Contents
   Similarities between languages and species ............................................................... 5
   Transmission or contact? ............................................................................................ 5
   Sound Change ............................................................................................................ 5
   Reasons for sound change ....................................................................................... 6
      Babel myth ............................................................................................................... 6
   Changes in speaker .................................................................................................... 6
   Changes in system: systemic pressure ..................................................................... 6
   changes in hearer ....................................................................................................... 7
   transmission and actuation ...................................................................................... 7
   Language acquisition ............................................................................................... 7
   Types of changes: ..................................................................................................... 7
   a) Phonetic Regular sound change ........................................................................ 8
      assimilation ........................................................................................................... 8
      dissimilation ......................................................................................................... 8
      sound insertion ...................................................................................................... 8
      sound deletion ...................................................................................................... 8
      weakening ............................................................................................................ 8
      metathesis ............................................................................................................. 8
      vowel shifts ......................................................................................................... 8
   b) Phonological Change ............................................................................................ 9
      Mergers (fusion) ................................................................................................... 9
      Splits (fission, unpacking) .................................................................................. 9
      Shifts ..................................................................................................................... 9
   Morphological change ............................................................................................. 9
   Affixes ...................................................................................................................... 9
      addition ................................................................................................................ 9
      loss ....................................................................................................................... 9
   Reanalysis ................................................................................................................ 9
   analogy ..................................................................................................................... 9
   Generalisations for analogy .................................................................................... 10
   Analogy and iconicity .............................................................................................. 11
   trends, tendencies, drifts ....................................................................................... 11
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speculationsmorphological types</td>
<td>11</td>
</tr>
<tr>
<td>Grammaticalisation</td>
<td>13</td>
</tr>
<tr>
<td>Development of negative markers (Jespersen’s cycle)</td>
<td>14</td>
</tr>
<tr>
<td>Development of future markers</td>
<td>14</td>
</tr>
<tr>
<td>Reduced free morpheme to bound form</td>
<td>15</td>
</tr>
<tr>
<td>Derivational affixes</td>
<td>15</td>
</tr>
<tr>
<td>Does grammaticalisation constitute a theory?</td>
<td>15</td>
</tr>
<tr>
<td>Undirectionality (Degrammaticalisation)</td>
<td>15</td>
</tr>
<tr>
<td>(De-)Grammaticalisation as analogy</td>
<td>16</td>
</tr>
<tr>
<td>Syntactic change</td>
<td>16</td>
</tr>
<tr>
<td>Lexical Change</td>
<td>16</td>
</tr>
<tr>
<td>Loss of names for obsolete concepts and items</td>
<td>16</td>
</tr>
<tr>
<td>New Words</td>
<td>17</td>
</tr>
<tr>
<td>Morphological Compounding and Derivation</td>
<td>17</td>
</tr>
<tr>
<td>Morphological Back formation</td>
<td>17</td>
</tr>
<tr>
<td>Shortening words</td>
<td>17</td>
</tr>
<tr>
<td>Borrowing</td>
<td>17</td>
</tr>
<tr>
<td>Semantic Change</td>
<td>19</td>
</tr>
<tr>
<td>broadening</td>
<td>19</td>
</tr>
<tr>
<td>narrowing</td>
<td>19</td>
</tr>
<tr>
<td>amelioration</td>
<td>19</td>
</tr>
<tr>
<td>pejoration</td>
<td>19</td>
</tr>
<tr>
<td>semantic split (bifurcation)</td>
<td>19</td>
</tr>
<tr>
<td>shift</td>
<td>19</td>
</tr>
<tr>
<td>Language variation and change</td>
<td>19</td>
</tr>
<tr>
<td>geographical variation in language (traditional dialectology)</td>
<td>19</td>
</tr>
<tr>
<td>Sociolinguistic spread of language change</td>
<td>20</td>
</tr>
<tr>
<td>diffusion through the language</td>
<td>20</td>
</tr>
<tr>
<td>spread through the population</td>
<td>20</td>
</tr>
<tr>
<td>Sociolinguistic variation and language change</td>
<td>21</td>
</tr>
<tr>
<td>Social attitudes to varieties: clines of love and respect</td>
<td>21</td>
</tr>
<tr>
<td>Transmission and Diffusion</td>
<td>21</td>
</tr>
<tr>
<td>Historical Sociolinguistics</td>
<td>21</td>
</tr>
<tr>
<td>Contact – dialects, borrowing, convergence</td>
<td>22</td>
</tr>
<tr>
<td>Dialect contact</td>
<td>22</td>
</tr>
</tbody>
</table>
The ‘apparent time’ method ................................................................. 29
Oral History ...................................................................................... 29
Written data for investigating changes in the past ................................ 29
Possible dialect interference ............................................................... 30
Decipherability .................................................................................. 30
Decipherment .................................................................................... 30
Reconstruction by comparison ............................................................ 30
Comparative Method .......................................................................... 30
Internal reconstruction ...................................................................... 31
Some Limitations .............................................................................. 33
Majority Rules vs. Common Sound Changes ....................................... 33
Summary of common sound changes .................................................. 33
Pronunciation of earlier languages and proto-languages ...................... 34
Language Families ............................................................................ 34
Writing Systems ................................................................................ 35
Classification of writing systems ....................................................... 35
Spelling ............................................................................................. 37
Similarities between languages and species
- tendency for convergence (same tools create unrelated phenomena)
- relicts of earlier function (mouse-mice; whales pelvic bones no legs)
- grouped into families
- dominant species/languages spread = competition
- lots of variability (which is how language thrives)
- BUT survival of the fittest? no language is the best, none change ‘for the best’

Transmission or contact?
Problems with family trees – languages with lots of contact won’t resemble family (eg French of Romance languages)

Sound Change

Neogrammarian hypothesis: diachronic sound change is regular and applies everywhere it can.

Unconditional changes are context-free changes that apply to a segment everywhere throughout the language. Notation a>b a becomes b

Conditional changes are context-sensitive that apply to a segment only in certain phonetic environments. Notation a>b/X_Y; a becomes b between X and Y (eg Werner’s law)

Works in principle (not eternal truth), get grips with something in systematic fashion. Sound changes should not just apply to one word... However, data is not entirely systematic - some rules don't apply systematically.

Lexical Diffusion: word-by-word change, change gradually spreads word by word. Change = WAVE spreading in circles, gradually through lexicon

Is change phonetically gradual? Certain assimilation and weakening processes can be described in this way, and the vowel space. BUT

- Certain changes eg metathesis are always abrupt
- Languages don't operate with degrees of eg voicing or nasalisation
- Insertion and ultimate deletion of segments must be abrupt

So there must be at least some phonetic abruptness

There is plenty of evidence for sound change starting in a few words and spreading, eg in Welsh
There's also variation within individuals

Lexical diffusion is not at odds with neogrammarian position; Different styles even within one individual, depending on formal and informal...; Campbell is sceptical: few cases of lexical diffusion have actually been reported, most of these are doubtful; examples we have are the result of borrowing, or complex conditioning environments, or of misinterpreting the influence of stylistic choice. Labov; neogrammarian sound change (every word will show change after a while) and lexical diffusion both have a place in accounting for data - marries the two schools together, which used to be conflicting.

Neogrammarians explain exceptions in two ways

- Analogy: paradigmatic pressure may reinstate earlier sounds affected by sound change
- Dialect borrowing: dialect A may borrow a form from another dialect B that didn't undergo that sound change
- These principles inspired neogrammarians to persevere and uncover systematic sound changes from data that were perplexing, eg Verner's Law (sth was changing 'sporadically' in same environment - Verner discovered that Indo-European (not Germanic) stress mattered - stress patterns explained change)
Reasons for sound change

spelling pronunciation: new pronunciation that reflects a word’s spelling more closely can arise when the previous written form of a word differs a lot. E.g. often > was pronounced (often) now (t) has been reintroduced

Language contact: speakers of a language frequently interact with speakers of another language/dialect > extensive borrowing can occur – typically lexicon is most affected (rather than grammar).

- can have effects on sound system! new phonemes/allophones introduced; e.g. if words with (x) (Bach, loch...) are extensively introduced in E, it’s likely to become a new phoneme in E
- hypercorrection: speakers of another language/dialect overgeneralise particular rules

Babel myth

- climate; little oxygen in Swiss mountains = many stops and fric. (no, like genetic diversity, language from Africa – oldest place)
- ethnicity; no, all ppl have same language apparatus!
- progress vs decay; no, it’s not that ppl are sloppy!

Changes in speaker

- Articulatory simplification: most changes have a physiological basis > changes result in easier production. E.g. deletion of consonant clusters, insertion of a V to break up C clusters – ease of effort and communicative need
  - opposing factors: (dissimilation) to avoid ambiguity, for clarity
- Lenition: articulatory underachievement, failure to reach a phonetically specified target (x kept out of system in English though - there must be another force, stop k remains)
- Variation in speech production: biological reasons, no two instances of a phone are the same; phonetic environment influences how the articulators produce a sound
- cognitive factors: analogy and reanalysis: preference for regular pattern over irregular ones > extension/generalisation of regularity; if elements are alike they should also be alike in other ways
  - phonologically similar: sting/stung > bring/brung (in some dialects)
  - semantic characteristics
  - morphological change
- Reanalysis: common in morphological change > morphological reanalysis = attempt to break down a word (not formerly broken down in component morphemes) into root + affix structure; e.g. hamburger.

