and inflectional evidence.
- These adjectives have degrees (taller, tallest) or phrasal substitutes (more interesting, most interesting);
- Resemble has a set of forms.

Word classes and conversion

- So to identify verbs as ‘doing words’ risks misleading us into neglect of the syntactic and inflectional parallels that justify classifying not only perform but also resemble as a verb.
- Cannot a lexeme have both noun forms and verb forms?

Word classes and conversion

- a root that can carry verbal suffixes such as -ed and –ing as well as the noun plural suffix -s must belong to two lexemes, not one.
- The more interesting question, then, is: do such roots exist? The answer is certainly yes.
- For example, hope and fear

Word classes and conversion

- Ambivalent words are wish , desire, father
- a. She hoped that it would rain.
- b. She feared that it would rain.
- a. her hope that it would rain
- b. her fear that it would rain

Word classes and conversion

- Some linguists: hope and fear, as nouns, are really ‘zero-derived’, carrying a phonologically empty and therefore unpronounceable ‘zero suffix’: Hope -ø, fear -ø.
- Others prefer a lexeme belonging to one class can simply be ‘converted’ to another, without any overt change in shape.

Word classes and conversion

- Sometimes, despite the risks already mentioned of relying on meaning as a criterion, the basic meaning seems clearly appropriate to one word class rather than another; for example, father can function as a verb, it is the noun (as in my father) that is more basic.

END

Morphology and Syntax

Adverbs derived from adjectives

Adverbs derived from adjectives

- Let's take adjective dioecious, meaning 'having male and female flowers on different plants'.
- Certainly, dioecious must be listed in any reasonably complete dictionary of English.

Adverbs derived from adjectives

- The corresponding adverb dioeciously would not have to be listed, because both its existence and its meaning can be taken for granted once the existence of dioecious is acknowledged.

Adverbs derived from adjectives

- This neatly illustrates the distinction between lexemes and lexical items: dioeciously is a distinct lexeme from dioceious , since it belongs to a different word class, but it is not a distinct lexical item.

Adverbs derived from adjectives

- This also illustrates a widespread though not universal characteristic of derivational processes: unlike inflection, they can change the word class of the bases to which they apply.

Adverbs derived from adjectives

- According to introductory treatments of English grammar all adverbs end in -ly.
- If that were true, it would be an unusual word class, all of its members being derived.

Adverbs derived from adjectives

- In fact, simple or monomorphemic adverbs, though few in number, very common words (often, seldom never, soon)
- Some other adverbs are morphologically complex without containing -ly (nowhere, everywhere, today, yesterday,).

Adverbs derived from adjectives

- Also, there are common adverbs that are formed by conversion: fast (as in The car was driven fast) and hard (as in They worked hard), derived from the adjective fast (as in a fast car) and hard (as in hard work).

END

Morphology and Syntax

Nouns derived from nouns

Nouns derived from nouns

- Not all derivational processes change word class.
- English has derivational processes that yield nouns with meanings such as ‘small X’,‘female X’, ‘inhabitant of X’, ‘state of being an X’ and ‘devotee of or expert on X’.

Nouns derived from nouns

Here are some examples all of them must count as lexical items	unpredictable meanings
5) ‘small X’: -let, -ette, -ie	e.g. droplet, booklet, cigarette, doggie
(6) ‘female X’: -ess, -ine	e.g. waitress, princess, heroine
(7) ‘inhabitant of X’: -er, -(i)an	e.g. Londoner, New Yorker, Texan, Glaswegian
(8) ‘state of being an X’: -ship, -hood	kingship, ladyship, motherhood, priesthood
(9) ‘devotee of or expert on X’: -ist, -ian	e.g. contortionist,, Marxist, logician, historian

Nouns derived from nouns

- Many of them have unpredictable meanings (a cigarette is not merely a small cigar, and a booklet is not merely a small book; brotherhood means not ‘the state of being a brother’ but rather ‘secret or semi-secret society’).

Nouns derived from nouns

- Why is there a word actress (albeit less used now than formerly), but there has never been a word ‘writress’ to designate a woman writer?

Nouns derived from nouns

- Nouns derived from members of other word classes
- Nouns derived from adjectives and from verbs are extremely numerous, and it should be easy for you to think of many other examples on the lines of those given here.

Nouns derived from nouns

- Here are some suffixes used to derive nouns from adjectives:
- -ity, e.g. purity, equality, ferocity, sensitivity
- -ness, e.g. goodness, tallness, fierceness, sensitiveness
- -ism, e.g. radicalism, conservatism

Nouns derived from nouns

- Some of these nouns are formed from bases other than the free form of the corresponding adjective, e.g. ferocity from feroc- (not ferocious), conservatism from conservat- (not conservative).

Nouns derived from nouns

- The ferocity pattern is fairly general for adjectives in -ious (compare rapacity, capacity alongside rapacious and capacious) but not absolutely general (for example, to delicious and specious there correspond dioeciouness and speciousness,not ‘delicity or specity).

Nouns derived from nouns

- This gappiness is a reason for counting all nouns in -ity as lexical items.

Nouns derived from nouns

Even more numerous are suffixes for deriving nouns from verbs. Here are just a few:
-ance, -ence, e.g. performance, ignorance, reference, convergence
-ment, e.g. announcement, commitment, development, engagement
-ing, e.g. painting, singing, building, ignoring
-((a)t)ion, e.g. denunciation, commission, organization, confusion
-al, e.g. refusal, arrival, referral, committal
-er, e.g. painter, singer, organiser, grinder

Nouns derived from nouns

- The suffixes all have much the same function forming abstract nouns meaning ‘activity or result of Xing’,
- They are certainly not freely interchangeable: e.g. we have performnce but no ‘performant or ‘performation’.

Nouns derived from nouns

- Affixation is most common way in which lexemes are derived in English, but is not the only way.

Nouns derived from nouns

Some non-affixal ways of deriving abstract nouns (other than conversion) are:	
(19) change in the position of the stress, ,	e.g. nouns permit, transfer alongside verbs permit and transfer
(20) change in the final consonant	e.g. nouns belief , proof defence alongside verbs believe prove, defend
(21) change in a vowel	, e.g. nouns song ,seat alongside verbs sing, sit .By contrast with some languages, however, the derivational use that

Nouns derived from nouns

- English makes of vowel change is minimal. Languages that exploit it much more consistently are members of the Semitic family, such as Arabic and Hebrew.

END

Morphology and Syntax

Adjectives derived from adjectives

Adjectives derived from adjectives

- In adjective prefixes predominate.
- The only suffix of note is -ish, meaning ‘somewhat X’, as in greenish, smallish and remotish ‘rather remote’.

Adjectives derived from adjectives

- By contrast, the prefix un- meaning ‘not’ is extremely widespread: unhappy, unsure, unreliable undiscovered.
- Being common, most dictionaries do not attempt to list all un- adjectives.

Adjectives derived from adjectives

- Another negative prefix is in-, with allomorphs indicated by the variant spellings il-, ir- and im-, as intangible, illegal, irresponsible and impossible.

Adjectives derived from adjectives

- The pairs of more or less synonymous adjectives, one negates with un- and the other with in- or one of its allomorphs:
- eatable/uneatable
- edible/inedible
- readable/unreadable
- legible/illegible
- lawful/unlawful
- legal/illegal

Adjectives derived from adjectives

- Some of the processes that derive adjectives from verbs overlap the divide between derivation and inflection.
- We met the suffixes -ed, -en and -ing, and vowel change, in passive and progressive participle forms of verbs.

Adjectives derived from adjectives

The forms in the following can also be adjectives:
a. a not very *interesting* book b. The party-goers sounded very *drunk*. c. The car seemed more *damaged* than the lamp-post.

Adjectives derived from adjectives

Further suffixes that commonly form adjectives from verbs, with their basic meanings are:	
-able ‘able to be Xed’:	breakable, readable, reliable, watchable
-ent, -ant ‘tending to X’:	repellent, expectant, conversant
-ive ‘tending to X’:	repulsive, explosive, speculative

Adjectives derived from adjectives

- with-able variant, or allomorph, -ible the –ible words have clearly identifiable verbal meanings such as ‘eat’, ‘read’ and ‘touch’, and are bound rather than free.

Adjectives derived from adjectives

- Some of the bound verb roots appear in a number of derived lexemes, such as the *aud-* root that occurs in: audible, audience, audible and auditory.

- Suffixes that form adjectives from nouns are more numerous.

Adjectives derived from adjectives

Here are some:	
-ful	, e.g. joyful, hopeful, helpful, meaningful
-less,	e.g. joyless, hopeless, helpless, meaningless
–al -ish,	, e.g. original, normal, personal, national e.g. boyish, loutish, waspish, selfish

Adjectives derived from adjectives

- Generally seen, adjectives in -ful and -less tend to come in pairs, although the correspondence is not exact: we have slothful, slothless but ‘penniless but not pennifull.

Adjectives derived from adjectives

- This confirms again that, even when the meaning of a potential word may be easily guessable:a ‘slothless’ person would be hardworking, and a ‘penniful’ person would be well off, the existence of the word is not guaranteed.

END

Morphology and Syntax

Verbs derived from verbs

Verbs derived from verbs

- Let's discuss some unusual affixes that are prefixes.
- Most prominent are re- and the negative or 'reversive' prefixes un-, de- and dis-, as in the following examples:

Verbs derived from verbs

paint, enter	**repaint, re-enter**
tie, tangle	**untie, untangle**
compose, sensitise	**decompose, desensitise**
entangle, believe	**disentangle, disbelieve**

Verbs derived from verbs

- The prefix re- has relationship between morphemes and meaning.
- Semantically, the examples are mostly straightforward, although those with de- are less so: to decompose is not to undo the creative work of a musical composer!

Verbs derived from verbs

Also worth mentioning here is the relationship between the verbs in the left and right	
Intransitive verb: don't take object **Lie (past lay)** **rise (past rose)** **fall (past fell)** **sit (past sat)**	**Transitive verbs: 'object 'noun phrase, usually indicating the thing or person that is the goal of the action of the verb** **lay (past laid)** **raise (past raised)** **fell (past felled)** **set (past set)**
The book lay on the table.	**Jill laid the book on the table.**

Verbs derived from verbs

- The transitive verbs in (35) are all causative, that is they mean ‘cause to
- X’, where X stands for the meaning of the corresponding intransitive.
- Causative verb-pairs nearly all involve conversion, as in rather than either affixation or the kind of vowel change

Verbs derived from verbs

- a. Jill boiled the water.
- b. The water boiled.

- The examples in (35) represent a residue of a vowel-change pattern that was more widespread at an earlier stage of the language.

Verbs derived from verbs

- Verbs derived from other word classes
- Verbs derived from nouns and from adjectives are numerous.
- verbs from nouns are:
- de-, debug, deforest, delouse
- -ise, organise, patronise, terrorise
- -(i)fy, beautify, petrify

Verbs derived from verbs

- There are also some common verbs that are derived by replacing the final voiceless consonant of a noun with a voiced one, perhaps with some vowel change too:
- Nouns Verbs
- Bath bathe
- Breath breathe
- Wreath wreathe

Verbs derived from verbs

A meaning for de- at (38) is clearly identifiable, namely 'remove X from' (compare its function in deriving verbs from verbs, e.g. desensites).
The suffixes -ise and -ify can derive verbs from adjectival bases too, as in *nationlise, tenderise, intensify, purify*
The suffix -ate shows the same sort of ambivalence. Words such as *generate, rotate, replicate, and locate* clearly contain a root and a suffix, because the same roots crop up elsewhere (e.g. in *general, rotor, replica, local*).
one prefix to be mentioned: en- (with its allomorph em-), which forms verbs meaning 'cause to become X' or 'cause to possess or enter X' from a few adjectives and nouns: *enfeeble enslave, empower, enrage, enthrone, entomb*.
the prefix en- is combined with a suffix -en: embolden enliven. This suffix usually occurs without the prefix, however, and does so quite widely (e.g. *tighten, loosen, stiffen, weaken, widen, redden, deepen toughen*

Verbs derived from verbs

- These verbs have either an intransitive meaning, 'become X', or a transitive one, 'cause to become X'.
- The adjectives that can constitute bases for such verbs share an unusual characteristic, some verbs in -en that are imaginable, yet do not occur:*greenen, narrowen, strongen, tallen.

Verbs derived from verbs

- With strong we get round this restriction by adding -en instead to the corresponding noun, strength(which ends in a fricative sound), so as to yield strengthen.

END

Morphology and Syntax

Compounds versus phrases

Compounds versus phrases

- Compounds: words formed by combining roots,
- Phrasal words: items that have the internal structure of phrases but function syntactically as words.
- Some types of compound are much commoner than others.

Compounds versus phrases

- Roots in English are mostly free rather than bound.
- How can we tell, then, whether a pair of such roots constitutes a compound word or a phrase that is a unit of sentence structure rather than a complex word?

Compounds versus phrases

- A definite answer is not always possible, but there are enough clear cases to show that the distinction between compounds and phrases is valid.
- a green house,

with its literal meaning,

- a greenhouse,

Compounds versus phrases

Phrases like green house stressed on last word	Like greenhouse stress on the first part
(1) black bóard 'board that is black'	blackboard 'board for writing on'
(2) silk wórm 'worm made of silk (e.g. a soft toy)'	silkworm 'caterpillar that spins silk'
(3) hair nét 'net made of hair'	hairnet 'net for covering hair'
(4) white hóuse 'house that is white'	(the) Whíte House 'residence of the US President'
(5) toy fáctory 'factory that is a toy	tóy factory 'factory where toys are made'
pattern of semantic contrast between expressions stressed in different places is quite common	

Compounds versus phrases

- It is characteristic of phrases in English to be stressed on the last word, unless some contrast is being stated or implied.

Compounds versus phrases

- Apart from stress, a second criterion traditionally used for distinguishing compounds from phrases is semantic.
- A compound tends to have a meaning that is more or less idiosyncratic or unpredictable.

Compounds versus phrases

- This criterion must be treated with caution, however, because, being semantically unpredictable does not correlate exactly with being a word.

Compounds versus phrases

- It is true that words are more likely to be lexical items than phrases are, so treating semantic idiosyncrasy as an indicator of compound status will not often be misleading.

END

Morphology and Syntax

Compound verbs

Compound verbs

- Verbs formed by compounding are much less usual than verbs derived by affixation.
- Nevertheless, a variety of types exist which may be distinguished according to their structure.

Compound verbs

(1) verb–verb (VV): stir-fry, freeze-dry
(2) noun–verb (NV): hand-wash, air-condition, steam-clean
(3) adjective–verb (AV): dry-clean, whitewash
(4) preposition–verb (PV): underestimate, outrun, overcook

Compound verbs

- Only the PV type is really common, however, and some compounds with under-, over- and out- do not need to be classed as lexical items.

Compound verbs

- out- can create a transitive verb meaning ‘outdo in Xing’ from any verb denoting a competitive or potentially competitive activity: outsail, outsing, outswim
- New words with over- created freely overpolish overcriticise

Compound verbs

- All these compounds have a verb as the rightmost element, and also that, with most of them, the activity denoted by the compound as whole is a variety of the activity denoted by that rightmost element.

Compound verbs

- Let us call these compounds right-headed, the rightmost element being the head.
- Most English compounds are right-headed, but not all.

Compound verbs

On the analogy of (1-4) here are some examples of right-headed compound adjectives:
(5) noun–adjective (NA): sky-high, coal-black, oil-rich
(6) adjective–adjective (AA): grey-green, squeaky-clean, red-hot
(7) preposition–adjective (PA): under full, overactive

Compound verbs

- As with verbs, it is the type with the preposition *over* as its first element that seems most productive, in that new adjectives of this type, with the meaning ‘too X’, are readily acceptable: for example, overindignant, oversmooth.

Compound verbs

- In overactive the head of the compound is the adjective active derived from the verb act.
- In structure, this adjective is not a mere string of morphemes (over + act + -ive), but rather a nested structure: [over[act-ive]].

Compound verbs

- Adjectives with a VA structure, corresponding to the VV verbs at
- (2), would resemble a hypothetical ‘float-light’ ‘light enough to float ‘or ‘sing-happy’ ‘happy enough to sing’.

Compound verbs

- One actual example is fail-safe ‘designed to return to a safe condition if it fails or goes wrong’.
- Other such compounds scarcely exist.
- This reflects the relative reluctance of verbs to participate in compounding generally in English.

Compound verbs

- All the compounds in (5)–(7) are right-headed.
- There are also a few compound adjectives that are not right-headed.

END

Morphology and Syntax

Compound Nouns and headed and headless compounds

Compound Nouns and headed and headless compounds

- It is with nouns that compounding really comes into its own as a word forming process in English.
- That is not surprising. Cultural and technical change produces more novel artefacts than novel activities or novel properties.

Compound Nouns and headed and headless compounds

- These changes therefore generate new vocabulary needs that are more readily answered by new nouns than by new verbs or adjectives.

Compound Nouns and headed and headless compounds

Examples can be found with each of the other main word classes supplying the left-hand element:
(13) verb–noun (VN): swearword, drophammer, playtime
(14) noun–noun (NN): hairnet, mosquito net, butterfly net, hair restorer
(15) adjective–noun (AN): blackboard, greenstone, faintheart
(16) preposition–noun (PN): in-group, outpost, overcoat

Compound Nouns and headed and headless compounds

- All of these have the main stress on the left – a characteristic important for distinguishing compound nouns from noun phrases.

Compound Nouns and headed and headless compounds

- The fact that hair restorer, butterfly net and mosquito net are spelled with a space does not affect the fact that, from the grammatical point of view, they each constitute one complex word.
- Most of these are also right-headed.

Compound Nouns and headed and headless compounds

- Arriving at the precise meanings of these compounds depends on our knowledge of the world rather than on purely linguistic knowledge.

Compound Nouns and headed and headless compounds

- The difference in precision with which we can interpret hair restorer on the one hand and hairnet etc. on the other hinges on the fact that restorer in hair restorer is derived from a verb (restore).

Compound Nouns and headed and headless compounds

- Verbs, unlike most nouns and adjectives, impose expectations and requirements on the noun phrases that accompany them in the sentence.

Compound Nouns and headed and headless compounds

- For example, an X-restorer, whatever X is, something or someone that restores X.
- Here are some more compounds whose second element is derived from a verb:
- sign-writer, slum clearance, crime prevention, wish-fulfilment

Compound Nouns and headed and headless compounds

- Some terminology, for convenience
- Call a NN compound like hairnet or mosquito net, in which the right-hand noun is not derived from a verb and whose interpretation is therefore not precisely predictable on a purely linguistic basis, a primary or root compound.

Compound Nouns and headed and headless compounds

- Headed and headless compounds
- The AN compounds ‘faint heart’ alongside blackboard and greenstone.
- a greenstone is a kind of stone and a blackboard is a kind of board, a faint heart is not a kind of heart but a kind of person – heart the head of the compound.

Compound Nouns and headed and headless compounds

- Rather, faint heart is headless, in the sense that its status as a noun is not determined by either of its two components.

Compound Nouns and headed and headless compounds

- Headless AN compounds are loudmouth and redshank (a kind of bird that has red legs), and headless NN compounds are stickleback (a kind of fish with spines on its back) and sabre tooth.

Compound Nouns and headed and headless compounds

- So, although heart is a noun, it is not appropriate to call heart the head of the compound.
- Rather, faint heart is headless, in the sense that its status as a noun is not determined by either of its two components.

Compound Nouns and headed and headless compounds

END

- Headless compounds no internal ‘Centre’, called exocentric –that is, having a ‘centre’ outside themselves, figuratively speaking.
- Headed compounds would be regarded as having an internal ‘centre’; and, sure enough, they are sometimes called endocentric.

Morphology and Syntax

Blends and acronyms

Blends and acronyms

- The examples examined so far, the whole of each component root (or base) is reproduced in the compound.
- Sporadically, we encounter a kind of compound where at least one component is reproduced only partially known as *blends*.

Blends and acronyms

- A straightforward example is smog, blended from smoke and fog;
- chortle blended from chuckle and snort.
- Partial blends, where only one component is truncated, are talkathon (from talk plus marathon).

Blends and acronyms

- cheeseburger and similar blends such as beefburger and vegeburger may have been encouraged by a feeling that hamburger is a compound whose first element is ham – scarcely appropriate semantically, since the meat in a hamburger is beef.

Blends and acronyms

- The most extreme kind of truncation that a component of a blend can undergo is reduction to just one sound (or letter), usually the first.
- Blends made up of initial letters are known as acronyms, of which well-known examples are NATO (for North Atlantic Treaty Organisation).

Blends and acronyms

- SCSI (scuzzy, small computer systems interface), and AIDS (from acquired immune deficiency syndrome).
- Intermediate between an acronym and a blend is *sonar* (from sound navigation and ranging).

Blends and acronyms

- The use of capital letters in the spelling of some of these words reflects the fact that speakers are aware of their acronym status.

Blends and acronyms

- It does not follow that any string of capital letters represents an acronym.
- If the conventional way of reading the string is by pronouncing the name of each letter in turn, as with USA and RP, then it is not an acronym but an abbreviation.

Blends and acronyms

- Acronym are also pluralized like a noun phrase. Often a writer will add an 's' following an apostrophe, as in "PC's". However, some writers would prefer "DVDs" and "URLs".

Blends and acronyms

- Possessive plurals that also include apostrophes for mere pluralization and periods appear especially complex: for example, the C.D.'s' labels (the labels of the compact discs).

Blends and acronyms

- It is clear from these examples that blending and acronym are in active use for the creation of new vocabulary.

Blends and acronyms

- However, they differ from derivational affixation and normal compounding in being more or less self-conscious, and are concentrated in areas where the demand for new noun vocabulary is greatest, such as (currently) information technology.

END

Morphology and Syntax

Compounds containing bound combining forms

Compounds containing bound combining forms

- Most of the compounds that we have looked at so far involve roots that are free forms.

Compounds containing bound combining forms

- But the vocabulary of English, especially in scientific and technical areas, includes a huge repertoire of compounds that are made up of bound roots, known as combining forms.

Compounds containing bound combining forms

- Here are just a few:
- anthropology, sociology, cardiogram, electrocardiogram, retrograde, retrospect, plantigrade

Compounds containing bound combining forms

- The meaning of the whole is clearly determinable from that of the parts: for example, anthrop(o)- ‘human’ plus -(o)logy ‘science or study’ yields a word that means ‘science or study of human beings’, and planti- ‘sole (of foot)’ and -grade ‘walking’ yields a word meaning ‘walking on the soles of the feet’.

Compounds containing bound combining forms

- This semantic predictability is crucial to the coining of new technical terms using these elements.

Compounds containing bound combining forms

- Apart from containing bound roots, anthropology differs in two other ways from most compound nouns.
- Firstly, it has a central linking vowel-o- that cannot conclusively be assigned to either root.

Compounds containing bound combining forms

- In this respect it resembles many combining-form compounds.
- Secondly, although it is a noun, its stress is not on the first element – unless the linking -o- belongs there.

Compounds containing bound combining forms

- In this respect it resembles e.g. monogamy, philosophy and aristocracy.
- We have already countered bound roots that could function as the base for derivational affixation, such as aud- in audible, audition etc.

Compounds containing bound combining forms

- Not surprisingly, some combining forms can function in this way too(in other words, the dividing line between combining forms and other bound roots is not sharp): for example, soci- and electr(o)- from (23) also occur, indeed much more commonly, in social and electric.

Compounds containing bound combining forms

- Given that combining forms, and the compounds that contain them, are so untypical of compounds in general, it is natural to ask how English has come to acquire them.

Compounds containing bound combining forms

- In fact, they come mostly from Greek or Latin, through deliberate borrowings to supply new needs for technical vocabulary that arose partly from the revival of learning in Western Europe in the fifteenth and sixteenth centuries known as the Renaissance.

Compounds containing bound combining forms

- Same also came from the industrial revolution of the eighteenth century and its scientific spin-offs.

END

Morphology and Syntax

Phrasal words

Phrasal words

- In some of the compounds that we have looked at so far, relationships are expressed that are the same as ones expressed in syntax: for example, the verb–object relationship between hair and restore in hair restorer.

Phrasal words

- The relationship is expressed in this compound is quite different from how it is expressed in syntax, in that the two words appear in the opposite order: we say This substance restores hair, not *This substance hair-restores

Phrasal words

- There is a clear difference between compound word structure and sentence structure here.

Phrasal words

- An example of a phrasal word is the noun jack-in-the-box.
- Structurally the appearance of a noun phrase exactly parallel to the phrases people in the street or (a) book on the shelf.

Phrasal words

- But there are also complex items that function as words, yet whose internal structure is that of a clause or phrase rather than of a compound.
- There is no standard term for these items, so may be introduced with the term phrasal words.

Phrasal words

- Though structurally a phrase, then, it behaves as a word.
- Contrast this with another item which is at least as characteristic in meaning and which has a superficially similar structure: brother-in-law.

Phrasal words

- Can phrases other than noun phrases constitute phrasal words?
- The answer is yes.
- Adjectival examples are dyed-in-the-wool (as in a dyed-in the-wool Republican) or couldn't-care-less (as in a couldn't-care-less attitude).

Phrasal words

- Syntactically, dyed-in-the-wool looks like an adjective phrase consisting of an adjective modified by a prepositional phrase, just like suitable for the party or devoted to his children.

Phrasal words

- such a phrase cannot entirely precede the noun it modifies (we say a man devoted to his children not *a devoted to his children man or *suitable for the party music); therefore the behaviour of dyed-in-the-wool is that of a word rather than a phrase..

Phrasal words

- As for couldn't-careless, its structure is that of a verb phrase, but again its behaviour is that of an adjective:
- Your attitude is even more couldn't-care-less than hers!.

Phrasal words

- This seems an appropriate point to mention a small and rather old fashioned class of lexical items exemplified by governor general, attorney general, court martial and lord lieutenant.
- How do they form their plural: like attorney generals, or like attorneys general?

Phrasal words

- If you prefer the former, then these items may seem at first like further phrasal words – except for the fact that they differ from normal English noun phrases in having an adjective following the noun rather than preceding it.

Phrasal words

- It seems better, therefore, to treat them as examples of something that we have not so far encountered: endocentric words which, untypically, have their head on the left rather than on the right..

Phrasal words

- On the other hand, if you prefer the latter sort of plural (attorneys general), they seem more akin to brother(s)-in-law: not words but lexicalised phrases.

Phrasal words

- If, finally, neither kind of plural sounds quite right to you, that is not surprising, because however these items are analysed, their structure is unusual.

END

Morphology and Syntax

Morphological structure: Introduction

Morphological Structure: Introduction

- The meaning of a word is not obtained just by adding the individual meaning of each morpheme.
- The way they are combined provides aspects of the word's semantics in a compositional way.
- This is what is called a structure.

Morphological Structure: Introduction

- Consider the following:
- undecidable three units
- Prefix Un-, a verbal root, decid(e), a suffux, -able
- Let us derive the meaning step by step
- Undecidable roughly means: ‘cannot be decided

Morphological Structure: Introduction

- Why the meaning of the word is ‘cannot be decided’ and not ‘can be not decided’?
- In the first case we refer to an entity that, in any case and not matter how hard one tries, cannot be decided;

Morphological Structure: Introduction

- In the second case, we refer to something that can be decided, but which does not need to be. The way in which a speaker uses the word undecidable is the first and never the second.

Morphological Structure: Introduction

- How can we account for this?
- The way the units are combined with each other.
- We need to represent how the units are organized inside the word, the structure of the word.
- The position of the un- morpheme is a decisive factor.

Morphological Structure: Introduction

- In the first case it modifies the suffix –able and in the second it relates to the verb.
- A



- V A
- decid -able

Morphological Structure: Introduction

- In second step the complex word combines with the negative prefix un-
- A



- Prefix A
-



- V A
- decid(e) -able

Morphological Structure: Introduction

- Once we have decomposed the meaning of the word and associated it with each one of its units, we can establish the correspondence in the following:

Morphological Structure: Introduction

- The prefix un- combine with adjective, decidable not verbal root decid(e). This account for the meaning of the whole word.
- Negation affect the combination of verb and –able not just the verb decid(e).

Morphological Structure: Introduction

The formal properties, the structure shows several things:
A) The grammatical properties of the whole word. The whole structure is an adjective as in undecidable.
B) The units that are responsible for the fact that the word belongs to that particular category are called HEADS
C) It is the combination of the units that produces possible words, and explains that the prefix has a certain meaning as un- has a negative, and not reversative meaning in the word undecidable.

Morphology and Syntax

Morphological properties

Morphological properties

- Any structure is different from a linear series of combined units.
- All relationships between units are identical, while in the Linear series there is always a unit which stands in a privileged position inside the structure that imposes its properties on the whole word called Head .

Morphological properties

- In the word un-decid(e)-able, the head is the suffix –able, as it transmits a number of properties to the whole word.

Morphological properties

a)The grammatical category.
The word undecidable is an adjective, and the affix –able is responsible for this categorization.
Words ending in –able are normality adjectives.
b) The semantics.
The word undecidable denotes a quality, the quality of being unable to be firmly established or refuted. This meaning contribution is associated with affix –able, as all words ending in –able (or -ible) denote the quality of being able to undergo a particular process (demonstrable, deducible, inexpressible…)

Morphological properties

- The head inside a morphological structure is identified because of the properties of the whole word are the same properties that the morpheme itself contain.

Morphological properties

- The properties by the head are crucial in determining the behaviour of the word.
- The grammatical category is crucial in syntactic context, for determining what kind of other words it can combine with,
- The meaning of the word determines it semantic behaviour.

Morphological properties

- A third class ‘formal’ or morphological’, in this sense its members do not affect the syntactic distribution of the word or its semantic behaviour.

Morphological properties

- They specify some morphological properties of the word: its gender, its conjugation class or whether its inflection is regular or irregular.

Morphological properties

- Consider the English verb *undersell*
- It consist of two units under- and –sell the unit –sell is the head.
- It imposes it grammatical category and meaning.
- This unit is also responsible for irregular inflection.

Morphological properties

- In syntactic analysis a head is the only unit in a structure which can stand alone.
- In the phrase ‘The big boy’ the head is ‘boy’ and whose absence will make an ill-formed sentence.
- *The big failed the examination.

Morphological properties

- The head in morphology is frequently a bound morpheme which cannot stand alone without having been combined with other morpheme.
- As in *government* – *ment* cannot stand alone.
- Thus syntactic criterion is not followed by morphology.

END

Morphology and Syntax

A-Morphous Morphology

A-Morphous Morphology

- The existence of morphological structure has certain controversies.
- A number of proposals claim that words do not have an internal structure.
- Let's look at this influential theory that argues for this view.

A-Morphous Morphology

- This theory proposed by Anderson (1992) argues that words do not have internal structure.
- A number of arguments against that analysis that proposes internal structure in words.

A-Morphous Morphology

- A structure is defined as a set of units organized in a particular way.
- A prerequisite for having a structure is identifying a set of units that can be organized
- This commits a theory that argues for word-internal structure.

A-Morphous Morphology

- Anderson's first argument against this view of word-internal structure is:
- The relevant units, morphemes, do not exist on the basis of the problems that the classical notion of morpheme encounter.

A-Morphous Morphology

- Anderson's view of morphology is REALIZATION, a system where there are no one-to-one correspondences between the meaning and the form of the word.

A-Morphous Morphology

- In a system like this the meaning of a complex word cannot be established by identifying smaller units which contribute their meaning to the whole as in *cranberry* morpheme having two units' *cran*- and *–berry*.
- The meaning cannot be explained by combining the meaning of the two.

A-Morphous Morphology

- A-morphous morphology proposes that word meaning cannot be reconstructed in that way because units we have segmented are not real.
- The word cannot be divided into smaller units, and, by implication it is impossible to identify any internal structure.

A-Morphous Morphology

- A-morphous provides a second argument that show the intuitions of a speaker about meaning-form correlation are not reliable.
- The argument has to do with PHONOAESTHEME

e.g.sequences of sounds which evoke a particular meaning.

A-Morphous Morphology

- Anderson notices the words such as slide, slip, slither, slink and slippery share, in the intuition of most speakers, a part of their meaning and phonological sequence, /sl/, but it would not be justified to propose that sl- is a morpheme in English.

END

Exocentricity

Exocentricity

- The most important unit of a structure is the head that imposes its properties.
- Exocentricity is a situation in which none of the units that can be segmented inside the word is responsible for the properties that the word exhibits.

Exocentricity

- So the lack of a head makes is doubtful whether there is an underlying structure in that object.
- Exocentricity has been studied especially in the domain of compounding, so we will concentrate on these cases here.

Exocentricity

- *To grandstand*
- *A pick pocket*
- The case is exocentric because the unit that seems to impose its grammatical category (verb-*stand*) on the whole object does not impose the rest of its properties on the word: *Grandstood*
- *grandstanded*

Exocentricity

- This case is to be contrasted with *understand*, derived from stand by the prefix under-.
- The compound in (to grandstand)is exocentric in the sense that none of its elements can explain the semantics of the word: A pick pockets

Exocentricity

- Williams (1981) proposed that these objects are created through exocentric rules, that is transform the properties of the object, but do not add any new unit that introduces these properties.

Exocentricity

- However, accepting exocentric rules amounts in practice to accepting that some words do not have a complete morphological structure.

Exocentricity

- As we can see, Exocentricity is used in practice to label all the situations where the properties that an object has are not the immediate reflection of the properties of one of its units.

Exocentricity

- For this reason, it seems appropriate to classify that the different kinds of Exocentricity depends on the kind of property that shows the mismatch.

Exocentricity

- We will discuss, in turn, category features, semantic features, and morphological features such as whether a verb is irregular or regular, or to which gender it belongs

END

Morphology and Syntax

Bracketing paradoxes

Bracketing paradoxes

- A crucial property of a structure is that both the formal and the semantic properties of the word need to be represented in the structure.

Bracketing paradoxes

- For this reason, the situations where the semantic and the formal properties of an object do not coincide are problematic for the idea that words have internal structure.

Bracketing paradoxes

- These situations are known as BRACKETING PARADOXES (Williams 1981, Beard 1991).
- There are three kinds of bracketing paradox.

Bracketing paradoxes

- One kind of bracketing paradox is the situation in which the formal properties of one of the units requires it to combine with a particular base, but the meaning of the word suggests that it combines with a unit smaller than the base.

Bracketing paradoxes

- Take the word *international*. The formal properties of the word require the prefix *inter-* to combine with the adjective *national*, as the word **international* does not exist in English.

Bracketing paradoxes

- a. [inter [[nation]N al]A]A
- b. [[inter[nation]N]N al]A
- This structure gives the wrong semantics for the word, '*relation* between at least two national things.'
- The word means more precisely 'among nations'.

Bracketing paradoxes

- Thus, as far as the meaning of the word goes, the prefix does not combine with the adjective *national*, but with the noun *nation* from which national is formed (as in the structure in (b)).
- b. [[inter[nation]N]N al]A

Bracketing paradoxes

- However, (b) is impossible on formal grounds, because the prefix cannot combine directly with the noun nation, as **internation* does not exist, and this structure contains inside it this impossible word.
- The two possible structures make wrong predictions at some level.

Bracketing paradoxes

- Another kind of paradox comes when a unit combines with a word but semantically modifies not only the word, but a bigger structure in which the word is included.
- Consider the expression Vulgar Latinist.

Bracketing paradoxes

- This does not refer to *Latinist who happens to be Vulgar*, but to someone *who studies Vulgar Latin*.
- This requires the suffix *–ist* to combine with whole phrase Vulgar Latin, and not only with the noun Latin, because that would give us the wrong semantics.

Bracketing paradoxes

- One of the properties of affixes is that they cannot combine with phrases, but only with morphological objects

Bracketing paradoxes

- Last kind of paradox take into account phonological factors.
- In the case unhappy, there is a paradox in the sense that the meaning of the adjective (more unhappy) require the suffix –*er* to combine with the trisyllabic adjective unhappy.

Bracketing paradoxes

- It is known that generally trisyllabic adjective take the adverb more in the comparative.
- Avoiding this phonological infraction implies proposing that –*er* combines with happy and then *un-* is combines with happier.

Bracketing paradoxes

END

- This gives the wrong semantics as it mean; *not more happy*' which the speaker does not interpret.
- There is no analysis for bracketing in the general case which cover the three paradoxes.

Morphology and Syntax

Parasynthesis

Parasynthesis

- The phenomenon known as Parasynthesis constitutes a problem for morphological structures because it casts doubt on one of its crucial properties, namely binary branching: two morphemes can be combined never triplet or bigger sets.

Parasynthesis

- Non-binary branching was rejected before on the grounds that when more than two units are combined at a time the relationship which is established between them is not clearly stated.

Parasynthesis

- Parasynthesis is the situation where two different affixes - normally a prefix and a suffix - seem to be added simultaneously to the same base.
- One example of this is the Spanish verb *engrandecer* '*to enlarge*', from the adjective *grande* 'big.'

Parasynthesis

- Neither the set formed by the base and the suffix (a hypothetical verb *grandecer) nor that which includes the prefix and the base (a hypothetical adjective *engrande) constitutes a word in Spanish.

Parasynthesis

- In consequence, if it is assumed that only existing words can form the basis for further derivation, one is forced to conclude that the verb *engrandecer* has been formed by adding two units at the same time, the prefix *en-* and the suffix *-ece*, to the base *grande*.

Parasynthesis

- The same structure, with a zero suffix, has also been proposed in English for words such as *enlarge* ; in this way, the analysis avoids saying that the prefix en- is responsible for the category change, since in English prefixes generally do not have this ability.

Parasynthesis

- It is crucial in Parasynthesis that the combination with only one of the two affixes does not produce an existing word in the language.

Parasynthesis

- In other words, English discontented is not a case of Parasynthesis, because the root and the prefix form an existent word (discontent); equally, the root and the suffix form one (contented).

Parasynthesis

- Different proposals have been made to avoid the ternary structure in (26).
- a. [en [gran(e)]$_{A}$ ece]$_{V}$
- b. [en [large] ø]v
- One of the most widely accepted is to consider the prefix and the suffix to be a discontinuous morpheme, a circumfix.

Parasynthesis

- In this way, the structure would be binary branching, as only two units, [en . . . ece] and [grande], are combined.
- The analysis of Parasynthesis as a circumfix has an empirical problem.

Parasynthesis

- The circumfix that should be proposed in the case of *engrandecer* has a second part which is identical to a Spanish suffix
- Palid –ece (fade)
- and a first part that, again, is identical to a Spanish prefix
- En-frente (in fron)
- .

Parasynthesis

- The fact that these units exist independently of each other suggests that it is not accurate to propose that a circumfix is responsible for the verb *engrandecer*.

Parasynthesis

- The weak side of this analysis is that has to postulate an intermediate phase with a possible but non-existent word hypothesis, *grandece*
- Some linguists accept but others deny.

END

Morphology and Syntax

Introduction: Derivation & Semantics

Introduction: Derivation & Semantics

- The Utne Reader quoted the following Bucharest sign in its March–April 1996 issue:
- The lift is being fixed for the next day.
- During that time we regret that you will be unbearable.

Introduction: Derivation & Semantics

- Why is this sign so funny?
- First of all, unbearable already exists in English with the meaning ‘difficult to tolerate’, and this is the meaning we first think of when we read the sign.
- But this isn’t the whole story.

Introduction: Derivation & Semantics

- If we replace unbearable with a similar but unambiguous word, like transportable, the sentence is no longer humorous, but it still sounds less than native.

Introduction: Derivation & Semantics

- It’s because words like unbearable, untransportable, and uneatable describe inherent qualities of people or things, qualities that don’t change simply because an elevator is out of order.

Introduction: Derivation & Semantics

- To take another example, the fact that someone is allergic to chocolate doesn't make the chocolate cupcakes in the window uneatable.

Introduction: Derivation & Semantics

- In this simple sign, there is a complex interaction between affixation and semantics going on, and that is the sort of thing that we explore in this chapter.

Introduction: Derivation & Semantics

- We begin by introducing a fundamental problem in lexical semantics, the study of word meaning: the meanings of individual lexemes can be highly diverse.

Introduction: Derivation & Semantics

- We then examine in some detail the semantics of derived lexemes to see what generalizations we can draw.

END

Morphology and Syntax

Polysemy Problem

Polysemy Problem

- The most fundamental aspect of a word's meaning is that it refers to some entity or relation (real or imaginary) in the world. We can refer to this entity or relation as the word's semantic type.

Polysemy Problem

- Formal approaches to grammar have provided us with terminology that allows us to make even more fine-tuned distinctions between words

Polysemy Problem

- The word reptile refers to all individuals in the world that are reptiles.
- Verbs like respect or love refer to relationships between individuals.

Polysemy Problem

- We can differentiate:
- bear from teddy bear foliage from leaf
- literature from book on the basis of the mass/count distinction.
- Verbs are given labels such as ergative, accusative, transitive, or intransitive

Polysemy Problem

- The main problem of lexical semantics is that the meanings of individual lexemes are highly diverse. We call this the problem of polysemy.
- As an example, take the verb lose.

Polysemy Problem

- They lost their passports;
- Jake lost his job;
- Sarah lost her husband to cancer;
- I lost my temper;
- we both lost ten pounds.

Polysemy Problem

- But all of the meanings of lose reflected here are related – they are all instances of the same lexeme.
- Because lose has more than one related meaning, we say that it is polysemous.

Polysemy Problem

There are many types of polysemy.		
(1)mass/count distinction	(1) a. I love watermelon. (mass)	b. I sold three watermelons. (count)
(2) Figure–ground reversal	a. Hugh broke the window.	b. The kids climbed through the window.
(3) Container–contained alternation	a. A hot glass put under cold water will shatter.	b. Franny downed the glass in two seconds flat.
(4) Place–people alternation	a. The president and his family live in the White House.	b. The White House announced yesterday that the peace talks will continue.

Polysemy Problem

- The sentences in (2–4) contain pairs of words with very different – even contradictory – interpretations. Yet they represent single lexemes.

Polysemy Problem

END

- Examples like these show that the same phonetic string can convey different, but related meanings depending on the linguistic and pragmatic context.
- This introduction to polysemy leads into the discussion which focuses on the semantics of derived lexemes.

Morphology and Syntax

The Semantics of Derived Lexemes

The Semantics of Derived Lexemes

- When somebody makes up a word, they are inventing it for use under a particular circumstance. Sometimes the circumstance can be very peculiar. Take the sentence:
- Joe was Houdini'd and died.

The Semantics of Derived Lexemes

- The second factor that can affect a word's meaning is its history. We might think of every lexeme not just as a word and its meaning, but as the word and every time it has ever been used: every time we hear the word, we revise its lexical entry in some way.

The Semantics of Derived Lexemes

That this indeed goes on is particularly evident from first-language acquisition research.

The Semantics of Derived Lexemes

- Children in earlier stages of language acquisition may under extend a word by using it to refer to only a subset of its actual referents, or overextend a word by using it to refer to objects or individuals that are typically covered by the word, as well as to others that are "perceptually similar" (Clark 1993: 33).

The Semantics of Derived Lexemes

- For example, a child might under extend the word dog by using it to refer to more typical examples of the species, but not to varieties like Chihuahua or Pekingese (Kay and Anglin 1982), or overextend tree by using it to refer to potted plants, trees, and even balsam fir wreaths.

The Semantics of Derived Lexemes

- Such under- and overextensions are generally short-lived, which indicates that children revise lexical entries as they are exposed to more and more tokens of a word.
- It is not unreasonable to think that the meaning of a word is a compilation of every single use of that word.

The Semantics of Derived Lexemes

- Every word has a history. It has your own personal history – how you have heard the word. It has the history of the word as it has been used by other people.

The Semantics of Derived Lexemes

- Over time, the meanings of words can become more complex and diverse, making the task of the morphologist looking for semantic patterns of word formation more complicated than it would be if the semantics of word formation were purely compositional.

The Semantics of Derived Lexemes

- A syntactic construction may have pragmatics to deal with, but it doesn't have history.

The Semantics of Derived Lexemes

- One question you might want to ask is what kinds of meanings arise via lexeme-formation rules.
- Are derived forms like lexemes, with potentially very complicated meanings?
- Or are they like syntactic collocations, with simple meanings?

END

Morphology and Syntax

The semantics of affixation

The semantics of affixation

- Let's take the English suffix -ism. This affix has some very highly lexicalized meanings, one of which is 'doctrinal system of principles'.
- We find this meaning in words like the following, and many others having to do with religion, philosophy, science, politics, or the arts:

The semantics of affixation

Religion	Philosophy	science, politics, or the arts	
Catholicism	Platonism	romanticism	McCarthyism
Judaism	Marxism	realism	socialism
Buddhism	idealism	surrealism	fascism

The semantics of affixation

- The suffix -ism has an even more specific and lexicalized meaning:
- ‘a peculiarity of speech’. We talk about colloquialisms, spoonerisms, and Obamaisms (Obamaism can either be a system of beliefs or a peculiarity of speech).

The semantics of affixation

- So -ism is an example of a suffix with two very highly lexicalized meanings, both of which might be considered to be more characteristic of words than of affixes.

The semantics of affixation

The German suffix -ei is like -ism in having at least two very highly lexicalized meanings. The first, illustrated by the words in (8), attaches to a noun and makes another noun meaning 'the place in which X works'.
a. Bäcker 'baker' → Bäckerei 'bakery'
b. Drucker 'printer' → Druckerei 'printing office, print shop'
c. Sattler 'saddler' → Sattlerei 'saddlery, saddler's workshop'
d. Tischler 'joiner' → Tischlerei 'joinery'

The semantics of affixation

The second, seen in (9), attaches to a verb stem and creates a noun referring to the 'act of doing X':
a. plaudern 'chat (v)' → Plauderei 'chat (n)'
b. zittern 'tremble' → Zitterei 'trembling'
c. prügeln 'clobber' → Prügelei 'brawl, fight'
d. quengeln 'whine' → Quengelei 'whining'

The semantics of affixation

- English has a cognate suffix of French origin, -(e)ry, as in bakery, tannery, winery; bribery, flattery, foolery.

END

The semantics of zero-derivation

The semantics of zero-derivation

- We now address a type of word formation which is much more abstract: zero-derivation. Zero-derivation results in lexemes whose interpretation is context-dependent.

The semantics of zero-derivation

- The peculiarity of zero-derived verbs is that they often have a wide range of meanings. To give you just one example, the verb to sand denotes two very different actions.

The semantics of zero-derivation

While sand is well established as a verb, zero-derivation is a productive derivational process in English (cf. 4.2.2), as shown by the following nonce forms presented by Clark and Clark. All of these sentences are actual quotations:
a. Ruth Buzzi house guested with Bill Dodge (Herb Caen, SF Chronicle)
b. He wristed the ball over the net (tennis commentator)
c. When you're starting to Sunday School members, then I think you're going too far (a Californian legislator)
d. Will you cigarette me? (Mae West)
e. We all Wayned and Cagneyed (NY Times magazine)

The semantics of zero-derivation

Location	(N is at a place) blanket, saddle, roof (put something at N) kennel, ground, cellar
Duration	(spend the duration of N) summer, holiday, vacation, weekend
Agent	(N acts) jockey, referee, umpire, pilot
Goal	(make into N) fool, orphan, baby, cripple, pile, loop, powder
Instrument	(use N) ship, nail, glue, shampoo, fork
Miscellaneous	lunch, hay, whale, dog

The semantics of zero-derivation

- while shipping originally took place via ship, today we ship things by truck or air. We might redefine this category as ‘do what you do with N’.

The semantics of zero-derivation

- The miscellaneous category includes some interesting words. We use the verb whale to mean ‘catch whales’ or fish to mean ‘catch fish’ but are hard pressed to come up with many other verbs of this type. We don’t use a verb deer to mean ‘hunt deer’ or butterfly for ‘catch butterflies’.

The semantics of zero-derivation

- The zero-derived verbs with the most extensive semantic possibilities are probably those that are derived from personal names. To understand them, you need to know something about the person and often about a particular event.

The semantics of zero-derivation

12), you have to know the circumstances of Houdini's death: (12) Joe was Houdini'd and died.	
(13) a. My sister Houdini'd her way out of the locked closet. b. I would love to Houdini those ESP experiments.	

The semantics of zero-derivation

- The semantic obscurity of verbs derived from personal names results in speakers forgetting very rapidly that there even was a zero-derivation.

The semantics of zero-derivation

- To restate this analysis, the wide array of meanings of zero-derived verbs results from two properties.
- The first is that the rule by which they are formed is very simple, specifying only that we take a noun and form a verb.

The semantics of zero-derivation

- The second is that conversational convention dictates only that the verb have something to do with the noun. We can reasonably comepare this analysis down even further and say that the proper analysis of zero-derived verbs is that they are simply verbs.

The semantics of zero-derivation

- The fact that they denote an activity connected with the noun is derivable on purely conversational grounds.

The semantics of zero-derivation

- While any English speaker can see the connection between nurse (noun)and nurse (verb) or bottle (noun) and bottle (verb), most aren't aware that boycott and lynch are of the same ilk.

The semantics of zero-derivation

- Robert Lees, in his classic book on English nominals (1960), derived the meanings of denominal verbs from sentences containing them. The verb summer would be derived from the phrase spend the summer and the verb kennel from keep in a kennel.

The semantics of zero-derivation

- While other derivational formations don't have as dramatic an array of potential meanings as zero-derived verbs, we still find variety.

END

English agent nouns in -er

English agent nouns in -er

- Another derivation that works in the same way as zero-derived verbs but is a little simpler. Marchand gives examples of English agent nouns in -er. He points out that they fall into four basic categories, which can be broken down even further into two separate sets.

English agent nouns in -er

The four basic categories are listed below:	
Persons:	baker, dancer, gambler, driver
Animals:	pointer, retriever, warbler, trotter
Material objects:	blotter, eraser, fertilizer, shutter
Immaterial objects:	reminder, clincher, thriller, eye-opener
These nouns can be further divided into their habitual and non-habitual uses.	
Habitually:	He is a gambler. we usually mean that he gambles regularly.
non-habitually:	All ticket-holders may enter

English agent nouns in -er

- There are two possible analyses of agent nouns, both of which are reasonable.
- We won't try to choose between them here.
- One is the strategy to assign the derivation a sparse semantic rule.

English agent nouns in -er

- So an agent noun is ‘someone or something connected with what the base denotes’, or alternatively, ‘somebody or something whose function or characteristic is to perform a particular act’.
- For now we assume the latter.

English agent nouns in -er

- It permits the categories person, animal, material object, and immaterial object, as well as a habitual or non-habitual interpretation.

English agent nouns in -er

- The other method which linguists might use to account for possible meanings of X-er agent nouns involves prototypes, also called archetypes.
- The idea is that not all members of a given category are equal.

English agent nouns in -er

- Reasonably the prototypical agentive is a person who habitually performs a particular type of action. So the prototypical agentive is a word like baker, dancer, gambler, or driver, in the habitual sense. These reflect the core meaning of this particular formation.

English agent nouns in -er

- Other forms, like retriever, blotter, or clincher, involve relaxation of the core meaning. We use them to distinguish one specimen from other members of its class.
- A pointer
- A retriever

English agent nouns in -er

- When we claim that persons are the prototypical members of the category of agentive nouns, we can also argue that some other members of the category – material objects like screwdrivers, for example – aren't agents at all. Instead, they are instruments, because they don't have will.

English agent nouns in -er

- In short, the second method of analyzing agentives is to establish a central case, the prototype, and to work out from that to get the others.

END

Morphology and Syntax

Introduction
Inflection

Introduction: Inflection

- What is the plural of euro, the name of the European currency?
- The answer seems obvious: euros – one euro, two euros,
- -s is the productive plural marker in English and is normally used with new coinages, e.g. modem or byte: modems, bytes.

Introduction: Inflection

- In Ireland, the only largely English-speaking country in the euro zone,
- four euro and not four euros.
- Why?
- The answer lies in the multilingual nature of the euro zone.

Introduction: Inflection

- Name of the currency itself bespeaks such multilingualism: its devisers had to come up with a name that could be both written and pronounced in all of the languages in the zone.
- It is pronounced differently in each of the languages.

Introduction: Inflection

- A 10-euro bill has the solution to this multilingual problem that was found. First, unlike the US 10-dollar bill, where ten dollars is written out in full.

Introduction: Inflection

- The word for ‘ten’ is written in numerals: 10.
- The reason is simple: 10 can be written identically while still being pronounced differently in each of the languages of the zone.

Introduction: Inflection

- The second problem: the plural form of euro, which follows the numeral, must also be written uniformly on the bill and, though several major European languages besides English use the plural marker -s(French, German, and Spanish do), not (Italian, etc. never uses an -s plural).

Introduction: Inflection

- The bill reads simply 10 EURO/EYPW and the spoken languages have all followed the same practice of not using any plural marker either, making the plural of euro euro in Ireland.

Introduction: Inflection

- The linguistic point of this story is that even when several languages share the same word, as they do with euro, the inflectional systems of the languages differ, and this difference normally affects the forms of the words.

Introduction: Inflection

- Inflection varies from one language to another more than any other systematic aspect of language.
- Let's see how it varies across languages widely but still remain quite relentlessly systematic within themselves.

END

Morphology and Syntax

What is Inflection?

What is Inflection?

- The inflection is from Latin root *flect-* means '*bend*' but this bending is now become *altering the shape of the word* to fit in a particular sentence.
- Every sentence is a syntactic frame with positions for a series of words.

What is Inflection?

- This _____ is clever.
  Noun
- In order to fill one of those positions, you take a lexeme from the lexicon and bend it to fit.
- In this way, inflectional morphology is determined by syntax.

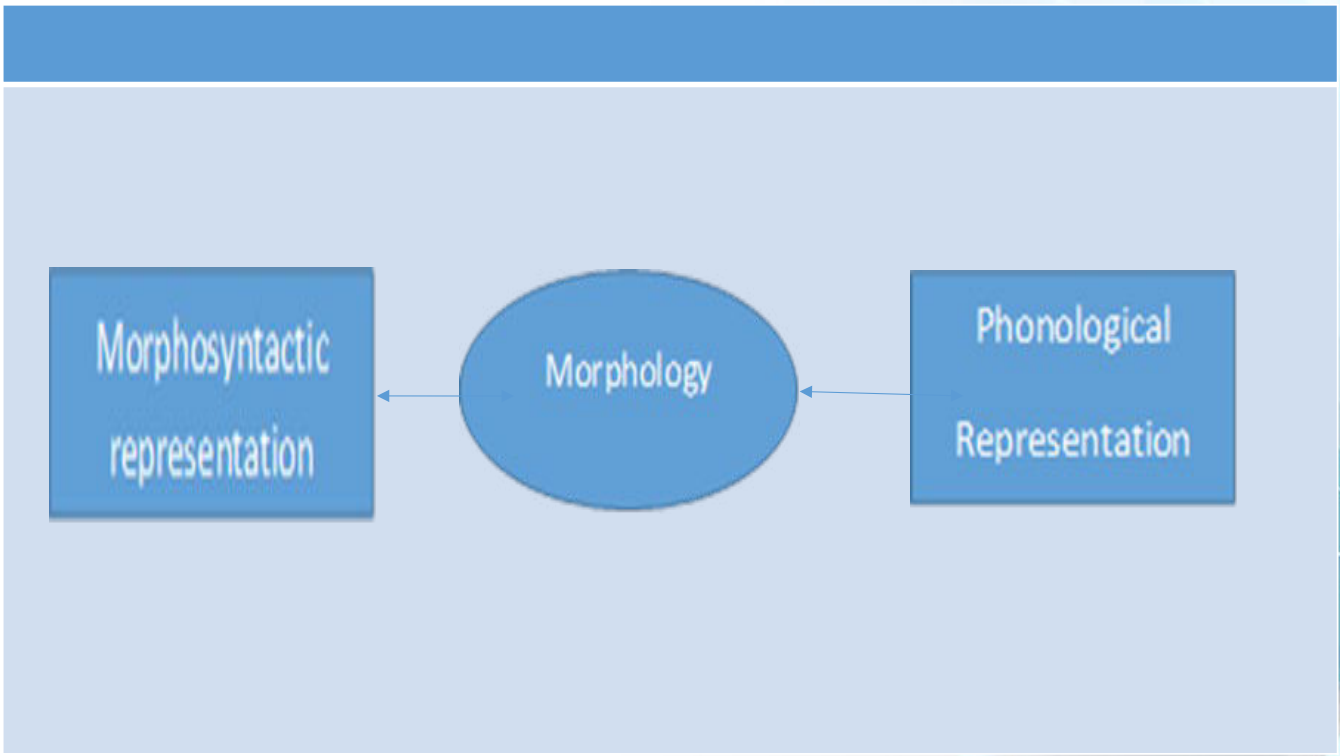
What is Inflection?

- What kinds of things do lexemes express through inflection?
- In general we speak of inflection expressing morphosyntactic information: syntactic information that is expressed morphologically.

What is Inflection?

- This includes the abstract syntactic categories of, *tense*, *aspect, number*, and *case*.
- Since the syntax provides the morphology with morphosyntactic features, the job of the morphology must be to get from there to the actual phonological realization:

What is Inflection?



What is Inflection?

- The answers to that question.
- Exponence: refers to the realization of morphosyntactic features via inflection.
- In *seas*, the morpheme[z] is the exponent of the morphosyntactic feature plural,
- In sailed, [d] is the exponent of past tense or past participle

What is Inflection?

- In both cases there is a one-to-one relationship between form and meanings, since one morpheme realizes one morphosyntactic feature, a situation that Matthews calls simple exponence.
- Lastly, inflection for *case, number,* and *gender* in many Indo-European languages involves cumulative exponence. like Latin -o: in am-o: 'I love',

What is Inflection?

- Context-free and context sensitive inflection.
- Context-free inflection when there is a simple directional mapping between a morphosyntactic feature and a particular phonological string.
- as /-iŋ/, refers to context-free inflection:

What is Inflection?

- All present participles in English bear the same suffix.
- Inflection for past tense in English is context sensitive in the sense that the feature [past] is realized as many things depending on the lexeme it attaches to, with /-d/ suffixation being the default case.

What is Inflection?

- Inherent vs. assigned inflection
- Nouns and pronouns are marked as having a particular gender in the speaker's mental lexicon.
- For them, gender is inherent.

What is Inflection?

- For any other lexical category that reflects the gender of nouns and pronouns, such as adjective and verb, gender cannot be inherent.
- It must be assigned.
- Government vs. concord
- Another word for concord is agreement.

What is Inflection?

- Concord or agreement occurs when one element in a sentence takes on the morphosyntactic features of another element.
- One example of concord is noun–adjective agreement in the Romance languages or German. Adjectives take on the number and gender of the noun they modify.

What is Inflection?

- Government is more or less what it sounds like: one word dictates the form of another.
- Case assignment by verbs is usually thought of in this way. When a noun is required to appear in objective case, for example, it cannot be said that it agrees with (reflects the case of) the verb. This is because verbs don't have case. The same holds for prepositions.

What is Inflection?

- Inflectional categories
- While most languages have morphological inflection of some sort, the actual inflectional categories can differ quite widely across languages. In this section, we briefly survey both the most common categories and some of the ways languages may differ.

What is Inflection?

END

- It is convenient to make a first broad cut into nominal and verbal categories, though the nominal categories often appear on adjectives and verbs through concord.
- The most common nominal categories are number, gender and case.

Morphology and Syntax

Inflection vs. Derivation

Inflection vs. Derivation

- Within a lexeme-based theory: derivation gives new lexemes, and inflection gives you the forms of a lexeme that are determined by syntactic environment.
- What exactly does this mean, and is there really a need for such a distinction?

Inflection vs. Derivation

- The first question about the distinction is whether there is any formal basis for distinguishing the two types of morphology.
- Can we tell them apart because they do different things to words?

Inflection vs. Derivation

Distinction between inflectional and derivational morphemes
• Inflection does not change the core lexical meaning or the lexical category of the word to which it applies. Derivation does the former and may do the latter.
• Inflection is the realization of morphosyntactic features, i.e., those that are relevant to the syntax, such as case and number. Derivation is not.
• Inflectional morphology is more productive than derivational morphology.
• Derivational morphology tends to occur closer to the root or stem than inflectional morphology.
• Derived lexemes are more likely to be stored in the lexicon than inflected forms.

Inflection vs. Derivation

- Despite the generalizations made above, the morphological form that inflection and derivation may take is very similar.
- Cross-linguistically, both can be expressed through prefixal, suffixal, or non-segmental means.

Inflection vs. Derivation

- The difference between inflection and derivation is therefore not so much a difference in form as a difference in function – what they do and what they tell us.

END

Morphology and Syntax

Inventory of Inflectional Morphology Types

Inventory of Inflectional Morphology Types

- What are the ways in which speakers inflect, or “bend,” lexemes to make them fit into a certain syntactic slot?
- We present a list of inflectional morphology types here.
- Not comprehensive, it will give a broad understanding of how inflection may be expressed.

Inventory of Inflectional Morphology Types

- Affixation and stem alternations
- The most common means by which inflectional categories are expressed.
- For that reason we do not address affixation on its own here.

Inventory of Inflectional Morphology Types

- We present it with stem alternations, another means of expressing inflection in the world's languages.

Inventory of Inflectional Morphology Types

- We wish to emphasize that just as affixation does not necessarily occur with stem alternations, stem alternations do not necessarily occur with affixation.
- We present them together merely for organizational purposes.

Inventory of Inflectional Morphology Types

- Latin is one language where in many cases, affixation interacts obligatorily with stem alternations in the expression of inflectional categories.
- rēxistı- ‘you ruled’.The perfective stem rēx- can be contrasted with the present stem reg-.

Inventory of Inflectional Morphology Types

- Apophony
- In some cases affixation is supplemented or replaced by apophony, or vowel changes within a root, as shown below for English and the Bernese dialect of Swiss German: (14) a. sing, sang, sung b. drive, drove, driven

Inventory of Inflectional Morphology Types

- a. suuffe [su:f e] ‘drink (inf)’gsoffe [°gs c f: e] ‘drunk (past part)’
- b. schwimme [ʃuim: e] ‘swim (inf)’gschwomme [°gʃuʊ̈m: e] ‘swum’
- c. pfyffe [pfi:f e] ‘whistle (inf)’pfiffe [pfif: e] ‘whistled (past part)’

Inventory of Inflectional Morphology Types

- Other terms for apophony are internal change and, particularly when referring to English and other Germanic languages, ablaut.
- All three of these terms are sometimes applied to the vowel changes that apply to roots in Semitic languages.

Inventory of Inflectional Morphology Types

- In the context of Germanic linguistics, ablaut is often reserved for apophony in verb paradigms, as seen.
- A second term, umlaut,is used to describe the apophony found in singular–plural noun pairs like goose~geese or foot~feet.

Inventory of Inflectional Morphology Types

- Umlaut is a phonologically conditioned alternation in which a vowel assimilates in part to a succeeding vowel.

Inventory of Inflectional Morphology Types

- The term is used even when the succeeding vowel has been lost. For instance, goose, geese and foot, feet resulted from vowel harmony with a high vowel in the plural suffix, which has since disappeared.

END

Morphology and Syntax

Inventory of Inflectional Morphology Types II

Inventory of Inflectional Morphology Types II

- In the Semitic language family, inflection often involves internal variations in vocalic and syllabic patterns, while the consonantal frame stays fairly stable.
- We call this root-and-pattern morphology: in certain Arabic nouns.

Inventory of Inflectional Morphology Types II

- The inclusion of the loanword ‘bank’ is to show that this particular way of forming the plural (referred to as the broken plural) is productive.
- In the examples below all of the plural forms begin with the syllable pattern CVCVV+:

Inventory of Inflectional Morphology Types II

Root	Singular	plural	gloss
Jndb	jundub’	janaadib	‘locust’
slt˙n	sult-aan	salaat˙iin’	‘sultan’
nfs	nafs	nufuus	‘soul’
bnk	bank	bunuuk	‘bank’

Inventory of Inflectional Morphology Types II

- Root-and-pattern morphology is yet another way of “*bending*” a form to fit a particular syntactic context.
- Reduplication
- A way for expressing inflection that we find in certain languages.

Inventory of Inflectional Morphology Types II

- Reduplication already discussed, but from a phonological perspective.
- examples Indonesian plural here.
- kuda-kuda ‘horses’
- rumah-rumah ‘houses’
- singkatan-singkatan ‘abbreviations’

Inventory of Inflectional Morphology Types II

- Indonesian plural reduplication is not obligatory.
- Speakers of Indonesian have the option of using the unreduplicated form to refer to either singular or plural. So kuda not only means ‘horse’, but also ‘horses’; rumah can refer to one house or more than one; and so on. The

Inventory of Inflectional Morphology Types II

- The reduplicated plural is most likely to be used when the number of the noun is not clear from the context.

Inventory of Inflectional Morphology Types II

- Suppletion: the last type of inflection.
- Suppletion is said to take place when the syntax requires a form of a lexeme that is not morphologically predictable.
- In English, the paradigm for the verb *be* is characterized by suppletion.

Inventory of Inflectional Morphology Types II

- *Am, are, is, was, were*, and be have completely different phonological shapes, and they are not predictable on the basis of the paradigms of other English verbs.
- We also find suppletion with pronouns.

Inventory of Inflectional Morphology Types II

Examples of suppletion in other langauges
French aller ‘to go’/vais ‘go (1sg)’ être ‘to be’/suis ‘am (1sg)’
Spanish ir ‘to go’/fue ‘went (1sg)’ ser ‘to be’/fue ‘was (1sg)’
Finnish hyvä ‘good (nom. sg)’/parempi ‘better’, paras ‘best’
Greek [ɛnas] ‘a, one (m.nom.sg)’/[mja] ‘a, one (f.nom.sg)’
Swedish ett ‘one’, två ‘two’/första ‘first’, andra ‘second’

Inventory of Inflectional Morphology Types II

- We can look to historical linguistics for an explanation for how suppletive forms arise.
- The paradigm of the verb ‘to go’ in French, for example, comes from three different Latin sources.

Inventory of Inflectional Morphology Types II

- The idiosyncrasies of languages today can often be explained by looking at the languages of yesterday.
- In certain cases, such as with catch~caught or think~thought and other verbs like them in English, it is most convenient to speak of partial suppletion.

Inventory of Inflectional Morphology Types II

- In these cases, the initial phoneme or phonemes of the word remain the same, but there is both internal change and change to the end of the word (loss of segments and addition of a past tense indicator [t]).

END

Morphology and Syntax

Syncretism

Syncretism

- We speak of syncretism when a single inflected form corresponds to more than one set of morphosyntactic features.
- Syncretism is common cross-linguistically, and it raises a number of questions relevant to morphological theory.

Syncretism

- In the Bulgarian imperfect and aorist paradigms, the second person singular and third person singular forms are identical.
- (The aorist is a past tense.) We show this in (19) for the verbs krad ‘steal’ andigráj ‘play’ (these are the citation forms of the lexemes):

Syncretism

In the following , -š is a preterite suffix and -e is 3sg agreement			
Imperfect	**2sg krad-é-š-e** **3sg krad-é-š-e**	**igrá-e-š-e** **igrá-e-š-e**	
Aorist	**2sg krád-e** **3sg krád-e**	**igrá** **igrá**	

Syncretism

- We see here that a single inflectional form such as *kráde* may express more than one set of morphosyntactic features: 2sg aorist or 3sg aorist. Romanian also displays widespread syncretism.

Syncretism

- The term *typology* refers to a classification based on the comparative study of types, and morphological typology was the first systematic method used by linguists in the nineteenth century to compare the structures of different languages.

Syncretism

- While other sorts of typology flourish today, especially syntactic typology, morphological typology has languished since it was criticized by the first American structuralists, especially Edward Sapir in his Language (1921).

Syncretism

- Still, the traditional terms are used often enough to warrant mention, and the distinctions, while they may not be valid for entire languages, are still useful for describing individual morphological phenomena.

Syncretism

- The basic typology has to do with a scale running from analytic to synthetic languages, which encodes the degree to which the individual meaningful elements in a language are expressed separately.

Syncretism

- At the analytic end we have the *isolating languages*, of which Vietnamese is the prototypical example, because the only morphology it has is compounding.
- It has no derivational or inflectional processes of any kind.

Syncretism

- The next type is inflective, of which the more analytic subtype is agglutinating.
- An *agglutinating language* like Turkish or Hungarian has affixes, but they are strung out quite separately, each expressing a single notion, and easily identified.

Syncretism

		‘house’	‘house’
Singular	Nominative	ház	folyó
	Accusative	házat	folyót
Plural	Nominative	házak	folyók
	Accusative	házakat	folyókat

Syncretism

- The accusative case marker is -at (the vowel is deleted after a stem-final vowel), while the plural marker is -ak (with the vowel again deleting after a stem-final vowel). When a word is both accusative and plural, both affixes appear one after the other.

Syncretism

- Compare a *fusional language*, distinct suffixes: -s, -m, -ī, and -ōs(here, the stem vowel deletes before the suffix vowel), so we say that the two morphosyntactic features in each of the cells of the table (e.g. Nominative singular) are fused. Latin is actually much more complicated, since these two

Syncretism

		'lord'	'garden'
Singular	**Nominative**	**dominus**	**hortus**
	Accusative	**dominum**	**hortum**
Plural	**Nominative**	**dominī**	**hortī**
	Accusative	**dominōs**	**hortōs**

Syncretism

- *Polysynthetic languages*. The languages of this type cited most often come from North America. One example of a polysynthetic language is Nuuchahnulth (called Nootka in earlier literature), a language spoken on Vancouver Island in BritishColumbia.

Syncretism

- Even English can have one-word sentences. Go! is a perfectly well formed such utterance. But compared to English, polysynthetic languages are able to express much more complex notions using a single word, including subject, verb, object, and other information.

Syncretism

- The English gloss of this single *Nuuchahnulth* word, for example, contains a complex subject noun phrase, a progressive verb, and a prepositional phrase expressing location.

END

Morphology and Syntax

Lexical source of English word formation

Lexical source of English word formation

- Not the summary of the whole history of the English language.
- Just those aspects of its history over the past thousand years or so that help to account for some of the peculiarities of word formation in contemporary English.

Lexical source of English word formation

- English
- A West Germanic language, related closely to the other West Germanic languages: Dutch, German, Frisian and Afrikaans and less closely to the North Germanic languages: (Norwegian, Danish, Swedish, Icelandic and Faeroese.

Lexical source of English word formation

- England was ruled for a long period after 1066 by a monarch and a nobility whose native language was a variety of French;
- This ruling group gradually switched to English for everyday purposes;
- French a language of law, administration, and culture every educated person learnt it.

Lexical source of English word formation

- It is not surprising, then, that the vocabulary of English contains a high proportion of words borrowed from French than other Germanic languages.
- French is one of the so-called Romance languages, descended from Latin, along with Portuguese, Spanish, Italian and Romanian.

Lexical source of English word formation

- Latin has had a more direct influence too
- Official language of the western half of the Roman Empire and the vehicle of a huge and varied written literature, second only to Greek
- The liturgical language of all West European Christians until the Protestant Reformation 16 century, and of Catholics till1970s

Lexical source of English word formation

- Many words were adopted into English from Latin directly, rather than by way of French.
- The Romans preferring instead to create new Latin terms to translate Greek ones.

Lexical source of English word formation

- The possibility of direct Greek influence on English did not arise, however, until 16 c Western Europeans began to learn about Greek culture for themselves in the fifteenth century.
- In word formation, influence of Greek has been in the invention of scientific and technical words.

Lexical source of English word formation

- The variety of the sources that have contributed to the vocabulary of English came in whole or in part, from the same ancestral morpheme in the extinct Proto-Indo-European language from which Greek and the Romance and Germanic languages

Lexical source of English word formation

Proto-Indo-European
Proto-Indo-European from which Greek and the Romance and Germanic Languages are descended.
An example Proto-Indo-European root: heart In Latin as cord-, In French as coeur from which was formed a derivative courage, In Latin cordial cordial appears in cardiac, from Greek word kardiakos
Another Indo-European root : bear In Latin as fer-, in Greek as pher, The former as the bound root in verbs such as, confer and latter in the name Christopher English has also acquired the root via French suffer (or in Modern French souffrir)

Lexical source of English word formation

- A striking feature of these words is that the inherited Germanic forms, and in the forms borrowed from Latin, French or Greek the cognitive roots are bound.

Lexical source of English word formation

- In borrowing words, English speakers borrowed not only the roots and affixes but also the pattern of word formation that they conform to --a pattern which does not allow roots to appear naked, so to speak, unaccompanied by some derivational or inflectional affix.

Lexical source of English word formation

- Some borrowed roots are free, and a few inherited ones are bound.
- Most of the roots that are bound in all contexts (that is, most of the roots that have no free allomorphs) do not belong to the vocabulary that English has inherited from its Proto-Germanic ancestor.

END

Morphology and Syntax

The rarity of borrowed inflectional morphology

The rarity of borrowed inflections

- If English borrows a foreign pattern of word formation, it should be expected to borrow inflectional affixes that conform to that pattern, as well as roots and derivational affixes.

The rarity of borrowed inflections

- English does not use French or Latin inflectional affixes on verbs borrowed from those languages,
- A language acquires lexemes through borrowing rather than individual word forms.

The rarity of borrowed inflections

- If English speakers import a new verb V from French, they will not import just its past tense form since we expect to be able to express in English not only the grammatical word ‘past tense of V’ but also the grammatical words ‘third person singular present of V’, ‘perfect participle of V’, and so on

The rarity of borrowed inflections

- It is much more convenient to equip the new French-sourced verb with word forms created in accordance with English verbal inflection – specifically, the most regular pattern of verbal inflection (suffixes -s, -ed and -ing).

The rarity of borrowed inflections

- The only condition under which English speakers are likely to borrow foreign word forms along with the lexemes if the grammatical words are few in number(not hard to learn), and if their functions in English and the source language correspond closely. This condition is fulfilled with nouns.

The rarity of borrowed inflections

Greek and Hebrew, which resemble English in distinguishing singular and plural forms in nouns:	
Greek	**phenomenon phenomena** **schema schemata**
Latin	**cactus cacti** **formula formulae** **datum data**
Hebrew	**cherub cherubim** **kibbutz kibbutzim**

The rarity of borrowed inflections

- The foreign plurals are all vulnerable, however.
- Phenomena and data seem solidly established, but for the others not: schemas, cactuses, formulas, cherubs and kibbutzes.
- Even data tends to be accommodated to English morphology, but by a different method:

The rarity of borrowed inflections

- The usual plural suffix in both medieval and modern French is -s, just as in English.
- Just a few French borrowings sometimes retain, in formal written English, an idiosyncratic plural suffix -x, e.g. tableaux, plateaux.)

The rarity of borrowed inflections

- The effect of these borrowings is to divide the class of nouns with irregular plurals into two classes: nouns that belong to everyday vocabulary and whose irregular plural survived for frequent use (e.g. teeth, children, mice), and relatively rare or technical survived as a badge of learning or sophistication.

