1. Morphology

1.1. Morphemes
- Morphemes: the smallest linguistic elements with a meaning/grammatical function.
- Examples of words segmented into morphemes:
  1. dis-pleas-ure; nerv-ous; electr-ic; walk-ed; tree-s; who-se
  2. Some morphemes consist of a single morpheme (to, that, tree).
- Some morphemes consist of a single sound (sing-s, walk-ed).

A. Look at the morpheme divisions suggested in (1). Mark for discussion in the class any examples of divisions (or lack of divisions) which you do not understand.

1.2. Types of morphemes
- Free morphemes can occur as independent words. Bound morphemes cannot.

B. Isolate the morphemes in the following words, and say whether they are bound or free:
  - psychopathic, reinterpretation, paperback writer, flounder fisherman, well-established, schoolmasterish, knitting needle

Cranberry morph(eme)s (=unique morph(eme)s): bound morphemes occurring in only one word in a language.

(3) cranberry, inert, ine, inept, unkind, unpleased, umpteen, affable

Affixes: bound morphemes which have one or more identifiable semantic or grammatical functions/meanings and which occur in more than one word in the language.

(4) a. oldest; speaks, spoken; dogs, four-teen, th; driver, painful, beautify
   b. unentity, unclear, ultra-stupid, unbehead
   c. anti-dis-stabil-ish-ment-arain-ism

Base: the morpheme(s) to which an affix is attached.

Prefixes = affixes pronounced before base; suffixes = affixes pronounced after base.

Clitics: a cross between an affix and a word. They are phonologically so short they can’t be pronounced alone, they need to join to other words. Like words, their position is determined partly by syntactic rules. They are sometimes short forms of larger words.

(5) I’m, he’s, you’re, puis, je lls, lui donner? j’ y vais
(6) Hasn’t she gone? (Contrast with parallel question with no-clitic not.)
(7) [the man in the kitchens]’s wife

1.3. Allomorphy
- Allomorphy: the phenomenon in which a morpheme has more than one allomorph (variant in pronunciation):

(8) a. an owl
   b. a tree
(9) a. dogs [z] b. cats [s] c. bases [z] d. sheep [I]
(10) a. duke, duke-dom; b. duch-ess, duch-y
(11) a. re-ceive, re-reiv-er, re-reiv-able; de-ceive, de-ceive-able; con-reiv-able
   b. re-reiv-ion, re-reiv-ive; de-reiv-ion; con-reiv, con-reiv-ion, con-reiv-uul
(12) a. em-prison, em-body, em-power, em-bolden, em-bitter, em-panel
   b. en-chain, en-danger, en-list, en-train, en-slave, en-snare, en-tangle, en-large

If the allomorphs of a morpheme are phonologically unrelated, we speak of suppletion:

(13) go/went; be/am/is/was; good/better; one/first
1.4. Morphological processes: Ways of creating or changing the form of words

1.4.1. Affixation (defined above)

1.4.2. Compounding

- creating a word (a compound) by combining two words. Either or both of these words might itself be a compound. If so, we have an instance of recursion (a situation where a particular rule applies to a structure which was created by the same rule).

1.4.3. Conversion (zero derivation)

- change of syntactic category (e.g. noun, verb) of a word without adding affixes. It may involve a stress change or minor changes in the base. Some linguists see conversion as addition of zero affixes (unpronounced affixes), while others say there is no affix.

1.4.4. Clipping

- shortening a word by deleting phonological material (not morphemes):
  - prof (professor), influence, laboratory, steroids, Vietnam, situation comedy)
  - prefixes, detoxification centre, Rolling Stones

1.4.5. Blending

- merging of two words in which at least one of them undergoes clipping:
  - carjack (hijack+car), stagflation (inflation+stagnation), Reaganomics

1.4.6. Backformation

- the formation of a new word by removing an affix:
  - self-destruct (from self-destruction)
  - dissertate (<dissertation), liaise (<liaison), enthuse (<enthusiasm), emote (<emotion), combust (combustion), redact (<redaction), opine (<opinion)

- Here the shorter words sound “less normal” and aren’t acceptable to every native speaker, suggesting they are perceived as being derived from the longer words.

1.4.7. Ablaut

- creation of new (form of a) word by changing vowel in the base word:
  - sang/sang; gain/gain; raise/raise; sit/set; fall/fell (as in to fell a tree)

1.4.8. Acronymy and abbreviation

- Acronyms: words formed by taking the initial letters from the words in a compound or phrase and pronouncing the word spelled by them.
  - NATO, UNICEF, AIDS, RAM

- Abbreviations: like acronyms, but the names of the letters are pronounced.
  - BBC, tlc, PLO, cd, AC/DC (Anti-Christian Devil Children???)

D. Name the morphological processes used in forming the words in italics below. In some cases more than one process was used. Note that some of the words are occasionalisms (words used rarely, not part of the standard vocabulary).

1. a. edit (<editor), sculpt (<sculptor), burgle (<burglar), laze (<lazy), preempt (<preemption), scavenge (<scavenger), swindle (<swindler), resurrect (<resurrection)

2. b. cherry (< French cerise; final /z/ taken as plural affix; singular backformed from it)

3. c. pea (< Old English pise 'a quantity of peas'; singular non-countable noun)

4. d. stave (<staff, older plural of staff in the sense 'stick')
E. Can you find a French example for the following morphological phenomena?
(a) abbreviation (b) acronymy (c) compounding (d) conversion (e) clipping (f) blending (g) affixation
F. How were the verbs in the examples below formed? Two answers are possible.
   a. colour-change a shirt  b. whitewash a wall  c. deadlock a door

1.5. Inflection versus derivation

- **Derivation** (=> word formation): The use of morphological processes to create new words.
- **Inflection**: Morphological operations changing the form of a word in response to syntactic requirements. Native speakers have an intuition that inflection doesn’t create a new word, it just results in a different form of the same word.

(29) Examples of derivational affixes:
  - killogy, kingdom, painful, greenish, vulgarise, beautify, nomenity, pseudoproblem, unclear, ultra-stupid, behead, circumnavigate

(30) Inflection in English:
   a. with verbs: rides, riding, rode, ridden
   b. with adjectives: older, oldest
   c. with nouns: dogs, oxen, men
   d. with numbers: seventh

(31) Examples of inflection that English lacks:
   a. agreement on French adjectives: grand(g) homen(s); il/elle est content(e)
   b. case inflection on Latin nouns: mensa (the table, nominative subject)
   c. passive inflection in Latin: amo (I love) vs. am-o-r (I am loved)

- The inflection-derivation distinction is hard to define precisely. More specific criteria (see also Bauer 1988: ch. 6, Katamba 1993: ch. 10):

(32) Derivation changes the meaning of a word, while inflection either does not (e.g. sing/sings; they/them) or does so only with regard to a feature which is part of the grammar rather than the vocabulary of the language (dog/dogs; talk/took/talked).

(33) Inflection is obligatory, being forced by syntactic requirements. With derivation, we can decide whether we use it or not (e.g. green vs greenish, fascist vs neo-fascist).

(34) Inflection is mostly on the edge of a word, ‘outside’ derivation, since inflection occurs after derivation. E.g. piglets vs. *piglet.

(35) Derivation may change syntactic category ([s][A][cheerfulness]], inflection does not.

(36) Inflection is semantically regular (if it does change meaning), e.g. Xs nearly always produces the meaning ‘plural of X’, while semantic effects of derivational affixes are often unpredictable (professor/profession, commit/commission, steal/stealth).

(37) Inflection can’t be repeated, while derivation can: neo-neo-conservative vs. *two dogs’s (intended meaning: ‘two groups of dogs’).

(38) Derivation is not always fully productive: Cf. piglet but *doglet, *horselet. Inflection is almost completely productive. There are only a few verbs in English that don’t have a complete set of inflectional forms: quoth (past only), abide, beware, stride (no past participle), dive (no past tense for some speakers).

G. The above criteria have rare exceptions. Which of the following data are apparent exceptions for which criterion in (32)-(38)?
(a) betttermen, worsen, lessen, mostly (b) glasses
(c) the forms of the modal auxiliaries must, may, can, shall, need (in he needn’t go) (d) a filling/houring meal, a heated debate, his singing was lousy (d) has two possible answers, depending on whether conversion is involved.)

1.6. Three types of compounds

- **Endocentric compounds**: AB is an instance of B; houseboat is a type of boat, boathouse is a house, a person who is seasick is sick. In endocentric compounds, the final element is the head, and the other element(s) provide additional information about the head.

(41) [N Nc] chess table, strawberry jam, diesel motor, bookshelf
(42) [V Nc] crybaby, scrubwoman, bakehouse
(43) [Participle Nc] filing cabinet, reading class, writing table, drinking water
(44) [A Nc] blackbird, drydock, redbrick, wetsuit
(45) [Particle/Preposition Nc] outhouse, outgrowth, undergrad, offprint
(46) [A A1c] bloodthirsty, pain-free, theory-neutral, class-specific, sky blue

- **Exocentric compounds**: AB is neither an A nor a B: a sabre tooth is a type of tooth, sabretooth; a person who is seasick isn’t the same as saying that its meaning has nothing to do with the meanings of the parts of the compound. In most examples below, you can see that the compound’s meaning clearly is related to that of its parts.

(47) [A Nc] paleface, redskin, redneck, redhead, highbrow, bigfoot
(48) [N Nc] skinhead, egghead, blockhead
(49) [V Nc] pickpocket, spotsport, killjoy, answerphone
(50) [Y Particle]hándout, putdown, sit-in, walkout, breakdown, fallout, bailout, pushup
(51) [P Nc] afterbirth, afternoon, underground

- **Copulative compounds**: AB is A and B:

(52) [N Nc] owner-builder, producer-director, singer-songwriter, secretary-lover
(53) [A A1c] bittersweet, deaf-mute

H. State whether these compounds are endocentric, exocentric or copulative (some may belong to more than one class): birdbrain, wheelchair, hunchback, author-publisher, loudmouth, greenback, apple tree, redback (=spider with a red back)

1.7. More on the notion ‘head’

- The **head** is the element that determines the semantic and grammatical characterizations of the whole word.
- Since endocentric compounds have heads, it follows that endocentric compounds form their plural in the same way as their heads do. E.g. scrubwomans, firemen. Exocentric compounds, being headless, are not inflected in the same way as their right-hand members: still lifes, lowlifes (cf. lives), walkmans, sabre tooths, tenderfoots, bigfeet.
- Exocentric compounds, being headless, don’t necessarily have a constituent with the same syntactic category as that of the whole compound: sit-in doesn’t contain a noun.
Right-Hand Head Rule: The head of a word is on the right in English.

A consequence: Prefixes do not change the category of their bases: [un][love][dly]a.

(Arguably, verbs like enthrone, head, derail are exceptions.)

I. Here are some French compounds. Are they endocentric, exocentric or copulative?
Is the Right-Hand Head Rule valid for French as well?
(a) compositeur-pianiste (b) porte-parole (c) bloc-notes (d) wagon-lit
(e) gratte-ciel (f) voiture sport

1.8. Constraints on morphological processes

1.8.1. Productivity

Productivity: The ability of an affix or process to form new words.

(a) very productive affixes:
-er: baker, runner, thinker, producer, emitter, SMS-er...
-ise: time-wise, money-ly, job-wise, health-wise, productivity-wise...
-ful: armful, fistful, draweful, mouthful, potful, bathful, coffiul...

(b) unproductive affix: -th only occurs in the words in (a); new formations impossible.

1.8.2. Blocking

The formation of new words can be blocked by existing words with same meaning.

J. Which words block the following words? *ungood, *seable, *stealer
K. Cooker means ‘stove’ but cannot mean ‘person who cooks’. Why?

1.8.3. Phonological constraints

An affix/process might require or disallow bases with particular phonological properties.

Example: The comparative morpheme -er disallows bases of more than one syllable excepting bisyllabic bases ending in syllabic [n], [l] or [i] (Spencer 1991:399):


Longer, nice, fuller; greasier, fancier, commoner, subtler, nobler

L. Are the words lecturer, composer, programmer, provider exceptions to what was said about comparative affix -er? If not, why not?

Use the following data to determine a phonological constraint on the noun-forming suffix -al. Hint: it has something to do with stress.

- arrival, denial, approval, disposal, refusal, retrieval, dispersal, reversal
- tamper, boycot, gather, orderal, potteral

N. Are the following words exceptions to what was said about the affix -al in the previous exercise? political, judgmental, original, suicidal

Point from exercises L, N: Just as two unrelated words can be homophonous, i.e. pronounced the same way (made/nade), unrelated affixes can be homophonous. Other examples: -s (Stuart’s sister hate plastic fork).

Morphology

O. Speculate on how the following data could be explained in terms of a non-phonological constraint which we might call ‘informativeness’:
bearded people, freckled people, one-legged people, *legged people, cold-hearted people, *hearted people, short-sighted people, *sighted people (sighted is, however, used in the blind community)

1.9. Motivation, lexicalisation and the lexicon

The product of a morphological process is motivated or compositional if the meaning is predictable from the meanings of the parts. If not, we say it is idiomatic or lexicalised:

(a) Completely compositional: dog owner, car race, gold bracelet, uninterpretable

Partly idiomatic (meaning slightly narrower/wider than expected): blackboard, wetsuit, unreadable (in sense ‘boring to read’), wheelchair (only for disabled people)

Totally idiomatic: blackmail, cupboard, butterfly, hedgehog, profession, landlord

More exactly, lexicalised means that the word has an entry in the (mental) lexicon, our mental ‘dictionary’, the part of our memory containing unpredictable knowledge about the meaning and pronunciation of morphemes or words.

Examples of lexical entries:

1. (simplified) lexical entry for sing:
   Pronunciation: infinitive: /sɪŋ/; past tense /sɪŋ/; participle: /sɪŋ/
   Semantics (rough): ‘create musical sounds using one’s voice’

2. (simplified) lexical entry for watchmaker:
   Pronunciation: /wɔːʃmeɪkər/; Semantics: ‘person who makes or repairs watches and similar devices’
   (Italics highlight what is idiomatic in the meaning)

Every morpheme has a lexical entry (because the sound-meaning correspondence is unpredictable). Every word formed by a morphological process that is 100% compositional must also have a lexical entry.