Changes in system: systemic pressure

structuralism

- Maximisation of phonological space - the distance btw contrasting phonemic elements must be as large as possible.
- If the phonological space of a phoneme is large, it will be used (room for lots of allophones, which may in time become phonemes). (e.g. Vowels i,e, u,o, a> a uses up a lot of space) - happens in vowel shift; i moved to ai; then a etc moved up... (dragging after or pushing?)
- If a phonological space is empty, chances are it will fill up.
- Phonemic mergers are avoided. This principle underlies our thoughts about chain shifts.’
- STRIVING FOR SYMMETRY

Generative phonology

Rule-based system in synchrony. Diachrony: sound change as rule addition

- Rule reorganisation/reordering/reinterpretation describes differences btw two phonological systems - one belongs to individual A and the other to individual B
- Can the reorganisation etc take place in the same individual? Adults can certainly change their output. Does this change their system? Black box!
- It abstracts away from idiolectal and dialectal variation, although that could in theory be accommodated (learners hear mixed input and hence make different deductions)
changes in hearer

Dissimilation and secondary articulation

Hearers try to unpack what they take to be assimilation

Hearers-driven aspects explain sporadic nature of changes. Speaker-driven change tends to go the whole hog (production takes effort and routinisation helps)

transmission and actuation

**Actuation**: why does a change start?

**Transmission**: how does a change spread through a language and population?

Graphs usually resemble s-curves (population grow up to carrying capacity and also like viruses eg HIV - *people infect each other* - analogy to sound change where people also 'infect' each other, accommodate each other linguistically)

Language acquisition

- Clear evidence that ppl are equipped with language learning toolkit including compulsive hypothesis-creation and testing - toolkit peaks early in life
- Input on which kids construct hypotheses is rarely homogenous; lots of variation, not just parents provide input
- Phonology is powerful marker of group identity and there's lots of linguistic accommodation, at all ages, consciously and unconsciously

(accuracies to separate who belongs to you or not = evolutionary advantage)

The relation btw acquisition and change: black box

- *Aitchison; sometimes adjustment is quite rapid (adult in jail gets different accent)*
- *Vincent van Heuven: search for perfect bilingual, automatic speech recognition project using hidden Markov sound models - took them 6 months to find someone who wouldn't be picked up at somewhat non completely native speaker, Dutch-German person who'd spent every stage of life in both language settings (Dutch/German kindergarten, school, college...) - critical period for accent (phonology and morphology at least)*

Types of changes:

A. **Phonetic change** (regular sound change) – affects pronunciation

Sounds in language stay the same, allophonic differentiation/assimilation. Sounds in specific environments lose/acquire (new) phonetic features. Phones remain in complementary distribution. E.g. Great Vowel Shift

B. **Phonological (phonemic) change** – affects sound system structures

Changes inventory >more/fewer sounds due to splits or mergers (b&v in Spanish = ß)

*Further distinctions*

**Sequential change**: assimilation, dissimilation, epenthesis, metathesis, weakening, deletion, strengthening

**Segmental change**: affricates = stop+fricative fusion in one segment (dʒ, ts) – commonly subject to simplification: deaffrication (e.g. in F: cen(ts) > cen(s) )
a) Phonetic Regular sound change

conditioned vs unconditional context; free changes

assimilation

sounds become more similar in place/manner

- regressive: xy; x assimilates to y / progressive: yx; x assimilates to y
- partial (nk > nk) / total (octo > otto)
- vowel harmony (vowel affects vowel in next syllable = UMLAUT)
  
example
- final devoicing (assimilate to final silence) Rad = raat – raades
- palatalization (assimilate front V (velar stops) Kinn > chin
- Umlaut; V1 V2; V2 affects V1; V2 possibly then lost, but change of V1 remains. = VOWEL HARMONY

dissimilation

sounds become more unlike another

sound insertion

- prosthesis (beg): simplifies C-clusters: cluster-reduction by splitting C across syll: scriber>scribir
- epenthesis (mid): most common; simle > simble
- paragoge (end): uncommon; get regular CV syll structure, esp in Creoles; dos > dosú
- diphthongisation (vowel breaking): 1 vowel = 2 vowels (triggered by following V or C – harmony and assimilation processes)

sound deletion

- procope (beg): ocumar > kupa (Portuguese); esquire > squire (French)
- syncope (mid): vivere > vivre (French)
- apocope (end): willa > will (E), nama > name
- haplology: loss of entire syllable when two next to another are identical (eg femininity might become feminin)
- monophongisation: 2 vowels = 1 vowel

weakening

often precedes vowel deletion, V > schwa
nama > naama > na:m > nem

lenition (consonant weakening)

(fortition – the opposite – is rare)

lenition hierarchy

degemination > stop > affricate > fricative (continuant) > approximant > no sound

e.g. (pp>p>pf>f>h>0)

VOICING best considered assimilation!

- rhotacism; z/s = r
- lentition; degemination – stop > fric > approx., stop > liquid, oral > glottalization, V, oral > nasalisation
- fortition: unpacking (w= k & u), fusion (stop / bilabial, V + nasal)

metathesis

2 sounds change position; pridda > pirdda (OE)

vowel shifts

e.g. great V shift; affected stressed long V
b) Phonological Change

affects inventory; sound changes previously outlined can affect overall sound pattern of a language
creation of new allophones (of already existing phonemes)

**Mergers (fusion)**

2/more phonemes collapse into a single one > reduces number of phonemes. E.g. Cockney ɵ+f = f (thin, fin = (fin). Sometimes when 2 features merge, the ‘new’ one has features of both.

- **conditional - primary split** (conditional merger); s = r intervocally, but remains s elsewhere
- **unconditional**; (complete loss of contrast) y and ý fell together with i and í (short and long V); OE hypp, mys > hip, mice

**Splits (fission, unpacking)**

**secondary split**: new contrast arises. 1 continues old phoneme, the other develops into previously not existing phoneme conditionally. Hard to reconstruct rule in next generations.

**Shifts**

series of phonemes is systematically modified: organisation with respect to each other is altered, e.g. Great English Vowel Shift

**compensatory lengthening**
of V when sound deleted (shortening and lengthening can also happen just so though)

**Morphological change**

Phonology affects morphology; phonological changes can cause irregularities in morphological system as they increase allomorphs in stems and affixes. Yesterday’s phonology is today’s morphology (foot-feet: historically phonological problem, now morphological problem).

Furthermore syntactic structures may give rise to new morphemes through grammaticalisation.

**Affixes**

**addition**

E.g. English borrowed –ment and –able from French (first words with it, then established as productive suffix used with only French-origin-words, then used for words without French origin)

Lexical forms can become grammatical forms over time (grammaticalisation); involves phonological reduction and semantic change

**Fusion**: 2 words frequently adjacent = single unit of base + affix, words develop into affixes (e.g. hood)

**Derivation**: form new word on basis of existing word, often involves adding a morpheme to the form: un+happy. **Inflection**: formation of grammatical variants of the same word (determine/determining/determined)

**loss**

fall into disuse for no apparent reason, or lost through sound change
e.g. affixes marking gender+case; C-deletion, V-reduction... only suffix ‘s’ is left (plural, possessive)

**Reanalysis**

can result in a new morpheme structure for a word
e.g. burger – based on incorrect analysis of “hamburger” (folk etymology)

**analogy**

Sturtevant’s Paradox: "Sound change is regular but creates irregularity. Analogy is irregular (appears sporadically) but creates regularity"
analogical extension (proportional analogy)
A:B = C:D. Productive formation pattern is extended to a word which did not use it before. E.g. plural -s.

- new words by analogy (wug – plural, past tense)
- people apply analogy when accommodating to another dialect: **overapply** the rule > **hypercorrection**
- The same goes for **overgeneralisations** in child speech (sing-sang; bring-brang?)

*irregular verbs* show small pockets of **regularity**, which occasionally **results in the reverse pattern**;
wear-weared > wear-wore (from bear-bore); dive-dived > dive-dove (from drive-drove)

**Analogical (paradigmatic) levelling**
variation within the inflectional forms of the same word is levelled out.
regularises the forms of a single morpheme, creating greater uniformity within a paradigm by levelling out different allomorphs;

- past sing + past pl in OE were different (ceas, curon), are now the same (chose), and past ppl was coren and has become more similar too (chosen)
- OE: freason, freas, fruron>>> frieren, fror, gefroren (regularised r) (but is/are – was/were = high frequency)

**sporadic cases of analogy**

- **contamination**
word changes form on the model of another word in close contact with; father-mother > brotTHer. femelle (F) > feml (E) > female (E) to look more like male

- **Folk etymology**
often affects loanwords; breaks them into parts to look like compounds - more familiar. Cray+fish (écrevisse), sparrow+grass (asparagus), cherise – interpreted as plural in E, thus singular= cherry

- **backformation (inflection)**
reverse to analogue extension; pis-um from Latin; s interpreted as plural, so pea is created as singular.

- **reanalysis / metanalysis**
change in structural analysis in interpretation (interpretation of which phonological material goes with what morpheme in a word): A napron = an apron; ham-burger (*split it through folk etymology and then it becomes productive!*?)

- **blends**: smog, brunch

**Generalisations for analogy**
There are forms that are seen as more basic than others, these basic forms serve as the basis for analogical change

- Singular forms are a model for plural forms
- Present tense verbs are model for past tense verbs
- Indicative verbs model for subjunctives
- Lower numerals for higher numerals
- Cardinals models for ordinals
- Shorter words/forms model for longer words/forms
- Grammatical markers should be as transparent as possible
- Complex marking replaces simple marking
- Zero-endings are more frequently replaced by overt ones than vice versa
- Root alternation is more often abolished than introduced (eg in cases!?)

When a form undergoes analogical reshaping, the new form takes over its primary function; if the old form remains, it only does so in secondary (specialised, marked) functions; Brother-brethren>brother-brothers (brethren 'fellow member of a religious...')
Analogy and iconicity

**Iconic isomorphism**; a one-to-one (biunique) association of form to meaning
Analogical substitution of *book* - *beek* by *book-books* gives more weight to the idea that +s means 'more than one' ie plural
Eg in Welsh plural for collective, than specialised form for plural for in the group

**Iconic motivation** - the linguistic form reflects non-linguistic reality in some way
- singular forms usually not marked, plural forms are (so there's *more* in a plural form)
- comparatives and superlatives tend to be longer than positives
- **reduplication** of verbs to signal intensification (also reduplication to signal plurals)
  - root or stem of a word (or part of it) or even the whole word is repeated exactly or with a slight change. Reduplication is used in inflections to convey a grammatical function, such as plurality, intensification, etc., and in lexical derivation to create new words.
- in phonology and morphology
  - onomatopoeia
  - non-arbitrary onsets or codas; flame, flicker, flurry... (fl)
  - high front V for small things: wee, teeny, little; back V for big things: vast, huge, large (but big!)
  - iconic isomorphism is **maintained as much as possible** – if distorted by sound change it will be restored through analogy

**trends, tendencies, drifts**

Speculations morphological types

**Isolating languages**: little or no morphology; ideally every word consists of a single morpheme, without affixed or grammatical modifications, eg Vietnamese (plural is lexicalised- has its own word)

**Agglutinating languages**: words may consist of several morphemes, each morpheme is distinct and has a distinct meaning, eg Turkish

**Inflecting (fusional) languages**: words typically consist of several morphemes, but the morpheme boundaries in synthetic languages may be difficult or impossible to identify; a single morpheme may indicate a no of different meanings, eg Latin (one morpheme = gender + number + case...)

