Class 23
Models of language change, contact, and variation
12/10/19

- **Reading (required): Campbell Ch. 7, Ch. 12.1 & 12.2 (pp. 298–309)**
  - ○ *Reading (recommended): Campbell Ch. 6 (linguistic classification), rest of Ch. 12, Ch. 16 (long-distance linguistic relationships)*
- **PSet #3 due at noon on Wednesday, Dec 18th**
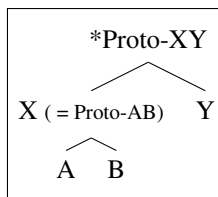
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1   The "Tree" model vs. the "Wave" model

- Our guiding principle throughout the semester has (implicitly) been the ***Neogrammarian hypothesis:*** *sound change is regular and exceptionless*.
- But we've now started to see that linguistic features can also arise through *borrowing*, sometimes in such a way that regular sound change can become obscured.
- ⋆ There are two main models of language change and language relatedness that rely respectively on these two different notions of change: the *family tree* model and the *wave* model.
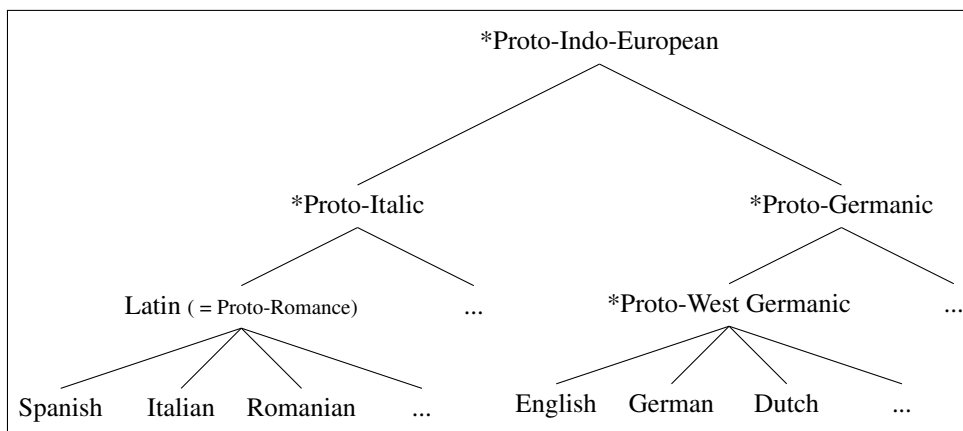
1.1   The family tree model

- The family tree model is the one that we've (implicitly) used throughout the semester.

(1)   Family trees
    a.   Schematic

```
            *Proto-XY
              /\
  X ( = Proto-AB)    Y
       /\
      A   B
```

    b.   (Some of) Indo-European

```
                        *Proto-Indo-European
                          /              \
              *Proto-Italic              *Proto-Germanic
                /      \                    /        \
   Latin ( = Proto-Romance)   ...   *Proto-West Germanic   ...
       /    |    \                     /    |     \
 Spanish  Italian  Romanian  ...   English  German  Dutch   ...
```

- Each sub-group/branch is defined by one (or more) *shared common innovations* which discretely distinguish(es) that branch from the other related languages.
  - For example, Proto-Germanic underwent *Grimm's Law*, Proto-Italic did not, so the Grimm's Law sound change(s) define a separate branch of Indo-European.

- The tree model is based on Neogrammarian change:
  - In one branch, some change occurs regularly without exception, and that change defines the branch.
- This assumes that languages split off essentially instantaneously, and then go their separate ways.
  - i.e., what was at one point a single unified speech community all of a sudden becomes two (or more) isolated speech communities.
  - → We can recover this split in speech communities by observing the first change that affects one community but not the other.

- A number of these assumptions are self-evidently false in their strong forms.
  - → In rare instances it may be the case that one group leaves a speech community to go settle far away and there is has subsequent contact with the original community,
  - But usually spread and diversification is much more gradual.
- ⋆ So the tree model represents an *idealization* of real linguistic situations, but it nonetheless does a very good job of describing the facts (especially at large time scales).

1.2   The wave model

- The wave model approaches language relatedness from a very different point of view:

(2)   **The Wave Model**
    a.   Linguistic changes originate in a specific location at a specific point in time.
    b.   They emanate outward concentrically (like a *wave*) throughout the "speech community".
    c.   (The strength of a change becomes weaker as it moves farther out from its point of origin.)

- Language diversification thus happens through the piling up of changes in different areas of the speech community.
  - ⇒ Language change is not punctual and not immediately uniform throughout an entire language community.
- Nevertheless, sound change is still *regular* within the linguistic area to which it has spread.
  - ...though things may get fuzzy at the boundaries.

