Introduction to English Language & Linguistics

Why do you need this lecture?
you will learn to
• use (critically) concepts related to language in the widest sense
  - think about "familiar" terms systematically (e.g. grammar)
  - integrate new technical terms into the system (e.g. morpheme)
• learn about (the variation of) English (usage)
  - according to their listeners/readers
  - as a medium-specific form of communication
• In its socio-cultural contexts
• see and solve (English) language problems generally
• - "markedness": NOT personal pronoun subject/object "norm"
  (who said = Chemist/er are stupid, you and we will do it, between you and I)
• practise general skills of learning
  - esp. deductive (=from concept/term to examples) and
  - inductive (=from examples to concept/term) and
• academic discourse ("academic word list")

Grammar = linguistics from school

1.1 Concepts and categories of traditional grammar from Aristotle (384-322 BC) to Quirk (1920-)
1.1.1 Classification parts of speech (POS = word classes)

In grammar, a part of speech (also a word class, a lexical class, or a lexical category) is a linguistic category of words (or more precisely lexical items), which is generally defined by the syntactic or morphological behaviour of the lexical item in question. Common linguistic categories include nouns and verbs, among others. There are open word classes, which constantly acquire new members, and closed word classes, which acquire new members infrequently if at all ...

Linguists recognize that the above list of eight word classes is drastically simplified and artificial. For example, "adverb" is to some extent a catch-all class that includes words with many different functions. Some have even argued that the most basic of word classes, which constantly acquire new members, and closed word classes, which acquire new members infrequently if at all ...

References/Recommended Reading:

NB: You are allowed to use Wikipedia as a starting point for concept discussions, but not as an end point (or only reference), because you can only decide whether Wikipedia offers a suitable entry when you have compared it with further information (often found in the references at the end) and are convinced that this is a scholarly source contribution.

https://wiki.unc-mc.edu/English/IntroELL
10 Quizzes: https://moodle2.uni-leipzig.de/login/index.php

Traditional English word classes: survey in keywords
A. VERBS =  "action"? TAM modification? clause head (only 1)!
B. NOUNS =  "things"? (vs. abstracts)
C. ADJECTIVES =  attributive/predicative? gradable? relative (very)!
D. ADVERBS =  FUNCTION =  "ad-adjective/-clause"? FORM -ly (see below)!
E. PREPOSITIONS =  introduce NP? (dependency)!
F. CONJUNCTIONS =  connect clause-NPs?
G. PRONOUNS =  personal pronoun, possessive pronoun is adjective (if attributive), but: "pro"-clause sol.
H. AUX / NUM / ART = own class OR subcategory of category VERB/ADJ./?

INTERPRETATIONS = discourse markers + emotion (like surprise, annoyance)!

NB: interjections are culture-specific!

Conventions like Hi, Bye and Goodbye are interjections, as are exclamations like Cheers and Hooray! ...

Expressions such as "Excuse me!", "Sorry!", "No thank you!", "Oh dear!", "Hey that's mine!", and similar ones often serve as interjections. Interjections can be phrasal or even sentences, as well as words, such as "Oh!" "Posh!" "Wow!" or "s'up!"

http://en.wikipedia.org/wiki/Interjection (18/10/13)
classification problem: adverb as form? - function?

Adverbs are words that modify:

- a verb (the driver arrived quickly) - How did he drive?
- an adjective (we were very excited) - How fast was he?
- another adverb (She moved very slowly down the aisle. - How slowly did she move?)

And infinitive phrases can act as adverbs (usually telling why) [not a good formulation, they are adverbial]:

She hurried to the mainland to see her brother. The senator ran to catch the bus.

Adverbs frequently end in -ly; however, many words and phrases not ending in -ly serve an adverbial function and an -ly ending is not a guarantee that a word is an adverb (e.g., see is a verb, not a term for wind).

The words lovely, motherly, friendly, neighborly, for instance, are adjectives:

That lovely woman lives in a friendly neighborhood.

An adverb is a word that changes or qualifies the meaning of a verb, adjective, other adverb, clause, sentence or any other word or phrase, except that it does not include the adjectives and adverbs that directly modify nouns. Adverbs are traditionally regarded as one of the larger parts of speech.

Although the wide variety of the functions performed by words classed as adverbs means that it is hard to treat them as a single uniform category.

Adverbs are considered a part of speech in traditional English grammar and are still included as a part of speech in grammar taught in schools and used in dictionaries. However, modern grammarians recognize that words traditionally grouped together as adverbs serve a number of different functions. Some would go so far as to call adverbs “a catch-all” category that includes all words that do not belong to one of the other parts of speech.

http://en.wikipedia.org/wiki/Adverbs (19/10/13)

1.3 Functions (= clause elements) in a particular sentence

<table>
<thead>
<tr>
<th>ADVERBIAL</th>
<th>SUBJ</th>
<th>VERB/PREDICATE</th>
<th>OBJ (direct/indirect)</th>
<th>COMPLEMENT</th>
<th>PRIME MINISTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomorrow</td>
<td>Ms. May</td>
<td>will introduce</td>
<td>her cabinet</td>
<td>subject/object</td>
<td>reference identity</td>
</tr>
<tr>
<td>To everyone's surprise</td>
<td>the</td>
<td>was (rejected)</td>
<td>to the Queen</td>
<td>Prime Minister</td>
<td></td>
</tr>
</tbody>
</table>

The same words can have different functions in different sentences:

- e.g. active objects become passive subjects:

  The student read the book → The book was read by the student

  Exercise:

  Classify each sentence element according to form (POS) and function!

1.2 Linguistics = “thinking about language”, = the scientific study of language

1.2.1 History of linguistics (schools)

- traditional grammar
- neogrammarians
- structuralism
- generative-transformational grammar
- cognitive grammar
- construction grammar

1.2.2 Linguistic subdisciplines (cf. the “football model”)

- microlinguistics: phonology, morphology, lexicology, semantics, syntax
- text linguistics: discourse analysis
- macrosociolinguistics: pragmatics, sociolinguistics, psycholinguistics, etc.
- applied linguistics: lexicography, translation studies, error analysis, SLA, corpus linguistics, computational linguistics
1.3 Language

1.3.1 Definitions of language

"Language is a purely human and non-instinctive method of communicating ideas, emotions and desires by means of voluntarily produced symbols" (Sapir 1921)

"I will consider a language to be a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements" (Chomsky 1957)

Language and the linguistic symbol/semiotic triangle (de Saussure > Pierce):

- thought (reference)
- symbol
- referent/reality

1.3.2 Communication (vs. language)

Communication = the passing on or exchange of information - distinguishes what is living from what is non-living in nature (O'Grady et al. 1996)

> the act of conveying intended meanings from one entity or group to another through the use of mutually understood signs and semiotic rules.

The basic steps of communication are:
1. The forming of communicative intent.
3. Message encoding and decoding.
4. Transmission of the encoded message as a sequence of signals using a specific channel or medium.
5. Reception of signals.
6. Reconstruction of the original message.
7. Interpretation and making sense of the reconstructed message.

Examples of nonverbal communication include haptic communication, chronemic communication, gestures, body language, facial expression, eye contact, and how one dresses.

1.3.3 The design features of human language (cf. Hocket 1968)

1. Interchangeability: all members of the species can send and receive messages
2. Feedback: users of the system are aware of what they are transmitting
3. Specialisation: the communicative system serves no other function but to communicate
4. Semantics: the communication system consists of isolatable, repeatable units
5. Arbitrariness: there is no natural or inherent connection between a token and its referent
6. Displacement: the communication system permits remote reference in space and time
7. Productivity: new messages on any topic can be produced at any time
8. Traditions and cultural transmission: certain aspects of the system must be transmitted from an experienced user to a learner
9. Duality of patterning: meaningless units (phonemes) are combined to form arbitrary signs; signs can be recombined to form new, larger meaningful units (e.g., tops, pots)
10. Prevarication: the system enables users to talk nonsense or to lie
11. Learnability: the user of the system can learn other variants; humans can learn different languages, bees are limited to their genetically specified dialect
12. Reflexiveness: the ability to use the communication system to discuss the system itself

1.3.4 An ideal model of communication

- Channel: the messages are primarily transmitted via the vocal-auditory channel
- Linearity: the message is extended temporally (speech) and locally as a string (writing) and is produced and analysed as a sequence
- Redundancy: the same information is given several times
1.3.5 Types of languages

Relation between words is expressed

- In different words = analytic/isolating (Chinese)
- In merged/fused affixes = synthetic/inflecting (Latin)
- In unchanging affixes = agglutinative (Turkish)
- Others, like polysynthetic (Inuit, Nutka)

English
- Combines synthetic and analytic features
  e.g. Anglo-Saxon – genitive (used for humans, etc.) is synthetic; modern of genitive (used for inanimates) is analytic
- As moved from synthetic to analytic, further than German (diachronic shift)

1.4 Relationships

Language < Communication (see semiotics in 5.6)
Language < Thinking/Cognition (see cognitive linguistics in 4.5.4)
Philology is the academic study of language, literature and culture (see The philological triangle):
Is the text the basis of all philology?

„Anglistik (Englische Philologie) ist die Wissenschaft, die sich mit der englischen Sprache und Literatur beschäftigt. In der Anglistik werden alle auf englisch verfassten oder gesprochenen Texte und alle englischsprachigen Kulturen erforscht.“ (Wikipedia s.v. 11/04/06)

“Philology is the study of ancient texts and languages. The term originally meant a love (Greek philo-) of learning and literature (Greek -logia). In the academic traditions of several nations, a wide sense of the term ‘philology’ describes the study of a language together with its literature and the historical and cultural contexts which are indispensable for an understanding of the literary works and other culturally significant texts. Philology thus comprises the study of the grammar, rhetoric, history, interpretation of authors, and critical traditions associated with a given language.” (Wikipedia s.v. 11/04/06)

1.5 Varieties of English World-Wide

1.5.1 Tok Pisin as an extreme example (beyond the line?)

Sapos yu kilim bogarap kilim nambo bilong narapela drina, sapos yu ken, kilim nambo bilong em na adves to, na takim pulis long em.
Naken patim em a tok nogut long em.
If you have an accident, get the other driver’s number, if possible his name and address and report it to the police.
Do not fight him, or abuse him.

