Class 19
More morphological change and grammaticalization
11/21/19

1 Paradigm leveling and base-selection

1.1 Boundary change (mis-analysis) + paradigm leveling

- We've seen cases where speakers have mis-analyzed forms and put boundaries where they didn't originally belong.
- And we've seen plenty of cases of paradigm leveling.
→ Here's two equivalent cases where both have happened:

(1)   The present tense paradigm of the verb 'to be' in Polish and Persian

	Proto-Iranian	Persian	Proto-Slavic	Polish
1sg	*as-mi	hast-am	*es-mi	jest-em
2sg	*as-i	hast-i	*es-i	jest-es
3sg	*as-ti	hast-Ø	*es-ti	jest-Ø
1pl	*s-masi	hast-ami	*es-mesi	jest-es-my

   ⋆ The insertion of *h* and *j* are for phonological reasons; ignore them.
   ○ There are also interesting things to say about the suffixes, but we'll ignore that too.

- In both languages — which inherited basically the same pattern from Proto-Indo-European — the present paradigms were re-made.
   ○ (Some) final vowels were lost by regular sound change (including in the 3sg).
   ○ Speakers then apparently came to analyze the 3sg *ast*/*est* as being "unaffixed" (i.e. having a *null* morpheme), meaning that the [t] was part of the root rather than the suffix: /ast-Ø/, /est-Ø/.
   → This new analysis of the UR in the 3sg then spreads throughout the paradigm, replacing original forms in *as-/es-*, and even ones which were originally vowel-less *s-* (1pl in Proto-Iranian).

⇒ A re-analysis of the 3sg (perhaps instigated by sound change) leads to subsequent changes in the entire paradigm (by way of changes to the UR of the root).

1.2 Picking a base

- In the preceding examples, the 3sg form functioned as the "base" for leveling within the paradigm.
   ○ i.e., properties of the 3sg got asymmetrically transferred to other forms within the paradigm.
- It is extremely common for the 3sg form to function as the analogical base, presumably because it tends to be the most commonly used verbal form (i.e., in most utterances, there is a 3sg subject that the verb has to agree with).

- But it is not always the 3sg that functions as the base. Consider the following evidence from Yiddish (Albright 2002).

(2)   Middle High German into Yiddish

Middle High German				Yiddish		
	'dig'	'know'			'dig'	'know'
1sg	grabə	vejs		1sg	grɔbə	vejs
2sg	*grebə-st*	vejs-t		2sg	*grɔbə-st*	vejs-t
3sg	*grebə-t*	vejs		3sg	*grɔbə-t*	vejs-t
1pl	grabə-n	*vɪs-ən*		1pl	grɔbə-n	*vejs-ən*
2pl	grabə-t	*vɪs-ət*		2pl	grɔbə-t	*vejs-t*
3pl	grabə-n	*vɪs-ən*		3pl	grɔbə-n	*vejs-ən*

Sound Change:
MHG *a* > Yiddish ɔ

- MHG showed two different types of alternating paradigms:
  ○ *grab*-type: vowel changes in 2sg and 3sg (*a*∼*e*)
  ○ *vejs*-type: vowel change in plural (*ej*∼*ɪ*)

- But by the time of Yiddish, the alternating paradigms have been completely leveled.
- In both original types, it was the vowel of the *1sg* that got transferred to the other cells of the paradigm, not the 3sg as might otherwise have been expected. *Why?*

⋆ It's because the *1sg* always happened to be the **most informative** form for identifying the UR of the root.
  ○ There were other non-alternating paradigms where the vowels of the 2sg/3sg or the plural was also present in the 1sg.
  ○ If speakers picked those forms as the URs, they wouldn't know whether it should alternate or not.

- There are a number of other phonological processes/distributions where distinctions are neutralized in various forms outside of the 1sg, but maintained in the 1sg:

(3)   Contrast in root-final obstruent voicing

	Yiddish	
	'love'	'sift'
1sg	***lib***	***zip***
2sg	lipt	zipst
3sg	lipt	zipt
1pl	**libə**	**zipən**
2pl	lipt	zipt
3pl	**libən**	**zipən**

  → There is a process of regressive voicing assimilation for obstruents, which causes root-final voiced obstruents to surface as voiceless (e.g. /b/ → [p]) before the voiceless-consonant–initial suffixes.
  ○ The 1sg is one of the paradigm forms without a voiceless suffix, so it maintains the contrast between different types of roots.

(4)   Contrast between vowel-final and non–vowel-final roots

		Yiddish
	'match'	'fiddle with'
1sg	*pɔr*	*pɔrə*
2sg	**pɔrst**	**pɔrəst**
3sg	**pɔrt**	**pɔrət**
1pl	pɔrən	pɔrən
2pl	**pɔrt**	**pɔrət**
3pl	pɔrən	pɔrən

  → There is phonologically-conditioned allomorphy for the plural suffixes between /-ən/ (after consonants) and /-n/ (after vowels).