F. What, if anything, is idiomatic about the following words? uneasy, hangman, shelf, forehead, table leg, midwife, understand, loudspeaker, cranberry
Q. Name four idiomatic English or French words formed by affixation or compounding.

Sometimes words which were completely lexicalised at one stage in the history of a language are reinterpreted as at least partly motivated by subsequent generations. This is an instance of folk etymology. Examples:

1. Original use: a German word meaning ‘(something) from Hamburg’
   Folk etymological assumption: the word involves ham in sense ‘meat from pig’ and (by subtraction) burger means roughly ‘sandwich’. Hence we now find beefburger, cheeseburger.

2. Original use: Old English brydeguma (literally ‘bride man’).
   Folk etymological assumption: people assumed that the word had a more motivated interpretation (he ‘grooms’ the bride)

3. Original use: ‘able to burn’ (non-compositional meaning)
   Folk etymological assumption: people assumed that the word had a compositional meaning; they took in to be the negative prefix found in incompetent, inconvenient and many others. Thus, inflammable came to mean ‘not burnable’.


1.10. Appendix: Types of allomorphy

- **Advanced knowledge: Three types of allomorphy**
  - **Phonologically conditioned allomorphy:** the choice of allomorph is predictable on the basis of the pronunciation of adjacent morphemes:
    
    (68) Allomorphs of the indefinite article:
    
    - an (before vowels): an eye/elephant/owl
    - a (before consonants): a leg/dog/brick/stone

    (69) Allomorphs of the regular past tense morpheme:
    
    - /d/ (after [d,t]): defeated, hated, waded, threaded
    - /t/ (after all other voiceless sounds): hissed, ripped, picked
    - /l/ (after all other voiced sounds): fised, wedged, measured, howled

    (70) Some allomorphs of the negative prefix in-
    
    - /lm/ (before bilabial sounds): impossible, immature
    - /ll/ (before /l/): illegal, illegible
    - /lm/ (elsewhere): ineligible, inexpensive, independent

- **Morphologically conditioned allomorphy:** the choice of allomorph is determined by particular morphemes, not just by their pronunciation. Thus, the morpheme ~sume in (71) changes to ~sumpt- in (72). This alternation is not predictable from the phonological laws of English, as (73) shows.

    (71) consum, presum, subsum, resum, assum

    (72) consumption, presumption, subsumption, resumption, assumption; consumptive, presumptuous

- **Lexically conditioned allomorphy:** the choice of allomorph is unpredictable, thus memorised on a word-by-word basis. E.g. that ox, sheep, child have the plurals oxen, sheep, children is lexically conditioned because there is no way to predict it from general knowledge about English morphology or phonology (cf. foxes/*foxen, two beeps/*beep).

R. Are the following allomorphs are lexically, phonologically or morphologically conditioned?

- The prefix en/-em/-im- in forming verbs meaning 'cause to' enter a particular thing or state: imprison, embody, empower, embolden, embitter, empanel; enchain, endanger, enlist, enslave, ensnare, entangle, enlarge
- The final morpheme in the words proceed, accede, concede, recede is realised as /s/ when certain suffixes, including -ion (accession, procession, concession, recession) and -ive (recessive, concessive) are added.

S. The English indefinite article has two phonologically conditioned allomorphs a and an. To what extent does this apply to the French forms mon and ma in the following constructions: mon copain, ma copine, mon ami, mon amie

1.11. References


2. Syntax

2.1. Introductory Concepts

2.1.1. Syntactic categories

(74) Category Abbreviation Example

- a. noun N John, London, computer, city, stupidity, event
- b. verb V hear, think, kill, shorten, eavesdrop, exist
- c. adjective A good, obscene, demented, lovely, schoolmasterly
- d. preposition P by, in, with, from, to, at, inside, despite
- e. adverb Adv slowly, often, now, mostly
- f. determiner D, Det a, the, this, those

- How are syntactic categories (parts of speech) like (74) defined? Definitions based on meaning, e.g. (75), are unreliable. There are nouns which denote activities (the hammering), events (recital), states (drunkenness) and properties (silliness).

(75) a. Nouns denote people, places or things.
  b. Verbs denote events, activities or states.
  c. Adjectives denote properties.

- More satisfactory are definitions based on morphological and syntactic criteria.

(76) Examples of morphological criteria for categories (for English only!):

- a. Nouns can take plural -s or one of its allomorphs: –s, –es, –z, –x
  - dogs

- b. Verbs have inflection for person, tense: I talk, he talked, we & you sing, they/you sing
  - exist

- c. If a word can take comparative/superlative affixes, it is an adjective: more beautiful, the most beautiful
  - exist

- d. If -ly can be added to a word to form an adverb, that word is an adjective (slowly).
  - exist

(77) Examples of syntactic criteria for categories in English (Assume that each pair of brackets is filled by only one word):

- a. They have no [N]
- b. the [A] [D]
- c. She did this very [Adv]
- d. They are very [A]
- e. They can [V]

2.1.2. Constituent structure

(78) a. That man likes that woman.
- b. S → D+N+S+V+D+N

(=A sentence can consist of determiner + noun + verb + determiner + noun.)

- Word order rules like (78)b) are not a complete description of (78)a). If we change (78)a) as in (79), we would need infinitely many such rules, and native speakers could never learn them. Such rules explain nothing and don’t predict which sentences are possible in a language.

(79) a. Change [That man] to: [That old man]; [That old man with the Elvis hairstyle]; [He]; [That extremely old and decrepit man]; [The man who nearly got electrocuted]...
- b. Change [that woman] to: [her]; [fast piano playing]; [intellectual free jazz and late Beethoven string quartets]; [his photographs of Victorian guesthouses in Tasmania]...
- c. Add and followed by any appropriate (part of a) sentence to the end of (78).
- d. Put some other sentence, followed by and, before (78).
Solution: sentences are formed by combining words with other words to form larger groups of words (constituents). Constituents combine with other constituents to form bigger constituents, until we have sentences. Examples of the usefulness of constituents:

- The bracketed expressions in (79a,b) are noun phrases (NPs), constituents containing a noun and material describing it, or pronouns (he, her, it). Recognising NPs allows us to describe all sentences in (78) and (79a,b) with one rule in (80).

(80) S → NP \* NP (simplified; to be revised later!)

- Rule in (81) allows us to handle the possibilities in (79c,d).

(81) [x] \* [x] and [x] (A constituent of category X can be replaced by two constituents of the same category joined by and.)

- Rules like (80) and (81) which appeal to the existence of constituents greatly simplify the description of the sentences in (78) and (79).

2.1.3. Tests for constituents

How to determine whether a string (i.e. group of words) is a constituent or not.

a) **Proform test.** If you can replace a string with a proform, the string is a constituent.

Proforms stand for constituents already mentioned. E.g. pronouns (which replace NPs; she/him/they etc). Other proforms: somewhere, do so, there).

(82) a. The lady running the group handed in her resignation at noon.
   b. She handed in her resignation. \[→ \text{The lady running the group is a constituent}\]
   c. The lady running \[it\] handed in her resignation. \[→ the group is a constituent\]
   d. The lady running the group \[did so\] at noon. \[→ \text{handed in her resignation is a constituent}\]
   e. The lady running the group \[handed in her resignation then\]. \[→ at noon is a constituent\]

b) **Question test.** A string is a constituent if you can ask about it using a wh-expression (e.g. where/how/when/why/what/who(m); with whom?; at what time?; in whose house?). The answer to the question is also a constituent. (83) illustrates this with reference to (82a).

(83) a. A: What did the lady running the group hand in at noon?
   B: Her resignation.
   a. A: Who handed in her resignation at noon?
   B: The lady running the group
   c. A: When did the lady running the group hand in her resignation?
   B: At noon

c) **Movement test.** If a string can be moved to some other position in the sentence, it is very likely to be a constituent.

(84) a. Egbert was reading a thick book about formal logic on the balcony on Sunday.
   b. On Sunday, Egbert was reading a thick book about formal logic on the balcony.
   c. On the balcony, Egbert was reading a thick book about formal logic on Sunday.
   d. Egbert was reading on the balcony on Sunday a thick book about formal logic.

(85) a. Rover ran out of the house.
   b. Out of the house Rover ran.

(86) a. Ann is not a fan of mindless techno music.
   b. \text{A fan of mindless techno music, Ann is not.}

(87) a. Gertrude wasn’t interested in art.
   b. Interested in art, Gertrude wasn’t.

(88) a. Hortense didn’t win the race.
   b. Win the race, Hortense didn’t.

d) **Coordination test.** If you can coordinate two strings (i.e. join them together using conjunctions (e.g. and, or)), the strings are constituents. E.g. the underlined strings in (89a) and (90a) are shown to be constituents in (89)b,c and (90)b,c.

(89) a. I went to the post office to post a letter. I did the shopping.
   b. I went to the post office to post a letter and did the shopping.
   c. I did the shopping and went to the post office to post a letter.

(90) a. She spoke to a small number of the students interested in the subject and the staff.
   b. She spoke to a small number of the students interested in the subject and the staff.
   c. She spoke to the staff and a small number of the students interested in the subject.

e) **Cleft test.** (91)a is changed into cleft sentences in (b-d). Cleft sentences have the form in (91)c. The material between be and that (underlined in (91)b-d) is always a constituent.

(91) a. The guests from overseas visited the best parts of the city on Monday. I went to the post office to post a letter.
   b. It was on Monday that the guests from overseas visited the best parts of the city.
   c. It was the best parts of the city that the guests from overseas visited on Monday.
   d. It was the guests from overseas that visited the best parts of the city on Monday.
   e. It \[was/is\] X that ...

(92) a. The lady running the group handed in her resignation at noon.
   b. She handed in her resignation at noon?
   c. The lady running it handed in her resignation at noon?
   d. The lady running the group handed in her resignation at noon?
   e. The lady running the group handed in her resignation then.

(93) a. The lady running the group handed in her resignation at noon.
   b. Visit the best parts of the city was what the guests from overseas did on Monday.
   c. Losers like him who can’t think their way out of a paper bag

(94) a. What the guests from overseas visited on Monday was the best parts of the city.
   b. The guests from overseas visited the best parts of the city on Monday.

(95) a. She seemed to be totally fed up with the inefficiency of the system.
   b. What she seemed to be was totally fed up with the inefficiency of the system.

(96) a. Although she is a defender of free will... = A defender of free will though she is...
   b. Although they are annoyed at their son...
   c. Although he worked hard...

(97) a. Noun Phrase (NP): the (biggest) tree (in the garden)
   b. Verb Phrase (VP): (often) played (in a band) (on saturday nights)
   c. Prepositional Phrase (PP): (right) under the window
   d. Adjective Phrase (AP): (very) proud (of his children)
Underlined are the heads of the phrases. The head of a phrase is the word that determines the properties of the whole phrase. Heads are obligatory in phrases. Everything in a phrase depends on the head (e.g. gives info about the head, is in the phrase because the head requires or allows it).

Some terminology: N (noun) or projects NP, NP is a projection of N or is headed by N. Recall: words can also have heads: *bird is the head of *[a black bird].* Unlikely in syntax, combining words in morphology yields words, not phrases.

\[ S (\text{= sentence}) \text{ is an example of a phrase.} \]

### 2.2. Details about some important types of phrases

#### 2.2.1. Noun Phrase (NP)

- **(a)** the woman; (b) a (famous) diva (of exceptional talent) (who got run over by a truck)
- **(c)** their new flat
- **(d)** their parents
- **(e)** some (delicious) cakes

**Recall:** words can also have heads: *bird is the head of *[a black bird].* Unlikely in syntax, combining words in morphology yields words, not phrases.

- **Some terminology:** N or projects NP, NP is a projection of N or is headed by N. Recall: words can also have heads: *bird is the head of *[a black bird].* Unlikely in syntax, combining words in morphology yields words, not phrases.

**2.2.2. Verb Phrase (VP)**

<table>
<thead>
<tr>
<th>(103)</th>
<th>a. Her mother read a book</th>
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<tbody>
<tr>
<td></td>
<td>S</td>
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<tr>
<td></td>
<td>VP</td>
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<tr>
<td></td>
<td>Her mother read a book</td>
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<tr>
<td></td>
<td>NP</td>
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<td></td>
<td>a book</td>
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<td></td>
<td>Her mother</td>
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</tr>
<tr>
<td></td>
<td>V</td>
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</table>

**Why do we assume VP exists?** Why is *Her mother read a book* given the structure in (103a), not that in (103b)? Answer: Constituent tests show that VP exists:

- **(104)** a. Her mother *read a book.* She *did so last week.*

**[Proform test]**

b. A: *What did her mother do?* B: *READ A BOOK.*

**[Question test]**

- **(105)** a. (suddenly) died (of cancer) (at a young age)

**[Adverb test]**

- **(106)** a. *I went [PP into [NP the building]] [VP with [NP the other people]]

**[Preposition test]**

- **(107)** a. *I went [PP into [NP IT]] [VP with [NP THEM]]

**[Preposition test]**

#### 2.2.3. Prepositional Phrase (PP)

- **(108)** a. *I went from [NP UNDER [NP the table]]

**[Preposition test]**

**(109)** a. *The people I spoke to* were what her mother did. **[Pseudocleft test]**

**[Preposition test]**

**Advanced point:** English has *preposition stranding:* PP broken up by movement of NP:

- **(110)** a. *What did you rely on?* b. It was talked about.

c. The people I spoke to

**[Adverb placement]**

**The underlined items in (111) are often wrongly called adverbs.** They have little in common with real adverbs (often, slowly, well). Modern linguists call them **intransitive prepositions,** prepositions not followed by NPs (cf. intransitive verbs: arrive, explode).

- **(111)** a. they went [inside/downstairs/forwards]

**[Adverb placement]**

b. they are [here/there/everywhere/downstairs/overhead/ahead/outside]

**[Preposition test]**

#### 2.2.4. Adjective Phrase (AP)

- **(112)** a. *Her mother read a book.* She *did so last week.*

**[Proform test]**

b. *They found [NP the big it]*

c. They found [NP them]

**[Preposition test]**

**Advanced point:** English has *preposition stranding:* PP broken up by movement of NP:

- **(113)** a. *What did you rely on?* b. It was talked about.

c. The people I spoke to

**[Adverb placement]**

**The underlined items in (111) are often wrongly called adverbs.** They have little in common with real adverbs (often, slowly, well). Modern linguists call them **intransitive prepositions,** prepositions not followed by NPs (cf. intransitive verbs: arrive, explode).