Bimboy hed bilongyu i-arrait gain
by and by head belong you he-alright again
→ your head will soon get well again
Mi driman long kilim wanpela snek
I dreamed that I killed a snake

1.5.2 Typology of Englishes

ENL = English as a native language
ESL = English as a second language
EIL = English as an international language
ELF = English as a lingua franca (plural: lingue franche) exp. of international science and technology
ESP = English for specific purposes
EAP = English for academic purposes
pidgin languages develop rudimentary grammar in superficial contact situations (e.g. Tok Pisin in PNG)
creole languages develop from pidgins when they expand in form, parallel to the expansion of functions as a first language (e.g. Krio in Sierra Leone)
1.5.3 Standard and Nonstandard English

Standard English (often shortened to S.E. within linguistic circles) refers to whatever form of the English language is accepted as a national norm in an English-speaking country. It encompasses grammar, vocabulary, and spelling. In the British Isles, particularly in England and Wales, it is often associated with the Received Pronunciation accent (there are several variants of the accent) and the United Kingdom Standard English, which refers to grammar and vocabulary. In Scotland, the standard is Scottish Standard English. In the United States, it is generally associated with the General American accent and in Australia with General Australian English. Unlike the case of other standard languages, however, there’s no official or central governing body defining Standard English.

http://en.wikipedia.org/wiki/Standard_English (18/10/13)

definition “non-standard” English (“broken English”)

(1) Any dialect of English other than Standard English.
(2) A term used disparagingly by some non-linguists to describe “bad” or “incorrect” English.

The Stigma of Nonstandard English

“We should not be so naive . . . as to begin thinking that nonstandard English will ever shed its stigma. Many who argue against teaching standard conventions seem to believe it will. The reality is that nonstandard English is unlikely to have any effect on society’s attitudes toward speakers of nonstandard English, but it will most certainly have an effect on our students’ lives. Their futures will be limited, and many at the bottom of the socioeconomic scale will remain ghettoized. On this basis alone, I would argue that we must push students to reach their full potential, especially with regard to language. Our society is growing ever more competitive, not less, and Standard English, because it is the language of modern communication technology, is more equal than others. English is related to German, but has undergone more (radical) changes in grammar, vocabulary, pronunciation, etc.


http://grammar.about.com/ad/moe/nonstandard.htm (18/10/13)

1.5.4 Stylistic Variation

Stylistics is the study and interpretation of texts in regards to their linguistic and tonal style. As a discipline, it links literary criticism to linguistics. It does not function as an autonomous domain on its own, but it can be applied to an understanding of literature, journalism as well as linguistics. Sources of study in stylistics may range from canonical literature to public opinion polls, and from advertising copy to government reports, popular culture, as well as to political and religious discourse.

Stylistics as a conceptual discipline may attempt to establish principles capable of explaining particular choices made by individuals and social groups in their use of language, such as in the literary production and reception of genres, the study of text art, and the study of spoken Chinese and Japanese, and can be applied to areas such as discourse analysis as well as literary criticism. Common features of style include the use of diction, including regional accents and individual dialects (or idiolects), the use of grammar, such as the observation of active voice and passive voice, the distribution of collocations (lengths, the use of particular language registers, and so on. In addition, stylistics is a distinctive term that may be used to denote the connections between the form and effects within a particular variety of language. Therefore, stylistics looks at what is “going on” within a given language; what the linguistic associations are that the style of language reveals.

http://en.wikipedia.org/wiki/Stylistics_%28linguistics%29 (18/10/13)

1.6 Why is English useful? - all languages are created equal but...

English is more equal than others academic:

- English has a more elaborate spectrum of world-wide functions, esp. as an additional language (EIL, ESP/EAP)
- English is more widely spoken than other languages
- English is the language of modern worldwide communication technology
- English has more and better literature than other languages
- English linguistics has more changes and developments than other languages

practical (post-academic):

- English has more job offers in “language services”, teaching, translation (simultaneous interpretation), web publishing, information retrieval, etc.
- English skills and knowledge are relevant in all jobs in an international context
- even after Brexit, English will remain the major working language in the EU, esp. since it is not an official EU language for any EU member (Irish selected Irish) and no native speaker seems to have an unfair advantage, all are non-native users; in fact English is the only language that has far more non-native than native users today
2. Phonetics and Phonology

2.1 Phonetics

2.1.1 Introduction to phonetics

Phonetics = the study of the speech sounds that occur in all human languages to represent meanings (Fromkin/Rodman 1993:176)

types of phonetics:
1. articulatory phonetics: study of the way speech sounds are made (articulated) by the vocal organs
2. acoustic phonetics: study of the physical properties of the speech sounds (like physics)
3. auditory phonetics: study of the perceptual response to speech sounds through the ear, auditory nerve, brain

The International Phonetic Association / Alphabet

http://www2.arts.gla.ac.uk/IPA/ipachart.html updated with fonts

2.1.2 Vocal organs and articulators

= parts of the oral tract forming the sound

2.1.3 Consonant articulation I: place

1. labial/bilabial (upper and lower lips) <pie>, <buy>, <my>
2. labiodental (lower lip + upper front teeth) <fire>, <vicious>
3. dental (tongue tip + upper front teeth) <thigh>, <thy>
4. alveolar (tongue tip/blade + alveolar ridge) <tie>, <die>, <lie>, <tie>, <die>
5. retroflex (tongue tip + back of alveolar ridge) <row> and <hour>
6. palato-alveolar (tongue blade + back of alveolar ridge) <shy>, <show>
7. palatal (tongue front + hard palate) <Hugh>, <hue>
8. velar (tongue back + soft palate) <hack>, <hag>, <hang>
9. glottal (vocal cords) <heave>, <hug>

not used in English: uvalar (French <r>), phonemes (Arabic) - clicks (Zulu)

Articulation of consonants and vowels

vocal cords can vibrate under pressure of airstream

vibrating cords = voiced (all vowels + voiced consonants)

non-vibrating cords = voiceless (voiceless consonants)

vowels vs. consonants:

vowels: little obstruction of airstream, generally voiced

= continuous ‘Selbstlaut’

consonants: voiceless or voiced, obstructed airstream

→ consonants are classified according to place and manner of obstruction

gradients! semi-vowels <w>, <j>, liquids <l>, <r> (syllabic)

Consonant articulation II: manner

articulators can close the oral tract completely or partially

1. stop (closure, airstream cannot escape)

• nasal stop: air stopped in mouth but can escape through nasal tract: <my>, <night>, <song>

• oral stop: raised velum closes nasal tract

Pressure builds, airstream is released in bursts: <pie>, <cool>, <guy>, <tool>

2. fricative (close approximation of two articulators) airstream is partially obstructed → turbulent airflow → hissing sounds: <shy>, <chose>, <friend>

• higher-pitched: sibilants

• lower-pitched: non-sibilants
### The International Phonetic Alphabet (revised to 2005)

#### Consonants (Pulmonic)

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Postalveolar</th>
<th>Retroflex</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p  b</td>
<td>t  d</td>
<td>t  d</td>
<td>c  j</td>
<td>k  g</td>
<td>q  g</td>
<td>q  g</td>
<td>?</td>
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<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m ɱ</td>
<td>n ɳ ɲ ŋ ɴ</td>
<td>n ɳ ɲ</td>
<td>n ɳ ɲ ŋ ɴ</td>
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<tr>
<td>Trill</td>
<td>b</td>
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<td></td>
</tr>
<tr>
<td>Tap or Flap</td>
<td>v  r  t</td>
<td>v  r  t</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>φ  β  f  v  θ  ċ  s  z  j  z  ç  i  x  y  χ ʁ h  f  h  fi</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral fricative</td>
<td>l  l</td>
<td>l  l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>u  j  w</td>
<td>u  j  w</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Lateral approximant</td>
<td>l</td>
<td>l</td>
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<td></td>
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</tr>
</tbody>
</table>

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

#### Consonants (Non-Pulmonic)

<table>
<thead>
<tr>
<th></th>
<th>Voiced implosives</th>
<th>Ejectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clicks</td>
<td>θ  δ  j  z  s  i  y  ¶</td>
<td>Examples:</td>
</tr>
<tr>
<td>Bilabial</td>
<td>ɓ  Bilabial</td>
<td>’  Examples:</td>
</tr>
<tr>
<td>Dental</td>
<td>δ’  Dental/alveolar</td>
<td>p’  Bilabial</td>
</tr>
<tr>
<td>(Post)alveolar</td>
<td>j’  Palatal</td>
<td>t’  Dental/alveolar</td>
</tr>
<tr>
<td>Palatoalveolar</td>
<td>k’  Velar</td>
<td>l’  Alveolar fricative</td>
</tr>
<tr>
<td>Alveolar lateral</td>
<td>s’  Uvular</td>
<td></td>
</tr>
</tbody>
</table>

#### Vowels

- **Front**
  - Close: i, y
  - Close-mid: e, œ, ø
  - Open-mid: æ, æ
- **Central**
  - Close: i, u
  - Close-mid: e, œ, ø
  - Open-mid: æ, æ
- **Back**
  - Close: u, u
  - Close-mid: o, ø
  - Open: a, ø

Where symbols appear in pairs, the one to the right represents a rounded vowel.