The rarity of borrowed inflections

- What we do not find are irregular plurals that fall between these extremes, in nouns that are not particularly common but do not belong to technical or learned vocabulary either.
- But what about oxen

END

Morphology and Syntax

The reduction in inflectional morphology

The reduction in inflectional morphology

- Modern English nouns have no more than two inflected word forms: singular and plural.
- In Old English, there was a contrast of case, like that found in modern English personal pronouns (nominative we versus accusative us etc.),

The reduction in inflectional morphology

- Old English nouns could distinguish also a genitive case, and a dative case whose meanings included that of modern to in Mary gave the book to John.
- These two numbers and four cases yielded a pattern of eight grammatical words for each noun lexeme

The reduction in inflectional morphology

	Nominative	Accusative	Genitive	Dative
Singular	nama ‘name’ stān ‘stone	Naman stān	Naman stānes	Naman stāne
Meaning	Name			
Plural	naman stānas '	Naman stānas	Namena stāna	namum stānum

The reduction in inflectional morphology

- Neither name nor stone had eight distinct word forms, one for each grammatical word; instead, they display different patterns of syncretism.
- All Old English nouns had more than two forms that are available in modern English.

The reduction in inflectional morphology

- If nouns distinguished four cases in Old English, it is reasonable to guess that pronouns should have done so too; and that guess is correct.
- Pronouns had five cases, including an instrumental.
- Adjectives and determiners had same forms.

The reduction in inflectional morphology

- Old English verbs displayed a similar inflectional luxuriance.
- Most modern English verbs have four distinct forms (e.g. perform, performs, performed, performing), while some common verbs have five (e.g. speak, speaks, spoke, spoken, speaking).

The reduction in inflectional morphology

		Indicative	Subjunctive
	Person	Present	Present
Singular	1st (‘I’)	helpe	helpe
	2nd (‘you’)	helpest	helpe
	3rd (‘(s)he’)	helpeD	helpe
Plural	1st (‘we’)	helpaD	helpen
	2nd (‘you’)	helpaD	helpen
	3rd (‘they’)	helpaD	

The reduction in inflectional morphology

		Indicative	Subjunctive
	Person	Past	Past
Singular	1st (‘I’)	healp	hulpe
	2nd (‘you’)	hulpe	hulpe
	3rd (‘(s)he’)	healp	hulpe
Plural	1st (‘we’)	hulpon	hulpen
	2nd (‘you’)	hulpon	hulpen
	3rd (‘they’)	hulpon	hulpen

The reduction in inflectional morphology

- Besides the imperative forms (‘help!’), or the verbal adjective helpende, which, just like other adjectives in Old English, had forms that distinguished three genders, two numbers and four cases.

The reduction in inflectional morphology

- Why did English lose this wealth of inflection?
- The temporary eclipse of English by French as the language of culture and administration after 1066.

The reduction in inflectional morphology

- Partly also it is due to dialect mixture.
- The examples of ‘Old English given here come from the dominant dialect of written literature, that of south-western England.

The reduction in inflectional morphology

- But this was not the dialect of London, which became increasingly influential during the so-called ‘Middle English’ period (from about 1150 to 1500), and established itself as the main variety used in printing.

The reduction in inflectional morphology

END

- English inflectional morphology was already by 1600 almost the same as in 2000, so that modern readers of Shakespeare encounter only a few obsolete inflected forms such as ‘helpest’ and he helpeth, that preserve two Old English suffixes

Morphology and Syntax

Characteristics of Germanic and non-Germanic derivation

Germanic and non-Germanic derivation

- The inherited Germanic root heart is free while the cognate roots cord- and card-, borrowed from Latin and Greek, are bound, and the same applies to inherited bear by contrast with borrowed *-fer* and *-pher*.

Germanic and non-Germanic derivation

- If this kind of contrast is general, then it has implications for inherited and borrowed affixes too.
- We will expect that native Germanic affixes should attach to free bases, while the affixes that attach to bound bases should generally be borrowed.
- And this turns out to be correct.

Germanic and non-Germanic derivation

The derivational affixes that we have considered so far, classified according to their origin:

Germanic select almost exclusively free bases	Romance or Greek readily permit or even prefer bound ones	
-ish -ed -en -er -hood -ie (as in doggie) -let -ship -y (as in misty)	-((a)t)ion -(i)an -(i)fy -al -ance, -ence -ar -ent, -ant -ess –ette	-ine -ise -ism -ist -ment dedis-

Germanic and non-Germanic derivation

-let and -ette,: both mean roughly 'small', and -ette also sometimes means 'female'.

. booklet, piglet, droplet and starlet, all with clearly identifiable free bases.

. cigarette, and it may also include (depending on your country of origin) suffragette, laundrette, kitchenette, maisonette and drum-majorette.

Similar conclusions emerge from comparing some abstract-noun forming suffixes in the two columns: -ship and -hood in the Germanic column,
-(a(t))ion, -ance/-ence, and -ism in the Romance and Greek column.

- certainly possible to find words whose bases are free (e.g. consideration, admittance, etc. many of the bases selected by these affixes are bound,
- being either bound allomorphs of roots that are elsewhere free (e.g. consumption, preference, Catholicism)
- or else roots that lack free allomorphs entirely (e.g. condition, patience, solipsism).

Nouns in -ship and -hood always seem to have freebases: friendship, kingship, governorship; childhood, adulthood, priesthood.
The historical basis for a : the root of an English word is more likely to be free than bound, yet a large number of bound roots exist in modern English also, do to massive borrowing from French and Latin.

Germanic and non-Germanic derivation

- An example is the suffix -ment, as in development, punishment, commitment, attainment – though it is sometimes found with a bound base, as in the nouns compliment and supplement.
- Another example is the prefix de-, as in deregister, and decompose.

Germanic and non-Germanic derivation

- This tolerance for free bases is surely connected with the fact that, in the terminology de- is formally and semantically rather regular, and can readily be used in neologisms (e.g. de-grass in The courtyard was grassed only last year, but now they are going to de-grass it and lay paving stones

Germanic and non-Germanic derivation

- For an affix restricted to bound bases, such a neologizing capacity would be scarcely conceivable in a language where, as in English, most bases are free.

END

Morphology and Syntax

Fashions in morphology

Fashions in morphology

- The title highlights a respect in which morphology differs from syntax.
- It makes sense to ask whether a certain word formation process (a particular affix, let's say) is in or out of fashion.
- Syntax is stable in a way that morphology is not.

Fashions in morphology

- The fact that many morphological processes are haphazardly‘ gappy’ whereas few if any syntactic construc-tions are ‘gappy’ in this way.

Fashions in morphology

- In morphology, gaps get filled, or else gappy processes lose their regularity and survive only in a few lexically listed lexemes, like the process of forming abstract nouns by suffixing -th to adjectives, while other processes become increasingly regular to replace them.

Fashions in morphology

- A systematic study of morphological fashions belongs to a historical study of English word formation rather than to an introductory survey such as this.
- Two fashions are important that manifested themselves in the last half of the twentieth century, against trends of the last couple of centuries.

Fashions in morphology

- The first is a fashion for certain Latin- and Greek-derived prefixes; the second is a fashion for a certain kind of headless compound.

Fashions in morphology

- Conscious borrowings from Latin and (to a lesser extent) Greek were fashionable in certain literary styles of the sixteenth and seventeenth centuries, because of a perceived need to enrich the English vocabulary.

Fashions in morphology

- But such borrowings, often obscure and even incomprehensible to ordinary readers, were also attacked as ‘inkhorn terms’ – mere products of the some scholars’ desire to show off his knowledge of Latin.

Fashions in morphology

- The result is that the Latin- and Greek-derived element in the vocabulary of English has, since the eighteenth century, been pruned rather than increased.

Fashions in morphology

Prefixes					
Latin			Greek		
Super	Superstar, superman, super-rich,		Hyper	hyperactivity , hypermarket	
			Macro		
Sub			Micro		
			Mega, Giga, Nano	megastore, megabucks, megalith,	

Fashions in morphology

- A fashion for a certain kind of headless compound or exocentric compound
- For example : redhead, lazybones, pickpocket, longneck, etc.

END

Morphology and Syntax

History and structure

History and structure

- Characteristics of a language that are due purely to historical accident are the characteristics that, in principle, are least likely to interest a general linguist.

History and structure

- The Norman Conquest in 1066 is just such an accident, so its consequences for the vocabulary of English from French may seem to deserve a place only in histories of the English language, not in books about its morphological structure.
- But there is more to it than that.

History and structure

- If it had not been for the Norman Conquest and its aftermath, English morphology would not have acquired the at first sight rather bewildering mix of characteristics discussed so far.

History and structure

- What's more, one cannot dismiss characteristics acquired through the Latin lexical intake as 'unproductive' and therefore not truly part of modern English morphology;

History and structure

- Some Latin-derived processes, such as suffixation of -ion and -ence, are in limited domains just as formally regular as processes such as adverb formation with -ly.

History and structure

- If the history of the community of English speakers in the British Isles had been otherwise, the English language would be considerably different today not just in its repertoire of lexical items but in how its words are structured.

END

Morphology and Syntax

What is Morphological Productivity?

What is Morphological Productivity?

- A given morphological pattern is more productive than another is to say that there is a higher probability of a potential word in the first pattern being accepted in the language than there is of a potential word in the second pattern.

What is Morphological Productivity?

- English nouns make their plural in a number of different ways, as can be seen in the following set of words (Bauer 2001): cats, dogs, horses, oxen, deer, mice, hippopotami, cherubim

What is Morphological Productivity?

- What does a speaker of English do when confronted with novel words, such as: ?
- argaz ‘crate of specific style’
- smick ‘type of cracker biscuit’

What is Morphological Productivity?

- brox ‘piece of computer hardware’
- ceratopus ‘type of dinosaur’
- cheppie ‘type of antelope

What is Morphological Productivity?

- Chances are that, despite the existence of other plural formations, an English speaker will mark all of these words as plural by suffixation of /z/: argazes, smicks, broxes, ceratopuses, and cheppies.

What is Morphological Productivity?

- The only likely exception is ceratopus, ceratopi, on the basis of Latin as alumni, foci, and nuclei.

What is Morphological Productivity?

- The word argaz ‘crate’, being a Hebrew noun.
- It would therefore be possible to pluralize it as argazim, on the pattern of cherubim, seraphim, and kibbutzim.
- brox as broxen
- broxes and Vaxes

What is Morphological Productivity?

- One term potential word.
- A potential word could be a word but isn’t.
- One example is Mugglehood ‘the state of being a non-wizard’, which we created from Muggle ‘non-wizard’, a word found in J. K. Rowling’s Harry Potter books, and the English suffix -hood.

What is Morphological Productivity?

- In 2004, only three instances of Mugglehood, but also numerous instances of Muggledom and Muggleness.
- Searched for it again on January 3, 2010, showed 292 hits,
- Perhaps someday it will be included in the dictionary.

What is Morphological Productivity?

- The suffix -th creates nouns from adjectives (e.g., deep → depth, wide → width).
- a meaning that is similar to -ness. Length means the same thing that longness would mean;
- decidedth,mean the same thing as decidedness.
- But only-ness can be called productive.

What is Morphological Productivity?

- Studying productivity, we study phenomena and distinctions like these.
- One question we need to ask about productivity is whether it is part of linguistic competence.

What is Morphological Productivity?

- Competence is Chomsky's (1965) term for the knowledge that speakers and hearers have of their language.

What is Morphological Productivity?

- Some people would say that productivity is not part of linguistic competence either, because, in order for something to be considered part of competence, it must be structural and ‘all or none’.

What is Morphological Productivity?

- Productivity is a probabilistic notion, and some linguists believe that if something is probabilistic, it is not structural and hence is not part of the grammar.

What is Morphological Productivity?

- Under this view, productivity would have to be treated as a phenomenon that is related to a speaker's competence, but not part of it.

END

Morphology and Syntax

Productivity and Structure Negative Prefixes in English

Productivity & Structure Negative Prefixes

- Productivity can tell us something about language structure: the more productive a morphological derivational process is, the more likely it is to have a compositional one whose meaning is transparently predictable from the meaning of its input.

Productivity & Structure Negative Prefixes

- The converse is also true: the less productive a derivational process, the more likely it is to result in a non-compositional, semantically idiosyncratic, non-transparent output.
- To illustrate this point, consider negative prefixes in English.

Productivity & Structure Negative Prefixes

- Zimmer (1964) looked at three of them, *non*-, *un*-, and in-, and discovered that the most productive of the set, non-, also has the most semantically transparent derivatives.

Productivity & Structure Negative Prefixes

- This is shown by the contrast between the two:
- non-Christian unchristian
- non-human inhuman
- What's the difference?
- Non-Christian means 'not Christian'. unchristian can mean same and 'not behaving in a Christian manner' or even 'uncivilized and barbaric'.

Productivity & Structure Negative Prefixes

- Likewise, non-human simply means ‘not human’, while inhuman refers to the absence of human qualities like pity or kindness.

Productivity & Structure Negative Prefixes

- A person can be both human and inhuman, but not human and nonhuman.
- The non-words in general simply negate their bases, the in- and un- words have the meaning ‘completely opposite to X’, where X is the meaning of their bases, in the way that east and west or long and short are opposed.

Productivity & Structure Negative Prefixes

- To put it in a more technical way, non- is a logical or contrary negator.
- Using logical notation, we could represent non-Christian as in, where ¬ means ‘not’:
- ¬ Christian

Productivity & Structure Negative Prefixes

- Un- and in- are contradictory negators, whose addition to a word X results in a new word meaning ‘opposite of X’.
- Zimmer’s observation extends to other derivational affixes.
- The suffix -ness is more productive in English than -ity (Aronoff 1976).

Productivity & Structure Negative Prefixes

- Consider the pair collectivity~collective ness.
- While both may mean ‘the quality or condition of being collective’, only collectivity has the additional meaning ‘the people considered as a body or whole’.

Productivity & Structure Negative Prefixes

- Overall, when we compare many such pairs, the -ness derivative has more transparent semantics.
- Sometimes the -ity derivative sounds or looks odd, while the -ness derivative is pretty much always acceptable. Compare conduciveness with conducivity.

Productivity & Structure Negative Prefixes

END

- Most English speakers would say that the former is more acceptable than the latter.
- We can even go beyond morphology to make the observation that syntax, which is always productive, is by definition compositional.

Morphology and Syntax

Degrees of Productivity

Degrees of Productivity

- With two observations:
- a. Though many things are possible in morphology, some are more possible than others.
- b. Though there are infinitely many potential words in a language, some are more likely to become actual words than others.

Degrees of Productivity

- Morphological processes do not fall into two neat categories, productive and unproductive.
- They are best seen as being spread out along a scale, with some more productive than others.

Degrees of Productivity

- There are a number of types of constraints that limit productivity and that contribute to or even determine to what degree a particular formation is productive.

Degrees of Productivity

constraint on morphological productivity is phonological	
(i) those that depend on the segmental make-up of the base;	Modern Hebrew pet-name suffix -le, borrowed from Yiddish. It can only attach to bases ending in a vowel (Glinert 1989: 437): ába 'father' > ábale 'daddy'
(ii) those that depend on the suprasegmental make-up of the base, including stress placement;	-al suffixation in English. This suffix may attach only to verbs that are stressed on the final syllable, as seen in the examples in acquittal, arrival, denial, dismissal, rebuttal, referral, revival
(iii) those that depend on the number of syllables in the base.	'-ish' may attach only to monosyllabic adjectives, as in 'greenish'

Degrees of Productivity

- Morphological constraints
- Productivity can also be limited by morphological constraints.

Degrees of Productivity

- a morphological process may require the base to have a certain structure, to belong to a certain morphologically or syntactically defined class, such as a gender, or to end in a particular affix.

Degrees of Productivity

	First type: certain English suffixes, such as -ish, attach only to unsuffixed bases.	
	Second type, affixes that attach only to bases that have a particular etymological origin. Modern Greek, where the suffix –adoros may only attach to words of Romance origin. Thus kombinadoros	
	A basic type of syntactic constraint on word formation requires the base to belong to a certain lexical category. Some affixes attach only to nouns. Others attach only to verbs, or to adjectives. English re-, for example, attaches to verbs.	

Degrees of Productivity

- verbs.
- Semantic constraints
- Productivity can also be constrained by semantic factors.
- Barker (1998)studies the English suffix -ee found in words like advisee, addressee, enlistee, or employee using a large set of naturally occurring examples such as the following:

Degrees of Productivity

a. There was the Asian influenza casualty … who was replaced gallantly by an influenza recoveree, Mr Robert Harben.
b. [experiment involving shining lights into the subject's eyes] The adaptee then cannot tell the difference between yellow and white, i.e., is yellow-blind.
c. These young musicians were chosen from over 200 auditionees
d. The ground rules were simple: to find ways to relax that required absolutely no effort on the part of the relaxee.
e. The paella didn't turn out very well, but fortunately my dinees were quite understanding.

Degrees of Productivity

Barker finds that -ee suffixation is constrained by three semantic factors.
First, the referent of the newly derived noun must be sentient.
Second, the referent of the -ee noun is typically characterized by a relative lack of volitional control: the dinees have no control over the paella they are served, and the adaptee does not manipulate the lights.
Finally, the -ee noun and the stem must be episodically linked. Barker(1998: 712) gives the example of the noun lessee, from the verb lease: "every leasing qualifies some individual as a lessee, and for every lessee, there must be a leasing event which qualifies them as a lessee. "He continues by pointing out that it is not the case that all deverbal nouns must be episodically linked to their stems

Degrees of Productivity

- To summarize, if a language has two ways of doing something, one of which is less productive, the less productive rule or process has a linguistic purpose.

Degrees of Productivity

- The less productive rule may result in a word that stands out, useful in newspapers, magazines, and advertisements, or it may result in a form that sounds more technical or learned.

END

Morphology and Syntax

Testing Productivity

Testing Productivity

- Using a tool to come to a better understanding of how speakers and hearers use and process language.
- Morphological productivity offers many opportunities for researchers with this kind of philosophy.

Testing Productivity

- Linguist, in recent years, have used many different tools to come to a better understanding of how we produce complex words such as: standard dictionaries, rhyming dictionaries, and large corpora, technologically sophisticated techniques(positron emission tomography (PET).

Testing Productivity

- **English suffixes**
- Aronoff and Schvaneveldt (1978) conducted an experiment to verify that productivity figures in individuals' linguistic competence and to judge its consistency across speakers and words.

Testing Productivity

- The experiment focused on -ness, a native English suffix, and -ity, of Latin-Romance origin, which often attach to the same morphological and semantic classes of words.

Testing Productivity

- We see this in triplets like the following, where all three members can be found in a dictionary:
- immense
  immenseness
  immensity

Testing Productivity

- scarce scarceness scarcity
- exclusive exclusiveness exclusivity
- porous porousness porosity

Testing Productivity

- The two suffixes differ, however, in that -ness is more productive overall, especially with certain types of stems like those of the shape X-ive.

Testing Productivity

- Speakers were presented with three sets of words:

  (i) actual words, like activity or assertiveness, where actual means listed in Webster's Collegiate Dictionary;

Testing Productivity

(ii) possible words, like effervescivity or affirmativeness, where X-ive occurs in the dictionary, but not the -ness or –ity suffixed form; and

Testing Productivity

- (iii) non-words.
- Here neither X-ive nor X is listed in the dictionary.
- Examples of non-words are remortiveness and lugativity.

Testing Productivity

- Over the course of the experiment, 141 subjects were asked to judge 40 words, 100 possible words, and 40 non-words, which were presented in randomized lists.
- For each subject, half of the words were suffixed in-ity and half in -ness.

Testing Productivity

- The 40 actual words were the same across all subjects, but possible words and non-words were counterbalanced so that half of the subjects got, for example, effervesciveness and elaborativity, and the other half elaborativeness and effervescivity.

Testing Productivity

- This was done to ensure that judgments would be based on the fecility of the suffix and not some peculiarity of the stem it attached to.
- The final variable in the study involved the instructions given to the subjects, who were divided into three groups of 47 each.

Testing Productivity

- One group was asked to judge whether the items were in their vocabulary;
- The second group was asked whether the items were English words;
- The third group was asked whether the words were meaningful.

Testing Productivity

- As it happened, the instructions had little effect on the subjects' judgments.
- It turned out that English speakers preferred the actual words in –ity (they were balanced for frequency).

Testing Productivity

- When it came to the non-words, they didn't care, and on the potential words, they preferred the –ness words.
- This shows that speakers can tell the difference between a more productive and less productive rule.

Testing Productivity

- Any given study can advance our understanding of morphological productivity without being the last word on the subject.
- There is a great deal of value in studies that ask new questions or try out new ways of testing hypotheses.

Testing Productivity

- Design errors may or may not influence a given set of results.
- When they do, they can often be corrected in follow-up studies, which are just as essential to advancing our knowledge.

END

Morphology and Syntax

The Mental Lexicon

The Mental Lexicon,

- Studies of the sort just discussed have goals beyond linguistic description and aim rather to describe what is actually going on inside the head of a language user when they use complex words.

The Mental Lexicon,

- Psycholinguistics studies this phenomenon, though when the research involves measuring neurological activity, as much modern research does, then it may also be termed neurolinguistics or cognitive neuroscience.

The Mental Lexicon,

- The goal of psycholinguistic and neurolinguistic research on morphology is to understand exactly how the mental lexicon works, the lexicon that all language users store in their brains.

The Mental Lexicon,

- Pinker (1999) is a very lively and informal presentation of the major issues in the field.
- Aitchison (2003) is a more general introduction.
- It is important to remember in to distinguish the lexicon itself from how it is used by the speaker or hearer.

The Mental Lexicon,

- Most studies of the mental lexicon are concerned with word recognition, a classic problem in psychology: How do people associate the speech or writing signal with the entries in their mental lexicon?

The Mental Lexicon,

- Until very recently most word recognition studies dealt mostly with written words, not speech.
- Psychologists were interested in how people recognize words, both their sound and their meaning, when they read.

The Mental Lexicon,

- Only in the last twenty years or so have psycholinguists turned their attention to spoken word recognition, which, for linguists at least, is a much more interesting and certainly more basic problem than reading.

The Mental Lexicon,

- After all, as linguists have known for over a century, the primary form of language is spoken (or signed) and written language is secondary.
- The basic and universal task of word recognition is thus spoken word recognition.

The Mental Lexicon,

- From an experimental point of view, it has always been much easier to deal with written text than with speech, which is why it is only recently, with the advent of tools for regularizing the speech signal, that those psycholinguists have begun to turn to spoken language recognition.

The Mental Lexicon,

- The other side of accessing the mental lexicon, and in some sense the opposite or reverse of word recognition, is word production.
- When a person speaks, how does that person know what words to use, the words that will eventually come out of his or her mouth?

The Mental Lexicon,

- This is a much more difficult problem than word recognition and has received much less attention from psycholinguists (the classic presentation is Levelt 1989).

The Mental Lexicon,

- Most psycholinguists assume that there is only one mental lexicon and that both word recognition and word production access this same lexicon, though in different ways.

The Mental Lexicon,

END

- From an experimental perspective, though, the mental lexicon is not something that we can study directly.
- We study it rather only through the intermediaries of production and recognition, both of which must access this dictionary hidden deeply within our heads.

Morphology and Syntax

Psycholinguistics, and Neurolinguistics

Psycholinguistics, and Neurolinguistics

- To understand what sorts of issues might arise in the study of the mental lexicon, let's look at some of the aspects of Kujamaat Jóola. Consider vowel harmony first.

Psycholinguistics, and Neurolinguistics

- The vowels of Kujamaat Jóola fall into two sets, tense and lax, and all the vowels in a word must be either tense or lax.

Psycholinguistics, and Neurolinguistics

- When a suffix is added to a word, the vowel of the suffix may be either tense or lax, depending on the vowels of the stem.
- If a suffix contains a tense vowel, then the vowels of the stem must also become tense.

Psycholinguistics, and Neurolinguistics

- Overall, tense vowels win: as long as a complex word contains one tense vowel, all its vowels must become tense.

Psycholinguistics, and Neurolinguistics

- There are several ways in which those stems and suffixes that alternate between tense and lax could be represented in a person's mental lexicon.

Psycholinguistics, and Neurolinguistics

- Since morphemes with only tense vowels never alternate, it is to assume that these morphemes have only one form in the mental lexicon.

Psycholinguistics, and Neurolinguistics

- But other morphemes sometimes have lax vowels and sometimes tense vowels.
- We could say that each of these morphemes has two alternative forms (allomorphs) in the mental lexicon and that the form with lax vowels is selected just in case there are no tense vowels in the word.

Psycholinguistics, and Neurolinguistics

- We could say that there is a mental operation that makes lax vowels tense if there are tense vowels in the same word.

Psycholinguistics, and Neurolinguistics

- A psycholinguist or neurolinguist would ask how these different systems might be encoded in a person's brain and would want to devise experimental tests and measures for determining whether a particular mechanism is actually at work

Psycholinguistics, and Neurolinguistics

- We certainly know that speakers and signers do not hesitate when speaking or signing, no matter how complex the morphology of their language.
- Semantics alone thus provides some information about which forms must be stored not tell us how they are stored.

Psycholinguistics, and Neurolinguistics

- Most linguists: they are stored as complex structures, but no purely linguistic evidence to tell us whether that is so.
- Similar questions can be asked about all the inflectional forms of a single verb or noun.
- Are they all stored?

Psycholinguistics, and Neurolinguistics

- And if so, are they stored together or separately and are they stored with or without structure?

Psycholinguistics, and Neurolinguistics

- As it happens, a fairly broad consensus has emerged among psycholinguists in the last decade that “morphological considerations need to be introduced into any model of the mental lexicon

Psycholinguistics, and Neurolinguistics

- In other words, regardless of whether any particular words are stored or not and regardless of whether related words are stored together or separately, they do have morphological structure.
- Whether related words are stored together or separately, we just don’t know.

Psycholinguistics, and Neurolinguistics

- Even if everyone agrees that all words in the mental lexicon have morphological structure, many other issues remain undecided.

Psycholinguistics, and Neurolinguistics

- One of the most central is that of the number of different mechanisms speakers use to access their mental lexicons, either in recognition or in production.

Psycholinguistics, and Neurolinguistics

- The most obvious answer is that there is only one mechanism, but in fact, of the theories of accessing the mental lexicon that are out there in the literature, we can identify two broad types, called the single-route and dual-route models.

Psycholinguistics, and Neurolinguistics

- A very accessible account of both model types is provided by Pinker (1999).

Psycholinguistics, and Neurolinguistics

- It is well known that the more frequent or familiar a word is, the faster a speaker can recognize it (Aitchison 2003).

Psycholinguistics, and Neurolinguistics

- An English speaker will recognize clean more quickly than glean, even though the two differ phonologically in only one distinctive feature, because the first is about thirty times more frequent than the second.

Psycholinguistics, and Neurolinguistics

- Most of the 500most frequent words in English are simple, but even if a word is morphologically complex and perfectly regular, it may still be common.

Psycholinguistics, and Neurolinguistics

- Unfortunately, almost all the psycholinguistic and neurolinguistics research that has been done to date is based on English or other European languages whose inflectional and derivational morphology is fairly simple.

END

Morphology and Syntax

Morphology and Syntax

Morphology and Syntax

- Already seen, inflection and syntax are intimately related to one another.
- Inflection is the realization of morphosyntactic features through morphological means.
- Morphosyntax deals with the relationship and interactions between morphology and syntax.

Morphology and Syntax

- A variety of topics in morphosyntax, includs morphologists' and syntacticians' definitions of inflection, structural constraints on morphological inflection, inflection and universal grammar, and grammatical-function-changing morphology.

Morphology and Syntax

- Since our target audience consists of students whose only exposure to syntax comes from an introductory course in general linguistics, we avoid bringing in advanced syntactic analyses.

Morphology and Syntax

- According to the traditional view, the relation between morphology and syntax is the following: while morphology builds up word forms—typically by combining roots with other roots and with affixes, but also by applying other operations to them.

Morphology and Syntax

- Syntax takes fully inflected words as input and combines them into phrases and sentences.

Morphology and Syntax

- The division of labour between morphology and syntax is thus perfect: morphology only operates below the word level whereas syntax only operates above the word level.

Morphology and Syntax

- These two components of grammar are ordered in strict sequence, such that the syntax takes over after the morphology has done its work.

END

Morphology and Syntax

Morphological vs. Syntactic Inflection

Morphological vs. Syntactic Inflection

- We begin by distinguishing between two applications of the word inflection, one found chiefly in the morphological literature and the other in syntactic literature.

Morphological vs. Syntactic Inflection

- For a morphologist, the presence of inflectional morphology in a language depends on the existence of multiple forms of a lexeme.
- If a lexeme has only one form, then there can be no morphological inflection.
- In syntax, there is no such requirement.

Morphological vs. Syntactic Inflection

- Chinese lexemes have only one form, abstracting away from phonologically determined alternations (mostly changes in tone).
- While Chinese has a few clitics or particles, including one that expresses past tense, these are generally not considered affixes.

Morphological vs. Syntactic Inflection

- The same is true of Vietnamese, though the two languages are unrelated.
- For the morphologist, therefore, these two languages have no inflection.

Morphological vs. Syntactic Inflection

- From a syntactician's point of view, whether or not Chinese and Vietnamese have inflection is an entirely different matter.
- Even if a language does not express a particular notion such as number or case, it is typically assumed to be present in the syntax.

Morphological vs. Syntactic Inflection

- Likewise, a syntactician may argue that a verb always agrees with its subject in an abstract sense.
- This abstract agreement is considered just as real in Chinese, where the verb form never depends on its subject,

Morphological vs. Syntactic Inflection

- In Russian, where the form of the verb changes depending on the person (first, second, third) and number (singular or plural) of the subject.
- In sum, morphological inflection is realized overtly, where syntactic inflection may or may not be.

Morphological vs. Syntactic Inflection

- The existence of zero allomorphs does not contradict this definition of morphological inflection.
- Zero allomorphs is contrasted with non-zero allomorphs.

Morphological vs. Syntactic Inflection

- In other words, in some instances the inflectional feature encoded by the zero allomorph is realized overtly.

Morphological vs. Syntactic Inflection

- Another difference between the morphological and syntactic usage of the term inflection is that morphologists speak of inflection only when dealing with bound forms.
- The reason for this is clear inflection informally is as “bending” of a lexeme.

Morphological vs. Syntactic Inflection

- English has a syntactic category of modals, or modal auxiliaries.
- used to accompany other verbs to indicate that the action or state described by the sentence is something other than simple fact.

Morphological vs. Syntactic Inflection

If we substitute other modals for might, the degree of uncertainty changes somewhat with each substitution:
Alicia might go to the birthday party isn't a simple fact about Alicia's going to a party; there is an element of uncertainty.
Alicia may go to the birthday party;
Alicia can go to the birthday party;
Alicia could go to the birthday party;
Alicia must go to the birthday party;
Alicia should go to the birthday party;
Alicia would go to the birthday party;
Alicia will go to the birthday party.

Morphological vs. Syntactic Inflection

- Should we consider these models to be morphological inflection?
- No.
- In order to be classified as morphological inflection, a syntactic category must be expressed through bound forms.

Morphological vs. Syntactic Inflection

- In the case of the English modals, we are not dealing with bound forms, but rather with separate words.
- Again, syntacticians differ from morphologists on this point.

Morphological vs. Syntactic Inflection

- Most would treat auxiliaries as part of the inflectional system of a language.
- Morphologists are not denying the validity of this treatment, only distinguishing the full word modals (i.e., syntactic inflection) from morphological inflection.

Morphological vs. Syntactic Inflection

Differences between morphological and syntactic inflection	
Morphological inflection is realized overtly.	Syntactic inflection may or may not be overt.
• In order to be classified as morphological inflection, morphosyntactic properties must be expressed by bound forms or other morphophonological means (e.g., ablaut, suppletion).	Syntactic inflection may be realized by free forms (e.g., auxiliaries).

END

Morphology and Syntax

Structural Constraints on Morphological Inflection

Structural Constraints on Inflection

- Cross-linguistically, constraints on the realization of inflectional morphology.
- In Russian, for example, verbs show gender agreement with their subject (feminine, masculine, or neuter) only in the past tense.

Structural Constraints on Inflection

- This fact about Russian has a historical explanation: the past tense form was originally an adjective, and Russian adjectives agree in gender with the nouns they modify.
- In Modern Hebrew, verbs agree in gender with their subjects only in the present tense.

Structural Constraints on Inflection

- Historically, Hebrew present forms were originally participles.
- Gender agreement is not optional in Hebrew and Russian.
- Instead, its morphological realization is context-dependent.

Structural Constraints on Inflection

- It is surprisingly easy to find languages where verb inflection is obligatory in some contexts but impossible in others.
- a few such
- All depend on syntactic context, rather than on tense, which is expressed as an inflectional part of the verb itself in Russian and Hebrew.

Structural Constraints on Inflection

- In the Kujamaat Jóola the subject agreement is expressed obligatorily except in the past subordinate and positive imperative forms of the verb.
- In some related languages, like Balanta verbs agree with their subject only in certain syntactic contexts.

Structural Constraints on Inflection

- In Balanta, verbs may be marked for subject agreement, but generally only in the absence of a subject noun phrase.
- When a subject noun phrase is present, a subject prefix on the verb does not express agreement. Instead, it indicates that the subject is focused:

Structural Constraints on Inflection

(1) a. b e- ɲaaŋ be-nte
cl2-people come
'The people came'

b. b e-ɲa –aŋ be- do-oló b e-beeΘa ma
cl2-people cl2-few cl2-see 3sg.obj
'A few people saw him.'

Structural Constraints on Inflection

In Arabic, the basic generalization is that subject–verb number agreement appears on the verb when the word order is SV (subject–verb) (a)but not when it is VS (4b) (data from Ouhalla 1994: 43):

a. l-tullaab-u wasal-uu
the-students-nom arrived-3pl
'The students have arrived'

b. wasal-a l-tullaab-u
arrived-3sg the-students-nom
'The students have arrived'

In (b) third plural subject agreement is blocked, and instead we get default third person singular agreement.

Structural Constraints on Inflection

- Arabic (Semitic): Verbs agree with their subjects for number when the word order is SV but not when it is VS. When the word order is VS, the verb bears default 3sg agreement.

Structural Constraints on Inflection

- Balanta (Atlantic): Verbs agree with their subjects only when there is no subject NP or the subject NP is focused (emphasized).

END

Morphology and Syntax

Inflection and Universal Grammar

Inflection and Universal Grammar

- Universal Grammar is the theory developed by Noam Chomsky that states that all languages are identical at some level of analysis.
- Tremendous influence on the field of linguistics, and most linguists agree with Chomsky that language has an innate component.

Inflection and Universal Grammar

- A key phrase in the definition of Universal Grammar that we have provided is “at some level of analysis.”
- What is the level of analysis at which languages are identical?

Inflection and Universal Grammar

- At which levels do languages differ?
- More specifically, are inflectional categories universal?

Inflection and Universal Grammar

- In one sense, inflectional categories are universal.
- A mistake to say that the realizations of inflectional categories are stable cross-linguistically.

Inflection and Universal Grammar

Examples of inflectional categories
Nominal Verbal
• case (e.g., nominative, accusative, genitive, dative, ablative, ergative, absolutive)
• tense (e.g., past, present, future)
• aspect (e.g., perfective, imperfective)
• mood (e.g., indicative, subjunctive, optative)
• voice (e.g., active, passive)
• subject and object agreement • number (e.g., singular, plural, dual, trial, paucal) • gender (e.g., masculine, feminine, neuter; animate, inanimate)

Inflection and Universal Grammar

- Let's consider gender. Gender is highly problematic from a universalist point of view.
- The number of noun classes in the languages of the Atlantic family vary widely.

Inflection and Universal Grammar

- Kujamaat Jóola 19,
- Gombe Fula 25, Serer 16,
- Wolof 10
- Manjaku 14,
- Balanta seven.
- Some Atlantic languages have multiple dialects, and dialects do not necessarily share the same number of noun classes.

Inflection and Universal Grammar

- To other language families of the world, we find variation not only in the number of genders but also in the entire organization of the gender system.
- Despite differences between gender systems some similarities do emerge.

Inflection and Universal Grammar

- German has three genders called masculine, feminine, and neuter: Masculine Feminine Neuter
- Mann ‘man’ Frau ‘woman’ Parlament ‘parliament’

Inflection and Universal Grammar

- Masculine, feminine, and neuter are obligatory inflectional categories of German.
- This means that every noun in the language, including borrowings like Parlament ‘parliament’, must belong to a gender.

Inflection and Universal Grammar

- A noun cannot be genderless.
- Furthermore, gender is obligatory in that a noun cannot simply carry it around: its gender category must be expressed through agreement.

Inflection and Universal Grammar

- In many languages gender is an obligatory inflectional category.
- Every noun must have a gender, and that gender must be expressed in the morphology.
- The gender categories themselves and the number of them are completely different.

Inflection and Universal Grammar

- Many languages, have certain types of inflectional categories appear over and over again.
- For example, nouns are regularly inflected for case, number, and gender.

Inflection and Universal Grammar

- For verbs, the picture is similarly limited.
- Verbs might inflect for tense, aspect, mood, voice, or agreement, but you generally do not find languages where verbs inflect for other categories.

Inflection and Universal Grammar

- Although the inflectional categories themselves may not be universal, universal principles govern what is inflectionally possible and what is not.

END

Grammatical Function Change

Grammatical Function Change

- The governor broke the law.
- The law was broken by the governor.
- The law was broken
- There are times in life when the passive is convenient.

Grammatical Function Change

- In English we can also say:
- Solomon made the governor break the law
- Sentences like the one are called causative because they usually express the meaning ‘cause to do something’, or sometimes ‘allow, persuade, help to do something’.

Grammatical Function Change

- In English we can also say:
- The governor broke the law for Smith
- This sentence introduced another participant, Smith, the person for whom the governor broke the law.

Grammatical Function Change

- We could discuss the morphology of break in the English sentences but its forms are fairly limited: broke, broken, break.
- None of these forms is limited to expressing a passive, causative, or ‘for X’ interpretation.

Grammatical Function Change

- (The -en of broken is sometimes considered a passive morpheme, but it is not limited to passive sentences.
- We could also :
- The governor has broken the law(which is active).

Grammatical Function Change

- If we look at other languages, we often find that the passive, causative, and other types of grammatical-function-changing phenomena are associated with particular morphology.

Grammatical Function Change

- Grammatical function change refers to “alternations in the grammatical encoding of referential expressions,” to use the definition presented by Baker (1988: 1).
- We see that the agent can be encoded as a subject or object, depending on the form of the verb used: broke or was broken.

Grammatical Function Change

- Passive, causative, and other phenomena are grammatical-function changing phenomena because they can be seen as triggering the encoding change.
- There are various types of grammatical-function-changing phenomena that are found cross linguistically.

END

Morphology and Syntax

Productivity in Grammatical Function Change

Productivity in Grammatical Function Change

- Passive, causative, and other phenomena are grammatical-function changing phenomena shows productivity of syntax.

Productivity in Grammatical Function Change

- We do not analyze them, beyond presenting basic definitions, because to do so would require us to go too deeply into syntax.
- Grammatical-function-changing phenomena involve morphology–syntax interactions at their most intimate.

Productivity in Grammatical Function Change

- Passive
- Construction in which a grammatical subject of the verb is subjected to or affected by the action of the verb.
- The verb's agent may be expressed as an adjunct (in English, a by phrase). Example: His memoirs were written by a ghost writer.

Productivity in Grammatical Function Change

- Antipassive Construction in which the object of the verb is expressed in an oblique case or becomes null. The following is an example of the antipassive voice:

Productivity in Grammatical Function Change

- "Mary-erg eats pie-abs." → "Mary-abs eats."
- "He-erg is speaking the truth-abs." → "He-abs is speaking."

Productivity in Grammatical Function Change

- Causative Construction in which the subject causes an event.
- The causative may be an auxiliary verb or an inflectional morpheme attached to a verb, but the term is also applied to verbs that inherently express a relationship whereby the subject causes a given event (to kill is to cause to die).Sam makes us smile.

Productivity in Grammatical Function Change

- Applicative Construction in which the addition of a morpheme allows a verb to take an additional object.
- This object is often understood as benefiting from or being adversely affected by the action of the verb.

Productivity in Grammatical Function Change

English does not have a dedicated applicative prefix or suffix. However, prepositions can be compounded with verbs for an applicative effect. For example, from

- **Jack ran faster than the giant,**

the intransitive verb ran can be made transitive, and the oblique noun giant the object:

- **Jack outran the giant.**

The applicative verb can be made passive, something which is not possible with ran:

- **The giant was outrun by Jack**

Productivity in Grammatical Function Change

- Noun incorporation Morphological construction in which a noun stem is compounded with a verb stem and yields a derived verb stem. Example: Siberian Koryak qoya- ‘reindeer’ combines with the verb stem -nm- ‘to kill’, yielding the derived form qoyanm- ‘to reindeer-slaughter.

Productivity in Grammatical Function Change

- Although incoroporation does not occur regularly, English uses it sometimes: breastfeed, and direct object incorporation, as in babysit.

END

Morphology and Syntax

Morphology and mind

Morphology and mind

- how morphological knowledge (knowledge of complex words and of morphological rules) is represented in the human mind and how it is used in language processing.

Morphology and mind

- This is an important topic because the mental representation of morphological knowledge is a battle ground for different theories about the nature of linguistic rules.

Morphology and mind

- This is an important topic because the mental representation of morphological knowledge is a battle ground for different theories about the nature of linguistic rules.

Morphology and mind

- A related topic is the balance between storage and computation. Knowledge in a particular domain of human cognition always comprises both storage of information and the ability to compute new information.

Morphology and mind

- For instance, when we want to use the word books, we have two ways to do this: either we retrieve this plural form of book from our lexical memory, or we create it on line, by adding the plural suffix -s to the stem book. What determines the choice between these two routes?

Morphology and mind

- Empirical research of such questions may thus help us to get a better understanding of the nature of human cognitive capacities.

Morphology and mind

- Morphology may therefore be qualified as a window on the human mind. The empirical domains of psycholinguistic research will be reviewed: the mental lexicon (‘the dictionary in your head’), the acquisition of morphological knowledge, and the role of this knowledge in language perception and production.

Morphology and mind

- In the previous chapter, on morphological change, we saw that language change also provides information about the mental representation of morphological knowledge.

Morphology and mind

- There are a number of ways in which we can find out how morphological knowledge is represented in the mind and used in language processing: by studying naturalistic data (corpora of language use, speech errors, effects of language impairment, etc.) and experimental data (lexical decision tasks, production tasks, etc.).

Morphology and mind

- Morphology is a battlefield for competing models of linguistic knowledge, and for discussion on the nature of linguistic rules.

Morphology and mind

- The frequency of words in actual language use correlates with their activation level in the mental lexicon.
- Statistical and probabilistic data are therefore relevant for adequate models of morphological knowledge.

END

Morphology and Syntax

The Use of mental lexicon

The Use of mental lexicon

- Lexical knowledge of a native speaker does not have the format of a dictionary.
- First, the number of lexical entries in a good dictionary is much higher than that in our individual mental list of words.
- There are many words that most speakers do not know.

The Use of mental lexicon

- The passive vocabulary, the number of words that you understand.
- The active vocabulary, the set of words one uses in language production is much smaller.

The Use of mental lexicon

- A dictionary is conservative by nature, and hence it will contain words from the past that nobody uses any more.
- Mental lexicon will always be ahead of the dictionary, and contains a substantial number of words that are not listed in dictionaries.

The Use of mental lexicon

- New words (neologisms) are coined continuously, and dictionaries always lag behind.
- A second difference between a dictionary and the mental lexicon is that words in the mental lexicon bear a number of relationships to each other.

The Use of mental lexicon

- Words with similar meanings or similar phonological forms appear to be related in the mental lexicon, as can be concluded from speech errors.
- Someone talking about the sympathy of a musical conductor used the word symphony instead of sympathy.

The Use of mental lexicon

- In a dictionary, semantic relations between words are usually not expressed directly.
- The mental lexicon as a multidimensional web of words, with all kinds of connections between those words: semantic similarities, phonological similarities, and morphological relationships.

The Use of mental lexicon

- In a dictionary, words have one type of relationship only, that of alphabetical ordering.
- This ordering is based on the degree of orthographical similarity between words.

The Use of mental lexicon

- A third difference between a dictionary and a mental lexicon is that the latter also stores information about the frequency with which you come across a word.
- Linguists may compute the frequency of words on the basis of large corpora of actual language use..

The Use of mental lexicon

- Frequency counts indicate how many tokens are found for each word type in a particular corpus.
- Function words such as determiners have a relatively high frequency,
- Within the set of English adjectives, the word nice is used far more frequently than the word opaque.

The Use of mental lexicon

- A high frequency word is more easily recognized.
- Frequency of exposure to a word correlates with the activation level of that word in the mental lexicon.
- A word with a higher activation level is activated faster in language processing.

The Use of mental lexicon

- A related effect is the cumulative frequency effect.
- The frequent singular form of a noun will also have a frequency effect on its plural form
- The token frequencies of related inflectional word forms contribute to the activation level of each of them.

The Use of mental lexicon

END

- This is called the base frequency effect.
- Another example is the cumulative root frequency effect: the summed frequencies of all words with the same root also appear to affect response latencies of individual complex words containing that root.

Morphology and Syntax

Acquisition of morphology

Acquisition of morphology

- How does a child acquire the morphological system, the set of morphological rules of his or her mother tongue?
- Morphological rules have to be discovered on the basis of words that are formed according to these rules.

Acquisition of morphology

- The first stage: the acquisition of individual complex words.
- The child uses morphologically complex words correctly without making use of morphological knowledge, by retrieving them from memory.

Acquisition of morphology

- Next, he may discover certain recurring properties e.g. plural nouns in English, the ending -s (with the allomorphs [s], [z], and [ɪz]) to the stem.
- Rules with exceptions go a further refinement.

Acquisition of morphology

- Three stages of morphological acquisition (Berko,1958).
- Firstly, children learn a number of past tense forms of English verbs by rote producing correct past tense forms of both regular and irregular verbs (asked, went).

Acquisition of morphology

- Secondly, children acquiring English have discovered the rule for past tense forms, but will also apply the rule to the class of irregular verbs.
- They will produce the correct form asked, but the incorrect form goed instead of the correct went, a case of overgeneralization.

Acquisition of morphology

- third stage, both the rule and the set of exceptions have been acquired, correct *asked* and *went*.
- So the learning process has the shape of a U-curve: the number of correct past tense verbs in stage I decreases in stage II, and increases again in stage III.

Acquisition of morphology

- This learning curve has been found for many languages.
- In Romance languages, with a number of different conjugations for verbs, it is the default conjugation that is overgeneralized.

Acquisition of morphology

- In languages with case marking, children will use case-marked word forms from very early on because it is words in their surface forms (not stems) that form the basis of acquisition.

Acquisition of morphology

- For nouns, the nominative form is usually the default case form, used in all syntactic contexts.

Acquisition of morphology

- Children can discover the role of case marking in syntactic contexts at a very early age.
- Russian children already use accusative nouns after transitive verbs before the age of 2 (Clark and Berman 2004).

Acquisition of morphology

- In the domain of word-formation children discover the building principles for complex words quite soon.
- Able to coin new words themselves at a very early age.
- Children coin words for concepts for which there are already established words.

Acquisition of morphology

- For adults, established words have priority above new coinings, in accordance with the principle of conventionality that gives priority to established words, and thus blocks the creation of new words that are synonymous to existing ones.

Acquisition of morphology

- Since children discover morphological processes on the basis of the words they are exposed to, they must be able to compare and analyse words, and assign them morphological structure if possible.

Acquisition of morphology

- Children appear to analyse words consciously, and ask questions like: Does cornflakes have corn in it? (Clark 1993: 40).

END

Morphology and Syntax

Sources of evidence

Sources of evidence

- How morphological information is represented in the mind?
- Sources of evidence: experimental and naturalistic data.

Sources of evidence

- Psychologists use experiments, and in the realm of morphology lexical decision tasks are the most widely used way of probing into the mental representation of morphology.

Sources of evidence

- Lexical decision tasks are often used in combination with priming, the prior presentation of another word.

Sources of evidence

- This means that the subject who has to make a lexical decision first receives some other information.
- An example of priming is the following: exposure to one stimulus influences a response to a subsequent stimulus, a case of identity priming.

Sources of evidence

- A higher level of activation by previous access to the same word.
- Other ways of priming are phonological priming (the prime word is phonologically similar to the target word), and semantic priming (with a semantically similar word as the prime).

Sources of evidence

- If these primes reduce response latencies for the target word, one can conclude that words in the mental lexicon are connected to words that are either phonologically or semantically similar.

Sources of evidence

- In morphological priming, a word that is morphologically related to the target word is used as a prime. For instance, calculate will function as a prime for calculation.
- Phonological and semantic priming, not an independent phenomenon.

Sources of evidence

- Naturalistic data evidence for theories of morphology in the mind.
- Data concerning the actual behaviour of language users.
- Children coining new words or word forms may be interpreted as evidence for the children's having acquired morphological rules.

Sources of evidence

- Speech errors
- *Take the freezes out of the steaker* (take the steaks out of the freezer).
- The roots freeze and steak exchanged erroneously.
- Exchange of roots bears on the issue of the lexical representation of morphological structure.

Sources of evidence

- The word freezer a complex word is stored as such in the mental lexicon, given its specific conventional meaning shows, its internal morphological structure is still accessible.
- Complex words can be stored in lexical memory with their morphological structure still present.

Sources of evidence

- The language behaviour of people with a language deficit, such as aphasia, may throw light on the mental representation of morphology.

Sources of evidence

- Aphasics that suffer from agrammatism, usually referred to as Brocaaphasics, may not be able to produce correct plural forms of nouns, except for nouns with a high frequency plural form such as the word eyes(Aitchison 2004).

Sources of evidence

- Three German aphasic patients with agrammatism it was found that their syntactic abilities were severely impaired, whereas their ability to use inflectional morphology was still intact.

Sources of evidence

- This fact can be interpreted as evidence for the position that syntactic rules belong to a different module of the grammar than the rules of inflectional morphology.

END

Morphology and Syntax

Models of morphological knowledge

Models of morphological knowledge

- The observed ability of native speakers to coin new words or word forms is the basic argument for assuming that morphological knowledge encompasses more than storage of the complex words that language users are exposed to.

Models of morphological knowledge

- There must be mechanisms in the mind that enable us to extend the set of complex words in a language.
- Languages with a rich system of inflectional morphology such as Turkish, it would even be quite absurd to assume that all these forms are memorized as such.

Models of morphological knowledge

- The memory load for such languages can be reduced considerably by making use of rules.
- A possible model is that language users acquire morphological rules by constructing abstract rules or templates on the basis of their lexical knowledge.

Models of morphological knowledge

- There are also morphological patterns that are not productive, but can still be called patterns e.g. English past tense verb forms.
- Regular past tense forms are created by suffixing -ed to the stem.

Models of morphological knowledge

- On the other hand there are a number of stem-changing verbs where the past tense form and the past participle are marked by having a different vowel than the present tense form e.g. an -ing/k -ang/k- ung/k pattern for verbs: ring, sing, spring, drink, shrink, sink, stink

Models of morphological knowledge

- The class of verbs with this kind of vowel alternation will normally not be extended.
- It is clear that native speakers of English are able to recognize the abstract pattern involved.
- Some speakers tend to also inflect the verb to bring as brang and brung.

Models of morphological knowledge

- If people are asked to make the past tense forms of non-existing verbs with a similar phonological make-up as the words spling, they tend to come up with either splang or splung.

Models of morphological knowledge

- Some verbs once regular have changed into irregular ones: dive (with the past tense form dove not dived in American English).

Models of morphological knowledge

- These facts have led a number of linguists to defend a dual system model of morphological knowledge.
- The past tense and participial forms are not stored in lexical memory, but always created by rule.
- The irregular forms are stored in memory.

Models of morphological knowledge

- These stored irregular forms are linked to each other in an associative way, and thus the language user will be able to discover similarity patterns such as -ing/ k -ang/k -ung/k.
- This explains why the pattern may be extended incidentally to similar verbs such as to bring.

Models of morphological knowledge

- The dual system theory has also been defended based on a type of evidence : neurological evidence. Jaeger et al. (1996) have argued that regular and irregular verbs in English are processed by different neural systems. The processing location determined by PET-scans.

Models of morphological knowledge

- A second type of rule-less approach is the model proposed by Bybee(1988, 1995, 2001).
- In her model, individual inflectional forms of words are listed in the lexicon.
- This also applies to past tense verb forms, both regular and irregular ones.

Models of morphological knowledge

- The regularities in the formal relationship between present tense and past tense forms are captured by abstract schemas that can be constructed on the basis of sets of words.

Models of morphological knowledge

- A third single system approach without rules is the analogy-based model.
- To be sure, analogy has been recognized as a source of new complex forms in all kinds of morphological models.

Models of morphological knowledge

- In the case, a new words formed on the basis of a related existing word, without an abstract morphological template being involved.
- The coinage of the English word seascape is based on the word landscape land : sea = landscape :

Models of morphological knowledge

- This survey of different models of morphological knowledge, and the debate about these models illustrates that morphological phenomena play an important role in the debate on the nature of linguistic knowledge.

Models of morphological knowledge

- Morphology is an important window on the mental representation of natural language and the human mind.

END

Morphology and Syntax

Morphological processing

Morphological processing

- The insight that complex words are often stored as such in the lexicon raises the question of how they are processed.
- There are two ways in which a complex word can be processed, the direct route, and the indirect route.

Morphological processing

- When perception of complex words is involved, the direct route means that we do not first parse the complex word, but go directly to its representation in the lexicon, in order to access its meaning.

Morphological processing

- The indirect route means that a complex word is parsed into constituent morphemes, and that its meaning is computed after we have gained access to its constituent morphemes and their meanings.

Morphological processing

- There are data that might be interpreted as showing that language users try to parse words into morphological sub-constituents.

Morphological processing

- For instance, when speakers of Dutch are confronted with non-words in a lexical decision task, it takes more time to make the correct decision when that word begins with a syllable that could have been a prefix, compared to words where this does not apply.

Morphological processing

- Dutch words aderibag, afgeblar, afbegepakt
- 1 no potential prefix
- 2, begins with two prefixes (af-, ge-),
- 3. begins with three prefixes (af-, be-, ge-).

Morphological processing

- Correlating with this difference, the last nonword has longest response latency, the language users try to strip prefixes from words that are not in their lexicon.
- The existence of two routes has led to the assumption of morphological race models.

Morphological processing

- In such models, both routes will be used for word recognition, and compete with each other.
- If the word is not stored in lexical memory, the indirect route is the only one that will lead to recognition, on the basis of parsing.

Morphological processing

- If the word is stored, the direct route will be faster than the indirect route if the stored complex word has a high frequency, that is, a high level of activation.
- For a complex word with a low frequency, on the other hand, parsing is the obvious route.

Morphological processing

- Both routes are followed, and one of them will turn out to be the fastest, depending on the level of activation of the complex word.

Morphological processing

- The parsing of complex words is also affected by relative frequency: the frequency of the complex word compared to that of its base word.

Morphological processing

- If the complex word has a lower frequency than the base word, this will make parsing of that complex word easier and more efficient than direct retrieval.

Morphological processing

- If the inverse situation obtains, direct access to the complex word will be the most efficient route.
- dazzlement will be parsed than its base dazzle,
- government will be accessed as a whole than that of its verbal base govern.

Morphological processing

- Note that the meaning of government is not completely compositional, unlike that of dazzlement.
- The more complex words with a certain affix will be parsed, the more productive the corresponding word-formation process
- Parsing the affix will increase its activation level

Morphological processing

- The morphological race model can also be used as a model of word production.
- It helps us to understand why it is irregular forms of high frequency that are maintained in a language, whereas low-frequency irregular forms disappear more easily.

Morphological processing

- Went is a high-frequency form, this route will be faster than the indirect route where the past tense form has to be created by rule, resulting in the incorrect goed.

END

The nature of language change: Internal

The nature of language change: Internal

Geoffrey Chaucer's famous Canterbury Tales
(1) When that Aprill with his shoures soote
"When that April with his showers sweet"
The droghte of March hath perced to the roote
"The drought of March has pierced to the root"
And bathed every veyne in swich licour
"And bathed every vine in such liquid"
Of which vertu engendred is the flour;
"Of which virtue engendered is the flower"

The nature of language change: Internal

- Middle English as used in these lines is different from Modern English.
- If we assume that it is still the same language, English, we have to conclude that languages can change.
- But why do they?

The nature of language change: Internal

- The statement that languages change is in fact metaphorical in nature.
- It presupposes that we conceive of a language as an organism that grows, changes, and sometimes dies.
- Languages have a mode of existence outside their users.

The nature of language change: Internal

- A language primarily exists in the minds of its speakers.
- That is why we say that a language has died when its last speaker has died.
- So it is speakers that change their language while using it in language perception and production.

The nature of language change: Internal

- Why do language users change their language?
- In fact, ‘change’ is not always the appropriate word for what is going on.
- It would be better to speak of construction or innovation of language.

The nature of language change: Internal

- What does change when new words or new meanings of words get established is the lexical norm of that language, not the system behind it.
- The main reason for changing the lexical norm of a language is that language users need expressions for new concepts, or new things.

The nature of language change: Internal

- One way of meeting this need is extending the meaning of existing words.
- mouse
- hard disk
- anti-virus-program

The nature of language change: Internal

- Lexical gaps can also be filled through borrowings.
- Dutch, for example, has borrowed many words from English recently e.g. printer

The nature of language change: Internal

- The change of the lexical norm consists of two steps.
- The first step is that an individual language user coins a new lexical unit (a word or a phrase), borrows one from another language,
- Or gives an existing word a new interpretation.

The nature of language change: Internal

- Supra-individual lexical norm: change accepted by many users
- Lexical innovation: users need to express new concepts.
- The study of language change has a psychological and a social dimension.

The nature of language change: Internal

- A second source of linguistic innovation besides changing the lexical norm is reanalysis.
- Language users cannot grasp the system behind a language in a direct fashion.
- The only evidence they have are outputs of the system, concrete cases of language use.

The nature of language change: Internal

- This opens up the possibility that a language user reconstructs the system underlying the perceived outputs in a slightly different way than previous users.
- Children do the same by using *goed* and *bringed*.

The nature of language change: Internal

- In sum, language users may be involved in language change at different stages of their lives.

END

The nature of language change: External

The nature of language change: External

- Language change may also be effected by external causes, in particular language contact.
- This is called external change.
- Language contact may lead to borrowing of words from other languages.

The nature of language change: External

- Most Germanic languages borrowed many words from French, of culture, science, and diplomacy.
- English was influenced much earlier and more strongly by French due to the Norman conquest of 1066.

The nature of language change: External

- Borrowing had its impact on the morphology of Germanic languages. In Dutch, a number of affixes of French origin are used productively in combination with non-native stems, and sometimes even with native stems (as in flauw-iteit “silly joke” derived from the native adjective flauw “silly”).

The nature of language change: External

- Borrowing of inflectional forms may also take place.
- English has Greek and Latin plurals, such as criteria, schemata, and data.
- These learned plurals came to be replaced with regular plurals such as schemas and museums.

The nature of language change: External

- Lack or rarity of morphology is considered by some linguists to be typical for pidgin and creole languages.
- From recent research: both pidgins and creoles do have morphology, both inflection and word-formation (derivation, compounding, reduplication).

The nature of language change: External

- Language contact as a source of loss of inflectional morphology can be observed in the development of Afrikaans: mother language Dutch.

The nature of language change: External

- Afrikaans has an extremely simple kind of inflectional morphology, with a present tense form that is identical to the stem, without person and number marking.

The nature of language change: External

- Morphological change is the erosion of inflectional systems in the Germanic and Romance languages, referred to as deflection.
- English has the poorest inflectional system of all.
- Most Germanic languages have lost their case system and the three-gender system.

The nature of language change: External

- Language change is obviously not restricted to the morphological system of languages.
- Quotation above from Chaucer also shows phonological, syntactic, and semantic changes.

The nature of language change: External

- Phonological change is exemplified by the loss of the final vowel of *roote* that has become root in Modern English.
- The word order noun–adjective in *shoures soote* corresponds with the Modern English word order adjective–noun: *sweet showers*.

The nature of language change: External

- An example of semantic change is that the present-day meaning of liquor is no longer “liquid”, but denotes alcoholic liquids only.

END

Morphology and Syntax

Historical sources of morphology

Historical sources of morphology

- Morphological systems not only erode, they may also arise.
- An example is the emergence of nominal compounding in Germanic languages that arose from noun phrases of the type:
- [N-GEN N]NP
- Harry's book

Historical sources of morphology

- The pre-nominal noun with genitive case functions as a modifier of the head noun.
- Such noun phrases were reinterpreted as compound nouns.

Historical sources of morphology

- Univerbation, the reinterpretation of phrases as words, does not necessarily lead to language change.
- In linguistics, univerbation is the diachronic process of combining a fixed expression of several words into a new single word.

Historical sources of morphology

- Some English examples include *always* from all [the] way (the *s* was added later),
- *onto* from *on to*,
- *albeit* from *all be it*,
- and colloquial *gonna* from going to.

Historical sources of morphology

- These changes imply the addition of lexemes to the lexicon, but do not affect the morphological system

Historical sources of morphology

- Although this kind of univerbation did not lead to new morphological rules, : when a word is multi-morphemic, this does not necessarily imply that it has been created by a morphological process.

Historical sources of morphology

- The frequency plays a role in grammaticalization: defined as ‘the process by which a frequently used sequence of words or morphemes become automated as a single processing unit’ (Bybee 2003: 603).

Historical sources of morphology

- [G]rammaticalization is that subset of linguistic changes through which lexical item in certain uses becomes a grammatical item, or through which a grammatical item becomes more grammatical' (Hopper and Closs Traugott1993: 2).

Historical sources of morphology

- An example of the change from lexical to grammatical item is the development of verbs into auxiliaries.
- In English the verb *to have* not only functions as a main verb, with the meaning "to possess", but also as an auxiliary in perfect tense forms.

Historical sources of morphology

- The verb *can* has lost its status as lexical verb completely, and functions as a modal auxiliary only.
- In these examples grammaticalization does not create morphology.
- This does happen if a (lexical or grammatical) morpheme becomes an affix.

Historical sources of morphology

- The phenomenon of degrammaticalization has raised the question whether grammaticalization is subject to the condition of unidirectionality.
- Can a grammatical morpheme become less grammatical, or even lexical as well.

Historical sources of morphology

- This depends on one's definition of grammaticalization.

Historical sources of morphology

- If unidirectionality is one of its defining properties, changes into the opposite direction simply require another descriptive term, for instance degrammaticalization.
- The reinterpretation of the English genitive case morpheme -s as a clitic is a restricted form of degrammaticalization.

Historical sources of morphology

- It is a restricted case because the suffix does not end up as a full lexical word.
- In Early Modern English it has also been interpreted as the weak form of the possessive pronoun his, that is, as a full word.
- Shakespeare writes: the count his galleys “the count’s galleys”.

Historical sources of morphology

- This change is related to the fact that English lost its case system and this made a reanalysis of the genitive suffix –s necessary.
- Degrammaticalization is restricted in nature, Grammaticalization is a pervasive phenomenon in natural languages.

Historical sources of morphology

END

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- Degrammaticalization is restricted in nature, Drammaticalization is a pervasive phenomenon in natural languages.

Morphology and Syntax

Changes in morphological rules

Changes in morphological rules

- Erosion of inflectional morphology has taken place in most Germanic and Romance languages.
- This means that some inflectional rules have disappeared from the grammar of those languages.
- Dutch, for instance, has lost its morphological cases.

Changes in morphological rules

- The case system has only survived in a number of fixed expressions, prepositional in origin.
- The prepositions in these phrases govern a particular case.
- Some of these frozen expressions are considered as words, others are still spelt as phrases. The case endings are in italics:

Changes in morphological rules

- te-gelijk*er*-tijd “at the same time, simultaneously
- “met di*en* verstande “with that understanding
- “in di*er* voege “in such a manner”

Changes in morphological rules

An interesting case of change in inflectional morphology is that of adjectival inflection in Afrikaans.
In Dutch, adjectives in attributive position are inflected according to the following rule: ‘add the suffix -e [ə] tothe adjectival stem unless the NP in which it occurs carries the features[indefinite], [neuter], and [singular]’

een groot-ø paard “a big horse” een grot-e koe “a big cow”

het grot-e paard “the big horse” de grot-e koe “the big cow”

(de) grot-e paarden “(the) big horses” (de) grot-e koeien “(the) big cows”

Changes in morphological rules

- Quite a complex system for many non-native speakers.
- No wonder this system broke down in Afrikaans, a creolized variant of Dutch.

Changes in morphological rules

- In the new system, the adjectives are divided into two classes: either they always carry the inflectional schwa in attributive position, or they never do.
- The adjectives that do take the schwa are morphologically complex adjectives, and simplex adjectives that exhibit stem allomorphy.

Changes in morphological rules

- For instance, the adjective sag “soft” has the stem allomorph sagt, as shown in the inflected form sagte.
- Hence, it will have the form sagte in attributive position, whereas sag is used in predicative position.

Changes in morphological rules

- What we can learn from these facts is that relics of a previous stage of the language, “historical junk” in the words of Lass (1990), might be kept, and even re-used in a different way.
- That is, these words have lost their morphological structure.

Changes in morphological rules

- Another type of possible change in derivational rules is a change in the category of the base words to which they apply.
- Very productive rules tend to extend their domain of application to new categories.

Changes in morphological rules

- The productive diminutive suffix -tje of Dutch, for instance, is no longer restricted to the domain of nouns, but also attaches to adjectives, verbs, and adverbs:
- strijk “to stroke” strijk-je “small string orchestra” blond “blond” blond-je “blond girl” uit “out” uit-je “outing”

Changes in morphological rules

- The changes of the French suffix -age also illustrate category change (Fleischmann 1977).
- The suffix -age entered many European languages through borrowing of French words in -age. English has extended its use to native, Germanic nominal, and verbal stems,

Changes in morphological rules

- base N: foot-age, front-age, mile-age, shipp-age, wreck-age, yard-age
- base V: break-age, brew-age, cover-age, drain-age, leak-age, sew-age.

Changes in morphological rules

END

- The word shortage shows that -age has even been extended to adjectival bases. In Dutch we find both denominal and deverbal nouns in -age; as in English, it has also been attached to native stems, an indication of its productivity.

Morphology and Syntax

Changes in word structure

Changes in word structure

- Complex words, once they are coined, may be subject to reanalysis and reduction.
- In reanalysis, words receive a different structural interpretation.
- A classical example is the reinterpretation of the word *hamburger*.

Changes in word structure

- This word, derived from the base noun Hamburg, and denoting a specific kind of food originating from that city, received the following structural reanalysis:
- [[hamburg]er] > [[ham][burger]]

Changes in word structure

- Reanalysis can only be observed when the reanalysed structure serves as a model for new words.
- Many new words in -burger have been coined, such as *beefburger*, *cheeseburger*, *fishburger*,.
- *turkeyfurter* on the model of *frankfurter*

Changes in word structure

- The piece burger itself has been reinterpreted as a noun, witness the brand name Burger King.
- So in fact we cannot conclude that a new suffix -burger has developed in English.

Changes in word structure

- Burger is a new noun denoting a particular kind of fast food, and can be used as the head of nominal compounds.

Changes in word structure

- Semantic reinterpretation may also lead to a new set of words.
- This has been the case for -gate, as used in Watergate (the name of an apartment building in Washington, DC, that was burglarized by order of President Nixon).

Changes in word structure

- The morpheme -gate received a new interpretation, “political scandal”, thus leading to many new words such as Monicagate and Irangate.
- This suffix also acquired the more general meaning of “scandal”,.

Changes in word structure

- Reanalysis may also have the effect of a sequence of affixes becoming an affix.
- A morphological structure [[[x]A]B] can be reinterpreted as [[x]AB].

Changes in word structure

- An example from Dutch is the suffix -*erij*, originally a combination of the suffixes -er and -ij: base noun in -er noun in -ijbak “to bake” bakk-er “baker” bakk-er-ij “bakery” > bakk-erij.
- This phenomenon of two affixes becoming one is referred to as affix telescoping

Changes in word structure

- Prefixes may also lose their morphological status.
- This is quite clear in English borrowings from Latin such as abortion and adoption.
- prefixes ab- and ad- respectively

Changes in word structure

END

- The syllabifications these words are a.bor.tion and a.dop.tion respectively.
- The Dutch prefix ge-, as in geloof “to believe” is no longer productive as a verbal prefix.
- In Afrikaans, the verb geloof has become a simplex verb, glo, with deletion of the schwa

Morphology & Syntax

Some notions about grammar

Some notions about grammar

- The word grammar is derived from Greek, which means "art of letters", from γράμμα (gramma), "letter", itself from γράφειν (graphein), "to draw, to write".
- The same Greek root also appears in graphics, grapheme, and photograph.

Some notions about grammar

- In linguistics, grammar is *the set of structural rules governing the composition of clauses, phrases, and words in any given natural language*.

Some notions about grammar

- The term refers also to the study of such rules, and this field includes phonology, morphology, and syntax, often complemented by phonetics, semantics, and pragmatics.

Some notions about grammar

- Speakers of a language have *a set of internalized rules for using that language* and these rules constitute that language's grammar.
- Native language – acquired not by conscious study or instruction, but by observing other speakers.

Some notions about grammar

- Much of this work is done during early childhood; learning a language later in life usually involves a greater degree of explicit instruction.
- Grammar is the cognitive information underlying language use.

Some notions about grammar

- The term "grammar" can also be used to describe the rules that govern the linguistic behaviour of a group of speakers.
- The term "English grammar" may have several meanings.
- The whole of English grammar, that is, to the grammars of all the speakers of the language.

Some notions about grammar

- Alternatively, it may refer only to what is common to the grammars of all, or of the vast majority of English speakers (such as subject–verb–object word order in simple declarative sentences).

Some notions about grammar

- Or it may refer to the rules of a particular, relatively well-defined variety of English (such as standard English for a particular region).

Some notions about grammar

- A specific description, study or analysis of such rules may also be referred to as a grammar.
- A reference book describing the grammar of a language is called a "reference grammar" or simply "a grammar".

Some notions about grammar

- A fully explicit grammar that exhaustively describes the grammatical constructions of a language is called a descriptive grammar.

Some notions about grammar

- This kind of linguistic description contrasts with linguistic prescription, an attempt to discourage or suppress some grammatical constructions, while promoting others.
- John Dryden, objected to it leading other English speakers to avoid the construction and discourage its use.

Some notions about grammar

- Outside linguistics, the term grammar is often used in a rather different sense.
- it may be used more broadly, including rules of spelling and punctuation, which linguists would not typically consider to form part of grammar, but rather as a part of orthography.

Some notions about grammar

- In other respects, it may be used more narrowly, to refer to prescriptive grammar only and excluding those aspects of a language's grammar that are not subject to variation or debate.

Some notions about grammar

- Jeremy Butterfield claimed that, for non-linguists, "Grammar is often a generic way of referring to any aspect of English that people object to."

END

Morphology & Syntax

Some authorities of grammatical tradition

Some authorities of grammatical tradition

- The Babylonians: some early attempts at language description,
- The first systematic grammars, of Sanskrit, originated in Iron Age India,
- Yaska (6th century BC),
- Pāṇini (6-5th century BC)
- Pingala (c. 200 BC), Katyayana, Patanjali (2nd century BC).

Some authorities of grammatical tradition

- Tolkāppiyam, the earliest Tamil grammar, is mostly dated to before the 5th century AD.
- In the West, grammar emerged as a discipline in Hellenism from the 3rd century BC forward with authors like Rhyanus and Aristarchus of Samothrace.

Some authorities of grammatical tradition

- The oldest known grammar handbook is the Art of Grammar , by the ancient Greek scholar Dionysius Thrax (c. 170–c. 90 BC), a student of Aristarchus of Samothrace who established a school on the Greek island of Rhodes.

Some authorities of grammatical tradition

- Dionysius Thrax's grammar book remained the primary grammar textbook for Greek schoolboys until as late as the twelfth century AD.
- The Romans based their grammatical writings on it and its basic format remains the basis for grammar guides in many languages even today.

Some authorities of grammatical tradition

- Latin grammar developed by following Greek models from the 1st century BC, due to the work of authors such as Orbilius Pupillus, Remmius Palaemon, Marcus Valerius Probus, Verrius Flaccus, and Aemilius Asper.

Some authorities of grammatical tradition

- A grammar of Irish originated in the 7th century with the Auraicept na n-Éces. Arabic grammar emerged with Abu al-Aswad al-Du'ali in the 7th century.
- The first treatises on Hebrew grammar appeared in the High Middle Ages, in the context of Mishnah (exegesis of the Hebrew Bible).

Some authorities of grammatical tradition

- The Karaite tradition originated in Abbasid Baghdad.
- The Diqduq (10th century) is one of the earliest grammatical commentaries on the Hebrew Bible.
- Ibn Barun in the 12th century compares the Hebrew language with Arabic in the Islamic grammatical tradition.

Some authorities of grammatical tradition

- Belonging to the trivium of the seven liberal arts, grammar was taught as a core discipline throughout the Middle Ages, following the influence of authors from Late Antiquity, such as Priscian.

Some authorities of grammatical tradition

- Treatment of vernaculars began gradually during the High Middle Ages, with isolated works such as the First Grammatical Treatise, but became influential only in the Renaissance and Baroque periods.

Some authorities of grammatical tradition

- In 1486, Antonio de Nebrija published Las introduciones Latinas contrapuesto el romance al Latin, and the first Spanish grammar, Gramática de la lengua castellana, in 1492.

Some authorities of grammatical tradition

- During the 16th-century Italian Renaissance, the Questione della lingua was the discussion on the status and ideal form of the Italian language, initiated by Dante's de vulgari.
- The first grammar of Slovene language was written in 1583 by Adam Bohorič.

Some authorities of grammatical tradition

- Grammars of non-European languages began to be compiled for the purposes of evangelization and Bible translation from the 16th century onward, such as Grammatica o Arte de la Lengua General de los Indios de los Reynos del Perú (1560).

Some authorities of grammatical tradition

- From the latter part of the 18th century, grammar came to be understood as a subfield of the emerging discipline of modern linguistics.
- The Deutsche Grammatik of the Jacob Grimm was first published in the 1810s.

Some authorities of grammatical tradition

- The Comparative Grammar of Franz Bopp, the starting point of modern comparative linguistics, came out in 1833.

END

Morphology & Syntax

Concept of Parts of speech

Concept of Parts of speech

- In traditional grammar, a part of speech is a category of words (or, more generally, of lexical items) which have similar grammatical properties.

Concept of Parts of speech

- Words that are assigned to the same part of speech generally display similar behavior in terms of syntax—they play similar roles within the grammatical structure of sentences—and sometimes in terms of morphology, in that they undergo inflection for similar properties.

Concept of Parts of speech

- Almost all languages have the word classes noun and verb, but beyond these two there are significant variations among different languages.

Concept of Parts of speech

- For example, Japanese has as many as three classes of adjectives, where English has one (not to be confused with the seven types of English adjectives, or the fact that English adjectives can modify both nouns and pronouns).