- **(114)** a. *The people I spoke to*

**[Adverb placement]**

b. *They went [inside/downstairs/forwards]

**[Adverb placement]**

**[Preposition test]**

b. *They found [NP the big it]*

c. They found [NP them]

**[Preposition test]**

**Advanced point:** English has *preposition stranding:* PP broken up by movement of NP:

- **(115)** a. *The people I spoke to* were what her mother did. **[Pseudocleft test]**

**[Preposition test]**

**The underlined items in (111) are often wrongly called adverbs.** They have little in common with real adverbs (often, slowly, well). Modern linguists call them **intransitive prepositions,** prepositions not followed by NPs (cf. intransitive verbs: arrive, exploded).

- **(116)** a. *The people I spoke to*

**[Adverb placement]**

b. *They went [inside/downstairs/forwards]

**[Adverb placement]**

**[Preposition test]**

- **(117)** a. *The people I spoke to*

**[Adverb placement]**

b. *They went [inside/downstairs/forwards]

**[Adverb placement]**

**[Preposition test]**

**Advanced point:** English has *preposition stranding:* PP broken up by movement of NP:

- **(118)** a. *The people I spoke to*

**[Adverb placement]**

b. *They went [inside/downstairs/forwards]

**[Adverb placement]**

**[Preposition test]**

**The underlined items in (111) are often wrongly called adverbs.** They have little in common with real adverbs (often, slowly, well). Modern linguists call them **intransitive prepositions,** prepositions not followed by NPs (cf. intransitive verbs: arrive, exploded).

- **(119)** a. *The people I spoke to*

**[Adverb placement]**

b. *They went [inside/downstairs/forwards]

**[Adverb placement]**

**[Preposition test]**

**Advanced point:** English has *preposition stranding:* PP broken up by movement of NP:

- **(120)** a. *The people I spoke to*

**[Adverb placement]**

b. *They went [inside/downstairs/forwards]

**[Adverb placement]**

**[Preposition test]**

**The underlined items in (111) are often wrongly called adverbs.** They have little in common with real adverbs (often, slowly, well). Modern linguists call them **intransitive prepositions,** prepositions not followed by NPs (cf. intransitive verbs: arrive, exploded).
APs typically describe NPs. They may appear either inside or outside the NP:

a. [NP a [AP very angry] person] shouted at him.
b. [NP a person [AP very angry about the situation]] shouted at him.
c. [NP the people] became [AP very angry]

If inside the NP, English APs come before the noun if AP is head-final (see (116)).

2.2.5. Adverb Phrase (AdvP)

(117) a. (very) slowly
b. (extremely) well
c. (completely) independently of the approval of his superiors

AdvPs occur (a) inside VP, describing the situation named by the verb, (b) inside APs indicating the degree to which the adjective is applicable, (c) inside the AdvPs headed by other adverbs, also indicating the degree to which the main adverb is applicable.

(118) [NP Mary] [VP a [AdvP very quickly] memorised [NP the material]]
(119) [AP a [AdvP vaguely/incredibly/mind-blowingly/(so) very/somewhat] interesting]]
(120) [AdvP a [AdvP vaguely/incredibly/(so) very/somewhat] skillfully]]

2.2.6. Putting the pieces together: Analysing whole sentences

Basic rule of sentence structure (exceptions seen later): S = NP + VP. Thus, NP and VP are immediate constituents of sentences. Words are the ultimate constituents.

The NP outside VP is called the subject. (Subjects determine the verb’s inflection: his mother writes books vs. I write books.)

Older, unnecessary term for VP: predicate.

An example of a structure for a whole sentence:

(121)

D     A         N   P  D   N     Adv    V       N       P    A             N            P    N          N

The old man in the café often reads books by French authors on Saturday nights

(122) [NP [D The] [AP a old] [N man] [P in] [NP [D in] [N café] [P often] reads [NP books by French authors] [P on Saturday nights]]

More on notation: Constituents can be represented with either trees (=phrase markers, tree diagrammes) like (121) or (labeled) bracketing as in (122).

Each node (=point in tree with a category label) stands for a constituent.

Triangle notation abbreviates constituents whose internal structure is not of interest:

(123)

D     A         N   P  D   N     Adv    V       N       P    A             N            P    N          N

2.4. More on NPs

2.4.1. Problems determining the boundaries of NP

A trap: the italicised parts of (125) look like NPs, but they aren’t (at least in these sentences). The correct NPs are underlined. For (125)(a), this is shown by (126)-(127).

(126) a. I saw it last night.
    b. *I saw it by a French journalist about Spain last night
    c. She welcomed the expert on Australian music from Brisbane:

(127) a. I saw it last night.
    b. *I saw it by a French journalist about Spain last night
    c. She welcomed the expert on Australian music from Brisbane:

2.4.2. Possessive ‘s

Possessive ‘s attaches to NPs, not nouns, cf. (128).

(128) a. [That lady’s] husband left.
    b. [That lady near the door]’s husband left. (=the husband of that lady near the door)
    c. [That lady you talked to]’s husband left. (=the husband of that lady you talked to)
    d. [That lady you saw]’s husband left. (=the husband of that lady you saw)

Example of a structure for possessive ‘s-NPs:

(129)

D     A         N   P  D   N     Adv    V       N       P    A             N            P    N          N

The person over there

2.3. More on Coordination

Coordination (=the linking of material using conjunctions and, or, but) obeys two basic principles:

a. Coordination is possible only with constituents of the same category.

b. Coordination forms a phrase of the same category as that of the coordinated constituents.

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Example of a structure for possessive ‘s-NPs:

(129)
Modal auxiliaries: can, may, must, shall, will, as well as need in some uses.

Other auxiliaries: be, as well as have and do in some uses.

Auxiliaries differ from normal verbs (lexical verbs) as follows:

A) In question inversion, auxiliaries go before the subject NP, lexical verbs do not:
(130) Does she work? vs *Works she? Has she worked vs. *Worked she?

B) Thus, in tag questions an auxiliary can appear but not a lexical verb:
(131) She has worked, hasn't/didn't she? vs. *She worked, work she?

C) Negative particles (not, n't) can negate auxiliaries but not lexical verbs:
(132) She mustn't/must not smoke vs. *she smokes not

D) Lexical verbs can be transitive (i.e. take an object), auxiliaries cannot:
(133) he wants/needs a drink vs. *he must a drink

E) Lexical verbs can take a complement VP introduced by to. Auxiliaries cannot.
(134) He wants to VP, she tried to VP; he must VP, she did VP

With inversion, tag questions, negation, if there is no auxiliary, a dummy auxiliary do must be inserted. This phenomenon is called do-support:

(135) a. *smokes she? should be . does she smoke?

b. *she smokes not

she should be . does she not smoke

c. *she smokes, smokes she? should be . she smokes, doesn't she

Some verbs can be used either as lexical verbs or as auxiliaries.

HAVE is an auxiliary if used in forming the perfect tense. Otherwise it is lexical:

(136) a. Have you eaten?  b. Don't you have a pencil?

DO as a transitive verb is a lexical verb. Otherwise it is an auxiliary (e.g. in do-support and its emphatic use)

(137) a. Did you do work/a dance?  b. Martians DO exist, I DID see one!

NEED always behaves like a lexical verb when transitive, and means 'have to have'.
When it means just 'have to' it can be either a lexical verb or an auxiliary.
If used as an auxiliary, it is uninflected and is mainly confined to negative contexts and questions (Need he go? He needn't go. *He need go.).

(138) he doesn't need a pencil

(139) a. He need does a (*s/ed) not do that.  b. He doesn't need to do that.

Position of auxiliaries in sentences (exceptions to the rule that S = NP+VP):

(140) [s NP Aux VP]

3. Semantics

3.1. Sense relations

A good way to begin thinking about semantic problems is to look at sense relations (semantic relations), i.e. how meanings of one expression (e.g. a word, phrase) relate to the meanings of other expressions.

3.1.1. Synonymy

- Synonymy subsists when two expressions have the same meaning (they are synonyms):
  (141) nevertheless/nonetheless, boy/lad, large/big, lawyer/attorney, toilet/lavatory

- There are few, if any, exact synonyms. There are usually subtle meaning differences between apparent synonyms. Other complications with calling expressions synonymous:
  - Dialectal/idiomatic differences: synonyms used by different speakers
  
  (142) power socket/power point/Australian/American/lightbulb/electric lightbulb/light globe

- Style level: elevated/neutral/colloquial/slang/crude:
  (143) inebriated/drunken/smashed/trolleyed/pissed

- Differences in range of senses: there are many cases where synonymy may at best subdivide different expressions and one sense of another expression:
  (144) pass away/die/kick the bucket/cark it/croak

- Collocation-specific meanings: words may have special meanings found in particular collocations (memorised combinations) which the other “synonym” doesn’t have:
  (145) violin/fiddle, money/dough, lunatic/loony/basket case

- Language resists absolute synonymy since it is uneconomical.
- Children assume that new words they hear aren’t synonyms of other words.

3.1.2. Ambiguity

- Structural/syntactic ambiguity: a sentence has more than one possible syntactic structure resulting in different meanings, even if all words have the same meaning:
  (146) a. She [], discussed [], sex [], [with the bus driver]

- Lexical ambiguity: arises when a word has more than one meaning: syntactic structure doesn’t contribute to the ambiguity. The context may not favour a meaning:
  (147) a. She [], was at the bank [], [river bank/financial institution]
  b. She [], picked an apple [], [pulled off the tree/chose it]

- Examples where both syntactic and lexical ambiguity are involved:
  (148) a. The crew are revolving
  b. He sold her flowers

2.6. References: Other introductions to syntax

3.1.3. Sources of lexical ambiguity: Homonymy and polysemy

- **Homonymy:** relation between semantically unrelated words which happen to have the same pronunciation (homonyms):
  - (152) *pupil*, *wring/ring*, *bank*, *bar*, *lap*, *let*

- **Polysemy:** a polysemous word has different, but related, senses:
  - (153) a. I drank the *glass*. b. I broke the *glass*.
  - (154) a. He *left* the school five minutes ago. b. He *left* the school five years ago
  - (155) a. I put the *ball* in the *box*. b. I put a *tick* or *cross* in the *box*.

More on the differences between homonymy and polysemy

- Homonymy involves two different words. Polysemy involves one word with different senses or uses.
- Historical relatedness is a bad criterion for distinguishing homonymy from polysemy. Speakers may not know about etymology. Senses of polysemous words can drift so far apart that they are perceived as separate words. (All senses of *bank* are historically related, cf. http://dictionary.oed.com)

Polysemy, unlike homonymy, is often systematic: differences between senses of polysemous words correspond to differences between senses of other words:

- (157) a. The *{door/window}* is green. [moving part] b. I threw the ball through the *{door/window}*. [opening]
- The same instances of polysemy are often (if not always) found with words in different languages. This doesn’t apply to homonymy.

- (159) a. L’*église* soutient le gouvernement. b. The church supports the government.
- (160) a. L’*église* a été construite en 1664. b. The church was built in 1664.

Brief remarks on the theory of polysemy

- Differences of opinion about polysemy: Some linguists assume that polysemy involves shifts from a basic meaning to another meaning. Others assume underspecification: a polysemous word has a very general, abstract meaning which covers all the subsenses.

3.1.4. Sources of polysemy: metaphor and metonymy

- **Metonymy:** the use of one word to describe a concept associated with the concept normally expressed by that word. Examples (among others in previous section):
  - (161) a. The pianist was playing *Beethoven* (=a work by Beethoven) b. *The chair* is under the table (chair = seat of chair; table = tabletop) c. They counted the *heads* at the meeting (heads = people)

- **Metaphor:** the use of the the term for one concept *X* to refer to another concept *Y*, where *X* and *Y* have properties in common.
  - (162) a. That guy is a *pansy/fridge/machine/tiger.*
    b. The newspaper report *exploded* the myths about Egbert Jones’ private life.
    c. She said to her ex-boyfriend ‘You’ve chewed on my heart and spat it out again.’
    d. He’s got nerves of *steel* and a heart of *stone*.
    e. The preacher said that heavy metal music *rips* your *mind* and soul to pieces.

Semantics

- Compare metaphors to *similes* (structures like (163) were the itallicised elements express explicitly that a comparison is being made). Metaphors are essentially similes without these explicit comparison expressions.
  - (163) a. His mind is *like* a computer. [deleting *like* yields a metaphor]
    b. That guy at the door is *built like* a fridge.
    c. The way Bill criticised John *resembled* beating him over the head with a stick.
    d. Talking to Bill is *like* trying to knit a sweater with only one needle.

- If metaphoric expressions are interpreted literally, they often yield impossible interpretations: *John has a screw loose* doesn’t make sense literally, so we are forced to interpret it metaphorically.

- Metaphors are often thought of as a literary/rhetorical device, but they are also common in everyday language, even in cases of so-called *dead metaphors* which are not consciously perceived as metaphorical (e.g. *go into* a subject; expert *in* a field).

- Some linguists (e.g. Cognitive Grammarians) define metaphor as a pattern of thought rather than something purely linguistic. In this definition, a metaphoric expression is not itself a metaphor but a realisation of a metaphor. Examples (metaphors in capitals):
  - (164) **TIME IS MONEY:** spend/save/invest time; *my time ran out*
  - (165) **THE MIND IS A COMPUTER:** My mind is *on the blink/malfunctioned/needs more input*
  - (166) **LIFE IS A JOURNEY:** my life is *going nowhere; this is a dead-end job; I’m at a crossroads in my life; my life is headed in the wrong direction; I chose a difficult path for my life*
  - (167) **STATES ARE LOCATIONS:** *{church/school/university}* has a flat roof. [building] *{door/window}* is green. [moving part] *{church/school/university}* donated money to charity. [people] *{church/school/university}* supports the government. [people]
  - (159) a. L’*église* soutient le gouvernement. b. The church supports the government.
  - (160) a. L’*église* a été construite en 1664. b. The church was built in 1664.

- Note that some such metaphoric schemata subsume others.