#### Other Symbols

#### Suprasegmentals
Consonant articulation III: manner, special cases

3. approximant: narrowing of articulators until turbulent airstream occurs, but not close enough for a fricative
   "<we>, <Howard"

4. lateral: obstruction along center of oral tract without complete closure
   "<lip"

5. affricates: some sounds are combinations of other simpler sounds, cf. "<church> = stop + fricative"

2.1.4 Articulation of vowels I

- articulators are open, airstream unobstructed
  "<heed, hid, head, had, father, food"

- dome of tongue is raised
  "<heed, hid, head, had"

- highest point of tongue is front of mouth \( \rightarrow \) front vowels
  high front vowels "<heed> and low front vowels "<had>

- mouth is increasingly open
  tongue close to back of vocal tract \( \rightarrow \) back vowels
  high back vowels "<food> and low back vowels "<father>"

Articulation of vowels II

Articulation of vowels II

lip position: close together in mid and high back vowels
"<good, food>"

lip rounding: rounded vs. unrounded vowels
\( \rightarrow \) three factors for vowels
- 1. height of the body of the tongue
- 2. front-back position of tongue
- 3. degree of lip rounding

2.1.5 Variation of vowels (Wells' standard lexical sets for English)

differences between Brit.E/RP and Gen. American

Wells classifies words of the English language into 24 lexical sets on the basis of the pronunciation of the vowel of their stressed syllable in the two reference accents. Each lexical set is named after a representative keyword.


"[t]he keywords have been chosen in such a way that clarity is maximised: whatever accent of English they are spoken in, they can hardly be mistaken for other words. Although there is not the concreteness of words, it cannot be mistaken for a word with some other vowel; whereas, e.g., if we had chosen it instead, would have been subject to the drawback that one man's pronunciation of beat may sound like another man's pronunciation of bait or bit."

[ibid: 123]
2.1.6 Articulation of diphthongs/triphthongs

- a glide from one vowel position to another
  (less extreme than monophthongs)
  In English all diphthongs are centering or closing (cf. RP Fig., below from Roach 2004:242)
  triphones (centring) are unstable and tend to be reduced to monophthongs:
  shire, shower → [ʃə:] homophones (also: Shah)

2.2 Phonology

2.2.1 Introduction

speech sounds to be analysed after:
  physical properties (form) → phonetics
  sound differences / similarities (function) → phonology

phonetics
  sounds of language
  parole, speech act
  universal
  concrete
  phone [ ]

phonology
  functioning of sounds as part of a system
  language, language system
  abstract
  phoneme / /

- sounds form segments; speakers know which segments contrast, i.e. are in opposition or distinctive
- /ʃ/ vs. /ʒ/; hit vs. hot → minimal pairs
  → 2 forms with distinct meanings that differ only by one segment

2.2.2 Levels of description: from minimal pairs to phonemes

- established on the basis of sound, not spelling
- only one segment can differ, NOT soldier vs. shoulder
- contrasts are language-specific, i.e. sounds that are
  distinctive in one language may not be distinctive in another

- wide vs. narrow transcription for leaf / feel

[1] difference is never to differentiate meanings (cf. 2.2.3 below) →
difference is phonetic, not phonemic:
  unit of description: phoneme / /

phoneme: smallest unit with potentially distinctive function
  variants: allophones, cf. German /x/: ich vs. Buch

2.2.3 Principles in phonology

complementary distribution: phonetic units that never occur in the same environment
  → allophones if phonetic similarity

Standard British English (RP) example:
  [l] only in front of vowels: “clear” (front)
  [ɫ] in front of consonants and word endings: “dark” (back)

free variation: <economics> [e-] [I-]

phonetic difference realised by speakers for the same word
  spelling systems generally ignore phonetic variation that is non-distinctive,
  evidence that speakers have a mental notion of what phonemes are
  phonologically relevant differences are never left out in spelling:
  cf. /l/ and /ʃ/ in rift vs. lift

neutralization: foreigners can have difficulty in phonological difference, cf. German Auslautverhärtung: <Rad> vs. <Rat>

2.2.4 Phoneme relationships

linking (liaison): BrE (is non-rhotic, but SW England, Shakespeare!)
  avoids two distinct vowel phonemes clashing
    → insertion of liquid /r/ or glide /j/ or /w/

near - nearing
  see - seeing
  sue - suing
  to see Arthur
  to sue Arthur

intrusive /r/ in law and order (r is not there in spelling)

phoneme relationships:

  /æt/ /p-t/ /pe-
  /æ/ /æ/ /æ/
  /b/ /b/ /b/
  /l/ /l/ /l/

= matrix of real and potential words

→ language can contain phoneme patterns: as loan words, foreign words

2.2.5 Distinctive features of English stops

/s/ /z/ /s/ /∫/ /t/ /d/ /θ/ /ð/ /ʃ/ /ʒ/ /r/ /l/ /m/ /h/

bilabial
  - - - - - - - - -
vowel
  - - - - - - - - -
dental
  - - - - - - - - -
vesting
  - - - - - - - - -
voiced
  - - - - - - - - -

sub-phenemic analysis

basic: distinctivity of the 9 phonemes

/r/ - phonemes of one language can only be defined in contrast to other phonemes of the same language (brackets)
2.3 Suprasegmental phonology

2.3.1 Levels of phonetic description: syllable

syllable (σ) = composed of a nucleus (usually a vowel) and its associated non-syllabic elements

- nucleus (N): syllable’s obligatory member, forms core
- coda (C): consists of those elements following the nucleus in the same syllable
- rhyme (R): nucleus + coda
- onset (O): elements preceding the rhyme

reason: speakers syllabify after underlying rules

closed vs. open syllable: syllable with coda vs. syllable without coda

2.3.2 Phonotactics

- a set of systemic constraints on sound combinations

how segments are formed is part of speaker’s knowledge of his/her language

similar to German:
- word-initial consonant clusters /str-/, /spr-/, /sl-/, /sm-/, */sfr-/
  (which make it difficult for other foreigners)

but also differences from German, because
- sound changes (“silent” letters in knight, write)
- foreign words are accepted or adjusted (psychology)

2.3.3 Introduction to prosody

- word stress: BrE /ˈse.kre.ɪtər/ - AmE /ˈse.krɛ.tər/

rhythm: isochrony / English is stress-timed
  = same time span between stressed syllables

contrast syllable-timed = same between all syllables (French, African languages)

weak forms in unstressed position: auxiliaries, prepositions/conjuncts, pronouns/determiners

features of connected speech:
- function words: he’s vs. he is; he’ll vs. he will
- assimilation = adjacent sounds are altered in context to make them more similar, i.e. easier to pronounce

- types: partial /temˈbaiks/ - total /temˈmaɪs/
  - regressive /speɪtʃp/ - progressive (rare) - coalescent /wudˈlu:/

Classification of assimilation in English

assimilation

regressive  progressive  reciprocal

total  partial  total  partial  total  partial

temˈmaɪs  temˈbaiks  kiːjʊː  wudˈlu:

2.3.4 Intonation

variation and control of pitch has 3 functions:

- grammatical = to distinguish declarative (falling) from interrogative clauses (rising in yes/no questions)
- pragmatic = to manage information, emphasizing NEW vs. old information
- attitudinal = to signal emotions (surprise/enthusiasm-rise-fall, uncertainty / doubt-fall-rise, boredom/irony/sarcasm-level tone)

cf. great

English is not a tone language like Chinese
- e.g. ma may mean mother or horse depending on tone
**definition intonation**

In linguistics, intonation is variation of spoken pitch that is not used to distinguish words, but rather for a range of functions such as regulating the attitudes and emotions of the speaker, marking questions, or indicating emotional aspects of grammar. The two main types of question, focusing attention on important elements of the spoken message and also helping to regulate conversational interaction, contrast with those in which pitch variation in some languages does distinguish words, either tonally or grammatically. (The term is used by some British writers in their descriptions of intonation, but this is to refer to the pitch movement found on the nucleus or tonic syllable in an intonation unit - see intonation in English: British Analyses of English Intonation, below).

Although intonation is primarily a matter of pitch variation, it is important to be aware that functions attributed to intonation such as the expression of attitudes and emotions, or highlighting aspects of grammatical structure, almost always involve concomitant variation in other prosodic features.

Most transcription conventions have been devised for describing one particular accent or language, and the specific conventions therefore need to be explained in the context of what is being described. However, for general purposes the International Phonetic Alphabet offers the two intonational marks shown in the chart below, in the lead-in to this section: rising intonation is marked with a diagonal arrow rising left-to-right ↗ and falling left-to-right ↘, respectively. These may be written as part of a syllable, or separated with a space when they have a broader scope.

He found it on the street? [hi ˈfaʊnd it on da ˈstreeɪt ?] Here the rising pitch on street indicates that the question hinges on that word, on where he found it, not whether he found it.

Yes, he found it on the street! [jɛs hi ˈfaʊnd it on da ˈstreeɪt !] How did you ever escape? [haɪ dɪ ʌs jɪ].

http://en.wikipedia.org/wiki/Intonation_%28linguistics%29 (18/10/13)

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**2.3.5 Introduction to orthography**

**etymology**

The English word orthography dates from the 15th century. It comes from the French orthographe, from Latin orthographia, which is derived from Greek ὀρθόγραφος orthógrafos, "correct", and γραφεῖν, to write.

**functions**

Orthography is largely concerned with matters of spelling, and in particular the relationship between phonemes and graphemes in a language. Other elements that may be considered part of orthography include hyphenation, capitalization, word breaks, emphasis, and punctuation. Orthography thus describes or defines the set of symbols used in writing a language, and the rules about how to use those symbols.

http://en.wikipedia.org/wiki/Orthography (18/10/13)

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**definition orthography**

An orthography is a standardized system for using a particular writing system (script) to write a particular language; it includes rules of spelling. Other elements of written language that are part of orthography include hyphenation, capitalization, word breaks, emphasis, and punctuation.

Most significant languages in the modern era are written down, and for most such languages a standard orthography has developed, often based on a standard variety of the language, and thus exhibiting less dialect variation than the spoken language.

The writing systems on which orthographies are based can be divided into a number of types, depending on what type of unit each symbol serves to represent. The principal types are logographic (with symbols representing words or morphemes), syllabic (with symbols representing syllables), and alphabetic (with symbols representing phonemes). Many writing systems combine features of more than one of these types, and a number of detailed classifications have been proposed.