Concept of Parts of speech

- Chinese, Korean, Japanese and Vietnamese have a class of nominal classifiers; and Many languages do not distinguish between adjectives and adverbs, or between adjectives and verbs.

Concept of Parts of speech

- Because of such variation in the number of categories and their identifying properties, analysis of parts of speech must be done for each individual language.
- Nevertheless, the labels for each category are assigned on the basis of universal criteria.

Concept of Parts of speech

In the Nirukta, written in the 5th or 6th century BC, the Sanskrit grammarian Yāska defined the following main categories of words:

नाम **nāma – noun (including adjective)**

आख्यात **ākhyāta – verb**

निपात **nipāta – particle, invariant word (perhaps preposition)**

Concept of Parts of speech

The ancient work on the grammar of the Tamil language, Tolkāppiyam, argued to have been written around 2,500 years ago, classifies Tamil words.

- **peyar (பெயர்; noun),**
- **vinai (வினை; verb),**
- **idai (part of speech which modifies the relationships between verbs and nouns),**
- **uri (word that further qualifies a noun or verb).**

Concept of Parts of speech

Western tradition
A century or two after the work of Nirukta, the Greek scholar Plato wrote in his Cratylus dialog that "... sentences are, I conceive, a combination of verbs [rhêma] and nouns [ónoma]".

Aristotle added another class, "conjunction" [sýndesmos], which included not only the words known today as conjunctions, but also other parts (the interpretations differ; in one interpretation it is pronouns, prepositions, and the article).

Concept of Parts of speech

By the end of the 2nd century BC grammarians had expanded this classification scheme into eight categories, seen in the Art of Grammar, attributed to Dionysius Thrax:

- **Noun (ónoma): a part of speech inflected for case, signifying a concrete or abstract entity**
- **Verb (rhêma): a part of speech without case inflection, but inflected for tense, person and number, signifying an activity or process performed or undergone**
- **Participle (metokhḗ): a part of speech sharing features of the verb and the noun**
- **Article (árthron): a declinable part of speech, taken to include the definite article, but also the basic relative pronoun**

Concept of Parts of speech

By the end of the 2nd century BC grammarians had expanded this classification scheme into eight categories, seen in the Art of Grammar, attributed to Dionysius Thrax:

- **Pronoun (antōnymíā): a part of speech substitutable for a noun and marked for a person**
- **Preposition (próthesis): a part of speech placed before other words in composition and in syntax**
- **Adverb (epírrhēma): a part of speech without inflection, in modification of or in addition to a verb, adjective, clause, sentence, or other adverb**
- **Conjunction (sýndesmos): a part of speech binding together the discourse and filling gaps in its interpretation**

Concept of Parts of speech

- The Latin grammarian Priscian (fl. 500 AD) modified the above eightfold system, excluding "article" (since the Latin language, unlike Greek, does not have articles), but adding "interjection".

Concept of Parts of speech

- In the older English terminology: noun substantive, noun adjective and noun numeral.
- Later the adjective became a separate class, as often did the numerals, and the English word noun came to be applied to substantives only.

Concept of Parts of speech

- Works of English grammar generally follow the pattern of the European tradition as described above, except that participles are now usually regarded as forms of verbs rather than as a separate part of speech, and numerals are often conflated with other parts of speech:

END

Morphology and Syntax

Parts of Speech in English

Parts of speech in English

- Works of English grammar generally follow the pattern of the European tradition, except that participles are now usually regarded as forms of verbs rather than as a separate part of speech.

Parts of speech in English

- noun
- verb
- adjective
- adverb
- pronoun
- preposition
- conjunction
- interjection
- article or (more recently) determiner

Parts of speech in English

- Linguists recognize that the above list of eight or nine word classes is drastically simplified.

Parts of speech in English

- Modern linguists have proposed many different schemes whereby the words of English or other languages are placed into more specific categories and subcategories based on a more precise understanding of their grammatical functions.

Parts of speech in English

- In English grammar, open class refers to the category of content words—that is, parts of speech (or word classes) that readily accept new members. Contrast with closed class.
- The open classes in English are nouns, lexical verbs, adjectives, and adverbs.

Parts of speech in English

- The open or closed status of word classes varies between languages, even assuming that corresponding word classes exist.

Parts of speech in English

- In Japanese, verbs and adjectives are closed classes, though these are quite large, with about 700 adjectives, and verbs have opened slightly in recent years. Japanese adjectives are closely related to verbs.

Parts of speech in English

- By contrast, Japanese pronouns are open class—if they can even be considered a class—and nouns become used as pronouns with some frequency.

END

Morphology & Syntax

Prescriptive grammar

Prescriptive grammar

- The term prescriptive grammar refers to a set of norms or rules governing how a language should or should not be used rather than describing the ways in which a language is actually used.

Prescriptive grammar

- Contrast with descriptive grammar.
- Also called normative grammar and prescriptivism.

Prescriptive grammar

- In a prescriptive grammar there is right and wrong language. Rules of “good” or “proper” usage, which dictate what is “good grammar” and what is “bad grammar” Example:
- (1)She doesn’t know him.
- (2)She don’t know him.

Prescriptive grammar

- Besides there are other differences of the following types.
- Case of pronoun: never use an object case after the verb ’to be’.
- It is me.
- Instead say; It is I.
- Mary runs faster than me.
- Say: Mary runs faster than I.

Prescriptive grammar

- Similarly don’t say: who are you talking to?
- Say: whom are to talking to?
- Never end a sentence with a preposition.
- Whom are you talking to?
- Say: to whom are talking.

Prescriptive grammar

- Don't use ain't
- Don't use seen as the past tense of see (as in I seen him at the party last night).
- Don't use contractions
- Don't use sentence fragments
- Don't use dangling participles
- Coming to college, there were many tall trees.

Prescriptive grammar

- Many of these rules are essentially taken from Latin.
- Latin was the classical language known by all educated people and one regarded as model for all languages.

Prescriptive grammar

- However, there is no reason why English should follow the Latin rules.
- For example English has no case endings for noun (except in genitive case). So why to follow case?

END

Morphology

Problems of Prescriptive Grammar

Problems of prescriptive grammar

- Although everyone knows or thinks they know what a word is and what a sentence is, both terms defy exact definition.

Problems of prescriptive grammar

- The sentence as a linguistic concept has been defined in over 200 different ways, none of them completely adequate.
- Here are the most important attempts at defining the sentence:

Problems of prescriptive grammar

- The traditional, or common sense definition states that a sentence is a group of words that expresses a thought.

Problems of prescriptive grammar

The phrase *an egg* expresses a thought but is it a sentence?

A sentence like *I closed the door because it was cold* expresses two thoughts and yet it is one sentence.

Problems of prescriptive grammar

- Another definition is that a sentence is a group of words expressing a topic (old information) and some comment (new information) about that topic: John left.

Problems of prescriptive grammar

- The problem with the topic-comment definition is that many sentences have no clear topic and comment structure: It's raining.

Problems of prescriptive grammar

- Many sentences have no clear topic and comment structure: It--is raining. (The word *it* here is the so-called dummy it used to fill the subject slot for impersonal verbs in English.

Problems of prescriptive grammar

Some sentence types make no internal syntactic structure; there is no distinction between subject and predicate:
a) Emotive sentences such as Gee! Wow. Darn! Yes! No!
b) Imperatives: Go! Leave! Taxi! All aboard!
c) Elliptic sentences: Who took the car? John.
d) small talk phrases: Hello. Good-bye. Good morning.

Problems of prescriptive grammar

- In polysynthetic languages the single word serve as a complete sentence much more frequently. In such languages, morphology rather than syntax usually expresses the distinction between subject and predicate.

Problems of prescriptive grammar

- Structural ambiguity
- Flying plan can be dangerous.
- The king is eager to please.
- The king is easy to please.

Problems of prescriptive grammar

- Words and phrases can be grouped according to their sentence building functions.
- Not all languages have the same parts of speech. Many languages have postpositions rather than prepositions

Problems of prescriptive grammar

- A common assertion is that all languages have at least nouns and verbs.
- It is true that all languages have some means of conveying information as a concept or as an event, but what a noun or verb is differs from language to language.

Problems of prescriptive grammar

- In the Salishan languages of the Puget Sound, a single word can be translated into English as village and a village exist or there is a village;
- in other words, morphemes denoting stationary concepts are often bound roots that require verbal affixes to stand as words.

Problems of prescriptive grammar

- So parts of speech-- even nouns and verbs-- turn out to be at best fuzzy categories across languages, not identical or even present in every language.

END

Morphology and Syntax

Concept of Sentence in Prescriptive Grammar

Concept of Sentence in Prescriptive Grammar

- A sentence is a group of words that are put together to mean something.
- A sentence is the basic unit of language which expresses *a complete thought*.

Concept of Sentence in Prescriptive Grammar

- It does this by following the grammatical rules of syntax.
- For example: ‘ Sana is the most intelligent girl in the class'.

Concept of Sentence in Prescriptive Grammar

- A complete sentence has at least a subject and a main verb to state (declare) a complete thought.
- Short example:
- Walkers walk.

Concept of Sentence in Prescriptive Grammar

- In English and many other languages, the first word of a written sentence has a capital letter.
- At the end of the sentence there is a full stop or full point (American: 'period').

Concept of Sentence in Prescriptive Grammar

- A Sentence typically contains a subject and predicate, conveying a statement, question, exclamation, or command, and consists of a main clause and sometimes one or more subordinate clauses.

Concept of Sentence in Prescriptive Grammar

- A phrase or clause is part of a sentence.
- This is an example of a sentence:
- The dog is happy.
- In this sentence,
- 'The dog' is the subject, and 'is' is the verb.

Concept of Sentence in Prescriptive Grammar

- This is an example of a phrase:
- The happy dog
- There is no verb, so we do not know anything about what the happy dog is doing.
- Therefore, it is not a sentence.

Concept of Sentence in Prescriptive Grammar

- A simple sentence has only one clause.
- The cat is sleeping.

Concept of Sentence in Prescriptive Grammar

- Notional definition: a sentence expresses a complete thought.
- What does a complete thought mean?
- A cabbage
- A man
- If it rains, I shan't come.

Concept of Sentence in Prescriptive Grammar

- Pair of subject predicate
- It's raining.
- What is *it?*
- *The sentence is a linguistic unit that has the grammatical structure we assign to it.*

END

Morphology and Syntax

Hierarchy of Sentence

Hierarchy of Sentence

- Words, phrases, clauses, and sentences constitute what is called the GRAMMATICAL HIERARCHY of a sentence.

Hierarchy of Sentence

Hierarchy of Sentence		
Sentences	consist of one or more than one sentence	Stop!
Clauses	consist of one or more than one phrase	stop
Phrases	consist of one are more than one word	stop
Words	are separated by space	stop

Hierarchy of Sentence

- Sentences are at the top of the hierarchy, so they are the largest unit.
- Words are at the lowest level, though again, some grammars go below the word to consider morphology.

Hierarchy of Sentence

- At the clause level and at the phrase level, two points should be noted:
- Although clauses are higher than phrases in the hierarchy, clauses can occur within phrases, as:
- The man *who lives beside us* is ill

Hierarchy of Sentence

- Here we have a relative clause *who lives beside us* within the NP *the man who lives beside us*.
- Clauses can occur within clauses, and phrases can occur within phrases.

END

Morphology and Syntax

Descriptive Grammar

Descriptive Grammar

- The term descriptive grammar refers to an objective, nonjudgmental description of the grammatical constructions in a language.
- It's an examination of how a language is actually being used, in writing and in speech.

Descriptive Grammar

- Specialists in descriptive grammar examine the principles and patterns that underlie the use of words, phrases, clauses, and sentences.

Descriptive Grammar

- Kirk Hazen notes, "Descriptive grammars do not give advice: They detail the ways in which native speakers use their language.
- A descriptive grammar is a survey of a language.

Descriptive Grammar

- For any living language, a descriptive grammar from one century will differ from a descriptive grammar of the next century because the language will have changed." ("An Introduction to Language." John Wiley, 2015)

Descriptive Grammar

- "Descriptive grammar," Edwin L. Battistella notes in "Bad Language," "is the basis for dictionaries, which record changes in vocabulary and usage, and for the field of linguistics, which aims at describing languages and investigating the nature of language."

Descriptive Grammar

- The term descriptive is a little bit misleading, as descriptive grammar does provide analysis and explanation of the language's grammar and not just description of it.

Descriptive Grammar

- Contrast the type with prescriptive grammar, which notes how something should or should not be used, what is right and wrong.
- Prescriptive grammarians attempt to enforce rules concerning “correct” or “incorrect” usage.

Descriptive Grammar

- According to Donald G. Ellis, "All languages adhere to syntactical rules of one sort or another, but the rigidity of these rules is greater in some languages.
- It is very important to distinguish between the syntactical rules that govern a language and the rules that a culture imposes on its language.

Descriptive Grammar

- People spoke long before there were linguists around to uncover the rules of speaking....
- Prescriptive grammars, on the other hand, are the stuff of high school English teachers.

Descriptive Grammar

- The sentence "I ain't going,“
- *Who did you arrest?
- Whom did you arrest?
- *What are you waiting for?
- For what are you waiting?
- *I saw several octopuses at the beach.
- I saw several octopi at the beach.

Descriptive Grammar

- Descriptive grammar, consists of rules that all speakers of a speech community adhere to, barring speech errors.
- Linguists are usually more interested in such rules, as they are reflective of the properties of actual language, not ideal language.

END

Morphology and Syntax

Sentence structure

Sentence structure

- A simple sentence contains a subject and a verb, and it may also have an object and modifiers.
- It contains only one independent clause.

Sentence structure

- Examples:
- She reads.
- She completed her literature review.
- He organized his sources by theme.
- They studied APA rules for many hours.

Sentence structure

- Compound Sentences
- A compound sentence contains at least two independent clauses.
- These two independent clauses can be combined with *a comma and a coordinating conjunction* or *with a semicolon*.

Sentence structure

- Coordinators (Coordinating Conjunctions)
- The seven coordinators by the phrase FAN BOYS:

- For And Nor But Or Yet So

Sentence structure

For	**Our team did not play well, for they did not practiced hard** (the second clause is the reason for the first clause).
And	**Our teachers are very diligent, and our management too is excellent.** (The two clauses express equal, similar ideas).
Nor	**Good students study well, nor do they waste their time.** (nor means "and not" it joins two negative independent clauses. Notice that question word order is used after nor).
But	**Other team players may exercise, but they may not exercise as Ali does.** (The two clauses express equal, contrasting ideas).
Or	**All students should take healthful diets, or they will risk getting some disease**. (the two clauses express alternative possibilities).
Yet	**Sportsmen give a little time to their studies, yet in the long run, they are better off than their peers.** (The second clause is a surprising or unexpected contrast to the first clause).
So	**He organized his sources by theme, so he did not face any problem.(**the second clause is the reason of the first)

Sentence structure

- Complex Sentences
- A complex sentence contains at least one independent clause and at least one dependent clause.
- Dependent clauses can refer to the subject (who, which) the sequence/time (since, while), or the causal elements (because, if) of the independent clause.

Sentence structure

- Here are a few examples:
- Although she completed her literature review, she still needed to work on her method section.
- They studied APA rules for many hours as they were so interesting.

Sentence structure

- Compound-Complex Sentences
- Sentence types can also be combined.
- A compound-complex sentence contains at least two independent clauses and at least one dependent clause.

Sentence structure

Complex-compound sentences

- **She completed her literature review, but she still needs to work on her method section even *though she finished her course last semester*.**
- **Although he organized his sources by theme, he decided to arrange them chronologically, and he carefully followed the MEAL plan for organization.**
- **With pizza and coffee at hand, they studied APA rules for many hours, and they decided that writing in APA made sense because it was clear, concise, and objective.**

Sentence structure

- Using some complex-compound sentences in writing allows for more sentence variety.
- Pay close attention to comma usage in complex-compound sentences so that the reader is easily able to follow the intended meaning.

END

Morphology and Syntax

Noun Phrases

Noun Phrases

Noun Phrases

Often a **noun phrase** is just a **noun** or a **pronoun**:

- **People** like to have money.
- **I** am tired.
- **It** is getting late.

or a **determiner** and a **noun** …:

Our friends have bought a house in the village.

Those houses are very expensive.

… perhaps with an **adjective**:

Our **closest** friends have just bought a **new** house in the village.

Noun Phrases

Noun Phrases

Sometimes the noun phrase begins with a **quantifier**:

- **All** those children go to school here.
- **Both of** my younger brothers are married
- **Some** people spend a lot of money.

Numbers:

Quantifiers come before determiners, but **numbers** come after determiners:

- My **four** children go to school here. (**All** my children go to school here.)
- Those **two** suitcases are mine. (**Both** those suitcases are mine)

Noun Phrases

Noun Phrases

So the **noun** phrase is built up in this way:

- **Noun**: people; money
- **Determiner + noun**: the village, a house, our friends; those houses
- **Quantifier + noun**: some people; a lot of money
- **Determiner + adjective + noun**: our closest friends; a new house.
- **Quantifier + determiner + noun**: all those children;
- **Quantifier + determiner + adjective + noun**: both of my younger brothers

Noun Phrases

Noun Phrases

The **noun phrase** can be quite complicated:

- **a loaf of nice fresh brown bread**
- **the eight-year-old boy** who attempted to drive a car
- **that attractive young woman in the blue dress sitting over there in the corner**

Noun Phrases

Some words and phrases come after the noun. These are called postmodifiers. A noun phrase can be postmodified in several ways.

• with a **prepositional phrase**:
a man **with a gun**
the boy **in the blue shirt**
the house **on the corner**
• with an **–ing phrase**:
the man **standing over there**
the boy **talking to Angela**
• with a **relative clause**:
the man **we met yesterday**
the house **that Jack built**
the woman **who discovered radium**
an eight-year-old boy **who attempted to drive a car**

Noun Phrases

That clause: very common with reporting or summarising nouns like idea, fact, belief, suggestion:

He's still very fit, in spite of the fact **that he's over eighty**.
She got the idea **that people didn't like her**.
There was a suggestion **that the children should be sent home.**
• with a **to-infinitive**.
This is very common after indefinite pronouns and adverbs:
You should take something **to read**.
I need somewhere **to sleep**.
I've got no decent shoes **to wear**.

Noun Phrases

Noun Phrases

There may be more than one postmodifier:
an eight-year old boy with a gun **who tried to rob a sweet shop**
that girl over there **in a green dress** drinking a coke

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Morphology and Syntax

Structure of verb phrase

Structure of verb phrase

- Verbs have distinctive word-shapes (morphologies).
- The verb heads a verb phrase.
- The verb can be preceded within the verb phrase by auxiliary and modal verbs, and the negation word not.

Structure of verb phrase

- The verb phrase is usually preceded by a noun phrase called the subject.
- A sentence represents an action or an event or a state of affairs
- In many cases, the verb is the word which names the kind of action or event or state of affairs.

Structure of verb phrase

- English verbs have two distinctive morphological characteristics.
- i) the shape of the verb can encode the tense of the sentence;
- (1) He eats meat.
- (2) He ate meat.
- present and past, is coded by the morphology of the verb.

Structure of verb phrase

- ii) The second special morphological characteristic is that an English verb can agree with its subject if the verb is present and the subject is third person singular.

- She plays piano well.

Structure of verb phrase

- The first grammatical form that can appear in a verb phrase in English is the auxiliary verb.
- In English, the twelve auxiliary verbs are have, be, do, and the nine modal verbs (can, could, may, might, must, shall, should, will, and would).

Structure of verb phrase

- Auxiliary verbs perform the functions of progressive, perfect, passive, operator, and modal within verb phrases.

Structure of verb phrase

Progressive Auxiliary Verb | Verb
The dog **was barking**.
Perfect Auxiliary Verb | Verb
The boys **have completed** their work.
Passive Auxiliary Verb | Verb
The letter **has been written**.
Operator Auxiliary Verb | Verb
please **do call** me
Modal Auxiliary Verb | Verb
they **will study** today before the test.

Structure of verb phrase

- Progressive, perfect, passive, and modal auxiliary verb may appear with other progressive, perfect, passive, and modal auxiliary verbs.
- The order in which auxiliary verbs can appear together is Modal-Perfect-Passive-Progressive. For example:

Structure of verb phrase

- **Perfect | Progressive | Verb**
  had | been | sleeping
- **Perfect | Passive | Verb**
  has | been | broken
- **Modal | Progressive | Verb**
  could | be | swimming
- **Modal | Perfect | Passive | Verb**
  might | have | been | swindled
- **Modal | Perfect | Passive | Progressive | Verb**
  should | have | been | being | watched

Structure of verb phrase

Subject	Verb	Complement				
		Indirect object	Direct	Subjective complement	Objective complement	Adverbial
John	searched		the room			
The girl	is			a student		at a university
His brother	grew			happier		gradually
It	rained					steadily all day
He	had given	the girl	an apple			
They	make	him			the chairman	every year

Morphology and Syntax

Structure of Adjectives Phrase

Structure of Adjectives Phrase

- What is an adjective?
- An adjective describes or modifies noun/s and pronoun/s in a sentence.
- Words like small, blue, sharp etc.
- It normally indicates quality, size, shape, duration, feelings, contents, and more about a noun or pronoun.

Structure of Adjectives Phrase

- We cannot say whether a word is an adjective by looking at it in isolation.
- The form does not necessarily indicate its syntactic function some suffix are indeed found only with adjective, eg:- ous, but many common adjective have no shape e.g nice, good, sharp etc.

Structure of Adjectives Phrase

- The major functions of Adjective:
- (1) Attributive
- This premodifies a noun phrase
- A *beautiful* painting
- His *main* argument

Structure of Adjectives Phrase

- (2) Predicative
- Predicative adjective can be
- (a) subject complement
- Your son is *intelligent*.
- (b)objective complement
- He made his family *proud*.

Structure of Adjectives Phrase

- (3) Postposition
- Follow the item they modify(usually regarded as reduced relative clause) especially with indefinite pronouns ending in –body –one, -thing,-where e.g.
- I want to try on something *larger*(ie 'which is larger)

Structure of Adjectives Phrase

Obligatory postposition adjective have different sense when used attributively	
• The president *elect*	'Soon to take office'
• The city of London *proper*	'as strictly defined'
In several compounds –mostly legal or quasi-legal – the adjective is postposition.	
Attorney *general,* body *politic*, court *martial*, heir *apparent*, notary *public*	
Some a-adjectives and concerned, involved	
• The house *ablaze* is next door to mine.	
• The people *involved* were not found.	

Structure of Adjectives Phrase

- (4) Head of a noun phrase
- Does not inflect for number or for genitive case and must take a definite determiner
- *The extremely old* need a great deal of attention.
- *The young in spirit* enjoy life.
- *The rich* will help only *the humble poor*.

Structure of Adjectives Phrase

- Adjective phrase in the noun phrase
- NP
- AP
- art A N
- The white house



Structure of Adjectives Phrase

- We can add *quite* to this phrase
- The quite *white* house
- *the white quite house
- *the quite house

Structure of Adjectives Phrase

- Structure
- The head of an adjective phrase is an adjective which may be
- Simple: big
- Comparative: bigger
- Superlative: biggest
- The premodifiers of adjective or always adverbs: e*xtremely* hot

Structure of Adjectives Phrase

- Post modifiers can be either adverbs:
- *Very* tall *indeed*
- *Nice* enough
- Or preposition phrase

M M M

- Rather too hot (for

A PP

- Comfort)

END

Morphology and Syntax

Structure of Adverb Phrase

Structure of Adverb Phrase

- An adverb is a word that is used to change, modify or qualify several types of words including an adjective, a verb, a clause, another adverb, or any other type of word or phrase, with the exception of determiners that directly modify nouns.

Structure of Adverb Phrase

- A good way to understand adverbs is to think about them as the words that provide context.
- Specifically, adverbs provide a description of how, where, when, in what manner and to what extent something is done or happens.

Structure of Adverb Phrase

- Normally, we can spot an adverb by the fact that it often ends in –ly, but there are lots of adverbs that don't end in this way e.g. fast, well, etc.
- Moreover, adverbs can be used in many combinations with each other very nicely, extremely fast, etc.

Structure of Adverb Phrase

- When? She always arrives *early*.
- How? He drives *carefully*.
- Where? They go *everywhere* together.
- In what way? She eats *slowly*.
- To what extent? It is *terribly* hot.

Structure of Adverb Phrase

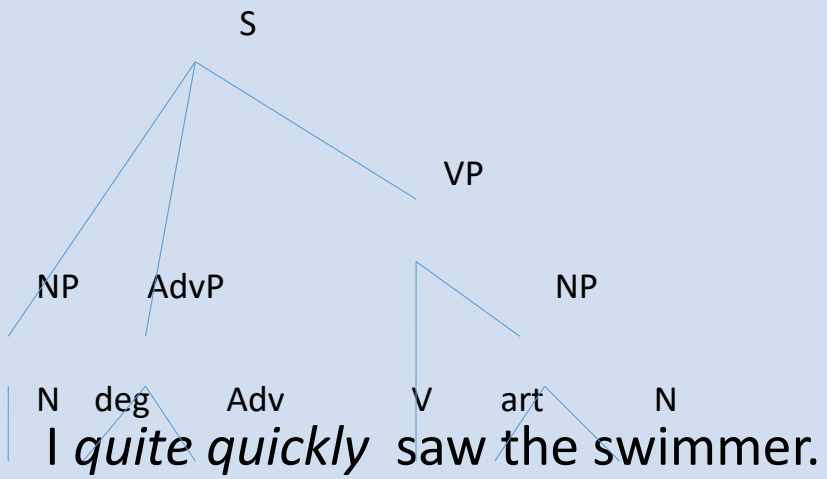
- The phrase structure rule for a noun phrase says that an adjective phrase can be contained in a noun phrase.
- In contrast, an adverb phrase cannot, as is seen below.
- (5) The [$_{AP}$ quite quick] swimmer
- (6) *The [$_{AdvP}$ quite quickly] swimmer

Structure of Adverb Phrase

Adverb phrases most characteristically roam free in the sentence and without very major effects on the meaning of the sentence.	
Quite quickly I saw the swimmer.	
I *quite quickly* saw the swimmer.	
I saw *quite quickly* the swimmer.	
*I saw the *quite quickly* swimmer.	The adverb phrase cannot roam into the noun phrase.
I saw the swimmer *quite quickly*.	

Structure of Adverb Phrase

Adverb in tree diagram



Structure of Adverb Phrase

- Two syntactic of function adverb
- (1)Adverbial
- (2) Modifier of adjective phrase and adverb

Structure of Adverb Phrase

Adverb as an adverbial		
Adjuncts:	Integrated with the structure of the clause to some extent	They are waiting *outside* He spoke about it *briefly*
Disjuncts	Not integrated within the clause. Semantically express an evaluation of what is said.	*Frankly*, I am tired *Fortunately*, no one complained They are *probably* at home
Conjuncts	Have connective function. Indicate the connection what is said and what was said before.	If you open all the window, then I am leaving I have not looked into his qualification. He seems very intelligent, *though*

Structure of Adverb Phrase

Adverb as modifier	
Modifier of an adjective	That was a *very* funny film
Modifier of adverb	There I have seen *so very* many letters like that one
Modifier of prepositional phrase	The nail went *right* through the wall His parents are *dead* against the trip
Modifier of determiner, predeterminer, Postdeterminer	*Nearly* everybody came to our party (intensifying adv. premodifying pronoun) *Over* two hundred survivors were reported I paid *more than* ten pounds for it

Structure of Adverb Phrase

END

- Modifier of noun phrase
- Intensifiers: *quite, rather*(esp BrE)
- Predeterminer: *such*
- Exclamatory: *what*
- It was *rather* a mess
- I never heard *such* wickedness
- He was *quite* some player
- *What* a fool he is!

Morphology and Syntax

Minimal noun phrase

Minimal noun phrase

- A single written sentence may stand for two different sentence structures, each having a different meaning.
- The structures differ because the words are grouped into different phrases.
- Phrases can be discovered by replacement and movement of sequences of words.

Minimal noun phrase

- MEANING AND PHRASE STRUCTURE
- I was reading the letter to John
- How does one sequence of words produce two different and alternative meanings?

Minimal noun phrase

- Two alternative organizations of the words, each of which delivers a different meaning
- The ambiguity is based on two different structures for the same sequence of words.
- This is called a STRUCTURAL AMBIGUITY.

Minimal noun phrase

- To understand how this string of words can produce two different meanings we must say that they are invisibly organized into groups.

A minimal components of a sentence

A 'box' of words is called a PHRASE		
• I was reading the	letter to John	
• I was reading the	letter to	John

Minimal noun phrase

- REPLACEMENT AND PHRASE STRUCTURE
- A sentence has a syntactic structure which is hidden from view but which can be revealed by various tests.

Minimal noun phrase

- TEST: REPLACEMENT BY IT
- If a sequence of words can be replaced by the word *it* without significantly changing the meaning, then that sequence of words is a phrase.

Minimal noun phrase

A 'box' of words is called a PHRASE			
I was reading the		the letter to John	
I was reading		it	
I was reading the		letter to	John
I was reading		it	

Minimal noun phrase

Movement test			
I was reading	the letter to John		
The letter to John	was being read		
The letter	was being read	to John.	

Minimal noun phrase

END

- So we are replacing like for like, with the word *it* being a minimal or stripped-down noun phrase standing for a more filled-out noun phrase.
- It is called a PRONOUN, though it should more properly be called a pro-noun-phrase because it substitutes for a noun phrase.

Tree structure for a sentence

Tree structure for a sentence

- A sentence represents an EVENTUALITY.
- An eventuality is an action or an event or a state of affairs: something that happens or something that is.

Tree structure for a sentence

- The sentence represents an eventuality by separating out the type of eventuality from the abstract or concrete things which are involved in the eventuality.

Tree structure for a sentence

- The type of the eventuality is prototypically represented by the verb, and the abstract or concrete things involved in the eventuality are prototypically represented by noun phrases.
- (1) The man in the hat casually gave a slimy fish to Toby.

Tree structure for a sentence

- Here the eventuality type is an action of *giving*, represented by the verb *gave*.
- The things involved in the eventuality are represented by the three noun phrases, *the man in the hat* (the giver), *a slimy fish* (the thing given), *and Toby* (the thing given to).

Tree structure for a sentence

- Apart from the type of eventuality and the things which participate in it, a part of the sentence can also express the circumstances of the eventuality.
- The adverb phrase casually expresses the circumstances here.

Tree structure for a sentence

- The component parts of the sentence thus contribute distinct components of meaning to the overall meaning of the sentence.

Tree structure for a sentence

Step 1: Look for the main verb and write V above it.

V
The man in the hat casually gave a slimy fish to Toby

Step 2: A verb is always inside a verb phrase, so draw a line up from V to VP.

VP

V
The man in the hat casually gave a slimy fish to Toby

Tree structure for a sentence

Step 3: A verb phrase is usually inside a sentence, so draw a line up from VP to S.

S

VP

V

The man in the hat casually gave a slimy fish to Toby

Step 4: Now identify the noun phrases by the substitution test. A noun phrase might be replaceable by *him* or *her* or *it*.

The man in the hat casually gave a slimy fish to Toby

He casually gave it to him

Tree structure for a sentence

Step 5: Underline the NPs and write NP above each of them.

S

NP VP NP NP

The man in the hat casually gave a slimy fish to Toby

Step 6: Identify any articles in the sentence and write art above them.

S

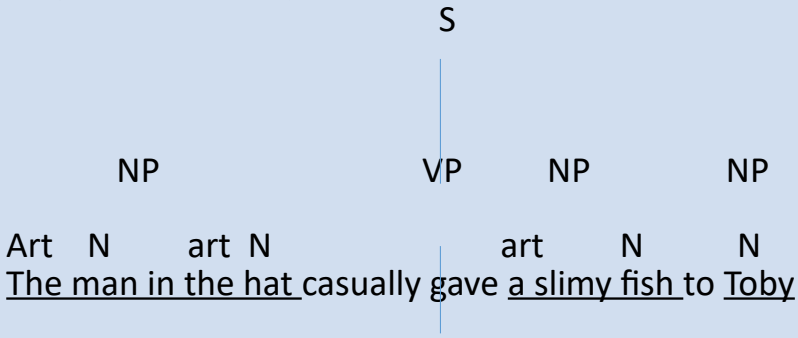
NP VP NP NP

art art V art

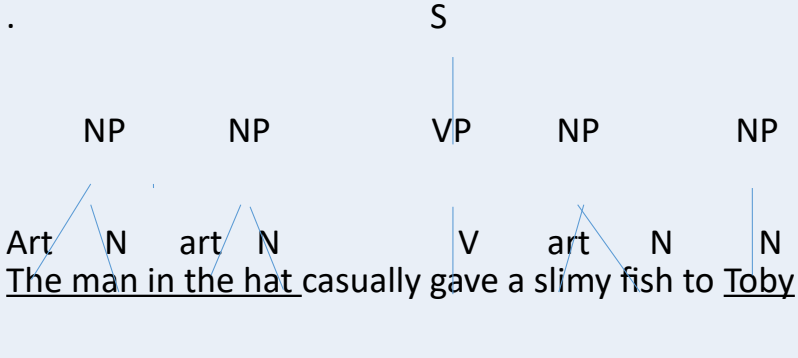
The man in the hat casually gave a slimy fish to Toby

Tree structure for a sentence

Step 7: Identify any nouns in the sentence, and write N above them. .

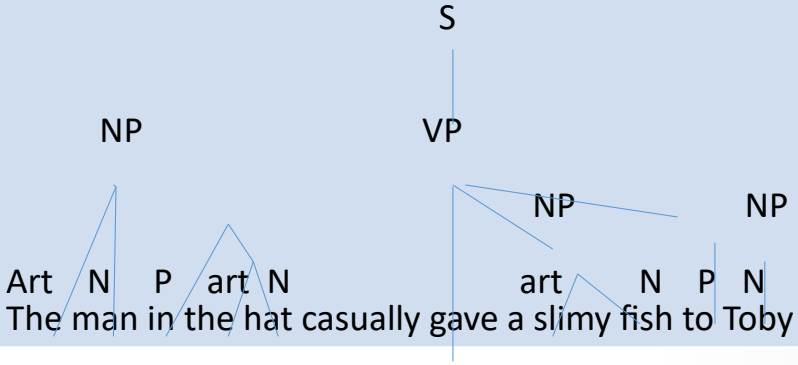


Step 8: An article is always immediately under NP, and N is always immediately under .



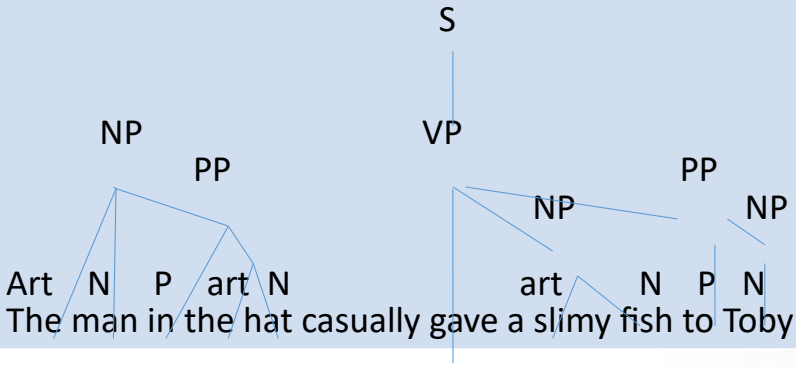
Tree structure for a sentence

Step 9:The next stage is to identify the prepositions. Write P above the prepositions.



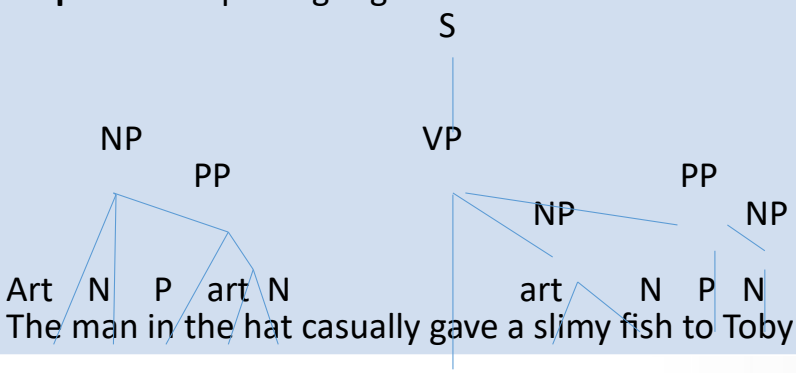
Tree structure for a sentence

Step 10:The next stage is to identify the prepositions. So join PP.



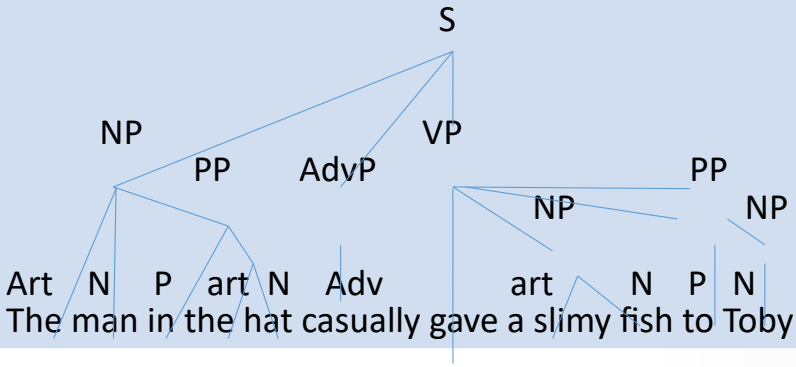
Tree structure for a sentence

Step 11: Start putting together.



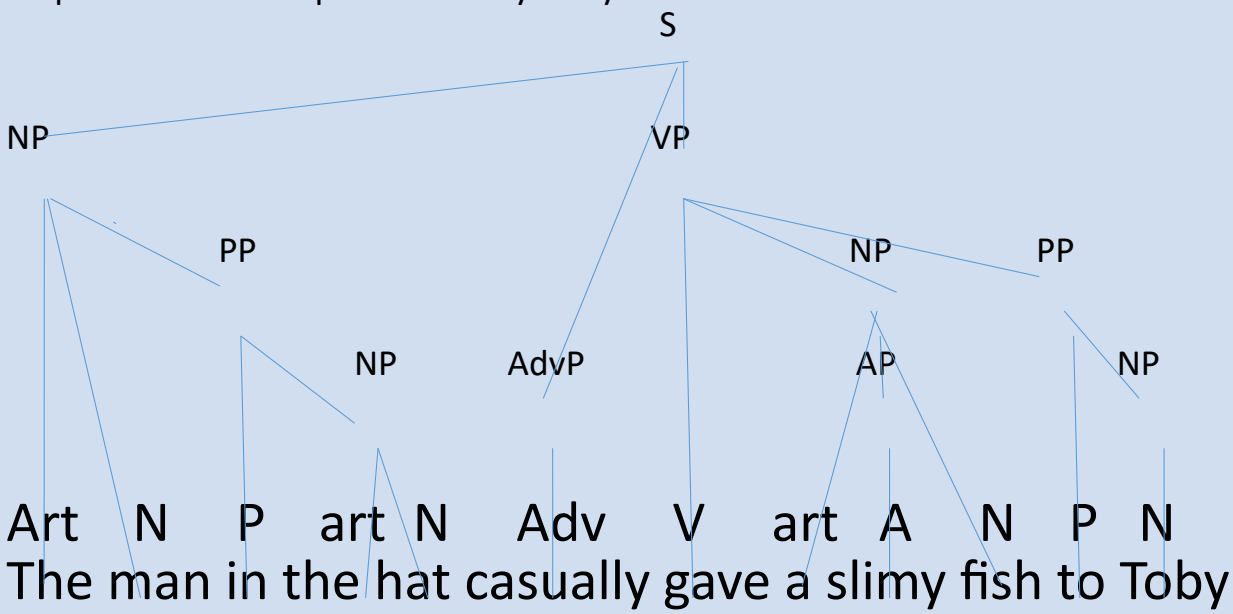
Tree structure for a sentence

Step 12:The next stage is to identify casually.



Tree structure for a sentence

Step 13:The final step is to identify slimy. .



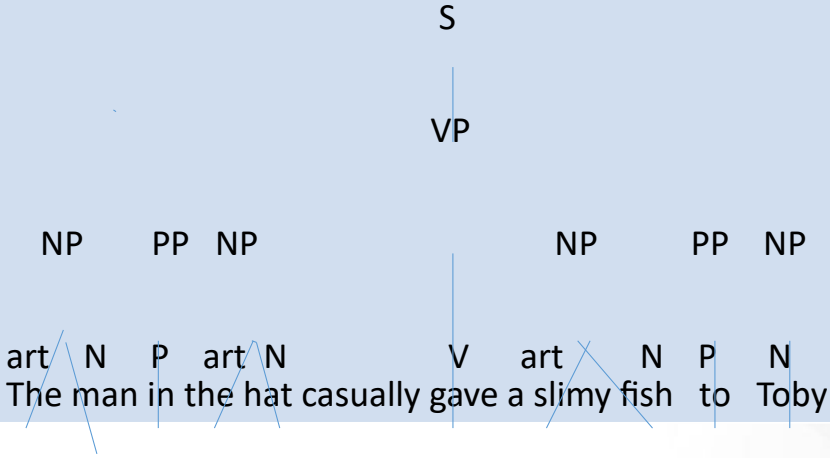
TREE STRUCTURE FOR A SENTENCE

- Tree diagram clearly identifies each component of the sentence.

END

Tree structure for a sentence

Step 10 :Step 10
A preposition is always in a preposition phrase, so write PP above each preposition and join it up.



Morphology and Syntax

I C ANALYSIS

I C ANALYSIS

- In the last few decades syntax has undoubtedly become the most intensively studied topic within linguistics.
- Many new ideas and new linguistic models have been put forward.
- Even the best descriptive accounts have been written in conservative terms.

I C ANALYSIS

- These models have partly been influence by modern theoretical proposal.
- The structuralists (American of 1950s) discovered and defined morpheme, but needed to establish what other grammatical units were and how they were distributed.

I C ANALYSIS

- Their approach was to divide the sentence up into IMMEDIATE CONSITUENTS or ICs.
- Their aim was to discover relevant linguistic element.
- Not clear whether were ant definable units beyond morpheme, apart from sentence.

I C ANALYSIS

- The principle of IC analysis is to cut a sentence into two and then to cut those parts into two and to continue with the segmentation until the smallest indivisible unit, the morphemes are reached.

I C ANALYSIS

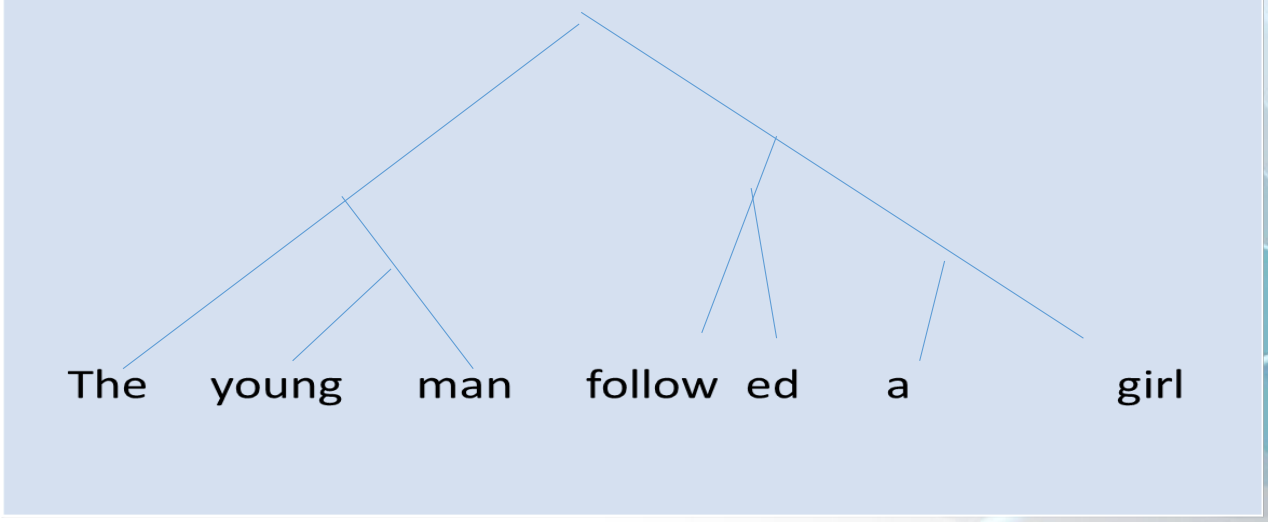
- As a general principle the division is binary:
- The young man followed a girl.
- The young man + followed a girl.
- Followed + a girl
- a + girl
- The young man = the + young man
- Young + man
- Follow + ed

I C ANALYSIS

The ‖ young ||| man | follow ||| ed ‖ a ||| girl.

((The (((young) (man))) ((followed) ((a) (girl))).

I C ANALYSIS



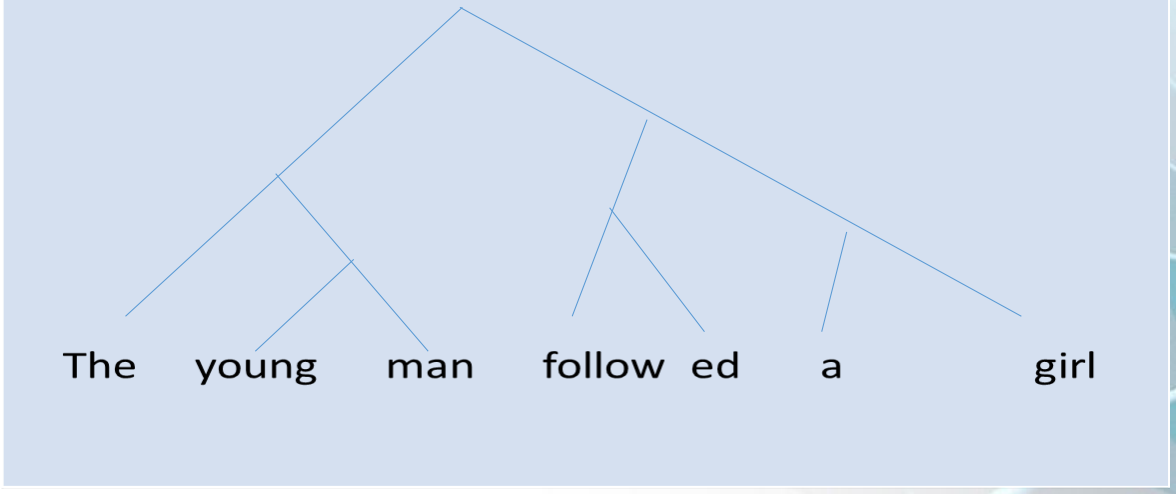
Morphology and Syntax

Method of display

Method of display

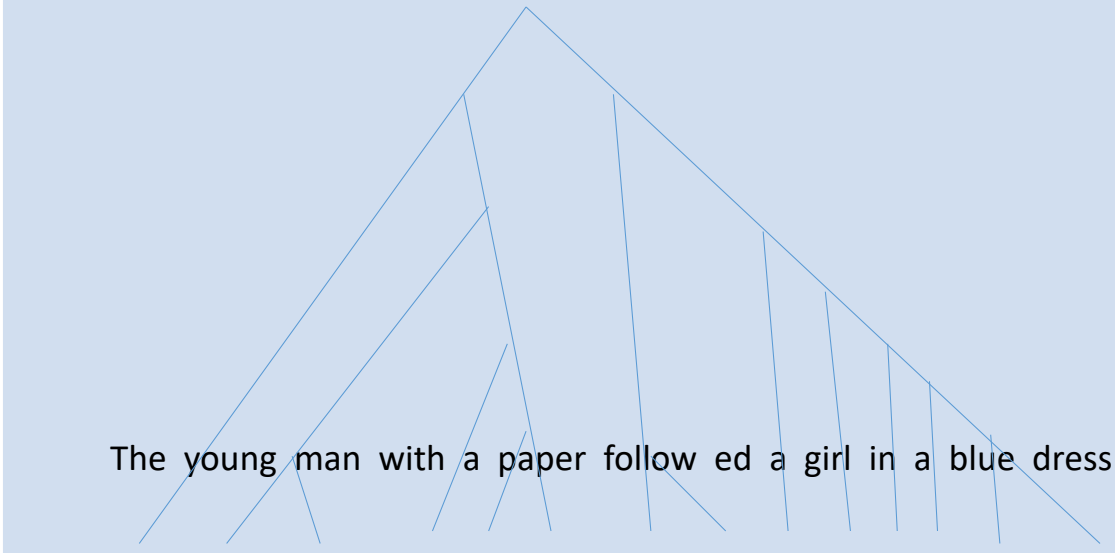
- The best method of display is to use a tree diagram where branching show the division

I C ANALYSIS



Method of display

More complex sentence



Method of display

- Where to make the first cut?
- The answer lies in the notion of *expansion*.
- A sequence of elements said to be an expansion of another, if it can be substituted for it.
- Substitution is the basic procedure in all structuralist analysis.

Method of display

- The first ICs are the following:
- *The young man with a paper* and *followed the girl with blue dress*.
- Not
- *The young man with a paper and followed* and *the girl with blue dress.*

Method of display

- Reasons:
- Firstly, The young man with a paper is an expansion of *John as*
- *John followed the girl with blue dress*
- Similarly
- *followed the girl with blue dress* can be an expansion of arrived

Method of display

- *The young man with a paper arrived.*
- On the basis of our arguments we can conclude: the ICs of our longer sentence are *The young man with a paper and followed the girl with blue dress.*

Method of display

- Expansion being technical indicates the substitution of one sequence of element with another. Look at the following:
- Children
- American children
- Three American children

Method of display

- Three American children with a dog
- Those three American children with a dog

Method of display

- Expansions can be of different types
- Endocentric
- An endocentric construction is one in which there is expansion of the more literal kind, it contains an element, a word, for which it can be substituted. This word is known as Head; like children in above example.

Method of display

- Exocentric construction An exocentric construction cannot be substituted for any of its element and thus has no head. For example *with a paper*
- *Is not an expansion of with* or *a* or *paper*
- Not an expansion of any of its parts

Method of display

- An exocentric construction cannot be substituted for any of its element and thus has no head.

Method of display

- Because of endocentricity that we can talk of noun phrase, verb phrase for these are endocentric constructions with nouns verbs etc., as their heads.

END

Morphology and Syntax

Flaws in the ICs

Flaws in the ICs

- Distribution is a criterion(of structuralism)
- Same construction occurs in different places and help us with identification.
- *To go*
- *To go* is fun
- wants *to go*
- It is *wants* and *to go*
- Not *wants to* and *go*

Flaws in the ICs

- Similarly
- The king of England is divided
- *The* and *king of England*
- Not *the king* and *of England*
- In view of
- *He became king of England*

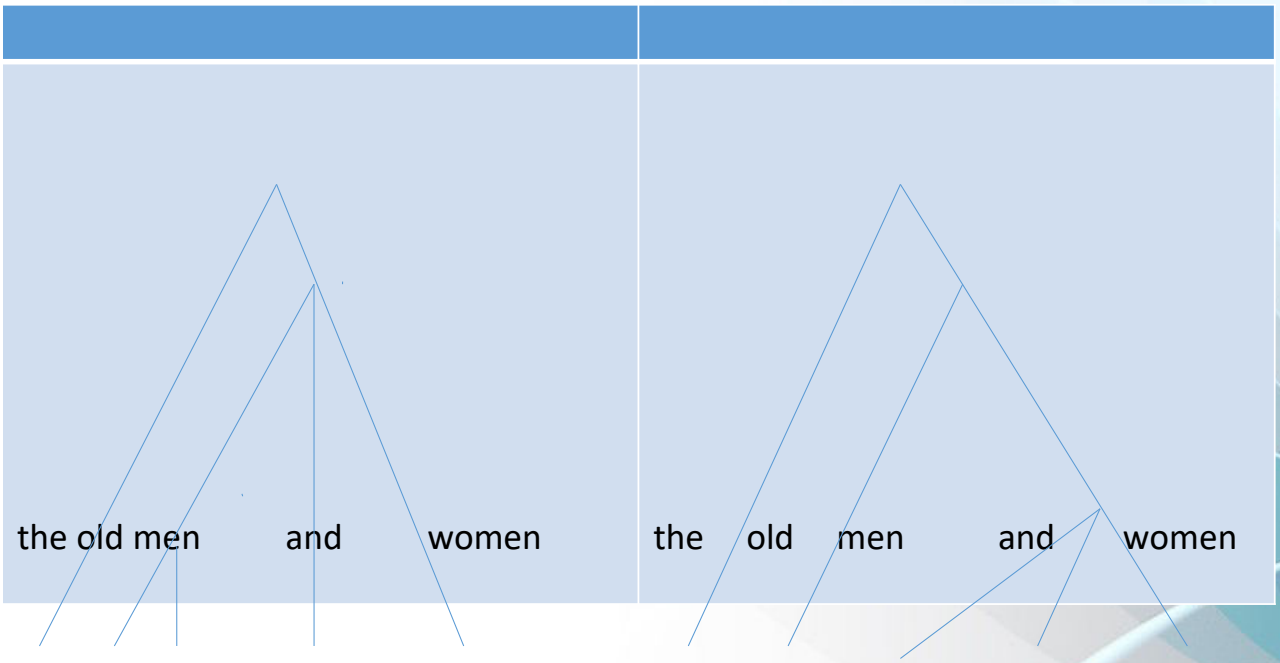
Flaws in the ICs

- Simply dividing a sentence into ICs does not provide much information.
- Nevertheless it can sometimes prove illuminating. It show a certain type of ambiguity or difference of meaning which is related to hierarchical structure of the IC analysis.

Flaws in the ICs

- Ambiguity is clear by paraphrasing the following
- The old men and the women
- Is it ‘the old men and the women
- Or
- the old men and the old women
- we would have two different analyses by the tree:

Flaws in the ICs



Flaws in the ICs

- A complication
- With a conjunction it is difficult to provide a justification for a binary cut. We cannot make preference like the following:
- *Men and* and *women*
- Or *men* and *and women*

Flaws in the ICs

- Similarly
- The Egyptian cotton shirt
- First cut after Egyptian (a cotton shirt made in Egypt)
- Or after cotton (a shirt made of Egyptian ‘cotton’)

Flaws in the ICs

- Dividing sentences out into their constituents part is unsatisfactory for several reasons,

Flaws in the ICs

- Firstly, it does not indicate what kind of elements those constituent parts are; it does not even identify except implication.
- Secondly, it does not show clearly that noun phrases are built on nouns, verb phrases on verbs etc.

Flaws in the ICs

- Thirdly, IC analysis does not tell us how to form new sentences, i.e. to produce sentences that have not already been attested in some corpus of data.

END

Morphology and Syntax

Phrase structure rules

Phrase structure rules

- What is needed is a model that:
- will not merely segment the constituents, but will also identify them in grammatical terms,

Phrase structure rules

- will, in addition, change the emphasis of the linguistic analysis from mere description of sentences that have actually occurred to the specification of what sentences are possible in a language.

Phrase structure rules

- Such a model is generative; it is said to GENERATE all the grammatical sentences of a language.

Phrase structure rules

- The model is associated with transformational generative grammar, since it deals with the constituency structure and not the transformational aspects of that grammar.

Phrase structure rules

- IC analysis uses brackets, or bracketing.
- The bracketed elements can, however, be given grammatical identification by what is aptly known as LABELLED BRACKETING.

Phrase structure rules

- Let us consider the sentence:
- The man followed a girl.
- *a* can be identified as determiners,
- *man* and *girl* as nouns
- and *followed* as a verb
- further as *follow-* and *-ed*, or as the past tense of FOLLOW, but this is not wholly relevant and be ignored).

Phrase structure rules

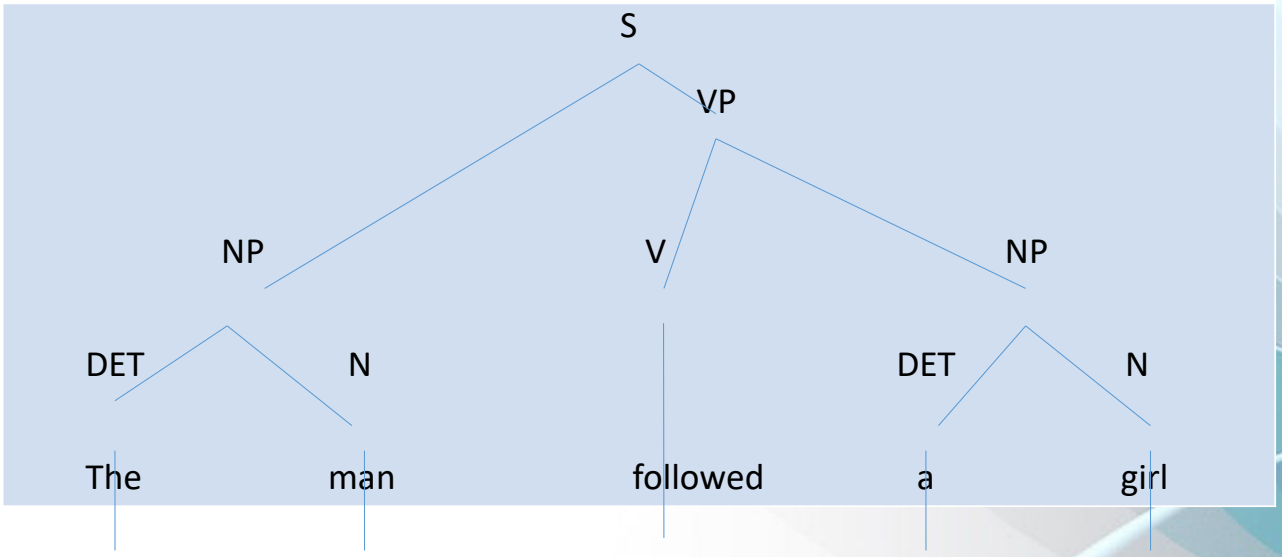
- Moreover, *the man and a girl* are also constituents of the same, but larger, type, noun phrases, and if our IC analysis is correct *followed a girl* is also a constituent, a verb phrase, while the whole is a sentence or clause.

Phrase structure rules

Symbol
• DET for determiner
• N for noun
• V for verb • NP for noun phrase
• VP for verb phrase
• S for sentence
A labeled bracketing of the sentence
[S [NP [DET the] N. man]] [VP [V followed] [NP [DET a] N. girl]]]]

Phrase structure rules

The representation of phrase structure is known as Phrase Marker or P-Marker



Phrase structure rules

- Nodes: points that are joined by the lines
- Terminal nodes: nodes on the bottom line
- Dominate: one node is higher in tree than the other
- Immediately dominates: joined by a single line
- Dominance: a larger constituent may consist of one more of smaller kind.

Phrase structure rules

- The tree structure preserve the linear order of constituents just like IC analysis does.
- The first noun phrase precedes the Verb phrase
- The verb phrase precedes the second noun phrase, the determiner precedes the noun.

Phrase structure rules

- Precedence like dominance is clearly shown in the tree diagram.
- Label bracketing and phrase structure trees provide much more information than IC analysis,
- Except implication does not state how new sentences can be generated

Phrase structure rules

- This can be done with the use of Phrase Structure Rules or PS Rules:
- (1) S → NP - VP
- (2)VP → V - NP
- (3) NP → DET - N
- (4) V→ followed
- (5) DET → the , a
- (6) N → man , girl

Phrase structure rules

- PS rules different from tradition grammar
- These rules can generate more than one sentence.
- A girl followed the man.
- The girl followed a man
- A man followed a man.

END

Disadvantages of Phrase structure grammar

Disadvantages of Phrase structure grammar

- A phrase structure grammar is essentially a grammar of segmentation and categorization, it is a taxonomic model - a grammar of lists, an inventory of elements, and of class of sequences of elements.

Disadvantages of Phrase structure grammar

- Very strong in giving structural description of the language,
- is deficient in generative capacity.
- Incapable of accounting for all the intentions of native speakers.
- It fails to disambiguate all the ambiguities and understand all the synonymies.

Disadvantages of Phrase structure grammar

- The processes that pose problems to PS grammar are:
- 1. ambiguities
- 2. synonymies
- 3. permutations
- 4. discontinuous constituents (e.g. particles)

Disadvantages of Phrase structure grammar

- 5. remote relationship (e.g. those of cases)
- 6. concord phenomena
- 7. co-ordination.

Disadvantages of Phrase structure grammar

- A PS grammar runs into difficulties in describing syntactic structures of questions, negatives, passives, relatives, etc. easily.
- It fails to capture the deep meaning.

Disadvantages of Phrase structure grammar

- It cannot discover the crucial notions, not can it prevent the assignment of false, ungrammatical structure.

Disadvantages of Phrase structure grammar

- PS rules are incapable of accounting for the multiplicity of relations existing either between elements in the same sentence, or between different sentences.

Disadvantages of Phrase structure grammar

- For example:
- 1. The police diverted the traffic.
- 2. The traffic was diverted by the police.
- 3. The traffic was diverted by a country road.

Disadvantages of Phrase structure grammar

- PS rules fail to show the relationship that connects 1 to 2. In sentence 2 `by the police' will be shown as a prepositional phrase consisting of a preposition, a determiner and a noun, and in sentence 3 `by a country road' too will be shown as a prepositional phrase (prep + NP).

Disadvantages of Phrase structure grammar

- Thus, it would ignore semantic considerations and case relations.
- PS grammar does not have the precision, simplicity, elegance, power, insight, and competence of the TG grammar.

Disadvantages of Phrase structure grammar

- For sentences like the following both IC analysis and PS these are identical.
- John is eager to please
- John is easy to please

Disadvantages of Phrase structure grammar

- Phrase Structure Rules cannot help us distinguish among ambiguous sentences

END

Morphology and Syntax

Automatic Grammatizator

- Every normal human being can talk.
- So the average person tends to think that there is little or nothing mysterious about language.
- As Noam Chomsky has pointed out: We lose sight of the need for explanation when phenomena are too familiar and ‘obvious’.

- Easily to assume that explanations must be transparent and close to the surface . . . As native speakers, we have a vast amount of data available to us.
- the trap of believing that there is nothing to be explained.
- Nothing could be further from the truth . (Chomsky 1972a: 25–6)

- But the mysterious nature of human language becomes more apparent when one realizes that no one has yet managed to simulate the language ability of a human being.
- Computers can play chess, sort bank statements, and even talk about limited topics such as cubes, squares and cones.

- But we are far from producing a ‘great automatic grammatizator’ which could unaided hold conversations on any topic.
- Why is this?
- Perhaps we should think about language more carefully.

- When people start thinking about language, the first question which often occurs to them is this: is language natural to humans? – in the same way that barking comes naturally to dogs.

- Clearly, in one sense, children ‘learn’ whatever language they are exposed to, be it Chinese, Nootka or English.
- So no one would deny that ‘learning’ is very important.

- But the crucial question is whether children are born with ‘blank sheets’ in their head as far as language is concerned – or whether humans are ‘programmed’ with an outline knowledge of the structure of languages in general.

- This question of whether language is partly due to nature or wholly due to learning or nurture is often referred to as the nature–nurture controversy, and has been discussed for centuries.

- This particular issue resurfaced in linguistics in 1959 when the linguist Noam Chomsky wrote a devastating and witty review of Verbal Behavior, a book by the Harvard psychologist B.F. Skinner (Skinner 1957; Chomsky 1959).

- This book claimed to ‘explain’ language as a set of habits gradually built up over the years.
- According to Skinner, no complicated innate or mental mechanisms are needed.
- All that is necessary is the systematic observation of the events in the external world which prompt the speaker to utter sounds.

- Skinner's claim to understand language was based on his work with rats and pigeons.
- He had proved that, given time, rats and pigeons could be trained to perform an amazing variety of seemingly complex tasks, provided two basic principles were followed.

- This type of 'trial-and-error' learning was called operant conditioning by Skinner, which can be translated as 'training by means of voluntary responses' (the word 'operant' means a voluntary response rather than an automatic one).

- Skinner suggested that it is by means of this mechanism that the vast majority of human learning takes place, including language learning:

- Recent work has shown that the methods can be extended to human behaviour without serious modification. (Skinner 1957: 3)
- All one needed to do in order to understand language, he said, was to identify the ‘controlling variables’, which would enable us to predict specific utterances.

- ‘Please pass the bread and butter.’
- Or the presence of a beautiful painting might call forth the exclamation, ‘Oh how beautiful.’
- Or a bad smell might cause one to exclaim ‘Oh what a terrible smell.’

- In theory, Skinner saw no difficulty in linking up any particular set of words which a human might wish to produce with an identifiable external happening.

END

- In practice, the matter is far from simple, as Chomsky pointed out. Chomsky made two major criticisms of Skinner's work.
- First, The behaviour of rats in boxes is irrelevant to human language.
- Second, Skinner fundamentally misunderstood the nature of language.

Behaviouristic view: The irrelevance of rats

Behaviouristic view: The irrelevance of rats

- Chomsky pointed out that the simple and well-defined sequence of events observed in the boxes of rats is just not applicable to language.
- The terminology used in the rat experiments cannot be re-applied to human language without becoming hopelessly vague.

Behaviouristic view: The irrelevance of rats

- For example, how do you know that someone is likely to say ‘Oh what a beautiful picture’(when looking at a beautiful painting)?
- They might say instead,
- ‘It clashes with the wallpaper’,
- ‘It’s hanging too low’,
- ‘It’s hideous.’

Behaviouristic view: The irrelevance of rats

- Skinner would say that instead of the utterance being ‘controlled’ by the beauty of the picture, it was ‘controlled’ by its clash with the wallpaper, or hanging too low, its hideousness.

Behaviouristic view: The irrelevance of rats

- But this reduces the idea of ‘control’ to being meaningless, because you have to wait until you hear the utterance before you know what controlled it.
- This is quite unlike the predictable behaviour of rats which could be relied upon to respond to certain stimuli such as a flashing light with a fixed response.

Behaviouristic view: The irrelevance of rats

- Another problem
- The rats were repeatedly rewarded. Children do not receive pellets of food when they make a correct utterance.
- The idea of reward or reinforcement (since it reinforces the behaviour that is being learned) can in humans be naturally extended to approval or disapproval.

Behaviouristic view: The irrelevance of rats

- Skinner suggested that in these cases children automatically ‘reinforce’ themselves because they know they are producing sounds which they have heard in the speech of others.
- A poet who is uttering words aloud in an empty room will be ‘reinforced’ by the knowledge that others will be influenced by the poetry.

Behaviouristic view: The irrelevance of rats

- So reinforcement seems a very woolly notion, since an actual reward need not exist, it need only be imagined or hoped for.
- A notion is certainly not comparable to the food pellets given to rats when they make a correct response.

Behaviouristic view: The irrelevance of rats

- Studies by Roger Brown and his associates provided even more problems for Skinner's notion of reinforcement.
- After observing mother–child interactions they pointed out that parents tend to approve statements which are true rather than those which are grammatically correct.

Behaviouristic view: The irrelevance of rats

- So a boy who said *'Teddy sock on'* and showed his mother a teddy bear wearing a sock would probably meet with approval.
- But if the child said the grammatically correct utterance '*Look, Teddy is wearing a sock*', and showed his mother a bear without a sock, he would meet with disapproval.

Behaviouristic view: The irrelevance of rats

- In other words, if approval and disapproval worked in the way Skinner suggested, you would expect children to grow up telling the truth, but speaking ungrammatically.
- In fact the opposite seems to happen (Brown et al. 1968).

Behaviouristic view: The irrelevance of rats

- Chomsky used these and similar arguments to show the irrelevance of Skinner's experiments to the problem of understanding language.
- Perhaps 'irrelevance' is too strong a word, since there are areas of language where habit forming works.

Behaviouristic view: The irrelevance of rats

- Of course, just because Skinner's ideas were over-simple does not automatically mean that Chomsky's ideas were right.
- Maybe both Skinner's and Chomsky's views are outdated.

Behaviouristic view: The irrelevance of rats

END

- Now, in the twenty first century, we know a lot more about language and its special qualities, partly because Chomsky in particular inspired so many to take language seriously as a key to understanding the human mind, to work on it further.

Morphology and Syntax

Is language restricted to humans

Is language restricted to humans?

- Judging by newspapers and popular books, there appear to be a vast number of animals which ‘talk’ – talking budgerigars, talking dolphins– even a talking fish, etc.
- Clearly, the word ‘talk’ can be used in two totally different senses.

Is language restricted to humans?

- *‘to utter words*’, as in ‘Archibald’s got a talking parrot which says *Damn* if you poke it.’
- *‘to use language in a meaningful way*’.
- Animals such as budgerigars can ‘talk’ in the first sense of the word.

Is language restricted to humans?

- Psycholinguists: Can animals ‘talk’ in the second sense also.
- Interested in this problem because they want to know the answer to the following question: are we the only species which possesses language?
- If so, are we the only species capable of acquiring it?

Is language restricted to humans?

- Are we biologically singled out as ‘articulate mammals’ or not?
- Do animals talk naturally?

Is language restricted to humans?

- In order to answer this question, we must compare human language with animal communication.
- A comparison presents a number of perhaps unsolvable problems.
- The first problem is this: are we comparing systems which differ quantitatively or qualitatively?

Is language restricted to humans?

- On the one hand, human language may have gradually evolved from a more primitive animal means of communication in a continuous line of growth – a viewpoint sometimes known as a ‘continuity’ theory

Is language restricted to humans?

- On the other hand, human language may be something quite different from our basic animal heritage, and superimposed on it - a ‘discontinuity’ theory.
- The second major problem we face is that it is not always easy to decide what counts as communication in animals.

Is language restricted to humans?

- As one researcher notes: Students of animal behaviour have often noted the extreme difficulty of restricting the notion of communication to anything less than every potential interaction between an organism and its environment.(Marshall 1970: 231)

Is language restricted to humans?

- A useful first step might be to attempt to define ‘language’.
- This is not as easy as it sounds.
- Many definitions found in elementary textbooks are too wide. For example: ‘A language is a system of arbitrary vocal symbols by means of which a social group cooperates’.

Is language restricted to humans?

- This definition might equally well apply to a pack of wolves howling in chorus.
- A superficially promising approach was that suggested by the linguist Charles Hockett in the 1960s.
- The various ‘design features’ which characterize language.

Is language restricted to humans?

- These are: use of the vocal-auditory channel, arbitrariness, semanticity, cultural transmission, spontaneous usage, turn-taking, duality, displacement, structure-dependence, creativity, ability to read intentions.

Is language restricted to humans?

- Finally, we come to birds. They also have failed to give any evidence of creativity.
- We might expect them to communicate about a multiplicity of situations, since the individual notes of a bird's song can be combined in an indefinite number of ways.

Is language restricted to humans?

- But as far as researchers can judge, birdsong deals above all with just two aspects of life: courting a mate, and the marking of territory (Notteboh 1975; Marler 1991).

Is language restricted to humans?

- A final, crucial feature of language has come to the forefront in recent years.
- This is intention-reading (Tomasello 2003), or mind-reading.
- Some limited awareness of it has been detected among apes, especially chimps.
- But humans are the best at this skill:

Is language restricted to humans?

- Teaching sign language to apes: Washoe and Nim
- Over the past 50 or so years, several attempts have been made to teach human language to chimpanzees.

Is language restricted to humans?

- Chomsky may be right, therefore, when he points out that the higher apes 'apparently lack the capacity to develop even the rudiments of the computational structure of human language' (Chomsky 1980: 57).

Is language restricted to humans?

- Chomsky (1968) claimed that language is specific to humans as only humans possess a language acquisition device to acquire language – the universal grammar.

END

Morphology and Syntax

Biological evidence for innate language capacity

Biological evidence for innate language capacity

- If an animal is innately programmed for some type of behaviour, then there are likely to be biological clues.
- No accident that fish have bodies which are streamlined and smooth, with fins and a powerful tail structurally adapted for moving fast through the water.

Biological evidence for innate language capacity

- Biological clues are not essential.
- It is impossible to guess from their bodies that birds make nests, and, sometimes, animals behave in a way quite contrary to what might be expected from their physical form.
- Inexplicable divergences between species obvious behaviour.

Biological evidence for innate language capacity

- Such unpredictability is not universal, and need not discourage us from looking for biological clues connected with speech – though we must realize that we are unlikely to find the equivalent of a large box labelled ‘language’.

Biological evidence for innate language capacity

- Changes in the form of the body or structural changes are the most direct indications of innate programming.
- But we must also take into consideration physiological adaptations – changes in the bodily functions, such as rate of heartbeat and breathing.

Biological evidence for innate language capacity

- If we look at the organs used in speech, humans seem to be somewhere in the middle between the obvious structural adaptation of birds to flying, and the apparent lack of correlation between birds and nest building.

Biological evidence for innate language capacity

- The human brain and vocal tract have a number of slightly unusual features.
- By themselves, these features are not sufficient indicate that people can talk.
- But if we first assume that all humans speak a language, then a number of puzzling biological facts fall in place.

Biological evidence for innate language capacity

- They can be viewed as partial adaptations of the body to the production of language.
- Human teeth are unusual compared with those of other animals even in height, and form an unbroken barrier.

Biological evidence for innate language capacity

- Another important difference between humans and monkeys concerns the larynx, which contains the ‘voice box’ or ‘vocal cords simpler in structure than that of other primates.

Biological evidence for innate language capacity

- This is an advantage as air can move freely past and then out through the nose and mouth without being hindered by other appendages.

Biological evidence for innate language capacity

- Our brain: very different in appearance from that of other animals
- Heavier, with more surface folding of the cortex, the outer layer of ‘grey matter’ which surrounds the inner core of nerve fibres – though grey matter is actually pink in live humans, it goes grey after death. Superficially, the brains of a chimp and a human have certain similarities.

Biological evidence for innate language capacity

- A further related discovery is that the location of speech centres in the left hemisphere seems to be linked to right-handedness.
- That is, most humans are right-handed, and most people's speech is controlled by the left hemisphere.

Biological evidence for innate language capacity

- This lateralization or localization of language in one half of the brain is a definite, biological characteristic of the human race.
- Humans are physically adapted to language in a way that snails, sheep and even apes are not.

Biological evidence for innate language capacity

- Their vocal organs, lungs and brains are ‘preset ’to cope with the intricacies of speech in much the same way that monkeys are pre-set to climb trees, or bats to squeak.

END

Morphology and Syntax

A preordained language programme

A preordained language programme

- Language emerges at about the same time in children all over the world.
- ‘Why do children normally begin to speak between their eighteenth and twenty-eighth month?’ asks one researcher:

A preordained language programme

- Surely it is not because all mothers on earth initiate language training at that time.
- No evidence that any conscious and systematic teaching of language takes place, just as there is no special training for stance or gait (Lenneberg 1967: 125).

A preordained language programme

- This regularity of onset suggests that language may be set in motion by a biological clock, similar to the one which causes kittens to open their eyes when they are a few days old, until relatively recently, few people had considered language within the framework of biological maturation.

A preordained language programme

- The characteristics of biologically triggered Behaviour
- Behaviour that is triggered off biologically has a number of special characteristics.