3.1.5. Antonymy

- **Antonymy** (relations of opposition or contrast):
  - **Binary (non-gradable) antonymy:** Negation of one of a pair of antonyms entails the other antonym. These are either-or decisions with no middle ground.
    - (171) *dead/alive*, *possible/impossible*, *female/male*, *odd/even* (numbers), *hit/miss* (targets)
    - **Gradable antonymy:** antonyms at opposite ends of a scale with varying degrees possible.
      - (172) a. *rich/poor*, *young/old*, *fast/slow*, *near/far* b. *hot/warm/tepid/cool/cold*
  - Tests for gradability:
    - (173) a. **COMPARATIVE:** *Mary is [more intelligent/more feminine/*more female]* than John b. **DEGREE MODIFIERS:** *Mary is very [intelligent/*dead]*
      - *Mary [hated/admired/*hit/*electrocuted]* John **very much**
      - These terms are often relative: a long pencil might be shorter than a short ruler and an intelligent animal could be less intelligent than a stupid person. Also intermediate terms:
      - Note on **markedness:** sometimes one member of a pair/scale of antonyms is unmarked in the sense that it can stand for the whole scale:
        - (174) a. John is 1 metre [*tall/*short]. b. How [*long/*short] is the rope? c. The baby is 1 week [*old/*young]*
Standards with gradable adjectives are relative, cf. (175). The degree of the property is judged according to the norm for the type of entity modified by the adjective (its comparison class). (176) illustrates expressions mentioning comparison classes explicitly. (175) A small horse is larger than a large dog.

(176) a. He’s young for a president.
b. He’s healthy as drug addicts go.
c. She’s well-read considering that she’s eight years old.
d. He’s illiterate compared to other lawyers.

3.1.6. Meronymy

- **Meronymy** part-whole relations:
  - (177) a. body>arm>hand>finger  
  b. bike>wheel>tyre>valve
- In many languages, certain expressions treat parts in the same way as possessions. The relation between possessor and possession is called **alienable possession** (possessor can choose to get rid of possession), while the relation between part and whole is an instance of **inalienable possession** (possessor can’t (easily) get rid of the possession).

(178) **ALIENABLE**: Mary has a car; Mary’s car; people with cars  
(179) **INALIENABLE**: Mary has red hair; Mary’s red hair; people with red hair

3.1.7. Hyponymy and taxonomies

- **Hyponymy**: relationship of the type “x is a more specific instance of y”. Examples/terms:
  - dog is a **hyponym** of animal
  - animal is a **hyperonym** (also: hypernym, superordinate term) of dog
  - dog, cat are **cohyperonyms** (taxonomic sisters)
- **Taxonomy**: classification of concepts in hyponymic or co-hyponymic relations:

![Taxonomy diagram]

- (180) furniture  
  - chair  
  - table  
  - desk chair  
  - armchair  
  - coffee table  
  - dining table

Taxonomies may differ between cultures/languages/individuals. Language reflects **folk taxonomies** (non-scientific classifications which needn’t correspond with reality).

- In many taxonomies one can identify three levels: superordinate/basic level/subordinate.  
  - Basic level: highest classification allowing common visual representation. Most frequent level of generality used in naming objects.  
  - Example: Look! There’s an elephant!  
  - Basic level terms are the first ones learnt by children and are usually shorter words than their hyperonyms (e.g. not compounds).

- **Autohyponym**: a term with two meanings, one of which is the hypernym of the other. E.g. waiter (hyponym for waiter/waitress); cow (hyponym for cow/bull); hoover.

3.2. On the nature of meaning

3.2.1. Sense and reference, and similar distinctions

- The **reference** of an expression is either (a) what it refers to in the real world or (b) the ability of the expression to refer to something in the real world. (The two senses are related by metonymy.) For our purposes **denotation** is a synonym of reference.

- The **sense** of the expression is its meaning minus its reference, i.e. the properties that the expression has which (a) distinguish that expression from other expressions and (b) help determine what it might have reference to.

(181) The morning star is the evening star. [both have same reference (=Venus), but have different sense (morning vs. evening visibility)]

(182) Kevin Rudd became Australian Prime Minister on 3.12.2007. Therefore:
- a. Kevin Rudd [Sense: none, because proper names don’t have sense; Reference: a particular politician in the Australian Labor party, born in 1957...]
- b. the current Prime Minister of Australia [Reference: currently the same as that of Kevin Rudd; Sense: a property of a person who is the Australian head of state]

(183) the present King of France [Reference: none]

(184) an elephant [Reference: any elephant; Sense: properties include (a) having a trunk, (b) being grey, (c) being an animal originally from Africa or Asia, (d) being large...]

- A related dichotomy: **intension**: the set of all properties that constitute the sense of an expression; **extension**: all things that ever (will) have existed to which an expression can refer. Roughly, intension=sense and extension=reference.

- **Constant vs. variable reference**: Proper names have constant reference: Julius Caesar, Greece, the Pacific Ocean, the Eiffel tower. Variable reference subsists with other NPs, which may change their reference (cf. she, a car, the President of the USA).

- **Contrast denotation with connotation**, subjective, emotional aspects of meaning considered less central to definition than denotation/reference is.

3.2.2. Types, tokens and related notions

- **Types vs. tokens**: a token is a specific instance of a type of thing.

  (185) a. This car shop has only sold three cars. [possibly “3 types of cars”; e.g. 17 Mercedes, 18 VWs and 9 Porsches]  
    b. He wears the same t-shirt every day  
    c. Ralph is standing there with an empty glass again. (though it was full a minute ago, even though I have seen him order at least four beers from the bar)  
    d. I want to read an introduction to physics (but I can’t find it/one).  
    e. He went to the pub on Friday nights.

(186) a. Tigers are dangerous animals. [type]  
    b. The tiger is a dangerous animal. [type (=tigers) or token (=that tiger)]

- If an expression refers to a type, it has a **generic** or **non-specific** reading. Some linguists see non-specific/generic readings of an expression as non-referential (as lacking reference), whereas others would describe them as referring to types or kinds.

- Reference to types often involves lack of an article:

  (187) a. They go to church on Sundays.  
    b. He was elected president/leader  
    c. Il est médecin.

- Shift from mass noun to count noun, hence different article in referring to a type:

  (188) a. Gruyère is a cheese.  
    b. This is a good beer.
The type/token distinction also applies to situations expressed by VPs/sentences, depending on whether a specific situation or a generic or habitual one is expressed. This distinction is influenced by the context, and can influence the specificity of NPs.

(189) a. Someone listened to a cd in the kitchen yesterday. [specific listening event]
b. Someone listened to a cd in the kitchen every night. [specific listening events]
c. If people listen to a cd in the kitchen... [non-specific event]

Non-specific (generic/habitual) readings of events allow the simple present in English, otherwise we normally use the progressive (except with states).

(190) a. I listen to a cd every day. [but I am not listening to one now]
b. People read their e-mail with a computer.

3.2.3. Two approaches to reference

- Mentalist approach: reference is not to objects in the real word, but to concepts or objects in a mentally projected word. Arguments: we can talk about things which do not exist in the real world.

- Real-world approach: reference is to things in the real world. One argument for this approach is that a representational approach, in saying e.g. that house refers to the mental representation or concept HOUSE, merely delegates the problem of meaning to psychologists and makes use of psychological constructs about which we know little.

3.3. Scope

- Scope: the portion of the sentence to which the meaning of an expression applies, with which it interacts and whose interpretation it can influence.

Example 1: a scope ambiguity with English adjectives:

(191) Grandma likes French literature and industrial grunge music. [French has scope over literature or over literature and industrial grunge music]

Example 2: The scope of modal verbs and negation:

(192) a. Tu dois faire cela. ⇒ It is necessary that you do that.
b. Il faut que tu fasses cela. "
c. Tu es obligé de faire cela. "
d. You must do that. "
e. You need to do that. "

(193) The modal expression has scope over negation:

a. Tu ne dois pas faire cela. ⇒ It is necessary that you do not do that.
b. Il ne faut pas que tu fasses cela. "
c. You must not do that. "

(194) Negation has scope over the modal expression:

a. Tu n’es pas obligé de faire cela. ⇒ It’s not necessary that you do that.
b. You do not need to do that. "

Other examples:

(195) Bruce’s father told him to mow the lawn and to water the plants often.
(196) Elvis only copied the literature for the seminar.
(197) It’s always raining somewhere.

3.4. Decomposition

- Decomposition: division of meanings of morphemes/words into smaller units of meaning.

3.4.1. Example 1: Componential analysis

- Componential analysis divides meanings of words into components with binary values. The components are meant to be primitive (= not further decomposable).

(198) woman [+human] [+feminine] [+adult]
(199) man [+human] [-feminine] [+adult]
(200) girl [+human] [+feminine] [+adult]
(201) child [+human] [-adult]

- Componential analysis of this type is useful for handling cases where many pairs of words differ with respect to a single feature:

a. [+feminine] vs. [-feminine]: girl/boy, woman/man, cow/bull...
b. [-adult] vs. [+/-adult]: puppy/dog, kitten/cat, piglet/pig, foal/horse...

- Why a binary feature analysis doesn’t apply to all words:

(202) a. This boy/teenager/child is 17 years old.
c. duck → [+quack]...
d. swan, canary, emu, elephant → [-quack]...???

3.4.2. Example 2: Causative verbs of change of state

- Causative verbs of change of state: the subject does something which causes the object to enter a state indicated by the meaning of the verb. Inchoative verbs: the subject enters the state indicated by the verb. Put otherwise, the state indicated by the verb begins to exist (inchoative < Latin inchoare ‘begin’). The result state of these verbs can be expressed by a participle or adjective.

(204) a. I opened the door. [causative]
b. The door opened. [inchoative]
c. The door is open. [adjective expressing result state]

(205) a. I broke the plate. [causative]
b. The plate broke. [inchoative]
c. The plate is broken. [participle expressing result state]

(206) a. He killed someone. / Someone died. / Someone is dead.
b. They raised the price. / The price rose. / The price is high.

(207) OTHERS: dry the washing; melt the ice; pop the balloon; smash the vase

- Many linguists assume that causative variant contains inchoative variant in its meaning, and that inchoative variant contains the result state in its meaning.

(208) a. John opened the door
b. “John did something, and this caused the door to become open.”
c. \([\text{JOHN DO STH.}] \rightarrow \text{CAUSE} \rightarrow \text{BECOME} \rightarrow \text{THE DOOR IS OPEN}]\] causing event result state change of state event.

(209) The door opened → corresponds to the change of state event
(210) The door is open → corresponds to the resultative state

3.5. Definitions (simplified; see e.g. Dowty 1979)

a. \([X] \rightarrow \text{cause} \rightarrow \text{Y}] : \text{X, a situation (e.g. an event), causes another situation, Y. In other words, X and Y occurred and Y wouldn’t have happened if X had not happened.}
b. \([X] \rightarrow \text{become} \rightarrow \text{Y}] : \text{X expresses an event with which a state X enters into existence.}
3.4.3. Evidence for the decomposition of verbs

- A scope ambiguity with again:

  (212) John opened the door again.
  
  a. Repetitive reading: again indicates the repetition of the whole event. (For a second time, John opened the door.)
  
  b. Restitutive reading: again indicates that the result state holds again, with no necessary repetition of the event. (John reopened the door.)

- Context for restitutive reading: The door was badly made and wouldn’t shut, so had never been opened before. John repaired it, then shut it for the first time, then opened it again.

(213) John opened the door again:

  a. Repetitive interpretation: again has scope over the whole event: AGAIN [[JOHN DO STH.] CAUSE [BECOME [THE DOOR IS OPEN]]]
  
  b. Restitutive interpretation: again only has scope over the result state: [[JOHN DO STH.] CAUSE [BECOME [AGAIN [THE DOOR IS OPEN]]]]

- If the causative verb open isn’t decomposed, it’s hard to see what restitutive again could have scope over.

Other examples of restitutive interpretations

(214) a. John was born as a slave. When he ran away, a soldier recaptured him after a day.

  b. [[A SOLDIER DOES STH.] CAUSE [BECOME [AGAIN [JOHN IS IN CAPTIVITY]]]]

(215) a. The doctors reattached his arm.

  b. [[THE DOCTORS DO STH.] CAUSE [BECOME [AGAIN [HIS ARM IS ON]]]]

(216) a. John re-opened the door.

  b. On its first journey, the satellite stayed in space for three years, and re-entered the earth’s atmosphere on New Year’s Day, 1991.

(217) Humpty Dumpty sat on a wall

Humpty Dumpty had a great fall
All the kings horses and all the kings men
Couldn’t put humpty together AGAIN.

3.5. References: Introductions to semantics

See also chapters on semantics in general introductions to linguistics.


4. Pragmatics

- Pragmatics: the study of meaning with reference to aspects of the extra-linguistic context, notably the speaker’s intention. Contrast with semantics, which studies aspects of meaning which are intrinsic to words/phrases and are not context-dependent.

- Examples (from the area of speech act theory, not discussed in detail here).

  - illocutionary force (distinction between statements, requests/commands, questions etc.) isn’t always matched by grammatical mood (declarative, interrogative, imperative), so we need to know speaker’s intention. Hence it’s pragmatic.

(218) There’s an ink stain on the table.

  i. statement (e.g. description of table)

  ii. request to remove stain

  iii. asking how to remove stain

(219) Can you tell me the time?

  [probably request, not question]

- Performative verbs bring about certain non-linguistic situations when the sentences are uttered, so they are also studied in pragmatics

(220) I sentence you to five years in prison.

(221) I hereby pronounce you husband and wife.

4.1. Deixis

4.1.1. Some basic deictic notions

- Deixis = the phenomenon whereby the reference of certain expressions cannot be determined without knowing to the extralinguistic context of the utterance (who uttered it where and when):

(222) I will meet you here this afternoon at 3.

- The deictic centre = reference point of the text or utterance, by default the speaker/here/now.

- Gestural deixis: Reference determined by non-linguistic gesture (pointing, eye contact...):

  (223) YOU are to work with HER.

(224) Put this candle HERE and that one THERE.

(225) [looking at map]: Neuchâtel is HERE, not THERE.

(226) It’s THIS long/loud.