Isolating>agglutinating (phonological reduction): Free form grammatical markers may become phonological reduced to unstressed bound-form markers (suffixes or prefixes), eg Tok Pisin (newer language, pidgin of Papua New Guinea)

Agglutinating>inflection (morphological fusion): Two originally clearly divisible morphemes in a word any change in such a way that the boundary is no longer clearly recognisable; eg Paama (Vanuatu)

Inflecting>isolating (morphological reduction): Inflectional morphemes may become more and more reduced, until sometimes they disappear altogether, eg Latin to Italian

Second language learning and sound change involved

Natural morphology
- Attempts to explain morphological change
- Synchronic morphology is seen as explicable in terms of history
- Also attempts to account for irregularity and for unnatural changes and features - what's likely to happen in lan, what might lan be striving for?
Natural or unmarked features should
- Appear frequently cross-linguistically
- Appear in numerous contexts, in languages that have them
- Be relatively resistant to change
- Result frequently from changes
- Occur often in pidgins and appear early in creoles
- Be early and stable features of child language
- Be lost late or unaffected in aphasia

Certain categories are unmarked
Subject, animate, first person (always given because they're the speaker, as well as the hearer - you), present tense, indicative mood, singular number (ties in with 'generalisations about analogy')

Certain morphological methods of symbolising such categories are also unmarked
Unmarked means of expression obey three principles:
- Constructional iconicity
- Uniformity
- Transparency

Constructional iconicity: more form should signal more meaning, eg singular should be shorter than plural
- Tree-tree+s (most iconic)
- Foot-feet (weaker)
- Fish-fish (non-iconic)
- Horse-**hor (counter-iconic)
- BUT hond-hon (Hessian German)

Uniformity: one function to one form
Transparency: each derived form or process in a paradigm should only have one meaning
'Uniqueness': if both uniformity and transparency hold, there is bi-uniqueness, if only one of the two holds, there is uniqueness
Cf. Dog-dogs (maximally iconic) versus sheep-sheep (non-iconic)

The framework of natural morphology makes a few predictions:
- We should find no morphological phenomena conflicting with all three principles
- Morphological change will tend to produce forms and patterns which conform more closely to the three principles
- Suppletion should be rare (because non-transparent) - only survive when frequent, and learned early in life (good*gooder, good-best) (be in most languages have suppleted forms, go has supplet past tense - not in old but mid+modern English!)
- Suppletion should be rare within large classes with many regular forms

Unnatural morphology often results from nothing more than the operation of regular phonological change upon what was originally a highly natural morphology

Conflicts of naturalness
Agglutinating languages may be very transparent but the string of suffixes can make words unnaturally long and prosodically complex. This is a strain on production and perception.
Inflectional languages have less transparent morphology, but a more optimal word length. Issue of learnability

System-dependent naturalness
Frequency and productivity: if there's a competing markers of a specific feature, the one that is more frequent and productive is the most natural one
Eg; in E weak verb inflection is more natural than strong verb inflection

**Parameters of the language's inflectional system**
Which categories are expressed, which features make up the categories
Is there stem or base form inflection
What type of markers occur and how do they represent features

Stem-inflection: basic form, has a suffix/marker

**Issues**
Do changes in languages see specific measures of naturalness result from a particular set of developments elsewhere?
Do such changes tend to proceed in particular directions?
In situations of conflict btw universal parameters, which one normally wins?
How does natural morphology deal with contact?

**Grammaticalisation**

**Lexical word or construction becomes a marker of some grammatical category**
*today's syntax is tomorrow's morphology*
The attribution of a grammatical character to a formerly independent word
Concept has been around for about 100 years
Grammaticalisation consists in the increase in the range of a morpheme advancing from a lexical to a grammatical, or less to more grammatical, status
Niche in syntax, start out locally, then becomes more grammatically and applies to other contexts as well

**What happens in grammaticalisation (mechanisms)**
- Loss of meaning content (to lost meaning of 'forward' motion)
- Extension or context generalisation: the use of the construction in new contexts (new verbs start taking specific construction)
- Decategorialisation: loss of morphosyntactic properties characteristic of the source forms, incl the loss of independent word status (cliticisation, affixation) - things lose independent status, first become clitics that need to stick to something else, but other clitics may intervene, then as bound morphemes (affixes) they have to be bound
- Reanalysis of (parts of) the construction as having a particular grammatical meaning - 'to'; I intend that I go to class (OE) - now I intend to go to class (future); in OE 'go to' would be subjunctive (intend - not happened yet, unreal = finite subjunctive clause), 10 per cent would have infinitive - reversed in ME, now only one: competition! Now-expression was deemed just as good or better than subjunctive - more and more words accepted to take to-infinite-clause
- Phonetic reduction (prefix; on foot > afoot (stress reduced, -n is lost, vowel is reduced...)

May/might comes from 'have the power'
Shall - be in debt > obliged to > future
Must - measuring
(lexical words then)

**Stages in grammaticalisation**
1. Construction with particular lexical semantic meaning
2. Construction gains new, more grammatical meaning. The original lexical meaning is still available, however, and which of the two meanings is addressed depends on context
3. The original lexical meaning is lost in that construction, and only the grammatical meaning is available now. BUT the original lexical form may remain as a separate lexical item (back, n/back, adv)
Typical grammaticalisation changes

- Aux < main verb
- Case suffixes < postpositions
- Between-meaning (to) < centre, middle
- Causatives < causal verbs (make, have, get etc) + a following clause
- Nominal classifiers (gender) < concrete nouns (man, woman, animal, tree etc)
- Subordinate conjunctions < say
- Preposition 'with' from a verb meaning 'use (cf using in PDE) eg cut bread using knife > with knife
- Coordinate conjunction 'and' < with
- Copular verbs < positional verbs (stand, sit, give, exist) (eg Latin stand > estar Spanish)
- Dative case marker < give
- Def article < demonstrative pronoun
- Object case markers y locatives, prepositions
- Dual < two
- Durative marker < stay, remain, keep

Development of negative markers (Jespersen’s cycle)

**Latin**: preverbal marker of negation: **non**.  **French**: 2 versions developed: **non** (stressed positions), **ne** (unstressed positions)

At some point, the verbal negator started to be reinforced with an intensifier in motion verbs (**pas** from Latin *passuum* 'step') (**Je ne vais un pas** = I don’t go a step >>> **Je ne vais pas** = I don’t go (intensifier))

The intensifier comes to be bleached of its association with motion and starts to be used with other verbs; already in the 12\textsuperscript{th} century, **pas** doesn’t seem very intensive and has become a negative polarity item (used in negative contexts), and then a negative particle

In ModF, **ne** is often left out, and **pas** has become the only marker of negation: **Je sais pas**

Similarly; **Latin** persona > **French** personne (nobody)
rem (thin) > rien (nothing)
iam (now) + magis (more) > jamais (never)
plus (more) > no more (plus de questions)
alicunus > aucun (none)

As **pas** has become the only marker of negation, other intensifiers are necessary (**pas du tout**, **absolument pas**)... these in turn can replace **pas** as a marker of negation, making the process cyclical = Jespersen’s Cycle

Development of future markers

going to

e.g. **To** used to be only +NP complements, now only takes VP complements
(VP - direct object without 'glues' like NP would need 'of' instead of just 'me)
- further development of preposition
going to something - **romam ire** (to Rome go, Latin) > easy for lan to move from spacial expressions to move to future time expression (expression of purpose - person comes with purpose of doing something > purpose adjunct; now time expressed by spacial preposition 'to'
in Shakespearean E, primary meaning of **progressive construction** was MOVEMENT towards a goal (I am going with instruction to him); extension from ‘travelling to a place’ to ‘travelling (somewhere) to perform an action’

In **ModE**, future readings became more unambiguously **futurate** and more frequent (**Soon the earth’s going to fall into the sun**)

Reduced forms (I - am gonna, gonna, am gon, gon, ‘ma) only possible for future reading, not for **travelling somewhere** reading
Reduced free morpheme to bound form

Sometimes a new affix can be the result of the reduction of a free morpheme until it becomes a bound form. This is accompanied by a change in the meaning of the morpheme, which becomes more general. Inflectional agreement affixes, for example, often seem to be derived historically from pronouns:

**Tzeltal**

<table>
<thead>
<tr>
<th>Verbal affixes</th>
<th>Indep. pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>-on</td>
</tr>
<tr>
<td>2sg</td>
<td>-at</td>
</tr>
<tr>
<td>3sg</td>
<td>Ø</td>
</tr>
<tr>
<td>1pl</td>
<td>-otik</td>
</tr>
<tr>
<td>2pl</td>
<td>-ex</td>
</tr>
<tr>
<td>3pl</td>
<td>Ø</td>
</tr>
</tbody>
</table>

**Derivational affixes**

Not only inflectional affixes, but derivational affixes, too, can be the result of grammaticalisation and concomitant reduction of a free morpheme, e.g.: ModE hood, dom, ly from OE had (state, rank), dom (power, condition), (ge)lic (similar, equal, like).

**Syncretism:** ‘collapse’ of separate inflectional morphemes into a single form = (diachronic) syncretism. Syncretism is closely related to analogy. Both involve ‘carrying over’ a form from its original function to serve some other related function.