A preordained language programme

- If it can be shown that speech, like sexual activities and the ability to walk, falls into the category of biologically scheduled behaviour, then we shall be rather clearer about what is meant by the claim that language is ‘innate’.

A preordained language programme

- Exactly how many ‘hallmarks’ of biologically controlled behaviour should itemize is not clear.

A preordained language programme

The six listed below were obtained mainly by subdividing Lenneberg's four:
The behaviour emerges before it is necessary.
Its appearance is not the result of a conscious decision.
Its emergence is not triggered by external events (though the surrounding environment must be sufficiently 'rich' for it to develop adequately).
Direct teaching and intensive practice have relatively little effect.
There is a regular sequence of 'milestones' as the behaviour develops, and these can usually be correlated with age and other aspects of development.
There may be a 'critical period' for the acquisition of the behaviour.

A preordained language programme

- Although children differ enormously in their ability to knit or play the violin, their language proficiency varies to a much lesser extent.
- 'Tomorrow I am going to start to learn to talk.'
- Children acquire language without making any conscious decision about it.

A preordained language programme

- Children begin to talk even when their surroundings remain unchanged.
- Most of them live in the same house, eat the same food, have the same parents, and follow the same routine.
- No specific event or feature in their surroundings suddenly starts them off talking.

A preordained language programme

- Children do not manufacture any new brain cells after birth.
- They are born with millions, perhaps billions.
- At first the cells are not all interconnected, and the brain is relatively light (about 300g).
- From birth to around 2 years, many more cells interconnect, and brain weight increases rapidly.

A preordained language programme

- By the age of 2, it weighs nearly 1000g (Lenneberg1967).
- Although no external event causes the behaviour, the surrounding environment must be sufficiently ‘rich ‘for it to develop adequately.

A preordained language programme

- ‘Direct teaching and intensive practice have relatively little effect.’ In activities such as typing or playing tennis, a person’s achievement is often directly related to the amount of teaching they receive and the hours of practice they put in.
- Not ‘naturally’ superb athletes can win.

A preordained language programme

- We may conclude, then, that mere practice – in the sense of direct repetition and imitation – does not affect the acquisition of language in a significant way

A preordained language programme

Child's likely progress chart	
• Language stage	• Beginning age
• Crying • Cooing • Babbling • Intonation patterns • One-word utterances • Two-word utterances • Word inflection • Questions, negatives • Rare or complex constructions • Mature speech	• Birth • 6 weeks • 6 months • 8 months • 1 year • 18 months • 2 years • 2 1/4 years • 5 years • 10 years

Conceivable innate grammatical information

Conceivable innate grammatical information

- It is relatively easy to show that humans are innately predisposed to acquire language.
- The hard part is finding out exactly what is innate.
- People have indulged in speculation about this for centuries.
- The Egyptian king Psammetichus experiment

Conceivable innate grammatical information

- Nobody takes Psammetichus's theory seriously today – especially as the few reliable accounts we have of children brought up without human contact indicate that they were totally without speech when they were found.

Conceivable innate grammatical information

- Although the speculations of Psammetichus can safely be ignored, the ideas of Noam Chomsky on the topic of innateness were for a long time taken seriously.

Conceivable innate grammatical information

- He claimed that for language acquisition to be possible, a child must be endowed with a ‘rich internal structure’.
- His ideas cannot be summarily dismissed.

Conceivable innate grammatical information

- Chomsky’s notion of a rich innate schema contrasted strongly with the point of view popularly held earlier in the century that children are born with ‘blank sheets ‘as far as language is concerned.

Conceivable innate grammatical information

- Consequently, some people considered Chomsky as someone who had set out to shock the world with outrageous and novel proposals.
- Chomsky denied and pointed out that he was following in the footsteps of eighteenth-century ‘rationalist’ philosophers, who believed in the existence of ‘innate ideas’.

Conceivable innate grammatical information

- Such philosophers held that ‘beyond the peripheral processing mechanisms, there are innate ideas and principles of various kinds that determine the form of the acquired knowledge in what may be a rather restricted and highly organized way’ *(Chomsky 1965: 48).*

Conceivable innate grammatical information

- Chomsky gave an explicit account of his early views in his (now outdated) linguistic classic Aspects of the Theory of Syntax (1965), though he has repeated them in a number of other places with minor variations.
- Recently he has changed his mind on various points, quite fundamentally.

Conceivable innate grammatical information

- His later views were set out in Knowledge of Language: Its Nature, Origin and Use (1986), later ones still in The Minimalist Program (1995) and further views in On Nature and Language (2002).
- He regards his previous ideas unsatisfactory, and outlines his more recent ideas.

Conceivable innate grammatical information

- Nevertheless, his ideas were specific enough to be interesting.

Conceivable innate grammatical information

- Chomsky pointed out that children are to some extent in the same situation as a linguist faced with an unknown language.
- Both child and linguist are surrounded by a superficially unintelligible confusion of sound which they must somehow sort out.

Conceivable innate grammatical information

- According to Chomsky, children would ‘know’ in advance how their internalized grammar must be organized.
- They must have sets of the following rules:
- SEMANTIC RULES
- SYNTACTIC RULES
- PHONOLOGICAL RULES

Conceivable innate grammatical information

- He assumed that children were endowed with an innate hypothesis-making device, which enabled them to make increasingly complex theories about the rules which would account for the language they heard going on around them.

Conceivable innate grammatical information

- In making these hypotheses, children were guided by an inbuilt knowledge of language universals.
- These provided a ‘blueprint’ for language, so that the child would know in outline what a possible language looked like.

Conceivable innate grammatical information

- This involved, first, information about the ‘building blocks’ of language, set of sounds.

Conceivable innate grammatical information

- Second, it entailed information about the way in which the components of a grammar were related to one another, and restrictions on the form of the rules.

Conceivable innate grammatical information

- Chomsky argued that children automatically knew that language involved two levels of syntax – a deep and a surface level, linked by ‘transformations’.

Conceivable innate grammatical information

- And (as he later argued) children also knew about some innately inbuilt constraints on the form sentences could take.
- With this help a child could speedily sift through the babble of speech he heard around him, and hypothesize plausible rules which would account for it.

Conceivable innate grammatical information

- Children needed to be equipped with this information, he claimed, because the 'primary linguistic data' (the data children are exposed to) was likely to be 'deficient in various respects' (1965: 201).

Conceivable innate grammatical information

- According to Michael Tomasello, ‘how children learn language is not a logical problem but an empirical problem.’ (Tomasello 2003: 328).

Conceivable innate grammatical information

- In his opinion, we need to turn to a usage-based approach, one which explores how human children combine inherited talents and learned skills as they acquire language.

Conceivable innate grammatical information

END

- ‘The human capacity for language is best seen as a conspiracy of many different cognitive, social-cognitive, information-processing, and learning skills, some of which humans share with primates and some of which are unique products of human evolution’.

Morphology and Syntax

Transformational Grammar

Transformational Grammar

- In linguistics, transformational grammar (TG) or transformational-generative grammar (TGG) is part of the theory of generative grammar, especially of natural languages.

Transformational Grammar

- It considers grammar to be a system of rules that generate exactly those combinations of words that form grammatical sentences in a given language and involves the use of defined operations (called transformations) to produce new sentences from existing ones.

Transformational Grammar

- The theory largely originated and developed by Noam Chomsky.
- It is without question the most influential theory of linguistics in modern times, and one that no serious scholar can afford to neglect.

Transformational Grammar

- But the student of TG will often experience frustration and puzzlement, for it is a curious mixture of quite brilliant insights and of complex, technical but often seemingly artificial devices.

Transformational Grammar

- The primary literature, apart from Chomsky's Syntactic Structures, the first published work, is often difficult to read and its full intelligibility depends on knowing all the background.

Transformational Grammar

- The notion of PS grammar, although much of what was said comes from Chomsky’s works, but his fame doe not rests on it.

Transformational Grammar

- Much more important is the notion of transformation, together with ideas that are associated with it, or have developed out of a transformationally based theory.

Transformational Grammar

- Although Syntactic Structures (1957) first introduced the world to this important theory, The Logical Structure of Linguistic Theory, which was not published until eighteen years later, was written some years before it.

Transformational Grammar

- The theory was, undoubtedly, revolutionary and even greeted with total skepticism by many scholars, but, as with all revolutions, some of it had been foreshadowed in earlier works, particularly in the writings of Chomsky's own teacher Zelling Harris.

Transformational Grammar

- Chomsky has considerably modified his ideas since 1957, and in his philosophical views has vastly distanced himself from The structuralists, and indeed from the whole of the empiricist tradition.

Transformational Grammar

- Undoubtedly the best known, in some ways neatest and most discussed theoretical position is that of Aspects of the Theory of Syntax, a position that Chomsky himself has called the 'Standard Theory' .
- This introduced and expounded the notion of Deep Structure, an essential part of the theory.

Transformational Grammar

- Several important changes were made in the 1970s, to produce the 'Extended Standard Theory'(EST). Chomsky's position at the beginning of the 1980s is to be found in Lectures on Government and Binding.

Transformational Grammar

- Development of basic concepts
- Though transformations continue to be important in Chomsky's current theories, he has now abandoned the original notion of Deep Structure and Surface Structure.

Transformational Grammar

- Initially, two additional levels of representation were introduced (LF — Logical Form, and PF — Phonetic Form), but in the 1970s, Chomsky sketched out a new program of research known as Minimalism, in which Deep Structure and Surface Structure are no longer featured and PF and LF remain as the only levels of representation

Transformational Grammar

- To complicate the understanding of the development of Chomsky's theories, the precise meanings of Deep Structure and Surface Structure have changed over time.
- By the 1970s, they were normally referred to simply as D-Structure and S-Structure by Chomskyan linguists.

Transformational Grammar

- In particular, the idea that the meaning of a sentence was determined by its Deep Structure (taken to its logical conclusions by the generative semanticists during the same period) was dropped for good by Chomskyan linguists when LF took over this role.

Transformational Grammar

- Previously, Chomsky and Ray Jackendoff had begun to argue that meaning was determined by both Deep and Surface Structure.

END

Morphology and Syntax

The founder and the theory

The founder and the theory

- Avram Noam Chomsky (born December 7, 1928) is an American linguist, philosopher, cognitive scientist, historian, political activist, and social critic.

The founder and the theory

- Sometimes called "the father of modern linguistics", Chomsky is also a major figure in analytic philosophy and one of the founders of the field of cognitive science.

The founder and the theory

- He holds a joint appointment as Institute Professor Emeritus at the Massachusetts Institute of Technology (MIT) and laureate professor at the University of Arizona, and is the author of over 100 books on topics such as linguistics, war, politics, and mass media.

The founder and the theory

- Born to middle-class Jewish immigrants in Philadelphia, Chomsky developed an early interest in linguistics.
- He began studying at the University of Pennsylvania at age 16, taking courses in linguistics, mathematics, and philosophy.

The founder and the theory

- From 1951 to 1955, he was appointed to Harvard University's Society of Fellows.
- While at Harvard, he developed the theory of transformational grammar; for this, he was awarded his doctorate in 1955.

The founder and the theory

- Chomsky began teaching at MIT in 1957 and emerged as a significant figure in the field of linguistics for his landmark work Syntactic Structures, which remodelled the scientific study of language.

The founder and the theory

- From 1958 to 1959, he was a National Science Foundation fellow at the Institute for Advanced Study.
- Chomsky is credited as the creator or co-creator of the universal grammar theory, the generative grammar theory, and the Chomsky hierarchy.

The founder and the theory

- He also played a pivotal role in the decline of behaviorism, being particularly critical of the work of B. F. Skinner.

The founder and the theory

- One of the most cited scholars in history, Chomsky has influenced a broad array of academic fields.

The founder and the theory

- He brought about a major revolution in the human sciences, contributing to the development of a new cognitivistic framework for the study of language and the mind.

END

Morphology and Syntax

Deep and surface structure

Deep and surface structure

- The structuralist approach to language was *Corpus bound* as both phoneme and morpheme are units of form rather than of meaning.
- Their *method was inductive* and it also failed to account for the *ambiguities* in sentences and their interrelatedness.

Deep and surface structure

- To answer these questions an adequate grammar needed that is productive, complex and arbitrary.
- It must establish the relationship of various sentences and account for the deep and surface structure of the sentences.
- It must explain the relationship between sets of sentences:

Deep and surface structure

- (i)He wrote a letter.
- (ii)A letter was written by him.
- (i)Why did you go there?
- (ii)You went there for some reason.
- (i)Where do you live?
- (ii)You live somewhere.

Deep and surface structure

- TG grammar is both transformational and generative.
- It goes a step further from the structural grammar.

Deep and surface structure

- It analyses the sentences, divides them into parts and shows the functions of various parts and rearranges them and shows the inter-relatedness between sentences.

Deep and surface structure

- It takes up the basic or kernel sentence first.
- A basic or kernel sentence is simple, assertive, and active in form.

Deep and surface structure

Here are some examples:	
Kernel sentences:	• **John is playing football.** • **I wrote a letter.** • **You spoke the truth.**
Non-kernel sentences:	• **Is John playing football? (Interrogative)** • **John is not playing football. (Negative)** • **A letter was written by me. (Passive)** • **Who wrote the letter? (Question form)** • **Why did you speak the truth? (Question form)** • **You spoke the truth when you were forced. (Complex sentence)** • **You did not speak the truth. (Negative)** • **You spoke the truth but told a new story. (Compound sentence)**

Deep and surface structure

- All the non-kernel structures or *complicated structures* can be thought of as having been derived from their kernel forms with the help of some transformations.

Deep and surface structure

- A sentence like: *Where did you go yesterday?* can be derived from the kernel sentence: *You went somewhere yesterday* by applying certain transformations.

Deep and surface structure

- Transformational analysis not only shows the inter-relatedness between sentences but also explains the ambiguities between sentences that appear identical but are transforms from different kernels.

Deep and surface structure

Flying planes can be dangerous.	**(a)Some people fly planes. This can be dangerous.** **(b)Planes fly. They can be dangerous.**
(a)I expected John to hit a six. **(b)I asked John to hit a six.**	**(a)(i)I expected (something).** **(ii)John hits a six.** **(b)(i)I asked John (something).** **(ii)He hits a six.**
(a)John is eager to please. **(b)John is easy to please.**	**(a)(i)John is eager (for something).** **(ii)He pleases (someone).** **(b) (i)It is easy.** **(ii)Someone please John.**

Deep and surface structure

- A kernel sentence is deep structure to which a string of transformation rules is applied to generate the surface structure.

END

Morphology and Syntax

Introduction

Introduction

- Some aspects of grammar
- Grammar is traditionally subdivided into two different but interrelated areas of study –morphology and syntax.
- morphological operations
- Antidisestablishment-arianism,

Introduction

- Syntax is the study of the way in which phrases and sentences are structured out of words, and so addresses questions like ‘What is the structure of a sentence like the following:
- *What’s the president doing??’*

Introduction

- What is the nature of the grammatical operations by which its component words are combined together to form the overall sentence structure.

Introduction

- A brief look at the approach to the study of syntax taken in traditional grammar: this also provides an opportunity to introduce some useful grammatical terminology.

Introduction

- Within traditional grammar, the syntax of a language is described in terms of a taxonomy (i.e. classificatory list) of the range of different types of syntactic structures found in the language.

Introduction

- The central assumption underpinning syntactic analysis in traditional grammar is that phrases and sentences are built up of a series of constituents (i.e. syntactic units), each of which belongs to a specific grammatical category and serves a specific grammatical function.

Introduction

- Given this assumption, the task of the linguist in analysing the syntactic structure of any given type of sentence is to identify each of the constituents in the sentence, and to say what category it belongs to and what function it serves.

Introduction

Sentence	Categories
Students protested	It would traditionally be said that the sentence consists of *two constituents*
Students protested	Each of these constituents belongs to a *specific grammatical category* (students being a plural noun and protested a past tense verb)
Students protested	Each serves a specific *grammatical function* (students being the subject of the sentence, and protested being the predicate).
Students protested	The overall sentence has the categorial status of *a clause* which is *finite in nature* (by virtue of denoting an event taking place at a specific time),
Students protested	The semantic function of expressing a proposition which is *declarative in force* (in that it is used to make a statement rather than e.g. ask a question).

Introduction

- Accordingly, a traditional grammar of English would tell us that the simplest type of finite declarative clause found in English is a sentence like *The students protested* in which a *nominal subject* is followed by a *verbal predicate*.

END

Morphology and Syntax

Grammatical Categories

Grammatical Categories

- In traditional grammar, words are assigned to grammatical categories (called parts of speech) on the basis of their:
- semantic properties (i.e. meaning),
- morphological properties (i.e. the range of different forms they have)

Grammatical Categories

- syntactic properties (i.e. word-order properties relating to the positions they can occupy within sentences):

Grammatical Categories

- A set of words which belong to the same category thus have a number of semantic, morphological and syntactic properties in common.

Grammatical Categories

- There are traditionally said to be two different types of word, namely
- Content words/connectives (= words which have substantive lexical content) on the one hand,
- function words/functors (= words which essentially serve to mark grammatical properties) on the other.

Grammatical Categories

- The differences contentive like *car* with a functor like *they*.
- A noun like *car* has substantive lexical content in that it denotes an object which typically has four wheels and an engine, and it would be easy enough to draw a picture of a typical car.

Grammatical Categories

- By contrast, a pronoun such as *they* has no descriptive content (e.g. you can't draw a picture of they),
- A functor which simply marks grammatical (more specifically, person, number and case) properties in that it is a third person plural nominative pronoun.

Grammatical Categories

- Because they have lexical semantic content, content words often (though not always) have antonyms e.g. the adjective *tall* has the antonym *short*,
- The verb i*ncrease* has the antonym decrease,
- The preposition *inside* has the antonym outside:

Grammatical Categories

- By contrast, a typical function word like e.g. the pronoun me has no obvious antonym.
- Corresponding to these two different types of words *content and function*

Grammatical Categories

- Two different kinds of grammatical category – namely lexical/substantive categories (= categories whose members are content words)
- Functional categories (= categories whose members are function words).

END

Morphology and Syntax

Lexical/substantive categories

Lexicalsubstantive categories

- The main lexical/substantive categories found in English
- Noun, verb, adjective, adverb and preposition
- Conventionally abbreviated to N, V, A, ADV and P in order to save space

Lexical/substantive categories

	Nouns (= N)
Semantic property	denote entities: bottle (since it denotes a type of object used to contain liquids), water (since it denotes a type of liquid) John (since it denotes a specific person).
Distinct subtypes of noun	Count noun: like chair (cf. one chair, two chairs . . .), Mass noun: like furniture is a mass noun in that it denotes an uncountable mass (∗one furniture, ∗two furnitures).
Common and proper nouns	Boy a common noun like boy (which can be modified by a determiner like the – as in The boy is lying) Andrew (which cannot be used in the same way in English, as ∗The Andrew is lying).

Lexical/substantive categories

	Nouns (= N)
Number	Count nouns generally have the morphological property that they have two different forms: a singular form (like horse in one horse) used to denote a single entity, a plural form (like horses in two horses) used to denote more than one entity.
Common nouns have the syntactic property	Only (an appropriate kind of) noun can be used to end a sentence such as They have no . . . (car, or a plural count noun like friends or a mass noun like money, but not other types of word (e.g. not see or slowly or up, as these are not nouns).

Lexical/substantive categories

	Verb (= V).
semantic property	denote actions or events: so, eat, sing, pull and resign are all (action-denoting) verbs.
	From a syntactic point of view, verbs have the property that only an appropriate kind of verb (in its *uninflected infinitive form*) can be used to complete a sentence such as They/It can . . . So, words like stay, leave, hide, die, starve and cry are all verbs words like apple, under, pink and if aren't.
Morphological point	regular verbs like cry in English have the property that they have four distinct forms: e.g. alongside the bare (i.e. uninflected) form cry we find the present tense form cries, the past tense/perfect participle/passive participle form cried and the progressive participle form crying.

Lexical/substantive categories

	Adjective (= A).
semantic property	denote states or attributes (cf. ill, happy, tired, conscientious, red, cruel, old etc.).
Syntactic properties	Can occur after be to complete a sentence like They may be . . . (as with They may be tired/ill/happy etc.), denote a gradable property varying degrees fast, faster, fastest
Modified by a degree word	very/rather/somewhat (cf. She is very happy). Many (but not all) adjectives have the morphological property that they have comparative forms ending in -er and superlative forms ending in -est (cf.big /bigger/biggest).

Lexical/substantive categories

	Adverb (= ADV
Semantic property	denote the manner in which an action is performed (as with well in She sings well).
Morphological property	Regular adverbs have the that they are formed from adjectives by the addition of the suffix –ly. the adjective sad we have the adverb sadly
Syntactic property	an adverb (like e.g. badly) is the only kind of word which could be used to end sentences such as She behaved . . ., He treats her . . .or He worded the statement . . .

Lexical/substantive categories

	Preposition (=P)
Semantic property	of marking location (cf. in/on/off/inside/outside/under/above/below).
Syntactic property	with the appropriate kind of meaning can be modified by *right* in the sense of *'completely', or by straight* in the sense of *'directly'* *down* in He fell right down the stairs *to* in He went straight to bed.
Morphological property	they are invariable/uninflected forms (e.g. the preposition off has no past tense form ∗offed, no superlative form ∗offest and so on).

Morphology and Syntax

Functional category

Functional category

- Functional categories
- Determiner (= D) traditionally said to include the *definite article* **the** and the *demonstrative determiners* **this/that/these/those**.

Functional category

	Determiner (= D)
Includes	definite article *the* and the demonstrative determiners *this/that/these/those*
Semantic property	determine specific semantic properties of the noun expression that they introduce, marking it as a definite referring expression Shall we take the car? (specific) car which is assumed to be familiar to the hearer/addressee.
	Quantifier (= Q),
Function	denoting expressions of quantity, such as some/all/no/any/ each/every/most/much/many.
Indefinite article	the indefinite article a to be a quantifier – one which quantifies over a single entity a car

Functional category

	Pronouns(=PRN)
Items	*said to 'stand in place of' (the meaning of the prefix pro-) or 'refer back to' noun expressions.*
Types	a number of different types of pronoun found in English and other languages He/his/him
The word *one*	John has a red car and Jim has a blue *one* has no lexical semantic content of its own, rather takes its content from its antecedent (i.e. one refers back to the noun car and so one is interpreted as having the same meaning as car.
Morphological perspective	pronoun one behaves like a regular count noun in that it has a plural form ending in -s (as in I'll take the green apples if you haven't got any red ones
Status of *one*	N-pronoun /or pronominal noun

Functional category

	Pronouns(=PRN)
Some	sentence like Many miners were rescued, but some died, the word some seems to function as a Q-pronoun (i.e. a pronominal quantifier
Those	These apples are ripe, but those aren't, the word *those* seems to be a D-pronoun (i.e. a pronominal determiner).
Personal pronouns as D-pronouns	I/me/we/us/you/he/him/she/her/it/they/them the rationale: *We* republicans don't trust you democrats, *we* could be argued to be a determiner modifying the noun republicans, *you* could be seen as a determiner modifying the noun democrats

Functional category

	Auxiliary (verb).
Semantic property	marking grammatical properties such as tense, aspect, voice or mood
Syntactic property	unlike lexical/main verbs they can be inverted with their subject in questions (so that corresponding to a statement like *It is raining* we have the question *Is it raining?* *(t*he auxiliary is has moved in front of the subject it and is said to have been inverted).

Functional category

The items italicized below are traditionally categorised as auxiliaries taking a [bracketed] complement :	
(a) He has/had [gone]	have/be in (a,b) are (perfect/progressive) aspect auxiliaries
(b) She is/was [staying at home]	
(c) They are/were [taken away for questioning]	be in (c) is a (passive) voice auxiliary
(d) He really does/did [say a lot]	do in (d) is an expletive or dummy auxiliary (i.e. one with no intrinsic lexical semantic content)
(e) You can/could [help us]	can/could/may/might/will/would/ shall/should in (e–h) are modal auxiliaries
(f) They may/might [come back]	
(g) He will/would [get upset]	
(h) I shall/should [return]	

Functional category

- Auxiliaries in sentences have been said to belong to the category T (= tense-marked auxiliary).

Functional category

- So is the infinitive particle *to*, in sentences such as:
- *They are now expecting the president to be impeached tomorrow*

Functional category

- In the sentence infinitival *to* seems to have future time-reference
- The act of impeachment will take place at some time in the future.
- Why we can use the word tomorrow in the to-clause.

Functional category

- *Infinitival to* seems to have much the same function as the auxiliary *will* in:
- *They are now expecting that the president will be impeached tomorrow*,
- The *infinitival to* is an infinitival tense marker, and so belongs to the same category T as present/past tense auxiliaries such as is/was.

Functional category

- The difference between auxiliaries and *infinitival to* is that most auxiliaries overtly inflect for present/past tense (though this is not true of the invariable auxiliaries must and ought), whereas *infinitival to* is invariable in form.

Functional category

- We can thus say that an *auxiliary like will* is a *finite T constituent*, whereas *infinitival to* is a *nonfinite T*.

END

Morphology and Syntax

Complementisers

Complementisers

- (a) I think [*that you may be right*]
- (b) I doubt [*if you can help me*]
- (c) I'm anxious [*for you to receive the best treatment possible*]
- Each bracketed clauses is a *complement clause*, the complement of the word immediately preceding it (think/doubt/anxious);

Complementisers

- The italicised (*that, if, for*)word which introduces each clause is a complementiser (= C).
- Complementisers are functors in the sense that they encode particular sets of grammatical properties.
- Complementisers encode whether they are finite or nonfinite.

Complementisers

For examples		
I think [*that you may be right*]	I doubt [*if you can help me*]	I'm anxious [*for you to receive the best treatment possible*]
That is inherently finite in the sense that it can only be used to introduce a finite clause	***If*** is also inherently finite in the sense that it can only be used to introduce a finite clause.	***For*** is an inherently infinitival complementiser, and so can be used to introduce a clause containing *infinitival to*
That introduces a declarative clause (a statement),	If introduces an interrogative clause (i.e. a question)	For Introduces an irrealis clause (i.e. one relating to a hypothetical event)
That is a finite declarative complementiser	***If*** is a finite interrogative complementiser	***For*** is an infinitival irrealis complementiser

Complementisers

- Using the set of syntactic categories outlined above, we can employ the traditional labelled bracketing technique to categorise words in a way which describes how they are being used in a particular sentence.

Complementisers

(a) The president is clearly feeling angry that Congress has refused to negotiate with him
(b) [D The] [N president] [T is] [ADV clearly] [V feeling] [A angry] [C that] [N Congress] [T has] [V refused] [T to] [V negotiate] [P with] [PRN him]

Complementisers

- Grammatical differences between individual words belonging to the same category are traditionally described in terms of sets of grammatical features, and these features are enclosed in square brackets.

Complementisers

- *She* invited *us to dinner.*
- For example, both *she* and *us* are pronouns.
- *She* carries the features [third-person, singular-number, feminine-gender, nominative-case],
- *Us* carries the features [first-person, plural-number, accusative-case].

Complementisers

- Traditional grammarians are also concerned to describe the grammatical functions
- (a) John laughs
- The president laughs
- The president of Utopia laughs
- The former president of the island paradise of Utopia laughs

Complementisers

(a) John reads novels S V C(DO)	• The complement novels describes the entity on which the act of reading is being performed • A verb which has a noun or pronoun expression as its direct object complement is traditionally said to be transitive. • From a semantic perspective, subjects and complements generally represent entities directly involved in the particular action or event described by the predicate: • we can say that subjects and complements are arguments of the predicate with which they are associated. • Predicates may have one or more arguments		
(b) John reads English novels S V C(DO)			
(c) John reads English novels S V imported from England C(DO)			
(d) John reads English novels S V C(DO) imported by a friend of his from England			

Complmentisers

(a) [John] resigned	A predicate like resign in (a) which has a single argument is said to function as a one-place predicate	
(b)John] felt [remorse]	(b) which has two arguments is a two-place predicate;	
(c) [John] sent [Mary] [flowers]	(8) which has three arguments is a three-place predicate.	

Complementisers

- In addition to predicates and arguments, sentences can also contain *adjuncts,* as we can illustrate in relation to below:
- (a) The president reads a novel after dinner
- The president reads a novel in his office

Complementisers

- *after dinner /in his office* serve to provide additional information and are both adjuncts.

Complementisers

- We also find complex sentences which contain more than one clause
- Mary knows John reads

Complementisers

- The press clearly thinks the president deliberately lied to Congress.

END

Morphology and Syntax

Types of clauses

Types of clauses

- Finite and non finite clauses
- Finite clauses must contain a verb which shows tense.
- They can be main clauses or subordinate clauses: *Is it raining?*

Types of clauses

- Non-finite clauses contain a verb which does not show tense.
- We *usually* use non-finite verbs only in subordinate clauses.

Types of clauses

Finite and non finite verbs		
She *writes* a letter.	Bare infinitive form	does show tense/present time
She *wrote* a letter.	Past Tense form	does show tense/past time
*She *to write* a letter.	Infinitive form/ Infinitival To	does not show tense
*She *writing* a letter.	Present participle form	does not show tense
*She *written* a letter.	Past participle form	does not show tense

Types of clauses

- In linguistics, grammatical mood is a grammatical feature of verbs, used for signaling *modality*.
- It is the use of verbal inflections that allow speakers to express their attitude toward what they are saying (e.g. a statement of fact, of desire, of command, etc.).

Types of clauses

- A clause containing a verb in the indicative mood denotes a real (or realis) event or state occurring at a specific point in time;
- A Subjunctive clause by contrast denotes a hypothetical or unreal (= irrealis) event or state which has not yet occurred and which may never occur.

Types of clauses

(a) She was glad *that he apologised*	The verb *apologised* is finite by virtue of being inflected for past tense and indicative mood, and by virtue of having a nominative subject (he)
(b) She demanded *that he apologise*	The verb *apologise* is finite by virtue of being inflected for subjunctive mood (and perhaps present tense), and by virtue of having a nominative subject (he).
(c) I can't imagine him *apologising*	Nonfinite clause/ a tense less and mood less gerund form, and has an accusative subject him
(d) It would be sensible *for him to apologise*	Nonfinite clause/a tenseless and moodless infinitive form/an accusative subject him
(e) It's important *to know when to apologise*	Nonfinite clause/a tenseless and moodless infinitive form a 'silent' (implicit) subject in

Types of clauses

- A finite clause determines the kind of subject it can have.
- Finite clauses can have a nominative pronoun like *he* as their subject, but nonfinite clauses cannot.

Types of clauses

- Whether a particular clause is finite or not is to see whether it can have a nominative pronoun (like I/we/he/she/they) as its subject.
- In addition to being finite or nonfinite, each clause within a sentence has a specific force.

Types of clauses

Specific force	
(a) He went home	Declarative in force, in that it is used to make a statement.
(b) Are you feeling OK?	Interrogative in force in that it is used to ask a question.
(c) You be quiet!	Imperative in force, by virtue of being used to issue an order or command.
(d) What a great idea that is!	Exclamative in force, in that it is used to exclaim surprise or delight.

Types of clauses

In complex sentences, each clause has its own force	
(a) He asked where she had gone	The main (asked) clause is declarative, whereas the complement (gone) clause is interrogative.
(b) Did you know that he has retired?	The main (know) clause is interrogative, whereas the complement (retired) clause is declarative.
(c) Tell her what a great time we had!	The main (tell) clause is imperative, whereas the complement (had) clause is exclamative.

Types of clauses

- From the perspective of traditional grammar, the syntax of a language is described in terms of a taxonomy (i.e. a classificatory list) of the range of different phrase-, clause- and sentence types found in the language.

Types of clauses

- This reflects the fact that the primary goal of traditional grammar is description rather than explanation.

END

Morphology and Syntax

Syntax: Introduction

Syntax: Introduction

- What is Syntax?
- In linguistics, syntax is the set of rules, principles, and processes that govern the structure of sentences in a given language, usually including word order.
- The term syntax is also used to refer to the study of such principles and processes.

Syntax: Introduction

- The goal of many syntacticians is to discover the syntactic rules common to all languages.
- ‘Syntax’ also means ‘sentence construction’: how words group together to make phrases and sentences.
- Some people use the term grammar means syntax,

Syntax: Introduction

- Most linguists follow the more recent practice whereby the grammar of a language includes all of its organizing principles: information about the sound system, about the form of words, how we adjust language according to context, and so on; syntax is only one part of this grammar.

Syntax: Introduction

- The term ‘syntax’ is also used to mean the study of the syntactic properties of languages.
- In this sense, it’s used in the same way as we use ‘stylistics’ to mean the study of literary style.

Syntax: Introduction

- The scope of syntax study includes the classification of words, the order of words in phrases and sentences, the structure of phrases and sentences, and the different sentence constructions that languages use.

Syntax: Introduction

- One basic description of a language's syntax is the sequence in which the subject (S), verb (V), and object (O) usually appear in sentences.
- Over 85% of languages usually place the subject first, either in the sequence SVO or the sequence SOV.

Syntax: Introduction

- The other possible sequences are VSO, VOS, OVS, and OSV, the last three of which are rare.
- In most generative theories of syntax, these surface differences arise from a more complex clausal phrase structure, and each order may be compatible with multiple derivations.

Syntax: Introduction

- Usually, we think of syntax as "word order." However, syntax is also achieved in some languages such as Latin by inflectional case endings.
- A sentence could make no sense and still be correct from the syntax point of view as long as words are in their appropriate spots and agree with each other.

Syntax: Introduction

- Here is a classic example by Noam Chomsky, a linguist that illustrates a case in which a sentence is correct but does not make sense:
- Colorless green ideas sleep furiously.

Syntax: Introduction

- In a language such as English, the main device for showing the relationship among words is word order; e.g., in “The girl loves the boy,” the subject is in initial position, and the object follows the verb.
- Transposing them changes the meaning.

Syntax: Introduction

- In Latin, for example, “The girl loves the boy” may be
- *puella puerum amat* “the girl” the boy loves
- *puerum puella amat*
- *amat puella puerum*,
- *amat puerum puella*,
- *puella amat puerum*.
- The meaning remains constant .

Syntax: Introduction

- In the sentence “My dog is playing in the yard” there is a closer relationship between the words “is playing,” which together form the verb, than between the words “playing in the,” which form only part of the verb and part of the phrase indicating the location of the playing.

Syntax: Introduction

- The study of syntax also includes the investigation of the relations among sentences that are similar, such as “John saw Mary” and “Mary was seen by John.”

Syntax: Introduction

- Syntax received much attention after 1957, when the American linguist Noam Chomsky proposed a radically new theory of language, transformational grammar.

END

Morphology and Syntax

Some Concepts and Misconceptions

Some Concepts and Misconceptions

- It is a misconception that children are taught the grammar of their native language by their parents or by teachers at school.

Some Concepts and Misconceptions

- All developing children in every culture learn their native language or languages to perfection without any formal teaching.
- The simple exposure is required to ordinary, live, human language within a society.
- No culture or cultures teach their children ‘grammar’.

Some Concepts and Misconceptions

- All children must be capable of constructing a mental grammar of their native languages without any formal instruction.
- Most linguists now believe that human infants are born pre-programmed to learn language the way as they are pre-programmed to walk upright.

Some Concepts and Misconceptions

- Children are not taught their native grammar the way they are not taught by their parents how to walk.
- He's more happier than what I am, or when your school teachers tried to stop you from using a preposition to end a sentence with?

Some Concepts and Misconceptions

- In just the same way, some people have the idea that certain forms of language are more beautiful, or classier, or are simply ‘correct’.
- But the belief that some forms of language are better than others has no linguistic basis.

Some Concepts and Misconceptions

- Since we often make social judgements about people based on their accent or dialect, we tend to transfer these judgements to their form of language.
- We may then think that some forms are undesirable, that some are ‘good’ and some ‘bad’.

Some Concepts and Misconceptions

- For a linguist, however, dialectal forms of a language don't equate to 'bad grammar'.
- Some people think examples *I didn't do nothing wrong a*re non-standard English are sloppy speech, or perhaps illogical.

Some Concepts and Misconceptions

- Middle English (the English of roughly 1100 to 1500) also had a double negative.
- Ironically for the 'logic' argument, the variety of French that has the double negative is the most formal and prestigious variety, whereas colloquial French typically drops the initial negative word.

Some Concepts and Misconceptions

- Socially stigmatized forms of language are potentially just as ‘logical’ as standard English.
- Speakers of non-standard dialects are, of course, following a set of mental rules, in just the same way that speakers of the most prestigious dialects are.

Some Concepts and Misconceptions

- The various dialects of a language in fact share the majority of their rules, and diverge in very few areas, but the extent of the differences tends to be exaggerated because they arouse such strong feelings.

Some Concepts and Misconceptions

- In sum, speakers of prestige dialects may feel that only their variety of English is 'grammatically correct', but these views cannot be defended on either logical or linguistic grounds.

END

Morphology and Syntax

Use of Linguistic Examples

Use of Linguistic Examples

- We have used examples from a wide variety of languages, including English.
- It is difficult to study examples from unfamiliar languages, and perhaps you wonder why we don't just use examples from English.

Use of Linguistic Examples

- Two main reasons for using foreign-language examples:
- to learn about the differences between languages,
- to learn about the similarities between them.

Use of Linguistic Examples

- First, languages don't all look the same, and examining just English language and its immediate relatives doesn't show how much languages can differ.
- Imagine two languages, English and German, two closely related Germanic languages from northern Europe.

Use of Linguistic Examples

- a word-for-word translation.
- der schone Wasserfall (German)
- the pretty waterfall
- The translation of this phrase would look the same in any language: But this is not so.

Use of Linguistic Examples

- You might imagine that the translation of this phrase would look the same in any language: first a word for ‘the’, then a word for ‘pretty’ or ‘beautiful’, then a word for ‘waterfall’. But this is not

Use of Linguistic Examples

- In Spanish, for instance, we’d get:
- la cascada Hermosa
- the waterfall beautiful

‘the beautiful waterfall’

- The world’s languages have many interesting and important syntactic features that you should know about.

Use of Linguistic Examples

- English has some but not all of these features, so if we only looked at English we'd miss out on the rest.
- Let's see one example, from Spanish:
- Es nuevo. (Spanish)
- is new
- It's new.

Use of Linguistic Examples

- It literally means 'is new' – an impossible sentence in English.
- Spanish typically drops the subject pronoun meaning 'it' in such examples; for this reason, it's known as a pro-drop language.

Use of Linguistic Examples

- Many languages have examples parallel to this, but confining the discussion to English would never reveal that.
- In yet other languages, such as Arabic and Indonesian, the three-word English sentence It is new translates as ‘It new’.

Use of Linguistic Examples

- These simple examples show that we can’t expect sentences in other languages to be word-for-word translations of English sentences.

Use of Linguistic Examples

- The second reason is that linguists want to discover the common properties that languages share – their homogeneity or sameness.
- One of the most important discoveries of modern linguistics is that languages don't vary from each other at random, but are remarkably alike.

Use of Linguistic Examples

- Most linguists want to uncover the central patterns common to all languages.
- Although specific constructions are not universal (= common to all languages), all languages use a sub-set of the same basic tools of grammar.

Use of Linguistic Examples

- Each language has a wordlist or lexicon which all its speakers share, and that wordlist always contains words from several different classes.
- All languages combine these words into phrases and sentences.

Use of Linguistic Examples

- Languages manipulate the order of the phrases for various purposes –perhaps to ask questions, or to emphasize different parts of a sentence, or to show who's doing what to whom.
- This is syntax, and it forms the subject matter of our discussion.

END

Morphology and Syntax

Why do languages have syntax

Why do languages have syntax

- Speakers manipulate sentences in all sorts of ways because they're trying to convey different meanings.
- Syntax allows speakers to express all the meanings that they need to put across.

Why do languages have syntax

- In the simplest cases, this might mean altering the basic word order of a sentence, to emphasize or downplay a particular phrase, or to ask a question, or else grouping words together in different ways to modify the meaning.

Why do languages have syntax

- A preliminary idea in languages demonstrates that languages really do have syntactic structure.

Why do languages have syntax

- Each of the word orders in the following sentences is attested among the world's languages, though some are much more common than others.
- The three most common basic word orders in languages other than English are those of (a,b and (c).

Why do languages have syntax

Kim drank the tea.		
Kim, the one drinking the tea;	Drank, the verb, which expresses what Kim did;	The tea, expressing what is being drunk.
	a. Kim drank the tea.	
	b. *Kim the tea drank.	Japanese has this basic word order of (b).
	c. *Drank Kim the tea.	Welsh has this basic order of (c).
	d. *Drank the tea Kim.	Malagasy, spoken in Madagascar, has this basic order in(d).
	e. *The tea drank Kim.	Two word orders in (e and f) are the rarest basic word orders in the languages of the , found in the Carib language family of the Amazon basin. For example, Hixkaryana
	f. The tea Kim drank.	

Why do languages have syntax

- Possible to determine the basic, neutral word order in a language,
- But the flexibility or rigidity of the basic word order differs widely among the world's languages.
- English has a fixed basic word order,
- Russian a very flexible word order,

Why do languages have syntax

- Japanese allows many different orders
- *Drank Kim the tea.
- In English, this ungrammatical word orders might be permissible in poetry, but not in the spoken language or in prose.

Why do languages have syntax

- f. The tea Kim drank.
- May sounding odd be used to focus on what it was that Kim drank; the phrase the *tea* is fronted from its usual position as given
- *a Kim drank the tea*.

Why do languages have syntax

- Try adding a bit of context: Kim visits an eccentric aunt who makes tea and beer out of strange garden plants: The tea, Kim drank ___, but the home-made nettle beer, she really hated ___.
- The gaps are used to show the normal position of the fronted phrases

Why do languages have syntax

- The last exercise, a stall while climbing, I didn't do ___ well.
- Object-fronting is, in fact, quite rare in English.
- It's known as a marked (= unusual) construction, while the usual basic word order as in (a) is termed unmarked.

Why do languages have syntax

- Often there are stylistic reasons for changing basic word order.
- The fronted phrase in is rather long, and sounds clumsy in the usual object position: I didn't do the last exercise, a stall while climbing, well.

Why do languages have syntax

- A different kind of word order change, which involves breaking up a rather long phrase by moving part of it to the right.
- Estimates ___ vary greatly about the number of fluent speakers (i.e. of Esperanto).

Why do languages have syntax

- This avoids the clumsiness of a long initial phrase *estimates about the number of fluent speakers* before the short phrase *vary greatly*. (Compare the normal word order in *Estimates about this vary greatly*.)

Why do languages have syntax

END

- As showed, English has a generally inflexible word order in the sentence, but optional modifying phrases can be reordered quite easily, as is the case for the *about ... phrase* which modifies (= expands on) the word *estimat*es.

Morphology and Syntax

All Languages have Structure

All Languages have Structure

- All languages, whether living or dead, have syntactic structure, including sign languages (such as British Sign Language).
- A language doesn't just consist of strings of words, but that the words group together to form phrases, and the phrases group together to form larger phrases and sentences.

All Languages have Structure

- Linguists describe this phrases-within-phrases pattern as hierarchical structure.
- One kind of hierarchical structure is seen in embedded sentences, a construction in which sentences occur within other sentences, such as *Chris told Lee* [*Kim couldn't swim*].

All Languages have Structure

- This property is known as recursion. Here, the sentence in brackets – *Kim couldn't swim* – is the embedded sentence.
- It serves to tell you what it was that Chris told Lee.

All Languages have Structure

- I wonder [*if Lee will arrive late*].
- The claim [*that she doesn't like Kim*] is very surprising.
- [*That we've no coffee left*] isn't my fault.
- We asked [*how to get to the station*].

All Languages have Structure

- No limits to the number of embedded sentences that can be strung together.
- Kim couldn't swim
- Lee thought *that Kim couldn't swim*,
- I said *that Lee thought that Kim couldn't swim*.

All Languages have Structure

- a. I charged up the battery.
- b. I charged up the street.
- At first glance these sentences appear to be structurally identical.
- charge means something different in (a) and (b),

All Languages have Structure

- The only difference seems to be that street replaces battery. And yet the syntactic behaviour of the two sentences is entirely different. As always, the asterisks indicate ungrammatical sentences:

All Languages have Structure

- The only difference seems to be that street replaces battery.
- And yet the syntactic behaviour of the two sentences is entirely different.

All Languages have Structure

- a. I charged the battery up.
- b.*I charged the street up.
- a.*It was up the battery I charged.
- b. It was up the street I charged.
- a.*I charged up Lee's battery and (then) up Kim's too.

All Languages have Structure

- a. I [charged up] the battery.
- b. I charged [up the street].
- Charge up is phrasal verb the only thing you can do with a battery is charge it up; you can't charge it down, over, across, or anything else.

All Languages have Structure

- In (b),it doesn't: instead, there's a syntactic unit *up the stree*t, which can be moved around the sentence for focus*: It was up the street I charged.*

All Languages have Structure

- As a second demonstration of syntactic structure, possessive -'s as in *Lee's friend*.
- You might assume at first that this possessive ending simply attaches to a noun, a word such as *Lee* or *government*, as in *the government's dilemma*.

All Languages have Structure

But consider:

a. I saw the woman next door's children.

b. What was that guy who retired last month's name?

c.

All Languages have Structure

- When, as linguists, we try to figure out the syntactic structures of a language, we rely on the judgements of native speakers to tell us whether our example sentences are possible or impossible.

All Languages have Structure

- These grammaticality judgements, along with examples that are collected from a spoken or written corpus of the language, form the data of the science of linguistics.

All Languages have Structure

- It doesn't matter that native speakers usually can't tell us why they feel that a particular sentence is good or bad; the very fact that they have these intuitions shows up the structural differences and similarities between sentences.

END

Morphology and Syntax

Promotion and Demotion

Promotion and Demotion

- The syntactic variations involved simply reordering the elements of a sentence.
- Syntactic changes can have much more radical results than this.

Promotion and Demotion

- Let's discuss the idea of promotion and demotion processes – making a word or phrase more prominent or less prominent in the sentence.
- The demotion processes make part of the sentence less prominent.

Promotion and Demotion

Ali	menga-kirim	surat	itu	kepada	Hasan
Ali	send	letter	the	to	Hassan
Ali	sent	the	letter	to	Hassan
Ali	menga-kirima-kan	Hassan	surat	itu	
Ali	send	Hassan	letter	the	
Ali	sent	Hassan	the	letter	

Promotion and Demotion

- In (1b), we find an ending -kan on the word for ‘send’: this ending indicates in Indonesian that the word Hasan has been promoted.
- English has no equivalent to-kan.

Promotion and Demotion

- Hasan can be promoted it to an even higher position in the following: Hasan was sent ___ the letter by Ali.
- Hasan was sent ___ the letter by Ali.
- We indicate the position that Hasan is understood to have moved from with the
- gap __.

Promotion and Demotion

- To understand why a language would need to indicate this promotion of some part of the sentence, think about the difference in meaning between *Hasan sent the letter* and *Hasan was sent the letter*.
- Hasan was sent ___ the letter by Ali.

Promotion and Demotion

- Here is another construction involving promotion and demotion – the passive – in English and Japanese.

Promotion and Demotion

(1) The women and boys with crates converged on the boats **and their catch was counted out by the market boss.**
(2) His normal work was filing girls' teeth to points, although **pointed gnashers were considered a bit old-fashioned by the girls here.**
Compare these passive constructions with the sentences in (3) and (4), which are their counterparts in meaning, but are both active constructions:
(3) The market boss counted out **their catch**.
(4) The girls here considered **pointed gnashers** a bit old fashioned.

Promotion and Demotion

- First, assume that active sentences are the more basic; they are learnt much earlier by children than are passives.
- Two properties of the passive occur in any language which has the construction:

Promotion and Demotion

- (i) the passive involves promotion of an object phrase to a new position in the sentence, known as the subject position, and
- (ii) the phrase that used to be in the subject position undergoes demotion.

Promotion and Demotion

- Demotion means that they are consigned to a by-phrase, outside the core of the sentence.
- The by-phrase is entirely optional.
- It could be omitted Their catch was counted out.

Promotion and Demotion

- Compare *The market boss counted out their catch*.
- Both the subject *the market boss* and the object *their catch* are core elements of the sentence, and neither can be omitted.

END

Morphology and Syntax

Introduction to Universal grammar

Introduction to Universal grammar

- Chomsky takes a cognitive approach to the study of grammar.
- For Chomsky, the goal of the linguist is:
- to determine what it is that native speakers know about their native language which enables them to speak and understand the language.

Introduction to Universal grammar

- And how this linguistic knowledge might be represented in the mind/brain:
- In studying language, linguists are studying a specific kind of cognition (i.e. human knowledge).

Introduction to Universal grammar

- I don't like syntax, and not e.g.
- ∗I no like syntax:
- Native speakers know
- She loves me more than you.
- 'She loves me more than she loves you' and
- 'She loves me more than you love me':

Introduction to Universal grammar

- Native speakers also know how to interpret expressions in their language.
- Grammatical knowledge of how to form and interpret expressions in your native language is *tacit* (i.e. subconscious) rather than *explicit* (i.e. conscious):

Introduction to Universal grammar

- Chomsky, we can say that native speakers have grammatical competence in their native language: tacit knowledge of the grammar of their language – i.e. of how to form and interpret words, phrases and sentences in the language.

Introduction to Universal grammar

- And performance: what people actually say or understand by what someone else says on a given occasion.

Introduction to Universal grammar

Competence: is 'the speaker-hearer's knowledge of his language',

- A grammar of a language tells you what is needed to know in order to have native-like competence in the language (i.e. to be able to speak the language like a fluent native speaker):
- grammar is concerned with competence rather than performance.

Performance: is 'the actual use of language in concrete situations'
Very often, is an imperfect reflection of competence

- Misproductions and misinterpretations are performance errors, attributable to a variety of performance factors like tiredness, boredom, drunkenness, drugs, external distractions and so forth.
- Performance is more properly studied within the different – though related – discipline of psycholinguistics, which studies the psychological processes underlying speech production and comprehension.

Introduction to Universal grammar

- The study the grammatical competence of a native speaker is the study of a cognitive system internalized within the brain/mind of native speakers of English which is the product of a 'cognitive organ' which is 'shared among human beings and in crucial respects unique to them' (Chomsky 2006, p. 1).

Introduction to Universal grammar

- In the terminology adopted by Chomsky (1986a,pp.19–56), our ultimate goal in studying competence is to characterize the nature of the internalized linguistic system (or I-language).

Introduction to Universal grammar

- According to Chomsky a grammar of a language is ‘a theory of the I-language . . . under investigation’.
- Attempting to uncover the internalized linguistic system (= I-language) possessed by native speakers of e.g. English.

Introduction to Universal grammar

- Chomsky's ultimate goal is to devise a theory of Universal Grammar/UG:
- 'The theory of human I-languages . . . that identifies the I-languages that are humanly accessible under normal conditions'.

Introduction to Universal grammar

- In other words, UG is a theory about the nature of possible grammars of human languages: hence, a theory of Universal Grammar answers the question: 'What are the defining characteristics of the grammars of human I-languages?'

END

Morphology and Syntax

Universal Grammar

Universal Grammar

- There are a number of criteria of adequacy which a theory of Universal Grammar must satisfy.
- One such criterion is universality.
- A theory of UG must provide us with the tools needed to provide a descriptively adequate grammar for any and every human I-language.

Universal Grammar

- Since the ultimate goal of any theory is explanation
- So, a key question for any adequate theory of UG to answer is: 'Why do grammars of human I-languages have the properties they do?'

Universal Grammar

- The requirement that a theory should explain why grammars have the properties they do is conventionally referred to as the criterion of explanatory adequacy.

Universal Grammar

- ‘What are the defining characteristics of human I-languages which differentiate them from artificial languages like those used in mathematics and computing or from animal communication systems?’

Universal Grammar

- A third condition our theory of language be maximally constrained: it should to provide us with technical devices which are so limited in their expressive power that they can only be used to describe natural languages, not appropriate for the description of other communication systems.

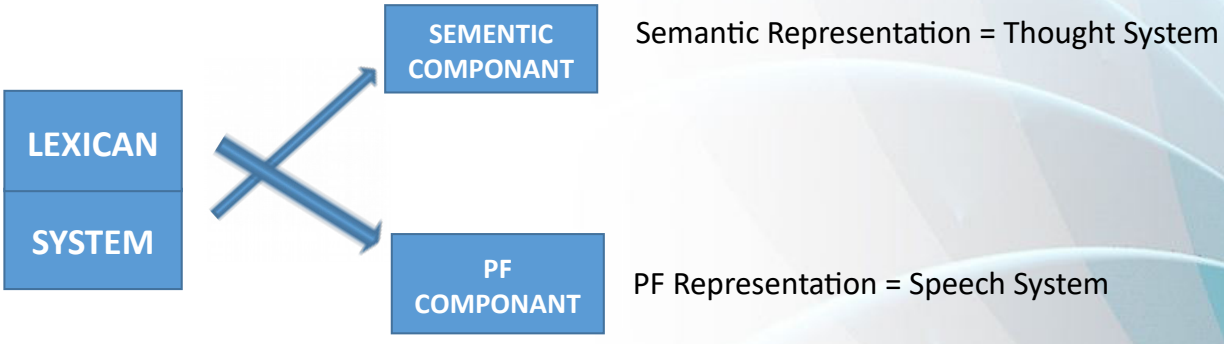
Universal Grammar

- A theory which is constrained in appropriate ways should enable us to provide a principled explanation for why certain types of syntactic structure and syntactic operation simply aren't found in natural languages.

Universal Grammar

- A related requirement is that linguistic theory should provide grammars which make use of the minimal theoretical apparatus required: in other words, grammars should be as simple as possible

Universal Grammar



Universal Grammar

- Chomsky (2005b, p. 3) refers to the interface with thought systems as the ‘conceptual-intentional interface (CI)’, and to the interface with speech systems as the ‘sensory-motor interface (SM)’.

Universal Grammar

- A fourth condition which a linguistic theory must meet is that of **learnability**: it must provide grammars which are learnable by young children in a short period of time.

Universal Grammar

- The desire to maximise the learnability of natural language grammars provides an additional argument for minimizing the theoretical apparatus used to describe languages, in the sense that the simpler grammars are, the simpler it is for children to acquire them.

END

Morphology and Syntax

Language Faculty

Language Faculty

- Learnability leads us to consider the related goal of developing a theory of language acquisition.
- An acquisition theory is concerned with the question of:
- How do children acquire grammars of their native languages?

Language Faculty

- Children generally produce their first recognizable word (e.g. Mama or Dada) by around the age of twelve months.
- For the next six months or so, there is little apparent evidence of grammatical development in their speech production,.

Language Faculty

	Children linguistic development
By twelve months	• first recognizable word (e.g. Mama or Dada)
For the next six months	• little apparent evidence of grammatical development in their speech production,.
Single-word stage	• productive vocabulary increases by about five words a month until it reaches around thirty words at age eighteen months. • No evidence of the acquisition of grammar • No use of inflections • don't productively combine words together to form two- and three-word utterances

Language Faculty

	Children linguistic development
At around the age of eighteen months	• start to make productive use of inflections (doggy, doggies) • inflected verb forms like going/gone alongside the uninflected verb form go • three-word utterances such as *Want Teddy, Eating cookie, Daddy gone office etc.*
age of around thirty months	• able to produce adult-like sentences such as Where's Mummy gone? What's Daddy doing? Can we go to the zoo, Daddy?

Language Faculty

- The central phenomenon which any theory of language acquisition must seek to explain is this: how is it that after a long-drawn-out period of many months in which there is no obvious sign of grammatical development, around 18 months there is a sudden spurt as multiword speech starts to emerge.

Language Faculty

- A phenomenal growth in grammatical development then takes place over the next twelve months?

Language Faculty

- This *uniformity* and rapidity in the pattern of children's linguistic development of first language acquisition ,Chomsky maintains, is determined by a biologically endowed innate **Faculty of Language/FL** (or language acquisition program in the brain.

Language Faculty

- This program provides children with a genetically transmitted algorithm (i.e. Set of procedures) for developing a grammar, on the basis of their linguistic experience.

Language Faculty

- Listening to people around constitute the child's linguistic experience of the language.
- Chomsky notes, language acquisition is an ability which all humans possess, entirely independently of their general intelligence:

Language Faculty

- The apparent *uniformity* in the types of grammars developed by different speakers of the same language suggests that children have genetic guidance in the task of constructing a grammar of their native language.

Language Faculty

- The child's linguistic experience is often degenerate, since it is based on the linguistic performance of adult speakers, and this may be a poor reflection of their competence.

Language Faculty

- A further argument Chomsky uses in support of the *innateness hypothesis* relates to the fact that language acquisition is an entirely *subconscious* and *involuntary* activity .

Language Faculty

- A critical period for the acquisition of syntax, before puberty help children generally achieve native competence in it.
- After the age of nine or ten years rarely manage to achieve native-like syntactic competence.

Language Faculty

- Accordingly: development of language in the individual must involve three factors: (1)genetic endowment, which sets limits on the attainable languages, thereby making language acquisition possible;

Language Faculty

- (2) external data, converted to the experience that selects one or another language within a narrow range;
- (3)principles not specific to FL.

Language Faculty

- The ‘third factor principles’ referred to under (3) ‘enter into all facets of growth and evolution’ and include ‘principles of efficient computation’ .

END

Morphology and Syntax

Principles of Universal Grammar

Principles of Universal Grammar

- If (as Chomsky claims) human beings are *biologically endowed* with an innate language faculty, an obvious question to ask is:
- What is the nature of the language faculty?
- An important point is children can in principle acquire any natural language as their native language.

Principles of Universal Grammar

- It follows that the language faculty must incorporate a theory of *Universal Grammar/UG* which enables the child to develop a grammar of any natural language on the basis of suitable linguistic experience of the language.

Principles of Universal Grammar

- Experience of a particular language L serves as input to the child's language faculty which incorporates a theory of Universal Grammar providing the child with a procedure for developing grammar of L.

Principles of Universal Grammar

- If so, it follows that certain aspects of child (and adult) competence are known without experience, and hence must be part of the genetic information about language with which we are biologically endowed at birth.

Principles of Universal Grammar

- Such aspects of language would not have to be learned, precisely because they form part of the child's genetic inheritance.
- Those aspects of language which are innately determined will also be universal.

Principles of Universal Grammar

- Thus, in seeking to determine the nature of the language faculty, we are in effect looking for UG principles which determine the very nature of language.

Principles of Universal Grammar

- Thus, detailed analysis of one grammatical construction in one language could reveal evidence of the operation of principles of UG.
- By way of illustration, let's look at question-formation in English.

Principles of Universal Grammar

- Speaker a: He had said someone would do something
- Speaker b: He had said who would do what?
- The type of question produced by speaker b is called an *echo question*.

Principles of Universal Grammar

- However, speaker b could alternatively have replied with a non-echo question like that below:
- Who had he said would do what?
- This involves two movement operations which are not found in b.

Principles of Universal Grammar

	(a) He had said who would do what? (= echo question)
	(b) Who had he said would do what? B involves proposing the first wh-word *who* and the first auxiliary had, and that this results in a grammatical sentence.
	(c) ∗Who would he had said do what? C involves proposing the first wh-word who and the second auxiliary would;
	(d) ∗What had he said who would do? d involves preposing the second wh-word *what* and the first auxiliary *had*;
	(e) ∗What would he had said who do? e involves preposing the second *wh-word* what and the second auxiliary *would*.

Principles of Universal Grammar

- A theory of grammar which posits that grammatical operations are constrained by innate principles of UG offers the important advantage that it minimises the burden of grammatical learning imposed on the child.

Principles of Universal Grammar

- The UG provides a straightforward account of the *rapidity* of the child's grammatical development, since it posits that there is a universal set of *innately endowed grammatical principles* which determine how grammatical operations apply in natural language grammars.

Principles of Universal Grammar

- It also (correctly) predicts that there are certain types of error which children will not make – e.g. producing sentences such as (c–e).

END

Morphology and Syntax

Parametres

Parametres

- The language faculty incorporates a set of universal principles which guide the child in acquiring a grammar.

Parametres

- Are all aspects of the grammar of languages universal?
- If this were so, all natural languages would have the same grammar and there would be no grammatical learning involved in language acquisition.
- No need for children to learn anything about the grammar.

Parametres

- Only lexical learning and their idiosyncratic linguistic properties, e.g. whether a given item has an irregular plural or past tense form needed to be learnt.

Parametres

- Some universal principles do determine the broad outlines of the grammar of natural languages
- Some language-particular aspects of grammar which children have to learn as part of the task of acquiring their native language..

Parametres

- Thus, language acquisition involves not only lexical learning but also some grammatical learning.
- Grammatical learning will be limited to those parameters of grammar which vary from one language to another called parametrised aspects of grammar.

Parametres

- The obvious way to determine just what aspects of the grammar of their native language children have to learn is to examine the range of parametric variation found in the grammars of different (adult) natural languages.

Parametres

- Contrast between the English and its Italian counterpart:
- (a) Maria thinks that ∗(they) speak French
- (b) Maria pensa che parlano francese
- ‘Maria thinks that speak French’

Parametres

- Since the verb parlano speak has no overt subject, it must have a *null subject* which can be thought of as a silent or invisible counterpart of the pronoun *the*y which appears in the corresponding English sentence.

Parametres

- This null subject is conventionally designated as *pro*, so that Italian sentence has the following structure:
- Maria pensa che pro parlano francese
- ‘Maria thinks that pro speak French,’ where pro is a null subject pronoun.

Parametres

- We can describe the differences between the two types of language by saying that Italian is a *null-subject language*, whereas English is a *non-null-subject language*.

Parametres

- A more familiar aspect of grammar is parametrised relates to word order
- One type of word-order variation can be illustrated in relation to the following contrast between English and Chinese questions:

Parametres

(a) What do you think he will say?	
(b) Ni xiang ta hui shuo shenme	
You think he will say what?	

Parametres

- Thus, another parameter of variation between languages is the Wh-Parameter –a parameter which determines whether wh-expressions are fronted or not.

Parametres

A rather different type of word-order variation, concerning the relative position of *heads* and *complements* within phrases	
students of philosophy	***of philosophy* functions as the complement of the noun students**
stay with me	**Verb Phrase which comprises the head verb stay and its complement *with me***
fond of fast food	**the head adjective fond with its complement *of fast food*.**
English head-first language	**Korean head-last language**
Close the door	**C V Muneul dadara (door close)**
desire for change	**C P N (H) byunhwa-edaehan galmang**

Parametres

- The language faculty allows only a binary set of possibilities – namely that a given kind of structure in a given language is either consistently *head-first* or consistently *head-l*ast.

Parametres

- Generalising, it seems possible that all grammatical variation between languages can be characterized in terms of a set of parameters, and that for each parameter, the language faculty specifies binary choice of possible values for the parameter.

END

Morphology and Syntax

Sentence Presenting

Sentence Presenting

- Syntax, or syntactic analysis, may be defined as:
- (a) determining the relevant component parts of a sentence
- (b) describing these parts grammatically.
- The component parts of a sentence are called constituents.

Sentence Presenting

- Syntax involves the two closely related tasks of:
- (a)breaking down the sentence into its constituents
- (b)assigning some grammatical label to each constituent, stating what type of constituent it is, and what grammatical function it has.

Sentence Presenting

- This definition of syntax implies that we start from what is regarded as the largest unit of syntactic description - the sentence -and proceed until we arrive at the smallest meaningful unit.
- This is called a 'top to bottom' analysis.

Sentence Presenting

- The units smaller than the sentence will be referred to as clauses, phrases, words and morphemes respectively.

Sentence Presenting

- We might also look at the sentence the other way round - that is. *'from bottom to top'* - and say that constituents at different levels can combine to form increasingly larger units: we proceed then from the morpheme to the sentence as a whole.

Sentence Presenting

- Constituents are like building blocks which pattern in certain ways to form larger and larger units, the largest unit being_ the sentence.
- Each constituent (except the smallest) can be broken down into its component parts.

Sentence Presenting

- The purpose of doing syntax is to discover the ways in which constituents combine to form the structure of sentences.

Sentence Presenting

We adopt the (traditional) hierarchy of sentence constituents, as shown in the following diagram:
The hierarchical scale of constituents.
The four double-pointed arrows indicate that it may be read 'from left to right', or 'from right to left.'

We adopt the (traditional) hierarchy of sentence constituents, as shown in the following diagram:
The hierarchical scale of constituents.
The four double-pointed arrows indicate that it may be read 'from left to right', or 'from right to left.'

SENTENCE ↔ CLAUSE ↔ - PHRASE ↔ WORD ↔ MORPHEME

Sentence Presenting

- The arrows pointing to the right indicate that a sentence may consist of one or more than one clause……
- Conversely, as indicated by the arrows pointing to the left, we might also say that one or more than one morpheme may constitute a word.

Sentence Presenting

- A clause may contain one or more constituent clauses, and that a phrase may contain one or more constituent phrases or clauses.

Sentence Presenting

To illustrate the hierarchical structure of sentences, let us consider sentence

(1) The snake killed the rat and swallowed it.
Clause 1 Clause 2

Two coordinate clauses
The first clause is: The snake killed the rat,
The second is: swallowed it.
The second clause has a reduced form.
Its complete form would be: … it swallowed it.

Sentence Presenting

- The snake killed the rat (two phrases)
- swallowed it(one phrase)
- One noun phrase
- Two verb phrase
- Each phrase is made up of words.

Sentence Presenting

- Sentence (1) contains eight words, including the coordinator and.
- Each word consists of one or two morphemes: the, snake, rat, and and it are one-morpheme words, whereas killed and swallowed are both two morpheme words.

Sentence Presenting

- The, snake, rat, etc. are full words and morphemes at the same time: the word and morpheme boundaries coincide.
- The two morphemes of killed and swallowed are kill and -ed, and swallow and –ed.

END

Morphology and Syntax

Structure

Structure

- The syntactic structure of sentence may be represented provisionally by marking off each constituent from sentence level to word level with a square brackets: [ ].
- To simplify matters, we shall ignore the morpheme boundaries here.

Structure

This convention of bracketing yields the following analysis, which looks rather daunting at first sight:
(2)[[[[The][snake]][[killed][[the] [rat]]]] [and] [[[swallowed][[it] J]]]
Sentence-.(3a) [The snake killed the rat and swallowed it]
Clauses: (3b) [[The snake killed the rat] and [swallowed it J J
Phrases: (3c) [[[The snake] [killed [the rat]]] and[[swallowed [it] J]]
Words:(3d) [[[[The][snake]] [[killed] [[the] [rat]]]] [and] ([[swallowed] [[it]]]]]

Structure

- In (2) above we can see that word and morpheme boundaries may coincide: the, snake, rat, etc. are all one word and one-morpheme, as opposed to killed and swallowed, which are words consisting of two morpheme each.

Structure

- Words and phrases may also coincide, as in:
- (7) John laughed.
- In this sentence John is both a phrase (a noun phrase) and a word (a noun); laughed is also both a phrase (a verb phrase) and a word (a verb).

Structure

- The units sentence and clause also coincide in (7). Bracketing from sentence level to word level yields (8):
- (8) [[[[John]] [[laughed]]
- Word ,phrase, clause and sentence in (9) may coincide, as in run:
- (9) Run!

Structure

- The bracketing of sentence (9) is as follows:
- (10) [[[[Run]]]]
- It is structurally one sentence, one clause, one phrase and one word (also one morpheme).

Structure

- The above examples show that a sentence is not necessarily longer than a clause, a clause not necessarily longer than a phrase, and a phrase not necessarily longer than a word (in general, we shall not go beyond the level of the word in our analyses).

Structure

- We shall see that sentences may vary in length and complexity from one clause to indefinitely many clauses, clauses from one phrase to indefinitely many phrases, and phrases from one word to indefinitely many words.

END

Labeled BRACKETING

Labeled BRACKETING

- The system of bracketing used so far is not very satisfactory.
- It is difficult to see which brackets go together to mark off 'a constituent.
- The notation introduced could be improved by adding an appropriate grammatical label to each pair of square brackets.

Labeled BRACKETING

- This convention is called *labelled bracketing*.

Labeled BRACKETING

Let us consider again the structure of the sentence:
The snake killed the rat and swallowed it.

(11) [s The snake killed the rat and swallowed it]

(13) [S_1 [S_2 [NP The snake] [vp killed [NP the rat]]] and [S_3 [NP [it]] [vp swallowed [NP it]]]]

(14) [S_1[S_2 [NP [DET The](N snake]][vp [v killed][and][NP [DET the] [N rat]]]]
[and]

[S_3[NP(it)] [VP [v swallowed] [NP [N it]]]]]

(16) [v [B kill] [suff ed]]

Morphology and Syntax

Tree Diagram & PS Rules

Tree Diagram & PS Rules

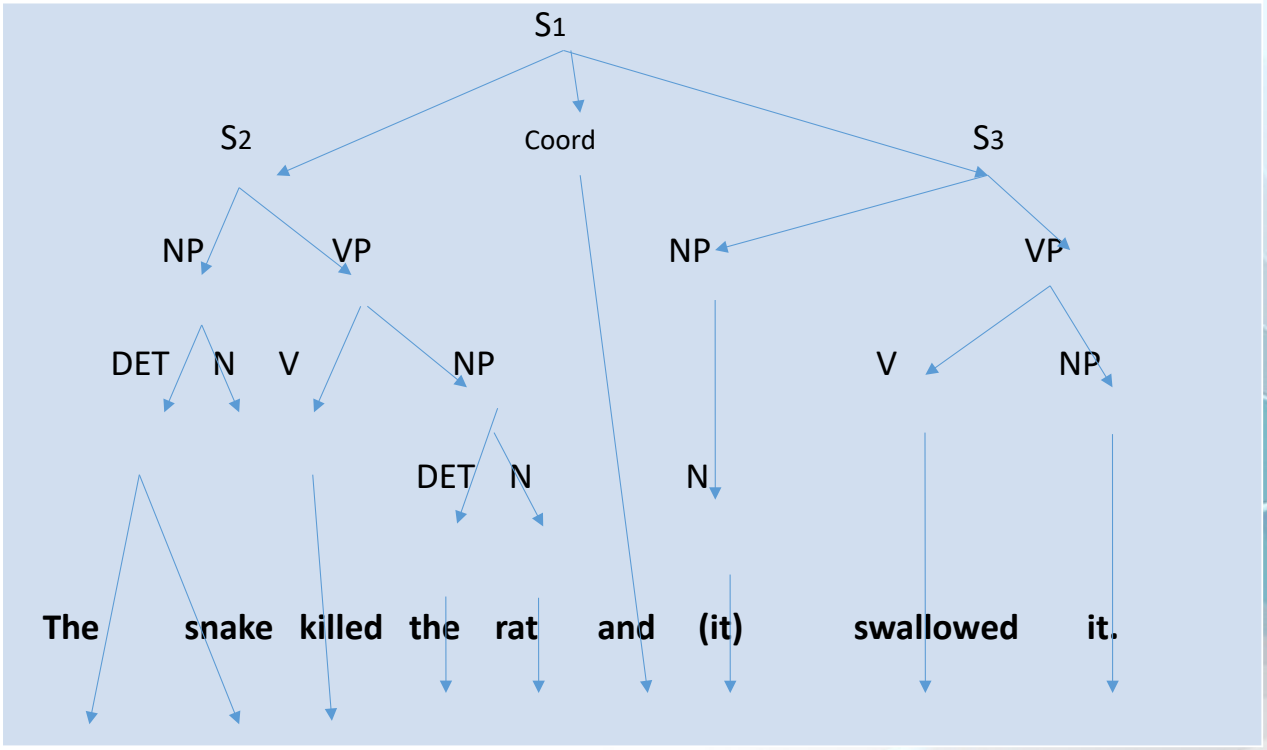
- Labeled bracketing is one of the most common ways of representing the constituent structure of sentences.
- there are many other methods of marking diagrammatically what elements in a sentence go together and what elements do not.

Tree Diagram & PS Rules

- One other very common representation is the tree diagram.
- The tree diagram is a *notational deice* which is entirely equivalent to labelled bracketing.
- Although different, it provides the same information about the syntactic structure of a sentence.

Tree Diagram & PS Rules

Consider the following tree diagram of the sentence:
The snake killed the rat and (it) swallowed it.



Tree Diagram & PS Rules

- The tree diagram provides the analysis of sentence (1) down to word level (determiner, noun, verb, etc.);
- It would also be possible to stop at phrase level (NP, VP, etc.), or to go beyond word level and indicate the morphological structure of each of the words.

Tree Diagram & PS Rules

- You can make your grammatical analysis as detailed as you like, or as is necessary for a specific purpose.
- The syntactic mformat1on contained in diagram (16) is essentially the same as that provided by the labelled bracketing in (14).

Tree Diagram & PS Rules

- It is large! a matter of taste or practical convenience whether one chooses the notation of bracketing or tree diagram.

Tree Diagram & PS Rules

- To read tree diagram (16) we require some additional terminology. For ample, we_ say that S, (the whole sentence) is expanded as S and S (two clauses), which are coordinated by and S, is said to contain as its immediate constituent S_2,S_3 ther by the VP-node.

Tree Diagram & PS Rules

- The NP immediately dominated by the VP-node_ is, also dominated by S/53, but it is not immediately dominated by S/S;-:'T important to distinguish between dominance and immediate dominance.

Tree Diagram & PS Rules

- In the latter case there must be no further nodes intervening between the nodes considered.

Tree Diagram & PS Rules

- The lexical items (i.e. the words) the, snake, killed, etc., are attached to the so-called terminal nodes of the tree diagram, i.e. the bottom nodes. The other nodes in the tree diagram are non-terminal.