In some cases an orthography based on the principle that symbols correspond to phonemes may lack characters to represent all the phonemes or all the phonemic distinctions in the language. This is called a defective orthography. An example in English is that the digraph th is required to represent two different phonemes (as in either and either). A more systematic example is that of qabīlə like the Arabic and Hebrew alphabets, in which the short vowels are normally left unwritten and must be inferred by the reader.

http://en.wikipedia.org/wiki/Orthography (18/10/13)

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**The basic problems of English**

Illustration:

Gerard Noize Trenité “The Chaos” (1922) Poem - English/British (UK) Accent

http://www.youtube.com/watch?v=24jXYSUuGUY

English has fewer graphemes than phonemes ↔ ↔ /

digraphs <sh>, <ch>, <th>, double graphs for length <door>

huge discrepancy between writing and pronunciation
- 1 phoneme many graphemes: /i/ in glory, all, door, bought,
- 1 grapheme many phonemes: -oo in stout, soul, bought, drought, youth, young

In English for historical reasons: orthography fixed earlier than in German (Caxton 1476)
- silent letters: <gh> in bough, <b> in lamb, final <e>
- different conventions (e.g., <CCE> - long vowel in mate/mat)
- Great Vowel Shift (continuous / 1500 - 1700)

→ long vowels become closer and diphthongised spelling reform?

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**English orthography**

Attempts to regularize or reform the language, including spelling reform, have usually met with failure. The only significant exception were the reforms of Noah Webster which resulted in many of the differences between British and American spelling, such as colour/color, centre/center, and i.e./e.g.

Besides the quirks the English spelling system has inherited from its past, there are other idiosyncrasies in spelling that make it tricky to learn. English contains, depending on dialect, 24–27 separate consonant phonemes and 14–20 vowels. However, there are only 26 letters in the modern English alphabet, so there can be no-one-to-one correspondence between letters and sounds. Many sounds are spelled using either different letters or multiple letters, and for those words whose pronunciation is predictable from the spelling, the sounds denoted by the letters depend on the surrounding sounds. For example, the digraph in represents two different sounds (the voiced interdental fricative and the voiceless interdental fricative), and the phonemes /s/ and /z/ in some words can be represented by the letter s or z.

It is, however, not the shortage of letters which makes English spelling irregular. Its irregularities are caused mainly by the use of many different spellings for some of its sounds, such as the sounds /θ/ and /t/ (this, thin, shine, thyme; street, team, even, series, st ige st sode, coed, bowd, roll, old, moi usle), and the use of identical sequences for spelling different sounds (over, oval, moi usle).

Furthermore, English no longer makes any attempt to anglicise the spellings of loanwords, but preserves the foreign spellings, even when they employ exotic conventions like the Gothic or German (rather than “Cheek”) or the Taiwanese /ʃ/ in Ford (although Ford was formerly the most common spelling). In early Middle English, 25% of words had double letters, most imports from French were respected according to English rules (e.g. basilisk - basilisk, bonnet - button, but not double, trouble). Instead of laws being required to conform to English spelling standards, sometimes the pronunciation changes as a result of pressure from the spelling.

http://en.wikipedia.org/wiki/English_orthography (18/10/13)

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**Writing systems**

Illustration:

Gerard Noize Trenité “The Chaos” (1922) Poem - English/British (UK) Accent

http://www.youtube.com/watch?v=24jXYSUuGUY

English has fewer graphemes than phonemes ↔ ↔ /

digraphs <sh>, <ch>, <th>, double graphs for length <door>

huge discrepancy between writing and pronunciation
- 1 phoneme many graphemes: /i/ in glory, all, door, bought,
- 1 grapheme many phonemes: -oo in stout, soul, bought, drought, youth, young

In English for historical reasons: orthography fixed earlier than in German (Caxton 1476)
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→ long vowels become closer and diphthongised spelling reform?
3. Morphology

3.1 Introduction

3.1.1 Def.: Morphology deals with the internal structure of words that can be broken down into meaningful parts

→ concerned with how speakers understand and create complex words

words have an internal structure consisting of smaller units

morpheme = smallest unit that carries meaning/information about function

= smallest unit in grammatical analysis

“word” is an unreliable term in English because of unclear spelling rules:
football vs. gold watch (NOT ˈgolden ˈwatch = clearly 2 words)
pronunciation decides: ˈblack ˈbird vs. ˌblack ˈbird

NB: languages differ in morphological complexity: Japanese relatively low, Turkish high

3.2 Morpheme types

3.2.1 Allomorphs

- a group of morphs constituting 1 morpheme
- variation is phonologically conditioned (“regular”) or lexically conditioned (“irregular”)

   e.g. plural [-s]
   past tense [-d]
   past passive participle [-en]

   [d] after voiced cons. + vowels
   [t] after voiceless cons.
   [d] after alveolar stops

special cases:
- zero morpheme = no form, but meaning (sheep-sheep)
- ‘empty morpheme’ = form, but no meaning (periphrastic do)
- discontinuous ‘morpheme’ = 2 forms, 1 meaning (is -ing)

3.2.2 Conditioning of allomorphs in English

phonologically conditioned
[d] after voiced cons. + vowels
[begged] showed
[t] after voiceless cons.
[passed]
[d] after alveolar stops
[expected]

morphologically conditioned
root inflection
[had made] said
[win] (-[w]in)
sold (-[s]ell)

contractions
[had made] said
[won] (-[w]in)

Kortmann (2005:93)
3.2.3 Morpheme analysis: types of morphemes

Simple/monomorphemic words: no further subdivision (cranberry)

Complex/polymorphemic words: 2 or more morphemes

Basic types:
- Free vs. bound morphemes
  - Free: a morpheme can be a word by itself (house, ready-made)
  - Bound: a morpheme must be attached to another element ([un]manage, able, [un]less)
- Lexical vs. grammatical morphemes
  - Lexical (in lexicon) for constructing new words (black, bird)
  - Grammatical (in grammar) (the, (BE =) is)
- Bound: lexical → derivational (disable, addable...
- Possible: change of word class, change in meaning

3.2.4 Morphological structure of words

- Necessary to identify and classify morphemes according to their function for the word and its meaning
- Complex words: root + one or more affixes
- Root morpheme: major component of word’s meaning, usually a root belongs to a major word class N, V, A, P
- Affixes are always bound morphemes
- Stem: morpheme (group) to which inflectional affixes are attached (blackbird, 2 root morphemes form 1 compound stem)
- Base: the form to which a morpheme is added

3.2.5 Productivity: restrictions

Marry... → re-marry:
re-verb: meaning “again” understood automatically
cf. reconsider, rebuild
but there are restrictions: *ré-bière (not: ré-bier)
but not all re- can be segmented because the root does not exist in E (only in Latin):
re-colte, re-pel, re-dice, pré-treat
Build... → build-er:
-er or -ieur indicates function of word: “agent”
cf. reader, writer, runner, actor
but not always: appetizer, article, fly: are not AGENTS
but agent -er does not go with just any verb: “knower, hoper, resembler” (statives) but the same morpheme form signals comparative (“more”) in richer, taller and not all: -er endings are morphemes: finger

3.3 From morphemes/words to Lemmas and Lexemes

3.3.1 Definitions Lemma

In linguistics and lexicography, a lemma (plural: lemmas or lemmatization) is the canonical form, dictionary form, or citation form of a set of words (headword). In English, for example, run, runs, ran, running are forms of the same lemma, with run as the lemma. In this context, refers to the set of all the forms that have the same meaning, and lemma refers to the particular form that is chosen to represent the lemmas. In lexicography, this unit is usually also the citation form or backreference by which it is indexed. Lemmas have special significance in highly inflected languages such as Arabic, Turkish and Russian.

The process of determining the lemma for a given word is called lemmatisation. The lemma can be viewed as the chief of the morphemes, although lemmatisation is a bit more arbitrary...

In a dictionary, the lemma “go” represents the inflected forms “go”, “goes”, “going”, “went”, and “gone”. The disadvantage of such simplifications is, of course, the inability to look up a declined or conjugated form of the word, although some dictionaries, like Webster’s, will list “went”.

Lexical is the part of the word that never changes even when morphologically inflected; a lemma is the base form of the word. For example, from “produced”, the lemma is “produce”, but the stem is “produc-.” This is because there are words such as produce...

It seems to me that ‘lemma’ is also used as an alternative term for ‘lexeme’ in computational linguistics and corpus linguistics. That is, ‘lemma’ could also be an abstract unit of the lexicon, comprising all inflected word-forms that form an inflectional paradigm.

In psycholinguistics, a lemma... is an abstract conceptual form of a word that has been mentally selected for utterance in the early stages of speech production. When we produce a word, we are essentially turning our thoughts into sounds... In many psycholinguistic models this is considered to be at least a necessary process. The first stage deals with semantics and syntax; the result of the first stage is an abstract notion of a word that represents a meaning and contains information about how the word can be used in a sentence. It does not, however, contain information about how the word is pronounced. The second stage deals with the phonology of the word; it attaches information about the sounds that will have to be uttered. The result of the first stage is the lemma in this model; the result of the second stage is referred to as the lexeme.

https://en.wikipedia.org/wiki/Lemma_%28psycholinguistics%29, 01/12/15

3.3.2 Lemmatisation: definitions

Lemmatisation (or lemmatization) in linguistics is the process of grouping together the different inflected forms of a word so they can be analysed as a single item.

In computational linguistics, lemmatisation is the algorithmic process of determining the lemma for a given word. Since the process may involve complex tasks such as understanding context and determining the part of speech of a word in a sentence (requiring, for example, knowledge of the grammar of a language) it can be a hard task to implement a lemmatizer for a new language.

In many languages, words appear in several inflected forms. For example, in English, the verb to walk may appear as walk, walked, walking. The base form, “walk”, that one might look up in a dictionary, is called the lemma for the word. The combination of the base form with the part of speech is often called the lexeme of the word.

Lemmatisation is closely related to stemming. The difference is that a stemmer operates on a single word without knowledge of the context, and therefore cannot discriminate between words which have different meanings depending on part of speech. However, stemmers are typically faster to implement and run faster, and the reduced accuracy may not matter for some applications. For instance:

The word ‘lemon’ has as its lemma. This link is missed by stemming, as it requires a dictionary look-up.