(227) Horowitz played the passage THIS way. [demonstrates on piano/plays recording]

(228) When I say “now” start running. ... NOW! [time of saying now is temporal ‘pointing’]

- Remoteness: Modern Standard English has two-place spatial & temporal deixis:

  - Proximal: near reference point: here, now

  - Distal: removed from reference point: there, then

- Other languages have a three-place deictic system (cf. here/there/yonder in some dialects), and other languages have even more subtle distinctions.

- The size of the proximal area is relative and depends on the context:

  (229) Cuthbert is here, [in this room? in this town? in this country?...]
4.1.2. Types of deixis

- **Spatial deixis:**
  (230) Determiners: this/that
  (231) Verbs specifying motion toward/away from speaker: come/go
  (232) Adverbs (intransitive prepositions): here/there; hither/hence, thither/thence

- **Temporal deixis:**
  (233) Adverbs/PPs: now/then; this year/that year; at this/that point; yesterday; two days ago
  (234) Tense: present tense (proximal) vs. past/future tense (distal)

- **Personal deixis:**
  (235) First person (Speaker: I, we)
  (236) Second person (hearer: you)

- **Social deixis:** The T/V distinction: French tu/vous, Middle Eng. thou/thee; metaphorical proximity/distance on social (age, power, class) hierarchy or familiarity/solidarity hierarchy. Deictic because choice of forms depends on extralinguistic knowledge.

- **Textual deixis:** metaphoric deixis in texts, often borrowing spatial/temporal deictic words:
  (237) [in book:] I will shortly begin my defense of the Flat Earth Hypothesis. At this point it should be noted that my argumentation will be hard to follow unless we recall some points made in chapter 3. I will therefore briefly summarise that chapter here. Then I argued that that...
  (238) Listen to this: John said to Bob “Go fly a kite.” He didn’t like that.
  (239) Look to the left, then to the right, then cross the road—in that order.
  (240) hereby, therefore (=because of that), the above, the former/latter; par la présente,

4.1.3. Shifting deictic centre

- **Shifting deictic centre (=deictic projection):** Speakers pretend they are in another place/time, so expressions referring to deictic centre don’t refer to place/time of speech.
  (241) [from a textbook:] Do exercise seven now!
  (242) His opponent hit the ball into the net. Now he had won the tournament.
  (243) Should they come to your office now or stay here?

- **Shifting deictic centre as source of ambiguity:**
  (244) [on the phone]: There’s a hospital at the opposite end of town.
  (245) [letter from London to Sydney]: We will try to visit you this winter.

4.1.4. Ambiguity between deictic and non-deictic readings

(246) There’s the school. The university is opposite.
(247) I met this weird person at a party yesterday.

4.2. Implicatures

- **Implicature:** That which is implied rather than being said explicitly:
  (253) A: Do you know the time?  
  B: The bank is still open.
  (254) A: Do you like my singing on the CD I leant you?  
  B: The guitar solo in the last song was great. Thanks to it I didn’t kill myself.

4.2.1. Grice’s Maxims

- Philosopher H. Paul Grice proposed the Cooperative Principle and some Maxims which interact to explain many implicatures that exist.

(255) **THE CO-OPERATIVE PRINCIPLE:** Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.

(256) **Grice’s Maxims (from Greek Maxims, conversational maxims):**

  a. **MAXIM OF QUALITY:** Try to make your contribution one that is true, specifically:
  i. Do not say what you believe to be false
  ii. Do not say that for which you lack adequate evidence

  b. **MAXIM OF QUANTITY:**
  i. Make your contribution as informative as is required for the current purposes of the exchange
  ii. Do not make your contribution more informative than is required

  c. **THE MAXIM OF RELEVANCE:** Make your contributions relevant

  d. **THE MAXIM OF MANNER:** Be perspicuous, and specifically:
  i. Avoid obscurity
  ii. Avoid ambiguity
  iii. Be brief
  iv. Be orderly

- The maxims are not moral laws or commands. They are rather assumptions about how a cooperative speaker will communicate. E.g. (256)c) means **Listeners assume (if there is no evidence to the contrary) that speakers are giving information relevant to the current discourse. So if something sounds irrelevant, listeners try to find a way in which it IS relevant.**

4.2.2. Examples of implicatures generated by the maxims

++ indicates an implicature triggered by an expression.

(257) **It snowed in Sydney in 1836.**
++ The speaker/writer believes the statement is true. (by QUALITY)
(Hence: *It snowed in Sydney in 1836 but I don’t believe it did.)*

(258) A: **Who did you have lunch with?**  
B: George, Martha and Anna.
++ Nobody else was present at the lunch. (by QUANTITY)

(259) A: **What’s the date?**  
B: The 12th of November 2009.
++ (Possible implicature): the hearer is stupid. (by QUANTITY)
A: I have nearly run out of petrol.  B: There's a garage round the corner.  
+> The garage is open now and sells petrol. (by RELEVANCE)

Frankie read a book and fell asleep. 
+> Reading before sleep. (by MANNER iv)

4.2.3. Cases where maxims are not followed

Distinguish different types of situations in which the maxims are not followed:

A. Deliberate deception (uncooperative speaker lying or telling half-truth etc.)

B. Clashes between maxims: one maxim violated to ensure that another is fulfilled.

(262) A: When does the second-hand shop shut today?  
B: Some time between 5 and 8.  
+> B doesn’t know exactly.  (QUANTITY violated, so as not to violate QUALITY)

C. Opting out of maxims using hedges (weakening expressions) like the following:

(263) a. I’m no expert, but...
   c. I may be belabouring the obvious, but...
   d. I don’t know if I can explain general relativity clearly, but...
   e. Oh, by the way...
   f. I can’t remember the other two names you’re asking for.

D. Flouting maxims: speaker infringes a maxim blatantly (so hearer will notice the infringement) in order to create an implicature. Such infringements of the maxims appear to violate the Cooperative Principle, but are actually upholding it.

(264) [concert review:] Divina Cantalina produced a series of sounds which followed the score of Mozart's aria "Oh zittre nicht". 
+> The performance was lousy. (Using the underlined expression instead of sang flouts MANNER iii, implying that her vocalisations can’t be called singing.)

Job recommendation letter for a candidate for a physics professorship: 
TO WHOM IT MAY CONCERN: Dr. Smith plays golf well, is always sober during his classes, and never hits his students hard. Yours truly...
+> Smith is a bad candidate for the job. (To avoid violating QUALITY and being impolite by writing a negative reference, the writer violates RELEVANCE/QUALITY. Reader assumes by QUANTITY that there are no relevant good qualities of Smith which could be mentioned.)

(266) [In job recommendation:] You will be lucky if you can get Mr. Jones to work for you. 
+> Jones is lazy. (Flouts MANNER by choosing an ambiguous way of saying “You will be lucky if you can get Mr. Jones to become your employee.” Reader assumes writer would have avoided this violation of MANNER had the laziness implicature not been intended.)

(267) A: John’s wife is such a stupid cow.  B: It’s nice weather, isn’t it. 
+> A’s comment should not be discussed. (Flouts RELEVANCE)

4.3. Presupposition

Presuppositions are assumptions or beliefs assumed to be true when a particular sentence is uttered. Diagnostic: presuppositions associated with a sentence remain true even if the sentence is negated. (In the examples below, >> indicates a presupposition.)

(273) a. They realised that that Ann was right.  >> Ann was right.  
   b. They did not realise that Ann was right.  >> Ann was right.

(274) a. The present king of France is bald.  >> There is a king of France.  
   b. The present king of France is not bald.  >> There is a king of France.

(275) a. I forgot to shut the window.  >> I should have shut it.  
   b. I did not forget to shut the window.  >> I should have shut it.

Presuppositions are triggered by particular words (e.g. those underlined above).

B. Factive verbs like realise in (273) above presuppose that their complement clauses are true, while non-factive verbs like think do not. Replace realise in (273) above with the expressions below and decide whether they are factive or not. Replace regret, decide, remember, believe, notice, claim, be certain, be disappointed with the underlined words in the sentences below. If the answer is not obvious, consider the (non-)negated form of the sentence.

1. Fred stopped buying newspapers.  
2. Jane managed to get sick.  
3. Clive rang before/after Louise left the office.  
4. If cows could sing, the areas around this town would be culturally interesting.  
5. Who were you speaking to a minute ago?
6. It isn’t Al Qaeda that is trying to ruin my life.  
7. What Grandma blew up was not my car.  
8. She didn’t buy THAT book. (capitals indicate stress)  
9. Gertrude called Egbert a conservative before HE insulted HER.
10. Identify (the triggers for) the unwanted presuppositions in the examples below. Reformulate them to eliminate the presuppositions.
The papers spread rumours about the fact that our company exploits developing countries, but we say that they should not do so.

CUTHBERT: That you didn’t ring me shows that you think I am a boring loser.

CUTHBERT’ S ADMIRER: That I didn’t ring was not because you are a boring loser.

When you experience difficulties with this product, please visit our website.

Did you manage to put poison in anyone’s drink?

The notion ‘presumption’ compared to other notions

• Entailment: A proposition which inevitably follows from the meaning of another proposition:
  (276) They raised the prices. → The prices rose.
  (277) Martha got a degree in medicine. → Martha got a degree.

• Presumptions compared to entailments: Entailments, unlike presumptions, are affected by negation. This can be illustrated by comparing the following example with its negated variant.
  (278) I put the car in the garage.
  → The car ended up in the garage.
  >> The car was not in the garage at the relevant time.

• Presumptions compared to implicatures: Implicatures can be affected by negation (unlike presumptions).

Cancellation of presumptions

• Presumptions can (like implicatures) be cancelled if they contradict world knowledge, semantic entailments present in the context, or if they are explicitly denied or called into question.
  (279) He didn’t stop buying newspapers because he’s never bought one in his whole life.
  (280) He doesn’t regret deceiving his wife because he never deceived her.
  (281) Now that John’s love affairs are being discussed on TV, I bet John regrets being married – at least if he IS married.
  (282) If he doesn’t own a car, the petrol prices won’t make him regret buying one.

5. Historical linguistics: The history of English

5.1. Proto-Indoeuropean and linguistic reconstruction

<table>
<thead>
<tr>
<th>Sanskrit</th>
<th>Greek</th>
<th>Latin</th>
<th>Gothic</th>
<th>English</th>
<th>PIE (* for reconstruction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pater</td>
<td>pater</td>
<td>pater</td>
<td>father</td>
<td>father</td>
<td>*ped-, *pater</td>
</tr>
<tr>
<td>palaam</td>
<td>poda</td>
<td>podem</td>
<td>tona</td>
<td>ton</td>
<td>*pod- ‘foot’</td>
</tr>
<tr>
<td>b’ar’ar</td>
<td>p’ater</td>
<td>frater</td>
<td>brother</td>
<td>*b’ar- ‘brother’</td>
<td></td>
</tr>
<tr>
<td>r’ara’m</td>
<td>p’ero</td>
<td>eira</td>
<td>bara</td>
<td>bear</td>
<td>*b’r- ‘carry’</td>
</tr>
<tr>
<td>jivah</td>
<td>twiws</td>
<td>kwins</td>
<td>kwins</td>
<td>quick ‘is above’</td>
<td>*geis- ‘live’</td>
</tr>
<tr>
<td>sanah</td>
<td>hence</td>
<td>senex</td>
<td>sinasta</td>
<td>senile</td>
<td>*sen- ‘old’</td>
</tr>
<tr>
<td>virah</td>
<td>/wiw/</td>
<td>war</td>
<td>/wet(wolf)/</td>
<td>*wi-ro- ‘man’</td>
<td></td>
</tr>
<tr>
<td>in</td>
<td>/tres/</td>
<td>tres</td>
<td>/thri/</td>
<td>three</td>
<td>*tres- ‘three’</td>
</tr>
<tr>
<td>dada</td>
<td>deka</td>
<td>decem</td>
<td>thaihun</td>
<td>ten</td>
<td>*dekm- ‘ten’</td>
</tr>
<tr>
<td>sata</td>
<td>he-katon</td>
<td>/kentum/</td>
<td>hund(rath)</td>
<td>hundred</td>
<td>*dkm-tom- (&lt;*dekm) ‘100’</td>
</tr>
</tbody>
</table>

From the table, note that the similarities and systematic differences. Why do they exist?

• not due to coincidence, since hundreds of other words show the same pattern.
• not due to language contact, as there was no (or not enough) contact with India.
• not due to linguistic universals, as there are no such similarities in most other languages in the world (say Mandarin, Maori, Mohawk, Malagassy...).
• Best answer: genetic relation: the languages in the table all came from the same ancestor language.

This ancestor language is called (Proto-)Indoeuropean (proto=reconstructed), PIE. By comparing similarities and systematic differences between the languages whose origin is investigated, historical linguists can reconstruct words in the original language, e.g. last column in the table. Asterisks (*) indicate unattested, reconstructed words.

Reconstruction is assisted by knowledge of normal patterns of linguistic change for which direct evidence is available (e.g. development of Romance languages from Latin).

What we know about the people who spoke PIE:

• Not known whether PIE was spoken by a single ethnic group.

• Inferences about PIE speakers, based on vocabulary common to all/most Indoeuropean languages, and hence likely to have existed in PIE:
• Possible original location: near Caspian & Black Seas, South Russian steppes.
• They had a word for snow. *sneighw- (Latin nix, Greek niphos, Gothic sniws, Gaelic sneachtu, ‘snow’), so coldish climate.
• No (known) word for seas/ocean (though words for lake & rowing) and forest.
• Words for beech, birch, elm, ash, oak, apple, cherry; bee, bear, beaver, eagle.
• Original location is also deduced from subsequent spread of IE languages.
• Bronze age technology (gold, silver, copper known, iron wasn’t yet known)
• They rode horses & had domesticated sheep, cattle. Cattle a sign of wealth (cf. Vieh ‘cattle’, Latin pecunia ‘money’/pecus ‘cattle’)
• Agriculture: cultivated cereals *gre-no- (> grain, corn), also grazing of corn mela- (cf. mill, meal); they also seem to have had ploughs and yokes.
• Weaving with wool.
• Wheels and wagons (wheel < k*‘el’-‘lo s k*‘el’ ‘go around’)

4.4. References

5.1. Indo-European language families

PIE split into different dialects/families due to migration, language contact, conquest, etc. Ten main families: Tocharian (extinct languages in Western China), Indo-Iranian (Sanskrit, Hindi, Urdu, Persian, Pashto...), Armenian, Anatolian (extinct languages in Turkey, Syria, incl. Hittite), Albanian, Greek, Balto-Slavic, Italic (Latin, Romance Iges), Celtic, Germanic (Gothic, English, German, Danish...)