Tree Diagram & PS Rules

There is a convention which is generally used to sum up the system expending one unit into other . It is a set of instructions called p**hrase structure rules** (PS rules)

Tree Diagram & PS Rules

- (17a) S > -cood- S
- (17b) S> NP-VP
- (17c) VP>V- NP
- (17d)NP> { DET-N / N }

END

Morphology and Syntax

Subordination in PS rules

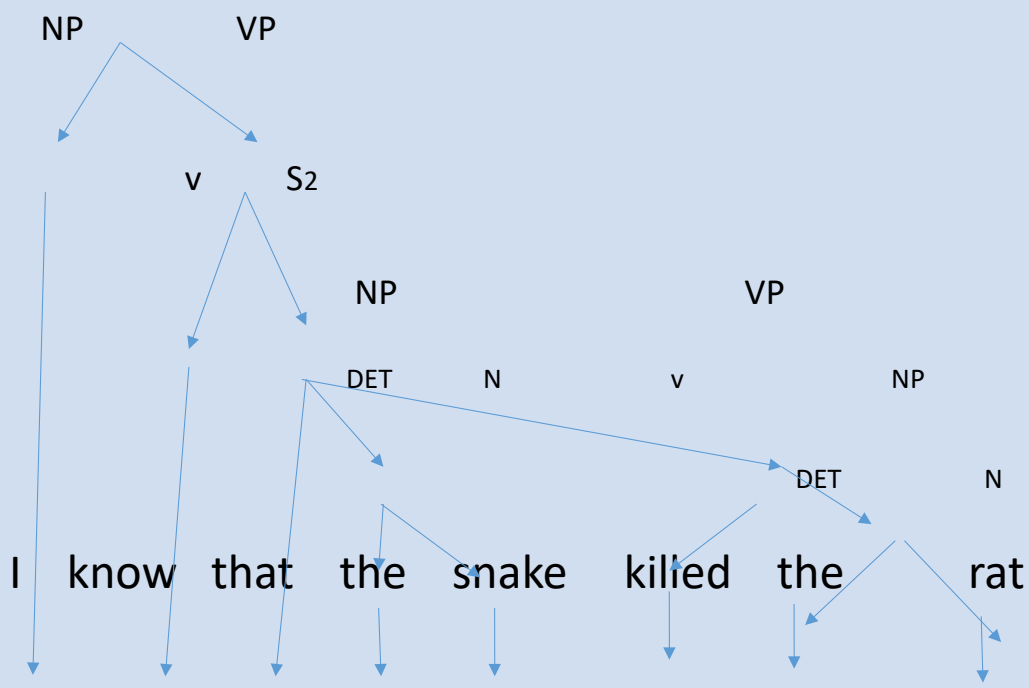
Subordination in PS rules

- Subordination
- Subordination of a clause

Subordination in PS rules

(18) I know [s that the snake killed the rat] may be represented as follows:

(19) S_1



Subordination in PS rules

- The tree diagram (19) is provisional.
- It has a sequence
- that – the snake killed the rat
- The PS rules cannot fully describe structure like (19)
- Rule (17a) S> -cood- S not applicable to all sentence

Subordination in PS rules

- We start the rewriting operation of (19) at rule (17b).
- Instead of writing VP

as V-NP we write VP in (19) V-S. The PS rule (17c) must adapt it in the following way

(17c) VP>v- {NP} S

The S may be expanded int0 NP-VP

Subordination in PS rules

- It is possible to have S embedded inside another S.
- The embedding or subordination may be repeated may times.
- For example;
- I know that you think that she hopes that you will say to her that you love her.

Subordination in PS rules

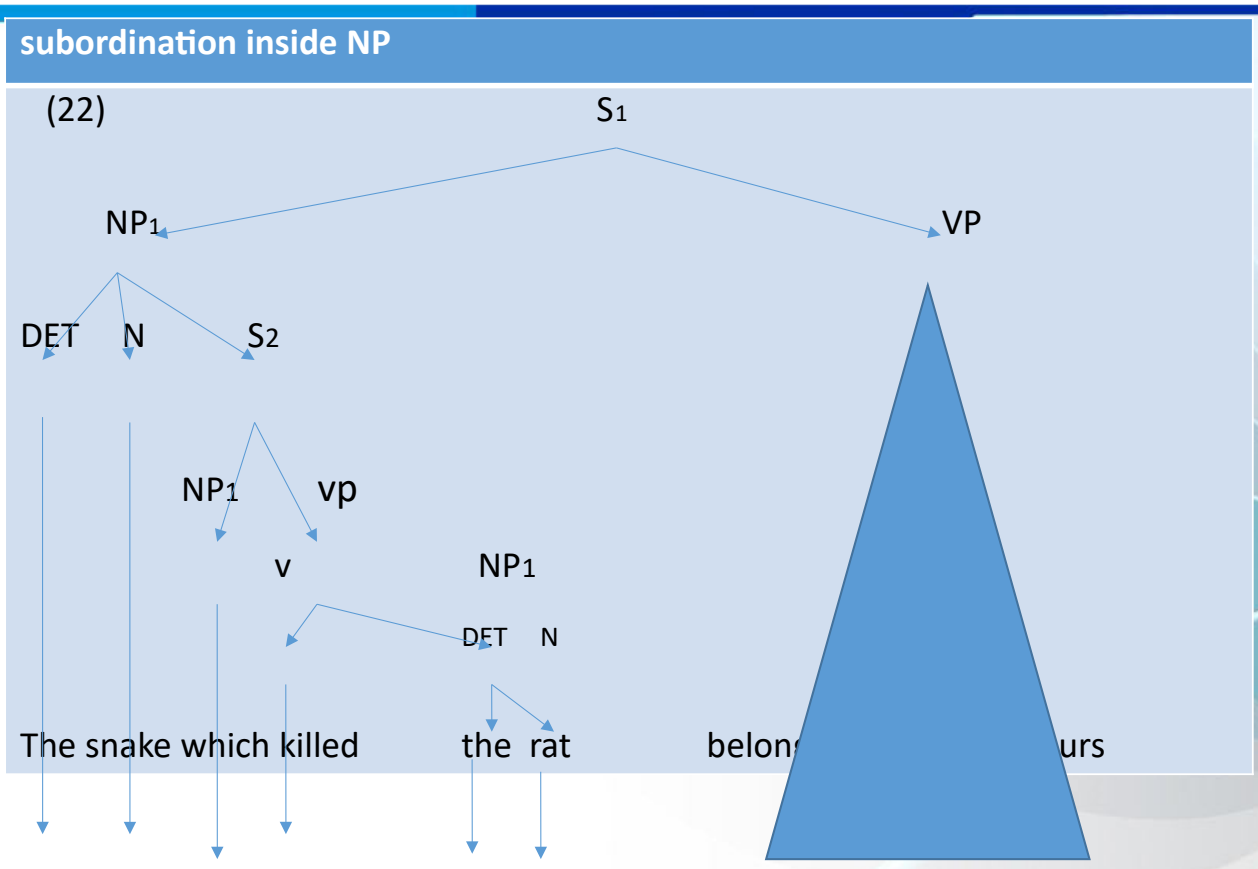
- In diagram (19) S_2 is a subordinate clause, which functions inside S_1: S_2 is dominated by S_1 and immediately dominated by VP.
- S_s (clauses) may also appear inside NP_s as in:
- 21 [The snake [which killed the rat]] belongs to our neighbours.

Subordination in PS rules

- We have in this sentence subordination not in the VP as in (18)and (20) but subordination inside NP.

Subordination in PS rules

subordination inside NP



Subordination in PS rules

- In (21) we need to adapt the PS rules given in (17).
- We formulate rule (17d) as follows:
- NP> { DET-N-(s)}
  N

Subordination in PS rules

- Round bracket means S is optional.
- We may choose to rewrite
- NP as Det-N-S or
- As Det-N
- Or may write NP as just N

END

Morphology and Syntax

SENTENCE AND DISCOURSE

Sentence and Discourse

- Syntax the sentence is regarded as the largest or highest unit on the hierarchical scale of constituents; it is the largest unit of syntactic description.
- Sentences do not normally occur in isolation.

Sentence and Discourse

- They usually form part of a larger text (or discourse) which is also organised in a particular way.

Sentence and Discourse

- The sentences of a text follow each other in some 'logical' order, and reflect a certain sequence of thoughts or events.
- There are often elements in a sentence which mark its relationship with the context.

Sentence and Discourse

- Texts are structured, and are more than just a random collection of sentences.

Sentence and Discourse

Consider, for example, the text 1.2.4, consisting of only four sentences: The internal structure of this text is shown by a number of factors. For example:

Soon after breakfast Mary Ann brought in The Times. Mr. Carey shared it with two neighbours. He Had it from ten till one, when the gardener took it over to Mr. Ellis at the Limes, with whom it remained till seven. Then it was taken to Miss Brooks at the Manor House, who, since she got it late, had the advantage of keeping it.

Adapted from W. Somerset Maugham, *Of Human Bondage*,

Sentence and Discourse

- (a)The order in which the four sentences occur is not accidental; it reflects the order in which the events described in the text occur.
- (b)The words it, he and she relate to constituents in previous sentences. Check which elements these words are related to in the text above.

Sentence and Discourse

- (c)There is a link between 'two neighbours' in the second sentence and 'Mr. Ellis' and 'Miss Brooks' in the two following sentences.
- (d)The use of then at the beginning of the fourth sentence also indicates that there is a certain temporal sequence of events.

Sentence and Discourse

- Like sentences, texts have an internal structure.
- The structural organisation of texts is different from that of sentences.

Sentence and Discourse

- The rules conditioning the organisation of texts are the rules of text grammar or discourse grammar, whereas the rules which determine the structure of sentences make up sentence grammar or syntax.
- The rules of text grammar often require an appeal to notions which are not syntactic.

Sentence and Discourse

- We shall only be concerned with the description of sentences.
- The analysis of longer stretches of discourse will generally be left out of consideration.
- We shall usually only pay attention to the structure of the individual sentences in the text.

Sentence and Discourse

- Occasionally, we shall go beyond the level of the sentence, if this is necessary for the clarification of some point.

Sentence and Discourse

- The emphasis of this course is on formal structural properties of sentences rather than on their pronunciation, their meaning or their use in communication: it is a book on English syntax, not on phonology, semantics, or pragmatics.

Sentence and Discourse

- We use the terms ‘grammar ' or 'syntax', 'grammatical' and 'syntactic' interchangeably.
- The term 'grammar' is also some times used in a very general sense to include syntax, phonology, semantics, etc.

END

Morphology and Syntax

Constituency tests

Constituency tests

- Text consists of sentences and that each sentence/clause may be broken down into the constituents NP and VP.
- VP consists of a V, which may be followed by one or more constituents.

Constituency tests

- The immediate constituents of the sentence/clause (NP-VP) and those of the VP are considered to be the main constituents of syntactic analysis.
- They may be involved in a number of processes which change the appearance of a basic sentence pattern.

Constituency tests

- These processes always affect complete constituents, and thus enable the student of language to discover what the constituents of sentences are.
- Let us return to one of our example sentences:
- The snake killed the rat and (it) swallowed it.

Constituency tests

- We have argued that sentences have structure, and are not just strings of words which occur in a random order.

Constituency tests

- The words do not just follow each other like the beads on a string.

Constituency tests

- The words of a sentence are strictly organised internally: there is an underlying pattern.
- For example, *the* goes with *snake* rather than with *killed*, and *it* is more closely associated with *swallowed* than with and, *killed* or snake.

Constituency tests

- The items in a text are organised and have a certain structure.

Constituency tests

- Sentences are hierarchically organised into different constituents: sentences into clauses, clauses into phrases, phrases into words, and words into morphemes

END

Morphology and Syntax

Variations on basic sentence patterns

Variations on basic sentence patterns

Most of the silk we see in Britain comes from silkworms, but wild silk moths in countries like India and Japan also produce it. They all spin cocoons and, although their silk is not as fine as silkworms', several species are cultivated.

The two most important wild silks are tasar and muga. Tasar is produced in a humid and dense belt of tropical forest in India. Once the cocoons have been spun, the largest are used for future breeding. When the moths emerge, the females are tethered by thread tied round the base of their wings to prevent them flying away.

Muga silk is produced exclusively in Assam by the assamiensis cater pillar. The silk varies in colour and texture, depending on their diet. Those fed on the young leaves of the majankori tree produce pale silk. - almost creamy white - while those fed on older leaves produce silk of a golden colour.
Adapted from Observer (Colour supplemen14 March 1982.

Variations on basic sentence patterns

- Fixed sentence pattern
- Word order in English is fixed to a large extent, and if a given word order is disrupted the sentence may become less acceptable or even ungrammatical.

Variations on basic sentence patterns

- Some most important sentence processes applied to the sentences in this text.

Variations on basic sentence patterns

- We shall deal briefly with operations called:
- Clefting
- Pseudo-clefting
- Passivisation
- Pronominalisation
- Fronting

END

Morphology and Syntax

Clefting

Variations on basic sentence patterns

Most of the silk we see in Britain comes from silkworms, but wild silk moths in countries like India and Japan also produce it. They all spin cocoons and, although their silk is not as fine as silkworms', several species are cultivated.
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Adapted from Observer (Colour supplemen14 March 1982.

Clefting

- Cleft sentences are one way to add emphasis to what we want to say.
- A cleft sentence is a sentence in which some part is moved from its normal position into a different place to give it more emphasis.

Clefting

The first sentence of text contains two coordinate clauses. The first clause is:

(1)Most of the silk we see in Britain comes from silkworms.

The constituent from silkworms in (1) may be given more emphasis by placing it at the beginning of the sentence and 'surrounding' it by the words it was/ was that, as follows:

(2)It is from silk worms that most of the silk we see in Britain comes.

Clefting

- (1) and (2) have a different outward appearance (or form), but their content (or meaning) is more or less the same.

Clefting

- The only difference in meaning between them is that in (2) the element from silkworms is very emphatically contrasted with something else in the context (wild silk moths, in the second coordinate clause): this contrast is more clearly marked in (2) than in (1).

Clefting

- The operations of fronting a constituent like from silk *worms* and surrounding it by *it was/ was ...that are* part of a process known a clefting.
- If we represent the string from silk worms by X, we could summarise the process as follows:

Clefting

- CLAUSE >It is X that CLAUSE
- [With X] [Without X]
- So:
- (a)Most of the silk we see in Britain comes from silk worms.
- (b)It is from silk worms that most of the silk we see in Britain comes.

Clefting

- Consider also: Jane gave this book to Bill on Saturday. Again we show how one can extract a constituent and put it in a more prominent position by applying the process of clefting:

Clefting

(a) X = on Saturday	**It was on Saturday that Jane gave this book to Bill.**
(b)X = to Bill	**It was to Bill that Jane gave this book on Saturday.**
(c)X = this book	**It was this book that Jane gave to Bill on Saturday.**
(d)X = Jane	**It was Jane that gave this book to Bill on Saturday.**

Clefting

- Sentences resulting from the clefting process are called cleft sentences.
- It is not possible to produce a cleft sentence by putting just anything in the position for X. For example:
- (3)* It was Jane gave that this book to Bill on Saturday.

Clefting

- Clefting cannot affect the string *Jane gave*, because this is not a constituent in the sentence.

Clefting

- Clefting is a useful way of discovering which words in a sentence from constituent and which do not:
- Jane is a constituent but June gave, for example, is not.

Clefting

English is very rich in cleft constructions. Below are examples of other types of clefts found in English
•**It-cleft:** It is Jaime for whom we are looking.
•**Wh-cleft/Pseudo-cleft**:[1] What he wanted to buy was a Fiat.
•**Reversed wh-cleft/Inverted pseudo-cleft:** A Fiat is what he wanted to buy.
•**All-cleft:** All he wanted to buy was a Fiat.
•**Inferential cleft:** It is not that he loves her. It's just that he has a way with her that is different.
•**There-cleft:** And then there's a new house he wanted to build.
•**If-because cleft:** If he wants to be an actor it's because he wants to be famous.

Clefting

- However, not all languages are so rich in cleft types as English, and some employ other means for focusing specific constituents, such as topicalization, word order changes, focusing particles and so on (see Miller 1996).

END

Morphology and Syntax

Pseudo-clefting

Pseudo-clefting

- A pseudo-cleft sentence is a kind of cleft sentence in which the subordinated clause is a relative clause headed by an interrogative pro-form. In English they are of the form:
- wh-relative clause + be + X
- X can be a constituent of one of many varieties.

Pseudo-clefting

- The so-called 'inverted' pseudo-cleft sentence reverses the order of the two constituents:
- X + be + wh-relative clause
- Examples:
- Pseudo-cleftInverted pseudo-cleft

Pseudo-clefting

- What John gave to Mary were flowers.
- Flowers were what John gave to Mary.
- (4)What Jane did was give this book to Bill on Saturday.
- (5)What Jane gave to Bill was this book.
- (6)This book is what Jane gave to Bill on Saturday.

Pseudo-clefting

- These three sentences can all be related to the sentence Jane gave this book to Bill on Saturday.
- Pseudo-clefting affects whole constituents, e.g. gave this book to Bill on Saturday and this book.

END

Passivisation

- Most of our example sentences above express an activity performed by a person and affecting some other person, animal or thing which undergoes the activity.

Passivisation

- The person who performs the activity is the Agent, and whoever or whatever undergoes it is called the Patient.
- Agent and Patient are roles.

Passivisation

In the (a)-sentences in (7) and (8) we first mention the Agent, then the Patient. In the (b) sentences it is the other way round. The change from (a) to (b) is passivisation.
(7a) Wild silk moths in countries like India and Japan also produce it.
(7b) It is also produced by wild silk moths in countries like India and Japan.
(8a) People cultivate several species.
(8b) several species are cultivated.

Passivisation

- Like clefting, passivisation is a way of rearranging the information in a sentence: if for some reason the Patient is to be made more prominent, we may use a passive sentence.
- In passives the Agent role is no longer obligatorily expressed (8b) above).

Passivisation

- In active sentences, normally, the Agent precedes and the Patient follows.
- In passive sentences the Patient precedes and the Agent, if any, follows.

Passivisation

- Passivisation also affects complete constituents.
- Sentence (7b), for example, shows that wild silk moths in countries like India and Japan and it are both constituents.

Passivisation

- In English grammar, passivization is the transformation of a sentence from an active form to a passive form. Verb: passivize. Also known as raising. Alternate spellings: passivisation (chiefly British).

Passivisation

END

- Through the process of passivization, the direct object of an active declarative sentence can become the subject of a passive sentence. The opposite of passivization is activization.
- Both terms were coined by linguist Noam Chomsky.

Morphology and Syntax

Pronominalisation & Fronting

Pronominalisation & Fronting

- They all spin cocoons and, although their silk is not as fine as silkworms', several species are cultivated.

Pronominalisation & Fronting

- Consider the sentence of text. It begins with *they* and it also contains the word *their*.
- What do *they* and *their* relate to?
- To answer this question, we must look at the preceding sentence.

Pronominalisation & Fronting

- The two words they and their have the same reference as wild silk moths in countries like India and Japan: they and their are co-referential with the N P.

Pronominalisation & Fronting

- Since they can be substituted for an NP, they are called pronouns, or more generally pro-forms . Substitution by pronouns is called pronominalisation.
- Like clefting and passivisation, pronominalisation can affect constituents only.

Pronominalisation & Fronting

- In traditional transformational grammar, pronominalization is a rule replacing lexical items with a pronoun, whereas later approaches analyzed the pronouns as being generated in the base.

Pronominalisation & Fronting

- FRONTING
- The fourth sentence of text is as follows:
- (9) Tasar is produced in a humid and dense belt of tropical forest in India. This sentence contains the string in a humid and dense belt of tropical forest in India, which may be moved to the beginning of the sentence, as_ follows:

Pronominalisation & Fronting

- In a humid and dense belt of tropical forest in India, tasar is produced.
- We call this process fronting (or preposing).

Pronominalisation & Fronting

- Only certain sentence elements can be fronted, and these elements must be constituents.

END

Morphology and Syntax

Sentences

Sentences

Coroner : The collision occurred at the junction of High Street and Church Road. How far away were you?
Witness: I was 54 yards, 2 feet, 6 inches away from that spot.
Coroner: You are very precise. Did you measure the distance?
Wit ness: Yes. I measured it carefully.
: Coroner: Why did you measure it?
Witness: I knew that some idiot would ask me.

Adapted from Christian Bran n, Pass the Port

Sentences

- This conversation clearly involves an exchange of information: the coroner asks questions, and the witness tries to answer them.
- Sentences can generally be used to give information, and they can be used to ask for information.

Sentences

- Identify the questions in the above text.
- Questions like *Did you measure the distance*? ask for the answer *Yes* or *No*.

Sentences

- They are said to be *Yes-No* questions.
- If you ask a *Yes-No* question, you want to know whether something *did* or *did not happen*.

Sentences

- If you know that something happened, you might want to hear about the circumstances of the event (e.g. the time, place, reason of the event), or you might want to know more about the participants (the people involved)..

Sentences

- When the coroner in the text above asks *Why did you measure it*?, he knows that the witness measured the distance, because the witness has just said so.
- But the coroner does not know the reason for this (why); consequently he asks the witness to supply the missing information.

Sentences

- Questions which ask for a particular piece of information, rather than for simply *Yes or No*, are called wh-questions.
- We call them wh - questions because they are often introduced by a word (or phrase) beginning with wh-.

Sentences

wh-questions
(I)Where did John hide the money?
(2)What did she say?
(3)When did he come back?
(4) Which girl did Bill like best?
(5) Who(m) did you meet there?

Sentences

- However, the wh-word does not always open the question.
- It may also appear inside the first constituent of the sentence:

Sentences

Inside wh-question
(6) For what reason did you leave early?
(7) In what way did John offend her?
(8) At what distance were you from that spot?

Sentences

- These are also wh-questions.
- In what way can be replaced by how, and at what distance by how far.
- How and constituents containing how are also regarded as wh-elements.

Sentences

How-question
(9) How did you get to know him?
(10) How far away were you from that spot?
(11) How old are you?
(12) How much money do you earn?

Sentences

- Sentences used to ask questions are interrogative sentences;
- Sentences used to supply information are declarative sentences.

END

Morphology and Syntax

Compound & Complex sentence

Compound & Complex sentence

Compound & Complex sentence
Mary Ann's stories of the sea touched Philip's imagination. One evening he asked whether he might go home with her. His aunt feared that he might catch something. His uncle said that evil communications corrupted good manners. Adapted from W. Somerset Maugham, OJ Human Bondage.
Mary Ann's stories of the sea touched Philip's imagination. One evening he asked whether he might go home with her; but his aunt feared that he might catch something, and his uncle said that evil communications corrupted good manners. Adapted from W. Somerset Maugham , OJ Human Bondage.

Compound & Complex sentence

- Of the two texts, the B-version approximates the original passage in Somerset Maugham's novel more closely.
- How many sentences are there in the A-text?
- How many do you find in the B-text?

Compound & Complex sentence

- Note that the second, third, and fourth sentences of A have been joined together in B to form one long sentence.

Compound & Complex sentence

- The boundaries of the sentences in A are still visible in B: the place where the linking has taken place is indicated by means of special punctuation (a comma or a semi-colon) and by means of coordinators such as *and, but* and *or*

Compound & Complex sentence

- A clause which is coordinated with another clause in this way is called a conjoin: Thus, the second sentence of B consists of three conjoins which have been joined to form one sentence.

Compound & Complex sentence

The three conjoins are:
(I 3a) One evening he asked whether he might go home with her.
(13b) (but) his aunt feared that he might catch something.
(I 3c) (And) his uncle said that evil communications corrupted good manners.

Compound & Complex sentence

A sentence which consists of a string of coordinated clauses (conjoins) is called a compound sentence.
(14) George cheated at Harvard and Jane cheated at Yale.
(15) Sue went to London and stayed there for a week.
(16) John studied very hard last year but he failed his test.
(17) Paul will go to the cinema tonight, or he will stay at home to read a book.

Compound & Complex sentence

- In examples (14)-(17) simple sentences have been coordinated to form compound sentences.
- A third category is that of complex sentences. To define these, let us consider the sentences:

Compound & Complex sentence

- (18) I k now that the snake killed the rat.
- (19) The snake which killed the rat belongs to our neighbours.

Compound & Complex sentence

- In (18) the string that the snake killed the rat is a clause, but it is not co ordinated with another clause. Rather, it forms part of another clause; it is embedded in another clause. The other clause (the main clause) is: I know that the snake killed the rat.

Compound & Complex sentence

- The embedded clause is a constituent of the VP of the main clause (see 2.4.3). In (19) the string which killed the rat is also a clause. This clause forms part of: The snake which killed the rat, which is an NP (see 2.4.2).

Compound & Complex sentence

- The clause is embedded in the NP; the embedded clause is a constituent of the phrase in which it occurs. Sentences which contain embedded clauses of this kind are said to be complex. We shall return to the syntactic differences between compound and complex sentences below.

Compound & Complex sentence

- There are also mixed types of sentences, which involve both co ordination and subordination: there may be subordinate clauses within conjoins and subordinate clauses may also be coordinated.

Compound & Complex sentence

(20) One evening he asked whether he might go home with her; but his aunt feared that he might catch something, and his uncle said that evil communications corrupted good manners.
The following are examples of coordination of subordinate clauses: **(21) I know that the snake killed the rat and (that it) swallowed it.**
(22) The snake which killed the rat and (which) swallowed it belongs to our neighbours.
These mixed types of sentences are called compound-complex sentences. There are important differences between coordinate and subordinate clauses. For example: **Coordinate clauses are introduced by coordinators (and, but, or, for, etc.) and subordinate clauses by subordinators (when, before, because, if, since, although, that, etc.). Compare:** **(23a) The snake killed the rat and it swallowed it.**
(23b) The snake killed the rat, before it swallowed it.

Compound & Complex sentence

- (b) The coordinator always appears in a position between two co ordinated clauses, whereas the subordinator is part of the subordinate clause. As a result, it is impossible to place the second conjoin together with the coordinator in front of the first conjoin. Compare:

Compound & Complex sentence

(24a) The snake killed the rat and it swallowed it.
(24b) *And it swallowed it, the snake killed the rat.
On the other hand, subordinate clauses and the subordinators which introduce them can be fronted together: **(25a) The snake killed the rat, before it swallowed it.**
(25b) Before it swallowed it, the snake killed the rat.

Compound & Complex sentence

- The subordinator and the clause form one constituent; the coordinator and the second conjoin are two separate constituents, which cannot be moved together

Compound & Complex sentence

- This difference between coordination and subordination of clauses may be represented as follows:
- Coordination: [S_1 [S_2] coord [S_3]]
- Subordination: [S_1[S_2 subord]]

Compound & Complex sentence

- (c) Coordination with and, but and or allows deletion of the subject of the second conjoin, if it is co-referential to the subject of the first conjoin. Deletion of the subject is generally impossible in subordinate clauses.

Compound & Complex sentence

- (26a) The snake killed the rat and it swallowed it.
- (26b) *The snake killed the rat and before it swallowed it.

END

Morphology and Syntax

Clauses

Clauses

- Clauses are constituents of other sentences or of phrases.
- A constituent sentence (or clause) may be coordinated with one or more other constituent sentences to form a compound sentence, or it may be embedded in another sentence or in a phrase to form a complex sentence.

Clauses

- In simple sentences the boundaries of sentence and clause coincide: a simple sentence is a one clause sentence, whereas compound and complex sentences always contain at least two clauses.

Clauses

Let us return to the compound sentence.
In order to show its structure, we shall now bracket each of the conjoins and label them by means of S (for sentence/clause) in the left-hand corner, as follows:
(la) [s One evening he asked whether he might go home with her;]
But (lb)[s his aunt feared that he might catch something,]
and (1c) [5his uncle said that evil communications corrupted good manners.]
(lb) as a separate independent sentence. If we passivise this sentence, we get: (2) That he might catch something was feared by his aunt.

Clauses

- Passivisation affects the string and tell that this string is a sentence Constituent.
- The same is confirmed by pseudo-clefting and by Pronominalisation (use *of it, that, what, etc.*):

Clauses

Pseudo-clefting and Pronominalisation
(3) What his aunt feared was that he might catch something.
(4) His aunt feared {it, that} .
(5) What did his aunt fear?
Bracketing of this constituent provisionally gives us the following result:
(6) [s His aunt feared [that he might catch something]]
It is clear that the string *he might catch something* is also an S, but what about the element that? Sentence (6) is to be bracketed as follows:
(7) [s_1 His aunt feared [x that [s_2 he might catch something]]]

Clauses

- However, passivisation, psudo-clefting and pronominalisation (see (2)-(5) above) affect the constituent labelled X in (7), not just S.

Clauses

- The role of *that* in (7) is that of linking S2 (the embedded sentence) to the sentence inside which it occurs: that is the subordinator.
- The constituent X comprising the subordinator and S_2, is often labelled $\bar{s}$ (S-bar) or S' (S-prime).

Clauses

- It is a unit containing the subordinator and the subordinate
- S that>S

Clauses

The element that occupies the so-called, complementiser slot (COMP slot in front of the sentence S_2. Our bracketing of (1b) may now be adapted as follows:

(9) [s_1His aunt feared [$\bar{s}$ (that [$s_2$he might catch something]]]

Let us now try to analyse the third conjoin in (1c) above, repeated here as (10):
(10) His uncle said that evil communications corrupted good manners.
Following the procedure we have used above, we find that (10) has essentially the same structure as (1b). Moreover, in both sentences *that* can be omitted (or deleted):

(11a) His aunt feared ---he might catch something.

(11b) His uncle said ---evil communications corrupted good manners.
(in the passive variants of these sentences that is not deletable)

Clauses

(12a) *---he might catch something was feared by his aunt.

(l2b) *---evil communications corrupted good manners was said by his uncle.

Now let us finally also consider the structure of the first conjoin in (1a) above, repeated here as (13):

(13) One evening he asked whether he might go home with her.

If you apply some of the tests described above, you will find that *whether he might go home with her is a constituent*. For example, pseudo-clefting yields:
(14) What he asked one evening was *whether he might go home with her*.

We can ask a question like (15):
(15) What did he ask one evening?

Clauses

- This string whether + *he might go home with her* is an embedded yes-No question.
- When Yes-No questions are embedded, the subordinator is *whether* or *if* , not *that*.
- The sentence (13) may be bracketed as follows:

Clauses

(16)[S_1 One evening he asked [s { whether/if*that} [s_2 he might go home with her]]] (COMP slot can be filled by whether or if)
Notice that whether and if cannot be deleted, unlike that in (11a) and (11b).
wh- questions: **(17) Why did you measure the distance?**
(18) What did you see there?
Such wh-questions may also be embedded in other sentences, but we need no special subordinator to do that. **(19) [s_1 The coroner asked [s- why [$s_2$the witness had measured the distance]]]**
(20) [s_1 The policeman asked me [S what [s_2 I had seen there]]]

Clauses

Now also compare (21) and (22) below (22) is more acceptable American English than in Standard British English. Is there any difference in meaning between them? And what about their form?
(21) The new law requires that seat-belts should be worn by all passengers
(22) The new law requires for seat-belts to be worn by all passengers.
(21) and (22) have the same meaning, and the same structure. we may passivise them: (23) That seat-belts should be worn by all passengers is required by the new law. •
(24) For seat-belts to be worn by all passengers is required by the new law.
pseudo-clefting to both: (25) What the new law requires is that seat-belts should be worn by all passengers

Clauses

(26) What the new law requires is for seat-belts to be worn by all passengers
What conclusion can we draw with respect to the constituents of these sentences? It seems that (21) requires the following (partial) bracketing (27) [s_1 The new law requires [s that [s_2 seat-belts should be worn by ...]]]

Clauses

- The string for seat belts to be worn by all passengers in (22), as we have seen, structurally resembles the S- that seat-belts should be worn by all passengers. We shall assume, by analogy with (27), that for also occupies the COMP slot, and that seat -belts to be worn by all passengers is an embedded sentence/ clause. The analysis, then, of (22) is as follows:

Clauses

- Note that (21) allows a great deal of variation in front of *be worn*.
- We could replace should by must or shall, and should be worn by are worn.
- In fact, should, must or shall may also be absent.
- (29) The new law requires that seat-belts {({should/must/shall/etc.}) be} worn…

Clauses

The sequence *to be worn* is called a to infinitive of the verb wear.
If we replace seat-belts by a pronoun, we find another contrast.
(30) The new law requires that *they* should be worn...
(3 1) The new law requires for *them* to be worn . . .

Clauses

Non-finite clauses may also contain a bare infinitive, or they may contain an -ing participle or an -ed participle. Consider, for example:
(32) We saw Mary leave.
(33) We saw Mary leaving
(34) I do not mind Mary's leaving (gerund clause
(35) We found all the seats occupied

Clauses

English also has verbless clauses. (usually a form of to be) and sometimes other elements have been deleted. Consider, for example:

(36) John believes *the prisoner innocent*.

In this sentence the italicised sequence is a verbless clause, which we assume is a reduced version of the to-infinitive clause in (37):
(37) John believes the prisoner to be innocent.

Clauses

The following sentences contain further examples

(38) He considered *the girl a good student*.

(39) *Whenever in trouble*, Bill rang his girl-friend.

(40) He married her *when a student at Harvard*

Non-finite clauses and verbless clauses are always embedded / subordinate.

Morphology and Syntax

Phrases

Phrases

- Let's decide the types of sentences in the following text (simple, compound, complex, or compound-complex):

Phrases

Text

The tramp read the diary. He laughed. He turned a page, he read it and he laughed again. He leaned towards the German girl and said a few words to her.
The Egyptian was clowning; the noise in the room continued. Soon the young German girl was offering chocolate for the second time. Her voice was very soft.
The tramp was unfolding his magazine slowly. He stopped suddenly, he looked at the chocolate. But she had given him no chocolate. He unfolded his magazine. Then he destroyed it.

V.S. Naipaul, In a Free State

Phrases

- Try to isolate as many phrases as you can in each sentence above.
- You will see that these constituents fall into various grammatical categories (or constituent types).
- The different categories of phrases.

Phrases

- NOUN PHRASES
- The constituents such as *the tramp*, *the diary, he, a page, it, the German girl, a few words, her, the Egyptian, the noise, the young German girl, chocolate, etc. .*

Phrases

Noun Phrases

(1a)	The tramp	read	his diary
(ab)	The young German girl		his magazine
(1c)	The Egyptian		a page
(2a)	The girl	offered	chocolate
(2b)	The very young girl		no chocolate
(2c)	The girl from Berlin		hot chocolate

Phrases

- Constituents which can appear in the same environments (or contexts) said to have the same distribution.
- The Constituents have as its most important element a word of the class of nouns (N): tramp, diary, page, chocolate . . .

NP chocolate

Head

Phrases

Elements before the Head (a, the)
Tramp read diary. .. He turned page,
: * The read the ... turned a ..., etc
(4a) The tramp read the diary.
(4b) A tramp read a diary.

Phrases

- *his magazine, her voice*.
- Possessive pronouns and genitives thus also function as Specifiers narrowing down the reference of the NPs in which they occur.
- Other possessive pronouns *are: my, your, its, our, their, e.g.*: *The baby hates its pram; I like my new dress*,

Phrases

The demonstrative pronouns *this, that, these and those*, and items like some, any, what, which, whose, each, every, all, half, both, much, many, and the numerals (one, two, ...) may also have a specifier function.

(5) Which reporter will interview all the players?
(6) Two boys found these diamonds.
(7) Both the girls enjoy classical music.
(8) Half the audience started giggling when the three girls began to sing.

Phrases

- If numerals occur in the structure of an NP, they typically follow words like *the, my, our*, these, but precede the Head noun. For example: *the three girls*.
- *Half, both, all* and *double* typically precede the, my, our, these, etc.
- For example: *half the glass, both the girls, all my friends*.

Phrases

- Items like those mentioned which precede the NP Head, belong to the grammatical category of *determiner*.

Phrases

- Depending on their position relative to each other, determiners may be predeterminers (half, both, all, double),
- central deter miners (the, a, this, that, my, his, etc.)
- or postdeterminers (numerals, etc.).

Phrases

- Determiners function as Specifiers in the NP.
- The Head of an NP may also be preceded by adjective phrases which modify the Head N, as in: *young boys*, *expensive diamonds, classical music and the three gorgeous girls*.

Phrases

- Since young, expensive, etc. normally precede the Head, they are said to premodify it. Premodifiers follow determiners.

Phrases

- An important difference between Specifiers and Premodifiers is that they are realised by totally different categories of words: the function of Specifier is realised by the fairly limited collection of items which we call determiners,

Phrases

- The function of Premodifier is usually realised by adjective phrases or other open class elements

END

Morphology and Syntax

Pronoun

Pronoun

- (9) The tramp read the diary. *He* laughed. *He* turned a page.
- *He* is a word used instead of an NP, it is a pro-form.
- Since it replaces an NP, it is also called a pronoun.

Pronoun

- Words like *he, she, it* and *they* are used whenever repetition of the full NP is unnecessary.
- Constituents which can be replaced by personal pronouns must be NPs.

Pronoun

- Personal pronouns differ from each other in terms of their relationship to the speaker: I refers to the speaker (or writer); you refers
- Number
- The contrast between *he, she* and *it* is one of gender.

Pronoun

- Another contrast found with personal pronouns is that between the forms *he* and *him*, and between the forms she and her, etc.
- This is a contrast of case.

Pronoun

Case of Pronoun
(10) Philip liked Mary Anne.
(11) Mary Ann was liked by Philip.
(12) [s [NP Philip] [vp liked [NP Mary Ann]]]
(13) [s [NPMary Ann] [vp was liked by Philip]]]

Pronoun

- We have seen that personal pronouns replace complete constituents, in the same way that clefting, passivisation, etc. affect whole constituents.

Pronoun

clefting, passivisation, etc.
(16) John met Mary at the entrance of the station. He bought her an ice-cream.
(17) John was unable to control him.,
(18) Mary killed her.
(1 9)-Bill was very ill. John was unable to control him .
(21) John was unable to control himself

Pronoun

- If we want to convey that *Mary* committed suicide, we cannot use her (as in (20)), but we must use *herself*: Mary killed herself
- Other reflexive pronouns are: *myself, yourself, himself, itself, ourselves, yourselves and themselves*.

Pronoun

- Apart from the possessive pronouns *my, your, our, etc*., which belong to the category of determiners, English also has the possessive pronouns *mine, yours, his, hers, its, ours, yours and theirs*.

Pronoun

- These can be used to replace a complete NP and can occur on their own. For example:
- (22) This is your bicycle. Mine is over there.

Pronoun

- There is also the category of demonstrative pronouns: *this, that, these* and *those*.
- This and that are singular, these and those plural.
- Possessives and articles, they may occur as determiners, functioning as Specifiers of the NP

Pronoun

- Pronouns are said to form closed sets, since it is possible and fairly easy to make an exhaustive list of all the pronouns in English.

END

One-word Phrases

One-word Phrases

- the chocolate
- chocolate

One-word Phrases

- The NP *the chocolate* alternates with the noun *chocolate*.
- Does the latter also count as an NP?
- To answer this question, we must apply a few constituency tests: clefting identifies the bare N chocolate as a constituent:

One-word Phrases

Test
(27) The young German girl was offering chocolate.
(28) It was chocolate that the young German girl was offering.
(29) Chocolate was being offered by the young German girl.
(30) Fronting produces Chocolate the young German girl was offering (not tea).

One-word Phrases

Moreover, one can easily expand the constituent:

31) The young German girl was offering { **chocolate .** / **hot chocolate** / **very hot chocolate with sugar** }

One-word Phrases

- *Chocolate* and *the chocolate*, etc. act in precisely the same way with respect to clefting, passivisation and fronting.
- Hence, it would be very uneconomical to treat them as different grammatical categories.

One-word Phrases

- They have the same distribution and they undergo the same processes.
- Consequently, we shall say that they are both NPs.

END

Morphology and Syntax

Element after the Head

Element after the Head

- All NPs happen to end with the Head N.
- This is by no means always the case.

Element after the Head

NPs in the following sentences
{32) The diary *which the tramp was reading* was amusing.
(33) The idea *that he might like some chocolate* did not occur to the German girl.
34) The question *whether the tramp had any money* did not arise.
Bracketing of the NP in (32) gives us: **05) [NP The diary [s which the tramp was reading]]**

Element after the Head

- The Head N *diary* is followed by the string *which the tramp was reading* such a string is an embedded sentence.
- The sentence/ clause is fully integrated within the NP.
- The clause (labelled S) follows the Head noun in an NP, and has the function of Postmodifier.

Element after the Head

- Which in the above examples is a relative pronoun; relative pronouns introduce relative clauses.
- The other clauses above (with *that* and *whether*) are not relative clauses, but appositive clauses, which give an indication of the 'content' of the idea or the question

Element after the Head

- They are also said to function as Postmodifiers.
- There are, however, important differences between relative clauses and appositive clauses.

Element after the Head

- Consider also the italicised NP in (36):
- (36)Two boys *with red hair* entered the room.
- The string *with red hair* is a prepositional phrase (PP), which postmodifies the Head of the NP.

Element after the Head

Category	Predet	Centr. Det	postdet	AdjP/…	N	S/PP/…
	Half Both, all double	Art Poss pron Dem pron	Num			
Function	Specifier			Premod	Head	Postmod
		the			tramp	
	half	a			page	
		his		lovely	children	
	both	these			boys	With red hair
		the			news	That he was ill
		that		German	girl	
	all	the	ten			
			five	Dutch	students	Of English
		no			milk	In bottle
		The tramp's			magazine	
					John	

Element after the Head

- This is the range of the noun phrases.

END

Morphology and Syntax

Verb phrase

Verb phrase

- Consider the following sentence:
- (38)The tramp read the diary.
- Passivisation, fronting and clefting help to establish the following (partial) bracketing:
- (39) [s [NP The tramp] read [NP the diary]]

Verb phrase

- *The tramp* and *the diary* are NPs.
- But what about *read*?
- The word *read* belongs to the class of verbs (*walk , talk, sleep, help, etc*.).

Verb phrase

- Is read a constituent?
- Again we need some tests to answer this question.
- Clefting and fronting yield ungrammatical sentences:

Verb phrase

Verb Phrase
(40) *It is read that the tramp the diary.
(41) * Read the tramp the diary.
In fact, pseudo-clefting shows that *read* and *the diary* constitute one unit: **(43) The tramp read the diary, and the Egyptian did (so) too.**
(44) The tramp *read the diary*. Did he?

Verb phrase

- We shall call the string *read the diary* the verb phrase (VP).
- The verb(V) *read* is the Head of the VP.
- In our example, the Head (read) is followed by an NP.

Verb phrase

- (45) The tramp [vp read [NP the diary]]
- Here *the diary* is an NP within a VP.
- In a sense, the NP completes the VP and is called a ***Complement*** of the verb read.

END

Morphology and Syntax

Verb Complements

Verb Complements

Consider the following sentences:
(46) The tramp laughed.
(47) The story was interesting.
(48) The tramp read the diary.
(49) He told the girl an interesting story.
(50) He called her a clever girl.
(51) The tramp leaned towards the German girl.
(52) The tramp put the chocolate on the table.

Verb Complements

Subcategorisation frames for verbs	Verb types
(62a) [--]	Intransitive
(62b) [-AdjP/Np/PP }]	Copula
(62c) [-{NP/S}]	Monotransitive
(62d) [- {NP-NP/ NP-PP }]	Ditransitive
(62e) [-NP- { AdjP/NP }]	Complex transitive
(62f) [- [-PP)	Intransitive
(62g) [-NP-PP]	Transitive

Verb Complements

- The square brackets in (62a-g) mark off the boundaries of the VP.
- It is only the obligatory elements within the VP that are Complements.
- The Subject NP, which falls outside the VP, is not a Complement to the verb.

Verb Complements

- So far we have only referred to (obligatory) Complements, i.e. those elements whose presence is syntactically required.
- But we shall see that it is also possible for indefinitely many optional constituents to occur in a sentence.

Verb Complements

- For example: He unfolded his magazine.
- (63) He unfolded his magazine (for the girl) (quite unexpectedly) ...
- What is the VP in the above sentences?

Verb Complements

- Italicised between brackets are optional.
- These elements belong to the VP, but that they are not Complements;
- they are not needed to complete the VP;
- they merely add further information:
- they realise the grammatical function of Adjunct.

Verb Complements

- (64) He [vp unfolded [his magazine] [(for the girl)] [(quite unexpectedly)] .. .]

Verb Complements

- A verb does not subcategorise for Adjuncts.
- The brackets around for the girl and quite unexpectedly indicate that these constituents are optional.

Verb Complements

- (optional) Adjuncts may be moved to other positions in the sentence.

END

Morphology and Syntax

Elements before the Head

Elements before the Head

Read the following text

The tramp read the diary. He laughed. He turned a page, he read it and he laughed again. He leaned towards the German girl and said a few words to her.
The Egyptian was clowning; the noise in the room continued. Soon the young German girl was offering chocolate for the second time. Her voice was very soft.
The tramp was unfolding his magazine slowly. He stopped suddenly, he looked at the chocolate. But she had given him no chocolate. He unfolded his magazine. Then he destroyed it.

V.S. Naipaul, In a Free State.

Elements before the Head

- To change the time to the present, we would have to alter all the verb forms, as follows:
- (66) The tramp reads the diary. He laughs. He turns a page, he reads it and he laughs again. etc.

Elements before the Head

- If we change the time reference of the text from past to present, we find that every time it is the form of the first element in the VP which is affected.
- For example: laughed becomes laughs, and was unfolding becomes is unfolding.
- The form of the verb is altered from past tense to present tense.

Elements before the Head

- If a VP is marked for tense, it is said to be finite.
- (Non-finite VPs are those which exhibit no contrast between past and present tense.)
- We can represent the relationship between the verb and its tense marking by the following notation:
- (67) [vp Tense-V ...]

Elements before the Head

- If we were to rewrite the text so as to change its time reference to the future, we would get sentences like the following:
- (68) The tramp will read the diary. He will turn the page...

Elements before the Head

- Apart from will, one might also use may, must, could, etc. in the same position.
- In all these cases what we do is add a word in front of the V.
- These pre-verbal elements are the so-called modal auxiliaries, or modals

Elements before the Head

- They must be added in front of the V, after the tense element (cf. (67)).

Elements before the Head

- A closer look at the modals suggests that to some extent they are paired: will-would ; may-might ; can-could; shall-should.
- This pairing is based on tense contrasts: will is present and would past, etc.

Elements before the Head

- Compare:
- (69a)The tramp says that he will read the diary.
- (69b)The tramp said that he would read the diary.

Elements before the Head

- There are three more types of pre-verbal element: perfect, progressive and passive. Consider, for example:
- (70) She had given him no chocolate.

Elements before the Head

(77) The Egyptian was clowning.
(78) The young girl was offering chocolate for the second time.
(79) She had given him chocolate.
These declarative sentences can be turned into Yes-No questions, as follows:
(80) Was the Egyptian clowning?
(81) Was the young girl offering chocolate for the second time?
(82) Had she given him chocolate?

Elements before the Head

(83a) [NP The new Prime Minister of Belgium] *is* making a statement in the United Nations tomorrow.
(83b) *Is* [NP the new Prime Minister of Belgium] making a statement in the United Nations tomorrow?
(83c) * [The new Prime Minister] *is* [of Belgium] making a statement in the United Nations tomorrow?

Now let us form Yes-No questions from (84) and (85) below:
(84) The tramp admires the girl.
(85) He laughed.
Here we always get the additional element *does* or *did* in the corresponding example: For example:
(86) Does the tramp admire the girl? (Not: *Admires the tramp the girl?)
(87) Did he laugh?

Elements before the Head

(88) The Egyptian was not/wasn't clowning.
(89) The tramp does not/doesn't admire the girl. (Not: *The tramp admires not the girl).
(90) The Egyptian was clowning, wasn't he?
(91) The tramp admires the girl, doesn't he? (Not: *The tramp admires the girl, admiresn't he?).

Elements before the Head

However, it is not only the auxiliaries *have* and *be* that are involved in inversion, negation and tag formation, but also the lexical verbs *have* and *be*. For example:

(92a) Her voice was soft.
(92b) Was her voice soft?
(92c) Her voice wasn't soft.
(92d) Her voice was soft, wasn't it?

These lexical verbs behave like auxiliaries here.
This is a case of structural indeterminacy or 'reanalysis' .

Elements before the Head

VPs in English usually have the following structures				
Category	Tns. M/Perf/ Prog/Pass	V	AdjP/NP/S/ PP/…	NP/S/PP/ AdvP/…
Function	Specifier	H	Verb Complement	A
	Must have been May have Would have	laughed Was reading told called	Interesting the dairy The girl an interesting story Her a clever girl	Again With great interest Yesterday If she had known the answer

Elements before the Head

- These lexical verbs behave like auxiliaries here.
- This is a case of structural indeterminacy or 'reanalysis'

END

Morphology and Syntax

Adjective phrase

Elements before the Head

Read the following text

The tramp read the diary. He laughed. He turned a page, he read it and he laughed again. He leaned towards the German girl and said a few words to her.

The Egyptian was clowning; the noise in the room continued. Soon the *young German* girl was offering chocolate for the second time. Her voice was *very soft*.

The tramp was unfolding his magazine slowly. He stopped suddenly, he looked at the chocolate. But she had given him no chocolate. He unfolded his magazine. Then he destroyed it.

V.S. Naipaul, In a Free State.

Adjective phrase

- Our text contains phrases such as:
- (I07) very soft
- (I08) German
- (109) young

- These are adjective phrases (Adj PS).

Adjective phrase

- The Head of an AdjP is an adjective (soft, German, young), just as the head of an NP is an N or the Head of a V P a V, etc.

Adjective phrase

- The AdjPs (108) and (109) consist of a Head adjective (Adj) only, whereas in (107) the Head Adj is preceded by an adverb phrase (*very*) which specifies it.

Adjective phrase

- The Head Adj may also be followed by a PP or an S which serves as a Complement of the Head Adj. For example (the Complements are italicised):
- (110) worried *about the fururе*
- (111) afraid *that she might die*
- (112) fond *of the sea*

Adjective phrase

- Decide whether the italicised AdjPs occur inside a VP or inside an NP in the sentence below (the NP itself may be inside a VP or a PP):
- (113)Her voice was *very soft*.
- (114)He leaned towards the *German* girl.

Adjective phrase

- AdjPs usually describe some sort of quality that is attached to a person or thing, e.g.
- *She is nice* attaches '*niceness*' to 'she'.
- What is the NP each AdjP is related with?

Adjective phrase

- Bracketing of (113) should yield the following constituent structure:
- (115)[s [NP Her voice] [vp was [AdjP very soft]]]

Adjective phrase

[NP He] [vp leaned [PP towards [NP the [AdjP German] girl]]]] The AdjP German functions as a Premodifier in the NP the German girl.
NPs may contain more than one AdjP functioning as Premodifier. For example:

(117) the *young German* girl
(118) the *little old* lady
(119) that *nice young French* student

Adjective phrase

- Words like *only*, as in an *only* child, and *utter*, as in an *utter* fool, are also AdjPs.
- They are limited in their distribution: unlike the vast majority of AdjPs, as they cannot occur after the Copula *be* in a sentence: *the child is *only* or *the fool is *utter*.

Adjective phrase

- These AdjPs can only be used *attributively*, not *predicatively*.
- Other AdjPs, such as *awake* or *alone*, can only be used predicatively, not attributively, e.g.:
- *the awake child,
- * the *alone* boy.

Adjective phrase

Structure of an AdjP			
Category	AdvP	Adj	PP/S
Function	Spec	H	Complement
	extremely very rather	young handsome worried afraid fond	about the future that he might die of the sea

Morphology and Syntax

Prepositional Phrase

Prepositional Phrase

- Phrases consisting of a preposition (*in, about, under, to, with, etc.*) followed by an *NP* or an *S* are called prepositional phrases (PPs).
- The preposition (P) is the Head of the PP, and what follows it is its Complement (Prepositional Complement, or Prepc).

Prepositional Phrase

For example (the P is italicised):
(94) *in* the corner (95) *to* the tramp (96) *with* red hair (97) *about* this topic
The preposition may be preceded by an element which specifies it. For example:
(98) *right* on the spot (adverb phrase) (99) *slap* in the middle (adverb phrase) (100) *straight* through the wall (adverb phrase) (101) *three inches* above the door (noun phrase)

Prepositional Phrase

- Occasionally the P of a PP is followed by another PP, e.g. *since after the war* and *from behind the green door*.
- The Prepc is also deletable at times, e.g. John is inside (*the room*).

Prepositional Phrase

Notice that PPs may occur within VPs, NPs, etc.

(102) He *leaned towards the German girl*.
(103) *The noise in the room* continued.
In:
(104) I [vp met her at the entrance of the cinema] the PP at the entrance of the cinema occurs inside a VP, and the PP of the cinema inside the NP the entrance of the cinema, which is the Prepc of at. The structure of this PP is as follows:
(105) [pp at [NP the entrance [pp of [NP the cinema]]]]

Prepositional Phrase

The structure of a prepositional phrase			
Category	AdvP/NP	P	NP/S/PP
Function	Specifer	H	Complement
	right two minutes	with on before about regarding	red hair the spot her arrival this topic whether he might come

Prepositional Phrase

- The normal order of elements in the PP is: P-NP.
- English also has a number of postpositions, which typically follow their Complements, as in:
- three weeks *ago*
- all joking *aside*;
- *ago* and *aside* serve as the Head of a PP.

END

Morphology and Syntax

Adverb Phrase

Morphology and Syntax

Read the following text

The tramp read the diary. He laughed. He turned a page, he read it and he laughed *again*. He leaned towards the German girl and said a few words to her.
The Egyptian was clowning; the noise in the room continued. *Soon* the *young German* girl was offering chocolate for the second time. Her voice was *very* soft.
The tramp was unfolding his magazine *slowly*. He stopped suddenly, he looked at the chocolate. But she had given him no chocolate. He unfolded his magazine. *Then* he destroyed it.

V.S. Naipaul, In a Free State.

Adverb Phrase

- Text also contains phrases such as:
- (I2 I) again
- (122) soon
- (123) very
- (I24) slowly
- (125) then
- These are adverb phrases (AdvPs).

Adverb Phrase

- The Head of an AdvP is an adverb (Adv), just as the Head of an NP is an N or the Head of a VP a V, etc.

Adverb Phrase

- The AdvPs in (121)-(125) consist of a Head Adv only; our text contains no instance of AdvPs containing elements which specify the Head.

Adverb Phrase

- Examples of such AdvPs are the following:
- (1 26) very soon
- (127) extremely slowly

Adverb Phrase

AdvPs may occur in a V P or in an AdjP.	
(128)	He left very recently.
(129)	She copied the documents quite accurately.
(130)	An unexpectedly large crowd took part in the demonstration.
(131)	He is typically British.
(132)	He arrived rather unexpectedly.
(133)	The film was marvellously funny.
(134)	She has a really sweet personality.

Adverb Phrase

The structure of the adverb phrase		
Category	Adv	Adv
Function	Spec	H
	Very extremely	recently typically then slowly

Morphology and Syntax

Words

Words

- Every speaker of English will intuitively recognise what the words in an English sentence are.
- (1)SoonafterbreakfastMaryAnnbroughtinTheTimes

Words

- The native speaker will no doubt be able to identify the individual words in this sentence quite easily, and he will know that the appropriate word boundaries are as in (2) below, rather than as in (3):

Words

(2) Soon after breakfast Mary Ann brought in The Times. **(3) *Soo naf terbre akfast Mary Ann broug htin TheT imes.**

Words

- If you know a language well enough, you can do this sort of demarcation of word boundaries quite automatically, by intuition.
- It is your linguistic competence which allows you to do this.

Words

- Of course, such competence is maximal only for your mother tongue, and it is less than perfect for other languages which you do not speak fluently.

Words

- And you have no such competence for the languages which you do not speak.
- If you do not know a language, you will find it impossible to identify the word boundaries in even the simplest sentences.

Words

- The following string is an example of a very simple Welsh sentence followed by its translation in English:

Words

- (4) Bethymayemrysyneiwneud? :
- What is Emrys doing?
- If you do not know Welsh, you will not be able to decide that the word boundaries are as follows:
- (5) Beth y may Emrys yn ei wneud?

Words

- Words are grammatical units which a speaker of a language can intuitively recognise.
- After all, very little grammatical education is needed to be able to play Scrabble, and this game essentially relies on the recognition of words.
- The same applies to other word games.

Words

- Word Classes: the Distribution of Words
- In order to form sentences, words must appear in a particular structural relationship and in a particular order.

Words

- The distribution of each class of words is different.
- Distributional properties of words are known intuitively by a native speaker.

Words

Consider, for example, the extract below, which is taken from W. Somerset Maugham's Of Human Bondage.
We have left out ten words from the text.

(6) Philip had led the ..... (1) life of an only child , and .... (2) loneliness at the vicarage was no . ... (3) than it had been when his .... (4) lived. He made friends ..... (5) Mary Ann. She was a chubby little .... (6) of thirty-five, the daughter of .. .. (7) fisherman , and had come to the .... (8) at eighteen; it was her first. . ... (9) and she had no intention of .... (10) it.

Words

Try to complete the text by inserting an appropriate word:solitary, greater, his, a; mother, person, vicarage, place; leaving; with

(6) Philip had led the solitary (1) life of an only child , and *his* (2) loneliness at the vicarage was no greater (3) than it had been when his mother (4) lived. He made friends with (5) Mary Ann. She was a chubby little person (6) of thirty-five, the daughter of vicarage (7) fisherman , and had come to the place (8) at eighteen; it was her first place (9) and she had no intention of leaving (10) it.

Words

- The environment in which a word occurs (the context) serves as an important criterion for setting up classes of words.

Words

- Words which can appear in the same context will be said to have the same distribution: they belong to the same word class.

END

Morphology and Syntax

Noun & Verb

Noun & Verb

- NOUNS
- The Head of NPs is a noun:
- (7) The *tramp* was reading his *diary*.
- (8) The German *girl* was pouring hot *chocolate*.

Noun & Verb

Slot filling
Thus a word is a noun (N) if it can fill the blank in frames like:
(9) [NP The .....] was reading [NP his .....]
(10) [NP The German ....] was pouring [NP hot .....]

Noun & Verb

- Ns may be preceded by determiners, but also by AdjPs to form NPs.
- Nouns may vary in form.
- Compare:
- (11a)The *tramp* is reading his *diary*.
- (11b)The *tramps* are reading their *diaries*.

Noun & Verb

- The contrast between singular and plural is one of number.

Noun & Verb

Consider the following:

(12) The boy / Philip was ill.

(13) The maid / Mary Ann brought the newspaper.

Noun & Verb

- Philip and Mary Ann take the same position as the sequence article + noun.
- They are considered to be a identical category of nouns: proper nouns.
- They do not normally take an article (* The Jane was ill) and usually occur in the singular only (*Janes).

Noun & Verb

- Some proper nouns always occur in the plural and take a definite article:
- The United States,
- The Times.

Noun & Verb

VERBS
Look at the sentence below:

(14) Mary Ann[vp had come to the vicarage when she [vp was eighteen]]
(15) Philip [vp asked her whether he [might come]with her.]
(16) Her parents[vp lived in a little house] near the harbour.

Noun & Verb

- The head Vs in (14)-(16) are come (twice), ask and live.
- These are called main verbs or lexical verbs.
- The item *had* in *had come* in (14) is an auxiliary (of the Perfect), and *might,* in *might come* in (15) is a modal (auxiliary).

Noun & Verb

- Lexical verbs are verbs which function as the Head of a VP, and which as such can be the only verb in a sentence.
- He *came* home
- Lexical verbs can be preceded by one or more auxiliaries.
- He is coming home
- He has been coming…

Noun & Verb

- Auxiliaries cannot normally occur on their own, although in some cases the lexical verb functioning as the Head may have to be recovered from the context.
- We say then that the lexical verb (and other material accompanying it in the context) is deleted.

Noun & Verb

Examples are:	
(17) A: Who has broken the window? (18) A: Can you speak Danish?	(17) B: John has (broken the window). (18) B: No, I can't (speak Danish).

Noun & Verb

- Auxiliaries and the lexical verb VPs:
- (19a . .. *will* arrest...
- (19b) ... *has* arrested . . .
- (I 9c)... *will* have arrested ...
- (19d) ... *would* have been arrested...

END

Adjectives & Adverbs

Adjectives & Adverbs

- AdjPs has constituents whose Head is an adjective.
- Consider, for example, the following AdjPs:
- (20) *solitary*
- (21) very *nice*
- (22) rather *hot*

Adjectives & Adverbs

- Adjectives in English do not change in form to show number (unlike French adjectives, for example):
- (23a)an *old* tramp
- (23b)two *old* tramps

Adjectives & Adverbs

- Some adjectives may have different forms depending on the degree of the quality they express:
- (24)Mary Ann is *nice*, Philip is *nicer*, but the Vicar is *nicest*.

Adjectives & Adverbs

- The form nice is said to be the base; nicer is the comparative degree (usually followed by a phrase or a clause beginning with than), and nicest is the superlative degree.
- Base, comparative and superlative are the three degrees of comparison.

Adjectives & Adverbs

- Longer adjectives cannot be ‘graded’ by adding –er / -est to the base.
- Instead *more* and *most are put* before the adjective to form the comparative and the superlative.

Adjectives & Adverbs

- (25a)She is *ambitious*.
- (25b)She is *more ambitious* than her sister.
- (25c)She is the *'most ambitious* student in the first year.
- There are also irregular degrees of comparison such as: *good-better -best; bad-worse-worst; and little*
- *-less -least*.

Adjectives & Adverbs

- Adverb
- Adverbs function as the Head of AdvPs:
- (26) *marvellously*
- (27) very *slowly*

Adjectives & Adverbs

- Often formed by adding the suffix *-ly* to the corresponding adjectives, e.g.: marvellous-marvellously; beautiful-beautifully.
- Not all adverbs are formed with -ly.
- For example, *soon, well, then, there, fast, now* etc. have no regular corresponding adjective forms.

Adjectives & Adverbs

- *Early, fast, hard, kindly and late* are both adverbs and adjectives.
- Like adjectives, adverbs may be put in the comparative and the superlative degrees.

Adjectives & Adverbs

- A few short adverbs like *soon, early and late* take *-er* and *-est*,
- Majority of adverbs require *more* and *most*, and some are irregular.

Adjectives & Adverbs

- For example:
- *Early-earlier-earliest;*
- *Beautifully*

-more beautifully

- most beautifully;

- *Slowly-more slowly-most slowly*
- Badly-worse-worst.

END

Prepositions & Conjunction

Prepositions & Conjunction

- Prepositions function as the Head of a PP.
- Prepositions may consist of only one word (e.g. *on, at, in, inside*),
- Or of more than one word (e.g.: *in relation to, with respect to, because of, in favour of, in aid of*).

Prepositions & Conjunction

- These multi-word prepositions are 'frozen' units, which have become single lexical items.
- Their internal make-up is irrelevant for our purposes: as a whole they function as one preposition.

Prepositions & Conjunction

- Prepositions may be separated from their Complements in cases like (28) and (29) (the PP is italicised):
- (28)*That book* I have been looking *for* for weeks
- (29) *What* is this in aid *of*?
- English also has some *postpositions* like *ago*, as in: three days *ago*

Prepositions & Conjunction

- CONJUNCTIONS
- Serve to link sentences/clauses, or phrases.
- May consist of only one word (*and, but, or, that, if*, etc.) or more than one word (*so that, in order that, as soon as* etc.).

Prepositions & Conjunction

- May also be subdivided into coordinators (*and, but, or, for*, etc.) and subordinators (*that, if, although, so that, as soon as*, etc.)

Prepositions & Conjunction

- (30 John got up *and* walked out.
- (31)Not Paul, *but* Bill failed his finals.
- (32) We had to hurry, *for* we were late.

Prepositions & Conjunction

The examples below contain subordinators:
(33) *When* he is ill, he does not go to church.
(34) He didn't go, *because* he felt ill.
(35) They came back early, *in order that* they could see the film on TV.

Prepositions & Conjunction

- Since subordinating conjunctions occur in the COMP slot they are often referred to as Complementisers.

END

Morphology and Syntax

Functions: verb phrase

Functions: verb phrase

Looking carefully at the structure of each clause, you will find there is always a combination of one NP and one VP per clause

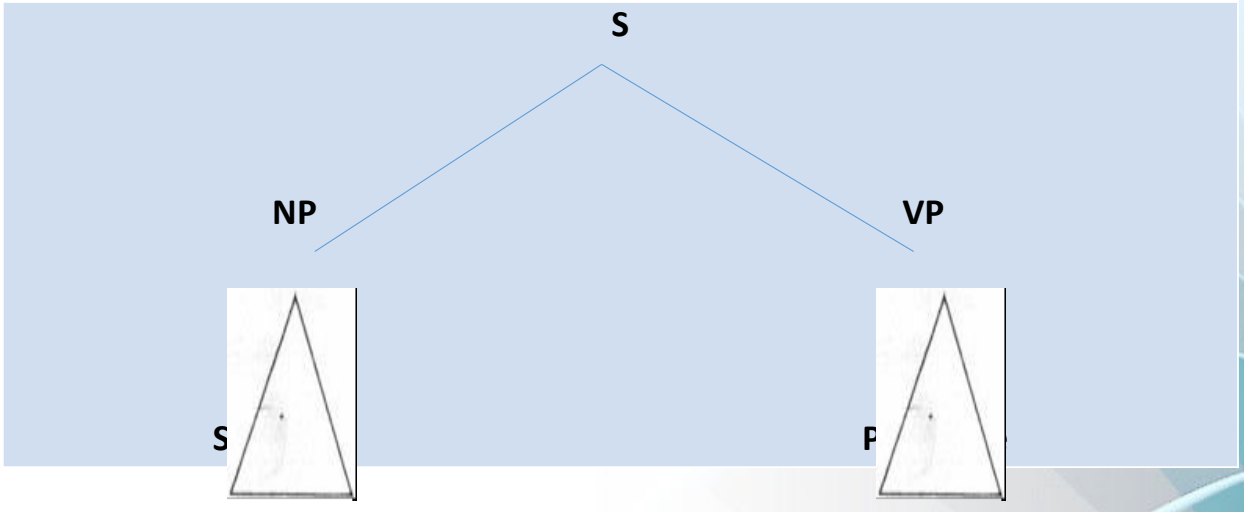
(1) [s [NP The tramp] [vp read [NP the diary]]]
(2) [s [NP He][vp laughed]]
(3) [s [NP he] [vp turned [NP a page]]]
(4) [s [NP he] [vp read [NP it]]]
(5) [s [NP he][vp laughed [Adv again]]]
(6) [s [NP he] [vp leaned [PP towards the German girl]]]
(7) [s [NP (*he*)][vp said [NP a few words] [PP to her]]]

Functions: verb phrase

- The first NP in (7) is ellipted, as the parentheses indicate, but it is clear from the context that the NP must be he.
- Each clause contains a VP preceded by an NP, as is reflected by one of the phrase structure rules of English:
- (8) S---.NP-VP

Functions: verb phrase

The effect of this rewrite rule may also be represented by the following tree diagram.



Functions: verb phrase

- Lexical verbs can be classified according to the type of complementation they take (that is, in terms of the subcategorisation frames in which they can occur).

Functions: verb phrase

Verb types	Frames	examples
(a) Intransitive, e.g. laugh	[vp -]	He laughed
(b) Copula, e. g. seem	[vp – {Adjp/NP/PP}]	He seemed [AdjP very cheerful]
(c)Monotransitive, e.g. kill	[vp –{NP/S}]	He killed [NP the mouse]
(d)Ditransitive, e.g. give	[vp- { NP-NP/NP-PP}]	He gave [NP the girl] [NP a book]
(e)Complex transitive, e.g.call	[vp- NP- {AdjP/NP}]	He called [NP him] [NP a fool]
(f) Intransitive + PP, e.g. lean	[vp- PP]	He leaned [pp towards the girl]
(g) Transitive + PP e.g. put	[vp – NP –PP]	He put [NP his head] [pp on her shoulder]

Functions: verb phrase

- It is important to point out that the verb itself may contain more than one word, e.g:
- (10) He *went out*.
- (11)He *gave up* smoking.

Functions: verb phrase

- Go out is a multi-word verb which takes no Complement, whereas give up is a multi-word verb which needs an NP Complement.
- (12)go out: [vp--]
- (13) give up: [vp - NP]

Functions: verb phrase

- Subcategorisation frames are not based on syntactic infor mation only; the meaning of the lexical verb (the Head of the VP) also plays an important part in the setting up of such frames.

Functions: verb phrase

- As a rule, verbs express activities of some kind (but the term 'activity' is to be interpreted here in a fairly wide sense, to include such events, happenings, states of affairs and situations as are expressed by verbs like die, dream, fall, hate, possess, resemble).

Functions: verb phrase

- Activities usually involve one or more participants .
- The activity 'kill', for example, expressed by the verb kill, involves two participants: the Agent and the Patient.
- *John* killed the *tramp*.

Functions: verb phrase

- The constituents *John* and the *tramp* are respectively the Subject of S and the Complement of V.
- A subcategorisation frame can be seen as a grammatical specification of a verb, which also reflects the semantic content (that is, the meaning) of the verb.

Functions: verb phrase

- GRAMMATICAL FUNCTIONS
- Compare the following sentences:
- (1)The girl showed the diary to the tramp.
- (2)The tramp showed the diary to the girl.

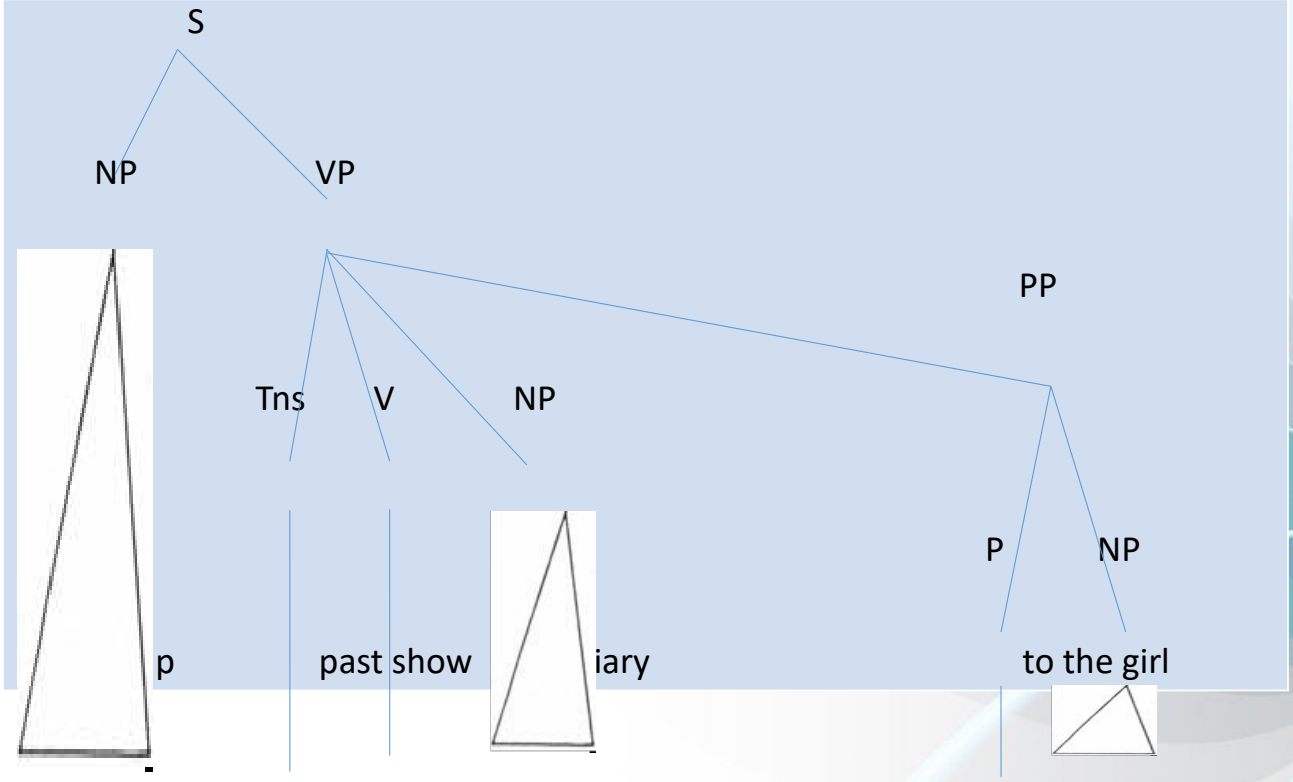
Functions: verb phrase

These two sentences contain identical words, and their constituent structure is also exactly the same.

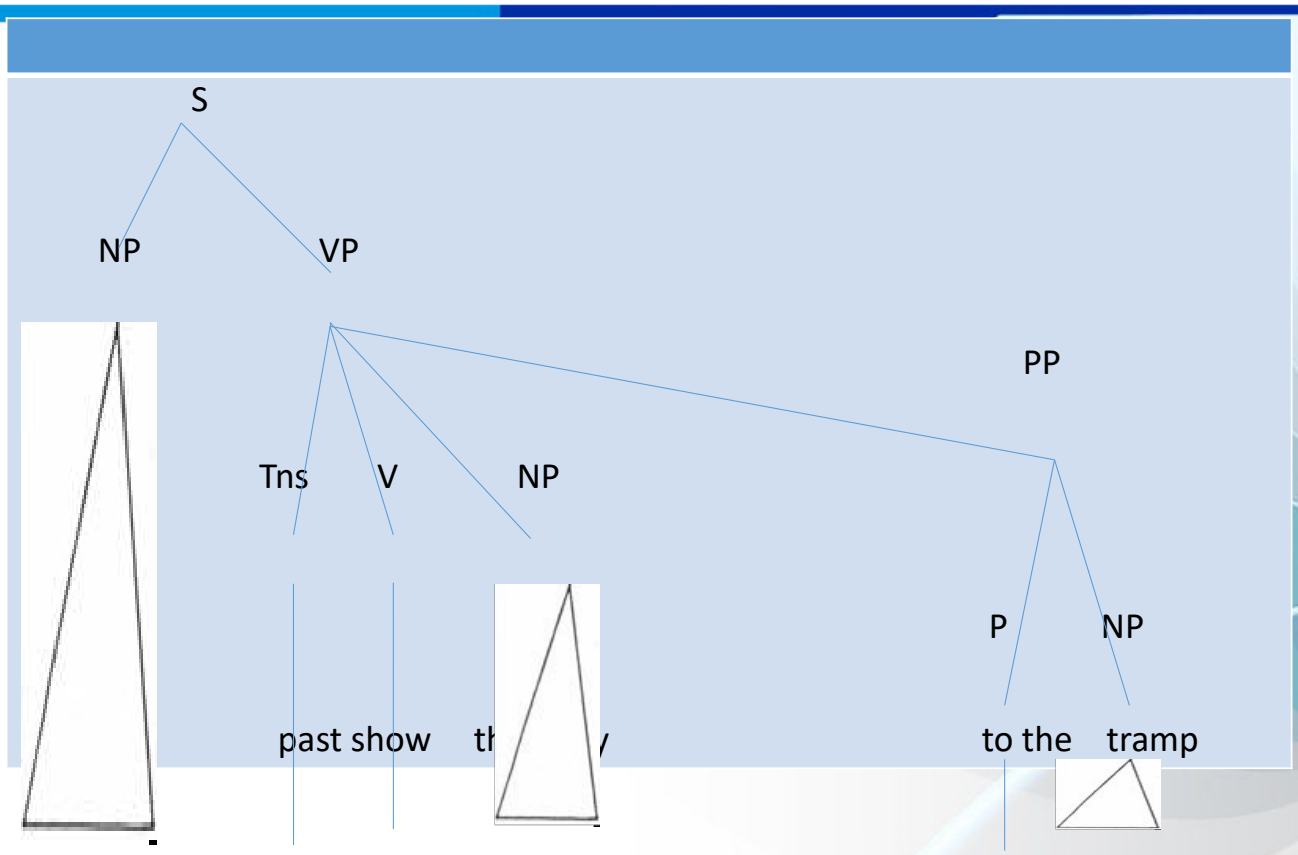
[s [NP] [vp [NP] [PP]]]

Functions: verb phrase

The same can be illustrated through tree diagrams.



Functions: verb phrase



Functions: verb phrase

- The trees are identical, but the lexical items different.
- The difference in the position of the NPs clearly has an effect on the behaviour of such NPs in the sentence.
- (6) The girl showed the tramp the diary.
- This operation is called Dative Movement.