The word walk is the base form for word ‘walking’, and hence this is matched in both stemming and lemmatisation. (https://en.wikipedia.org/wiki/Lemmatisation, 01/12/15)

I don’t know who uses this terminology, but e.g. Lauri Bauer uses it slightly differently in his textbook (Introducing Linguistic Typology). A lemma is a dictionary word, an abstract unit of vocabulary. It is realised [---] by word-forms, in such a way that the word-form represents the lemma and any inflectional endings [---] that are required. So I think that base form + pos are properties of a lemma but not the lemma itself. I’d say that ‘lemma’ is just a word for ‘word’, in the sense of ‘word’ where true and trees are both the same word. –Google search adopted word stemming in 2003. H:
3.3.3 Definitions Lexeme

A lexeme (…) is a unit of lexical meaning that exists regardless of the number of inflectional endings it may have or the number of words it may contain. It is a basic unit of meaning, and the headwords of a dictionary entry are always lexemes. A lexeme is the smallest unit of meaning that roughly corresponds to a set of forms taken by a single word. The “plural” of *run* (runner, runners), *run* and *running* are forms of the same lexeme, conventionally written as *run*. A lexical entry is the lemma (or citation form), which is a particular form of a lexeme that is chosen by convention to represent a lexical form of a lexeme. Lemmas, being a subset of lexemes, are lexicographically listed as entries in dictionaries as the first word of an entry. Other forms of the lemma are often listed later in the entry if they are not common instances of that word.

A lexeme belongs to a particular semantic category, has a certain number of paraphrases, and in inflecting languages, has a certain number of inflections. A lexeme is the meaning of a word and includes all its forms. A third-person singular form run, and a present *running* (it does not include *runnings*, *runn*). The use of the forms of a lexeme is governed by rules of grammar; in the case of English verbs such as *run*, these include subject-verb agreement and conjugations of that word.

A lexicon consists of lexemes. In the general theories of linguistics, lexemes have sublexical parts to account for the number and types of inflections. They occur within sentences and other productive forms.

The notion of a lexeme is very central to morphology, and thus, many phenomena can only be defined in terms of it. For example, the difference between *runners* and *runners* can be stated in terms of lexemes. Derivational rules relate a lexeme to another lexeme.

(https://en.wikipedia.org/wiki/Lexeme 01/12/15)

3.3.4 Lexical disambiguation

Two different morphemes can accidentally have the same form, but belong to very different lexemes. Some English morphemes for which this is the case are the following (‘Greek prefix’, ‘Latin root’ etc. are abbreviations for ‘prefix borrowed from Classical Greek’, ‘root morpheme borrowed from Latin’ etc.).

a) inflected article (native English—a free morpheme)
   - (one form of a Greek prefix)
   - (Latin prefix) (insoluble, inclement)
   - (Latin prefix) (in transit; invade)
   - same (Greek prefix)

The unrelatedness of the meanings tells us they are different linguistic units. There is no psychological connection between them, and typically their origins are completely different.

(http://www.ruf.rice.edu/~kemmer/Words04/structure/index.html, 01/12/15)

3.4 Word formation

3.4.1 derivation – process of morphological variation in the constitution of words. Morphological patterns vary in degree of productivity.

- high = many cases: -ness
- low = few: -ly

3.4.2 affixation

- prefixation (bound-free morpheme): unhappy
- suffixation (free-bound morpheme): useless
- inflection: un/lucky/unbelievable

3.4.3 composition

- combination of 2 free-bound lexical morphemes: essencio = meaning cannot be inferred from rightmost component
- endocentric: right morpheme indicates basic meaning (hyponym)
- exocentric: left morpheme indicates basic meaning (holonym)

3.4.4 zero-derivation/conversion

- change of word class without change in form
- challenge - (to) challenge; ship - (to) ship
- very from N, derived from V
- less common: H from A (the poor); Y from Prep (to down a beer)

3.5 Alternatives to word formation

New expressions have to be used all the time, but they do not have to use intrinsic material if there is language contact.

- borrowings = taking words/morphemes from another language
- e.g. croissant (<French>; pretzel (<German>), yogurt (Turkish)
- from English: suupaa = suupamakete (<Japanese>), futbol (<Hungarian>)
- loan translation (calque) = direct translation of words/morphemes from another language
- e.g. from English sky-scraper > Wolkenkratzer, wolkenkrabber, gratte-ciel
- multiple processes:
  - dell = dellcressen (loan = German<clipping)
  - also in word formation: waspish attitudes (<acronym WAJP = “white Anglo-Saxon protestant”)

3.4.5 backformation – to remove a real or potential affix

to housekeep (AmEn), to babysit, to televise, to italicize

3.4.6 clipping & blending/telescoping – shortening of polysyllabic words

laboratory > lab, gymnasium > gym; influenza > flu

3.4.7 acronyms – initial letters of words combined (in capitals)

First isolated in pronunciation; later combined if possible

NATO, LASER, AIDS

3.4.8 ’reduplications’

smoke+fog=smog, breakfast+lunch=brunch, motel, heliport, Chunnel, infotainment

3.4.9 loans

– American English < German, etc. (e.g. deli, grunge)
– Middle English < French, etc. (e.g. lobster, Beaujolais)

3.4.10 loan translation

– (calque) = direct translation of words/morphemes from another language

– (e.g. from English: sky-scraper > Wolkenkratzer, wolkenkrabber, gratte-ciel

– multiple processes:

– dell = dellcressen (loan = German<clipping)
– also in word formation: waspish attitudes (<acronym WAJP = “white Anglo-Saxon protestant”)
4. Syntax

4.1 Introduction

4.1.1 Definitions

In

linguistics, syntax is the study of the principles and processes by which sentences are constructed in particular languages.

The term syntax is also used to refer to the rules governing the behavior of mathematical systems, such as formal languages used in logic ...

Works on grammar were written long before modern syntax came about; the Audibilium of Phryn

(in ancient Rome) is often cited as an example of a primordial work that approaches the sophistication of a modern syntactic theory. In the West, the school of thought that came to be known as "traditional grammar" began with the work of Dionysius Thrax (in ancient Greece).


4.2 Functions

4.2.1 Properties of subjects vs. objects

subjects are predominantly nouns, groups with N as a head: NPs

stupid dog, the girl with the red hair, this committee ...

objects a) usually NPs

b) after V

direct object (DO) = entities that undergo a process denoted by the verb:

He broke the teapot

play a patient role (= semantic test)

contrast: complements denote the same referent as subject or object

DO (in active sentence) \rightarrow subject (in passive sentence)

DOs complete the meaning of the verb, are thus necessary: complements \rightarrow add to the meaning of the clause, and are thus necessary for the expression of the meaning of the verb.


4.2.2 Properties of direct vs. indirect object

Indirect objects (IO): typical role receiver, goal.

We gave the boys the CDs.

verbs taking DO and IO: transitive verbs

a) usually NPs

b) cannot occur without DO

c) always precede DO in E (not in German)

d) can be passive subjects

https://en.wikipedia.org/wiki/Object_%28grammar%29 [12/12/16]

Type Description Example

Direct object Entity acted upon Sank for the dogs.

Indirect object Entity indirectly affected by the action She sent him a present.

Prepositional object Object introduced by a preposition She is waiting for Tommy.

Noun phrase or prepositional phrase The girl on the roof.

That-clause We remembered that we had to bring something.

Zero clause We remembered we had to bring something.

For-clause We were waiting for him to explain.

Interrogative clause They asked what had happened.

Relative clause I heard what you heard.

Ground (phrase or clause) He stopped asking questions.

So-infinitive Sam attempted to leave.

Copular v I believe that she said that.
4.2.3 Transitivity

Traditional grammar makes a binary distinction between intransitive verbs that cannot take a direct object (such as fall or sit in English) and transitive verbs that take a direct object (such as throw, injure, kill in English).

In practice, many languages (including English) interpret the category more flexibly, allowing: ditransitive verbs, verbs that have two objects; or even ambitransitive verbs, verbs that can be used as both a transitive verb and an intransitive verb.

Further, some verbs may be inherently ditransitive, while, technically, intransitive. This may be observed in the verb walk in the idiomatic expression To walk the dog.

In functional grammar, transitivity is considered to be a continuum rather than a binary category as in traditional grammar. The "continuum" view takes a more semantic approach. One way it does this is by taking into account the degree to which an action affects its object (so that the verb are is described as having "lower transitivity" than the verb all).

4.3 Form

4.3.1 Word forms, words, phrases

words are difficult to define (cf. Morphology ch. 3): dogs, eats, duty-free → grouping into word classes, parts of speech (=POS)

phrases are groups of words around a head = central element (hat below):

HP, VP, PrepP/PP, AdjP, AdvP

traditional word classes (cf. 1.1.1) are notions of form, not function

4.3.2 Form criteria of word classes I:

- nouns (N) 
  - some common determiners: this, that, those, these
  - nouns can be preceded by adjectives

- NPs are characterized by:
  - some have comparison (well, soon)
  - subclasses: common N (+ count), proper N, pronouns
  - nouns are heads of NP: the hat → the blue hat on the shelf

4.3.3 Form criteria of word classes II:

verbs (V):

- verbs have inflections, which encode grammatical properties (-ed → past)
- some verbs are auxiliaries: they express point of view (deontic - epistemic)
- non-finite verbs: to-infinitive (I wanted him to dance)
- participles (wanting, reconsidered)
- adjectives modify verbs, adjectives or other adjectives
- ADJ are heads of APs: very glad to be here

adjectives (Adj):

- may have formal markers: -ful, -ible, -ive but this is not exclusive: green
- are gradable (very)
- can take comparative, superlative forms as endings: -er, -est
- except ADJ with analytical comparison

adverbs (Adv):

- modify verbs, adjectives or clauses
- have a linking function for words/phrases, clauses/sentences
- coordinating: and, or, but
- subordinating: that, if, whether, for, because

4.4 Clauses and sentences

clause = a self-containing expression which contains a subject and a predicate

main vs. subordinate / matrix vs. subclause → complete sentence

finite vs. non-finite clauses: 

- to infinitive, present/past participle →
- ed

most cases: predicate has a finite lexical verb →

- number of lexical verbs = number of clauses [+/- finite]

a) I paid the entire bill at once.
   b) They were happy after I had paid the bill at once.
   c) They wanted me to pay the entire bill at once.