- ⋆ The wave model approach was inspired by the existence and behavior of *dialects*.

2   Dialectology and the wave model

2.1   Basic terminology and concepts

- We have terms for talking about these kinds of changes and the areas in which they apply:

(3)   a.   **Isogloss:** A line on a map which represents the geographical boundary of a regional linguistic variant.
         →   (by extension) also the variant feature itself
    b.   **Isogloss bundle:** Several isoglosses whose extent coincides at (approximately) the same geographical boundary.

- Within the wave model (and dialectology generally), isogloss bundles define a speech variety (similar to *linguistic changes* in the tree model). We can talk about speech varieties using the following terms:

(4)   **Lect:** A neutral term for *any linguistic variety*, whether defined by its geographical distribution or by its use by people from different social classes, castes, ages, genders, etc.

→   *dialect* (**geographical**), *sociolect* (social group), *idiolect* (individual), etc.

⋆ **Diversified *dialects* are the precursor to distinct *languages*.**

- We use the criterion of "mutual intelligibility" to determine the relationship between different (dia)lects:

(5)   **Mutual intelligibility:** When speakers of different dialects can understand one another.
  →   If two (related) dialects **are** *mutually intelligible*, then they are classified as **dialects of the same language**.
  →   If two (related) dialects **are not** *mutually intelligible*, then they are classified as **(dialects of) distinct languages**.

(6)   **Language:** A set of dialects which are mutually intelligible amongst themselves, but not mutually intelligible with any other speech variety.

- The characterization of a speech variety as a "language" vs. a "dialect" in common usage (sometimes adopted by linguists, sometimes not) often has nothing to do with its linguistic characterization:

(7)   "*A language is a dialect which as an army and a navy*" (Max Weinreich).

  ○ Swedish, Norwegian, and Danish are mutually intelligible, but they are classified as *different languages*, because they belong to different countries.
    ▪ Similar situations exist among, e.g., {Bosnian, Serbian, and Croatian}, and {Hindi and Urdu}, with much more charged political underpinnings.
  ○ The main speech varieties in China (e.g. Mandarin and Cantonese) are referred to as *dialects*, despite the fact that they are not mutually intelligible, because it support the idea of national unity and such.

2.2   Dialect continua

- But the situation is, in reality, even more complicated:

(8)   **Dialect continuum:** Geographically contiguous dialects where each neighboring dialect is mutually intelligible, but the dialects at either end are not.

  ○ This situation exists among, e.g., the Romance languages ranging from Italy into Portugal, and the Germanic languages ranging from eastern Germany into the Netherlands.
  ○ (See https://en.wikipedia.org/wiki/Dialect_continuum for many more examples.)

⇒ The existence of *dialect continua* follows from the wave model of sound change and relatedness.
  ○ Isoglosses don't necessarily always line up in a bundle.
  ○ They may overlap only partially, or they may have originated in the same area but spread to different extents.

- Here's a schematic illustration:

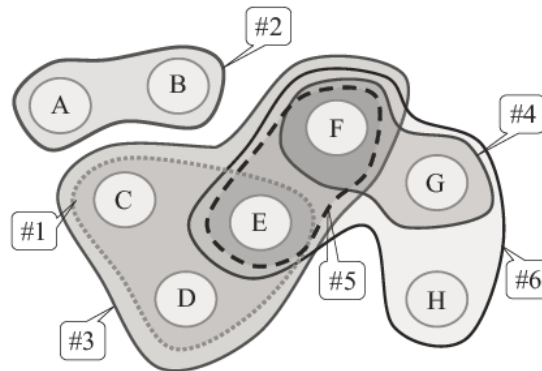(9)   Dialect continuum (François 2014:169)

Figure 6.3 Intersecting isoglosses in a dialect continuum or a linkage

- Different innovations are shared between different dialects:
    - #1 applies to C, D, & E
    - #2 (and only #2) applies to A & B
    - #3 applies to C, D, E, & F
    - #4 applies to F & G
    - #5 applies E & F
    - #6 applies to E, F, G, & H

⋆ Since innovations spread locally, each adjacent dialect is likely to be more similar to its immediate neighbors than to dialects that are further away.
    - Though this may not always be the case, if the central dialects are massively innovative and the peripheral dialects are more conservative (compare A/B with H).

- Consider also dialects F & G:
    → Some innovations make them *more similar* — #4 and #6 (because they apply to both dialects)
        ▪ This is referred to as "**convergence**".
    → But other innovations make them *less similar* — #3 and #5 (because they apply to only one of the two)
        ▪ This is referred to as "**divergence**".
⋆ This shows that languages/dialects can both *converge* and *diverge* from another (essentially) simultaneously.