Functions: verb phrase

- Constituents are said to have different grammatical functions (GFs).

END

Morphology and Syntax

Grammatical functions in subject

Grammatical functions in subject

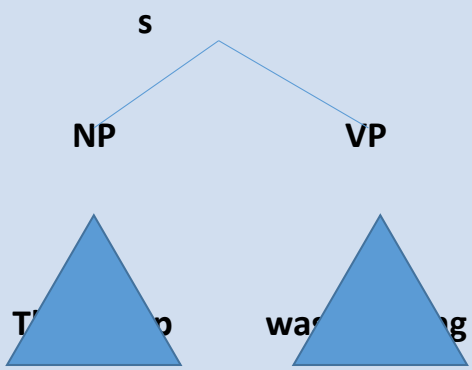
- The Subject of a sentence has been defined as the NP which combines with the VP to form an S.
- In other words, the Su is the NP which is immediately dominated by S. Consider:
- (1)*The tramp* was laughing.

Grammatical functions in subject

In (1) the Subject NP is the tramp.
Here are two alternative representations:

(2) [s [NP the tramp] [vp was laughing]]

(3)



Grammatical functions in subject

- (4)*The Egyptian* was clowning.
- (5) *The German girl* was offering us some chocolate.
- Let us consider some of the syntactic characteristics of Subject NPs such as *the tramp, the Egyptian and the German girl.*

Grammatical functions in subject

- NPs functioning as Su invert with the first auxiliary element in the formation of question. For example:
- (6) Was *the tramp* laughing?
- The switch of the Subject NP and the first auxiliary element is called Subject-Auxiliary Inversion (SAI).

Grammatical functions in subject

- Another characteristic of Subject NPs in finite clauses is that they normally agree in number with the first element in the VP.
- (7) The tramps were laughing.

Grammatical functions in subject

- The change from singular to plural here does not only affect the Subject NP but also the VP: was also has to be replaced by a plural form.

Grammatical functions in subject

- Agreement is overtly marked in finite clauses on the first auxiliary element, or, if there is no auxiliary element, on the lexical verb itself.
- Note that other elements in the VP may also be affected by this.

Grammatical functions in subject

- Compare, for example:
- (8a) The tramp never enjoys himself.
- (8b) The tramps never enjoy themselves.

Grammatical functions in subject

- A third way of recognizing Subject NPs is that pronouns replacing them will normally have the subjective form (*he, she, they, etc.*), not the Objective form (*him, her, them, etc.*). For example:
- (9a) He was laughing.
- (9b) *Him was laughing.

Grammatical functions in subject

The three characteristics of Subject NPs mentioned here (SAI, agreement and substitution by pronouns) can be used to identify the Subject of a finite clause.

(10)The patient has been examined by Dr. MacDonald.

(11)The tramp was shaving himself.

(12)The exam is at the end of next term.

(13)That painting Sue does not like.

(14)After breakfast the boys wandered out into the playground.

Grammatical functions in subject

END

Morphology and Syntax

Grammatical function of predicate

Grammatical function of predicate

Predicates
(10) The patient /has been examined by Dr MacDonald.
(11) The tramp /was shaving himself.
(12) The exam /is at the end of next term.
(13) That painting Sue /does not like.
(14) After breakfast the boys /wandered out into the playground.

Grammatical function of predicate

- We have seen that the Subject NP and the VP together make up a sentence:
- S-NP-VP

Grammatical function of predicate

- The VP 'predicates something' of the Subject; its function is 'predicative'.
- Since the function of VP is that of predicating, we shall call it the Predicate (Pred) of the sentence.

Grammatical function of predicate

- The constituents inside the VP may also have some kind of predicative function.

END

Sentence adjuncts

Sentence adjuncts

- Apart from **Su** and **Pred**, the sentence may also contain elements which are peripheral in the structure of the sentence: they fall outside the major constituents NP and VP.

Sentence adjuncts

- These peripheral sentence elements are of two types:
- (a) items which serve to specify the speaker's attitude towards the rest of the sentence; examples are: *unfortunately, certainly, in my view, in fact*.
- (15) *Unfortunately*, the match was cancelled because of bad weather.

Sentence adjuncts

- (b) items which serve to connect sentences in a text; examples are: *moreover, however, nevertheless, yet*.
- (16) John had planned to swim across the Channel last year. However, when the time came he did not have the courage.

Sentence adjuncts

- The items under (a) and (b) are collectively referred to as Sentence Adjuncts (Sas).
- Having looked at the two major grammatical functions in the sentence: Subject (Su) and Predicate (Pred), we shall now consider the functions realised by constituents within the VP.

Sentence adjuncts

- The VP may contain elements of various types which either precede or follow the Head of the VP (a lexical verb).
- We have distinguished between Complements in the VP and Adjuncts in the VP.

Sentence adjuncts

- Complements are obligatory constituents, which are needed to complete the VP.
- They are 'selected' by the lexical verb.

Sentence adjuncts

- In addition to Complements of V, the VP may also contain optional Adjuncts, generally denoting *place, time, manner, condition* and the like.

Sentence adjuncts

END

- The functions in the VP that will be dealt with are: Predicative Complement, Direct Object, Indirect Object, Adverbial Complement with intransitive verbs, Adverbial Complement with transitive verbs, and a complex grammatical function(Predicative Complement and Adverbial Complement).

Morphology and Syntax

Predicative complements

Predicative complements

- Tie function of a Predicative Complement (Pc) is that of ascribing some property to the Subject of the sentence.
- This function is normally realised by NPs, AdjPs or PPs, and the verbs that select such a Complement belong to the class of copulas (*be, look, seem, etc*.).

Predicative complements

For example;

(I) Jane seemed *a good student*.

(2)John looked *foolish* in that tracksuit.

(3)She is *an actress*.

(4) Bill was *in a filth y mood*.

The Head of the VP in (1) is the copula seem. It is followed by an N P. In (2) the VP-Head is followed by an AdjP, in (3) by an NP again, and in (4) by a PP.

Predicative complements

- It is these obligatory constituents following the V which have the GF of Pc (Predicative Complement).

Predicative complements

- The VP as a whole also has a predicative function: it predicates something of an NP.
- Characteristically, elements in a predicative relation (NP/Su and VP, for example) will show agreement:

Predicative complements

- (5a)John is working in France at the moment.
- (5b) John and Jane are working in France at the moment.

Predicative complements

- Similarly in (6) the Predicative Complement (to the Subject) agrees in number with the Subject NP:
- (6a) She is an actress.
- (6b) They are actresses.

Predicative complements

- In many languages (French, for example) AdjPs also show agreement with the elements they have a predicative relation with.

Predicative complements

- Copulas characteristically serve to 'link' the Subject NP and the property expressed by the Pc.
- 'Being a good student', for example, is seen as a property of the person referred to as Jane in (1) above, while in (2) 'foolishness' is ascribed to John.

END

Direct object

- The major constituents in (7) below.
- (7) [s [NP The tramp] [was unfolding the magazine for the second time.]]

Direct object

- The VP contains two constituents in addition to the VP Head and its Specifiers: an NP and a PP:
- (8) [vp was unfolding [NP the magazine] [pp for the second time]]
- Which of these is an adjunct?
- That is, which of them can be left out easily?

Direct object

- The NP *the magazine* must be regarded as obligatory in this context.
- It is a Complement of V: *unfold* subcategorises for (or selects) an NP:
- Unfold: [vp _____ NP]
- The NP *the magazine* cannot be omitted.
- (9) *The tramp was unfolding for the second time.

Direct object

- If we passivise sentence (7), we find that the NP-Complement becomes the Subject of the passive sentence:
- (10) *The magazine* was being unfolded by the tramp for the second time

Direct object

- An NP-Complement of V which becomes the Subject of a passive sentence is said to have the function of Object.
- More specifically, the magazine is the Direct Object (Od) of unfold.

Direct object

- Verbs such as unfold which subcategorise for a constituent functioning as Od are said to be monotransitive.

END

Morphology and Syntax

Indirect object

Indirect object

- Consider the following example:
- (11) She had given the tramp no chocolate.
- The VP contains two NPs:
- (12) [s She [vp had given [NP the tramp] (NP no chocolate]]]

Indirect object

- Both NPs are Complements to the lexical verb give, which is ditransitive. Both NPs are, in fact, Objects
- Since both can become the Subject of a passive sentence:

Indirect object

- (13) No chocolate had been given to the tramp.
- (14) The tramp had been given no chocolate.

Indirect object

- But the two NPs (italicised) do not behave in quite identical ways. In (13) we have to add the P to *to* the NP the tramp, but in (14) we cannot insert to before no chocolate.

Indirect object

- This is related to the fact that there is an alternative version of (11), in which the NP the tramp can be replaced by a PP with to; the NP no chocolate cannot be replaced by a PP with to.

Indirect object

- She had given no chocolate to the tramp.
- *She had given the tramp to no chocolate.

Indirect object

- Both NPs in (11) are Objects: no chocolate is the Direct Object (Od), and the tramp is the Indirect Object (Oi).
- It is characteristic of the Oi that it can often be replaced by a PP with either to or for.

Indirect object

- An example of the latter:
- (17) She poured the tramp a drink.
- (18) She poured a drink for the tramp.

Indirect object

- However, occasionally there is only one possibility of realizing the Oi, e.g.
- (19) She struck him a blow.
- (20) *She struck a blow to him.

Indirect object

- Ditransitive verbs like give, offer and pour normally have one of the following subcategorisation frames:
- [-NP-NP] or [-NP-NP]

  [NP-PP $_{to}$] [-- NP-PP $_{for,}$]

END

Adverbial complements with intransitive verbs

Morphology and Syntax

Adverbial complements with intransitive verbs

Consider the following sentences:
(22) The newspaper remained with Mr. Ellis for three hours.
(23) The newspaper [VP remained [pp with Mr. Ellis] [pp for three hours]] (24) The newspaper remained *with Mr Ellis. (obligatory)* (25) *The newspaper remained *for three hours.(optional)*

Adverbial complements with intransitive verbs

- Remain is an intransitive verb: it does not take an Od.
- But at the same time remain subcategorises for a PP.
- The subcategorised PP specifies the place where the newspaper remained.

Adverbial complements with intransitive verbs

- Constituents which give us more information concerning the place, manner, time, duration, etc. of an activity are said to have an adverbial function, and if such an element (like the PP with Mr. Ellis) is obligatory, we call it an *Adverbial Complement (Ac).*

Adverbial complements with intransitive verbs

Note that *remain* does not just subcategorise for a PP introduced by *with*; other prepositions are also possible:

(26) The newspaper remained *at the vicarage.*

(27) The sun remained *behind the clouds all day*.

(28) The paper remained *on the shelf.*

(29) The books remained *in the library*.

Alternatively, the Adverbial Complement of *remain* may be realised by an AdvP:

(30) He remained *there*.

(31) The women remained *upstairs*.

Adverbial complements with intransitive verbs

- The AdvP again is a Complement: it is non-omissible.
- It specifies the location of the activity: it has an adverbial function.

Adverbial complements with intransitive verbs

The following examples illustrate other uses of verbs which take an Ac:

(32) He leaned against *the sideboard*.

(33) He is *in London*.

(34) He is *at his club*.

(35) His birthday is *next Saturday*.

(36) The performance lasted *(for) two hours*.

(37) The enterprise cost *thousands of pounds*.

(38) This parcel weighs *two kilos*.

Adverbial complements with intransitive verbs

- In these examples *be* is not a copula : the Complements (*in London, at his club, etc.*) do not assign a *property* to the Subject NP, but rather specify the **place** of *'being'* ((33), (34)), or the **time** of 'being' in (35).

Adverbial complements with intransitive verbs

- The verbs in the remaining sentences are also intransitive, but they require an **Ac** to describe the activity or state.
- An **Ac** may be realised by various syntactic categories: the verb *last* in (36) takes an **Ac** realised by either a **PP** or an **NP**.

Adverbial complements with intransitive verbs

Different category which realises the function Ac:
(39) John belongs *to several social clubs*. (40) She specialises *in biochemistry*. (41) Your new car drives *very smoothly*. (42) The fire lasted *three days*. (43) John lives *in Paris*. (44) She stayed *at the Hilton*. (45) John condescended *to help us*. (46) His father lived *to be 90*.

Adverbial complements with intransitive verbs

- It is not always easy to decide with certainty whether a constituent following the lexical verb is obligatory or optional.

Adverbial complements with intransitive verbs

- Many less clear-cut cases than those above.
- The criterion for deciding on the non omissibility of a constituent in the VP is whether the remaining part of the sentence is still grammatical or whether the meaning of the lexical verb changes drastically as a result of omitting that particular constituent.

Adverbial complements with intransitive verbs

Let us see what happens to the sentences above if we leave out the PPs, AdvPs, or Ss that follow the lexical verb

(47) *John belongs.

(48) *She specialises.

(49) *Your new car drives.

(50) *The fire lasted.

(5 I.) ! John lives.

(52) ! She stayed.

(53) *John condescended.

(54) ! His father lived.

(the * indicates ungrammaticality and the ! a drastic change in meaning):

Adverbial complements with intransitive verbs

- NPs such as several social clubs, biochemistry and his attempt in the examples above cannot become the Subject of corresponding passive sentences.
- These NPs are not Objects of the lexical verbs, but form part of the PPs which function as Ac here.

Adverbial complements with intransitive verbs

- Hence, there is a difference between the following sentences:
- (39) John belongs to several social clubs.
- (55) Somebody has slept in my bed.
- Sentence (55) can be passivised as follows:
- (56) My bed has been slept in.

Adverbial complements with intransitive verbs

- This suggests that my bed in (55) is an Od. Since *(39) John belongs to several social clubs* cannot be passivised in the same way, several social clubs in (39) is not to be regarded as an Od: to several social clubs is a PP functioning as Ac.

END

Adverbial complements with transitive verbs

Adverbial complements with transitive verbs

- Verbs like *remain, belong, last* require an *Ac* to complete the VP.
- The verbs were also seen to be intransitive: they have no Od.
- Let's see that transitive verbs may also select an Ac.

Adverbial complements with transitive verbs

Consider, for example:
(57) John put the money *in a box*. (58) He worded the letter *very carefully*. (59) The children always remind me *of their grandfather*.
The verbs *put, word and remind* are transitive: they take an NP/ Od, which can regularly become the Subject of a passive:
(60) The money was put in a box. (61) The letter was worded very carefully. (62) I am always reminded of their grandfather.
The VP of sentence (57), for example, has the following structure: (63) [NP put [NP the money] [pp in a box]]

Adverbial complements with transitive verbs

- It contains an NP and a PP.
- The PP in a box is a Complement of the V and expresses the location of 'putting'. Where did he put the money?: *In a box*.
- This constituent is an Ac.

Adverbial complements with transitive verbs

- The **Ac** for *put* can also be realised by an AdvP:
- (64) John put the money *there/upstairs*.
- The *verb* put has the following subcategorisation frame:
- (65) [vp- NP- { PP/AdvP}]

Adverbial complements with transitive verbs

- The verb *word* in (58) above is also a transitive verb, which selects both an Od and an Ac.
- Ac is realised by an AdvP (very carefully). While the Ac in (57) expresses location, that in (58) expresses manner.
- In (58) the AdvP could be replaced by a PP (*in a careful way*).

Adverbial complements with transitive verbs

- In (59) we find another verb taking an Object NP and a PP as Complement.
- *The children always remind me of their grandfather.*

Adverbial complements with transitive verbs

- Though we can see that the PP is obligatory, it would be difficult to say what semantic contribution the PP makes.

Adverbial complements with transitive verbs

- It is clear that the PP is non-omissible:
- (66) *The children always remind me--.
- Note that in sentence (59) me is the Direct Object; the NP their grandfather is not an Object, but the Prepc of of.

END

Morphology and Syntax

Predicative complement + adverbial complement a complex function

Pred + adv complements: a complex function

Now consider the following examples:

(67) The government set the prisoners free.

(68) The Vicar flung the door open.

Od obligatory Complement

(69) The government [vp set [NP the prisoners] [AdjiP free]]

Pred + adv complements: a complex function

- What is the function of the AdjP *free*? 'Since it is obligatory, it is a Complement within the VP.
- It narrows down the meaning of set (and is thus adverbial), but it also links up with the Direct Object NP: it predicates something of the NP the prisoners.

Pred + adv complements: a complex function

- The **AdjP** *free* is thus both adverbial and predicative in function.
- The same applies to *open* in sentence (68).
- The VPs in (67) and (68) have a complex pattern of functional relations.

Pred + adv complements: a complex function

- *Free* is both a *Predicative Complement* and an *Adverbial Complement*.
- This combination of functions could be abbreviated as Pc+Ac.
- Verbs which select a Pc+Ac are called complex transitive.

Pred + adv complements: a complex function

- (71) She called her baby George.
- (72) She called the proposal absurd.
- In each case you see that there is an NP which is the Direct Object of the verb (passivisation confirms this).

Pred + adv complements: a complex function

- In addition, there is a Complement which narrows down the activity of *'calling'*; it is a Complement with an additional adverbial function, just as in (67) and (68).

Pred + adv complements: a complex function

- Note that the second NP following the verb in (71) is not an Object: unlike the first NP, *George* cannot become the Subject of a passive. Compare:
- (73) Her baby was called George.
- (74) *George was called her baby

Pred + adv complements: a complex function

- The functional pattern of the VP in (71) is like that given in (70) above.
- The predicative function of the NP (George) is perhaps stronger than its Adverbial function.

Pred + adv complements: a complex function

- There is a clear relation between the NP George and both the verb call and the NP her baby.
- Again the GF of George is that of Pc+Ac, and *call* is here a complex transitive verb.

Pred + adv complements: a complex function

- Complex transitive verbs such as *call*, *set* and *fling* require two Complements one of which is the Direct Object, while the other has an adverbial and, perhaps more importantly, a predicative function relating it to the Direct Object.

END

Verb patterns and functions a summary

Verb patterns and functions a summary

- We have presented a provisional summary of the most important different types of VP in English, based on the types of complementation that lexical verbs require.

Verb patterns and functions a summary

Looking at the internal structure of VPs in English, we have distinguished the following types of Complement to the verb:

(a) Predicative Complement (Pc)

(b) Direct Object (Od)

(c) Indirect Object (Oi)

(d) Adverbial Complement with intransitive verbs (Ac)

(e) Adverbial Complement with transitive verbs (Ac)

(f) The complex GF of Pc+Ac: section 3.4.6.

Verb patterns and functions a summary

- Verbs such as *laugh, snore* and *yawn* have no Complement (He laughed).
- This is not the same as 'zero' complementation.
- The term 'zero' complementation is used with reference to cases like

Verb patterns and functions a summary

- He is reading, which may be opposed to He is reading a book. 'Zero' is only used if there is a corresponding explicit Complement (e.g. NP/ Od), and not if there is no corresponding explicit Complement normally, as in the case of *He laughed/ snored/ yawned*, etc.

Verb patterns and functions a summary

Verb type	Subcategorisation frame	examples	functions
Intransitive	[—]	John snores Mary is slimming	Su [v]
copula	[—{Adj/NP/PP}]	She is {a happy boy/a happy mood}	Su [v-Pc]
monotransitive	[—{NP/S}]	Mary love John She know that Mary love John	Su [v- Od]
ditransitive	[—{NP-NP/NP-PP to/for}]	She gave John the money Or she gave the money to John	Su [v- {Oi-Od/Od-Oi}]
Intransitive+ Adverbial Complement	[—{PP/ AdvP}]	She is {in London/upstairs}	Su [v-Ac]
Transitive+ Adverbial Complement	[— NP - {PP/ AdvP}]	She put the money in a box	Su [v-Od-Ac]
Complex transitive	[— NP - {ADvP/NP}]	She called him {foolish/a fool]	Su [v- Od-Pc+Ac]

Verb patterns and functions a summary

- Adjuncts and complements
- The table gives only the elements which are minimally required in a sentence with a certain type of V.
- Optional Adjuncts can be added fairly freely.

Verb patterns and functions a summary

- So, starting from a basic structure such as:
- (75)The doctor put the girl *on a diet*
- which contains the transitive verb put and its two Complements (Od and Ac).

Verb patterns and functions a summary

- We might add to this sentence any number of optional Adverbial Adjuncts (A). for example:
- (76) *Last year* the doctor *reluctantly* put the girl on a diet *because she was overweight*.

Verb patterns and functions a summary

- Last year Adjunct (of time) NP,
- reluctantly Adjunct (of manner) realised by an AdvP,
- because she was overweight is an Adjunct (of reason) realised by an S.

Verb patterns and functions a summary

- If omitted, the sentence does not become ungrammatical.
- Nor does the lexical verb put change its meaning.

END

Morphology and Syntax

Sentence adjuncts and vp-adjuncts I

Sentence adjuncts & vp-adjuncts

Text 3.4.9

William walked slowly down the road. He felt that he should dislike the little girl intensely. He decided that he should never meet her again. She was certainly a very unreasonable person. Yet he couldn't dislike her. He hoped that he should see her again. He believed sincerely that a friendship with her would be exciting. Anyway, William had always preferred people who quarrelled with him. He was bored with people who agreed with him. He considered the little girl quite attractive.
Adapted from Richmal Crompton, William The Detective

Sentence adjuncts & vp-adjuncts

Identify the simple sentences in text. Underline all the Adjuncts in those sentences. There are four simple sentences in the text:

(77) William walked slowly down the road.
(78) She was *certainly* a very unreasonable person.
(79) Yet he couldn't dislike her.
(80) He considered the little girl quite attractive.

Bracket the VP and Subject NP. Identify the constituents inside VP and label them. Is the verb walk in (77) intransitive or transitive? Are there any Verb Complements? We may decide that the verb walk requires an obligatory indication of location: down the road, which in that case functions as Adverbial Complement (Ac).

Sentence adjuncts & vp-adjuncts

In this context slowly seems less obligatory in the VP. Compare:
(81) William walked down the road.
(82) ? William walked slowly.

We suggest that (77) is a sentence of the Su [V-Ac] type, with an additional Adjunct *slowly*:
(83) [S [NP/Su William] [vp walked] [AdvP/A slowly] [PP/AC down the road]]]

The Adjunct *slowly* is a manner Adjunct.
In general, Adverbial Adjuncts are Modifiers of the activity expressed by the verb.
Sentence (78) above contains a copula (be) with a Predicative Complement (Pc) realised by an NP:
(84) [S [NP/Su She] vp was [certainly] [NP/PC unreasonable girl]]]

Sentence adjuncts & vp-adjuncts

- *Certainly* is also an optional Adjunct (A), but there is an important difference between certainly and slowly in (77) above.
- Certainly does not refer to the time of an event, or to place or manner, but it indicates the speaker's attitude towards the rest of the sentence:

Sentence adjuncts & vp-adjuncts

- (78) means 'it was certainly true that she was a very unreasonable girl', or: 'what was certain is this: she is an unreasonable girl'.
- Certainly is an Adjunct which relates to the content of the sentence and is therefore said to be a Sentence Adjunct (Sa).

Sentence adjuncts & vp-adjuncts

- The Sa may also be realised by PPs:
- (85) In fact, she was a very unreasonable girl.
- (86) In my opinion, she was a very unreasonable girl.

Sentence adjuncts & vp-adjuncts

- *Certainly*, *in fact* and *in my opinion* modify the truth value of the sentence.
- They do not relate to the content of the VP, but to that of the sentence as a whole.

Sentence adjuncts & vp-adjuncts

- *Yet* in sentence (79) above is also an Sa: its function is to connect sentences.
- In this case, it connects *He couldn't dislike her* with the preceding sentence(s) in text.

Sentence adjuncts & vp-adjuncts

- Other examples are AdvPs such as *however, nevertheless, then* or PPs such as *in addition, in spite of that,* etc.:
- (87) *However*, what could he do about it?
- (88) *Nevertheless*, we must get on with the job.

Sentence adjuncts & vp-adjuncts

- We conclude that English has two main types of (optional) Adjuncts:
- *Adverbial Adjuncts* (As) and *Sentence Adjuncts* (Sas). Adverbial Adjuncts appear inside the VP (they may thus also be called VP-Adjuncts),
- Sas relate to the entire sentence (S-Adjuncts).

Sentence adjuncts & vp-adjuncts II

Tests

There are two syntactic tests which may be used to differentiate between As, on the one hand, and Sas, on the other:

(a) focusing: it is possible to focus on certain As but not on Sas:

(89) He walked down the road *slowly*, not *quickly*.

(90) *She arrived home before dark, *fortunately*, not *unfortunately*.

(91) *What could he do about it, *however*, not *moreover*?

Sentence adjuncts & vp-adjuncts

Sometimes, it is also possible to use an A as the focused element in a cleft sentence; Sas can never be focused in this way. Compare:

(92) It is only *recently* that I saw him.

(b) wh-questioning: As can be questioned with wh -items, e.g.:

(94) How did he walk down the road? Slowly.

(95) When did you see him? Recently.

Sas cannot be questioned in this way:

(96) When was she a very unreasonable girl? * Certainly.

Morphology and Syntax

Sentence adjuncts and vp-adjuncts II

Sentence adjuncts & vp-adjuncts

Text 3.4.9

William walked slowly down the road. He felt that he should dislike the little girl intensely. He decided that he should never meet her again. She was certainly a very unreasonable person. Yet he couldn't dislike her. He hoped that he should see her again. He believed sincerely that a friendship with her would be exciting. Anyway, William had always preferred people who quarrelled with him. He was bored with people who agreed with him. He considered the little girl quite attractive.

Adapted from Richmal Crompton, William The Detective

Sentence adjuncts & vp-adjuncts

- **Predicative Adjuncts**
- In text 3.4.9 we have seen the example:
- (97)William walked slowly down the road.
- *Slowly* is a VP-Adjunct; it occurs inside VP.
- Its function is that of expressing the manner of walking.

Sentence adjuncts & vp-adjuncts

- Let us first look at (98). We assume that the AdjP *red* in (98) is optional, but that the NP the house is obligatory.
- We suggest the following bracketing:
- (101) [s [NP They) [vp have painted [NP the house] [AdjP red]]]

Sentence adjuncts & vp-adjuncts

- What is the GF of the NP *the house*? What is the function of *red*?
- Obviously, *red* says something about the activity of 'painting', but in addition it predicates something of the NP/ Od: *'the house is red* as a result of the painting': *red* is used both *adverbially* and *predicatively*.

Sentence adjuncts & vp-adjuncts

Schematically, we may represent the internal relations inside the VP of (98) as follows:

(105)

Paint [NP the house] [AdjP red]

Adverbial

Predicative

(106)

set [NP the prisoners] [AdjP free]

Adverbial

Predicative

Sentence adjuncts & vp-adjuncts

- Is there any difference between (105) and (106)?
- The only difference is that *free* is non-omissible (* The government set the prisoners), while *red* can be omitted without altering the sense of paint too much (They have painted the house).

Sentence adjuncts & vp-adjuncts

- As we have seen (3.4.6), the AdjP *free* in (106) has the GF of Pc+Ac.
- The contrast can also be observed in the following para phrases:

Sentence adjuncts & vp-adjuncts

Para phrases

(107a) They have painted the house, and (more specifically) they painted it red.
(107b) *The government set the prisoners, and (more specifically) they set them free.
Observe also the following contrast:
(108a) If they have painted the house red, they have painted the house.
(l08b) *If the government set the prisoners free, they set the prisoners.

Sentence adjuncts & vp-adjuncts

- This means that the difference between (105) and (106) is minimal and relates entirely to the type of V: *set* requires an AdjP (or a PP), while *paint* does not need the Adjunct.

Sentence adjuncts & vp-adjuncts

- Adjuncts like red in paint the house red, which are both predicative and adverbial, but which are optional, are called Predicative Adjuncts. They are labelled P+A. It is clear, however, that P+A

Sentence adjuncts & vp-adjuncts

- (105) and Pc+Ac (106) are otherwise very much alike.
- In example (99) above we find a similar pattern. If we bracket the S we get :
- (109) [$_{S}$ They [vp have appointed [$_{NP}$ John Brown][$_{NP}$ their new manager]]]

Sentence adjuncts & vp-adjuncts

- The first NP in the VP is an Od, the second an Adjunct: They have appointed John Brown is also a good sentence; however, their new manager has a double relation: it specifies the appointing, and it predicates something of the Object: 'John Brown is their new manager':

Sentence adjuncts & vp-adjuncts

- Again the pattern resembles that of complex transitive verbs like set, fling and call (3.4.6): cf.
- They called John Brown a fool.

Sentence adjuncts & vp-adjuncts

- In example (109), how ever, the NP their new manager is not obligatory and must be labelled P+A, rather than Pc+Ac.

END

Morphology and Syntax

Functions of clauses: finite clause

Functions of clauses: finite clause

- So far we have only looked at simple sentences, and we have identified the various GFs associated with NP, PP, AdjP or AdvP
- We must now also consider what functions can be realised by embedded clauses.

Functions of clauses: finite clause

The following sentences from text 3.4.9 above contain embedded clauses:

(121) He felt that he should dislike the little girl intensely.
(122) He decided that he should never meet her again.
(123) He believed sincerely that a friendship with her would be exciting.

Sentence (121) can be analysed as follows:

(124) [s [NP He] [vp felt that he should dislike the little girl intensely]]

Functions of clauses: finite clause

- Look carefully at the structure of the VP: in addition to a V (felt), it contains a *that-clause*, which is said to be embedded in the VP.
- Remember that we have bracketed such that-clauses as Ss (S-bars) ; i.e. Complementisers + S):

Functions of clauses: finite clause

- (125) S- -+COMP-S
- (126)[s that/comp [s he should dislike the little girl intensely]]

Functions of clauses: finite clause

- The GF of the that-clause is that of Direct Object. Since it is an Od, it should be possible to make it the Subject of a passive sentence. Consider:
- (*127)That he should dislike the little girl intensely* was felt by William.

Functions of clauses: finite clause

- This may not be a very elegant sentence, but it is grammatical.
- A good way of improving the sentence would be by means of the process called •it extraposition'. This would give:
- (*128)It was felt by William* that he should dislike the little girl intensely.

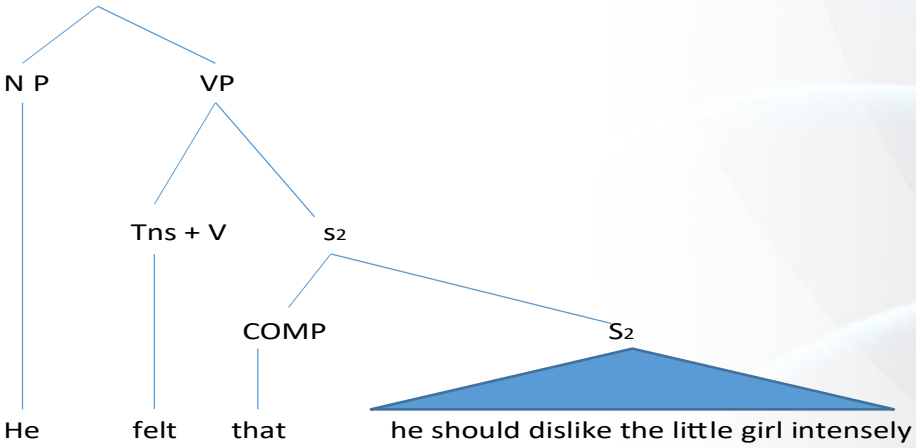
Functions of clauses: finite clause

- We find then that Subjects and Objects may be realised not only by NPs but also by clauses (S/ Su or S/Od).
- Analyse sentences (122) and (123) above in the same way.

Functions of clauses: finite clause

The following tree diagram also represents the structure of (121):

(129) s,



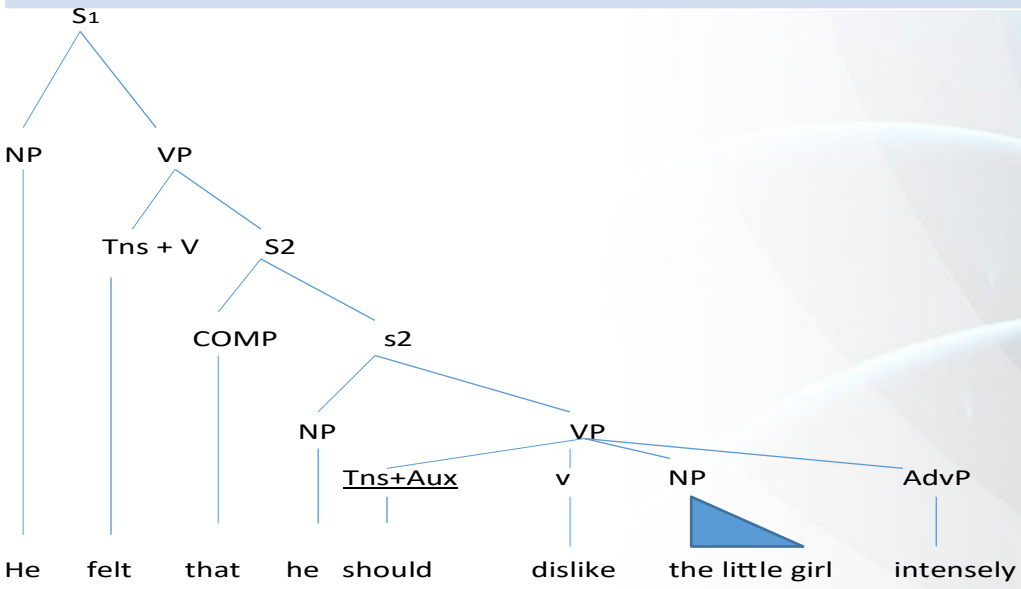
Functions of clauses: finite clause

- The internal structure of S2 (the embedded clause) is as follows:
- (130)[s2 NP he] [vp should dislike [NP the little girl] [AdvP intensely]]]

Functions of clauses: finite clause

The details of (130) can be added to tree diagram (129):

(131)



Functions of clauses: finite clause

- Tree diagram (131) contains, among other things, two Ss:
- S1 is the main clause; the node S1 dominates all the constituents of the sentence.
- S2 is the embedded S.
- In this sentence it functions as the Direct Object of the verb feel.

Functions of clauses: finite clause

- In other words, S2 is an Object clause.
- S2 is COMP-S2 , and the element that in COMP serves as a subordinator.

Functions of clauses: finite clause

- Each S has its own Subject NP and VP. The Head of the VP in S1 is feel, and in S2 dislike.
- Both verbs are monotransitive, requiring an Od as their Complements.

END

Morphology and Syntax

Clauses as Adjuncts

Clauses as Adjuncts

- Embedded clauses very often function as Adjuncts (A).For example:
- (140)Someone called to William *when he was walking down the road*.
- (140)I will meet you at the station *if I can*.

Clauses as Adjuncts

Bracketed the NP and VP in the main clause of (140) and (141), the VP contains an embedded S.

For example:
(142)[[Someone] [called to [William] [when he was walking ...]]]
S NP VP NP S

Clauses as Adjuncts

- The when-clause (when) is optional and serves to express the time of the activity of ‘calling’.
- S when is an A, rather than a Verb Complement.

Clauses as Adjuncts

- It is also a VP-Adjunct, rather than a Sentence Adjunct, as *the focusing* and *wh-question* tests show.
- It is possible to focus on *S when*:
- (*143)It was when he was walking down the road* that someone called to Willium.

Clauses as Adjuncts

- And it is possible to ask a wh-question about S when:
- (144)When did someone call to William?
- The analysis in (142) is thus confirmed by these two tests.
- Let's Identify VP-Adjuncts realised by embedded clauses in the following sentences:

Clauses as Adjuncts

- (145)When Mrs Carey passed the dissenting ministers in the street, she stepped over to the other side of the street.
- (146) If there was not time for this she fixed her eyes on the pavement.

Clauses as Adjuncts

- The following sentences contain examples of Sentence Adjuncts (Sas) realised by embedded clauses:
- (147)John will come back soon, *as far as I know*.
- (148)Philip does not like it here, *if I am not mistaken*.

Clauses as Adjuncts

- The italicised clauses above function as Sas, not VP-Adjuncts (see 3.4.9).
- The two tests used above to distinguish between VP-Adjuncts and Sentence Adjuncts ((a) focusing and (b) wh-questioning) can again be applied. For example:

Clauses as Adjuncts

- (a)Focusing: it is not possible to focus on Sa: (149) *It is as far as I know that John will come back soon.
- (b) Wh-questioning: Sas cannot be questioned with wh-items:
- (150)When will John come back? *As far as I know.

END

Morphology and Syntax

Non-finite and Verbless Clauses

Non-finite and Verbless Clauses

Compare the three variants in:
(151) John believes that the prisoner is innocent. (152) John believes the prisoner to be innocent. (153) John believes the prisoner innocent.
Example (151) contains a finite Object clause, and (152) a non-finite one. In (151) and (152) the prisoner is the NP/Su of the embedded S, and the AdjP innocent in both cases in the Predicative Complement (Pc) in the VP of the embedded clause. The structure of (152) may be represented as follows:
(154) John believes [s^{-} [NP the prisoner] [vp to be [AdjP innocent]]]

Non-finite and Verbless Clauses

- The whole clause (S^{-}) is the Direct Object of believe: what does John believe?
- That the prisoner is innocent.
- Sentence (153) is almost identical with (152). They have the same meaning:

Non-finite and Verbless Clauses

- The string *the prisoner innocent* is a reduced form of *the prisoner to be innocent*; it has the same GF: Od of believe:
- (155) John believes [{ the prisoner to be innocent/ the prisoner innocent }]

Non-finite and Verbless Clauses

- Although the string *the prisoner innocent* contains no verb, we shall treat it as a clause, since there is a predicate relationship between the NP *the prisoner* and the AdjP *innocent*.
- Such a string is called a **verbless clause or a small clause** (labelled Sø).

Non-finite and Verbless Clauses

- The string *the prisoner innocent* is regarded as a verbless clause by analogy with the clauses in sentences (151) and (152).
- Inside the verbless clause the *prisoner* is the Su and *innocent* the Pc, just as in (151) and (152).

Non-finite and Verbless Clauses

In (156).-(163) some further examples of verbless Object clauses (italicisedr); rephrase each sentence, using a finite that-clause and a non-finite infinitive clause.

(156) I want *the dress ready by five o'clock.*
(157) He expects *me in his office at 12.*
(158) He considered *the girl a good student*.
(159) He thinks *the decision very unwise*.
(160) He judged *the man in his fifties*.
(161) He found *the assignment more difficult than he had expected*.
(162) You can count *yourself lucky*.
(163) His attitude made *real communication impossible*.

Non-finite and Verbless Clauses

END

- We have discussed complex transitive verbs, such as set in:
- (164)They [vp set [NP the prisoners] [AdjP free]]
- According to the analysis proposed there, set takes as its Complements (a) an NP functioning as Od, and (b) an AdjP functioning as Pc+Ac:

Morphology and Syntax

Empty Subjects in Non-finite and Verbless Clauses

Empty Subjects in Non-finite & Verbless Clauses

Compare the following pairs of sentences:

(173a) *When he was waiting for the train*, John noticed that he had lost his ticket.
(173b) *When waiting for the train*, John noticed that he had lost his ticket.
(174a) *Whenever he was in trouble*, Bill rang his friend.
(174b) *Whenever in trouble*, Bill rang his friend.

Empty Subjects in Non-finite & Verbless Clauses

The underlying structures of (173b) and (174b) may thus be represented as follows:

(175) *When ( ) waiting for the train*, John noticed that he had lost his ticket
(176) *Whenever ( ) in trouble*, Bill rang his friend.

The Subject of the main clause (John, Bill) controls the empty Subject position of the subordinate clause.
In sentence (177) we shall read *you* ( ):

(177) When ( ) waiting for your train, take care of your luggage.

Non-finite clauses may also be passive:

(178) *When he had been arrested by the police*, he rang up his lawyer.
(179) *When arrested by the police*, he rang up his lawyer.

Empty Subjects in Non-finite & Verbless Clauses

- Like waiting in (177), arrested in (179) is non-finite, but waiting is active and arrested is passive (cf. the corresponding finite (a)-sentences).
- The waiting-clause (S ing) and the arrested-clause (S ed) in (177) and (179) are participle clauses with empty Subjects.

Empty Subjects in Non-finite & Verbless Clauses

Infinitive clauses may also have empty Subjects.

(180) John decided ( ) *to study English*.
(18l) George promised Mary ( ) *to leave*.

In the verbless clause whenever in trouble (174b), the PP in trouble functions as Pc, just as in (174a). Compare:

(l82a) [S whenever [s [NP/SU he] [VP was [PP/Pc in trouble]]]]
(182b) [S whenever [s [NP /su( )] [PP/PC in trouble]]]

Processes
INTRODUCTION

Processes Introduction

- The basic sentence patterns in English, looking at straightforward sentences in which the basic patterns described by the phrase structure rules are left virtually undisturbed.

Processes Introduction

Sentence (1) below, for example, is such a 'basic sentence':
(I) Jane gave this book to Bill on Saturday.

Starting from a set of PS rules (2a), and after insertion of the appropriate lexical material (chosen from the set in (2b)), we arrive at the underlying structure or deep structure (2c):

(2a) S ---+NP-VP
NP ---+{DetN }
VP ---+ Tns V-NP-PP-PP
Tns ----+ Past
PP ---+ P-N P

(2b) N : Saturday, Bill, Jane, book
Det: this
V : give
P: on, to

(2c) [s [NP Jane [vp [Tns Past] [vp give J [NP this book] [pp to [NP Bill]] [pp On [NP Saturday]]]]

Processes Introduction

- All we need to do now is to ensure that the past tense marker ends up on the right of the verb *give,* producing gave.
- The step from the underlying structure (2c) to (1) is the operation of a morphological rule which ensures proper attachment of affixes.

Processes Introduction

- It is possible to vary the basic patterns of sentences by performing additional operations on the underlying or deep structure.
- Starting from (2c) once again we may arrive at quite different patterns:

Processes Introduction

(a) *by forming a Yes-No question:*
Did Jane give this book to Bill on Saturday?
101 (b) *by forming a wh-question:*
What did Jane give to Bill on Saturday?
To whom did Jane give this book on Saturday?
(c) *by fronting the Adjunct PP:*
On Saturday Jane gave this book to Bill.
(d) *by passivising the sentence*:
This book was given to Bill (by Jane) on Saturday. Bill was given this book (by Jane) on Saturday.
(e) *by clefting:*
It was Jane who gave this book to Bill on Saturday.
It was to Bill that Jane gave this book on Saturday.
It was on Saturday that Jane gave this book to Bill.
(f) *by pseudo-clefting*:
What Jane did was give this book to Bill on Saturday.

Processes Introduction

- Example (1) as well as the examples listed under (a)-(f) above are all related to the string (2c).
- Underlying structures are defined as structures resulting from lexical insertion (2b) in the structures described by the PS rules (2a).

Processes Introduction

- Surface structures result from applying one or more operations to the underlying structures.
- In cases like example (1) only one morphological operation has been performed (attachment of the affix), but often more drastic changes will occur (cf. (a)-(f) above).

Processes Introduction

- Schematically our description is organised as follows:
- (a) underlying structure
-  Processes
- (b) surface structures

Processes Introduction

Let us return once more to example (1). Instead of inserting Ns and Det (as in (2b)) into the NP slots generated by the PS rules (2a), we may also choose to insert pro-forms:

(3a) $[_S[_{NP}\,She][_{VP}[_{Tns}\,\text{Past}][_V\,\text{give}][_{NP}\,it][_{PP}\,\text{to}\,[_{NP}\,him]]]$ **[pp On Saturday]]]**

Processes Introduction

- (3a) is again an underlying structure.
- After attaching the past tense affix to V, we arrive at the surface structure (3b): *She gave it to' him on Saturday*.
- Inserting pronominal elements rather than full lexical NPs is referred to as pronominalisation .

END

Morphology and Syntax

Leftward movement

Leftward movement

- Questions: different types
- Earlier we have noted that English has various types of questions.

Leftward movement

- We have distinguished between:
- (a) Yes-No questions, e.g.: Did you measure the distance?
- (b) Wh-questions, e.g.: Why did you measure it?
- and between:

Leftward movement

- (c) Direct questions, e.g.:
- May I go home with you?
- (d) Indirect questions, e.g.:
- One evening he asked whether he might go home with her.

Leftward movement

- All these interrogative sentences are related to basic declarative structures, e.g.
- You measured the distance,
- I may go home with you, etc.

Leftward movement

- We shall consider three main operations which relate questions to basic sentence patterns.
- The three operations are:
- Subject-Auxiliary version,
- do- insertion
- and wh-movement.

END

Morphology and Syntax

Subject-auxiliary inversion

Subject-auxiliary inversion

The following text has three instances of direct Yes-No questions. Let's identify them.

One morning the elder girl hung back in my room. She had something to say. She said: *Shall I show you my rude drawings?* ; ' I was interested. She showed me the drawings: a child's view of unclothed dolls. I was greatly, moved. She said: *'do you like my rude drawing*' 'I like your drawings, Yvonne.' 'I will show you some more tomorrow. *Would you like to keep these?'* 'I'd rather you kept them, Yvonne.' 'No, you can have these. I can always do some for myself.'

V.S. Naipaul, The Mimic Men.

Subject-auxiliary inversion

The direct Yes-No questions in the text are:

(1) Shall I show you my rude drawings?
(2) Do you like my rude drawings?
(3) Would you like to keep these?

What distinguishes them from the basic patterns to which they are related is the order of the first two elements in the sentence: the auxiliary and the Subject NP. Compare (1) and (3) with (4) and (5) below:

(4) I shall show you my rude drawings.
(5) You would like to keep these.

Subject-auxiliary inversion

- The operation which changes the order of elements in a sentence (for example, to get from (4) to (1) or from (5) to (3) is called a *transformation*.

Subject-auxiliary inversion

The change from (4) to (1) may be represented as follows:
declarative: [s [NP I] [VP [shall] [show you my rude drawings]] **+Present**
interrogative: [s [Shall] [NP I] [vp show you my rude drawings]] **+Present**

Subject-auxiliary inversion

- In order to form Yes-No questions like (1) and (3) we move the first auxiliary to the left and place it in front of the Subject.

Subject-auxiliary inversion

- The moved auxiliary may be a modal auxiliary (*shall, will, must, can, etc*.), perfect *have*, progressive *be*, or passive *be*; all these auxiliaries are marked for either present or past tense.

Subject-auxiliary inversion

The following is a more abstract formulation of the rule involved in Yes- No question formation. The movement transformation works on basic patterns as follows:

underlying structure: [s [NP] [VP [aux(n't) :] V ...]]
+Tense
surface structure: [s [aux (n't)] [NP] [VP V ...]]
+Tense

Subject-auxiliary inversion

Here are some examples involving the application of these rules for deriving the surface structure of sentence from their kernels:

Surface structures: Is he sleeping?

The kernel sentence of the deep structure in the case of this sentence is:
He is sleeping
Analysis: He - pres, -be –ing sleep.

Interr: Pres – be –he –ing –sleep.

Affix: be – pres – he – sleep – ing
(is) (sleeping)

Subject-auxiliary inversion

Has Ali been playing a match? (Surface structure)

Ali has been playing a match. (Deep structure)

Analysis: Ali – pres – have – en – be – ing – play - a match.

Interr: Pres. – have – Ali –en – be – ing- play- a match.

Affix: have – pres. – Ali – be – en – play – ing – a match.
(has) (been) (playing)

Subject-auxiliary inversion

- The transformation affects only the tensed auxiliary.
- If a contracted negator -n 't is attached to the tensed auxiliary, it must be moved along to the left (see (10)
- (10) John hadn't seen his friend so angry before.
- (11) Jane hasn't left home yet.

Subject-auxiliary inversion

- The morpheme -n't is not an independent word; it must attach to the auxiliary.
- The uncontracted form *not* is independent and does not move along with the auxiliary.
- The operation is generally referred to as Subject-Aux Inversion, or SAI for short.

END

Morphology and Syntax

Do-insertion

Do-insertion

(2) Do you like my rude drawings?
We may assume that this corresponds to the basic pattern in (13):
(13) You like my rude drawings. In (13) the VP contains no auxiliary element apart from the obligatory tense element: there is no modal auxiliary, or have or be. The underling structure of (2) is as follows (cf. (13)):
(14) [s [NP You] [vp [Tense] like my rude drawings]]

Do-insertion

- In such cases there is not only Subject-Aux Inversion, but also do¬ insertion.
- The transition from (13) to (2) involves two changes, instead of one:
- (a)SAI: the tense element is moved out of the VP and placed in front of NP/ Su;
- (b)*do* is inserted.

Do-insertion

- We have seen that SAI affects the first auxiliary and the present or past tense element associated with it.
- If there is no auxiliary in the sentence, SAI affects only tense, which is also an auxiliary element.

Do-insertion

- But it is clear that in such cases we cannot stop after SAI, or else we would end up with an isolated tense affix in front of the Subject N P:
- (15) [s [Tense] [NP you] [vp like my rude drawings]]

Do-insertion

- Tense can never occur on its own; it must always be attached to a verb or an auxiliary. One way of 'saving' this isolated (or stranded) tense-marker is to insert a prop-word , which has the function of carrying tense: this support-word is the auxiliary do (step (b) above: do-insertion).

Do-insertion

Do insertion attaches do to the strand ed tense element.
(16) [s [DO] [NP you] [vp like my rude drawings]] +Tense

Do-insertion

Another way of looking at do-insertion also called do-support

Surface structure: Did the girl see him?
Kernel sentence: The girl saw him.

Analysis: the girl – past – see – him

Interr: past - the girl – see – him

Do-support: past – do – the girl – see – him

Now , one can apply the affix-switch rules.

Affix: do-past – the girl – see - him

Do-insertion

SAI (followed by do-insertion if necessary) can also occur in cases like the following:

(17) No sooner had he entered the house than the police arrived.

(18) Never did I suffer more than on that unfortunate day!

(19) On no account will he do such a thing again.

Do-insertion

- SAI and do-insertion are triggered 'by the presence of negative VP Adjuncts such as no sooner, never and on no account.

END

Morphology and Syntax

Wh-movement

Wh-movement

- We have looked at - *Yes-No questions* and the two orations involved in forming them (SAI and do-insertion).
- Let us now consider the formation of *wh-questions*.

Wh-movement

You will find several instances of such wh-quesuons.

Text 4.2.4.
I was brought up in Cornwall. On one sad night during the war a sentry of the Home Guard shot what he took to be an interloper. At the subsequent enquiry his commanding officer said:
'Did you challenge him?'
'Yes, sir'
'What did you say?'
'Who goes there?'
'What did he say? '
'Friend, sir'
'What did you do?'
'I shot him'
'Then why did you shoot him?'
'If it had been a real friend, he w have said, Don't be a silly.' And I would have let him pass.'

Adapted from Christian Brann, Pass the Port.

Wh-movement

- Two *wh-questions* from the text are:
- (20) What did you say?
- (21) Who goes there?

Wh-movement

We shall argue that the structure underlying (20) is roughly:
(22) [s [NP You][vp Past say [NP what]]] **and that leftward movement of what, as well as SAI and do-insertion are required to give us (20). The underlying structure of (21) is as follows:**
(23) [s [NP Who] [vp Present go [AdvP there]]]

Wh-movement

- We shall say that *wh - movement* also applies here, but since *who* already appears at the beginning of the sentence, the rule is said to apply vacantly.
- As we shall see *do-insertion* is not required in this case.

Wh-movement

- If we form wh-questions from the following sentences, replacing the italicised item by a wh –phrase, it would be for example:
- John put his money *in the top drawer of his desk.*
- becomes:
- *Where* did John put his money?

Wh-movement

(24) The wedding is to take place *on 13 April*. (when)

(25) Susan will be wearing her blue dress *tonight*. (When)

(26) A man with red hair was waiting *for Jane*. (for whom)

(27) I heard *the telephone, not the door-bell*. (what)

(28) These are *Charles's shoes*. (what)

(29) John hit Bill *because he hated him. (why)*

(30) George got here *by train*. (how)

(31) The terrorists assassinated *the ambassador*. (Whom)

Wh-movement

- Subject: who/what
- Direct object: Whom/ what
- Adverb:
- Place: where
- Time: when
- Manner: how

END

Subcategorisation Frames and Wh-movement

Subcategorisation Frames and Wh-movement

- We must first justify our choice of (22) and (23) as the structures underlying (20) and (21) above.
- Our argument is largely based on the subcategorisation of lexical verbs.

Subcategorisation Frames and Wh-movement

- Subcategorisation frames can be seen as providing the slots into which to insert the verb.
- Assassinate, for example, ((31) above) has the following frame:
- (32) assassinate
  +V, [-- NP]

Subcategorisation Frames and Wh-movement

(33) [s [NP The terrorists] [VP assassinated [NP the ambassador]]]

Notice that a frame must be fully realised. Otherwise the sentence will be ungrammatical:

(34) *[s [NP The terrorists] [vp assassinated [NP--]]] (42)

In basic sentences in English the NP/Od typically follows the verb. Consequently, (35) below is ungrammatical:

(35) *[s [NP The terrorists] [VP [NP the ambassador] assassinated]]

Subcategorisation Frames and Wh-movement

- If you form a Yes-No question from *the terrorists assassinated the ambassador*, you will find that the sentence is grammatical only if the NP/ Od follows the verb, as stipulated by the subcategorisation frame for assassinate.

Subcategorisation Frames and Wh-movement

For example:

(36) [s Did [NP the terrorists][VP assassinate [NP the ambassador]]]

Not: * Did the terrorists the ambassador assassinate?

Now consider the following wh-question:

(37) Who(m) did the terrorists assassinate?

If you try to fit this into the subcategorisation frame (32) above, you will get the impression that the NP/Od after the lexical verb is not realised:

(38) Who(m) did the terrorists assassinate [NP--]

Subcategorisation Frames and Wh-movement

But what happens if we insert a constituent in the apparently empty position? We get:

(39)*Who(m) did [NP the terrorists] [vp assassinate [NP the ambassador]]

We must conclude that the Object position in (38) is somehow already occupied. And indeed we can easily provide a filler; the sentence-initial wh-phrase who(m) can fill the position:

(40)[S [NP The terrorists] [vp assassinated [NP who(m)]]]
+WH

Compare now again (41) and (42) below (slightly simplified):

(41)[NP The terrorists] [vp assassinated [NP who(m)]]
+WH

(42) [NP Who(m)] did [NP the terrorists] [vp assassinate]
+WH

Subcategorisation Frames and Wh-movement

- It would be very uneconomical to devise two separate frames for assassinate: one for (41) and one for (42), as follows:
- (43) [VP - NP]]
  +WH
- (44) [Vp -]

Subcategorisation Frames and Wh-movement

Let us assume that assassinate always has the frame:

(45) [VP - NP]
+WH

We start from (41):

(46) [S [NP The terrorists] [vp Past assassinate [NP who(m)]]]
+WH

We can move the wh -phrase [NP+WH] from its original position , and place it in front of the sentence. Assume that it is placed in a special slot marked as [+WH], which occurs in front of S:

(47) [+WH] [s….]

The movement of the wh-phrase to the +WH slot (i.e. wh-movement) ma y be represented schematically as follows:

(48) [NP Who (m)] [s the terrorists Past assassinate ---]
+WH

Subcategorisation Frames and Wh-movement

What does the linguistics teach you?

Kernel: Linguistics teaches you something
Anaysis: Linguistics – pres – teach you – something
Wh-sub: Linguistics – pres – teach –you - what
Interr: Pres. - -Linguistics - -teach –you – what .
Wh-front: What – pres. Linguistics – teach – you.
Do-supp: What – pres. – do – Linguistics teach – you.
Affix: What – do – pres. –Linguistics – teach – you.
(does)

Subcategorisation Frames and Wh-movement

END

- We have seen that wh-questions are formed by (a) moving a constituent containing a wh-word into the +WH slot in front of the sentence, and by (b) SAI, with or without do-insertion. Operation (a) is the transformation called wh-movement.

Morphology and Syntax

Prepositional Phrases in Wh - questions

Prepositional Phrases in Wh -questions

Consider the following '*echo-question*' containing a [PP/ +WH]:

(55) John bought the necklace [PP for whom]?
+WH

Wh-movement can operate in two ways:

(a) It may affect the whole PP:

(56 a) [+WH For who (m)] [S did John buy the necklace [PP---]]

(b) It may affect only the *wh-word whom*, which is an NP:

(56b) [+WH Who(m)] [S did John buy the necklace [PP for [NP---]]]

Prepositional Phrases in Wh -questions

- In both cases the moved constituent matches the type of gap (PP or NP).
- In (b) it is only the NP following the preposition that is moved.
- The preposition left behind is said to be **stranded**.

Prepositional Phrases in Wh -questions

- In (a) the moved *wh-word* (who(m)) trails the preposition along with it.
- If movement affects more than just a wh - constituent, we say that the other elements are pied-piped .
- Pied-piping is usually optional with PPs.

Prepositional Phrases in Wh -questions

- In some cases native Speakers feel that pied-piping is obligatory.

Prepositional Phrases in Wh -questions

Let's produce wh-questions corresponding to (57)-(59) below:

(57) He offended her in what way?

(68) You got home by what time?

(59) She asked you to pick her up at what station?

Prepositional Phrases in Wh -questions

- Preposition stranding yields particularly awkward sentences when the PPs are Adverbial Adjuncts of time or place, as in (59):
- *(59)What station did she ask you to pick her up at*?

Prepositional Phrases in Wh -questions

- Certain prepositions (e.g. during, notwithstanding) never allow stranding:
- * Which holiday did he meet her during?

END

Morphology and Syntax

Wh-movement of Subjects

Wh-movement of Subjects

- Normally, wh-question formation involves:
- (a)wh-movement
- (b)SAI, with or without *do-support*.
- With Subject wh – phrases, this is not true. Consider, for example:
- (60)Who left last night?

Wh-movement of Subjects

- Since a Subject *wh*-phrase occupies a sentence-initial position, we shall say for the sake of generality that wh-movement takes place here as well, but that its effect is not visible.
- Wh-movement is said to apply vacuously here.

Wh-movement of Subjects

(61) [ ] [s [NP who][Past leave]]
+WH +WH
(62) [NP who] [s [NP---] [Past leave]]
+ WH
There is no SAI.
Evidence that the NP/ Su is indeed affected by wh movement can be found in certain complex sentences.

Look for the gap corresponding to the wh-phrase in the following examples:

(63) Who did you say had left the garage open?

(64) Which boy did you say has broken the window?

Wh-movement of Subjects

- *Who* the Subject is of *had left the garage open*, and *which boy is* the Subject is of *has broken the window*.

Wh-movement of Subjects

- Wh-movement S̄
- We have so far developed a schema for wh-question formation, which is based on the assumption that in underlying structure such sentences contain an interrogative wh-element and are preceded by a slot for wh-items.

Wh-movement of Subjects

- Wh -movement extracts the wh-phrase from its original position in S, leaves a gap marked by ---, and moves the *wh*-phrase into the slot marked for receiving it:

Wh-movement of Subjects

(65) [+WH What] [S John will send --- to Mary]

The presence of what triggers SAI:

(66) What will John send to Mary?

Wh-movement of Subjects

- We shall say that the slot marked for wh-word S at the beginning of the sentence together with the following S again constitute an S^{-} (S-bar);

Wh-movement of Subjects

After wh-movements the wh-phrase will occupy the slot labelled +WH:

[S^- [+WH What] [s will John send --- to Mary]]

Morphology and Syntax

Indirect Yes-No Questions

Indirect Yes-No Questions

- Questions may be direct or indirect, for example the following sentence contains the indirect question:
- (68)One evening he asked her *whether he might go home with her*.

Indirect Yes-No Questions

- Let us look at the structure of (68).
- First, we note that the phrase *one evening* has been fronted.
- It is an Adjunct, whose normal position we have assumed is after *He asked her* (or even at the end of the sentence):

Indirect Yes-No Questions

(69)He asked her one evening whether he might go home with her.
(70)He asked her whether he might go home with her one evening. (Ambiguous)

Bracketing (69) for main clause constituents yields the following:

(71) [S [NP He] [VP asked [NP her] [pp one evening]
su Oi A
[s¯ whether he might go home with her]]]
Od

Indirect Yes-No Questions

In 2.3 we have argued that whether (like that or if) occupies the COMP slot in S¯:
(72a) He said her [S¯[COMP that her] [s¯. ..]

(72b) He asked her [S¯ [COMP if] [s¯. ..]

(72c) He asked her [S¯ [COMP whether] [s¯. ..]

Indirect Yes-No Questions

- Unlike that, the Complementisers *whether* and *if* indicate that the subordinate clause is a question.
- *Whether* and *if* cannot be deleted.

Indirect Yes-No Questions

Indirect questions (i.e. subordinate clauses) introduced by *whether* or *if* correspond to direct questions of the Yes-No type. Compare:

(73a) He asked her: 'May I go home with you?'

(73b) He asked her {whether} he might go home with her.

Indirect Yes-No Questions

- Direct *Yes-No* questions undergo SAI.
- Indirect *Yes-No* questions, on the other hand, are not subject to SAI.
- Consider:
- (74) ... [[COMP whether [*su* he] [Aux might] go home with her]]

Indirect Yes-No Questions

- The normal Su-Aux word order is preserved here, and the presence of the complementiser (*whether* or *if*) signals that the subordinate clause is a question.

END

Indirect Wh-questions

- The following contains a complex sentence:
- (75) Do you know *what happens when one of your tail lights fails*?
- The italicised string is an indirect wh-question, corresponding to the direct question:
- (76) What happens when one of your tail lights fails?

Indirect Wh-questions

- How do we form structures with indirect *wh*-questions?
- Let us assume that we start from the basic sentence patterns as.
- Assume that we have a sentence such as:
- (77)Mary wondered: 'What is John doing?'

Indirect Wh-questions

- The string with quotation marks is an example of direct speech or thought: we report Mary's thoughts or words directly.

Indirect Wh-questions

However, we may also decide to report them indirectly by means of an embedded sentence:

(78) Mary wondered what John was doing.

Underlying this example we shall assume the basic pattern:

(79)Mary wondered [S^{-} [COMP] [S John [VP was doing [NP what]]]]

where the NP what is the Direct Object and follows the verb do.

As you see, the COMP slot is left unfilled here. The wh-phrase which we find inside the subordinate clause in (79) is moved out of S into COMP:

(80) Mary wondered [S^{-} [comp what] [S John [VP was doing [NP_ _ _]]]]

Indirect Wh-questions

- Wh -movement leaves behind a gap bound by the moved element in COMP.
- With direct questions, as we have seen, Wh-movement is followed by SAI.
- There is no SAI in embedded wh-questions.

Indirect Wh-questions

- We have seen now that wh-movement and SAI may be used together to form wh-questions, but SAI and wh-movement can also occur independently: they are elementary operations which are not necessarily linked. For example, SAI occurs on its own in:
- Yes-No questions: Did you measure it?

Indirect Wh-questions

- Declarative sentences with fronted negative Adjuncts: Never had he felt so happy.
- *Wh*-movement occurs without SAI in :
- Indirect questions: *She wondered what he was doing*.
- Exclamations: *What fools they have been*!

Indirect Wh-questions

- wh-movement nor SAI is necessarily linked with question formation: SAI occurs with fronted negative Adjuncts in declara tives and wh - movement occurs with exclamations.

END

Morphology and Syntax

Long Wh-movement

Long Wh-movement

- Let us look at the sentence: .
- (81)Who do they think is spying on them all the time?
- This is, of course, a wh-question.
- Wh-movement has put the wh-word in front position.
- Where does *who* come from?

Long Wh-movement

- Obviously, it is not the Subject of the main clause: they is the Subject NP of the think-clause.

Long Wh-movement

- Underlying the sentence we assume the basic pattern (82) below:
- (82) They think [S^{-} [COMP] [S who is spying on them all the time]]

Long Wh-movement

- The clause (that) *who is spying on them all the time* is subordinate; it is an Object clause of think.
- Wh -movement again takes out *who* and moves it first to the COMP of the embedded clause (S^{-}), and then in a second move to a COMP slot in front of the main clause :

Long Wh-movement

(83) [COMP Who] [do they think [S¯ [COMP]

[--- is spying on them all the time]]]

(84) Who did John say he met --- on the bus?
(85) Who did Mary tell you she had seen --- on the train?
(86) Who did Bill say --- was asking for me the other day?
(87) At what time do they think the taxi will reach the airport ---?

Long Wh-movement

- The fronting of who trigger SAI(with do-insertion)

Long Wh-movement

(84) Who did John say he met --- on the bus?

(85) Who did Mary tell you she had seen --- on the train?

(86) Who did Bill say --- was asking for me the other day?

(87) At what time do they think the taxi will reach the airport ---?

Long Wh-movement

- Long wh-movement as in the sentences above need not be restricted to only one clause-leap: the wh-element may move over more than one clause:
- (88) Who did John say that Bill thought that Mary wanted to see ---?

END

Morphology and Syntax

Relative Clauses

Relative Clauses

- The man *who is sitting there* is my brother.
- Subordinate clauses introduced by a wh-word which are not questions are relative clauses.

Relative Clauses

The NPs listed below all contain a postmodifying (or relative) clause and are thus complex: the GF of Postmodifier is realized by a clause:

(91) The day on *which Lawlessness reared its ugly head at Blandings Castle*

(92) The smooth green lawns on *which it shone*

(93) Those *who read thrillers*

(94) The chronicler *who wishes to grip his audience*

(95) The wave of crime *which was to rock one of Shropshire's stateliest homes to its foundations*

(96) The persons *whom it involved*

Relative Clauses

Complex NPs have the following structure:

Category	Det	AdjP	N	S
Function	Spec	Premod	Head	Postmod
	The	handsome	policeman	who directed us to the station
	The	German	girl	who gave me this book

Relative Clauses

- The NPs (91)-(96) above all have the same structure as *The German girl who gave me this book*.
- The Head noun *girl* is post modified by an $\bar{S}$: *who gave me this book*.

Relative Clauses

- In each case the Postmodifer is realised by an $\bar{S}$ consisting of a wh-¬phrase followed by a sentence with a matching gap.

Relative Clauses

- Superficially, the pattern of the postmodifying S¯ is similar, but not quite identical, to that of indirect wh-questions.
- Compare:
- (97) I wonder *who(m) John talked to*.
- (98) the girl *who(m) John talked to*

Relative Clauses

Superficially, the pattern of the postmodifying S¯ is similar, but not quite identical, to that of indirect wh-questions.
Compare:

(97) I wonder who(m) John talked to.

(98) the girl who(m) John talked to
On the analogy of wh-questions, we assume that (98) has the following underlying structure:

(99) [NP The girl [s¯ [COMP] [s John talked to whom]]]

The element whom is moved to the COMP slot in front of S, and *to* is stranded:

(100) [NP The girl [s¯ [comp whom] [s John talked to ---]]]

Relative Clauses

- In wh-question formation, as we have seen, there is a choice with respect to the movement of wh-PPs: one can either strand the P and extract the NP only, or one can pied-pipe the P.

Relative Clauses

- In the example above we have stranded the P; we could also have pied-piped.
- Compare:
- (101)I wonder to *whom John talked*.
- (102) the girl *to whom John talked*

Relative Clauses

Apply wh-movement to the italicised wh-word s in the sentences below. Apply pied-piping whenever necessary (-- indicates COMP):

(103) the house-------John lives in which

(104) the book--------- Sue is waiting for which

(105) the girl--------John is in love with whom

In (103)-(105) above pied-piping is optional. Consider now the following NPs:

(106) the woman--I live in whose house

(107) the man --I met whose daughter for the first time last year

(108) the cathedral -- the cardinal was murdered on the steps of which

Relative Clauses

How should WH -movement be carried out here? Pied-piping is obligatory
In this case, for we cannot just move whose, which, etc. here. For example:

(109) *the woman whose I live in --- house

We must pied-pipe in one of the following two ways:

(110) the woman in whose house I live ---

(111) the woman whose house I live in ---

Relative Clauses

- As in the case of wh-questions, we shall assume that wh-movement also operates on Subject wh-phrases, although there is no obvious gap in the surface structure: it operates vacuously.

Relative Clauses

On the analogy of wh-questions, we shall assume that the underlying structure (112) below becomes (113), as a result of wh-movement in the NP:

(112) **[NP the man [s⁻ [COMP] [s [NP who] carried the gun]]]**

(113) **[NP the man [s [coMP who] [s [NP---] carried the gun]]]**

Relative Clauses

- We have seen that the postmodifying S̄ in a complex NP is linked to the Head N by a wh-word.
- The WH -words which relate the subordinate clause and the Head, are relative pronouns.
- The relative pronoun in front of S is said to bind a gap inside the relative clause.

END

Morphology and Syntax

The Meaning of Relative Clauses

The Meaning of Relative Clauses

- Postmodifying (relative) clauses may help to identify the referent of the Head noun: they may narrow down the reference of the Head.
- For example, in: *the man who lives next door,* the relative clause *who lives next door* indicates who exactly the speaker is talking about.

The Meaning of Relative Clauses

- The clause provides information that is essential for the identification of the referent.
- Relative clauses of this kind are necessary if it is not clear from the context who the speaker is referring to.
- They, are said to be **restrictive.**

The Meaning of Relative Clauses

Here are some additional examples of restrictive relative clauses (italicised):

(114) **What is the name of the film *which is now showing at the ABC*?**

(115) **The books *which I ordered* have finally arrived.**

(116) **The man *who saw the accident* was not prepared to testify.**

The Meaning of Relative Clauses

- Relative clauses may also be non-restrictive, as in:
- (117) The Pope, *who was expected to visit Poland again this summer*, decided to go to France instead.

The Meaning of Relative Clauses

- Clauses of this kind are said to be **non-restrictive** because no further identification of the referent (the Pope, in this case) is needed.
- These modifying clauses provide additional, non-essential information about the Head of the NP.

The Meaning of Relative Clauses

- It is worth noting that the distinction between **restrictive** and **non- restrictive** relative clauses also applies to other types of postmodification and premodification.

END

Deletion in Relative Clauses

Deletion in Relative Clauses

- Consider:
- (118)The film *which we saw at the ABC last week* has been banned from all official programmes.
- (119) the *man whom you see over the*re is the owner of the company.

Deletion in Relative Clauses

- The relative pronoun in these sentences can be deleted.
- We shall use the symbol ø to mark the deleted element, and call it the zero relative pronoun:

Deletion in Relative Clauses

- (a) if it functions as the Subject of the embedded sentence, e.g.:
- (121a) The man *who is standing over there* is the Prime Minister of Pakistan.
- (121b) *The man *ø is standing over there* is the Prime Minister of Pakistan.

Deletion in Relative Clauses

- (b) if it is preceded by a preposition, e.g.:
- (122a) The man *for whom we were all waiting* did not come.
- (I22b) *The man *for ø we were all waiting* did not come.

Deletion in Relative Clauses

- Compare:
- (123) The man *{whom/ ø } we were all waiting for* --- did not come.
- If the preposition is stranded, the moved wh-word on its own can be deleted.

Deletion in Relative Clauses

- Notice the use of the **zero relative pronoun** in Subject position in structures of the type: There is a gentleman at the door *ø wishes to see you* and of the .type: It is Jane *ø gave the book to Bill*.

END

Morphology and Syntax

That in Relative Clauses

That in Relative Clauses

- One also often finds the complementiser *that* instead of *who(m)* or *which* at the beginning of restrictive relative clauses.

That in Relative Clauses

(124) The young girl *that plays the violin so well* is Egyptian.

(125) The man *that we liked so much* turned out to be a real crook.

The GF of Postmodifier is realised by an embedded clause preceded by that:

(126) [s¯ that [s plays the violin so well]]

(127) [s¯ that [s we liked so much]]

That in Relative Clauses

- The sentence (S) together with *that* is an $\bar{S}$.
- There is a great deal of similarity between these Ss and restrictive relative clauses.

That in Relative Clauses

For example:

(a) both occur inside an NP,

(b) both are restrictive Postmodifiers to the Head,

(c) in both cases there is a gap inside the S, e.g.:

(128) [NP the man [{ that/who(m)/ø} [s we like - - - so much]]]

That in Relative Clauses

- *that, who(m) and* zero are largely interchangeable, except that for stylistic reasons who(m) may be preferred.
- We assume that the complementiser *that* here also links the Head noun and the embedded S.

That in Relative Clauses

- Since in other languages and in Middle English one can also find strings of a wh word followed by that (literally, for example: The dog which that we saw yesterday and not the reverse), we shall assume that the COMP slot has two positions:

That in Relative Clauses

- (130)COMP is reserved for wh-elements (a) and for complementisers (b).
- (130) (a) +WH (b) *that*

That in Relative Clauses

- To form a relative clause we now have quite a few options.
- Take the following underlying structure:

That in Relative Clauses

- (131) The woman [s [COMP (a) (b)] [s we invited whom to our party]]
- Move whom to position (a) in COMP:
- (132) The woman whom (b) we invited --- to our party.
- We may delete whom:

That in Relative Clauses

- (133)The woman *ø (b) we invited --- to our party*.
- We may also insert the complementiser that at position (b) in COMP:
- (134)The woman (a) that we invited --- to our party.

That in Relative Clauses

- In present-day English, sentences like (129) are ungrammatical.
- Modern English has a rule that the COMP slot may be filled by one element only, either a wh-word or the complementiser *that*.

END

Morphology and Syntax

Adverbial Relative and Free Relative Clauses

Adverbial Relative and Free Relative Clauses

- The relative clauses below also contain *wh -elements*.
- (135)This is the village *where* I spent my youth.
- (136) Did they tell you the reason *why* they all left?

Adverbial Relative and Free Relative Clauses

- Relative clauses introduced by *where, why, when, etc*. are called **adverbial relative clauses**.
- In some cases, the Head noun seems to merge with the wh-word or *that* into one element.

Adverbial Relative and Free Relative Clauses

- (137) {Any person who/whoever} knows him hates him.
- (138)I shall give you {anything that/ what/whatever} you want.
- Relative clauses like these, which lack a real Head noun, are called free relative clauses.

Adverbial Relative and Free Relative Clauses

- In structure these clauses resemble full NPs consisting of ' an empty Head noun and a postmodifying clause.
- For example, whatever
- (139)[NP ø [S¯ whatever [s you want ---]]]

Adverbial Relative and Free Relative Clauses

- Non-restrictive Relative Clauses
- Consider:
- (140)The Pope, *who was expected to visit Poland again this summer*, decided to go to France instead.
- (141)This car, *which I bought only two years ago*, is already beginning to show signs of disrepair.

Adverbial Relative and Free Relative Clauses

- The postmodifying clauses above do not restrict the reference of the Head noun.
- The clause *who was expected to visit Poland again this summer* is not meant to identify the Pope, since the reference is sufficiently clear.

Adverbial Relative and Free Relative Clauses

- Under normal circumstances, there can be hardly any misunderstanding between speaker and hearer about the identity of the referent.

Adverbial Relative and Free Relative Clauses

- The above relative clauses are said to be non-restrictive.
- They provide extra, non-essential information, and can be left out without changing or obscuring the reference of the Head.