Tim thought that Kate believed the story.

that: complementiser

4.5 Theoretical approaches to syntax

4.5.1 Structuralist grammar

Structuralism is a theoretical paradigm that emphasizes that elements of culture must be understood in terms of their relationship to a larger, overarching system or structure. ... Structuralism originated in the early 1950s, in the structural linguistics of Ferdinand de Saussure and the subsequent Prague, Moscow and Copenhagen schools of linguistics. In the late 1950s and early 1960s, when structural linguistics was facing serious challenges from the likes of Noam Chomsky.

http://en.wikipedia.org/wiki/Structuralism (19/10/13)

de Saussure — American Indian anthropology; Boas (from Vienna to US) - Sapir - Whorf - Bloomfield (Language 1933)

Sapir - Whorf hypothesis (cf. W. von Humboldt):

linguistic determination of all aspects of culture (what extent is DEBATABLE!)

emphasis on methodology (arousal-based)

segmentation - classification

immediate constituent (IC) analysis (e.g. heavy smoker) →

- bracketing and tree diagrams
- pattern practice, sentence switch boards
4.5.3 Functional Grammars: case/valency/systemic functional

Case Grammar is a system of linguistic analysis, focusing on the link between the valence, or number of subjects, objects, etc., of a verb and the grammatical context it requires. The system was created by the American linguist Charles J. Fillmore in (1968), in the context of Transformational Grammar. This theory analyzes the surface syntactic structure of sentences by studying the combination of deep cases (i.e. semantic roles) and selection restrictions (e.g. *colourless green ideas sleep furiously*).

4.5.2 Transformational grammar

In linguistics, a transformational grammar or transformational-generative grammar (TGG) is a generative grammar, especially of a natural language, that has been developed in the Chomskyan tradition of phrase structure grammars (as opposed to dependency grammars).

Additionally, transformational grammar is the tradition that gives rise to specific transformational grammars. Much current research in transformational grammar is inspired by Chomsky’s Minimalist Program.

Syntactic Structures = Standard Theory

Knowledge of Language: Its Nature, Origin, and Use

The Minimalist Program

Systematic Functional Grammar

developed by Michael (M.A.K.) Halliday:


focus on language as a social semiotic system: focus on meaning and social aspects of grammar as system of choices, not of rules

lexis and grammar inseparable => lexicogrammar

basic: language as means to create meaning in discourse

3 metafunctions:

Ideational/Field: language construes experience (social process)

Interpersonal/Tenor: language describes social relations (distance, status, persona)

Textual/Mode: language constructs discourse (textual interaction, spontaneity, cohesion)

Note: clause as basic unit of analysis

transformation example: similar structure, but different meaning

S1) George saw his friend in London.

S2) George saw his friend in a hurry.

structuralist examples, esp. C/O (complements/objects) and Adv (adverbiais)

His theory is that mutations are not brought about by chance

We met the Joneses unexpectedly in New York last year.

My father bought whoever came in a beer

The jury found the prisoner guilty.

Note: clause as basic unit of analysis

cohesion)

ideational/field: language constructs experience (social process)

interpersonal/tenor: language describes social relations (distance, status, persona)

textual/mode: language constructs discourse (textual interaction, spontaneity, cohesion)

Language as a Social Semiotic: The Social Interpretation of Language and Meaning

(1978), developed by Michael (M.A.K.) Halliday:


focus on language as a social semiotic system: focus on meaning and social aspects of grammar as system of choices, not of rules

lexis and grammar inseparable => lexicogrammar

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Ideational/Field: language construes experience (social process)

Interpersonal/Tenor: language describes social relations (distance, status, persona)

Textual/Mode: language constructs discourse (textual interaction, spontaneity, cohesion)

Note: clause as basic unit of analysis

Art -> a George + saw + his + friend + in + Art + hurry

Pron -> his George + saw + his + N + Prep + Art + N

M -> Friend, hurry George + saw + his + friend + Prep + London

Prep -> in George + saw + his + friend + in + London

S -> NP1 + VP1 NP1 + VP1

NP1 -> PN PN + VP1

VP1 -> VP2 + PP PN + VP2 + PP

VP2 -> V + NP2 PN + V + NP2 + PP

NP2 -> Pron + N PN + V + Pron + N + PP

PP -> Prep + NP3 PN + V + Pron + N + Prep + NP3

NP3 -> PN PN + V + Pron + N + Prep + PN

PN -> George, London George + V + Pron + N + Prep + London

N -> Friend George + V + Pron + friend + Prep + London

V -> saw George + saw + Pron + friend + Prep + London

Prep -> in George + saw + his + friend + Prep + London

Art -> a George + saw + his + friend + in + Art + hurry

S1) George saw his friend in London.

S2) George saw his friend in a hurry.

transformations: surface structure --> deep structure

e.g. passive transformation: NP1 + VP - NP2 + be VP (+ by NP2)
solves ambiguities (e.g. murdering peasants can be dangerous)

agents/agentive or patients/object?
The 5 Principles of Systematic Functional Grammar

1) paradigmatic dimension: meaning is choice
2) stratification dimension: lexicogrammar
3) metafunctional dimension: ideational, interpersonal, textual
4) syntagmatic dimension: language is structured into spoken or written
5) instantiation dimension: relationship between instance and system (cf. parale - language, performance - competence)

Important Concepts: Rank

text: one or more sentences
sentence: one or more clauses
clause: groups and phrases
group: phrases and words
phrase: words
word: morphemes
morpheme: phonemes

4.5.4 Cognitive grammar/linguistics

Cognitive grammar is a cognitive approach to language developed by Ronald Langacker, which considers the basic units of language to be 

4.5.5 Construction grammar

groups a number of models of grammar that all subscribe to the idea that knowledge of a language is based on a collection of "form and function pairings." The "function" side covers what is commonly understood as meaning, content, or intent; it usually extends over both conventional fields of semantics and pragmatics. Such pairs are learnt by hearing them being used frequently enough by others. Uses of constructions may happen and be acquired in mainstream or everyday language, but also in linguistic subcultures that are using a sociolect, dialect, or in formal contexts using standard languages or jargon associated with greater sociolinguistic prestige in comparison to plain language.[1]

Types of CxG:

Berkeley (=Fillmore) - Goldberg/Lakoff - Cognitive (Langacker) - Radical (Croft) etc.

http://en.wikipedia.org/wiki/Construction_grammar (12/7/14)
4.6 Formal vs. functional grammar
Contrasts between formalism and functionalism
(cf. Kortmann 2005:30)

### Table: Formal vs. Functional Grammar

<table>
<thead>
<tr>
<th>Issue</th>
<th>Formulation</th>
<th>Functionalism</th>
</tr>
</thead>
<tbody>
<tr>
<td>autonomy of grammar</td>
<td>Yes, as a cognitive system</td>
<td>No, inseparable part of cognition</td>
</tr>
<tr>
<td>syntax</td>
<td>cannot be separated from semantics</td>
<td>an instrument of interaction (communicative tool designed for key purpose communication)</td>
</tr>
<tr>
<td>competence</td>
<td>an instrument of interaction (communicative tool designed for key purpose communication)</td>
<td>an instrument of interaction (communicative tool designed for key purpose communication)</td>
</tr>
<tr>
<td>language acquisition</td>
<td>nature, genetic, innate</td>
<td>nuture, result of communicative interaction</td>
</tr>
<tr>
<td>universals</td>
<td>formal properties</td>
<td>functional tendencies</td>
</tr>
<tr>
<td>relationship form-function</td>
<td>arbitrary</td>
<td>motivated (iconicity, metaphor, etc.)</td>
</tr>
<tr>
<td>method</td>
<td>deductive</td>
<td>indicative</td>
</tr>
<tr>
<td></td>
<td>introspection</td>
<td>empirical</td>
</tr>
<tr>
<td></td>
<td>reductionist, formal</td>
<td>(authentic data)</td>
</tr>
<tr>
<td></td>
<td>non-reductionist</td>
<td></td>
</tr>
</tbody>
</table>

5. Semantics
5.1 Introduction

5.1.1 Ogden/Richards (1923). The meanings of meaning

5.1.2 For language to fulfill communicative function/convey a message form must have content

same form, different content: ambiguous sentences like Ruth saw the people with binoculars.

5.1.3 structuralist system of lexicology:

- semasiological = FORM → CONTENT
- onomasiological = CONTENT → FORM

5.1.4 approaches:

- semasiological: chair
- onomasiological: "things to sit on" are called: chair, arm-chair, stool, sofa, couch, etc.

5.1.5 Seven types of meaning

<table>
<thead>
<tr>
<th>Type</th>
<th>Subtype</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual</td>
<td>Logical, cognitive, or abductive content</td>
</tr>
<tr>
<td>Connotative</td>
<td>What is communicated by virtue of what language refers to</td>
</tr>
<tr>
<td>Social/Syntactic</td>
<td>Communicates the social contexts of language and functions of speaker/audience</td>
</tr>
<tr>
<td>Affiliative</td>
<td>Communicates the relationship with another sense of the word's expression</td>
</tr>
<tr>
<td>Reflexive</td>
<td>Communicates associative with words which tend to occur in the environment of another word</td>
</tr>
<tr>
<td>Colloquial</td>
<td>Communicates through the way in which the message is organized in terms of order and emphasis</td>
</tr>
</tbody>
</table>

5.1.6 Non-lexical semantics

### Table: Some differences between systemic-functional grammar and traditional grammar

<table>
<thead>
<tr>
<th>Definition</th>
<th>Systemic-functional</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions of grammar</td>
<td>lexical grammar: -- no distinction between and grammar both are meaning-producing</td>
<td></td>
</tr>
<tr>
<td>Differences in terminology (some examples)</td>
<td>'head' = (head) noun</td>
<td>'head' = (head) noun</td>
</tr>
<tr>
<td>Areas covered</td>
<td>the whole communicative event: experiential, interpersonal and textual functions Lexicogrammar: processes and participants mood type &amp; modality thematic structure</td>
<td></td>
</tr>
</tbody>
</table>

5.1.7 Semantics (from Ancient Greek: σημαντικός σήμαντικος, σημαντικός) is the study of meaning. It focuses on the relation between signifiers, like words, phrases, signs, and symbols, and what they stand for, their denotation.