     ○ These suffixes therefore obscure the difference between roots that end in schwa and roots that end in consonants.

     ○ Again, the 1sg doesn't suffer from this problem, and you can unambiguously tell whether the schwa is part of the root.

⋆ So, the 1sg is used as the base when paradigm leveling occurs, in order to best maintain contrasts in underlying forms and distinctions between paradigms.

⇒ Therefore, *informativity/reliability* can be a factor in determining bases for analogy, alongside frequency.

2   Changes in morphological status

- We've thus far looked mostly at changes in URs and allomorphs.
- Now we'll look at changes in the morphological/(morpho)syntactic properties of individual morphemes.

2.1   Becoming more affix-like (grammaticalization)

- The most frequent direction of change for grammatical properties is for things which were originally free words (usually function words, but sometimes even content words) to become (more like) affixes.

⇒ This is often called "**grammaticalization**", because it turns something that originally had substantial lexical meaning into something that has more of a grammatical meaning/function.

- In Estonian, a word that was originally a postposition (= a preposition that comes after the noun rather than before) turned into a case suffix (Campbell 2013:251).

     ○ In Pre-Estonian, **kansak* was a free function word meaning 'with':

(5)   Pre-Estonian **kansak* 'with' (postposition)

    *poja-n   kansak
    boy-GEN.SG with
    'with the boy'

(6)   cf. Finnish *kanssa* 'with'

    poja-n   kanssa
    boy-GEN.SG with
    'with the boy'

     ○ But in Estonian, (a reduced version of) this morpheme now functions as the "comitative" case suffix (basically meaning 'with'), which exists only as an affix not a free word.

(7)   Estonian *-ga* [-ka] COMITATIVE

    *poja-ga
    boy-COM
    'with the boy'

- Over time, the free word came to be more and more closely associated with the nouns it modified (forming a tighter grouping "prosodically", i.e. in terms of intonational phrasing and stress).
    - The originally-free morpheme then became subject to reduction (based on being in the final position in this tighter grouping).
    - → Eventually, these changes were so extreme that it came to be viewed as a suffix rather than an independent entity.

- Another common grammaticalization path like this is from verbal auxiliaries to verbal suffixes:

(8)   Spanish *cantar-é* 'sing-FUT.1SG' < *cantar 'to sing' + *hé 'have-1SG.PRES'   (Campbell 2013:256)

- Less frequently (but still well-attested), content/lexical words change all the way into suffixes:

- Consider the suffix in French *-ment* '-ADVERB' (many *-ment* words have been borrowed into English, such that *-ment* is a semi-productive suffix in English).
    - Equivalent to English *-ly*, changes adjectives into adverbs.
    - e.g., *absolument* 'absolutely' (lit. 'absolute-ADV')
- This word comes from Latin *absoluta mente* 'in absolute mind'
    - In *phrases* like this, *ment-e* meant 'mind-ABL.SG', i.e. the ablative of *mens* 'mind'
    - It was in the ablative to indicate the 'in' meaning, and the adjective modified the noun.
→ Over time, it changed from being a separate word to a suffix on the adjective (which, notably, was originally the modifier not the head).
    - It lost any original semantic connection with 'mind', and simply came to indicate a grammatical function — changing an adjective into an adverb.

- Affixes that change the category of the word they attach to are called "**derivational**" affixes.
- Many, but by no means all, derivational affixes come from originally free content words.

(9)   a.   *-ly* (Adj → Adv) is a reduced form relating to *like*
       b.   *-ful* (N → Adj) is basically identical to *full*
       c.   The [faɪ] in *-ify* (Adj → V) originally comes from the Latin root *fac-* 'make'

2.2   Becoming *less* affix-like ("de-grammaticalization")

- While less common, morphemes can change in the other direction as well, going from an affix to (more like) a content word.

(10)   a.   *ex* 'former romantic partner' (as in "*all my exes live in Texas*") can now be a root, whereas it used to only be a prefix meaning 'former' (*ex-husband*, *ex-girlfriend*, *ex-convict*, etc.)
       b.   *teen* 'a person aged 13–19' comes from the numeral suffix *-teen* (though there's also the word *teenage*, which presumably should be analyzed with *teen* as a root, albeit not a free one)
       c.   *ish* meaning 'kind of...' can now be an interjection(?) — *Q: You're a fan of that movie? A: Well, ...ish* — whereas it used to be just an adjective-forming suffix (*Scott-ish, boy-ish, self-ish*).

- Things which were originally affixes can also turn into *clitics* (≈ phrasal affixes), which are halfway between affixes and free words.
    - Take the English possessive "apostrophe s" (a.k.a. the "Saxon genitive"):

(11)   a.   *the dog*
       b.   *[the dog]'s owner*
       c.   *[the dog from the picture]'s owner*
       d.   *[the dog who chased the squirrel]'s owner*
       e.   *[the dog we saw yesterday]'s owner*

- In English, the "apostrophe s" modifies *noun phrases*, not just nouns, which means it's a *clitic* not an affix.
  - It attaches to the last word in the noun phrase, not necessarily the noun itself.
  - But it is always part of some other word, so it's not free.