Adverbial Relative and Free Relative Clauses

- In non-restrictive relative clauses deletion of the relative pronoun is not possible:
- (142) *The Pope, ø was expected to visit Poland again this summer , ...
- Nor does the complementiser that normally occur here:

Adverbial Relative and Free Relative Clauses

- (143)*The Pope, that was expected to visit Poland again this summer,...
- The intonation of non - restrictive clauses is different from that used for restrictive clauses.
- In print, non- restrictive relative clauses are usually marked off by commas.

END

Appositive clause

Consider the following sentences containing complex NPs:
What is the structure of the above N Ps?

(144) The news *that John had left his job* came as a shock to us all.

(145) The rumour *that tomorrow is a local holiday* has not been confirmed by the media.

(146) The story *that petrol prices are going to be decreased* has been made up from beginning to end.

(147) The fact that the Prime Minister was involved in a drugs scandal was an embarrassment to the Government.

(148) The assumption *that John is coming back soon* seems unfounded.

Appositive clause

Superficially, the complex NPs in the above sentences have the following structure:		
spec	**H**	**Postmodifier** **S^{-} (-- that + S)**
The	**news**	**[S^{-} that [s John had left his job]]**

Appositive clause

- Is the postmodifying clause a relative clause?
- We have said that relative clauses are preceded by a relative pronoun which binds the gap inside the relative clause, and we have said that the function of linking the Head and the embedded S^{-} may also be fulfilled by that.

Appositive clause

For example:

(149) the man {w o(m)} you saw --- there

Can you locate similar gaps in (144)-(148)? You will find that the answer is: No.

Compare these examples with those in (150)-(154) below

(150) The news that John told his wife gave her a shock.

(151) The rumour that Anne spread in town was terrible.

(152) The story that Mr. Adams wrote for his children has recently been published in a collection.

(153) The news that the Prime Minister gave the reporters did not surprise anyone.

(154) The assumption that he bases his theory on may be false.

Appositive clause

- In (150)-(154) we find the expected gap in the embedded S, while in (144)-(148) there is no gap.
- We must conclude, then, that (144)-(148) are not relative clauses.
- What are they?

Appositive clause

- Consider the Heads of the Subject NPs in (144)-(148): in some of the examples the Head noun relates to a verb (report); in other cases it has something to do with 'messages' (news, story, ...), i.e. communication.

Appositive clause

- In fact, the that-clause gives the content of the communication.
- For (144), for example, the news was: 'John has left his job'.

Appositive clause

- Note that *which* cannot replace *that* here, and *that* that fulfils no grammatical function (e.g. Subject or Object) in the clause; moreover, *that* is obligatory here and this use of *that* can also occur before non-restrictive clauses:

Appositive clause

- *Your assumption, that there is no life on other planets, is unfounded*.
- In all these respects, the that-clauses in (144)-(148) differ from relative that-clauses.

Appositive clause

- *That-clauses* like those in (144)-(148), which give the content of nouns such as *fact, report, news,* etc., are called **appositive clauses**.
- Appositive clauses may also be introduced by the complementiser *whether:*

END

- I have no idea whether they will appreciate our help).

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Regards : Zarva Chaudhary

Admin:

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Chaudhary Moazzam

* Laiba Mahi *

Reduced Relative Clause

Morphology and Syntax

Reduced Relative Clause

Let's look at these sentences:

(155) The first man to arrive at the place of the crime was our local police officer.

(156) The last man to talk to in such circumstances is your father.

(157) I want a tool to fix the sink with.

(158) We all want a decent place to live in.

(159) The first train to leave from platform 3 is the 6.00 for Rawalpindi.

Reduced Relative Clause

The structure of these NPs is as follows:			
Spec	**Premod**	**H**	**Postmod**
the first		**man**	**to arrive at the place of the crime**
a	**decent**	**place**	**to live in**

Reduced Relative Clause

- The *to-constructions* serve as Postmodifiers and can be changed into full relative clauses, e.g.:
- (160)The first man who arrived at the place of the crime ...
- The *to-constructions* used in (155)-(159) are called reduced relative clauses.

Reduced Relative Clause

- Full relative clauses, introduced by *who, which,* etc., are finite.
- The postmodifying strings in (155)-(159), on the other hand, are non-finite (to-infinitive) clauses.

Reduced Relative Clause

Reduced relative clauses may also have an -ing or -ed VP:

(161) The train *arriving at platform 7* is the 7.03 from Reading.

(162) The guy *wearing those odd clothes* is Jane's husband .

(163) None of the guests *invited by John* turned up.

(164) Essays *handed in after 1st July* will not be marked until the beginning of next term .

The non-finite clauses above are restrictive. Here are two examples of non restrictive non-finite clauses:

(165) The Pope, *warned not to go to Poland* , decided to visit France.

(166) The Princess of Wales, *haunted by the press*, found it more and more difficult to lead a normal life.

Reduced Relative Clause

- Essentially the reduced relative clause may have overt or a non-overt Subject as well as a non-overt relative element in COMP (after movement) indicated by ø, which binds a gap indicated by ---.

Reduced Relative Clause

- All these non-overt positions are assumed on the basis of corresponding overt positions in other parallel clauses.

END

Morphology and Syntax

Fronting

Fronting

Text

In Ms Sgol's article 'Even Accountants Will Buy It', which you published on February B, Durham is quoted as one of a group of universities who 'expect you to concentrate on one or perhaps two subjects from the day on which you start there until your final exams'.

This is inaccurate and profoundly misleading. Quite apart from the fact that Durham offers the degree of BA in General Studies, which is a three subject degree in all three years and the BSc in Natural Sciences, involving over three years a minimum of three and maximum of five subjects, a high proportion of other degree courses offered by Durham "'make it possible for candidates to include more than two subjects in their degree courses. To give but one further example, candidates taking honours courses in the Social Sciences have to read three different subjects in their first year.

There is considerable flexibility within the Durham system for changes in courses after the end of the first year. Indeed about 20 percent of candidates graduate with a degree whose title is different from the one for which they first registered on entry.

Fronting

- So far we have seen that auxiliaries, tense and wh-phrases may be moved leftwards.
- Other constituents may also be preposed. For example:
- (167) Soon after breakfast Mary Ann brought in The Times.
- Soon after breakfast has been fronted: it is a PP/ A.

Fronting

- (168)Mary Ann [vp brought in The Times [PP soon after breakfast]] Compare also:
- (169a) I have never before met a man like John.
- (169b) Never before have I met a man like John.

Fronting

- Fronting of *never before* in this case triggers SAI.
- Particles of phrasal verbs (170) and PPs (171) may also be fronted.

Fronting

- For example:
- (170)He came out.
- (171) Out he came.
- (17la) He walked into the garage.
- (171b) Into the garage he walked .

END

Morphology and Syntax

Passivisation

Passivisation

Text 4.3.1

The eating habits of the Indo- Pakistan subcontinent are influenced by historical and geographical factors. Since the earliest times the subcontinent has been invaded by many tribes from the North. Later on it was occupied by the British. Only recently was the region divided into the two independent countries of India and Pakistan.

The influence of all the different invasions can be found in the culture and the eating habits of the sub-continent. Indian and Pakistani food are very similar, but regional and religious influences can be observe. The consumption of beef is forbidden to the Hindu, and the consumption of pork is not allowed for Muslims.

The art of the presentation of food was also developed in these countries. Silver or gold leaf is often used for decoration. The metal is beaten very fine: it can almost be blown away.

Nowadays Indian food is esteemed all over the world.

Adapted from A. Hosain and S. Pasricha, Cooking the Indian Way

Passivisation

- This text contains several instances of passive sentences.
- Passive sentences have the following pattern:
- (1) [s [NP] [VP be V-ed [pp by…]]]

Passivisation

- For example:
- [NP The eating habits of the Indo-Pakistan sub-continent] [vp are influenced [pp by historical and geographical factors]]]
- (3) [s [PP Since the earliest times] [NP the sub-continent] [vp has been invaded [PP by many tribes . . .]]]

Passivisation

- Normally a passive sentence has a corresponding active sentence.
- The active sentence is seen as the underlying structure, from which the passive sentence is derived.
- The active sentence corresponding to (2), for example, is (4):

Passivisation

- (4) [s [NP Historical and geographical factors] (VP influence [NP the eating habits of the Indo-Pakistan sub-continent]]]

Passivisation

- Sentence (4) contains a transitive V (influence), which requires as its Complement an NP functioning as Od.
- The structure of the sentence is: NP/ Su (V-NP/Od].

Passivisation

- If we compare the passive sentences from text with their active counterparts, we see that the active strings contain an Object NP.
- The process of passivisation crucially involves moving the Object NP (Od or Oi) from the active VP into the Subject position.

Passivisation

- Consider also:
- (5a)The gardener takes the newspaper to Mr. Ellis.
- (5b)The newspaper is taken to Mr. Ellis by the gardener.

Passivisation

- If we compare (5a) and (5b), we find that the Object of (5a), the newspaper, is moved to the left, and ends up in Subject position in (5b).
- The Object NP is assumed to leave .a gap .--- in the underlying active sentence after passivisation.

Passivisation

- In order to verify the Subject status of the NP the newspaper in (5b) we can apply various tests, including the agreement test (a) and the SAI test (b):

Passivisation

- (6a) The newspapers are taken ...
- (6b) Is the newspaper taken ...?
- The tests confirm that in (5b) the newspaper is the NP/Su.

Passivisation

- The shift of the Object NP into Subject position is accompanied by another operation: the Subject of the active sentence is removed from its original position and may end up as the Agent *by-phrase* in the passive sentence: by the gardener (very often the Agent by-phrase is deleted).

Passivisation

- In the active sentence (5a) the role of Agent is assigned to the Subject NP.
- In the passive sentence (5b) the Agent role is assigned to the *by-phrase*. In addition, passivisation converts takes into is taken : the auxiliary *be* is added and the verb is changed into a past participle.

Passivisation

- The change from active to passive verb form may be represented as follows:
- (7a) present-take : takes
- (7b) present-be-taken: is taken

Passivisation

- Schematically passivisation works as follows:
- (8a) [s[NP The gardener][VP takes [NP the newspaper][pp to Mr Ellis]]]
- (8b) [s[NP The newspaper][VP is taken[NP to Mr Ellis][PP by the gardener]]] or more abstractly:

Passivisation

- (9a) active: [s [Su NP_1][VP V [Od NP_2]]]
- (9b) passive: [s [NP 2] [VP be V-ed [PP by [NP1]]]]

END

Morphology and Syntax

The By-phrase

The By-phrase

- Consider again the last sentence of the first paragraph of text:
- (10) Only recently was the region divided into the two independent countries of India and Pakistan.

The By-phrase

- Only recently is a fronted AdvP, originating in VP.
- The fronting has given rise to SAI Compare the word order of (10) with that of (11):
- (11) The region was divided into the two independent countries only recently.

The By-phrase

- Try to restore (11) to the active.
- At first sight, this seems impossible, since there is no by-phrase in (11).
- We get something like (12), which is ungrammatical:
- (12) *--- divided the region into the two independent countries only recently.

The By-phrase

- The Agent of the action denoted by the verb (divide) is not explicitly mentioned, although in this case we know that the 'understood' Agent is probably something like *The British Government*, etc. (cf. the Indian Independence Act, 1947).

The By-phrase

- Sentence (1) requires an explicit Subject (cf. the PS rule.
- S>NP-VP
- It will be ungrammatical. If one does not know precisely who the Agent of the activity is, or if it is irrelevant or unnecessary to specify who performed the activity.

The By-phrase

- One may choose to use a passive sentence, since in passives the Agent by-phrase is optional.
- Passivisation allows us to suppress the Agent.

The By-phrase

- Very often the effect of passivisation is that the text becomes more impersonal and formal.
- Agent-less passives are especially characteristic of the style of official documents, textbooks, scientific articles, instructions rules, etc.

The By-phrase

- Examples: '
- (13) You are hereby given leave to enter the United Kingdom for six months.
- (14) Bicycles must not be left in front of the building.

The By-phrase

- (15)Smoking in this room is prohibited.
- (16) Contributions are welcomed from linguists in all countries, and not merely from members of the Linguistics Association of Great Britain.

END

Morphology and Syntax

Movement of Focus Position

Movement of Focus Position

- *IT*-extraposition

Movement of Focus Position

Read the text below. Bracket the that-clauses.

It arouses indignation (that some night workers at British Leyland's Rover factory in Solihull are in the regular habit of sleeping for a large part of their shift.) But on whom should the indignation be vented? From the beginning of time, it has been accepted (that men who are on duty during the night will be tempted to sleep.) It is assumed (that nothing but the most diligent supervision supported by grave penalties will prevent them from going to sleep.)

The fact (that it took a newspaper reporter to unveil this particular manifestation of a normal human phenomenon to the Leyland management) speaks for itself.

It is said (that the erring workers normally finish their assignment by 3 a.m.) and (that they are not due to clock off until seven.) It is possible(that management has given them far too little to do or much too long in which to do it.) For them to remain alert and idle at their posts for four solid hours each night simply out of piety to Sir Michael Edwardes would argue an almost perverted sense of duty.
Adapted from Daily Telegraph, 13 November 1979

Movement of Focus Position

- IT-extraposition in Passive Sentences
- A very common pattern in the text above is the following:
- It + passive verb + that-clause.
- In the second paragraph, for example, we find:

Movement of Focus Position

- (1) From the beginning of time, it has been accepted *that men who are on duty during the night will be tempted to sleep*.
- (2)It is assumed *that nothing but ... will prevent them from going to sleep*.

Movement of Focus Position

- What is the Subject of (1) and (2)?
- The Subject of the main clause is obviously *it*, since SAI affects the order of *it* and the auxiliary has or is:
- (3)Has *it* been accepted that...?
- (4)Is *it* assumed that...?

Movement of Focus Position

- Since the verb is in the passive (has been accepted, is assumed), we should be able to reconstruct the underlying active string.
- Indeed, the active sentences corresponding to (1) and '(2) may be something like:

Movement of Focus Position

- (5)... *everyone* has accepted that men who are on duty during the night will be tempted to sleep.
- (6)*One* assumes that nothing but ... will prevent them from going to sleep.

Movement of Focus Position

- The choice of the items *everyone* and *one* as underlying Subject NPs in (5) and (6) is fairly arbitrary, of course: some other general NP would also have been possible here.
- The Subject NPs of (5) and (6) are absent from the corresponding passives (1) and (2) above.

Movement of Focus Position

Bracketing the constituents in the main clauses of (5) and (6) we can have the GF of the that-clause in (5) and (6) and it is represented by the structure of (5) as follows:

(7) [S . .. [NP everyone] [VP has accepted [s¯ that men who ... will be tempted to sleep]]]

The that -clause (S¯) is a Complement of the V, and functions as Od. Sentence (7) has the same structure as simple sentences such as (8)

(8) [S [NP Everyone] [vp has accepted [NP the fact]]]

Movement of Focus Position

Pseudo-clefting bears out the analysis of (5), showing that the that-clause is integrated in the VP:

(9) What everyone has done is [VP accept that men who are on duty during the night will be tempted to sleep]

It is also possible to use the auxiliary have as a substitute for the whole VP, as (10) illustrates:

(10) Everyone has accepted that men who are on duty during the night will be tempted to sleep, but John *hasn't* (accepted that men who ...)

Movement of Focus Position

If the that-clause is the Od of (5), then under passivisation it should become the Subject of the passive sentence. And this is indeed what happens:

(11) That men who are on duty during the night will be tempted to sleep has been accepted (by everyone).

Sentence (11) can be given the following constituent structure:

(11a) [s [NP That men who are ... will be tempted to sleep] [vp has been accepted]]

Movement of Focus Position

- However, (11) is not a very elegant sentence; there is something wrong with the balance between Subject and Predicate.
- The Subject is heavy and the VP following it relatively short.

Movement of Focus Position

- We get rather a lot of information at the beginning of the sentence, while in English the focus of attention in a sentence is usually towards the end of the sentence.
- It is for this reason that (11) should preferably be converted into (12):

Movement of Focus Position

(12) It has been accepted that men who are on duty during the night will be tempted to sleep.
Consider again:
(11) That men who ... will be tempted to sleep has been accepted.
(12)It has been accepted that men who... will be tempted to sleep.

Two main operations are involved in converting (11) into (12):
(a) The Subject clause (with that) is shifted rightwards towards the end of the sentence, leaving a gap ---:
(13) --- has been accepted [s that men who ... will be tempted to sleep]
(b) *It* is inserted into the vacated Subject position. *It* is a dummy element, functioning as a place-holder for the Subject, and is called the grammatical or anticipatory Subject, as opposed to the notional Subject (the that-clause) . The anticipatory Subject will be labelled *su*, to distinguish it from 'normal' Subjects (Su).

Movement of Focus Position

- The structure of sentence (12) may now be summed up as follows: It/su
- [V pass-S¯/ Su].
- In (12), the moved that-clause gives content or meaning to *it* ; the two are linked and are said to form a chain.

Movement of Focus Position

- The movement transformation which shifts the that-clause rightwards in the sentence is called extraposition.
- The combination of extraposition + it insertion is referred to as it-extraposition.

END

It-extraposition in Active Sentences

It-extraposition in Active Sentences

- *It*-extraposition is not confined to passive sentences such as (1) and (2) above.
- If you read through text again, you will also find active sentences showing the same process.

It-extraposition in Active Sentences

(14) It arouses indignation that some night workers ... are in the regular habit of sleeping for a large part of their shift.
If we bracket the sentence constituents, we get the following:

(15) [s [NP It] [vp arouses [NP indignation] [-s-that some night workers ...]]]

The function of the NP indignation is that of Od, as passivisation shows:

(16) [NP indignation] is aroused by (the fact) that some night workers...
What is the GF of the that-clause? It supplies the content for it:

(17) What arouses indignation is [s that some night workers ... are in the regular habit of sleeping for a large part of their shift]

It-extraposition in Active Sentences

It in (14) is the grammatical Subject, and the that-clause the notional Subject.

(14) is another instance of an *it*-extraposition pattern. We can, in fact, undo the effect of *it*-extraposition quite easily:
(a) remove it:
[s--- [vp arouses indignation [s¯ that some night workers ... are in the regular habit of sleeping ...]]]
(b) replace the displaced that-clause into its original position:

[s [s¯ That some night workers ... are in the regular habit of sleeping ...] [vp arouses indignation]]

Here is another example of *it*-extraposition from the text:
(18) It is possible that management has given them far too little to do.

It-extraposition in Active Sentences

- What is the analysis of sentence (18)?
- Can you undo the effect of *it*-extraposition (i.e. first remove *it*, then shift the that-clause back to its normal position at the beginning of the sentence)?

It-extraposition in Active Sentences

- The effect of *it*-extraposition is that the heavy Subject clause is moved into focus position at the end of the sentence.

END

It-extraposition with Non -finite Clauses

It-extraposition with Non -finite Clauses

- So far, we have concentrated on extraposition involving finite Subject clauses.
- *It*-extraposition may also move non-finite clauses.
- In the last paragraph of the text we find:

It-extraposition with Non -finite Clauses

It-extraposition with Non -finite Clauses

(19) [s [s¯ For [s them to remain alert and idle at their posts for four solid hours each night simply out of piety to Sir Edwardes]] [VP would argue an almost perverted sense of duty]]

It-extraposition with Non -finite Clauses

- As we can see, the Subject of this sentence is realised by a non-finite clause (S^{-}).
- The complementiser in this clause is *for*, and *for* cannot be left out.
- Sentence (19)has not undergone *it*-extraposition.

It-extraposition with Non -finite Clauses

- The effect of it-extraposition would be as follows:
- (a) extraposition:

[s --- would argue an almost perverted sense of duty [s⁻ for [s them to remain alert and idle for four solid hours each night simply out of piety to Sir Edwardes]]]

It-extraposition with Non -finite Clauses

- (b) it-insertion:

- [s⁻ it would argue an almost perverted sense of duty [for [s⁻ them to ..]]]

END

It-extraposition in Verbless Clauses

Morphology and Syntax

It-extraposition in Verbless Clauses

Let us now look at the examples below:

(22) They considered her behaviour with George very foolish.

(23) The committee found the proposal unacceptable.

It-extraposition in Verbless Clauses

Both examples may be analysed as follows :

(24) NP/Su [V [s,Od NP/Su-AdjP/ Pc]]

In other words: consider in (22) and find in (23) have as their Direct Object a verbless clause (*her behaviour with George very f*oolish and *the proposal unacceptable*).

The verbless clauses in themselves contain a Subject and a Predicative Complement, but there is no verb to link them. Compare (22) with (25) and (26) below:

(25) They considered her behaviour with George to be very foolish.

(26) They considered that her behaviour with George was very foolish.

It-extraposition in Verbless Clauses

- Obviously, nothing would prevent the Subject of the verbless clause in (22) from also being realised by a clause, rather than by an NP. For example:
- (27) They considered that she behaved badly with George very foolish.
- .

It-extraposition in Verbless Clauses

- (28) They considered for her to behave badly with George very foolish
- In (27) the Subject of the verbless clause is a finite that-clause ; in (28) it is non-finite.
- But again (27) and (28) sound very awkward; they can be improved if we rephrase them as (29) and (30):

It-extraposition in Verbless Clauses

(29) They considered it very foolish that she behaved badly with George.
(30) They considered it very foolish for her to behave badly with George.
(29)and (30) are related to (27) and (28) by it-extraposition.
In this case, the domain of it-extraposition is the verbless clause functioning as Od. The two familiar steps can again be described as follows:
(a) extrapose the Subject clause of the Object clause:
They considered h.:.. -- very foolish [s that she ...]]
(b) insert it:
(c) They considered [s it very foolish [s that she . . .]]

It-extraposition in Verbless Clauses

- Or schematically:
- U.S.: NP [vp v [s¯ [s¯] [AdjP /Pc]]]
- (a) NP [vp v [s¯ --- [AdjP /Pc][s¯]]]
- (b) NP [vp v [it [AdjP/Pc] [s¯]]]

It-extraposition in Verbless Clauses

- In (29) and (30), *it* is the filler of the Subject position inside the verbless Object clause.
- The notional Subject is the extraposed Subject clause.

END

It-extraposition with Object Clauses

Morphology and Syntax

It-extraposition with Object Clauses

- Consider the following sentence:
- (31) Mary called William' s behaviour rather odd.

It-extraposition with Object Clauses

If we adopt the analysis proposed the following pattern emerges:

(32) NP/Su [V-NP/ Od-AdjP/ Pc+AcJ

The AdjP realises the GF of Pc+Ac. As seen, an Od may also be realised by a clause (an Object clause). For example:

(33)We [vp regretted [s¯/Od that she arrived so late]]

Consider now also:

(34) We [vp called [s¯/Od that she arrived so late] [AdjP/Pc+Ac very regrettable]]

(34) is, of course, a very clumsy sentence. Its style can be improved if we rearrange it as follows:

(35) We called it very regrettable that she arrived so late.

It-extraposition with Object Clauses

- (34) and (35) have the same meaning. If we compare their structures, we see that (35) is the result of it-extraposition.
- We have again applied the two-step procedure which we have seen before:
- (a) extrapose the (Object) clause, i.e. shift it to the right:

It-extraposition with Object Clauses

- (b) insert it in the vacated slot:
- (37) We called it very regrettable [that she arrived so late]

It-extraposition with Object Clauses

- *It* is the place-holder for the extraposed Object clause: it is the grammatical or anticipatory Object of called, and the that-clause is the notional Object.
- The grammatical Object is labelled od, to distinguish it from 'normal ' Objects (Od).

It-extraposition with Object Clauses

- The structure of (35) may be summed up as follows:
- (35a) NP/ Su [V-*it*/ od-AdjP/Pc+Ac-S^{-}/ Od]

It-extraposition with Object Clauses

- We have pointed out that there are alternative analyses for sentences with so-called complex transitive verbs.

END

Subject verb inversion

Subject verb inversion

Let us consider the following text.

Blackstable was a fishing village. It consisted of a high street in which were the shops, the bank, the doctor's house, and the houses of two or three coalship owners. Round the little harbour were *shabby streets in which lived fishermen and poor people*.

Adapted from W. Somerset Maugham , Of Human Bondage

Subject verb inversion

- Look at a simplified version of the last sentence.
- (43) Round the little harbour were *shabby streets*.
- In what respect is (43) a 'simplified version' of the last sentence of the text?

Subject verb inversion

- Compare (43) with (44) below:
- (44) The shabby streets were round the little harbour.
- This last sentence has the pattern:
- NP/Su [V-PP/Ac].

Subject verb inversion

- The PP *round the little harbour* has been fronted in (43), and the Subject and the Verb have changed places.
- (43) and (44) are both grammatical have the same meaning,

Subject verb inversion

- contain identical constituents with identical GFs,
- the distribution of these constituents is different.

Subject verb inversion

- By reorganizing the sentence, the author achieves greater emphasis on the Subject NP, since this is now in sentence-final (i.e. focus) position.

Subject verb inversion

- The rearrangement is a two-step procedure:
- (a) the PP/ Ac is fronted .
- (b) the Subject is moved to the right.
- Step (a), the fronting of the Adverbial Complement, precedes and triggers step (b), the inversion of the Subject and the verb.

Subject verb inversion

- Step (b) is called Subject-Verb Inversion.
- Let us return to the original sentence in the text:
- (45) Round the little harbour were *shabby streets in which lived fishermen and poor people.*

Subject verb inversion

- What is the Su?
- Make sure you bracket the full NP/Su.
- The constituent order of (45) is: Ac-V-Su, which is not a basic pattern.
- If you restore the sentence to its basic pattern, you will get a sentence of the Su V-Ac type, but with a heavy Subject NP:

Subject verb inversion

- (46) [s [NP Shabby streets in which lived fishermen and poor people]
- [vp were [pp round the little harbour]]]

Subject verb inversion

- By fronting the PP round the little harbour and moving the Subject NP *shabby streets in which lived fishermen and poor people* rightwards, the sentence is made much more balanced.

Subject verb inversion

- Let us now look at the postmodifying clause in the Subject NP*: in which lived fishermen and poor people*.
- The constituent order of this clause is as follows:
- (47) [s⁻ [PP in which] _ [s [vp lived [NP fishermen and poor people]]]]

Subject verb inversion

- Is this a basic sentence pattern?
- If it is not, what arrangements do you think have been made?

Subject verb inversion

- Of course, one rearrangement is due to wh -movement of in which into COMP.
- A second rearrangement moves the Subject NP *fishermen and poor people* to the right, placing it after the verb lived (Subject-Verb Inversion or SVI, for short).

Subject verb inversion

- SVI often greatly improves the style of a sentence by creating a better balance between the beginning and the end of the sentence.
- The result is again that a prominent Subject is moved into the focus position at the end of the sentence.
- It is often called a 'stylistic inversion'.

Subject verb inversion

- Like it-extraposition, SVI shifts a constituent towards the end of the sentence.
- An interesting difference between Subject-Verb Inversion and Subject-Aux Inversion.

Subject verb inversion

- SVI changes the order of Su and V by moving Su rightwards, placing it after V in the VP,
- SAI reorders Su and aux by moving aux (+ tense) leftwards out of the VP, placing it in front of Su.

END

There-insertion

- Consider example:
- (51) There were three shops in the village.
- Bracketing the constituents and identifying the Subject, you will find that there are two constituents which seem to be likely candidates for Subject status:

There-insertion

- (a) the word *there*, which seems to occupy the Subject position , as is confirmed by Subject-Aux Inversion:
- (52) Were there three shops in the village?

There-insertion

- (b) the NP three shops.
- Support for this can be found in the fact that this NP and the verb have agreement. Compare:
- (53) There was one small shop in the village.

There-insertion

- Has this sentence then got two Subjects?
- If we look at it more carefully, we find that it corresponds to a more basic pattern:
- (54) Three shops were in the village.
- This is an Su (V-Ac] sentence.

There-insertion

- (51) and (54) can be related by a movement operation, which shifts the Subject NP in (54) rightwards (SVI) to the position after be:
- (55) --- were three shops in the village.

There-insertion

- Into the vacated slot we then insert a dummy element: there.
- There insertion in (55) gives us (51) above. Like it, there serves to announce that the notional Subject is to follow.

There-insertion

- There-sentences, also called existential sentences, are often used to introduce new elements into the discourse, as the following text illustrates:

There-insertion

Text

There was a university in New England where the students operated a ban k of term papers and other homework assignments. There were papers for every need: there were papers for an A grade, papers for a B and papers for a C.
In this university there was also a student who had spent the weekend on pursuits other than homework; he went t to the bank. He drew out a paper for C, retyped it, and handed his work in. In due course he received it back with comments in red ink and they were as follows: 'I wrote this paper myself twenty years ago. I always thought it worth an A, and now I am glad to give it one'.

Adapted from Christian Brann, Pass the Port.

There-insertion

There-insertion is usually only possible with indefinite Subjects and the verb used is normally be (either the lexical verb be, or one of the auxiliary uses of be):

- **lexical verb be:**

(56) A mouse is in the kitchen. >There is a mouse in the kitchen.
Especially with the lexical verb be the versions with there sound far better than those without there.

- **progressive be:**

(57)A man is waiting for you. > There is a man waiting for you.

- **passive be:**

(58) Some money has been stolen.> There has been some money stolen.

Extraposition from NP

Extraposition from NP

- A further method of balancing the sentence is by extraposition from an NP.
- Above we have seen that heavy Subjects may be moved towards sentence-final position.

Extraposition from NP

- For example:
- (69) It is a *scandal that they have allowed this practice for so long*.
- (70) In this area live fishermen, painters, ironmongers, coalminers, and unskilled workers.

Extraposition from NP

- The tendency to move heavy constituents to the right is very general in English.

Extraposition from NP

A few more examples below.
Consider, for example, (71) and (72):

(7l a) **Did you see that man with those funny clothes yesterday?**

(7l b) **Did you see that man yesterday with those funny clothes?**

(72a) **A new book by Professor Winters which deals with the suppression of women in the fifteenth century has just appeared.**

(72b) **A new book by Professor Winters has just appeared which deals with the suppression of women in the fifteenth century.**

Extraposition from NP

- Moving constituents out of an NP is also called extraposition, more specifically extraposition from NP.
- operation in the (b)-sentences, we see that it splits up the NP into two parts:
- (73)[NP that man ... [PP with those funny clothes]]

Extraposition from NP

- The PP *with those funny clothes* is not an independent constituent: it cannot be the focus element in a cleft sentence.
- We can say that NPs may be discontinuous: their components may be separated by intervening material.

Extraposition from NP

- To determine GFs in sentences such as (74)-(77), it is always best to restore the sentence to its basic word order first, since separated components of a constituent really make up only one constituent, with one GF.

END

Heavy object-shift

Heavy object-shift

- Now consider (79a) and (79b):
- (79a)You will give him a sleeping tablet every night.
- (79b)You will give him every night two sleeping tablets, and a glass of milk:

Heavy object-shift

- Sentence (79a) has the following pattern: NP/Su [V-NP/ Oi-NP/ Od NP/A].
- (79b) is very similar, but the Direct Object NP has now been shifted rightwards to sentence-final position.
- Again this is a stylistic movement.

Heavy object-shift

- The NP/ Od in (b) is rather long and heavy, and it is exactly such long and heavy Object NPs which tend to be moved rightwards.
- Here is another example from P.G. Wodehouse, Lord Emsworth and Others:

Heavy object-shift

- (80) Poskitt was a man who brought to the tee the tactics which in his youth had won him such fame as a hammer thrower.

Heavy object-shift

- In the following examples, too, the Od has been shifted rightwards.
- Note that if you replace the heavy NP by a short one (e.g. a pronoun), there is no need to extrapose it to the end of the sentence.

END

Morphology and Syntax

Clefting

Clefting

- Clefting is a device which is used to focus on a particular constituent in the sentence.
- The process of clefting involves extracting a constituent from its basic position in the sentence and putting it in a more prominent position.

Clefting

Consider the ways in which clefting could be applied to sentence (1):

(1) Jane gave this book to Bill on Saturday.

The cleft versions of (1) include the following:

(2) It was on Saturday that Jane gave this book to Bill.

(3) It was to Bill that Jane gave this book on Saturday.

(4) It was this book that/which Jane gave to Bill on Saturday.

(5) It was Jane that/who gave this book to Bill on Saturday.

Clefting

We could extend sentence (1) by adding an Adjunct clause. For example:

(6) Jane gave this book to Bill on Saturday because it was his birthday.

If we take the because-clause as the focus element, (6) becomes (7):

(7) It was because it was his birthday that Jane gave this book to Bill on Saturday.

Clefting

- The focus element may be either an NP ((4) and (5)), a PP ((2) and (3)) or an Adjunct clause ((7)).
- As the examples show, the focus element is surrounded by: It is/ was. .. *That/ who/ which -clause*.

Clefting

- Although these *that/ who/ which -clauses* are very similar in appearance to relative clauses, they are not quite the same.

Clefting

- One difference is that normal relative clauses usually serve to postmodify Heads of NPs, i.e. Ns, not PPs or Adjunct clauses.
- The relative clauses in cleft sentences can 'postmodify ' PPs and Adjunct clauses.

Clefting

- Another difference is that in the common type of relative clauses the *that/ who/ which-element* cannot be left out if it is the Subject of the clause, but in cleft sentences that, who, or which can be omitted in colloquial style if it is the Subject of the clause.

Clefting

- 8a) The girl who gave the book to Bill is my sister.
- (8b) *The girl gave the book to Bill is my sister.
- (9a) It is Jane who gave the book to Bill.
- (9b) It is Jane ø gave the book to Bill.

END

Morphology and Syntax

Pseudo-clefting

Pseudo-clefting

- Clefting is a useful way of making clear what you are focusing on, but it is not possible, for example, to make the verb the Head of a cleft construction.
- An alternative way of focusing on constituents, which is applicable to verbs and their Complements.

Pseudo-clefting

- For example:
- (10) What Jane did was give the book to Bill on Saturday.
- (11) What the waiter did was open the tins first.

Pseudo-clefting

- We focus on the VP give the book to Bill on Saturday, or open the tins first by putting it sentence-finally and placing the string: what NP/Su did was . . . before it.
- This process is called pseudo-clefting.

Pseudo-clefting

- Some more examples:
- (12) What Bill will do is have a quick shower before he leaves.
- (13) What Anne did was open the box and take out the gun.
- (14) What I am doing is trying to clear up this mess.

Pseudo-clefting

- Pseudo-clefting is not only used for focusing on the VP as a whole. Other constituents can also be focused on by pseudo-clefting.

Pseudo-clefting

For example:

(15a) I need a sandwich and a coffee most at this time of the day.

(15b) What I need most at this time of the day is a sandwich and a coffee.

What . . . day in (15b) is a free relative clause functioning as Subject. It may also be a Complement (Pc):

(15c) A sandwich and a coffee is what I need most at this time of the day.

Morphology and Syntax

Substitution by pro-forms

Substitution by pro-forms

- Constituents as a whole may at times be replaced by substitute forms, also called **pro-forms**.
- Consider:
- (1)Bill's sister announced the news of her marriage the day before yesterday.

Substitution by pro-forms

- In this sentence the NP *Bill's sister* may be replaced by *she*;
- the news of her marriage by *it* ;
- the day before yesterday by *then* ;
- (2)[S [She] [vp announced [it] [then]]]

Substitution by pro-forms

- *She* and *it* are personal pronouns;
- *th*en is an adverb replacing a time Adjunct.
- *She, it* and *th*en are examples of pro-forms.

Substitution by pro-forms

- Interrogative pronouns (*who, what, which*) and *interrogative adverbs* (such as *when, where, why, how*) are also used to replace constituents.

Substitution by pro-forms

- Take, for example:
- (3) What did Bill's sister announce the day before yesterday?

Substitution by pro-forms

- The answer to this wh-question may be: 'The news of her marriage'.
- We have seen that wh-pronouns also serve to introduce relative clauses (clauses which postmodify the Head of an NP), as in:
- (4) The girl *who announced the news* was Jane.

Substitution by pro-forms

- This occurrence of *who* is also a **pro-form**.
- Another important replacive device which may be used to avoid repetition is the string **do so**, as in:
- (5) Mary bought her wedding dress in London and so did Jane.

Substitution by pro-forms

- The string **do so** substitutes for the VP *bought her wedding dress in London*.
- If the VP contains auxiliaries, these may also be used as substitutes for the entire VP:
-

Substitution By Pro-Forms

- (6)Mary may buy her wedding dress in London and {Jane may too/ so may Jane} .
- (7) Susan may already have left and {Anne may have too /so may Anne }

Substitution by pro-forms

- It is, of course, possible to rewrite the text above, supplying for each pro-form the elements it replaces.
- However, this would make the text repetitious and over-explicit:
- there would be a great deal of redundant information.

Substitution by pro-forms

- It is a matter of economy to use substitute forms for elements or information already known to the reader or hearer.

END

Morphology and Syntax

Ellipsis

- Not just pro-forms that are used to economise in language.
- For example, speakers often reduce redundancy by leaving out superfluous information, i .e. information which can easily be recovered from the situation or the context.

- This phenomenon is called ellipsis.
- Elliptical sentences depend for their interpretation on what precedes them in discourse.
- Thus, in:
- (1) A: When did Susan leave?
- (2) B: At two o'clock.

- We may assume that in the 'response sentence' the string *Susan left has b*een omitted.

- The omission from speech or writing of a word or words that are superfluous or able to be understood from contextual clues.

- It is very rare for an ellipsis to occur without a linguistic antecedent.

END

Subject Deletion

Subject Deletion

- Consider the following sentence:
- (2)The doctor checked the pulse of the patient who was lying unconscious and looked worried.

Subject Deletion

- The sentence is compound-complex: it contains two coordinated clauses, the second of which is looked worried , but this is incomplete as it stands: looked worried is a VP without NP/Su.
- Can you supply the missing Subject?

Subject Deletion

- Intuitively, we know that the Subject of *looked wou*nded must be the *doctor*, or *he*: ... and *he looked wounded*.

Subject Deletion

- It is characteristic of clauses coordinated **by** and, **or** and **but** that the Subject of the second clause may be deleted if it is co-referential to the Subject of the first clause.

Subject Deletion

- Other examples are:
- (3) John sat down and (he) told us the news.
- (4) Susan will sing a song or (she} will play the piano.
- (5) Bill arrived at eight but (he) had to leave immediately.

END

Verb Gapping & Backward Gapping

Verb Gapping & Backward Gapping

- We have seen how the second of two identical Subject NPs may be deleted in coordinate clauses.
- Similarly, a **ver**b may be omitted if it is identical with a preceding verb:
- (6) John was eating cornflakes and Mary was eating porridge.

Verb Gapping & Backward Gapping

- In (6) was eating is repeated, but it may be deleted:
- (7)John was eating cornflakes and Mary --- porridge.
- This kind of deletion is called verb gapping.
- Note that you can only gap over adjacent clauses:

Verb Gapping & Backward Gapping

- (8)John was writing an essay, Bill was reading a novel and Anne a short story.

Verb Gapping & Backward Gapping

- In (8) the gapped V in the third clause must be was reading ;it cannot be was writing.
- Let us look at another example with such parallelisms:
- (9)John liked the film about flies and Mary disliked the film about flies.

Verb Gapping & Backward Gapping

- Here the V differs, but the NPI Od is identical: the film about flies. We can replace (9) by (10):
- (10) John liked, and Mary disliked, the film about Gandhi.

Verb Gapping & Backward Gapping

- Sentence (10) is an example of gapping in reverse: the NP/ Od is deleted in the first clause in anticipation of the identical NP/ Od in the second clause.
- This process is called **backward gap**ping.

Verb Gapping & Backward Gapping

- Further examples:
- (11)Mary wrote, and Susan typed out, the essay.
- (12)Jim earned, and his wife spent, the money.
- (13)Mary bought, and Peter immediately sold, the shares.

Verb Gapping & Backward Gapping

- Apart from reducing redundancies (identical Object NPs), the process of backward gapping also throws light on the contrast between the verbs in the clauses.

Verb Gapping & Backward Gapping

- The process of gapping is not sentence-bound: its domain is not restricted to one clause/sentence, but also involves the immediate context: it is **discourse-bo**und.

END

Morphology and Syntax

Non-finite clauses raising and control introduction

Introduction

- Already discussed Sentences may be embedded inside other sentences.
- In (1), for example, there is an Object clause (S^{-})inside an S:
- (1)[s [NP The Vicar] [vp said [that

  [s evil communications corrupted good manners]]]]

Introduction

- In (1) S^{-} is a finite clause.
- However, subordinate clauses are not always finite.

Introduction

- Compare (2a) and. (2b):
- (2a) The Vicar believed that evil communications corrupted good manners.
- (2b) The Vicar believed evil communications to corrupt good manners.

Introduction

- In (2a) there is a finite subordinate clause, as in (1).
- In (2b) the subordinate clause is non-finite: its VP contains a to-infinitive.

Introduction

- The function of Object may also be realised by a clause containing a *VP with a* bare infinitive, *an-ing participl*e or an *-ed particip*le:
- (3)I heard Mary sing carols.
- (4)I heard Mary singing carols.
- (5)They found their house occupied by squatters.

Introduction

- Finally, an Object clause may also be verbless: in such cases there is a predicate relationship between the clause elements:

- (6)I consider him guilty of this crime.

Introduction

- We shall look more carefully at the structure of sentences with subordinate non-finite clauses.

END

Morphology and Syntax

Non-finite clauses: raising and control

Non-finite clauses: raising and control

- Let's identify the complex sentences.
- (1)The book shows how children believe they are responsible for everything in their lives.
- (1)[The book shows] *how children believe* they are responsible for everything in their lives.

Non-finite clauses: raising and control

- Bracket the main constituents in (1).
- Is the sentence simple, compound or complex?
- What is the Od of shows?
- In (1) the Od is realised by a wh clause.
- The wh-element *how* occurs in COMP.

Non-finite clauses: raising and control

- The subordinate clause itself is also complex: it contains another Object clause: the Od of believe is:
- [s (that) [s they are responsible for everything in their lives]]

Non-finite clauses: raising and control

The structure of sentence (1) may be represented as in following:

The book shows how children believe they are responsible for everything in their lives.

(3) [s the book [vp shows [s how [s children [vp believe [s that) [s they [vp are responsible for everything in their lives)]]]]]]

Non-finite clauses: raising and control

- If try diagram going from top to bottom you will find three S nodes:
- (a) the main clause: S1
- (b) the first Object clause: of shows: S2
- (c) the second Object clause: of believe: S3 •

Non-finite clauses: raising and control

See the following sentence:

(4) Everyone thinks that you are writing straight from life.
(5) They all believe your parents were really like that.
(6) ... and (I) showed that memory works.
(7) ... and I wish I had not got it wrong.
(8) I wrote that Dyer commanded only white troops.
(9) Sometimes I thought that I was mad.
(10) Most of the time I thought it would not be published.

Non-finite clauses: raising and control

- What sentences (4)-(10) have in common is that the superordinate verb in each case (*show, believe, think, wish, etc.*) takes a finite clause as Od.

Non-finite clauses: raising and control

- Finite clauses always have an explicit Subject.
- We also see that the subordinator **that** may sometimes be deleted (cf. (1), (5), (7), (10)).

END

Morphology and Syntax

Non-finite subordinate clauses with lexical subjects

Non-finite subordinate clauses with lexical subjects

- Compare (11a) and (11b):
- (11a)But I did not wish (that) the book should become a family saga.
- (11b)But I did not wish (for) the book to become a family saga.

Non-finite subordinate clauses with lexical subjects

Bracketing the main constituent s in (11a) and (11lb).

Notice that wish takes a clause as its Od in both examples, but in ((11a) the Object clause is finite , while in (11b) it is non-finite.

Let's show how the sentences in (11) should be bracketed:

(12a) [s [NP I] [vp did not wish [s¯ { that / ø} [s the book should become a family saga]]]]

(12b) [S [NP I] [did not wish [s¯ {for/ ø } [s the book to become a family saga]]]]

Non-finite subordinate clauses with lexical subjects

The subordinate clauses in (12a) and (12b) differ in several respects:

(a)The finite subordinate clause in (12a) is introduced by the complementiser that in COMP. That is optional (ø).
The non-finite subordinate clause in (12b) is introduced by the complementiser *for*, which is optional.

(b)The VP of (12a) is finite; that of (12b) is non-finite.

(c) If we insert a pronoun in the Subject position of an embedded finite clause, the pronoun will take the Subject form:
(13a) I did not wish that they/ she/ he/ it should...
But if we use a pronoun as the Subject of a non-finite clause, the pronoun will take the Object-form:

(13b) I did not wish (for) them/ him/ her/it to ...
By analogy, the book in (12a) is assumed to be in the Subject form, and the book in (12b) in the Object form.

Non-finite subordinate clauses with lexical subjects

The complementiser *for* in (14) is obligatory, while it is optional in (15): for may be inserted.

(14) People preferred very much *for* these things to be forgotten.

(15) I did not intend the book to be taken as an oracle.

(16) But people do not believe these things to be real.

The non-finite Object clause in (16) can not take for:
(16a) *But people do not believe for these things to be real.

Non-finite subordinate clauses with lexical subjects

On the basis of these examples we can draw the following conclusions:

(a)Some verbs, like *prefer*, take non-finite clauses with the complementiser *for*;
others, such as *believe*, take non-finite clauses without *for.* In the latter case the COMP of the non-finite clause is empty:

(16b) But people do not believe [s¯ [s¯ these things to be real]]

(b) The complementiser for may be deleted if it is immediately preceded by a V such as prefer. If prefer (or a similar V allowing *for*) is separated from the complementiser by intervening material (for example by an Adjunct), then *for* is no longer deletable like the following .
(c) People preferred very much *for* these things to be forgotten.

Non-finite subordinate clauses with lexical subjects

The non-finite clauses discussed above all occur as Complements of Vs; they are all Object clauses.
Non-finite clauses may also be Subjects:

(17a) For me to be writing a book on this subject was an irrational act.

(17b) It was an irrational act for me to be writing a book on this subject.

In (17a) the non-finite clause is the Su;

in (17b) it is an extraposed Su, linked to the Subject position by *it* (su).

Non-finite subordinate clauses with lexical subjects

END

- In (17) the non-finite clauses are again introduced by *for* in COMP, but *for* is not deletable here.
- (18a)*Me to be writing a book on this subject was an irrational act.
- (18b)*It was an irrational act me to be writing a book on this subject.

Morphology and Syntax

Non-finite clauses without lexical subjects

Non-finite clauses without lexical subjects

- Now consider (19a) and (19b) below.
- What is the difference between them?
- (19a)I did not wish (for) the book to become a family saga.
- (19b)I did not wish to write a family saga.

Non-finite clauses without lexical subjects

- Both clauses have an embedded Object clause, and in each case the embedded clause is non-finite.
- In (19a) the Subject of the embedded clause is lexically realised by an NP, the book ; the complementiser *for* is optional.

Non-finite clauses without lexical subjects

- In (19b), on the other hand, the embedded clause lacks an overt Subject.
- The Subject position is not lexically filled, and we shall indicate this by parentheses ( ).

Non-finite clauses without lexical subjects

Furthermore, the COMP in (19b) must not be filled by *for*:

(19c) *I did not wish for to write a family saga.

The structure of (19b) is indicated in (20):

(20) I did not wish [s^- [s^- ( ) [vp to write a family saga]]]

Non-finite clauses without lexical subjects

- What does (19b) mean?
- Of course, it means 'I did not wish that I should write a family saga'.
- ( ) in (20) is to be interpreted as 'I'.

Non-finite clauses without lexical subjects

- We shall say that the non-lexical Subject position ( ) is controlled by the Subject of the higher clause.
- It is an example of control
- We return to control later.

END

FOR ... TO FILTER

FOR ... TO FILTER

- It is not just non-finite Object clauses that may be lacking an overt lexical subject.
- Subject clauses, too, may have a non realised subject:

FOR ... TO FILTER

- (21a) To be writing a book on this subject was irrational.
- (21b) It was irrational to be writing a book on this subject.

FOR ... TO FILTER

- Compare (21a) and (21b) with (17a) and (17b).
- Observe that *there* is no overt Subject in the embedded clauses of (21a) and (21b), while there is one in the embedded clauses of (17a) and (17b

FOR ... TO FILTER

- We assign the Subject clause of (21a) the following structure:

- (22)[sø [s () [VP to be writing a book on this subject]]]

FOR ... TO FILTER

- As in (19b), the complementiser *for* is not allowed to occur here.
- In other words, the string [COMP *for* ( ) *to*] is not allowed in English: it must be filtered out.
- The complementiser *for* must not immediately precede *to*.

FOR ... TO FILTER

- The rule which disallows the string *for ... to* is more general than shown above.
- Take, for example, the sentence:
- (23a)You wished for which book to become a success?
- If wh-movement applies to this sentence we arrive at (23b):

FOR ... TO FILTER

- (23b) *Which book did you wish for --- to become a success?
- but (23b) is ungrammatical , since it contains the string *for ... to* ; for must be deleted :
- (23c)Which book did you wish to become a success?

END

Raising

Raising

- Raising with passive verbs
- Consider (1a) and (1b):
- (1a) I intended (for) the political parts of the book to reveal many things.
- (1b)The political parts of the book were intended to reveal many things .

Raising

- The higher clause in (1a) is active (I intended); that in (1b) is passive (were intended).
- In (1a) the *NP the political parts of the book* appears as the Su of the embedded S:

Raising

- In (1b) the NP *the political parts of the book* is the NP/ Su of the higher clause: it is the Subject of *were intended.*

Raising

- Furthermore, it would seem that the embedded S in (1b), *to reveal many things*, lacks an overt Subject. (1b) is the passive counterpart of (1a).

Raising

- Passivisation results in the suppression of the original Subject of intend (I), and the leftward movement of the Su of the embedded non-finite clause (*the political parts of the book*), which is now placed in the Su-position of the higher clause, leaving a gap at its original position:

Raising

For example ;

(3a) [s I [vp intended [s¯ [s¯ the political parts of the books to reveal many things]]]]

(3b) [s [NP The political parts of the book] [vp were intended [s¯ [s--- to reveal many things]]]]

Again *for* must not be present in (3b), since this would result in a string for. . . to.

Raising

- Let us look more closely at the properties of the NP *the political parts of the book in* (3b).
- We have seen that it is the grammatical Subject of the higher passive verb *(were intended*).
- Secondly, it is also related to the Subject position in the embedded clause

Raising

- We claim that passivisation triggers movement of the NP/Su out of the embedded clause into the higher clause, leaving a gap ---.

Raising

- The NP/ Su of the higher clause binds the Subject position (more specifically the gap) in the lower clause, in the same way that an antecedent NP binds a reflexive pronoun.

Raising

- The operation of moving a Subject out of a non-finite clause into the Subject position of the next clause up is called **raising**.

END

Morphology and Syntax

Raising II

Raising II

- Let us return once more to (3b) above and consider one further problem.

- (3b)[s [NP The political parts of the book] [vp were intended [s¯ [s--- to reveal many things]]]]

Raising II

- We know that the function of the NP *the political parts of the book* is that of Su of the higher clause.
- Now what is the function of the embedded non-finite S: [s--- to reveal many things]?

Raising II

- It is obviously not the Subject of *were intended*., though it is related to the Subject by the gap---.
- Structurally the non-finite clause appears in the position of a Verb Complement, parallel to an Object clause (3a)).

Raising II

- (3a) [s I [vp intended [s¯ [s¯ the political parts of the books to reveal many things]]]]

Raising II

- It might thus be justified to treat the clause as a 'retained ' Object clause: the non-finite clause is a remnant of the original Object clause.

Raising II

- Passivisation in this case does not affect the whole Object clause, but only the Subject of the Object clause, leaving the rest of the clause in its original position following the verb in the higher clause.

Raising II

The passives of verbs such as intend, think, expect, say etc. all trigger raising of a NP/ Su from an embedded non-finite S, as can be seen in the following examples:

(4) They are thought to be acts of the imagination.

(5) John is expected to be back soon.

(6) They are said to be leaving at dawn.

(7) Anne was found to be guilty of high treason.

(8) This was felt to be the only solution.

(9) She was considered to be the best player in the team.

(10) Mary was seen to steal the money.

Raising II

It is very important to observe that the gap left after movement cannot be filled by another lexical element. Compare the examples in (11) and (12):

(11a) The political parts of the book were intended --- to reveal many things.
(11b) *The political parts of the book were intended various chapters to reveal many things.
(l2a) Who did the terrorists assassinate ---?
(12b) *Who did the terrorists assassinate the ambassador?
Compare also (13a) and (13b):
(13a) A conspiracy was believed to exist in the country.
(13b) There was believed to exist a conspiracy in the country.

Raising II

- In (13a) the Subject position of the main clause is occupied by the NP *a conspiracy*.
- As in the examples discussed above, this Subject NP has been raised out of the embedded clause, leaving a gap:

Raising II

- (14a)[NP A conspiracy] was believed [s¯ [s --- [vp to exist in the country]]]
- In (13b) the GF of Su in the main clause is realised by *there*.

Raising II

- We shall assume, again, that *there* originates in the lower clause as the Subject of exist, and has been moved into the main clause Subject position:

Raising II

- (14b)There was believed [s¯[s ---to exist a conspiracy in the country]]
- *There* binds the gap (---) in the subordinate clause.

Raising II

- We have seen before that *there* can only function as the Subject of existential sentences.
- In (14b) we see that such a Subject of a non-finite existential sentence may also be raised.

Raising II

- So far we have concentrated on raising from non-finite clauses with to infinitives.
- The process also applies, however, to clauses with participles in -ing and -ed., and to verbless clauses:

END

Raising with intransitive verbs and with adjectives

Raising with intransitive verbs and with adjectives

- we have given examples of raising triggered by passive raising verbs:
- (18) John is believed [s [s--- to have left already]]
- Certain adjectives in English may also trigger raising.

Raising with intransitive verbs and with adjectives

For example:

The pattern in (18) can also be found with non-passive, intransitive verbs:

(19) John seems to have disappeared.

(19)corresponds to (20):

(20) It seems that John has disappeared.

In (20) *John* is the Subject of the embedded finite clause that John has Disappeared. It -extraposition is obligatory here:

***That John has disappeared seems.**

Raising with intransitive verbs and with adjectives

- In (19) we also want to relate *John* to the Subject position of the subordinate non-finite clause.
- This can be done if we assume (as in (18)) that the NP *John* originates as the Subject of the subordinate clause and is then raised to the Subject position of the main clause:

Raising with intransitive verbs and with adjectives

- (19a) --- seems [s [s John to have disappeared]]
- (19b) John seems --- to have disappeared.

Raising with intransitive verbs and with adjectives

Some comments are necessary here.

(a)the embedded clause must not be introduced by the complementiser *for*, because this would give rise to the sequence *for* ... to.

(b)(19a) as it stands could not take *it* as an anticipatory NP/su. If *seems* takes a non-finite clause, it-extraposition is impossible and raising is obligatory.

Conversely, if *seems* takes a finite clause, raising is not possible and it-extraposition is obligatory .

(c)As in the case of passive raising verbs, the vacated Subject position of the non-finite clause accompanying *seems* cannot be filled by lexical material:

Raising with intransitive verbs and with adjectives

(23) John is likely --- to propose to Mary.

Here John is the grammatical Subject of *is likely*, which binds the Subject position of the subordinate non-finite clause. The clause is interpreted as *'John will propose to Mary*'.

Identify raising adjectives in the examples below:

(24) John is certain to propose to her tomorrow.

(25)The weather is unlikely to remain stable for long.

(26)Rewrite each sentence with a finite clause and it-extraposition.

Raising with intransitive verbs and with adjectives

END

- (23) John is likely --- to propose to Mary.
- Here John is the grammatical Subject of is likely, which binds the Subject position of the subordinate non-finite clause.
- The clause is interpreted as *'John will propose to Mary'*.

Concluding raising

Concluding raising

- We have seen that raising verbs and raising adjectives share the following general properties:
- (a)Raising only applies to the NP/Su of non-finite clauses.
- (b)There is a gap after the V or Adj, which cannot be filled by a lexical NP:

Concluding raising

- (27) They seem/ are likely/are said --- to have left.
- (28) *They seem/ are/likely/are said the children to have left.

Concluding raising

- The gap is bound by the Subject NP of the main clause.
- (c)There is usually a paraphrase with a finite clause and extraposition:
- (29) It seems/is likely/ is said [s¯ that they have left]

Concluding raising

- (d)In raising patterns the Subject *there* may be separated from the existential verb it goes with by raising:
- *there*{verb/adj}--- to be/exist/…
- (30) There seem/ are likely --- to be many children with reading problems.

END

Morphology and Syntax

Control: Non-lexical subjects

Control: Non-lexical subjects

- Look at the examples below:
- (1)I did not wish *to write a family saga*.
- We have already pointed out that such sentences contain a non-finiteObject clause, whose Subject is not lexically filled.

Control: Non-lexical subjects

- We have adopted the following convention for marking such non-lexically realised Subject positions:
- (2) I did not wish [s¯ [s ( ) [VP to write a family saga]]]

Control: Non-lexical subjects

- We have also seen that non-finite subordinate clauses may have a lexical Subject.

- (3) I did not wish [s¯(for) [s the book to become a family saga]]

Control: Non-lexical subjects

- The complementiser *for* is allowed in (3), but it is disallowed in (2), because the string *for ... to* is not grammatical in Standard English.

Control: Non-lexical subjects

- In (1), but not in (3), an NP outside the subordinate clause controls the Subject position in the subordinate clause.
- The non-lexical Subject is controlled by the main clause Su/ NP (I): ( ) is interpreted as 'I'.

Control: Non-lexical subjects

- Reflexivisation can be used to support the analysis proposed here.
- Consider, for example:
- (4) I want [s¯ [s ( ) to enjoy myself]]

Control: Non-lexical subjects

- Myself is a reflexive pronoun and must be bound within its clause.
- We assume that in (4) *myself* is bound inside the subordinate clause by ( ), the non-lexical Subject, which in turn is controlled by the higher Subject *I*.

Control: Non-lexical subjects

- This may be represented as follows:
- (5) I want [s⁻ ( ) to

  enjoy myself
- Compare (5) with (6):
- (6)I want [s⁻ you to enjoy {yourself /*myself}

END

Control vs raising

Control vs raising

- It is important to realise that the controller NP in (5) above is both the underlying and the surface Subject of *want*;

Control vs raising

- It is not the case that *I* has been moved into that Subject position by a raising transformation:
- *want, decide, wish, hope* are control verbs, not raising verbs.

Control vs raising

- In order to verify this claim, let us compare sentences like (1) above with raising patterns.
- We have seen that intransitive raising verbs (seem, appear, etc.) may appear in the string:

Control vs raising

- NP-seem --- to-infinitive, where --- cannot be filled by a lexical NP:
- (7a) They seem --- to have left.
- (7b) *They seem the children to have left.

Control vs raising

- Secondly, raising verbs usually have a paraphrase with a finite clause and it-extraposition:
- (8a)They seem to have left.
- (8b)It seems that they have left.

Control vs raising

- And, thirdly, in *there*-sentences the Subject *there* may be separated from its existential verb (be, exist, etc.).
- This can be accounted for by assuming that *there* has been raised, and has thus been moved away from the existential verb. For example:

Control vs raising

- (9) *There seem* --- to be many children with reading problems.
- Let us see what happens if we apply the same three tests to the string: NP want-( )-to-infinitive, where the empty Subject position ( ) is controlled by the Subject NP.

Control vs raising

- In the first place, we often have the option here of filling or not filling the empty Subject slot:
- (10) I want {()/ You} to leave

Control vs raising

- A lexical Subject NP may occur in the subordinate non-finite clause.
- Secondly, there is no paraphrase with it-extraposition:
- (11a)I want to go.
- (11b)*It wants that I should go.

Control vs raising

- And thirdly, there are no sequences like :
- (I 2) * There want () to be many children with reading problems.

Control vs raising

Let's sum up the results of these tests.
The first column gives the way in which the tests work for raising verbs like seem, the second shows the results of applying the tests to control patterns with verbs such as want:

		Raising	Control
(a)	lexical Subject in non-finite clause	no	yes
(b)	it-extroposition paraphrase	yes	no
(c)	there V to .. .	yes	no

Control vs raising

END

- What raising and control have in common is that both apply to non-finite clauses: raising operates from non-finite clauses, and control into non-finite clauses.
- Only non-finite clauses may lack an overt NP/ Su (indicated by --- or ())

Morphology and Syntax

Subject and object control

Subject and object control

- (13)He promised her to mow the lawn.
- (14) General Dyer told his troops to fire on an unarmed crowd in the streets.
- Both sentences have the pattern Su [V-Oi-Od], unlike sentence (1), which has the pattern Su [V-Od].

Subject and object control

- What is the difference between (13) and (14)?
- In (13) the non-lexical Subject position in the subordinate clause is controlled by the Subject NP *He*, not by the NP/Oi *her*, whereas in (14) it is the NP/Oi *his troops* which is the controller, not the NP/Su General Dyer.

Subject and object control

(13) and (14) may thus be bracketed as follows:

(15) [s [NP He][VP promised [NP her][s¯ ( ) to mow the lawn]]]

(16) [S [NP General Dyer] [VP told [NP his troops] [s¯ ( ) to fire on an unarmed crowd in the streets]]]

Subject and object control

- The type of verb in the main clause determines whether the NP/Su or the NP/ Oi will be the controller.
- Verbs like *promise* have Subject control, whereas verbs like *tell, order, ask, force , persuade, allow, encourage* have Object control.

Subject and object control

Here are some example of control patterns like 16

(17)He persuaded her to buy some more books.

(18)The boys did not allow the girls to take part in the games.

19()We encourage them to try again.

(20)They asked him to resign.

Subject and object control

Sentences like (17)-(20) can be passivised: the NP / Oi (her, the girls, them, him) can be made the NP/ Su of the passive sentence.

Taking (17) as an example, the passivisation process may be described as follows:

(21)[s [NP He] [VP persuaded [NP her] [( ) to buy some more books]]]

Passivisation moves the NP/ Oi *her*, and leaves the subordinate clause unaffected :

(22) [s[NP She][VP was persuaded ---[s ( ) to buy some more books]]]

Subject and object control

- We still have a control structure here, but now the Subject *she* controls the Subject position of the subordinate clause.

END

Morphology and Syntax

Indefinite control

Indefinite control

- English also has control patterns which have no overt controller.
- Take, for example:
- (23) {To write/writing} a book on this subject was an irrational act.

Indefinite control

- The Subject of the non-finite subordinate clause is empty.
- We analyse (23) as follows:
- (24) [s⁻ [s () {to write/ writing} a book on this subject]] was an irrational act.

Indefinite control

- The controller in this case might be somebody mentioned in the context, or someone unknown or indefinite.
- We call this indefinite control.

Indefinite control

Other examples of indefinite control are:

(25) Is ( ) to say No to nuclear weapons a defence policy?

(26) Oxbridge's grip on the top ranks of the civil service should be broken by ( ) encouraging students at provincial universities ( ) to come forward as potential mandarins.

Indefinite control

- The second control site in (26), unlike the first, is not a case of indefinite control.
- What is the controller of that second control site?
- Non-finite clauses may have functions other than Od or Su.

Indefinite control

- They may, for example, be Adjuncts or Modifiers:
- (27) I want to go to Paris *to buy some new clothes*.
- (28) He received a letter ordering him *to leave the country*.

Indefinite control

- Both these non-finite clauses lack an overt lexical Subject NP: the empty Subject position in (27) is controlled by *I* , and that in (28) by a *lett*er.

END

Morphology and Syntax

Control adjectives

Control adjectives

- There are also control adjectives in English, not just control verbs.
- These adjectives are followed by non-finite clauses with controlled Subject positions:
- (29) I am eager [s⁻ [s( ) to come to your party]]
- (30) He is reluctant [s⁻ [s ( ) to tell her the truth]]

Control adjectives

- By applying the three tests mentioned earlier, we can determine that (29) and (30) are control patterns, not raising patterns.

Control adjectives

For example:

(31) I am eager for Mary to be at the party too.

(32) *It is eager that I should come to your party.

(33) *There is eager to be a party next weekend.

Control adjectives

- Other examples of control adjectives are:

- (34) He is anxious ( ) to make his new business a financial success.

Control adjectives

- (35) We are delighted ( ) to send you our pamphlets.
- (36) She is afraid of () hurting his feelings.

END

Morphology and Syntax

Introduction:

Reanalysis a problem of bracketing

Reanalysis a problem of bracketing: Introduction

- Bring in, bring out, etc.
- A single word or string of words may be analysed in two ways.
- Already seen , for example, that the elements *be* and *have* are structurally ambiguous, in that they may behave like lexical verbs or like auxiliaries.

Reanalysis a problem of bracketing: Introduction

- Another instance of double structure in English is that of V-Od strings like *kick the bucket*,
- can regularly occur in the passive (The bucket was kicked),
- but not in their idiomatic sense:
- *The bucket was kicked by the old man = The old man died).

Reanalysis a problem of bracketing: Introduction

- It appears that *kick the bucke*t,
- as an idiom,
- is no longer a V Od string,
- but has been restructured into just a composite intransitive verb.

Reanalysis a problem of bracketing: Introduction

- A well-known example of ambiguous patterning is of strings such as *depend on, look at, give in to* and others, which may be structurally interpreted as **intransitive verbs** followed by a **PP**, or alternatively as **transitive verbs** followed by a Direct Object.

Reanalysis a problem of bracketing: Introduction

- These kinds of structural ambiguity result from the process of reanalysis (also called 'restructuring').
- Reanalysis changes the structure of a string of elements, so that before and after reanalysis the string will pattern differently.

Reanalysis a problem of bracketing: Introduction

- We shall compare the properties of verb+preposition strings with those of some other multi-word verbs, and examine the indeterminacy of their structure.

END

Prepositions and particles

Prepositions and particles

Let's read the text.
The sentences have been numbered here for ease of reference.

(1) Soon *after breakfast* Mary Ann brought *in* The Times.

(2) Mr. Carey shared it with two neighbours.

(3) He had it from ten till one, when the gardener took it *over* to Mr. Ellis at the Limes, with whom it remained till seven; then it was taken to Miss Brooks at the Manor House, who, since she got it late, had the advantage of keeping it.

Prepositions and particles

Let's read the text.
The sentences have been numbered here for ease of reference.

(4) In summer Mrs. Carey, when she was making jam, often asked her for a copy to *cover* the pots *with*.

(5) When the Vicar *settled down* to his paper,

(5b) his wife *put on* her bonnet

(5c) and *went out* to do the shopping.

Adapted from W. Somerset Maugham, Of Human Bondage.

Prepositions and particles

For the purpose of our discussion we here present skeleton versions of the sentences (1) and (5) above:

(1) Mary *brought in The Times* after breakfast.

(5a) The Vicar *settled down* to his paper.

(5b) His wife *put* on her bonnet.

(5c) She *went out*.

Prepositions and particles

- In each of the sentences above, the lexical verb is followed by another element that is closely linked with the verb:
- *in, down, on, out*.
- The question is: what is the status of *in, down*, etc.?

Prepositions and particles

- Are they prepositions which take a Prepositional Complement (as in: in the vicarage).
- Do these elements belong to the V, or are they perhaps independent units?

Prepositions and particles

- Example (1) above may be bracketed as follows:

- (6) [s [NP Mary Ann] [vp brought in The Times [pp after breakfast]]]

Prepositions and particles

- There can be no doubt about *after breakfast*.

- It is a genuine PP: it consists of a preposition after and its Complement NP breakfast.

Prepositions and particles

- Together the P+NP make up one phrase, a PP.
- After breakfast is an optional element (an Adverbial Adjunct).

Prepositions and particles

There seem to be three possible ways of bracketing the remainder of the VP brought in The Times:

(7a) [VP [v brought] [?pp in The Times]]

(7b) [VP [v brought in] [NP The Times]]

(7c) [VP [v brought] [? in] [NP The Times]]

Prepositions and particles

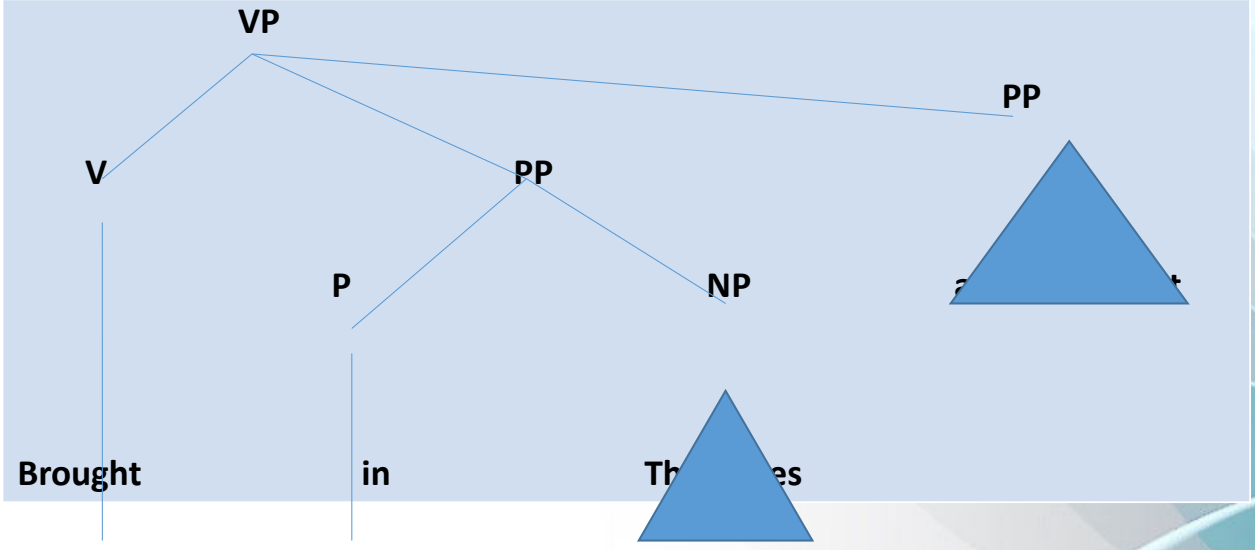
- According to (7a) *in* is a P, taking The Times as its Complement.
- According to (7b) *in* is somehow part of the verb itself; brought and in seem to make up one unit with word- like properties.

Prepositions and particles

- In (7c) in is independent of both *brought* and of *The Times*.
- The three alternatives may be represented by the following tree diagrams

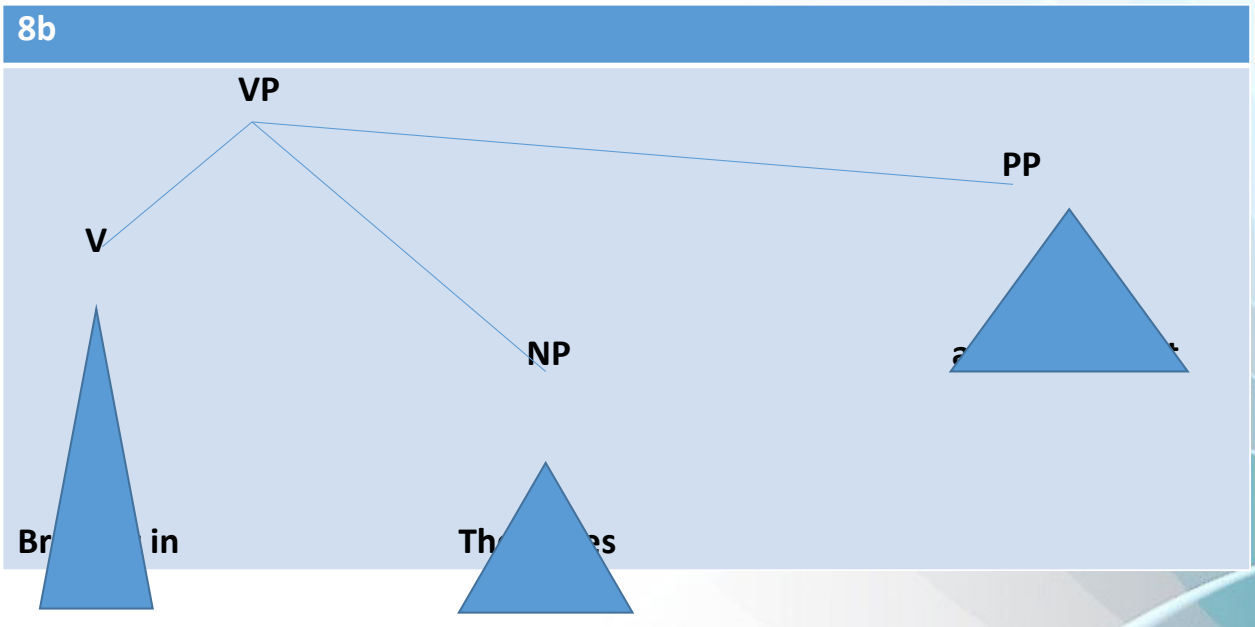
Prepositions and particles

8a

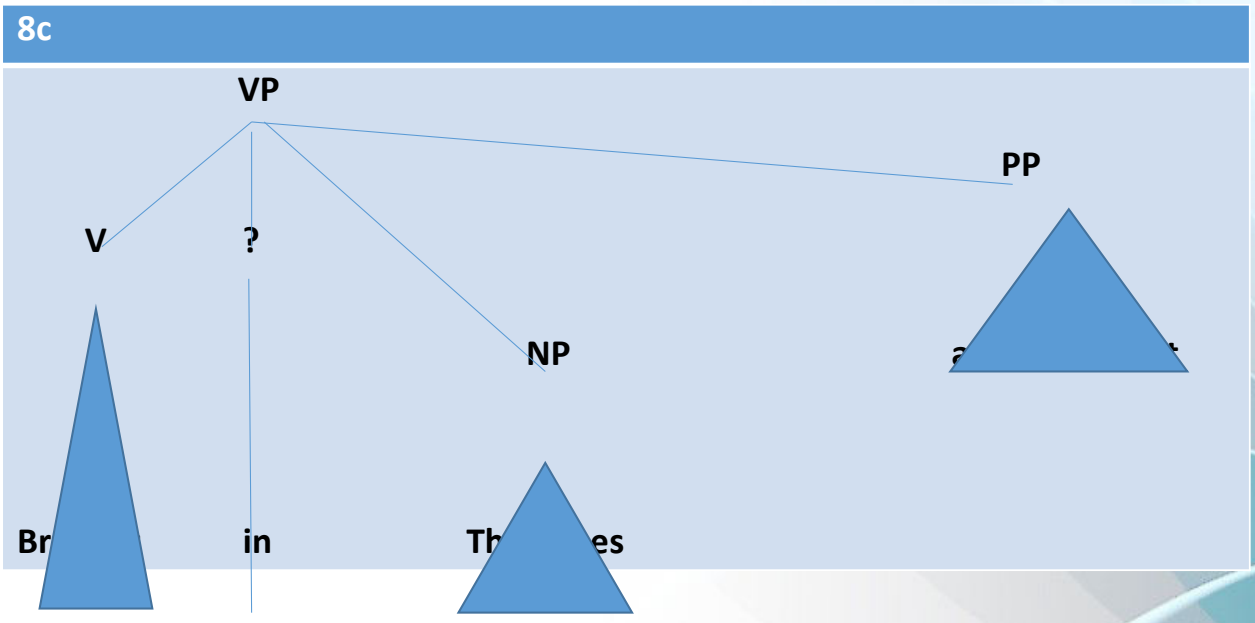


Prepositions and particles

8b



Prepositions and particles



Prepositions and particles

- The diagrams give description but do not answer our questions.