**Does grammaticalisation constitute a theory?**

It may not have an independent status of its own, it merely involves other kinds of well-understood linguistic changes and not inherently connected with grammaticalisation.

- Prosody: stress reduced: linked to loss of independent meaning
- Phonology: form reduced: normal phonological reduction coz of lack of stress
- Morphology: from free to bound morpheme: ‘normal’ reanalysis s(analysis)
- Syntax: recategorisation: normal reanalysis
- Lexicon: semantic bleaching: regular semantic change in action (narrowing etc)

If grammaticalisation was mechanism/cause of change, it would imply that it’s sth like a diachronic grammar > counter to our intuitions about what speakers of any synchronic state know about previous syncronic states.

Undirectionality hypothesis entails that at an earlier period all languages were isolating languages (highly unlikely!)

Criteria for determining various stages of grammaticalisation are not clearly formulated.

Definitions of what is lexical or grammatical is likely to be based on a very small sample of well-investigated languages only.

To be a theory, grammaticalisation needs to specify what it will accept as a valid counter-example, rather than just concentrating on cases that conform to its tenets.

**Undirectionality (Degrammaticalisation)**

Does grammaticalisation only work towards a more grammatical meaning?

Counterexamples!

E: case ending > clitic, e.g. possessive ‘s was a genitive case-marker, now postpositional clitic

Spanish: 1 Pl suffix – mos > independent pronoun nos
(De-)Grammaticalisation as analogy

- analogical change is grammar optimisation – elimination of unmotivated grammatical complexity or idiosyncrasy
- grammaticalisation is non-exemplar-based analogical change – it makes use of constraints, patterns, and categories of language that are provided by UG (or general human cognition)
- degrammaticalisation always has an exemplar
- on foot > afoot; doesn’t require analogical model, driven by language-independent preference for structural economy (one word better than two)
- Neogrammarians
  - systematicity (whether sound change or grammaticalisation) is the rule; exceptions need to be explained
  - explanations are borrowing or analogy
  - both analogy and degrammaticalisation are sporadic; they regularise

Syntactic change

Word order

languages with lots of case marking have more flexible word order

e.g. OE: more variable word order; V2 in unembedded clauses SVO, SOV in embedded clauses when case marking got lost = fixed SVO order (as a way to mark grammatical relations)

most languages are SOV, SVO or VSO (Germanic was SOV)

Lexical Change

lexical: affects word’s form

big scope to change phonemes, restrictions = phonotactics

new things need names, and words/items get out of use

- onomatopoeia; differs in languages
- iconicity; booooor = flexes meaning; words starting with sp have negative qualities
- grammatical/iconic intensifiers; eg duplication; drink drink = booze
- vagueness
- compounding (hand+made)
- derivation (affixation) (club-er, en-large), inflection
- backformation (edit from editor)
- shortening (acronyms; AIDS, blends; brunch)
- borrowing
- loss of lexical items (change in society, notions become obsolete)

We are all aware of lexical change: words are lost, and new words enter the LAN

Often the reasons for this are pretty obvious

- new social, cultural, scientific (etc.) concepts and items need a name
- whereas the names for obsolete concepts and items tend to go out of use

Loss of names for obsolete concepts and items

- The following Old E words are not found in the lexicon of current E:
  - beox ‘hunting spear’
  - eafor ‘tenant’s obligation to the king to convey food or goods’
  - flytme ‘a blood-letting instrument’
New Words

Morphological Compounding and Derivation

- One way new words can appear is via the morphological rules of the LAN; some processes of compounding and derivation can be very productive.
- In E, any two nouns can in principle be compounded to make a new N-N compound word, eg:
  - Compounding (combining 2 free morphemes): handmade, snail mail, couch potato
  - Derivation (affixation): enlarge, hoody, complexify, skater, clubb-er, decentralize

Morphological Back formation

Creation of new words by reinterpreting the morphological structure of a word

- liaise (< liaison)
- televise (< television)
- process (< procession)
- edit (< editor)

Shortening words

- compression: drop off one or more syllables from the end or middle of a word, e.g. administration > admin, university > uni
- compression - using initials (acronyms), e.g. asbo (anti social behaviour order), AIDS, radar (radio detection and ranging); sometimes initials completely lose their association with the forms from which they are derived and are reanalysed as a new lexical item.
- mixes/ blends: blending parts of existing words, e.g. brunch (breakfast+lunch), sitcom (situation-comedy)
- clipping

Borrowing

The copying of a word from one LAN into another, rather than it being inherited from the proto-LAN

E is full of borrowings from many LANs: French: chair, face, table Latin: community, paternal

- Factors involved in borrowing
  What sort of words get borrowed depends in part on the relative status of the two LANs in contact. Often there is some identifiable social / economic / political inequality between LAN groups in a contact situation; in this case we may call
  - the LAN that is spoken by the dominant group of speakers the superstrate LAN
  - the LAN of the other group is then termed the substrate LAN

When the LANs have equal status we may speak of adstrates

- E and other LANs
  There have been many LAN contact situations in history in which E was the superstrate and another LAN the substrate; obvious cases include:
    - relationships (historical + on-going) btw. E and other LANs of the British Isles (e.g. Welsh, Irish)
    - many instances in the era of colonisation and empire, when speakers of European LANs came into contact both with the original inhabitants of the colonised area and with transported slaves

There have also been contact situations in which E was the substrate LAN
- after the Norman invasion in 1066 French was the LAN of the group in power in England

- Borrowing from a substrate LAN
  Borrowings from a substrate LAN into a superstrate LAN are often terms for indigenous flora and fauna, names for places, rivers, etc., or indigenous cultural artefacts
  The following geographical names derive from a Celtic substrate, stemming from the period of Anglo-Saxon settlement in Britain: Thames, Avon, Devon, Kent, London, Dover
  Examples of borrowings from Australian LANs into E include names for animals and things such as: dingo, koala, kangaroo, billabong, boomerang
• **Borrowings from a superstrate LAN**

Borrowings from a superstrate LAN into the substrate LAN often involve words that relate to such things as the law, politics, the church, as well as certain aspects of culture.

A famous example is that words for the meat of many animals were borrowed from Norman French, while the Anglo-Saxon words for the animals themselves were generally kept:

- *cow* versus *beef*, *calf* versus *veal*, *sheep* versus *mutton*, *pig* versus *pork*

• **Other lexical domains**

But also in other domains of the lexicon E borrowed heavily from French in this period:

- Government: *tax, revenue, government, royal, parliament, authority, prince*
- Religion: *prayer, sermon, religion, chapel, chaplain, friar*
- Judiciary: *judge, defendant, jury, evidence, jail, verdict, crime*
- Science: *medicine, physician*
- Culture: *art, sculpture, fashion, satin, fur, ruby*
- Warfare: *army, navy, battle, soldier, enemy, captain*

• **Borrowings from an adstrate LAN** (can involve everyday words)

When the Vikings invaded a part of England in c.800 AD and settled there in relatively large numbers, many words from Old Norse were borrowed that a present-day speaker of E would not recognize as being of Scandinavian origin anymore: *anger, window, call, egg, fellow, cake, get, hit, husband, low, lump, raise, root, score, seat, skill, skin, take, their, they, thrust, ugly.*

However, note that the word *law* also comes from Norse, perhaps reflecting high status for Norse in some times and places. Scandinavian rulers became kings of large parts of Britain for a time.

• **Other borrowings**

Examples of borrowings from other LANs occur as well, but they are usually limited to some particular aspect of culture or local environment that was unfamiliar to the E speakers before:

- Italian: *balcony, casino, mafia, malaria*
- Spanish: *tornado, mosquito, banana, marijuana*
- German: *poodle, noodle, kindergarten, pretzel*  
  - Slavic LANs: *czar, tundra, polka, robot*
  - Indian LANs: *nirvana, curry, tattoo*
  - Native American LANs: *opossum, wigwam*

In general, we see from these examples that borrowing is usually restricted to words with **lexical content**, such as nouns or verbs.

**Function words**, such as determiners or complementizers, typically form a closed class; it is difficult to add a new member to it, either by applying the rules of morphology or by borrowing.

But some ‘closed-class’ words in E are derived from Old Norse: *they, them, their, both, though.* testament to the **closeness of contact**, and presumably bilingualism, btw those two LANs.

• **Integration of borrowings**

Note that unless we are dealing with a situation of heavy contact and massive borrowing, borrowing usually does **not affect the grammatical system** of the borrowing LAN.

The borrowed word obeys its phonological, morphological and syntactic principles.

- **Dutch integration of E words**

Common E loanwords in current Dutch: *club, weekend, file, e-mail, keeper, spray, print, airbag*

Dutch phonology has a rule by which **all voiced obstruents become voiceless** when they occur in word-final position; the borrowings obey this rule like any other word, so we get pronunciations such as: *clu[p], weeken[t], airba[k]*

The words can also undergo the **regular derivational and inflectional morphological processes** of the LAN whereas you will not see them being derived with an E affix: *clubje (club-Diminutive = little club), gesprayd (participle-spray-participle = sprayed), emailen (email-Inf = to email)*
Semantic Change

semantic: affects word’s meaning. strings of phones = conventional meaning

broadening
more general meaning
- picture (painting > visual representation)
- holiday (holy day > day off)

narrowing
more specific meaning
- meat (food > flesh)
- liquor (liquids > alc)

amelioration
acquire positive connotation
- pretty (sly, cunning > attractive)
- knight (boy > knight)

pejoration
acquire negative connotation
- silly (happy > foolish)
- wrench (girl > wanton woman)

semantic split (bifurcation)
acquire another, often related, meaning

shift
loses meaning, acquires new

... influenced by
- euphemism (avoid unpleasant term – eg sleep together instead of sex)
- hyperbole (exaggeration; awesome vs good)
- interference
- folk etymology: replace unfamiliar with familiar form (crevis = crayfish (associated with and assimilated to fish)
- hypercorrection
- synecdoche (count heads = part of whole)
- metonymy (relationship)
- simile (like; e.g. –ly, ghostly = like a ghost)
- grammaticalisation
- homonymy: share same spelling (homograph) and pronunciation (homophone) but different meaning; eg back, left... true = unrelated origin; polysemes = same origin
  - blocking: children > blocks production of childs
- metaphonic extension: metaphoric phrase accepted to stand alone; computer mouse > mouse
- metaphor: based on analogy between 2 things (sex = to sleep with each other)
- metonym: Based on understood association (US film industry = Hollywood)
  - synecdoche: part stands for the whole (“count heads”)

Language variation and change

groundational variation in language (traditional dialectology)
- scope earlier traditional dialectology work: lexical and phonetic/phonological variation
- later: atlases of syntactic and morphological variation

Improvements in methodology
- record informants
- standardise transcriptions with IPA
- analyse speech using spectograms

Sociolinguistic Variation; shift in perspective
- emphasis on lexical items to emphasis on phonological variation
- looking for individuals to represent categories in population, not individual behaviours
- work on change in progress
- no longer record single words, but informal, venacular conversation
Investigate linguistic variables...