Linguistic semantics is the study of meaning that is used for understanding human expression through language. Other forms of semantics include the semantics of programming languages, formal logics, and semiotics. The word semantics itself denotes a range of ideas, from the popular to the highly technical. It is often used in ordinary language for denoting a problem of understanding that comes down to word selection or connotation. This problem of understanding has been the subject of many formal enquiries, over a long period of time, most notably in the field of formal semantics. In linguistics, it is the study of interpretation of signs or symbols used in languages or communicating within particular circumstances and contexts. Within this view, sounds, facial expressions, body language, and paralinguistics have semantic (meaningful) content, and each comprises several branches of study. In written language, things like paragraph structure and punctuation bear semantic content; other forms of language bear other semantic content.

The formal study of semantics intersects with many other fields of inquiry, including lexicon, syntax, semantics, and pragmatics, and others, although semantics is a well-defined field in its own right. Often with a systemic-functional perspective. In philosophy of language, semantics and reference are closely connected. Further related fields include philology, communicative and semiotics. The formal study of semantics is therefore complex.
5.2.1 Semantic features/markers theory

Fodor/Katz "The structure of a semantic theory". Language 1963, 170-210 incl. the principle of compositionality (Frege, a logician)

List components (incl. distinctive markers): e.g. cat [+concrete +animate +human +mammal +mature +/-male]

The meaning of single words is determined in componential analysis

- girl [+anim, +human, -adult, +female]
- woman [+anim, +human, +adult, +female]
- table [+anim]

<table>
<thead>
<tr>
<th>animate</th>
<th>girl</th>
<th>self</th>
</tr>
</thead>
<tbody>
<tr>
<td>human</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>male</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>mature</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

5.2.2 Semantic field theory

The lexical field theory introduced by Jost Trier in the 1930s

The lexical field of a lexeme is due to oppositions to paradigmatic neighbours

Standard examples (from any Thesaurus, e.g. http://thesaurus.com/):
- walk, hike, march, pace, amble, stroll, sneak, stagger
- stupid, thick, silly, dumb; imbecilic, half-witted, half-baked; senseless, trivial

Mosaic with overlaps? lexical gaps? E.g. English: Shona or Welsh colour terms (cf. 5.2.3)

5.2.3 Prototype theory: the emergence of prototypes

The borders of meanings are blurred, fuzzy
- bird [+animate, +human, +wings, +lays eggs, +can fly, +feathers] → concept of prototypes

Use of attributes: can be similar (birds) or not (games)

Board/card games only a network of overlapping similarities "family resemblance" (cf. Wittgenstein)
- Attribute tests confirm the (intuitive) "best example"
- Thus: prototypical members have the largest number of attributes in common

Berlin/Kay Basic Color Terms: Their Universality and Evolution (1969)

Focal colors are consistent for speakers of the same and of other languages

B/R claim as languages evolve, they develop colour terms in a strict chronological sequence, if a colour term was found in a language, then colour terms from all previous stages would also be present:
- white, black, red, green/yellow, blue, brown, purple, pink, orange, gray

5.3 Semantic relations

5.3.1 Synonymy and antonymy

Synonymy = two words have the same meaning in a number of contexts:
- I spent my holidays/vacations in Spain but Christmas, Easter holidays

Real synonyms rare or not-existent

- youth: adolescent
- purchase: buy
- remember: recall
- begin: start

Antonymy = lexemes contrast in semantic feature(s)

One member can be marked:
- How tall is Rita? (tall vs. short, tall is unmarked)

Graded antonymy: not clever • stupid
Ungraded antonymy: alive vs. dead

5.3.2 Polysemy and homonymy

Polysemy = lexemes have two or more related meanings (cf. surfer)
- Seem as single word with different meanings

(real synonyms rare or not-existent)

Homonymy = lexemes have entirely distinct meanings
- Seem as separate words with same pronunciations

Homography = words written identically but pronounced differently:
- wind = /wind/; /wind/
5.3.3 Syntagmatic Relations

collocations = words which tend to occur together: fair hair, fair play

collocational range: limited, if a lexeme has few collocates
(omen has only few, like good, bad; good has many)

colligation = a lexical item may be primed to or with a particular
grammatical function (Firth, Sinclair, Hoey)
in @&;PER (some/many) cases, I think - I am thinking!

lexical priming = “a word becomes cumulatively biased with the contexts and
co-texts in which it is encountered” (Hoey)

(⇒ grammatical priming: bus is primed to be used as a N but can also be a V)

semantic prosody/associations, e.g. cause + negative contexts
amazingly/astonishingly/surprisingly good – surprisingly bad

idioms = composite meaning cannot be deduced from individual elements
(semantically opaque): to pull s.o.’s leg

sayings: the early bird catches the worm

rituals: keep one’s fingers crossed

5.3.4 Con- and Cotext

When analyzing the structure of language statistically, a useful place to start is
with high frequency context words, or so-called Key Word in Context (KWICs).
After millions of samples of spoken and written language have been stored in a
database, these KWICs can be sorted and analyzed for their co-text, or words
which commonly co-occur with them.

Valuable principles with which KWICs can be analyzed include:

• Collocation: words and their co-occurrences (examples include “fulfill needs” and
“fall-back position”)

• Semantic prosody: the connotation words carry (“pay attention” can be neutral or
remonstrative, as when a teacher says to a pupil: “Pay attention!” (or else)

• Colligation: the grammar that words use (while “I hope that suits you” sounds
natural, “I hope that you are suited by that” does not).

• Register: the text style in which a word is used (“President vows to support allies”
is most likely found in news headlines, whereas “vows” in speech most likely refer
to “marriages”; in speech, the verb “vow” is most likely used as “promise”).

http://en.wikipedia.org/wiki/Lexis_%28linguistics%29 (16/10/17)

5.4 Lexicology

5.4.1 Introduction to the lexicon

In short, the lexicon is:

• Formulaic: it relies on partially fixed expressions and highly probable
word combinations

• Idiomatic: it follows conventions and patterns for usage

• Metaphoric: concepts such as time and money, business and sex,
systems and water all share a large portion of the same vocabulary

• Grammatical: it uses rules based on sampling of the Lexicon

• Register-specific: it uses the same word differently and/or less
frequently in different contexts

http://en.wikipedia.org/wiki/Lexis_%28linguistics%29 (16/10/17)

Lexicology

= subfield of semantics?

= investigates the lexicon of a language and its relationships

lexicon entries: not seen as a list of isolated elements

lexicology tries to find generalizations and regularities

• lexicon = vocabulary considered from a synchronic, psycholinguistic, systematic
perspective (in English NOT an encyclopaedia)

lexicography

= study of dictionaries and dictionary making

= common: based on the assumption that English contains a large
central area that is shared by all speakers (cf. diagram)

= literary: contains scientific, foreign and archaic words

= colloquial: contains dialectal, vulgar, slang and technical elements

A temporally variable
(changes over time)

B spatially variable

BrE vs. AmE

railway railroad

luggage baggage

lorry truck

archaic

scientific

literary

foreign

technical

colloquial

dialectal

slang

vulgar

http://en.wikipedia.org/wiki/Lexis_%28linguistics%29 (16/10/17)

5.4.2 Structure of the English vocabulary

English vocabulary: not homogeneous

A temporally variable
(changes over time)

⇒ synchronic vs. diachronic

view: although words look familiar

their meanings can have changed (see 5.4.3)

B spatially variable

BrE vs. AmE

railway railroad

luggage baggage

lorry truck

http://en.wikipedia.org/wiki/Lexis_%28linguistics%29 (16/10/17)
5.4.3 History of the lexicon: etymology
waves of (lexical) invasions: loan words (and loan translations)
- continental Latin: choler
- Celtic (mainly in place names): -comb
- North Germanic: skiff (vs. shirt)
- Norman: beef, pork, mutton (vs. ox, pig, sheep)
- French: guardian (vs. wardens)
- Latin/Greek: dish (vs. dish Greek via Latin)
- colonial (Dutch): yacht
- imperial/global: pizza, curry, nasi goreng
typological parallels German – English and differences
(types of semantic shifts:
- meet vs. meet, queen vs. queen)
types of semantic shifts:
- town (Zaun), insight (Knecht), know (Kneuze)

5.4.4 Fundamental distinctions in lexicology
- paradigmatic vs. syntagmatic relationships in a lexicon
  - language is linear, elements follow sequentially
  - paradigm: successive linguistic elements that are combined
  - syntagm: successive linguistic elements in opposition or alternatives to the same position in a syntagm/sentence
syntagmatic relations = elements can be combined, co-occur
paradigmatic relations = elements can be exchanged, replaced

5.4.5 Dictionaries of the English language
bilingual vs. monolingual dictionaries
- monolingual dictionaries should contain the following information:
  - pronunciation, definitions, collocations/ idioms, notes on usage
  - Oxford English Dictionary OED (vs. COBD)
  - online: e.g. beolingus at TUC, LEO at TUMunich
  - “production dictionary”/Thesaurus: Longman Language Activator (on LDOCE CD)
  - learner dictionaries (all with CD!):
    - Oxford Advanced Learner’s Dictionary
    - Cambridge Advanced Learner’s Dictionary
  - others:
    - encyclopedic: e.g. Webster's New World Dictionary of the American Language
    - Encyclopaedia Britannica vs. Wikipedia?
    - ontology = a set of terminologies for organizing (technical) information

5.5 Pragmatics
5.5.1 Introduction
pragmatics: the study of how context influences the interpretation of meaning
context includes: speaker, hearer, third party participants, beliefs, world knowledge
(in expanding circles)
- deals with people's use of language
- is part of performance (not competence)
- is concerned with principles people use when communicating
  - cannot be captured by semantic theory, cf.: It is rather cold in here.
  - performative utterances/verbs (the saying of the words constitutes the performing of an act)
    - I name this ship Queen Elizabeth.
  - speech acts (Austin/Searle): e.g. There's a bull in the field.
    - locutionary speech act is purely a description
    - illocutionary " is a warning (+speaker intention)
    - perlocutionary " has the intended effect (+hearer reaction)

5.5.2 Grice’s (1975) rules of cooperative behaviour

5.5.3 Implications and facticity
Conversational implicatures: something is understood although it is not said explicitly said
we draw conclusions from what is said
The cooperative principle goes both ways: speakers (generally) observe the cooperative principle,
and listeners (generally) assume that speakers are observing it. This allows for the possibility of implicatures, which are meanings that are not explicitly conveyed in what is said, but that can nonetheless be inferred. e.g. if Alice points out that Bill is not present,
and Carol replies that Bill has a cold, then there is an implicature that the cold is the
reason (from: Wikipedia)
He continued writing the essay. - Implication: He wrote an essay before.