END

Preposition & particles II

Preposition & particles II

- Let us consider the behaviour of *after breakfast*, the optional PP (the brackets around the PP in (8a)-(8c) mark its optionality).

Preposition & particles II

(I) We can front the PP quite easily:

After breakfast Mary Ann brought in The Times.

(II) The PP may serve as the focus element X in a-cleft sentence:

It was *after breakfast* that Mary Ann brought in The Times.

(III) The PP may be replaced by an appropriate Adjunct, here a time Adjunct (*then*):

Mary Ann brought in The Times then .

Preposition & particles II

(IV) The PP may be questioned by a wh-item like *when, where or at what time:*

When did Mary Ann bring in The Times?

At what time did Mary Ann bring in The Times?

(V) The PP may be separated from the rest of the sentence by an Adjunct

(Adjuncts can only be inserted between major constituents; they thus mark constituent boundaries):

Mary Ann brought in The Times, as usual, after breakfast.

Preposition & particles II

- Tests (1)-(V) show that *after* and *breakfast* make up one constituent.
- The two elements cannot be separated or inverted, as the following ungrammatical sentences show (tests (VI)-(VIII)):

Preposition & particles II

- (VI) **Breakfast* Mary brought in The Times *after*.
- (VII) *It was *breakf*ast that Mary brought in The Times *afte*r.
- (VIII)*May brought in The Times *breakfast after*.

Preposition & particles II

- These three examples show that in this case neither fronting of just the NP, nor clefting with the NP as X, nor changing the word order is possible.

END

Morphology and Syntax

Preposition & particles III

Preposition & particles III

- Let us now turn to the sequence *in The Times*.
- Analysis (8a) above suggests that *in* + *The Times* make up a PP, just like *after breakfast*.
- If the analysis were correct, we would expect some degree of similarity between the two PPs.

Preposition & particles III

Notice, however, what happens if we apply the tests (I)-(V) to in The Times:

(I) ***in+ The Times*** **cannot be fronted together :**

***In The Times** Mary Ann brought after breakfast.*

(II) Neither can *in + The Times* serve as X in a cleft sentence:

***It was *in The Times* that Mary Ann brought after breakfast.**

(III) *In + The Times* cannot be replaced by then or there:

***Mary Ann brought {then/there} after breakfast.**

Preposition & particles III

Notice, however, what happens if we apply the tests (I)-(V) to in The Times:

(IV) *in + The Times* cannot be questioned by a wh-word:

{When*/**where*} did Mary Ann brought after breakfast.**

Nor do we get:

{* *In what*/* *In what newspaper*} did Mary Ann bring?

(V) *in + The Times* cannot be separated from the rest of the sentence by an Adjunct:

***Mary Ann brought, as usual, in The Times after breakfast.**

Preposition & particles III

- Tests (I)-(V) indicate that *in* and *The Times* are not one constituent.
- If they are not one constituent, it should be easy to separate the elements or to change the word order.

Preposition & particles III

This is indeed confirmed by the following sentences, all of which are grammatical (tests (VI)-(VIII)):

(VI) ***The Times*** **Mary Ann brought** ***in*****.**

{*What newspaper/what*} did Mary Ann bring *in*?

(VII) **It was *The Times* that Mary Ann brought *in*?**

(VIII) **Mary Ann brought *The Times in* after breakfast.**

Preposition & particles III

- Note, incidentally, that *in* must normally appear in the position on the right of the Object NP if the NP is a personal pronoun:
- Mary Ann brought it in.
- *Mary Ann brought in it.

Preposition & particles III

Summing up the tests, we see that after+breakfast and in+ The Times pattern differently in the sentences:		
Tests	**After+breakfast**	**in+The Times**
(I) Front together	Yes	No
(II) Cleft together	Yes	No
(Ill) Replace together	Yes	No
(IV) Question together	Yes	No
(V) Adjunct insertion	Yes	No
(VI) Front NP	No	Yes
(VII) Cleft NP	No	Yes
(VIII) Change order	No	Yes

Preposition & particles III

- The tests show that analysis (8a) above must be wrong: *in The Times* is not a PP.

END

Concluding Preposition or Particles I

Concluding Preposition or Particles I

- We are now left with the choice of treating in as a particle which goes with bring (8b), or as a totally independent constituent (8c).

Concluding Preposition or Particles I

- As far as the meaning of the sentence is concerned *bring in* is felt to be a lexical unit, meaning something like 'deliver'.
- Is there any formal support for this intuition?

Concluding Preposition or Particles I

- In other words: *do bring* and *in* behave at all as if they were one constituent?
- To see this, let us first consider the following sentences:
- (9)John reads The Times and Susan reads the Guardian.

Concluding Preposition or Particles I

- We have two coordinated clauses here, each with the verb read.
- In English, there is an operation called *gapping*, which deletes the second occurrence of a lexical verb in a coordinated pattern:

Concluding Preposition or Particles I

- (10) John reads The Times and Susan / / / / / / / the Guardian.
- There is a gap at the place of the deletion. Note that PPs are left intact if the verb is gapped.

Concluding Preposition or Particles I

Let's look at the following examples;

(11) Mary came after breakfast and Bill came after tea.

(12) Mary came after breakfast and Bill / / / I after tea.

After tea is a PP and is not involved in gapping of V:

(13) *Mary came after breakfast and Bill / / / / / / / / / / / / / / / tea.

Concluding Preposition or Particles I

Consider now:

(14) Mary Ann brought in The Times and Philip brought in the Guardian.

If we apply verb gapping here, we must also delete *in*, not just *brought*:

(15)Mary Ann brought in The Times and Bill / / / / / / / / / / / / / / the Guardian.

The following sentence is ungrammatical:

(16) *Mary Ann brought in The Times and Philip / / / / / / / / / in the Guardian.

Concluding Preposition or Particles I

- This means then that *in* is not totally independent:
- it is tightly linked with *bri*ng.
- Together *bring* and *in* act as if they were one lexical verb.
- This suggests that tree diagram (8b) above is the best alternative.

Concluding Preposition or Particles I

- We shall say that *brin*g and *in* make up one lexical unit, consisting of a verb bring and a particle *i*n.
- *Bring i*n is a phrasal verb, which behaves like an ordinary transitive verb.

Concluding Preposition or Particles I

- We propose the following bracketing.

- (17) [s [NP Mary Ann] [VP [V brought in] [NP The Times] [PP after breakfast]]]

END

Morphology and Syntax

Concluding Preposition or Particles II

Concluding Preposition or Particles II

- In text above, sentence (5b) also contains a phrasal verb: *put* on.
- The analysis of that sentence is as follows:
- (18) [s [His wife] [VP[V put on] [NP her bonnet]]]

Concluding Preposition or Particles II

- Now take sentence (5a):
- The Vicar settled down to his paper .
- Inside the VP we find that V (*settle*) is followed by *down*.

Concluding Preposition or Particles II

- This string is again a phrasal verb, but this time there is no NP as Complement inside the V P:
- (19)[s[NP The Vicar] [[VP [V settled down] [PP to his paper]]]

Concluding Preposition or Particles II

- *Settle down* requires the PP *to his paper* for the meaning intended here (PP/Ac).
- The Vicar settled down does not mean quite the same.
- Another instance of a phrasal verb can be found in (5c):
- *She went out.*

Concluding Preposition or Particles II

- The phrasal verbs *bring in* and *put up* are transitive, and *settle down* and *go out* are in transitive.
- The phrasal verb hand over in:
- (20) She handed over the paper to the Vicar.
- is ditransitive.

Concluding Preposition or Particles II

- Trying verb gapping in coordinated structures with put on, settle down, go out, and hand over shows that they constitute one unit.

Concluding Preposition or Particles II

- For example:
- (21a)Mrs Carey put on her bonnet and Mr Carey put on his hat.
- (21b)Mrs Carey put on her bonnet and Mr Carey *I I I I I* his hat

Concluding Preposition or Particles II

- Other examples of phrasal verbs are: *sit down, take off, switch on, look up, call off, call up, write down. bring up, give back, give in*, etc.

END

Morphology and Syntax

Prepositional verbs I

Prepositional verbs I

- Let's look at the word strings like *pray for, look for, hope for and rely on*.

Prepositional verbs I

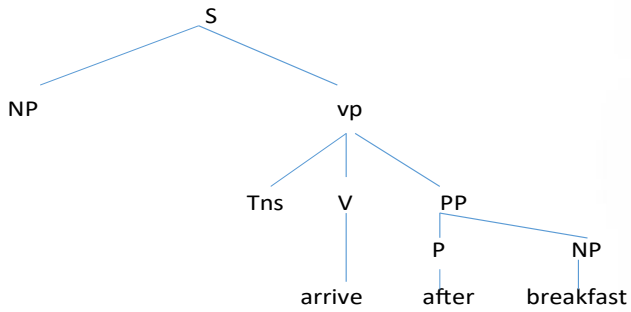
- Let us compare the verbs in the following three examples:
- (1)Mary Ann arrived
- after breakfast.
- (2)She brought in The Times.
- (3)The Vicar can rely on Mary Ann .

Prepositional verbs I

- We have seen that *after* in (1) goes with *breakfast* rather than with *arrived*
- and we have established that *in* in (2) structures with *brought* rather than with *The Times*.

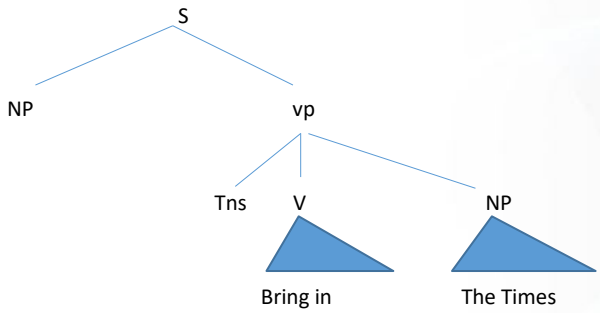
Prepositional verbs I

(1) corresponds to the structure (see (8a) in 6.2):



Prepositional verbs I

(2) has the structure (see (8b) in 6.2):



Prepositional verbs I

- In some respects *rely+on* behaves like *arrive,* whereas in other respects it behaves like *bring in*.

Prepositional verbs I

To see this, let us apply tests (I)-(VIII) as well as the verb gapping test to (3) (these tests have been applied above to distinguish between V+PP strings and phrasal verbs):

(I) and (VI) Both *on Mary Ann* (PP) and *Mary Ann* (NP) can be fronted :

(4a) *On Mary Ann* the Vicar can rely.

(4b) *Mary Ann* the Vicar can rely on.

(II) and (VII) Both *on Mary Ann* and *Mary Ann* may serve as the focus element X in a cleft sentence:

(5a) It is *on Mary A*nn that the Vicar can rely.

(5b) It is *Mary Ann* that the Vicar can rely on.

Prepositional verbs I

(III) *On Mary Ann* cannot be replaced by the pro-form *then* or *there* ((but *Mary Ann* can be replaced by *her*):

(6a) *The Vicar can rely *then/ there*

(6b) The Vicar can rely on *her*.

(VI) *On Mary Ann* cannot be questioned by a wh -item like *wh*en or *Where* (but *Mary* Ann can be questioned by who(m)) :

(7a) * *When/ where* can the Vicar rely?

(7a) *Who(m)* can the Vicar rely on?

Prepositional verbs I

(V*) On Mary Ann* may be separated from the rest of the sentence by an Adjunct:

(8a) The Vicar can rely whole-heartedly on Mary Ann.

(8b) *The Vicar can rely on whole-heartedly Mary Ann.

Prepositional verbs I

(VIII)The word order of on Mary Ann cannot be changed into *Mary Ann on:*
(9) *The Vicar can rely *Mary Ann on*.

Verb gapping gives the following result:

(10a) The Vicar can rely on Mary Ann and Mrs. Carey can rely on Philip.

(10b) The Vicar can rely on Mary Ann and Mrs. Carey *II I I I* on Philip.

(10c) *The Vicar can rely on Mary Ann and Mrs. Carey *I II II I* Philip.

Prepositional verbs I

- The conclusion is that the structure of the VP with *rely on* is difficult to determine: according to certain tests the string rely on-NP is like a oneword verb followed by a PP (cf. tests I, II, VIII and gapping

Prepositional verbs I

- According to other tests it is like a two-word verb followed by an NP (cf. tests III , IV, VI, VII) .

END

Morphology and Syntax

Prepositional verbs II

Prepositional verbs II

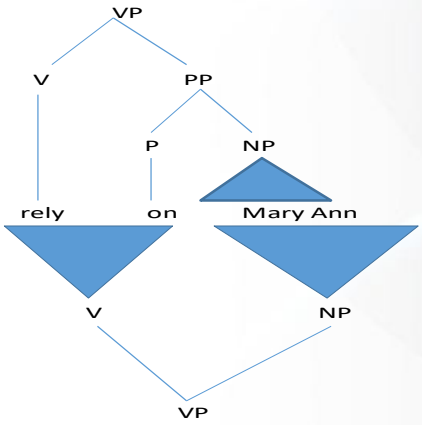
- In other words, the structure of such V-P-VP strings is indeterminate; it may be either (11a) or (11b) below:
- (11a) [vp (v rely] [PP on NP]]
- (11b) [vp (v rely on] [NP]]

Prepositional verbs II

- The duality of the structure of *rely on* ...may be captured by combining two structures into one.
- Thus, the structures represented by (11a) and (11b) are combined in tree diagram (11c):

Prepositional verbs II

(11c)



Prepositional verbs II

- Traditionally, strings such as *rely +on* are called prepositional verbs.
- They share grammatical characteristics with V + PP strings as well as with phrasal verbs.

Prepositional verbs II

- Other examples of prepositional verbs are: *look at, look for, look after, call on, call for, deal with, account for, stare at, wait for*, etc.

Prepositional verbs II

- In so far as prepositional verbs are two-word verbs they resemble (transitive) phrasal verbs such as *bring in, call up*, etc.
- One important characteristic which they share is that both types of verb allow passivisation:

Prepositional verbs II

(12a)	Mary Ann brought in The Times.
(12b)	The Times was brought in by Mary Ann.
(13a)	The Vicar can rely on Mary Ann.
(13b)	Mary Ann can be relied on by the Vicar.

Prepositional verbs II

- Moreover, both types of verb allow wh-question formation with *what* or *who* (not *when* or *where*,).
- For example:
- (12c)What did Mary Ann bring in?
- (13c)Who can the Vicar rely on?

END

Prepositional verbs III

Prepositional verbs III

- Some important differences.
- One point is that the particle of a phrasal verb may be placed before or after the NP,
- whereas the preposition of the prepositional verb can only occur before the NP (test VIII above).

Prepositional verbs III

- Compare (12a) and (13a) with (12d) and (13d):

- (12d) Mary Ann brought The Times in.
- (13d) *The Vicar can rely Mary Ann on.
- One reason for calling *in* a particle in cases like (12d) and *on* a preposition.

Prepositional verbs III

- Another difference between prepositional verbs and phrasal verbs is that it is usually fairly easy to insert an Adverbial Adjunct immediately before the preposition, but not immediately before the particle.

Prepositional verbs III

- Compare:
- (12e) *Mary Ann brought early in The Times.
- (l3e)The Vicar can rely whole-heartedly on Mary Ann.

Prepositional verbs III

- A third difference is that in relative clauses the particle of the phrasal verb must not precede the relative pronoun,
- whereas the preposition of the prepositional verb may, but need not, precede the relative pronoun.

Prepositional verbs III

Compare:

(12f) The newspaper which Mary Ann brought in ---.

(12g) *The newspaper in which Mary Ann brought ---.

(13f)The girl who(m) the Vicar can rely on ---.

(13g) The girl on whom the Vicar can rely ---.

Prepositional verbs III

- Some difference between particle and preposition.

END

Phrasal-prepositional verbs and prepositional idioms

Phrasal-prepositional verbs and prepositional idioms

- Phrasal-prepositional verbs are combinations of phrasal verbs and prepositional verbs.
- Examples are: *catch up with, come up with, cut down on, give in to, keep up with, look down on, put up with*, etc.

Phrasal-prepositional verbs and prepositional idioms

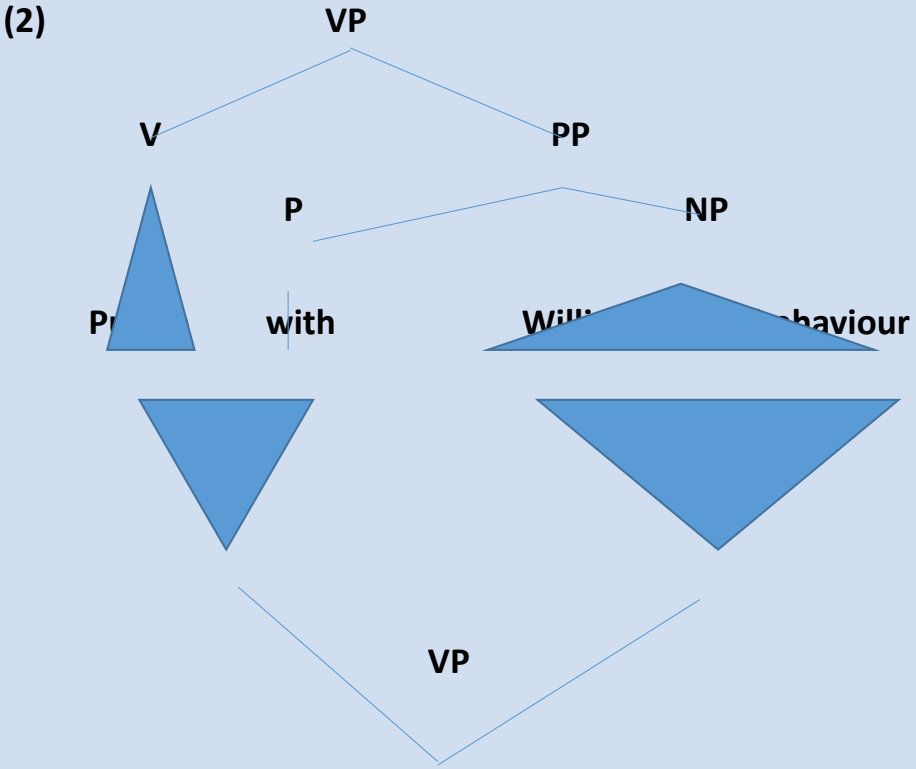
- Like phrasal and prepositional verbs, they may undergo passivisation.

Phrasal-prepositional verbs and prepositional idioms

- For example:
- (1a) We have put up with William's rude behaviour too long.
- (1b) William's rude behaviour has been put up with too long.

We assume that VP of (1a) has the same dual structure as (3) in 6.3 above (11c)

(2)



Phrasal-prepositional verbs and prepositional idioms

- English also has so called Prepositional idiom.
- They consist of a verb followed by an NP and a preposition. Examples make mention of *make use of ,pay attention to, take advantage of, set fire to*, etc.

Phrasal-prepositional verbs and prepositional idioms

- These idioms often allow two passives, as a result of their dual structure, as follow:

Phrasal-prepositional verbs and prepositional idioms

- (3a) Everyone took advantage of her goodness.
- (3b)Advantage was taken of her goodness.
- (3c)Her goodness was taken advantage of.

Phrasal-prepositional verbs and prepositional idioms

- What is the structure of the NP *take advantage of her goodness?*
- Where, in particular, do the NP *advantage* and the preposition *of* belong*?*
- The structure of the string might be *(4a) (4b)(4c).*

Phrasal-prepositional verbs and prepositional idioms

The structure of this string might be (4a), (4b) or (4c):

(4a) [VP [V took] [NP advantage] [PP of her goodness]]

(4b) [VP [v took advantage] [pp of her goodness]]

(4c) [VP [V took advantage of] [NP her goodness]]

Phrasal-prepositional verbs and prepositional idioms

- As with prepositional verbs and phrasal-prepositional verbs, the various tests support analysis (4a), or (4b), or (4c).
- So, again , the structure of the VP is **indetermina**te.

Phrasal-prepositional verbs and prepositional idioms

- Try some of the tests (fronting, clefting, wh-question formation, verb gapping, etc.) to see whether you agree with our conclusion that there is support for all three analyses.

END

Levels of structure Introduction

- In the previous chapters we have looked at constituents at various levels: we have introduced **clausal constituent**s(the sentence/clause.

Levels of structure

- We have discussed **phrasal categories** such as NP, VP, AdjP, PP, AdvP.
- We have discussed **lexical categories such as N, V, Adj, P Adv.**

Levels of structure

- Phrasal categories were directly related to lexical categories in that we argued that each phrasal category has as its Head a lexical category; for example: an NP has an N as its Head.
- Phrasal categories are sometimes said to be **projections** of lexical categories.

Levels of structure

Below we repeat the phrasal categories. We have italicised the lexical category functioning as the Head:

(I) *Noun phrase*:

Det	AdjP 1	AdjP2	N	PP1	PP2
these	nice	French	students	of English	from Paris

Levels of structure

(2) Verb phrase :

Tns	V	NP	NP
Past	buy	a car	last week

Levels of structure

(3) *Prepositional phrase:*

AdvP	P	NP
soon	after	her arrival

Levels of structure

(4) *Adjective phrase:*

AdvP	Adj	PP
Extremely	worried	about the future

Levels of structure

(5) ***Adverb Phrase:***

AdvP	Adv
Very	cleverly

Levels of structure

- We have also shown how the constituents inside the phrase have different GFs: phrases can be described by the following schema:

(6)XP -+ Spec-X-{MOD A}

Levels of structure

- In the discussion to come we shall look more closely at the internal structure of phrases.

END

Morphology and Syntax

Flat & layered structures

Flat & layered structures

- What are flat structures and layered structures?
- Why is or isn't the representation in (2) is semantically adequate?

Flat & layered structures

- Semantically such a representation in (2) is clearly inadequate, since the NP *these nice French students of English from Paris* does not mean that these students were (a) nice,
- and (b) French, and (c) of English
- and (d) from Paris.

Flat & layered structures

- Rather, the NP means that these students were (a) students of English,
- (b) that 'these students of English' were French,
- (c) that 'these French students of English' were from Paris, and that
- (d) 'these French students of English from Paris' were nice.

Flat & layered structures

- There is thus an internal hierarchy among the Modifiers; of *English*, for example, is much more closely associated with the N students, than *French*:
- The string *students of English* is one unit, which is modified by *French*.

Flat & layered structures

- In its turn, the string *French students of English* is modified by *from Paris*, and finally the string *French students of English from Paris* is modified by *nice*.

Flat & layered structures

This hierarchy is confirmed by the fact that the order of AdjP1, and AdjP 2 and that of PP1, and PP2 is fairly fixed:

(3) ?These French nice students of English from Paris.

(4) *These nice French students from Paris of English.

(5) *These French nice students from Paris of English.

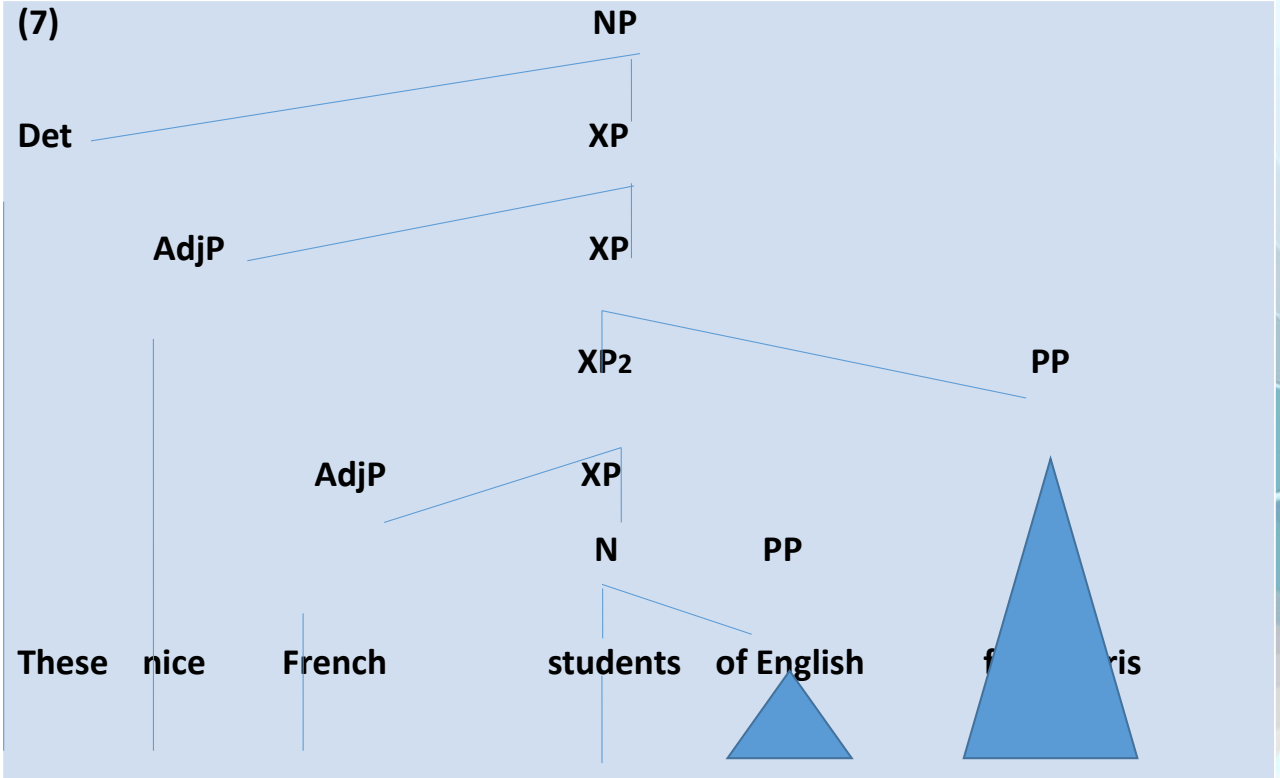
Flat & layered structures

Using labelled bracketing we arrive at the following build-up:

(6) [NP these [XP1 nice [xp2 [xp3 French [XP4 Students of English]] from Paris]]]

Flat & layered structures

Or in a tree diagram representation:



Flat & layered structures

- The diagram in (7) is layered: inside the NP we have levels of structure, indicated provisionally by XP_1, etc.

END

Morphology and Syntax

Flat & layered structures II

Flat & layered structures

- What are flat structures and layered structures?

Flat & layered structures

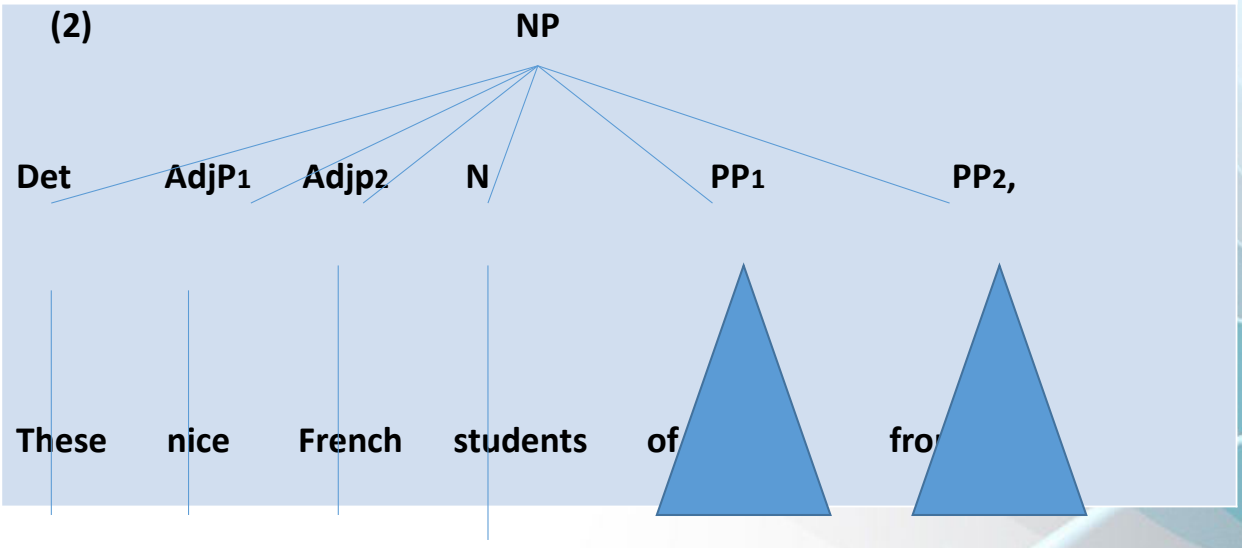
We have previously described NPs according to the following diagram:

(1) *NP* :

Category	**Det**	**Adj P,**	**AdjP 2**	**N**	**PP1 ,**	**PP2**
GF	**Spec**	**Mod (Premodifier)**		**Head**	**Mod (Postmodifier)**	
	these	**nice**	**French**	**students**	**of English**	**from Paris**

Flat & layered structures

A diagram such as (I) seems to suggest that if we were to use a tree diagram representation, the structure of the N P would look as follows:



Flat & layered structures

- In other words, the structure looks 'flat'; NPs are made to look as if they are just strings of elements with various GFs.
- Tree diagram (2) suggests that the N students takes four Modifiers:

Flat & layered structures

- $AdjP_1$ *nice*
- $AdjP_2$ *French*
- PP_1 *of English*
- PP_2 *from Paris*
- and that all four Modifiers are of equal rank.

Flat & layered structures

- SO the structure in (2) is arranged to look 'flat'; NPs are made to look as if they are just strings of elements with various GFs.
- Is the representation such as (2) is semantically adequate?

END

One-substitution

- Is there any further motivation to support a hierarchical structure such as that in(6) and (7)?
- One type of argument put forward for constituent structure is that of substitution: pro-forms substitute for constituents.

One-substitution

- In English there is one type of substitution which typically may affect constituents internal to NPs, called ***one*-substitution**.

One-substitution

Consider, for example, (8a) and (8b):

(8a) these nice French students and those nice English ones.

(8b) these nice French students and those awful ones.

One-substitution

- In (8a) *ones* stands for students, an N.
- Obviously, lexical categories are constituents (i.e. units) at some level; they are the minimal constituents of syntax.
- In (8b), on the other hand , *ones* stands for *French students*, i.e. the sequence

  [AdjP-N].

One-substitution

- Since *one*-substitution affects this string, it may also be considered a constituent.
- Provisionally, we may say that *one* substitutes for either a Head N, or a Head N and one or more Modifiers.

One-substitution

- As (8b) shows, *one*-substitution may, but need not, affect AdjPs.
- Similarly, one-substitution may, but need not, affect PPs (with one major exception):

One-substitution

(9) these nice students from France and those awful ones from Italy
(*ones*= students).

Let us return once more to the example in (1), renumbered here as (10):

(10) These nice French students of English from Paris.

One-substitution

- One-substitution, as we have seen, may affect constituents at more than one level in the representation.

END

Morphology and Syntax

One-substitution II

One-substitution II

- One-substitution, affect constituents at more than one level in the representation.

One-substitution II

For example, if (10) is conjoined with (10a)-(10d) below, we find that in each case *one*(s) refers to a constituent at a different level (cf. (7) above):

(10a) and those ones (*ones*: nice French students of English from Paris = XP_1)

(10b) and those awful ones (*ones*: French students of English from Paris = XP_2)

(10c) and those interesting ones from Boulogne (*ones*: French students of English = XP_3)

(10d) and those exciting Italian ones (*ones*: students of English = XP_4)

One-substitution II

- (10a)-(10d) show that the level which *one*-substitution affects is not fixed.
- However, consider the ungrammatical (10e):
- (10e)*and the exciting Greek ones of mathematics from Athens.

One-substitution II

- In the last example *ones* is meant to replace only the Head N students, leaving the PP_1 unaffected.
- This apparently is impossible: PP_1 must be affected by one-substitution.

One-substitution II

However, it would not be correct to claim that the first PP after the Head N is always affected by one-substitution either:

(11) the students from Paris in the white shirts

and

the ones from Greece in the blue shirts.

In (11) *ones* only affects the Head N *students*.

One-substitution II

- On the basis of the examples above it seems that *one*-substitution affects the Head N and optionally one or more of any modifiers in the NP, but also that it obligatorily affects constituents of a certain kind such as PP_1 in (10).

One-substitution II

- If we return once more to the example we see that PP_1 *of English* in fact is not an ordinary Postmodifier.
- PP_1 rather acts like a Complement.
- The NP *students of English* corresponds to the VP study English, where English is a complement of V.

One-substitution II

- Like Vs, Ns also may take a Complement, and this Complement (here realised by a PP) is much more closely linked to the N than the Modifiers.
- Unlike Verb Complements, Noun Complements are syntactically optional.

END

Layering

- On the basis of *one*-substitution that there are good grounds for distinguishing two types of PP after the Head N: (1) the ordinary Postmodifiers, (2) the Complement-like elements which are closely linked to the N, like subcategorised categories in VP.

Layering

- *One*-substitution obligatorily affects the Head N and any Complement-like element.
- *One*-substitution may, but need not, involve further Premodifiers and Postmodifiers.

Layering

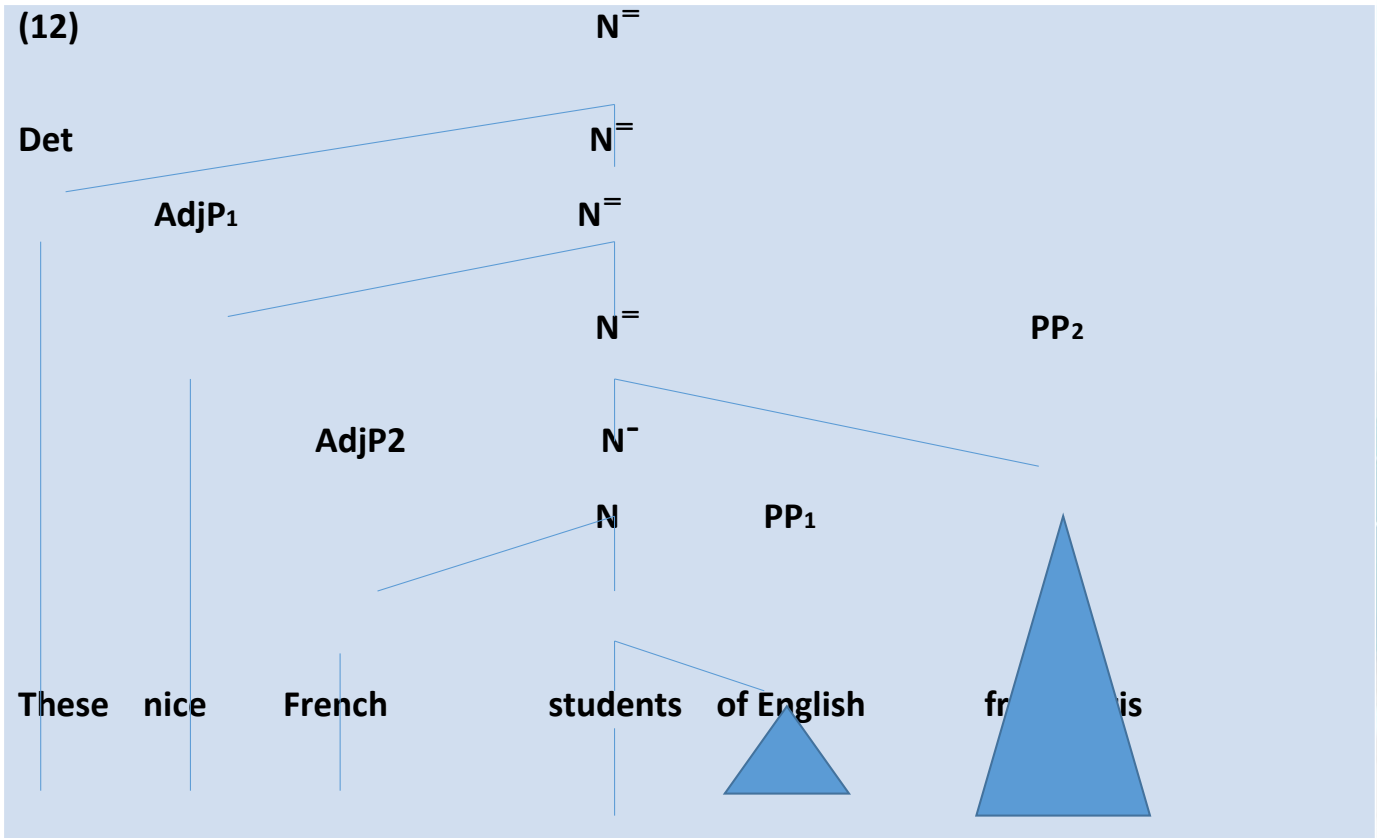
- The unit consisting of a Head N and its Complements (XP4 above) is oft indicated as N^{-} (N-bar) or N' (N-prime).
- N^{-} is the first **projection** of N.

Layering

- N^{-} may further combine with other Modifiers and finally with Det/Spec to form higher levels of structure indicated by $N^{=}$.
- The structure provisionally posited in (7), may now be represented as follows:

Layering

or in a tree diagram representation:



Layering

- N^{-} and $N^{=}$ are projections of N ; the highest N is called the **maximal projection** ; other levels between $N^{=}$ and the maximal projection are called **intermediate projections** .

Layering

- Tree diagram (12) can be converted into a labelled bracketing:

- (13) [$_{N^{=}}$ these [$_{N^{=}}$ nice [$_{N^{=}}$ [$_{N^{=}}$ French [$_{N^{-}}$ students of English]] from Paris]]]

END

One-word phrases

One-word phrases

- Not all NPs have Premodifiers or Postmodifiers, or N-Complements.

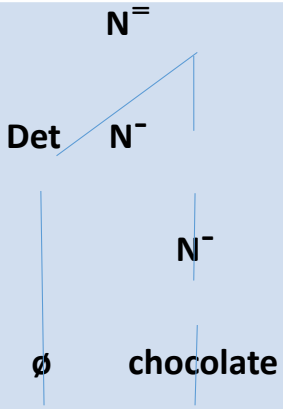
- However , we have shown that single-word phrases

(chocolate, milk, etc.) are also to be treated as NPs.

One-word phrases

Single-word phrase

(14)



One-word phrases

- **Verb phrases**
- Layering in VPs
- The suggestion put forward for layering NPs can be extended to VPs.

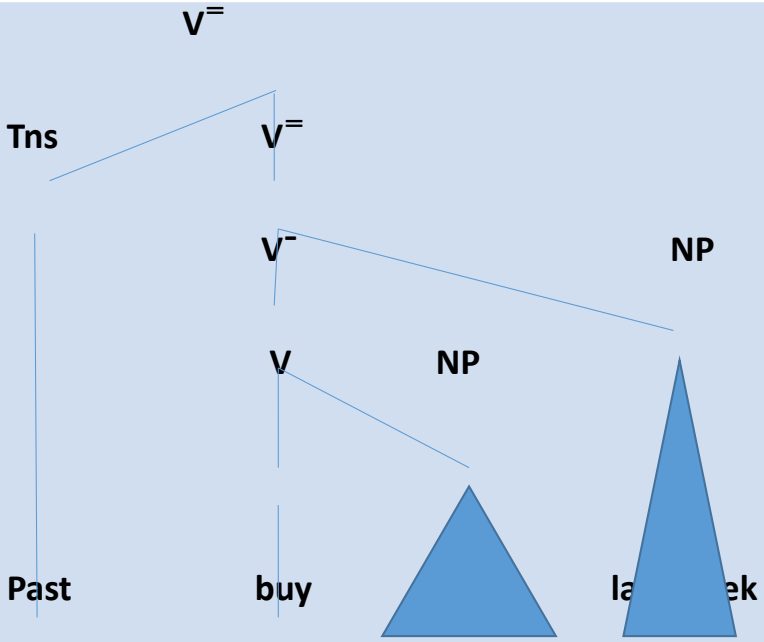
One-word phrases

- Here again we distinguish between the level comprising the Head and its Com plements (V) and higher projections comprising V^{-} and any optional Adjunct phrases ($V^{=}$).

One-word phrases

For example, the VP *bought a car last week* has the following structure:

(1)



One-word phrases

- Or in labelled bracketing:
- (2)[v= Past [v=[v- buy a car] last week]]

One-word phrases

- **Formal evidence**
- Is there any formal evidence to support the structure above?
- With respect to NPs we used *one*-substitution as evidence for internal layering; for VPs we may, by analogy, use *do-so* substitution to confirm the structure.

One-word phrases

Again *do-so* substitution minimally affects the V + Complement(s). Consider:

(3) John bought a car last week and Mary did so the week before. (*did so*: bought a car)

(4) John bought a car last week and Mary did so too. (*did so*: bought a car last week)

(5) (5) *John bought a car last week and Mary did so a motor bike the week before. (*did so: bought)

One-word phrases

- The analogy do-so substitution confirms the structure.

END

Prepositional phrases

Prepositional phrases

- By analogy, the distinction between levels of projection in NP and VP can also be extended to PPs.

Prepositional phrases

- Again we might distinguish the level of P + Complement (i.e. P^{-}) from a higher level of projection in which further Adjuncts or Modifiers are included (P).

Prepositional phrases

Take, for example, the PP in (1):

(1)[P^{-} further [p^{-} into the room] than Bill]

as in

George ventured further into the room than Bill.

Prepositional phrases

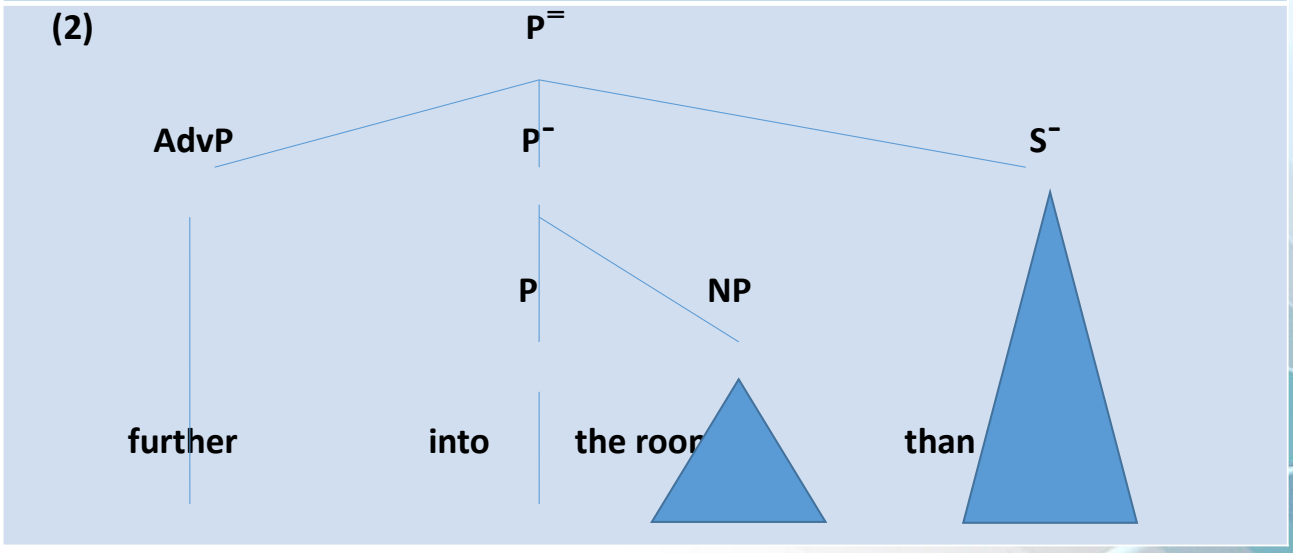
- In (1) *the room* is the Prepc, *into* is the Head P, and the discontinuous string *further ... than Bill* may be taken as a reduced form of *further . .. than Bill ventured* , with ellipsis of *ventured.*

Prepositional phrases

- If we take *further* as a Specifier preceding P, then *than Bill* is directly linked to this Spec, and is clearly less inherently linked to P than the NP *the room* is.

Prepositional phrases

We might present the internal structure of the PP as follows:



Prepositional phrases

- The tree diagram is meant to suggest that *further* and *than Bill* form a discontinuous unit, and are to be interpreted together.

END

Adjective phrases

Adjective phrases

- Complements of Adjs
- We have seen that Adjs, like Vs, take Complements.
- Unlike V-Complements, Adj-Complements in English cannot be NPs, but must be realised by PPs or Ss.

Adjective phrases

- For example:
- (1a)*aware the danger
- (1b) aware of the danger
- (1c) aware that she was in danger

Adjective phrases

- For example:
- (2a)*afraid nuclear
- (2b) afraid of nuclear war
- (2c) afraid that they might start a nuclear war

Adjective phrases

- The Adjs above can be said to subcategorise for a PP introduced by some P, or for an S.
- Again we might consider Adi+ subcategorised PP as Adj^{-}, and treat further Modifiers or Specifiers as $Adj^{=}$-elements.

Adjective phrases

- In the AdjPs below the Adj is italicised, and further elements are $Adj^{=}$ elements:

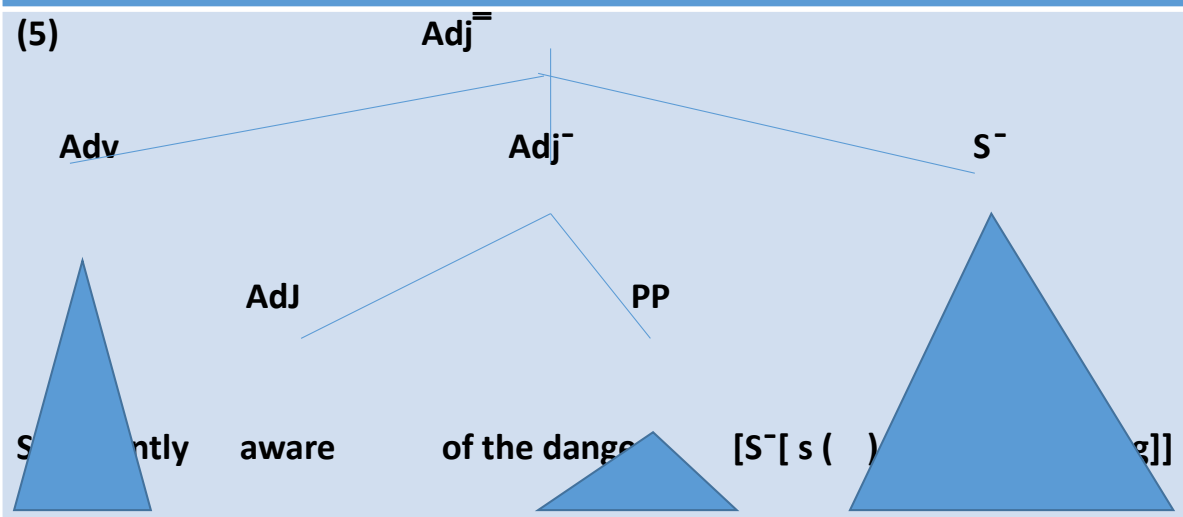
(3)sufficiently *aware of the danger to do something*

- (4)as *afraid of nuclear war* as her father

Adjective phrases

The structure may be represented in a tree diagram (simplified):

(5)



Adjective phrases

- Note that the non-finite clause lacks a lexical Subject and also lacks the complementiser for: ( ) is a Subject controlled by some other element in S.

Adjective phrases

For example:

(6) Mary was sufficiently aware of the danger ( ) to do something

Adjective phrases

- Adjective phrases also behave in the similar manner.

END

Discontinuous strings

- Above we have introduced discontinuous strings in AdjPs.
- These are elements which belong together, but which are separated by intervening material.

Discontinuous strings

In the following examples such discontinuous strings are italicised:

(7) He is *too* nice *to do such a thing*.

(8) Susan is *more* ambitious *than her brother*.

(9) This boy is *less* intelligent *than his younger sister.*

AdjPs may be split up by the N they modify:

(10) He is *too* nice a man *to do such a thing*.

(11) You will not find a *more ambitious* girl than Susan.

Discontinuous strings

- In the examples above the AdjPs are separated by the Head N.
- In English it is not possible to place an Adj together with its Complement or Post modifiers before a Head N:

Discontinuous strings

- (12) *He is a *too nice to do such a thing man.*
- (13) *You will not find a *more ambitious than Susan girl*.
- However, it is possible to find the full AdjP as a Postmodifier:

Discontinuous strings

- He is a man *too nice to do such a thing*.
- You will not find a girl *more ambitious than Susan*.

Discontinuous strings

- **Adverb phrases**
- It would be difficult to extend the analysis proposed here to AdvPs since, they lack a Complement.

END

Morphology and Syntax

Summing up:
layered structure

Summing up: laye red structure

- In Chapter 3 we have suggested that one way of talking about phrasal categories is to set up a general schema in which XP stands for any category of the phrasal level , and X for the lexical Head of the phrase:
- XP > Spec-X- {Mod adj } I

Summing up: laye red structure

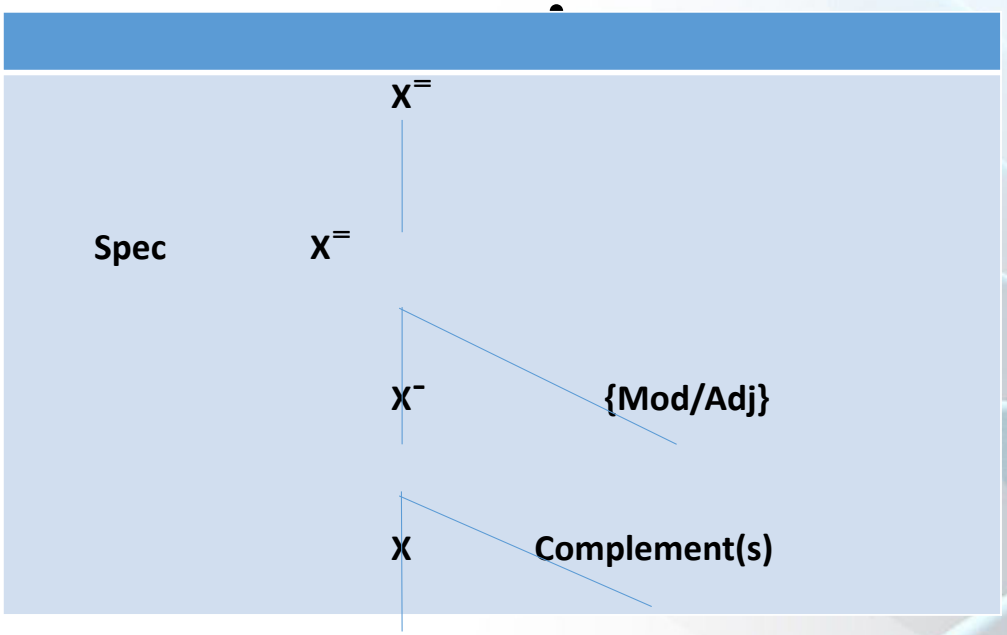
- We see now that the schema might be expanded and refined by introducing the bar notation for intermediate projections: phrases have different projections:

Summing up: laye red structure

(a) the X^{-}-level immediately dominates Heads and their Complements;

(b) the $X^{=}$-level immediately dominates X^{-} and Modifiers/ Adjuncts and Specifiers:

Summing up: laye red structure



Summing up: laye red structure

- Or in PS rules:
- (a)$X^{=}$> (Spec)-X^{-} ({Mod/adj })
- (b)X^{-} X-Complement(s).

END

Morphology and Syntax

Theory of X bar

Theory of X bar

- X-bar theory is a theory of syntactic category formation.
- It embodies two independent claims:
- One, that phrases may contain **intermediate constituents** projected from a head X;

Theory of X bar

- Two, that this system of projected constituency may be common to more than one category (e.g., N, V, A, P, etc.).

Theory of X bar

- The letter X is used to signify an arbitrary lexical category (part of speech);
- When analyzing a specific utterance, specific categories are assigned.
- The X may become an N for noun, a V for verb, an A for adjective, or a P for preposition.

Theory of X bar

- The term X-bar is derived from the notation representing this structure.
- Certain structures are represented by X^{-} (an X with a bar over it).
- X may be often written as X′, using the **prime symbol** or with superscript numerals as exponents, e.g., X^{1}.

Theory of X bar

- In English this is still read as "X bar".
- The notation XP stands for X phrase, and is at the equivalent level of X-bar-bar (X with a double over bar), written X″ or X^2, usually read aloud as X double bar.

Theory of X bar

- X-bar theory was first proposed by Noam Chomsky (1970) building on Zellig Harris's 1951 approach to categories, and further developed by Ray Jackendoff (1977).

Theory of X bar

- X-bar theory was incorporated into both transformational and nontransformational theories of syntax, including GB,etc.

Theory of X bar

- Recent work in the Minimalist Program has largely abandoned X-bar schemata in favor of bare phrase structure approaches.

END

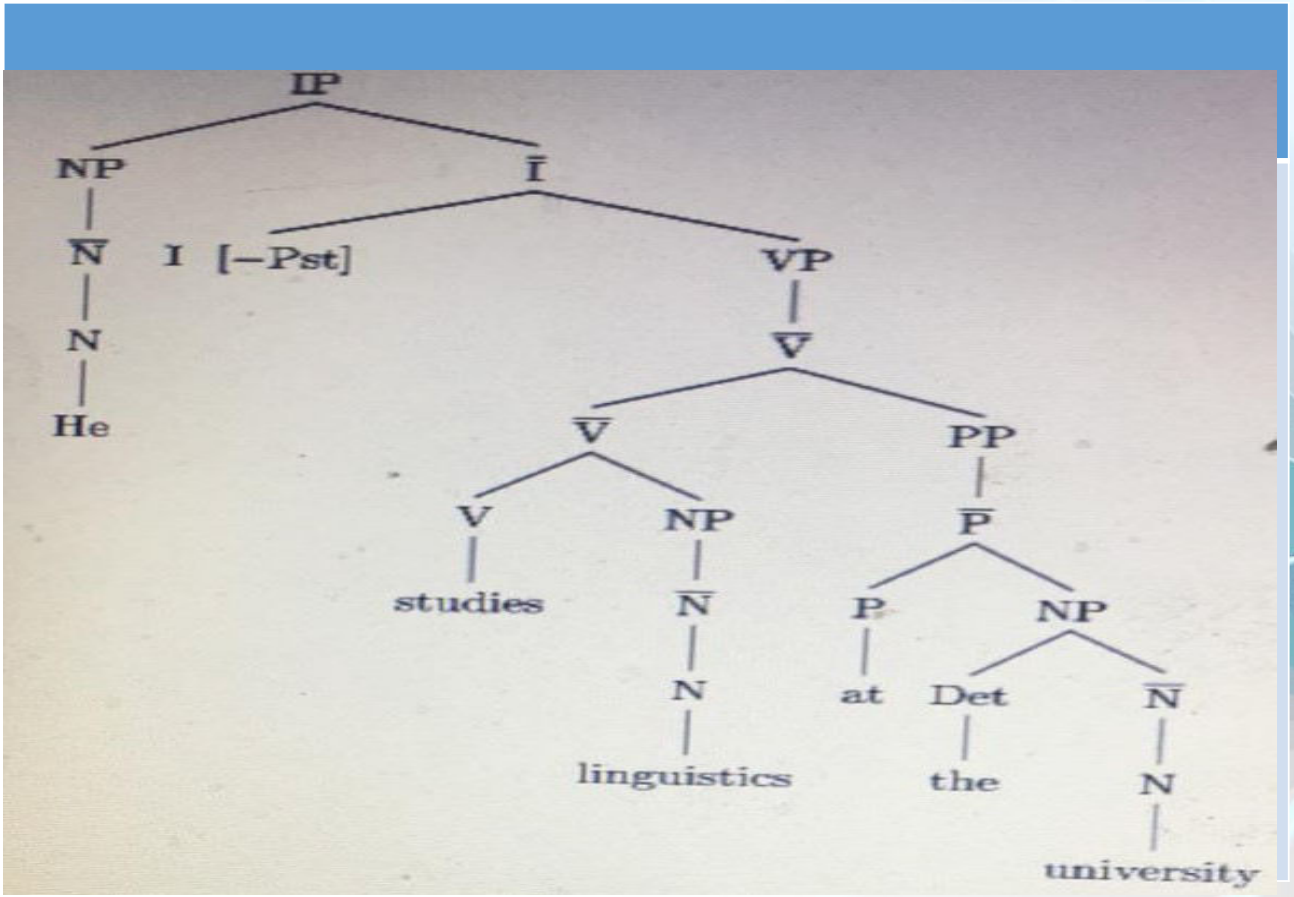
A full sentence in X-bar

- We have discussed XP in phrases.
- For more complex utterances, different theories of grammar assign X-bar theory elements to phrase types in different ways.
- Consider the sentence *He studies linguistics at the university*.

A full sentence in X-bar

- A transformational grammar theory might parse this sentence as the following diagram shows:
- X-bar theory graph of the sentence:
- "He studies linguistics at the university" (IP = inflectional phrase).

A full sentence in X-bar



A full sentence in X-bar

- The "IP" is an inflectional phrase.
- Its specifier is the noun phrase (NP) which acts as the subject of the sentence.
- The complement of the IP is the predicate of the sentence, a verb phrase (VP).

A full sentence in X-bar

- There is no word in the sentence which explicitly acts as the head of the inflectional phrase, but this slot is usually considered to contain the unspoken "present tense" implied by the tense marker on the verb "studies".

A full sentence in X-bar

- A head-driven phrase structure grammar might parse this sentence differently.
- In this theory, the sentence is modeled as a verb phrase (VP).

A full sentence in X-bar

- The noun phrase (NP) that is the subject of the sentence is located in the specifier of the verb phrase.
- The predicate parses the same way in both theories.

END

Quantity of sentence structure

Quantity of sentence structure

- Theories of syntax that build on the X-bar schema tend to posit a large amount of sentence structure.
- The constituency-based binary branching structures of the X-bar schema increase the number of nodes in the parse tree to the upper limits of what is possible.

Quantity of sentence structure

- The result is highly layered trees (= "tall" trees) that acknowledge as many syntactic constituents as possible.
- The number of potential discontinuities increases, which increases the role of movement up the tree.

Quantity of sentence structure

- The analysis of phenomena such as inversion and shifting becomes more complex because these phenomena will necessarily involve discontinuities and thus necessitate movement or feature passing.

Quantity of sentence structure

- Whether the large amount of sentence structure associated with X-bar schemata is necessary or beneficial is a matter of debate.

END

Morphology and Syntax

Morphology in a Wider Setting

Morphology in a Wider Setting

- Morphology is at the conceptual centre of linguistics.
- Not because it is the dominant subdiscipline,
- But because morphology is the study of word structure, and words are at the **interface** between phonology, syntax and semantics.

Morphology in a Wider Setting

- Words have phonological properties,
- They articulate together to form phrases and sentences,
- Their form often reflects their syntactic function,
- Their parts are often composed of meaningful smaller pieces.

Morphology in a Wider Setting

- In addition, words contract relationships with each other by virtue of their form;
- They form paradigms and lexical groupings.
- For this reason, morphology is something all linguists have to know about.
- The centrality of the word brings with it two important challenges.

Morphology in a Wider Setting

- First, there is the question of what governs morphological form: how is allomorphy to be described?
- The second, what governs the syntactic and semantic function of morphological units, and how these interact with syntax and semantics proper.

Morphology in a Wider Setting

- There is a less enviable aspect to this centrality.
- However, the study of morphology in generative linguistics was largely eclipsed by phonology and syntax in the early days (though it is up to historians of linguistics to say exactly why).

Morphology in a Wider Setting

- Morphology and lexical semantics, asks such questions as ‘What semanticosyntactic relations can be packaged up inside a single lexeme?’

Morphology in a Wider Setting

- Word production studies, which often involve the careful analysis of large corpora of speech errors, have generated a number of sophisticated models, including connectionist-inspired ones.

END

Morphology and Syntax

Diachronic Morphology

Diachronic Morphology

- Diachronic Morphology: what morphology is, what constructs are needed in the morphological component of a grammar, and how these constructs interact with one another and with other parts of the grammar.

Diachronic Morphology

- A diachronic perspective views what happens to morphology through time.

Diachronic Morphology

Several questions are addressed which are diachronic in their focus:

- **What can change in the morphological component?**
- **What aspects of the morphology are stable?**
- **Where does morphology come from?**
- **What triggers change in the morphology?**
- **Is a general theory of morphological change possible?**

Diachronic Morphology

- Moreover, through the answers given to these questions, especially the first two, several examples of various types of morphological change are presented.
- What can change?
- What is stable?

Diachronic Morphology

- Morphology is subject to change.
- One realizes that regular sound change can alter the shape of morphs without concern for the effect of such a change in pronunciation on the morphological system.

Diachronic Morphology

- Thus, for example, once-distinct case endings can fall together by regular sound change.

Diachronic Morphology

- A change in the realization of number marking alone can be seen in the familiar case of the nominal plural marker /-s/ in English, for it has been spreading at the expense of other plural markers for centuries.

Diachronic Morphology

- For instance, the earlier English form **shoo-n**, as a plural of ‘shoe’, with the plural ending - **n** still found in **oxen**, has given way to shoe-s, with the most frequent, and indeed default, plural ending -**s**;

Diachronic Morphology

- The marker has not passed from the language altogether, as oxen shows, but the domain of a particular marker has come to be more and more restricted, and that of another has expanded.

Diachronic Morphology

- Thus it is possible to argue that much – perhaps most – language change has a **morphological/**

morpholexical basis, or at least has some morphological involvement.

Diachronic Morphology

- Such a view would then provide some diachronic justification for the importance of morphology in language in general, and thus for a morphological component in the grammars of particular languages.

END

Morphology and Syntax

Morphology in Language Acquisition

Morphology in Language Acquisition

- Children typically begin to say their first words between twelve and twenty months of age.
- They produce systematic morphological modulations of those words within their first year of talking.

Morphology in Language Acquisition

- As they move to more complex expression of their meanings, they add grammatical morphemes – prefixes, suffixes, prepositions, postpositions, and clitics.

Morphology in Language Acquisition

- On nouns, for example, they start to add morphemes to mark such distinctions as gender, number, and case; on verbs, they add markers for aspect, tense, gender, number, and person.

Morphology in Language Acquisition

Within a particular language, children's mastery of such paradigms may take several years. There are at least three reasons for this:

(a) some meaning distinctions appear to be more complex conceptually than others, and so take longer to learn;

(b) some paradigms are less regular than others, and they too take longer to learn;

and (c) language typology may affect the process of morphological acquisition: suffixes, for instance, are acquired more readily, and earlier, than prefixes.

Morphology in Language Acquisition

- In order to acquire noun and verb morphology, children must first analyze the structure of words heard in input, identify stems and affixes, map consistent meanings onto them, and then begin to use those stems and affixes in new combinations.

Morphology in Language Acquisition

- This process of analyzing form and assigning meaning is a prerequisite for the acquisition of inflectional morphology.

Morphology in Language Acquisition

- It is also a prerequisite in the acquisition of word formation.
- Children begin to use some word-formation processes at around the same time as their first inflections.
- They produce novel compounds formed from simple stem combinations.

Morphology in Language Acquisition

- Next, during their second year of speech, as some inflectional paradigms become established, they also begin to produce a few derivational affixes which emerge in greater numbers between ages three and four, in both derived and compound innovations.

END

Morphology and Syntax

Asking Questions about syntax

Asking Questions about syntax

- Linguistics involves many topics of learning a language, including the study of syntax.
- In Linguistics, the study of syntax involves learning how to structure sentences in a certain language (Smith, 2015).

Asking Questions about syntax

- In syntax, you need to construct a basic syntactic description of a language, either a language that you speak well yourself, or one for which you can find a native speaker consultant.

Asking Questions about syntax

- You also need the right kind of questions to investigate for a better understanding of that language.
- Taking that language as a short case study you need to know how these questions could be answered.

Asking Questions about syntax

- The next topic refers to asking questions about syntax in the most literal way.
- It is hoped that the discussion we have covered so far has ignited in you some curiosity about the human language faculty more generally.

Asking Questions about syntax

- We may briefly outline some issues and questions surrounding our syntactic abilities that are currently widely debated within linguistics.

Asking Questions about syntax

- The study of syntax in linguistics is quite challenging since the learner has to know how to put words in a sentence to make it sensible and avoid ambiguity (Smith, 2015).

Asking Questions about syntax

- The choice of the topic on syntax is influenced by the difficulty that is experienced while learning a foreign language (Smith, 2015).

END

What questions to investigate I

What questions to investigate I

- Let's now talk about a framework with which to write a basic syntactic description of a language that you know well, or for which you can access data readily.
- If appropriate, you can ask one or more native speakers to act as language consultant(s).

What questions to investigate I

- Make sure you give the source(s) of your data, including attributions to the literature (i.e. cite your sources). Acknowledge any help given by language consultants.

What questions to investigate I

- Give the name by which the language is known to its native speakers, plus its English name, if any.
- State its language family and the principal locations in which it is spoken.

What questions to investigate I

- Your description should include some or all of the questions outlined in (1) to (13), depending on what features of the language you consider to be most interesting from a syntactic, morphosyntactic and typological point of view.

What questions to investigate I

- Give enough information on any feature to make it comprehensible to someone who has no prior knowledge of the language.
- All parts of the discussion must be illustrated with appropriate and sufficient data, glossed and translated.

What questions to investigate I

- Number each example, following the conventions used in this textbook.
- If your language uses a writing system other than the Roman alphabet, cite data using whatever standard system of transliteration isused for this language.

What questions to investigate I

- Give a list of abbreviations used in the gloss.
- You won't need to discuss syntactic properties that are not manifested in your language.
- For instance not all languages mark morphologically the relationship between a head and its dependents.
-

What questions to investigate I

- Simple state that your language does not, for instance, display head- or dependent-marking.
- Similarly, you don't need to mention the antipassive construction unless your language has an ergative alignment.

What questions to investigate I

- You can collapse questions together where this makes sense for your language.
- Make sure, when answering each question, that you provide adequate explanations: do not leave the reader to work out for themselves what your data show.

END

What questions to investigate II

What questions to investigate II

- Some basic questions to consider:
- (1) What is the neutral, or unmarked, constituent order (sometimes termed ‘word order’) in the clause, if there is one?
- If no neutral constituent order, describe the main principles of linearization.

What questions to investigate II

- You should at least illustrate a transitive clause with two full NP arguments, and an intransitive clause.
- Are they orders the same in both these clause types?

What questions to investigate II

(2) What alternative neutral constituent orders are possible, if any? How marked are these?

(3) What are the main word classes (or syntactic categories) in your language?

What questions to investigate II

(4) Is your language predominantly head-initial or predominantly head-final?

(5) How does your language express clausal negation?

What questions to investigate II

(6) Describe the main strategies for joining clauses together that are found in your language.

(7) Are the constituent orders occurring in subordinate clauses the same as those in root clauses, or different? If different, describe the differences carefully .

What questions to investigate II

(8) How, if at all, does your language mark morphosyntactically the relationship between heads and dependents?

(9) Does your language readily identify distinct constituents?

What questions to investigate II

(10) Describe the way(s) in which the grammatical functions A, O and S are identified in your language.

(11) Your language almost certainly has some readily identifiable ways to change the grammatical functions or relations, either increasing or decreasing the valency of a verb.

What questions to investigate II

(12) Describe how wh- (i.e. constituent) questions are formulated.

(13) Are there any other interesting syntactic constructions that are not covered by these questions? If so, explain and illustrate them.

What questions to investigate II

- You may be wondering why it's worthwhile to investigate the grammars of languages.
- Consider the fact that every week, languages are becoming extinct.

END

Pedagogical aspects of morphology & syntax

Pedagogical aspects of morphology & syntax

- Both morphology and syntax are highly important for pedagogical purpose of English as a second language.

Pedagogical aspects of morphology & syntax

- The students of English have to be well prepared.
- And all we have said is linked with the study of Morphology and Syntax also known as Morphosyntax.

Pedagogical aspects of morphology & syntax

- Definitely it is not possible to address Morphology without knowing Syntax.
- They complement each other and share a great link.

Pedagogical aspects of morphology & syntax

- All of these abilities are connected, and as teachers what we want to achieve in class is to integrate these skills so that students can produce the language fluently and accurately.

Pedagogical aspects of morphology & syntax

- The knowledge of Morphosyntax is used for pedagogical purposes in all academic settings.
- A language cannot develop without a well-established theory of word and sentence formation.

Pedagogical aspects of morphology & syntax

- We as teachers very concerned for the acquisition of the rules that govern the language.

Pedagogical aspects of morphology & syntax

- We want our students to develop a linguistic competence of the language, so that they can be able to produce an infinite number of sentences which require their knowledge of morphology and syntax.

END

Morphology and Syntax

Enhancing vocabulary

Enhancing vocabulary

- Decoding and vocabulary development are pivotal to developing strong reading skills.
- Identified as two of the five critical components of reading instruction which include phonemic awareness, decoding, fluency, vocabulary, and comprehension).

Enhancing vocabulary

- Morphology is a critical element of successful vocabulary development and accurate decoding.
- Awareness of morphology has been shown to be a strong indicator of and positive influence upon reading comprehension (Soifer, 2005).

Enhancing vocabulary

- Subsequently, weakness in decoding and vocabulary skills is noted as a potent inhibitor to fully comprehending text.

Enhancing vocabulary

- As teachers we find assessment that indicate a weakness in vocabulary development for most of the students, thus suggesting a need to provide more intense vocabulary instruction with direct instruction in morphology.

Enhancing vocabulary

- Morphology works in much the same manner, with students manipulating the parts of words to create new meanings or altered, but similar, meanings.

Enhancing vocabulary

- Understanding that words connected by meaning can be connected by spelling can be critical to expanding a student's vocabulary.

END

Morphology and Syntax

Developing reading comprehension

Developing reading comprehension

- Understanding the meaning of prefixes, suffixes, and roots enhances the comprehension of text being read.
- The manipulation of affixes can impact the part of speech that a word denotes.
- Having this knowledge enhances text comprehension as well.

Developing reading comprehension

- Direct instruction of morphology is an effective means to help with understanding and applying word structure for decoding, spelling, and vocabulary study (Wilson, 2005)..

Developing reading comprehension

- As a result, students may be able to recognize an unfamiliar word simply by identifying the affixes and the remaining base word or root (Carreker, 2005).

Developing reading comprehension

- Textbooks and student writings in the early grades typically use words of Anglo-Saxon origin.
- Typically, these words are one- to two-syllable, high-frequency words (Berninger & Wolf, 2009).

Developing reading comprehension

- In the upper grades more frequently use words of Latin and Greek origin.

Developing reading comprehension

Classroom Instruction in Morphology
Prince (2009) suggested four main instructional strategies from Lesaux's work with morphology:

- **Morphology should be taught as a distinct component of a vocabulary improvement program throughout the upper elementary years.**
- **Morphology should be taught as a cognitive strategy to be learned. In order to break a word down into morphemes, students must complete the following four steps:**
  - **Recognize that they do not know the word.**
  - **Analyze the word for recognizable morphemes, both in the roots and suffixes.**
  - **Think of a possible meaning based upon the parts of the word.**
  - **Check the meaning of the word against the context of the reading.**
- **Students also need to understand the use of prefixes, suffixes, and roots, and how words get transformed.**

Developing reading comprehension

- Students who understand how words are formed by combining prefixes, suffixes, and roots tend to have larger vocabularies and better reading comprehension than peers without such knowledge and skills (Prince, 2009).

Developing reading comprehension

- A deep and full knowledge and understanding of vocabulary will improve outcomes for students who struggle.

END

Morphology and Syntax

Better understanding of the language teaching

Better understanding of the language teaching

- The study of morphology deals with important insight of how language works, exposing the different needs of words' categories and modifying words in various ways (O'Grady and Archibald 2005, 112).

Better understanding of the language teaching

- Morphology applied in education helps the teachers particularly EFL teachers to understand the nature of the language system.
- This is because studying morphology means studying the system of the language works.

Better understanding of the language teaching

- Unlike Phonology whose main focus simply on the element of the sound, Morphology deals solely with how the words are formed and structured.

Better understanding of the language teaching

Some strategies for teaching morphology in the classroom based on research by Dr. Nonie Lesaux:
Morphology should be taught as a distinct component of a vocabulary improvement program throughout the upper elementary years.

Morphology should be taught as a cognitive strategy to be learned.

In order to break a word down into morphemes, students must complete the following four steps:

Recognize that they don't know the word.

Analyze the word for recognizable morphemes, both in the roots and suffixes.

Think of a possible meaning based upon the parts of the word.
Check the meaning of the word against the context.

Better understanding of the language teaching

- Therefore, learning morphology itself will help students to be more creative in creating new words, for they have learned how to form the words.

END

Development of syntactic skill

Development of syntactic skill

- We are humans, it's in our nature to study things and understand how they work.
- So, whilst studying languages and how they work, we must study syntax and sentence.

Development of syntactic skill

- Studying syntax is relevant to a lot of subject areas in linguistics.
- We must study syntax to understand how children acquire their language, how they start constructing sentences and what stage do they learn the tacit syntactic rules of the language.

Development of syntactic skill

- Studying syntax enable us to understand how bilingual and multilingual speakers are able to construct their sentences despite having different structures for different languages.
- The sentence structure isn’t the same in English as it is in Japanese!

Development of syntactic skill

- Studying syntax gives us many answers which are necessary for understanding how languages work, as well as being the doorway to future research and theories on all aspects of linguistics!

Development of syntactic skill

- We also study syntax to develop set rules and constraints on the language.
- We call these parameters.
- These parameters limit what we can and can't do in a language, helping us establish an effective and working communicative system.

Development of syntactic skill

- Some linguists believe that all languages have the same parameters.
- This idea is called universal grammar, and was a theory developed by Chomsky in the 1960s.

Development of syntactic skill

- From these ideas of linguistic parameters, we can learn, use and teach the correct way to make sentences.

END

Morphology and Syntax

The knowledge of Morphosyntax

The knowledge of Morphosyntax

- Both morphology and syntax are highly important for pedagogical purpose of English as a second language.

The knowledge of Morphosyntax

- As the knowledge of English as a second language is considered a requirement in many fields, for this reason English is taught as one of the most important subjects, not only in schools but also in universities where the number of hours have increased significantly.

The knowledge of Morphosyntax

- Definitely it is not possible to address Morphology without knowing Syntax too as part of it, because they complement each other and share a great link.

The knowledge of Morphosyntax

- The knowledge of Morphosyntax is used for pedagogical purposes in all academic settings.
- A language cannot develop without a well-established theory of word and sentence formation.

The knowledge of Morphosyntax

- Certainly, most of our vocabulary knowledge has been made possible due to our awareness of Morphology; it is known that the more morphological rules and tips you know the better vocabulary you will acquire.

END

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Good Luck

Regards : Zarva Chaudhary

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