- elements known to have different realisations/variants
- test for correlations of linguistic behaviour (use of particular variants, with social facts such as age, gender, class)
- Variation in speech community shows ‘orderly heterogeneity’: ppl do diff things but they still follow rules

 Observer’s Paradox: how do ppl behave when not observed
  - how elicit the vernacular?
  - how measure+define social class and cultural identity?
  - how is variation connected to spread of lan change in progress?

E.g. Labov elicited casual and careful speech (r) in department store study

- correlation of social class with use of particular variants
- style-shifting; proportion of (r) vs 0 features change depending on formality
- orderly heterogeneity

Sociolinguistic spread of language change

diffusion through the language

few words change – gradually spread through vocabulary (lexical diffusion).

not all changes involve gradual diffusion; sound changes usually affect all instances of the segment(s) involved (neogrammariam)

spread through the population

particular innovations must be accepted; social pressures; speaker can (un)consciously alter the way they speak – more socially acceptable – change in high prestigious group > spread > affect entire linguistic community (e.g. loss of postvocalic r in east coast US)

- higher social classes use more standard features
- e.g. Labov postverbal /r/ in NY

- ppl realise they’re changing towards prestigious variant: change from above level of conscious awareness
- opposite; ppl give negative evaluations of a change, deny they’re using these variants when they actually do = change from below level of conscious awareness (variants carry covert prestige)

Social Networks

size and nature of networks differs in cities and rural areas

- density: dense network if contacts in a network know another well; minimal overlap in ppl’s contacts = loose network
- plexity: uniplex tie if network tie btw 1 ppl is based on 1 relationship; if ppl know each other in several roles = multiplex tie

- strong (dense, multiplex) networks slow down/inhibit change. Members police each other’s behaviour
- weak (loose, uniplex) networks make ppl more open to change: ties provide opportunity to be exposed to and pick up innovations from outside network
- social networks account for the fact that changes aren’t just middle class imitating upper class
- there is maintenance of non-standard forms PLUS innovations toward standard
- GENDER differences: men more sensitive to covert prestige, women tend to lead changes toward standard. WOMEN lead change
Sociolinguistic variation and language change

Problem: Age-grading

- at certain ages speakers use more or less tokens of a variant – pattern repeats itself every generation. E.g. (in) vs (ing) – adults use more standard variants than younger and older ppl
- individuals change linguistic behaviour throughout lifetimes, but community doesn’t = age grading

Apparent time vs real time: problem of age grading

- apparent time: different age groups measured at same time
- real time: data over long period; same subjects
  - o panel study-type: chart changing speech of individual/small group over time
  - o trend study-type: sample speech of diff people at diff points in time

Social attitudes to varieties: clines of love and respect

- standard: sounds more correct, better understood, more beautiful, smarter

Transmission and Diffusion

- innovations originate in citites, are diffiused geographically to next largest cities etc
- expanding forms copied from adults who are at conservative level to begin with, acquired by adults who change own speech in sporadic and inaccurate manner
- diffusion interacts with transmission of linguistic feature to next generation by firis language acquisition

Wave Theory (Schmidt, 1977)

- isoglosses spread from centres towards periphery
- rise and decline of centres (political, socio-economic importance) = traces in dialectal landscape: relic areas
- Second Germanic consonant shift (The Rhenish Fan)

Wave model and Gravity model

Urbanisation creates new lects which in turn may diffuse to surrounding area

- migrations from distant areas to an emerging centre creates lect that has little to do with surrounding area
- such urban areas si in landscape like isolated islands in a sea of old isoglosses

Historical Sociolinguistics

Historical paradox (Labov): know past was different to present but not how different

Uniformitarian Principle: linguistic forces that operate today aren’t unlikey those from the past. No reason to believe language didn’t vary in the same patterned way in the past as now.

- stylistic variation: focus on texts as indicators of genres and registers
- social variation: base corpora on materials from individuals coming from diff walks of life

E.g. –s (instead of –th for 3rd person sing) started in 16th century, spread from the vernacular, as it first appears in private letters, to more formal texts (like typical vernacular changes are diffused today)

corpora with correspondence = well suited to study of language change + social networks – but those who you write to aren’t necessarily those you’re most in touch with
Contact – dialects, borrowing, convergence

Contact situations may affect languages/dialects – ranging from borrowing some words to wholesale restructuring of own (and other) lexicon/system.

Dialect contact

dialects = mutually intelligible (also Swedish and Norwegian; but not Danish – D speakers understand S/N but not the other way around!)

influences...

- linguistic accommodation (may occur below conscious awareness; short-term – not like acquisition)
- convergence
- divergence

Dialect acquisition

move from one to other dialect region – adopt features of the new dialect. Principles of dialect acquisition:

- lexical replacements are acquired faster than pronunciation and phonological variants (fries > chips, pants > trousers)
- lexical replacements occur rapidly in first stage of dialect acquisition, then slow down
- simple phonological rules progress faster than complex ones (e.g. natural and phonologically predictable phonetic changes)
- acquisition of complex rules and new phonemes splits ppl into early and later acquirers (children up to 7 will acquire dialect perfectly, those of 14+ almost certainly won’t) (Chambers)
- early stages: categorical rules and variable rules = variability in acquirer
- phonological innovations are actuated as pronunciation variants (lexical diffusion)
  - lexical diffusion: phonological innovations through acquisition of particular instances of new rule/phoneme. only become rule-governed/systematic after a critical mass of instances has been acquired
- eliminating old rules occurs more rapidly than acquiring new rules
- orthographically distinct variants acquired faster than obscure ones

Borrowing

adoption of linguistic elements/properties from other lan/dialect

- borrowing: from Source Language to Receiving Language (dominant, native) (of bilingual)
- imposition: SL-dominaintnat bilingual; SL native language (e.g. foreign accent)

why borrow?

- need; e.g. new concept
- prestige; native lan has word for concept, but foreign term is highly esteemed (e.g. E borrowings from French)
- negative prestige; rarer; French hablar (brag, boast) from Spanish hablar (speak)

Adoption and adaption

adoption – retain original phonology and morphology from source language (e.g. déjà vu, croissant)

adaption – change original phonology and morphology of loan word to fit into the system of recipient language (e.g. German articles; der Computer)

choice of either depends on familiarity with source language (borrowing adopted from bilingual, but listener may introduce adaptions; monolinguals will most likely adapt more)

loan translations/chalques: English skyscraper > French grante-ciel, Wolkenkratzer
How to tell a borrowing

- **phonological patterns** in the language; violations are likely to be loans
- **phonological history:** if neighbouring languages didn’t undergo change, changes might be borrowings
- **morphological complexity:** complex form probably source of borrowing (E alligator from Spanish el lagarto) – however, folk etymology makes this not a foolproof method!
- **cognates**
- **geographical and ecological** clues: non-native animal terms (zebra, cocoa) unlike to be native E words

**Structural borrowing**

- contact can introduce **new phonemes** into language (also to native words!; may also lead to elimination of phonemic contrasts)
- contact can extend **distribution of existing phonemes** to new contexts
- contact may cause **allophones to become phonemes** (Turkish /k, g, l/)
- contact may cause **cause or inhibit sound change** (Creek y phoneme shifted to f)
- contact may cause **change in phonotactics** of a language (After contact with Swedish also Finnish now allows initial consonant clusters)
- **morphemes may be borrowed along** with particular words which can then be generalised through analogy (E suffix –able borrowed along with French and Latin words)
- **inflectional morphology** is less easily borrowed than derivational morphology – can happen though (English –s (3rd p sing present tense) from norse singeth>sings
- more common to **add allomorphs** than to replace whole morphemes (cactus-cacti, formula-formula > new plural morphemes to co-exist with older s, -en)
- less common: **borrowing of general morphological structure**

What can be borrowed? (borrowability)

- generalisations about **frequency** (> likelihood)
- generalisations about **implicational relationships**

5 universal principles

applying to grammatical borrowing (for all some counterexamples can be found)

- can’t borrow grammatical morphemes until after some lexical items have been borrowed
- bound morphemes can be borrowed only as part of complete words (e.g. –able in E)
- can’t borrow verbs directly (many counterexamples, E.g. E from F to desire, acquire...)
- can’t borrow inflectional morphemes till after some derivational morphemes have been borrowed
- preposed grammatical item may not be borrowed as postposed one and vice versa (pre- and postpositions)

**Borrowing Scale**

<table>
<thead>
<tr>
<th>Class</th>
<th>Type of contact</th>
<th>Types of borrowing</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Casual</td>
<td>Lexical borrowing of content words</td>
</tr>
<tr>
<td>II</td>
<td>Slightly more intense</td>
<td>Lexical borrowing of function words</td>
</tr>
<tr>
<td>III</td>
<td>More intense</td>
<td>Minor syntactic and phonological morphological morphology</td>
</tr>
<tr>
<td>IV</td>
<td>Strong cultural pressure</td>
<td>Lexical borrowing of adpositions and derivational morphology</td>
</tr>
<tr>
<td>V</td>
<td>Very strong pressure</td>
<td>Phonemicisation of borrowed phones</td>
</tr>
</tbody>
</table>