Factivity of utterance
- non-factive verbs: situation is true: The cat is in the garden.
- factive verbs: situation has some probability: I believe the cat is in the garden.
- contrafactive verbs: situation is not the case: I wish the cat was in the garden.
- performance verbs: statement is an action itself
  - I warn you, John accuses Mary, Fred promises
  - we act with speech (speech act)
### 5.6 Semiotics

- the study of signs and sign processes (semiosis), indication, designation, likeness, analogy, metaphor, symbolism, signification, and communication.

Semiotics is closely related to the field of linguistics, which, for its part, studies the structure and meaning of language more specifically.

Semiotics is often divided into three branches:
- Semantics: Relation between signs and the things to which they refer; their denotata, or meaning
- Pragmatics: Relation between signs and the effects they have on the people who use them

Semiotics is frequently seen as having important anthropological dimensions; for example, Umberto Eco proposes that every cultural phenomenon can be studied as communication.


### 6.2 Linguistics is categorisation

“If linguistics can be said to be any one thing it is the study of categories: that is, the study of how language translates meaning into sound through the categorisation of reality into discrete units and sets of units”. (Labov 1973: 342)

“The task of cognitive systems is to provide maximum information with the least cognitive effort”. (Rosch 1978: 28)

Complex categorisation - gradience / gradients:
- vowels - consonants -> semivowels
- verbs - auxiliaries -> semiauxiliaries

According to the classical view, categories should be clearly defined, mutually exclusive and collectively exhaustive. This way, any entity of the given classification universe belongs unequivocally to one, and only one, of the proposed categories. ... Conceptual clustering is closely related to fuzzy set theory, in which objects may belong to one or more groups, in varying degrees of fitness. ... A cognitive approach accepts that natural categories are graded (they tend to be fuzzy at their boundaries) and inconsistent in the status of their constituent members.

http://en.wikipedia.org/wiki/Categorization (15/12/13)

### 6.3 Linguistics is systematic
e.g. the Great Vowel Shift

http://facweb.furman.edu/~mmenzer/gvs/ ➔ see and hear the GVS

### 6.1 Grammar is a complex system

“If you like, was to provide a ‘grammar’ of English behaviour. Native speakers can rarely explain the grammatical rules of their own language. In the same way, those who are most fluent in the rituals, customs and traditions of a particular culture generally lack the detachment necessary to explain the ‘grammar’ of these practices in an intelligible manner. This is why we have anthropologists.”


Some systems share common characteristics, including:
- A system has structure, it contains parts (or components) that are directly or indirectly related to each other;
- A system has behavior, it contains processes that transform inputs into outputs (material, energy or data);
- A system has interconnectedness: the parts and processes are connected by structural and/or behavioral relationships;
- A system’s structure and behavior may be decomposed via subsystems and sub-processes to elementary parts and process steps.

http://en.wikipedia.org/wiki/System (15/12/13)

### A comparison of auxiliaries and main verbs

<table>
<thead>
<tr>
<th>morphology:</th>
<th>modal verbs</th>
<th>main verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>bare infinitive</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>non-finite forms</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>3rd sg. ind. pres. -s</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>past tense in simple declarative sentences has past meaning</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>syntax</th>
<th>auxiliary verbs</th>
<th>main verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>the only verb in the sentence</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>inversion (V,X,S)</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>N) in negations</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>I) inversion in questions</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>C) “code” = ellipsis of main verb after first occurrence (proform)</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>E) for emphasis</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

NICE properties:
- do
- +

http://facweb.furman.edu/~mmenzer/gvs/ ➔ see and hear the GVS

### 6. Systems, methodologies and academic thinking

#### 6.1 Grammar is a complex system

“...If you like, was to provide a ‘grammar’ of English behaviour. Native speakers can rarely explain the grammatical rules of their own language. In the same way, those who are most fluent in the rituals, customs and traditions of a particular culture generally lack the detachment necessary to explain the ‘grammar’ of these practices in an intelligible manner. This is why we have anthropologists.”


Some systems share common characteristics, including:
- A system has structure, it contains parts (or components) that are directly or indirectly related to each other;
- A system has behavior, it contains processes that transform inputs into outputs (material, energy or data);
- A system has interconnectedness: the parts and processes are connected by structural and/or behavioral relationships;
- A system’s structure and behavior may be decomposed via subsystems and sub-processes to elementary parts and process steps.

http://en.wikipedia.org/wiki/System (15/12/13)

#### A comparison of auxiliaries and main verbs

<table>
<thead>
<tr>
<th>syntax</th>
<th>auxiliary verbs</th>
<th>main verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>the only verb in the sentence</td>
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</tr>
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NICE properties:
- do
- +

http://facweb.furman.edu/~mmenzer/gvs/ ➔ see and hear the GVS

#### 6.2 Linguistics is categorisation

“If linguistics can be said to be any one thing it is the study of categories: that is, the study of how language translates meaning into sound through the categorisation of reality into discrete units and sets of units”. (Labov 1973: 342)

“The task of cognitive systems is to provide maximum information with the least cognitive effort”. (Rosch 1978: 28)

Complex categorisation - gradience / gradients:
- vowels - consonants -> semivowels
- verbs - auxiliaries -> semiauxiliaries

According to the classical view, categories should be clearly defined, mutually exclusive and collectively exhaustive. This way, any entity of the given classification universe belongs unequivocally to one, and only one, of the proposed categories. ... Conceptual clustering is closely related to fuzzy set theory, in which objects may belong to one or more groups, in varying degrees of fitness. ... A cognitive approach accepts that natural categories are graded (they tend to be fuzzy at their boundaries) and inconsistent in the status of their constituent members.

http://en.wikipedia.org/wiki/Categorization (15/12/13)

#### A comparison of auxiliaries and main verbs

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#### 6.3 Linguistics is systematic
e.g. the Great Vowel Shift

http://facweb.furman.edu/~mmenzer/gvs/ ➔ see and hear the GVS
6.4 Linguistics uses diverse research methodologies

6.4.1 Overview of research approaches in linguistics

Understanding research approaches used for collection of data in Linguistics is critical. In general, research approaches employed in linguistics studies cover both quantitative and qualitative approaches.

- ethnographic or observational research techniques
- survey techniques and experimental methods
- content analysis/discourse analysis

Many researches combine a thorough qualitative analysis of key concepts and a quantitative analysis of most frequent categories later, e.g. in socio- and corpus-linguistics.

6.4.1 Combining research methodologies, e.g. Grounded Theory

Grounded theory method is a systematic methodology in the social sciences involving the discovery of theory through the analysis of data. It is mainly used in qualitative research, but is also applicable to quantitative data.

Grounded theory method is a research method which operates almost in a reverse fashion from traditional social science research. Rather than beginning with a hypothesis, the first step is data collection, through a variety of methods. From the data collected, the key points are marked with a series of codes, which are extracted from the text. The codes are grouped into similar concepts in order to make them more workable. From these concepts, categories are formed, which are the basis for the creation of a theory, or a reverse engineered hypothesis. This contradicts the traditional model of research, where the researcher chooses a theoretical framework, and only then applies this model to the phenomenon to be studied.

All is data is a fundamental property of GT which means that everything that gets in the researcher's way when studying a certain area is data. Not only interviews or observations but anything is data that helps the researcher generating concepts for the emerging theory. Field notes can come from informal interviews, lectures, seminars, expert group meetings, newspaper articles, Internet mail lists, even television shows, conversations with friends etc.

http://en.wikipedia.org/wiki/Grounded_theory (18/10/12)

6.4.2 Collecting the data

Collecting different types of data (or combination of data)
- quantitative data: numeric data often collected by questionnaires
- qualitative data: textual data collected from written or spoken text analysis, interviews, diaries, questionnaires

Popular to combine different types of data:
- in order to triangulate your data, i.e. to be able see an object from different perspectives
- in order to use multiple methods, i.e.
  - to combine data that can be generalised to a wider population (e.g. survey)
  - with data that reflects the experience of individual actors or agents (e.g. sequence of interviews over time)

6.4.3 Analysing and interpreting the data

The data does not analyse and interpret itself! You need to adopt an explicit method of analysing your data and describe this in your methods section:

Quantitative analysis: a few simple statistical tests. But this must be written into the research design from the beginning!

Qualitative analysis: according to themes and categories. Look at previous studies and research methods primers in order to decide a systemic approach to this.

The discussion relates back to the theoretical framework in the literature review:
- To what extent do your findings confirm/contradict previous findings?
- What is your contribution to knowledge in the field?

6.4.5 Comparison of empirical linguistic research

based on Rasinger (2008:12)

Because it
- is conscious of current terminology and concepts
- is focussed, exemplary, data-based
- is driven by data, theories, etc.
- uses explicit methodology
- is critically aware (of implications, applications, etc.)

“is readable” (with examples, diagrams, etc.) to facilitate academic discourse

linguistics can combine theory and practice in English studies - and beyond

6.5 Linguistics supports academic thinking/writing/research