5.1.2. Proto-Germanic/Common Germanic (very roughly 2000 BC - 250 BC)

Proto-Germanic speakers: Originally IE nomads who settled in an area in Nth Germany and Southern Scandinavia, around 2000 BC, give or take several centuries. Reference to them by Roman authors after about 200 BC. Very little common Germanic is recorded; a few words written down by Roman writers in 1st century BC & a couple of artefacts assumed to reflect this stage of language.

5.2. Proto-Germanic grammar

- Dental preterit (weak verbs): past tense inflection with /l/ or /l/ in newer verbs, alongside vowel alternation (ablaut, apophony). The dental suffix may have arisen from affixation of affixation of forms of do to the verb (though this is problematic, Waterman 1966:35).
- PIE had 8 cases, Gmc had 4 (+occasional relics of locative & instrumental). This is partly a result of erosion of endings due to shift to initial stress.
- Loss of synthetic passive, 6 tenses/aspects reduced to 2.

5.2.2. Proto-Germanic phonology

- Initial stress: PIE did not have stress on any particular syllable, but Gmc. put stress on the root, i.e. mostly first syllable (also in compounds). This eventually caused the erosion of inflectional suffixes.
- The effects of Grimm’s Law (=The (First) Germanic Sound Shift):
  - Voiceless unaspirated plosives became fricatives
    
    | PIE | Germanic | Examples |
    |-----|----------|----------|
    | b³ | b³arawi₃⁴⁵₆₁₇₈₁⁹₂₀₂₁ | bear, frater¹²³⁴⁵⁶⁷⁸⁹₁₀₁¹₁²¹³ |
    | d³ | d³e⁻¹²³⁴⁵⁶⁷⁸⁹₁₀₁¹₁²¹³ | door, vidua¹²³⁴⁵⁶⁷⁸⁹₁₀₁¹₁²¹³ |
    | g³ | g³hostis¹²³⁴⁵⁶⁷⁸⁹₁₀₁¹₁²¹³ | garden, homo¹²³⁴⁵⁶⁷⁸⁹₁₀₁¹₁²¹³ |

- When did this happen? Clue: shift in hemp from Greek kάνδαβις. The Germanic people learned about hemp from the Greeks, who themselves didn’t know about it till about 500 B.C. Hence the sound shift was still in effect some time after 500 B.C. The sound shift was no longer in action by the time the Germanic people had contact with the Romans (1st century B.C.), since Latin borrowings don’t undergo the shift (pepper<πιπέρ, street<στεεῖον, tile<τεκτόνειον).
- Advanced point: Cases where Grimm’s law didn’t apply:
  - No shift in clusters starting with /sl/: /spel'-/spew
  - Very little common Germanic is recorded: a few words written down by Roman writers in 6000-4000 BC or take several centuries.
  - The (First) Germanic Sound Shift

5.3. Old English (450-1100)

5.3.1. British Isles before Anglo-Saxon Invasions

- 6000-4000 BC: Non-Indoeuropean people in British Isles (Stonehenge 2000 BC)
- From about 700 BC: Celtic settlements
- 55 BC-410 AD: Roman presence in British Isles (abandoned 410 AD).

5.3.2. Anglo-Saxon Invasions

- From 449 AD: hordes of Germanic speakers (Angles, Saxons, Jutes, Frisians, Franks) from what is now Northern Germany/Southern Denmark move into Britain in waves.
- By late 6th cent. Anglo-Saxon dominated British Isles & marginalised the Celts.
- The (differing?) Germanic varieties they spoke are collectively called Old English or Anglo-Saxon.

5.3.3. The era of the Viking invasions (787ff)

- 787: Scandinavian (=Viking, Norse, Danish, Norwegian) invasions. Continued for nearly 200 years, culminating in a period where England was ruled by Danes in early 11th cent.
- Linguistic aspects of Scandinavian invasions:
  - Old Norse and Old English were mutually comprehensible, but inflectional forms differed, and resulting compromise eroded inflection (standard assumption, at least).
  - 1000-old words borrowed into OE in late OE period:

(287) anger, bag, both, call, die, egg, flat, get, husband, knife, leg, low, sister, steak, take, until, want, window, wrong
5.3.4. Inflectional morphology

- OE had a fairly rich inflection system compared to modern Eng., but less rich than PIE. Also inflection on adjectives.

<table>
<thead>
<tr>
<th>Case</th>
<th>Masculine</th>
<th>Neuter</th>
<th>Feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>stan</td>
<td>nam-a</td>
<td>scip</td>
</tr>
<tr>
<td>Weak</td>
<td>fremm-e</td>
<td>frem-m-e</td>
<td>frem-e</td>
</tr>
<tr>
<td>Plural</td>
<td>stan-as</td>
<td>nam-a</td>
<td>scip-a</td>
</tr>
<tr>
<td>Genitive</td>
<td>stan-en-a</td>
<td>nam-en-a</td>
<td>scip-en-a</td>
</tr>
<tr>
<td>Dative</td>
<td>stan-en-a</td>
<td>nam-en-a</td>
<td>scip-en-a</td>
</tr>
</tbody>
</table>

5.3.5. Syntax

- Verb-final order possible in subordinate clauses; verb-second in main clauses (i.e. one constituent, not necessarily a subject, before the inflected verb).

(293) forðon he cristen wif hæfde [Baugh/Cable 1978:62]

(294) da andswarode se cyning    [Baugh/Cable 1978:62]

- Multiple negation (negative concord):

(295) & hiera nוג胃肠 hit gePicegan ȝole [Denison 1993:449]

- Perfect starting to develop, initially with agreement between participle and object. This started with the idea of having the object in the state named by the participle (cf. similar structures with AP or PP: I had the window open, I had the key in the lock).

5.3.6. Text (The Lord’s Prayer)

Faeder ure þu þe eart on heofonum
Si þin nama gehalgon
be thy name hallowed

to become þin rice
come thy kingdom

gewurþe ðin willa
be-done thy will

gesan þin witor
on earth as in heavens

urne gedæghwamlican hlaf syle us todæg
and forgf ðu us gyflus
and forgive us our sins

swa swa we forgysaf urum gyltendum
and not lead thou us into temptation

and ne gelæd þu us on costnunge
but deliver us from evil truly.

5.4. Middle English (1100 – 1500)

5.4.1. The Normans in England (1066ff)

- Normans: people in Normandy; descendants of Norse invaders; spoke Norman French.
- Norman Conquest: Normans under William the Conqueror took over England in 1066.

- Linguistic aspects of the Norman Conquest

(298) Government: crown, parliament, state, tax, baron, count, duke, prince; Law: accuse, attorney, court, crime, judge, prison, punish; Church: abbey, clergy, parish, prayer, religion, saint; Fashion: apparel, costume, dress, fashion; Culture: art, beauty, chant, colour, music, paint, poem; War: armour, battle, war

- Decline of Norman French and resurgence of English

(299) houseGerman/mansionNorman - askGerman/demandNorman
(300) pigGerman/porkNorman - cow/beef, calf/sheep

5.4.2. Decline of Norman French and resurgence of English

- Reasons for decline: (a) 1204: Normans lose Normandy to the French, severing connections to Normandy. (b) Norman French considered ‘bad’ due to rise of Parisian
French as standard in 13th c. (e) The Normans had always been a minority in England anyway. (d) Hundred Years' War (1337-1453) against France; French was the enemy's language. (e) Black death (1349) kills 30% of people → labour shortage → surviving Anglo-Saxons get better pay/status → English-speaking middle class.

- In the 15th cent. London dialect became a new standard, since London was a trading, cultural and political centre. Geoffrey Chaucer (1340-1400) also used London English.
- Middle English period defined: Usually dated from either 1100 or 1150, since by then the linguistic effects of the Norman Conquest were starting to take hold. End of period: 1500 or so (due to standardising effects of printing press).

5.4.4. Inflectional morphology
- ME inflectional system much simpler than that of OE. Examples:

<table>
<thead>
<tr>
<th></th>
<th>Indicative</th>
<th>Subjunctive</th>
</tr>
</thead>
<tbody>
<tr>
<td>present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sg 1</td>
<td>-(e)</td>
<td>-(e)</td>
</tr>
<tr>
<td>sg 2</td>
<td>-(e)st</td>
<td>-(e)</td>
</tr>
<tr>
<td>sg 3</td>
<td>-eth/es</td>
<td>-(e)</td>
</tr>
<tr>
<td>pl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>past</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sg 1,3</td>
<td>-(e)/(d(e)</td>
<td>-(e)</td>
</tr>
<tr>
<td>sg 2</td>
<td>-(e)/-dest</td>
<td>-(e)</td>
</tr>
<tr>
<td>pl</td>
<td>-(e)n / -ede(n)</td>
<td>-(e)n</td>
</tr>
</tbody>
</table>

- Nearly all nouns ended up in one inflectional class (=OE strong masc).
- Shift from grammatical gender to natural gender by 13th century. Mainly due to lack of ability of inflection classes, determiners and adjectives to make grammatical gender distinct.

5.4.5. Syntax
- Word order became fixed SVO, even in subordinate clauses. It had to be fixed, because case morphology wasn't able to guarantee right thematic interpretation for NPs.

5.4.6. Middle English Texts
Geoffrey Chaucer (1340-1400): end of Troilus and Criseyde:
And for ther is so gret diversite If I had in writyng of oun tonge, 
In English and in wrytynge of oure tonge, [great diversity]
So prey I God that non mynsweythere thee, [tongue – i.e. language]
Ne thee mynsymetre for defaute of tonge; [miswrite – i.e. copy it out wrongly]
And red whereso thow be, or elles songe, [red = read; elles = else; songe = sung]
That thow be understonde, God I beseche! [understonde = understood]

5.5. Early Modern English (1500-1700)

5.5.1. General observations
- 1476: William Caxton brings printing to England, enabling massive transfer of language in a fixed form (i.e. without scribes transferring texts into their own dialects), helping standardisation (since books had to be in a widely understood type of English). Caxton used spelling from round London, and some of these conventions are still used.
- Renaissance (16th c.): renewed interest in classical languages, much borrowing from Latin.
- The first attempts at linguistic purism in English, as well as spelling & other school books.

5.5.2. Morphology and syntax
- 2nd pers. sg. pronouns/verb inflection (thou singet) replaced by plural forms ye/you in 17th c. (except in religious usage and some dialects). From the 13th c., plural forms used for polite address. Eventually, it was considered rude not to apply it. E.g.: (302) SIR WALTER RALEIGH: I do not hear yet that you have spoken one word against me; here is no treason of mine done. If my Lord Cobham be a traitor, what is that to me? SIR EDWARD COKE: All that he did was by thy instigation, thou viper; for I thou thee, thou traitor.
- RALEIGH: It becometh not a man of quality and virtue to call me so: but I take comfort in it, it is all you can do. (At Raleigh’s trial, 1603)
- Nouns: No dative or accusative marking on nouns survived. In 16th century the genitive –s ceased to be a inflection of nouns, and became a clitic added to whole NP: (303) Lord, open [the king of England’s eyes (William Tyndale’s last words, 1536)
- Adjectives: all inflection lost save comparative/superlative.
- Verbs: (a) loss of all inflection endings except those we still have today; (b) Northern –s suffix replaces Southern –eth in 16th c. in 3rd pers. sg. present; (c) Many strong verbs became weak; weak class is now default/regular class.
- Auxiliaries: *Have* begins to replace be as perfect auxiliary.
By late EME, do-support was used as it is now. In early EME, it was not necessary in the structures where we now need it (questions, negation etc.), but it had a now-impossible non-empatic use which is often assumed to be semantically vacuous. (Hypothesis: it serves to keep the V inside the focus domain (=VP).) Examples from Shakespeare (1564-1616):

(304) that suggestion whose horrid image 

(305) He heard not that

(306) And what says she to my little jewel?

5.5.3. The Great Vowel Shift (roughly 1400-1700)

- The Great Vowel Shift (GVS; roughly 1400-1700):
  - All long vowels moved one step higher.
  - The high long vowels which could not move higher became diphthongs.


• Two proposals about how GVS happened (various compromise positions):
  - GVS as a pull chain (=drag chain) shift: high vowels diphthongised first, then [o, e] moved into the space these vowels had vacated and dragged [c, ʌ] into their former positions, and so on. (Possible cause for drag chains: a desire to maximise distinctions between vowels.)
  - GVS as a push chain shift: one or more vowels moved upwards, encroaching on the space of other vowels, forcing them to be pronounced differently (less communicative efficiency be reduced).

• Everybody agrees that not all vowels shifted at the same time. Part of the disagreement about pull vs. push chain theories revolves around disagreement as to which vowels shifted before which others. See e.g. Lass (1999: 72ff) for detailed discussion.

• There were regional, sociolectal and idiolectal differences in the rate at which each vowel shifted. For instance, some Northern dialects still have pre-GVS [uː] in words like house.

• English spelling of vowels largely reflects their pronunciation before the GVS, hence differences between English spelling and that in other languages.

• Due to vowel lengthening/shortening processes in late OE/early ME (not mentioned above), we find vowel quantity differences in (originally) morphologically related pairs of words. Since GVS affected long vowels but not short vowels, we find that the differences in quantity result in differences in quality as well.

(309) chast(e)/chastity, mania/manic, fall(fable)/fabulous, grade/gradual, grain/granular, grateful/gratitude/gravitation, navy/navigate, sane/sanity, state/static, vacant/vacuous

(1) Don’t be confused by the fact that modern English has a long [ʌ] (sometimes transcribed [aː]) in words like father, far, pass, plant. These mostly come from vowels which were short up to at least 1700 and were later lengthened. See Lass (1999:103ff) for details.

5.5.4. Changes in consonant system (not reflected in orthography)

- Palatal fricative [ç] was dropped in words like night, right.

- impossible non-emphatic use which is often assumed to be semantically vacuous.