IV Extensive word order changes
IV Borrowed affixes and categories in native words
V Major structural features
Borrowings (modelled on the donor language)

A. Loanwords
a. Pure loanwords
   Total morphemic importation of single or compound words. Varying degree of phonemic substitution. Possible semantic change.
   rendezvous chinchibiri corner (Dutch)

b. Loanblends
   Combination of native and imported morphemes
   
   i. derivational blend
      imported stem + ü native affix
      German boss+ig
      native stem + imported affix
      mini-Rock
   
   ii. compound blend
      imported stem + native stem
      Aktions-Held

B. Loanshifts (loan meanings)
a. Extensions (semantic loans)
   shifts in the semantics of a native word under influence from a foreign word
   
   i. phonological resemblance
      American Port. humoroso (humorous)
   
   ii. partial semantic resemblance
      American Port. frio (cold infection)

b. Loan translations (calques)
   Combination of native morphemes in imitation of foreign pattern
   Wolkenkratzer

Native Creations

1. Purely native creations
   Innovative use of native words to express foreign concepts
   Pima 'wrinkled buttocks' for 'elephant'

2. Hybrid creations
   Blends of native and foreign morphemes to express foreign concepts
   Yaqui lios-nooka 'pray'

3. Creations using only foreign morphemes
   Combinations of foreign morphemes for new concepts
   Jap. wan-man-ka

contact & historical linguistics

- intense lan contact can change a lan so much that the origins of it may be obscured
  - Romanian (Romance) borrowed from Slavic languages
- loans can give clues to linguistic changes in the past
- loans in Finnish from Germanic: rengas, kuningas – so Proto-Germanic contrasted e and I before n (later lost through sound change e>i/_n


Contact – convergence

- need + prestige primary reasons for borrowing, but not necessarily the case
- sometimes, contact includes convergence in linguistic structure – when there are many bi- or multilinguals and no dominance of one group over another
- interference may go further > extensions not just attributable to L1
- such developments often involve creation of ‘interlanguages’
- this may explain development of convergence btw different languages – genetically unrelated langs begin to share certain linguistic traits
- convergence may affect a group of langs of disparate background over contiguous geographical area = Sprachbund
- Convergence relies on widespread, stable bilingualism btw groups of equal social status
- result of convergence = similarity btw languages in syntactic + morphological structure. Lexicon and morphological forms are usually NOT shared btw languages – this is a difference with borrowing!
- explanation for convergence: easier in bilingual situation, where individual would have to learn multiple grammar, if these were similar! all necessary remains then slotting in diff lexical items. may get a gradual approximation of the rules that generate th languages over times – so structures become more similar gradually

Two approaches

circumstantialist: lists traits shared by diff langs in a geographical area, implicity suggests that the traits may have been diffused. if clusters of boundaries of featrues of found, may be a sign you’re dealing with convergence area

historicist: goes beyond method – tries to find evidence for the traits actually being diffused (borrowed). more rigorous + reliable, but due frequent lack of clear evidence, c approach is more common

The Balkans
- Greek, Albanian, Serbian, Macedonian, Bulgarian, Albanian
- syncretism of dative and genitive
- periphrastic future: future formed with invariable particle which was originally V meaning ‘to want’
- periphrastic perfect: perfect forms with auxiliary ‘have’ or ‘be’ and perfect participle
- numerals: 11-19: ‘X on ten’ construction
- analytical comparatives
- clitic doubling (him – I see – the John)
- common vocab and idioms

Europe
- spread of uvular r; city-based diffusion from Paris. Uvular pronunciations now found in F, G, Dutch, Danish, Norwegian, Portuguese
- word order: many European langs have SVO word order and auxiliary-second constructions
- pronominal clitics: te amo, je t’aime, ti amo
- periphrastic negatives: original neg intensifiers becomes neg marker (F, E, Dutch, German…)
- periphrastic past tense – perfect: have/be + participle

Other explanations

substrate theory
Balkans convergence may be linked to features to substrate influence from Illyrian people – if they imposed features to diff language that Illyrian shifted towards

genetic factors
correlations btw genetic and linguistic features?
- areas where dental fricatives occur have high occurance of blood group O. Does linguistic tone have two genes?
Language birth

Pidgins

A pidgin is a language that has been stripped of everything but the bare essentials necessary for communication

- jargons through to more normlaiased and stable forms
- the primary functions of a pidgin are descriptive and imperative, not introspective or literary

Maritime: lingua franca used in Mediterannien from the Middle Ages

Trade: Pidgin Eskimo

Work force: E and F-based pidgins

foreigner talk

speech of ‘primitive’ non-E-speaking characters in books, films, etc: Tarzan speech

- lexis: small vocab
- phonology: typicall 5 vowels or fewers – simplified consonant system
- morphology: no inflection, little if any derivation, normally only compounding
- syntax: no fixed word order, no embedding, no complex syntactic constructions

Creoles

- Creoles are fully-fledged natural languages, with a fully developed grammatical system
- Creoles are formed when a pidgin is acquired as a first language by a new generation
- if pdigin characterised by linguistic reduction, creoles characterised by linguistic elaboration and expansion
- creoles that continue as principal lans develop ‘normal’ linguistic characteristics – pidgin status becomes less and less obvious

e.g. Tok Pisin, from Pidgin to Creole

development of compound nouns: man bilong les = lesman (lazy man)

Structural properties of Creoles

- little or no inflectional morphology
- pronominal paradigms are levelled
- word order strictly VO
- tense-mood-aspect marked by particles in fixed positions
- sentential negation also expressed by pre-verbal particle
- preference for CV syll
- morphological conversion
- morphological reduplication
- serial verb constructions
- plural of a noun often expressed by affixing 3rd person plural pronoun
- absence of a copula
- reanalysis and grammaticalisation

Theories of Creolisation

- monogenesis
- European dialect hypothesis
- relexification of the substrate – suggests that grammar of creole IS grammar of substrate, but with lexicon of superstrate
- imperfect SLA: interference from first lan of learner; impose L1 grammar on second language (similar to relexification theory)
• imperfect SLA: universal learning strategies are operative in L2 acquisition; result that all L2 learners make the same sort of mistakes (e.g. use lots of analogy, same article with all nouns, same inflection on all verbs (all regular)…)
• language bioprogram hypothesis: inherent lan knowledge (G) induces default grammatical properties of creole lans

Emergence

a creole is a language that results from a situation of extreme language contact
• contact situation involving 2+ mutually unintelligible languages
• one of which is spoken by group in power – socially, economically and/or politically = superstrate
• underlying group(s) = substrate
• conditions to acquire superstrate are bad, there are more substrate speakers, social conditions (eg formal instructions) are bad

Creolisation is a process, there are various degrees of being a creole
• radical creole, semi, bit of a creole…
• acrolects: most like superstrate
• basilects: less like superstrate
• mesolects: in-between

Creoles represent result of lan change under most extreme circumstances of language contact
• radical creoles appear strikingly similar!! – why?
• ‘mixed’ language creoles (mix of some properties of one lan and some of other) – which features from which language and why?
  o superstrate usually provides lexicon of creole (lexifier language)
    ▪ thus English creoles (Jamaican, Hawaiian Creoles, Tok Pisin), Protugues creoles, etc – despite grammars being radically different
  o most of the grammar derives from substrate language(s)

Koines

includes any lan or dialect in regular use over a wide area in which diff lans or dialects are/were in use locally
• Development of a Lingua Franca has been studied in other contexts in which there’s multilingualism and a common lan is required: urbanisation.
• Speakers will go for most unmarked variants, ditch features that are most recognisable as regional
• Complex process. Varying outcomes in terms of implication

Language death

language shift
• power imbalance btw to speech communities that are in contact (dominant vs minority language)
• minority group is often bilingual. They may stop transmitting minority lan to kids, kids learn dominant lan natively – switch in the language of the group
• shift: the change of habits by a linguistic community as it gradually substitutes one linguistic variety of traditional use with another (long present in community or newly introduced)
• shift happens in CONTACT situation at the point of INTERGENERATIONAL TRANSMISSION. Minority may not be lost, but the patterns of use of minority and majority change

Language Death

Type 1 – sudden death (linguicide)
• sudden physical death of (nearly) all of the language’s speakers (military campaign, natural disaster)
• no decaying of the language is left to study anymore. E.g. Tasmanian
Type 2 – radical language death
sudden death as Type 1 but doesn’t involve physical death
speakers of a lan stop speaking their lan as a survival strategy, or way to invoke progress (e.g. to avoid being identified as Indians)

Type 3 – bottom-to-top death
lan ceases to be used in lower-prestige domains, eg in domestic situations, but survives in higher-prestige domains most often in religious contexts
e.g. Latin – never really died but changed to diff Romance languages. Continued to survive though in higher-prestige domains (academia, religion)

Type 4 – gradual language death
Most common type of lan death – and most interesting
intermediate stage of bilingualism until minority language is no longer acquired as first language. > wide continuum of profiency – speakers produce lan change due to lan attrition.
changes of speech behaviour > structural changes in the dying language

Structural changes
Structural consequences for the target language

- the shifting community may end up speaking a dialect of the target language with influence from abandoned language (a lot of its influence will be lexical – some structural influence may be present too = cases of imposition (shift-induced interference))
- decreolisation: someimtes a creole may remain in close contact with the original superstrate language and may become increasingly like it, leading to a creole continuum with a range of dialects from conservative ones maintaining older properties of the creole, to ones that look like dialects of the superstrate. E.g. Surinam, Trinidadian Creole

Structural consequences for the abandonend language

are the changes that a dying language undergoes typical one that are found in contact-induced change, or even internally induced change, or do shift-induced changes form a separate category of changes?