- ⋆ In earlier period's of the language, it was a regular genitive suffix /-ez/.
  - At some point (presumably after Old English's case system started breaking down), it started to develop clitic-like behavior instead.
  - The same exact thing happened in the cognate genitive morpheme in Swedish (Campbell 2013:259).

→ So this constitutes a change from a tightly bound morpheme (affix) to a less tightly bound morpheme (clitic).

3   Changes in morpheme order

- Languages can change the order in which morphemes appear in complex words. (This is not super common...)
- This often relates to change in other morphological properties of the morphemes involved.

3.1   Nahuatl

- Campbell (2013:252) gives the example of the morpheme *nemi* in Nahuatl. Originally, this was a free verb that meant 'to live, to walk (around)'.

- In certain dialects, over time it lost its independence and turned into a suffix.
  - It looks like it first had a life as a sort of auxiliary verb (that came after the main verb), or as part of a "serial verb" construction, and subsequently got more and more bound.
- It simultaneously had its semantics "bleached" somewhat.
  - It took on a meaning like 'to go around doing, to go about doing, to be currently or habitually engaged in doing'.
- In these dialects, it is referred to as the "ambulative" suffix.

(12)   North Puebla Nahuatl AMBULATIVE -*nemi* (suffix)

*čoka-ti-**nemi***
cry-CONNECTIVE-AMBULATIVE
'he/she goes about crying'

- In these dialects, it's just a suffix (seemingly constituting its own class of morphemes, position-wise and meaning-wise), reflecting its original location as an independent word (after the verb).
- In other dialects, however, it changed even further.

- In Huasteca Nahuatl, -*nemi* underwent further semantic bleaching and became a "habitual" morpheme (meaning something like 'continually').
  - As such, it came to be morphologically interpreted as part of an existing class of morphemes referred to as "directionals", with meanings like 'towards', 'away from', etc.
  - This class of morphemes regularly appeared a *prefixes* to the root.
⇒ On "analogy" to the other members of the class, *nemi* switched locations and became a prefix too:

(13)   Huasteca Nahuatl HABITUAL *nemi-* (prefix)   (14)   cf. other Huasteca directional prefixes

*ki-**nen**-palewiya*   *ni-k-**on**-ita-s*
3.OBJ-HABITUAL-help   1.SUBJ-3.OBJ-<u>DIRECTIONAL.away</u>-see-FUT
'he/she helps him/her continually'   'I will see him there' ('I'll go see him')

  - ⋆ Note that *nen-* is a regular allomorph of *nemi-*, appearing in environments when followed by a single consonant.
  - The vowel is deleted by a syncope process (/nemi-/ → //nem-//), and then the /m/ is neutralized to [n] in coda position (/nem-/ → [nen-]).

3.2   Uralic

- Campbell (2013:252) provides another example where related Uralic languages have developed different morpheme orders through different sequences of grammaticalization:

(15)   Finnish: ROOT-CASE-POSSESIVE   (16)   Hungarian: ROOT-POSSESIVE-CASE

     kodi-ssa-ni   *ház-am-ban*
     home-LOC-1.POSS   house-1.POSS-LOC
     'in my house'   'in my house'

    ⋆ Note that none of the morphemes appear to be cognates.

- According to Campbell:
  - Finnish had already developed case suffixes when its possessive pronouns (which were free function words) turned into suffixes.
  - Hungarian had already developed possessive suffixes when some of its locational postpositions (which were free function words) turned into suffixes.

→ The order of suffixes therefore reflects the historical order in which those morphemes came to be suffixes.

3.3   Big picture

- This is a common view on how morpheme ordering develops (e.g. Bybee 1985).
  - Affixes arise (solely) through grammaticalization.
  - Linear order then reflects historical order of grammaticalization.
  - Any cross-linguistic tendencies for particular morpheme orders result from tendencies for certain morphemes to form tighter units with the head word (and thus be more likely to be subject to grammaticalization) than others.

- The main alternative view is that morpheme order reflects properties of the synchronic morphological/syntactic grammar.
  - Evidence for this view comes from the observation that the order of morphemes within a word reflects the order of words in a sentence (when the same meanings are expressed through independent words rather than bound morphemes).
  - This generalization is called the "Mirror Principle" (Baker 1985).

- The Nahuatl case argues for the Mirror Principle view, because once the morphosyntactic properties changed, the order changed along with it.
- The Uralic case would seem to argue for the grammaticalization-order view.
- ⋆ The answer probably lies somewhere in the middle, where both of these factors are important for deriving morpheme order.

References

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