- (Hypothesis: it serves to keep the V inside the focus domain (=VP).) Examples from Shakespeare (1564-1616):

    (308) ME 1700   ME 1700
    rise [iː]  →  [aː]  mouth [uː]  →  [au]
    meet [eː]  →  [iː]  boot [oː]  →  [uː]
    meat [eː]  →  [iː]  stone [ɔː]  →  [oː] (later  →  [uː]/[uː])
    name [aː]  →  [eː] (later [eː]  →  [ei])

5.5.5. Texts

B. Texts by Shakespeare (1564-1616) available under www.shakespeare-online.com/plays/

5.6. Late Modern English (1700 – now)

- Late Modern English: from about 1700 until now (subsuming Present-Day English PDE from 1900). Most developments outside the British Isles automatically fall under LME, an exception being America, which was mainly settled during the EME period.

5.6.1. Some syntactic developments

- Establishment of go-future (I am going to gonna do that) and get-passive (he got hit).

- 20th c.: development of they/their/there in the function of gender-neutral singular pronouns which act as anaphors for indefinite expressions (Romaine 1998:105ff)
Historical linguistics: The history of English

4.2.1.1 /æ/ and /æ:/

- In the 17th & 18th c., /æ:/ shifted to /æ/, inconsistently, depending on the dialect, the phonological environment and even on the word in question.

- The pronunciations above are RP. Examples of variety differences:
  - Midlands, North of England have /æ/ in (b) and (c).
  - American English was isolated from the changes in Britain, so it retains /æ/ everywhere except (d) (because this change occurred earlier).
  - Australia: just like RP, except that some words in class (c) have free variation between /æ/ and /æ:/, while others are fixed in a particular way (can’t only with /æ:/, romance only with /æ/).
  - Since these changes were not fully productive, we end up with minimal pairs like ant vs. aunt. It is thus not possible to see /æ/ and /æ:/ as allophones of the same phoneme.

5.7. Sources

- Online etymological dictionaries:
  - www.etymonline.com
  - www.oed.com
  - www.dwbt.uni-trier.de (German, Grimm’s Dictionary)

- Sources on the history of English:

- Sources on language change (=historical linguistics):

(313) Someone parked their car in the middle of the road. How could they be so stupid?
(314) If somebody likens themself/themselves to Napoleon, they may need help.
(315) If I could find a person who can help me, I would pay them well.

5.6.2. Phonetics/phonology

- In the 18th cent. starting in Southeast of England, /t/ was dropped in coda of syllable, e.g.
- Hence, most speakers in England, Australia, NZ, Sth Africa have non-rhotic accents, i.e. don’t pronounce /t/ in coda. Accents unaffected by this (e.g. Irish, Scottish, parts of SW England most Nth American) are called rhotic accents.
- Originally, this was a deletion process, which however failed to occur if next syllable (word) started with a vowel (like pronunciation of final consonants in French):
- Similar: director [dɪˈrɛktər]; director [dɪˈrɛktər]; director [dɪˈrɛktər].
- As there was no independent evidence for the presence/absence of underlying /r/, it was reanalysed as an epenthetic consonant (=one inserted as a result of a phonological rule) serving to break up vowel-vowel sequences.
- There is no intrusive /r/ in rhotic dialects because abovementioned reanalysis didn’t occur.
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(316) barkeeper [bɑːrkiːpər] → [baːkɪpər]

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6. Psycholinguistics

• Psycholinguistics: study of how language relates to the human mind. Areas studied:
  1. Perception: How does a spoken/written utterance become an understandable message?
  2. Production: The reverse of the perception process.
  3. Lexical access: How do we retrieve items stored in the mental lexicon (=‘dictionary’)?
  4. Neurolinguistics: Which linguistic abilities are associated with which part of the brain? Neurolinguistics is often seen as separate from psycholinguistics, which studies the mind rather than the brain. Psycholx. corresponds to neurolx. like a plan of a public transport network corresponds to a map of a city (Aitchison 1990:333).
• Psycholinguistics studies concrete performance data to find out about competence.
• Psycholx is mostly experimental, but also speech error data recorded from real situations.

6.1. Psycholinguistic evidence about lexical access

• Lexical access: Words must be retrieved very fast, about 250 words per minute. We now look at ways of learning about lexical access and what they tell us.

6.1.1. The tip of the tongue phenomenon

• Tip-of-the-tongue phenomenon: searching for a word with a particular meaning, we know that it is in our lexicons, and we know its first segment(s) and what it rhymes with. This could indicate that our mental system has found the word in the lexicon, but a malfunction occurs in which only part of the lexical info reaches conscious memory.

6.1.2. Lexical decision tasks

• Subject (=person being experimented on) is shown a word (the target word) on a computer screen and must choose as fast as possible whether the word is in the language or a non-word. Choice is registered by pressing a key. Experimenter measures (a) the reaction time (time taken for response) and (b) correctness of response.
• This experimental technique has been used in many experiments. Some findings:
  • Frequency effects: 500 milliseconds for frequent words and 750 milliseconds for infrequent words, → search in lexicon starts with frequent words.
  • Pronounceable non-words (plib) are judged to be non-words more slowly than unpronounceable non-words (-nilb) → This suggests that, in the former case, the speaker has to go through existing words with similar phonological characteristics before rejecting the item as a non-word.
  • Non-words that sound like real words (blud, phocks) take longer to be rejected than non-words which don’t. → suggests that the real word (blood, fox) has to be accessed before the target word is rejected as a non-word.

6.1.3. Priming

• Lexical decisions plus priming: The lexical decision is preceded by another stimulus (e.g. another spoken/written word/sentence, picture etc.). The stimulus is still active in the short-term memory while the lexical decision is made. If the decision is made more quickly, the stimulus is said to have primed the target word. Examples:

6.1.4. Blending

• Blends are sometimes created as a result of speech errors; involve a malfunction of lexical access in which two semantically related words are considered simultaneously and

6.2. Psycholinguistic evidence about phonetics and phonology

6.2.1. Speech errors

• Spoonerisms = accidental exchange of phonological constituents (e.g. segments):

325 a. You have been tasting the worm (=wasting the term)
  b. You have kissed all my mystery lectures (=mussed all my history lectures)
  c. the queer old dean (=the dear old queen)
  d. noble tons of soil (=noble sons of toil)

326 (pig and vat =big and fat) Is bat a curl (=Is Pat a girl?)

• These errors sometimes involve units bigger than segments, e.g. syllable onsets in (325c).
• The exchanged constituents are always the same type of phonological constituent. E.g. speakers never swap an onset in one word with a coda from another, e.g. dog and cat becomes *tog and cad. (Radford et al. 127).
• Spoonerisms show that utterances are planned before being pronounced.

6.2.2. Other evidence on syllables

• Lexical decision task in which subjects were presented with syllabic and non-syllabic targets, both words and non-words (let, d). Syllabic targets were processed faster, regardless of whether they were words or non-words, suggesting that speech recognition proceeds by breaking words into syllables.
• Word game experiment: Does bat or but sound better as a blend between cat and bug? Subjects think bat sounds better because it corresponds to constituency of syllable: onset from bug and rhyme from cat.

6.3. Psycholinguistic evidence about morphology

6.3.1. Morphemes play a role in processing

• The reality of morphemes as parts of a word is shown by priming experiments. E.g.: crowbar primes bird (because crow is a type of bird).
• Swapping position of morphemes in speech errors also shows that morphemes (not just words) are independent units in speech production:

327 a. I’d forgot about-en that (forgotten about that)
  b. easy enough-ly (easily enough)
6.3.2. Testing the psychological reality of selection restrictions of affixes

- Examples of selection restrictions:
  (328) re- only selects verbs and creates verbs out of them: rethink, reenter, *reaccident, reprison, *reauthor, *refood
  (329) -ity selects adjectives, not verbs, and creates nouns: rigidity, electricity, *defendity, *selectity

- Experiment: various affixes were attached to nonsense morphemes, yielding uninterpretable words. Some words were morphologically well-formed (e.g. (330)a,b)), others were morphologically ill-formed because they could only be parsed structurally in such a way that affixes’ selection restrictions were violated (e.g. (330)c,d).

(330) a. Af V Af V Af V Af ? Af ? Af V ? Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af Af 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7. Sociolinguistics

- Sociolinguistics studies how social factors (e.g., race, social class, gender, culture) interact with language. Important aspect: socially determined variation of language. People’s language use exhibits many sociolinguistic variables, i.e., aspects of vocabulary, grammar, pronunciation that are subject to variation according to social factors. E.g.:
  - Pronouncing the name of the letter <h> with an initial [h] is thought of by many Australians characteristic Roman Catholics.
  - Using whom in lieu of who is characteristic of educated speakers in formal situations.
  - Negative concord (e.g. We don’t need gone instead of We don’t need any) occurs in many dialects in e.g. the UK and USA, but not in Australia. It is not part of Standard English grammar, and is often dismissed as ‘bad English’ by non-linguists.

7.1. Dimensions of variation in language

- **Variety/Lect**: a version of a language used in particular extralinguistically defined circumstances, e.g., situations determined by geography, gender, social class, job...).
  - **Main types of varieties**: again, classified by extralinguistic criteria: (336) (337)
    - **Sociolinguistic**: a variable specific to a particular social class (e.g., defined by wealth, education, job); sociolinguistic variation is also called dialect variation. E.g. in Australian English *youse* (plural of you) is confined to working classes, while the pronoun *one* (=Fr. on) and the pronunciation of *dance* with [a] are confined to upper classes. (They are often perceived as ‘posh’ by Australians who don’t use them.)
    - **Regiolect** (=regional variety, regional dialect) a variety particular to a geographically defined space; variation between regiolects is also called diatopic variation (=Greek *topos* ‘place’).
    - **Genderlect**: a variety specific to a gender. Examples of gender-preferential differences (so-called, because they are tendencies rather than hard-and-fast rules):
      - Women use more specialised colour terms: mauve, rose, paisley, herringbone.
      - Women use more questions.
      - Women use positive minimal responses (*uhum, yes*) to show they are listening. In men’s speech they are less frequent and indicate agreement, not just attention.
      - Women interrupt less and change the subject less.
    - **Idiolect**: the variety of one particular person.
    - **Age**: Since diachronic change happens constantly, old and young people speak differently. E.g. possessive have as an auxiliary is confined to older British speech.
    - **Register**: Variation of language used by the same speaker according to the situation. Some ways of subclassifying register are given below.
      - **Jargon**: language associated with specific topics/activities. E.g. biology, tennis, Buddhism, techno. (Some linguists reserve *register* for what we call ‘jargon’ here.)
      - **Style level**: variation according to social context (e.g. formality of occasion, age/status of addressees). Levels include elevated - formal – informal/colloquial – slang – vulgar. (Some linguists use *register* only for what we call ‘style’ here.)
        - Some characteristics of lower style levels (=vernacular):
          - increased use of taboo words, fewer euphemisms (pass away)
          - faster speech; more contractions (dunno)
          - special expressions (yeah; get; ain’t).
      - **Speaker relations**: intimate/distant; subordinate/equal. These facts are reflected in address forms (given name/surname, tu/vous) and code-switching/code mixing.
      - **Mode/medium**: spoken vs. written. Partly co-varies with style level, but not always (formal speeches use higher style level than most e-mails).

7.2. Standard language and dialects

- Distinguish between standard varieties/languages (not specific to particular regions, at least not to small ones) and non-standard varieties (regiolects used only in a fairly small area). Standard varieties of a language often have the following characteristics:
  - Standard varieties are often more likely to be used in public, official communication (e.g. news broadcasts, politics, courts, education) while non-standard varieties are used in informal situations (between friends, family members).
  - Standard varieties are taught in schools, a challenge for pupils who previously only knew very different non-standard varieties (e.g. African American Vernacular Engl.).
  - Standard varieties often have greater prestige (i.e. are perceived as ‘better’) while non-standard varieties are often (irrationally) stigmatised.
  - Standard varieties are more likely to be used in the written medium, while non-standard varieties are often not used in writing.
  - Standard varieties often have greater prestige (i.e. are perceived as ‘better’), while non-standard varieties are often (irrationally) stigmatised.
- **Dialect** = ‘non-standard regiolect’. (This sense is outside linguistics.)
- **Dialect** = ‘variety, lect’. (Mainly in older linguistic texts, there are references to ‘standard dialects’ (=standard varieties) or ‘social dialects’ (for ‘sociolects’).)
- **Dialect** = ‘variety, defined in terms of grammar’, distinguished from accent (‘variety, defined in terms of pronunciation’). Hence English Accents and Dialects (book title).

7.3. Prestige

- **Prestige**: Some varieties or sociolinguistic variables may have high prestige, i.e. they are regarded as ‘better’, ‘more intelligent’, ‘more beautiful’ etc. The opposite of a prestige variable/variety is a stigmatised one.
- **Covert prestige**: use of lower prestige varieties/variables in order to signal solidarity or honesty.

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2 Strictly speaking, these are characteristics of what have been called H(high)-varieties, as distinct from those of L(low)-varieties (no value judgments intended). These notions do not correlate fully with the standard/non-standard distinction in every language.
• Overt prestige: use of higher prestige varieties/variables to sound more educated or to distance oneself from others.

• Hypercorrection: When speakers try to use prestige varieties/variables foreign to their own native varieties, they might overcorrect, i.e. use certain variables in ways that native speakers of the prestige variety would never use them: (338) politicians whom do not understand economics sufficiently well enough

7.4. Prescriptivism

• Prescriptive (normative, purist) approaches to language recommend ‘good’ language use and criticise ‘incorrect’ language. Some variables criticised by prescriptivists:

(339) a. Are youse [li:vən]?  
  b. She don’t like him.  
  c. I ain’t got no money.  
  d. I try to help a student when they can’t do their homework.  
  e. They will hopefully arrive soon.  
  f. Who did you talk to?