- range of proficiency in the abandoned language
  - fluent speakers – older people who acquired language as L1 when it was still community language
  - ppl not taught the abandoned lan by their parents may still have picked up some things from situations where the lan was used btw older speakers. Typically still fairly good understanding but imperfect production of abandoned language (so-called semi-speakers). Their speech shows language attrition – changes connected with the loss of a language. Many of the changes in semi-speakers are normal types of lan-change – can be difficult to ascertain whether the changes are due to lan attrition or whether they would have happened anyway. (see below)
  - Further down the spectrum: rememberers, speakers who can say set phrases but don’t understand it and can’t form new sentences with the lexical material that they do remember

- Dying languages tend to exhibit more and faster change – there seems to be a major role for analogy in these changes.
  - overgeneralisation of marked and unmarked features
  - loss of reduction of phonological contrasts
  - development of variability
  - morphological reduction (distinctions btw tenses lost...)
  - preference for analytic over synthetic constructions (e.g. synthetic inflected preposition leam ‘with me’ = analytic free-standing pronoun le mise ‘with me’ (Gaelic))
  - syntactic reduction: few complex sentences, not many subordinate clauses
- **stylistic reduction**: loss of many grammatical forms = fewer ways to express stylistic differences. Typically, more formal styles go first, lastly casual speech (although bottom-to-top language death = formal styles retained)
- **heavy lexical borrowing** (up to complete relexification)

**Endangered Languages**
about 6000 languages which may be

- **extinct**
- **moribund** – no longer learned by kids (over 90% in Australia! world average maybe 50%)
- **endangered** – neither moribund nor safe, but still being learned
- **safe** – official state support and lots of speakers

**Responsible linguistics**
gather data on viability – set up projects to preserve + rescue languages if possible

priority given to documenting languages close to extinction, partic those that are genetically or typologically isolated

set up projects to encourage the retention of endangered languages, with linguists working policially and culturally with native speakers

**Why preserve languages?**
- human knowledge embedded in languages would be lost (eg Amazonian lans = knowledge about plants, natural medicines)
- lans necessary for human (cultural) identity, self-respect, etc
- diff lans may contain info about lans in general, hence about linguistic universals and cognition

**Language reconstruction**
strong resemblance of words; compare languages; genetic related

**The ‘real time’ method**
- The real time method consists of collecting data at some point in time (say 1970) then collecting another parallel set of data later (say 2010) and seeing if anything has changed
- The more strictly comparable the data sets, the better (i.e. take similar sample!)
  *if we compare the speech of older, working-class white males from Aberdeen in 1900 with the speech of younger middle-class Asian females from London in 2000, our results won’t make much sense!*
  e.g.: use of ‘like’ (started in the US in the 80s)

**The ‘apparent time’ method**
- Involves collecting data from ppl of different ages, at one point in time. The assumption is that if we take the LAN of 20-year olds to reflect the current stage of the LAN, then
  - the LAN of 40-year olds reflects what was ‘the current stage of the LAN’ 20 years ago
  - the LAN of 60-year olds reflects the LAN as it was 40 years before...
- The main advantage of the apparent time method is that you only need to collect data at one point in time, rather than committing to a long-term study for each possible example of change
- The disadvantage is that the method relies on the assumption that a person’s LAN doesn’t change much during their lifetime - which is not obviously correct for all aspects of LAN

**Oral History**

**Written data for investigating changes in the past**
For earlier periods, we generally must rely on any written data that have survived
This is more problematic than it may seem at first sight because **writers make mistakes**
Before the printing press was invented, texts had to be **copied by hand**, so in many instances the manuscript of a text we have is a copy (of a copy of a copy ...) of the original, and each of the copyists may have made mistakes. Obviously, we cannot ask a dead monk whether what he wrote was actually grammatical, or a slip of the pen.

We have to make the initial **hypothesis** that the LAN of a given text is grammatical (otherwise, any research is impossible) and then make **informed guesses** as to whether or not an unexpected feature is a mistake or a significant piece of data.

**Possible dialect interference**

- Again because many texts are the result of copying by various different scribes, we cannot always be sure that the LAN in a text represents a single dialect, or contains features of various different dialects with copyists perhaps ‘correcting’ or translating some things but not others.
- Sometimes the main representatives of a given dialect/period are translations of other LANs, e.g. Latin, Greek and/or biblical texts.

**Decipherability**

- This problem becomes much greater when an **unfamiliar writing system** is involved.
- Some of the earliest data from the Germanic LANs, for example, were written in the **runic alphabet**, traditionally known as the ‘futhark’, after the first six letters (‘th’ is one letter).

**Decipherment**

Such unknown alphabets can be deciphered if we can make an informed guess as to what certain texts, or parts of a text, say: Sometimes we are lucky enough to have the same text available in a LAN that is known to us; probably the most famous example of this was the decipherment of ancient Egyptian hieroglyphs on the basis of the texts on the **Rosetta Stone**, discovered in 1799 in a village in the Nile delta, this is inscribed with a text in three forms:
- hieroglyphs (the script of the official and religious texts)
- demotic (a script developed late in Ancient Egypt, used for secular documents)
- Greek

The assumption that this was a translation of the hieroglyphic text enabled the French scholar Jean Francois Champollion and others to decipher the hieroglyphs.

**Reconstruction by comparison**

- Finally, we come to periods from which no data have survived; those forms must be reconstructed.
- The principal tool here is the **comparative method**; a systematic comparison of LANs can tell us whether they shared a common ancestor and what its linguistic forms must have looked like.
- Determine what languages have descended from a common protolanguage, determine how closely these languages are related. Two tendencies make it possible to determine language relationships:
  - relationship between form and meaning of a word is arbitrary; so if two languages share a word it is likely to be related - descended from a common protolanguage (if the relationship was natural, we would expect unrelated languages to share many words with similar form and meaning, e.g. onomatopoeias, it would be impossible to determine which languages were (not) related)
  - sounds change regularly; when a language undergoes a sound change, that change will eventually be reflected systematically throughout the vocabulary. A sound change may be conditioned by phonetic environment.

**Comparative Method**

To discover how a language developed from a protolanguage, that protolanguage itself has to be recovered. Sometimes a protolanguage (e.g. Vulgar Latin for French, Spanish etc) is attested by written
records (manuscripts, etc), in other cases not. Then forms of and grammars of related languages are compared, to reconstruct forms (protoforms).

**Procedure**

- compile cognate sets, eliminate borrowings (words have same semantic identity and are phonetically similar)
- determine sound correspondences that exist between sound in the same position in the words in each cognate set
- reconstruct a sound for each position
  - total correspondence: all languages have same sound in some position (MAJORITY RULES)
  - most natural development: years of study in phonetics and historical linguistics have shown that certain sound changes are very common
  - Occam's Razor: guideline for evaluating competing analyses; given any pair of possible analyses, prefer the one that is simpler (prefer the solution that requires the fewer changes; cut out extra complications. (PLAUSIBILITY)
- check for regularity of sound change

The method is based on a **systematic comparison of the basic vocabulary** of the LANs under scrutiny (‘basic’ here means that the words in question refer to essential everyday objects or concepts; eg man, woman, sun, family, numbers, animals, plants). We can assume that ancient forms of a LAN had such words and so it is less likely that a given LAN group would need to introduce them by innovation or borrowing. If a group of LANs have a similar form for such a basic vocabulary item, it is relatively unlikely that just one of them had this form originally and the others borrowed it at some point. Instead, the similarity may be attributable to some form in a shared proto-LAN. However, we need more than just a few such correspondences to establish that the LANs in question are related. We can’t rule out **borrowing or chance resemblances**. But if we see the **same sort of correspondences over and over again**, the evidence for the idea of a common ancestor becomes stronger; **evidence for PIE**:

<table>
<thead>
<tr>
<th>Language</th>
<th>‘father’</th>
<th>‘night’</th>
<th>‘doorway’</th>
<th>‘new’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek</td>
<td>patér</td>
<td>nuks</td>
<td>thura</td>
<td>neos</td>
</tr>
<tr>
<td>Latin</td>
<td>pater</td>
<td>nox</td>
<td>foris</td>
<td>novus</td>
</tr>
<tr>
<td>Old Irish</td>
<td>athir</td>
<td>nochd</td>
<td>dorus</td>
<td>naue</td>
</tr>
<tr>
<td>Sanskrit</td>
<td>pita</td>
<td>nakti</td>
<td>dvárah</td>
<td>navas</td>
</tr>
<tr>
<td>Lithuanian</td>
<td>patinas</td>
<td>naktis</td>
<td>durys</td>
<td>naujas</td>
</tr>
<tr>
<td>Old E</td>
<td>fæder</td>
<td>night</td>
<td>duru</td>
<td>néowe</td>
</tr>
</tbody>
</table>

**Internal reconstruction**

Look at one language or dialect only, then (like in CM) compare forms and workback in time to reconstruct an earlier form; later forms can be accounted for by means of sound change.

All languages are something of a ruin - as a result of changes having taken place, some ‘residual’ forms are often left to suggest what the original state of affairs might have been. Like in archaeology, we sue the evidence of the present to reconstruct something of the past. We can’t reconstruct everything, only those facts that are suggested by the present-day ‘ruins’ from the past.

IR has more limitations than the CM (see below), so CM is normally preferred. Often, combining the methods can give us the most information.
e.g. Final devoicing in German

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>stük</td>
<td>stüke</td>
</tr>
<tr>
<td>boot</td>
<td>boote</td>
</tr>
<tr>
<td>taak</td>
<td>taage</td>
</tr>
<tr>
<td>hunt</td>
<td>hunde</td>
</tr>
</tbody>
</table>

The plural marker is 'e' (ie schwa), singular nouns are unmarked (voiceless). But some words (tage, hunde) are marked in the plural form. So what might have happened historically?

- did tak and hunt end in g and d which changed to k and t, or
- did dak and hunt end in k and t which changed to g and d word-medially?

Sound change is regular, so 1) must be correct; g and d changed to k and t in word-final position, a conditioned sound change, so the earlier forms of German words were *taag and *hund (still reflected by spelling!) (and cognate forms in related lan Yiddish: final consonants are voiced (tag, hund).

Besides the **comparative method**, the **current state of a LAN** sometimes holds its own clues to its former states. That is, we can sometimes find evidence for reconstructing earlier forms of a LAN by looking at the current forms in that LAN alone. The idea:

- **If we see some irregularity in a LAN now**, this is the result of a change away from an earlier stage in which the **relevant part** of the grammar was **regular**
- The morphology of a LAN might show a particular form of **allomorphy**
  - the existence of two different morphemes which express exactly the same thing
  - we might assume that in an earlier stage there was only one morpheme for the function in question, and set about reconstructing that single original form
- Things like **phonological plausibility** of the hypothesized changes decide which one of the currently existing morphemes (or some third hypothesized form) was the original on

**e.g. Tojolabal**

Some pairs of first person singular forms and stem forms for a number of verbs

<table>
<thead>
<tr>
<th>h-man</th>
<th>I buy</th>
<th>man</th>
<th>to buy</th>
</tr>
</thead>
<tbody>
<tr>
<td>h-lap</td>
<td>I dress</td>
<td>lap</td>
<td>to dress</td>
</tr>
<tr>
<td>h-k’an</td>
<td>I want</td>
<td>k’an</td>
<td>to want</td>
</tr>
<tr>
<td>k-il</td>
<td>I see</td>
<td>il</td>
<td>to see</td>
</tr>
<tr>
<td>k-u</td>
<td>I drink</td>
<td>u</td>
<td>to drink</td>
</tr>
<tr>
<td>k-al</td>
<td>I say</td>
<td>al</td>
<td>to say</td>
</tr>
</tbody>
</table>

- In present-day Tojolabal the prefix that expresses 1st p sing. has two allomorphs, **h-** (in front of C) and **k-** (ifo V)
- Internal reconstruction supposes that previously there was only one 1st p sing. prefix
- **Phonological plausibility** to decide the form that this prefix had:
  - Imagine that k- is the original form, then the present-day paradigm is explained only if we assume that the obstruent k weakened to h in front of consonants
  - This is a well attested phonological change in other historical linguistic analyses which can plausibly be related to ease of articulation
  - If h- were the original prefix, this would imply the opposite change, from h to k in front of vowels
    - which is much less likely, and essentially unmotivated
    - hence, we should reconstruct k- as the original form of the first person prefix in this case
Some Limitations

- languages investigated might be an isolate - not related to any other language. There is no possibility of applying the comparative method, so internal reconstruction is the only possibility
- or, similarly, language might be so distantly related that the CM is unable to reveal very much about its history, because there are so few cognate words
- internal method is restricted in how far back in time it can take us
- IR can only be used when a sound change has resulted in some kind of morphological alternation, these arise as a result of conditional sound change, there will be NO synchronic residue of the original situation in the form of morphological alternations, so the IM will be unable to produce any results in these situations
- IR may be inapplicable or even lead to false reconstruction is when intermediate changes are affected by other later changes, the first changes leaving no traces in the modern language.

Majority Rules vs. Common Sound Changes

Majority Rules Principle

e.g. Grimm’s Law or the High German Sound Shift (Internal reconstruction of Germanic). If we apply the ‘majority’ principle to the data, we may conclude that:

<table>
<thead>
<tr>
<th>p</th>
<th>pf</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
<td>ts</td>
</tr>
<tr>
<td>k</td>
<td>kx</td>
</tr>
</tbody>
</table>

- the Proto-Germanic form for these words had p, t and k
- which in German changed into pf/f, ts/s and kx/x, respectively
- note the rule: voiceless stops become affricates and fricative

MAJORITY RULES, unless this requires hypothesizing a phonologically unlikely change. Some phonological changes are more plausible than others (Note, though, that ‘implausibility’ does not mean ‘impossibility’)

- **affrication** (turning a plosive into an affricate, as happened in the High German Sound Shift), is more plausible than its opposite (de-affrication)
- **assimilation** (adapting a sound to a neighbouring sound) is more common than dissimilation
- **voicing** an obstruent between two vowels is more likely than devoicing it
- **deleting or weakening** an obstruent is in most contexts more plausible than inserting one

Summary of common sound changes

- voiceless sounds > voiced between vowels and before voiced consonants (voicing assimilation; t>d/V_V)
- stops become fricatives between vowels
- consonants become palatalised before front vowels (palatalisation; t>tS_/i)
- consonants become voiceless at the ends of words
- difficult consonant clusters are simplified (consonant deletion, k>0/V_st)
- difficult consonants are made easier
- assimilation of place of articulation (n>m/_b)
- oral vowels become nasalised before nasals
- (other) fricatives become [h]
- [h] deletes between vowels
Pronunciation of earlier languages and proto-languages

Former forms can be reconstructed by CM or IR, but can we say that the reconstructed forms were pronounced that way? Historical linguistics sometimes say it doesn't matter as the forms are of semantic, not phonetic, interest as they help us understand the vocabulary of the particular proto-language and ultimately the society and culture of its speakers. To talk about pronunciation, linguists rely on the following types of evidence:

- **contemporary accounts** - writers often give these accounts of how their language was pronounced during their day; often indirect and not sophisticated in linguistic terms, but they give us an idea of how the language was spoken (e.g. Aaron Thomas: I believe that about then years ago (in England), ... it was fashionable to Lisp...)
- **poetic accounts** - the rhyming patterns of early poetry often indicate earlier pronunciation (as 'was' rhymed with French 'par cas' assume that it ended in [s] rather than [z])
- **alphabetic evidence** - early alphabets change in order to accommodate different pronunciations; e.g. OE was written in the Roman alphabet, new letters had to be introduced for sounds that were not present in Latin; P for 'thorn' and ae in 'ash'
- **recordings** - in the past sixty years or so, earlier pronunciations have been recorded

Language Families

![Diagram of Language Families](image-url)
**Writing Systems**

Writing can influence spoken language.

**Ideograms** - signs where the meaning is directly associated with the sign, no reference to language (e.g. smiley = happy), they are universal and convey meaning directly.

**Written characters**: signs refer to units of spoken language, which in turn convey meaning. These are units of particular language sequences.

**Logographs** represent a meaningful unit (morpheme or word) as in Chinese

**Phonographs** represent sound (e.g. syllabic or alphabetic)

**Grapheme**: unit of a writing system (similar concept to that of phonemes in phonology), e.g. in Latin graphemes include majuscule and minuscule forms of 26 letters (that correspond to various phonemes), marks of punctuation (mostly non-phonemic), and symbols such as numerals (logograms for numbers).

**Rebox principle**: picture of 'man' and 'feet' (referring to 'go') = maen+gou = maengou, may then be used for the sound maengou in words that have it man + go > develop basic **logographic system** (like in Chinese)

OR picture of 'man' = /maen/ meaning 'man' (logograph) > syllabic (maen/ > /m.../ (alphyabetic, abjad)

**Classification of writing systems**

<table>
<thead>
<tr>
<th>Type</th>
<th>Each symbol represents</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logographic</td>
<td>morpheme</td>
<td>Chinese characters</td>
</tr>
<tr>
<td>Syllabic</td>
<td>syllable or mora</td>
<td>Japanese <strong>kana</strong></td>
</tr>
<tr>
<td>Alphabetic</td>
<td>phoneme (consonant or vowel)</td>
<td>Latin alphabet</td>
</tr>
<tr>
<td>Abugida</td>
<td>phoneme (consonant+vowel)</td>
<td>Indian <strong>Devanāgarī</strong></td>
</tr>
</tbody>
</table>
but other possibilities are imaginable (and used), such as rotation of the basic sign, addition of diacritical marks and so on. The contrast with "true syllabaries" is that the latter have one distinct symbol per possible syllable, and the signs for each syllable have no systematic graphic similarity. The graphic similarity of most abugidas comes from the fact that they are derived from abjads, and the consonants make up the symbols with the inherent vowel and the new vowel symbols are markings added on to the base symbol.

<table>
<thead>
<tr>
<th>Abjad</th>
<th>phoneme (consonant)</th>
<th>Arabic alphabet</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first type of alphabet that was developed was the abjad. An abjad is an alphabetic writing system where there is one symbol per consonant. Abjads differ from other alphabets in that they have characters only for consonantal sounds. Vowels are not usually marked in abjads</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Featural</th>
<th>phonetic feature</th>
<th>Korean hangul</th>
</tr>
</thead>
<tbody>
<tr>
<td>finer detail than an alphabet. Here symbols do not represent whole phonemes, but rather the elements (features) that make up the phonemes, such as voicing or its place of articulation. Theoretically, each feature could be written with a separate letter; and abjads or abugidas, or indeed syllabaries, could be featural, but the only prominent system of this sort is Korean hangul. In hangul, the featural symbols are combined into alphabetic letters, and these letters are in turn joined into syllabic blocks, so that the system combines three levels of phonological representation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Spelling**

middle east origin of European writing system
1700 AD how write LAN, literacy till then in Latin, applied Roman alphabet to English

e.g. Latin Vowels /i, e, o, u/ - OE the same PLUS /y/ and /ae/ - spellings added: y and AE (fused a+e together, diagraph)
did NOT represent vowel-length (as the Romans didn’t do so either)

**Stops**
p, t, k, b, d, g in Latin
(k: c or k)
OE added tS (spelled c) and d3 (spelled C3), g was more often a fricative than a stop and spelled 3, k spelled c (not identical to Latin sound)

**Fricatives**
f, s
OE: th spelled as P, S>sc
plus /j/ as 3 and /w/ as p

Normans arrived - English wasn’t writte (Latin or French were)
1, 2 centuries later, many things changed in ME
c-problem: ch for /tS/, c/k
(French; s spelled as c)

Latin u > u (vowel)
Latin w > v (consonant)
italics - how it’s spelled
sometimes respelling (book writers revise spelling for no good reason; e.g. lim to limb; no difference to pronunciation. debt and doubt (from French in ME period) - pronounced /det/ and /daut/ - first spelled like this, then someone decided that due to their history the should be spelled like Latin (better to remember their meaning!?) - not pronounced as the cluster isn’t in E. However, there are cases where spelling is changed, pronunciation is changed to agree; often /of(e)n/ - historically t that’s been lost due to sound change (soft-soften - t lost, moist - moisten) - same happened to often. still in spelling and thus some people say /often/ - SPELLING PRONUNCIATION
tsk, tsk - disapproval, also spelled tut, tut