• Even if proposed by learned, intelligent people, many (though not all, see below) prescriptive generalisations are based either on social/cultural/racial prejudices or on flawed ‘arguments’ of the following types:

(340) a. APPEAL TO PRESTIGE LANGUAGES. E.g.: Avoid preposition stranding (Who did you talk to) because it doesn’t occur in Latin, French, Greek etc. Reply: Such arguments would only be valid if accompanied by solid proof that one language is better than another, which has never been provided.

b. APPEAL TO ETYMOLOGY. E.g.: Pronounce economics with an initial /i:/ not /e/ because it comes from Greek oikonomia which had a long vowel. Reply: We are speaking modern English, not ancient Greek.

c. APPEAL TO AESTHETICS. Avoid X because it sounds ‘ugly’. Answer: Such claims are subject to differences of opinion and cannot be objectively verified.

d. APPEAL TO ‘LOGIC’. Avoid X because it is ‘illogical’. E.g. negative concord (I didn’t have no time) is seen as illogical because ‘the two negation words cancel each other out’. Answer: People who say this fail to consider that the language used may have a logic different from that which they can understand. (E.g. multiple negation could have a reinforcing effect.) Negative concord is used in many other languages (e.g. French, Russian, Old English...), and it can’t be that no speakers of these languages could think logically. Moreover, prescriptivists appealing to ‘logic’ often decry the regularisation of exceptions/irregular forms (they criticise himself, even though it is more ‘logical’ than himself).

• Many prescriptivists dislike change in a language, but if they were truly consistent, they would be advising English speakers to speak Old English (or Proto-Germanic, or Proto-Indoeuropean...). Many forms now endorsed by prescriptivists would have been unacceptable to the prescriptivists of yesteryear.

• Since a variety’s prestige is not determined by rational criteria, a sociolinguistic variable may be stigmatised in one variety and prestige in another. (E.g. non-rhoticity is stigmatised in US Engl. but not in British English. Negative concord is stigmatised in English but not in French.)

• Rational or not, prescriptivism is influential.

• Important concession: Not all prescriptive statements are bad. E.g.:
  - Foreign language teaching.
  - Advice on how to prevent miscommunication.
  - Advice on avoiding offensive language (sexist, racist words).
  - Summary: No feature of any variety is inherently wrong, but using it in the wrong social context might cause problems.

7.5. By way of summary: Communicative competence

• Sociolinguistics is an important part of mastering a language. Linguists often distinguish three aspects of communicative competence:
  - grammatical competence: mastery of grammar, lexicon, phonology
  - conversational competence: mastery of pragmatics (e.g. Grice’s maxims)
  - sociolinguistic competence: knowing the social significance of choosing particular forms of language. E.g. using correct register on the right occasion:

(342) a. Excuse me, sir!  
  b. Hey dude!

7.6. References


8. Language Acquisition

8.1. Setting the scene: Stages of first language acquisition

The ages are approximations, but the order of stages is the same for all children.

- Up to 10 months: Babbling, even among deaf children, apparently similar patterns irrespective of language background.
- Around 10 mths, babbling comes more into line with input language. Here deaf children stop babbling.
- 12-18mths: isolated, uninflected words, ability to understand simple instructions.
- 18mths: Two-word sentences (telegraphic speech): Anna up, more milk, kick ball, Allgone cake. Vocab steadily increasing.
- 24 mths: vocab about 400 words, 2-3 word sentences, but still no function words/affixes.
- 30-36 mths: some grammatical morphemes (mama sitting, he goed in the house); order of acquisition of these is same with all English-learning children; overgeneralisations (I goed, mans; vocab 900 words) occur even after correct irregular form has been acquired.
- 36mths: 1st use of movement operations (Is it good? what did he see?), though inconsistently: where he going? Vocab 1200 words.
- 42-48 mths: Embedding, relative clauses, complement clauses; still overgeneralisation. Vocab 1500 wds.

8.2. The logical problem of language acquisition

The logical problem of language acquisition (Plato’s problem): how does a child acquire the grammar of a language, despite the poverty of the stimulus, i.e. the fact that the evidence available to children regarding the nature of the language to be learnt seems to be inadequate, for instance due to the following phenomena:

- Degenerate input: normal speech (which children hear) contains performance errors (unacceptable sentences which every speaker produces due to processing errors, tiredness, changing ideas in mid-sentence etc.)
- The unreliability of negative evidence (=evidence that a sentence is unacceptable):
  - Direct negative evidence (=correction by adults) plays virtually no role in childhood language acquisition, since (a) the overwhelming majority of mistakes made by children are not corrected, and (b) children ignore corrections anyway.
  - Indirect negative evidence (=assuming an expression is ill-formed because one hasn’t heard it) perhaps plays a role, but is unreliable because children can’t be sure that they have heard enough language for the evidence to be trustworthy. Native speakers often have clear judgments that sentences are unacceptable even though the constructions are so infrequent that there is too little data for indirect negative evidence to be the real source of the intuitions. E.g. judgments double object + particle construction (which are seldom encountered):

(343) a. I sent them back the letter.
   b. I sent them the letter back.
(344) a. I sent them off the letter.
   b. *I sent them the letter off.

8.3. Creativity in child language learning

- Creativity: language acquisition is not just imitative, but creative. Children produce and understand new sentences they have not heard. They develop their own rules during acquisition, which sometimes don’t correspond to what they hear:

- Experiment in Berko (1958): children could form plurals for words invented by linguist solely for the purpose of the experiment (wugs).
- Children produce overregularisations (comed, goed, bringed) and un-adult-like analogical extensions (brung, cf. sung/flung) they have not heard before. Overgeneralisations come after learning the correct form.
- A child described in Radford (1997:11) produced questions like (345), despite not hearing them. (The child is treating is as a question particle like French est-ce que.)

(345) Is I can go? Is you should eat the apple? Is Ben did go?

- Many English-learning children use no not and/or put negation in front of whole sentence:

(346) No(t) Johnny go home.

- Around 10 mths, babbling comes more into line with input language. Here deaf children stop babbling.
- 12-18mths: isolated, uninflected words, ability to understand simple instructions.
- 18mths: Two-word sentences (telegraphic speech): Anna up, more milk, kick ball, Allgone cake. Vocab steadily increasing.
- 24 mths: vocab about 400 words, 2-3 word sentences, but still no function words/affixes.
- 30-36 mths: some grammatical morphemes (mama sitting, he goed in the house); order of acquisition of these is same with all English-learning children; overgeneralisations (I goed, mans; vocab 900 words) occur even after correct irregular form has been acquired.
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8.4. Motherese: An inadequate solution to the language acquisition problem

Motherese (=baby talk, child-directed speech, special type of speech specifically used in communicating with children) differs from normal speech in the following ways (Gleitman et al. 1984, after O’Grady 1997:249ff). Characteristics:

- Slower, higher pitch, exaggerated intonation.
- Less vocabulary, more paraphrasing/repetition
- Less complex sentences, fewer performance errors
- Motherese isn’t much of a solution to the logical problem of acquisition, since there are cultures (e.g. Javanese, Samoan, Kaluli in PNG, Ochs & Schieffelin 1995) lacking motherese. However, perhaps it is exploited in cultures that do have it.

8.5. Innateness and Universal Grammar as accounts of language learning

- The Innateness Hypothesis:

(348) a. Humans (but not other animals) are genetically-biologically endowed with the ability to learn languages as part of their cognitive capacities.
Language Acquisition

8.5.2. How could we learn about UG?
- Typology: looking at a number of languages to see what kinds of constructions can occur (e.g. no operation exists in any language in which a whole sentence is inverted).
- Looking at one language and deducing what could not be learned by experience (without recourse to negative evidence), and must therefore be either a principle or a parameter.

8.6. The acquisition of vocabulary

8.6.1. The course of lexical development
- First (to some extent) recognisable words around 1 year
- The first 50 words learnt by about 15 to 24 months; learning rate of about 8-11 words per month
- Once they have learnt about 50 words, there is a spurt where vocab learning increases exponentially; now learning about 22-37 words per month
  - Not clear whether all children exhibit a spurt.
  - Spurt mainly affects names for objects
  - Possible reasons for spurt:
    - Children have acquired whatever principles are necessary for vocab learning
    - Naming insight: they realise that everything has a name
  - Differences between children might be based on gender, social background, phonological memory

8.6.2. How vocabulary is learned
- We look at some principles of vocabulary learning, mainly concerning nouns, because these are easier.
- Fast mapping hypothesis: children guess the meaning of a word, rather than waiting till they have clear evidence. The researcher Ellen Markman suggested that children seem to rely on the following assumptions when the guess meanings.
- Whole object assumption: assume words refer to whole object. (E.g. assumption of children that hot means ‘stove’.)
  - Evidence: a) 67% of the words used at 20 mths denote whole objects
  - How, then, do children learn the names for parts of things? Perhaps through recourse to evidence like the leg of the table
- Taxonomic assumption: assume that a word refers to a set of similar individuals, and that it does not refer to ‘thematically’ related objects (e.g. the set of things referred to by dog includes things similar to dogs, but not e.g. dogs, collars, leads, dogfood. Supported by experiments. E.g. this is a blink (show picture of an animal). Find another bleck.
  - Taxonomic assumption works despite the fact that if you ask preschool children to sort toys in groups that belong together, they sort by associative meanings (e.g. people with cars because people drive cars). They must somehow know that words don’t just label pairs of things related associatively.
- Shape bias: children will assume that names apply to classes of objects of similar shape. This explains some overextensions (e.g. moon applied to all round objects). It seems to
8.7.3. Differences between production and perception

- Children can perceive differences between sounds even if they can’t articulate them: /ʃ/ (intended: fish)
- Clark’s (1993) Principle of contrast is an alternative to the Mutual Exclusivity Assumption: assume that no two words have exactly the same meaning. This might explain why there are hardly any synonyms: principle of language change.

8.7. The acquisition of phonology


8.7.1. Perception of contrasts by babies

- Very young babies can distinguish subtle contrasts, e.g. [t] vs. [tʰ], regardless of whether they are phonemic in target language (the language they are exposed to). They don’t respond to contrasts which aren’t phonemic in any language, e.g. loudness of sounds.
- But around 6 months, the babies start losing the ability to distinguish between sounds that aren’t phonemic in the language. Conclusion: Even babies are learning language.

- Experimental methods used to obtain the above findings:
  - High Amplitude Sucking technique: present babies with a string of sounds [ta ta ta tʰa], baby’s sucking rate intensifies with new sound, since more ‘interesting’. Sucking rate can be measured with a device.
  - Head Turn/Eye Tracking: do a few trial runs where a visual stimulus is presented when different sound (here [tʰ]) is heard. Baby learns to look in direction of visual stimulus. Baby continues looking in this direction even after visual stimulus stops accompanying different sound.

8.7.2. Some differences between child and adult phonology

- Order of acquisition of sounds generally corresponds to markedness of sounds in world’s languages. (A phenomenon is marked if it doesn’t occur in many languages.)
  - E.g. [p,b,t,d,k,g,m,n,s,w] acquired before e.g. [f,v,r,θ,ʃ,ʒ,ŋ].
  - (Only the former group occur in babbling, regardless of target language.)
  - Especially marked sounds like [ð,θ,ʃ,ʒ] might not be acquired till age 4½.
- This is so despite the frequency of the sounds in the language: [θ] is commonly heard in English because the is one of the commonest words in English.
- Phonological processes (favoring universally unmarked patterns, e.g. CV(C) syllable):
  - deletions in consonant clusters: desk as [dek], step [tep], climb [karm], ten [det]
  - deletions of final consonants: boot [bu]
  - changing to less marked manner/place of articulation (often preserving other features of sound), e.g.
    - stops for continuants (sing [ɪŋ], this [dɹ], spoon [bud], jam [dɹb])
    - glides for liquids (lion [lɪn], look [wʊk], story [stɹ:wi])
    - assimilation, e.g.
      - consonant harmony (doggy [dɒɡɪ] or [dɔdɪ], self [ʃɛIl])
      - vowel harmony (baby [babi])
C. One morpheme expresses only one piece of meaning. (e.g. the only expresses definiteness, while s on verbs expresses person (3rd), number (singular) and tense (present))

D. The lack of exceptions: e.g. the use of -ed has exceptions (sang/*singed, went/*goed)

E. Lack of allophonic variation: e.g. plural –ed shows allophony: /ld/ in saved, bragged
/l/ in laughed, escaped
/s/ in planted, faded

F. Morphemes with a semantic function are acquired more quickly: Morphemes like s on verbs don’t provide new semantic information that isn’t clear from other morphemes.

Exercise: Work out how each of the principles A-F just mentioned is relevant to each of the affixes 1-7 above. What pattern do you notice?

8.9. The critical period hypothesis (Hoff 2002:ch. 2)

- Critical period: biologically determined period during which some skill (e.g. language) must be acquired; if the appropriate environmental input is not provided, the skill will not be acquired properly. (Sometimes called sensitive period to stress that critical period effects are not absolute.)

- E.g. certain newborn birds (chickens, ducklings) follow the first moving object they see (‘imprinting’), but only within a few hours after hatching.

Evidence bearing on a critical period in language acquisition

- Wild children: Children who grew up without exposure to language during the critical period don’t learn language properly.

- Problem: Obvious ethical considerations and unreliable documentation of older cases mean that there is not much evidence to go on with these cases.

- Genie: child kept in solitary confinement by mentally ill father, no language exposure till she was discovered at age 13 in 1970. She learnt some vocabulary, but no functional items, not much of a grasp of syntax:

  (351) a. Want go ride Miss F. car. b. At school scratch face.
  c. Applesauce buy store. d. Man motorcycle have.

- Tests suggest that Genie acquired language with right hemisphere of brain, unlike normal linguistic development where left hemisphere is used for language.

- Problems: It has been claimed that Genie might have been mentally retarded. If true, her language problems would be no evidence for a critical period. Also criticisms of the data researchers provided regarding Genie’s later language development: www.feralchildren.com/en/pager.php?df=jones1995

- Sign language: It appears that deaf children are a more reliable source on whether there is a critical period. Tests on adult users of American Sign Language showed that they mastered it far better if they had learnt it as children than if they had done so as adults, even after many years of use of the language.

- Second language acquisition: It is well-known that language learning ability decreases with age.

- However, whether this speaks for the biological critical period hypothesis is disputed: According to tests on immigrants of various ages, it still appears that being younger favours language proficiency even after the putative critical period (e.g. 20s vs. 40s).

- It has been hypothesised that the advantage of children at learning language consists in limitations on memory abilities: it’s easier to figure out the structure of language if you analyze small chunks than if you analyze longer stretches of speech.

8.10. References