- If this is the full extent of the changes that have applied among these various dialects, they will probably all still be mutually intelligible.
- But if many more continue to pile up, affecting some but not others, this will eventually lead to mutual *un*intelligibility, resulting in distinct languages rather than dialects of the same language.

2.3   Focal areas, relic areas, dialect borrowing, and lexical diffusion

- We have terms to talk about the areas where innovations *originate* and where they *fail to spread to*:

(10)   a.   **Focal area:** The location from which innovations spread outwards (usually a zone of high "prestige").
         b.   **Relic area (residual area):** An area (usually small) which preserves older forms that have not undergone the innovations that the surrounding areas have.
              →   These are often regions of difficult access for cultural, political or geographical reasons, and thus resistant to the spread of prestige variants from elsewhere.

4

- Consider an example from West Yorkshire English (Campbell 2013:189):

- Old English had the voiceless velar fricative /x/.
- Standard English lost this sound already in the Middle English period:
  - Usually through deletion + compensatory lengthening
  - Occasionally by changing to /f/

(11)   a.   OE V*x* > ME V: / _C   [OE /lixt/ > ME /liːt/ > NE /laɪt/ 'light']
         b.   OE *x* > ME *f*   [OE /trɒx/ > NE /trɒf/ 'trough']

- However, in the West Yorkshire dialect of English, we can still find a few words with a velar fricative:

(12)   a.   West Yorkshire [trɒx] 'trough'
         b.   West Yorkshire [lɪçt] (← /lɪxt/) 'light'   [/x/ → [ç] / _frontV]

→ West Yorkshire is a relatively remote area (i.e. *relic area*), and it appears that the innovations regarding /x/ never fully penetrated the local dialect.

- Nevertheless, for native speakers of this dialect, most words actually do show the expected developments of /x/.
  - It's only a few isolated words that have resisted the change.
- Probably the best way to understand this is that speakers of this dialect were generally *bi-dialectal*, i.e. native speakers of the local dialect *and* speakers of (or at least familiar with) the standard dialect.
  - Over time, even though the local dialect never adopted the *sound change* per se, the dialect *borrowed* the pronunciations of many of these words from the standard dialect.

⋆ This is referred to as "**dialect borrowing**", where selected features from another mutually intelligible dialect are adopted sporadically.
  - This contrasts with a situation where the innovation itself spreads in full to the dialect.

⇒ Cases with extensive dialect borrowing have led to the misconception of "**lexical diffusion**".
  - *Lexical diffusion* refers to the idea that sound changes spread from word to word within the lexicon, rather than applying wholesale without exception.
- Almost all claimed cases of lexical diffusion have been debunked.
  - Many have been shown to really just be dialect borrowing (like the West Yorkshire case)
  - Most of the other cases have been reanalyzed as fully regular sound changes by refining the conditioning environment for the change.

2.4   American isoglosses

- Bert Vaux has conducted a large scale study of various American dialect features.
  - Here's a write up of some of his results: http://www.choicesmagazine.org/UserFiles/file/article_115.pdf
  - → You can take the test and compare your results here:
    https://www.nytimes.com/interactive/2014/upshot/dialect-quiz-map.html
- Josh Katz (NC State) created heat maps (Katz 2016).
- I pulled out a bunch of these maps (via this article: https://www.businessinsider.com/american-english-dialects-maps-2018-1) into a powerpoint...

3 *Sprachbunds* (linguistic areas)

- Our discussion about wave-like innovations has thus far focused on the diffusion of these innovations within dialects of the same language.
- However, shared innovations (or general *convergence*) can develop also between neighboring speech varieties that are *unrelated* (or distantly related).
- ⋆ In some parts of the world, big groups of neighboring unrelated languages that are in close contact all *converge* on the same linguistic features. This is called a "**sprachbund**" (linguistic area).

3.1 The Balkan Sprachbund

- The most well-known current sprachbund is the Balkan sprachbund.
  - → Greek, Albanian, Serbo-Croatian, Bulgarian, Macedonian and Romanian (and to a lesser extent Turkish and Romani) now share a huge number of features in common despite not being closely related genetically.
  - ○ Here's a list of some of the shared features (Campbell 2013:300):

(13) a. A central vowel /ɨ/ (or /ə/) (not present in Greek or Macedonian).

     b. Syncretism of dative and genitive (dative and genitive cases have merged in form and function);
         e.g., Romanian *fetei* can mean either 'to (the) girl' (DAT) or '(the) girl's' (GEN)   [cf. *fată* 'girl' (NOM)]

        i.   *am data o carte fetei*   ii.   *frate fetei*
           'I gave the letter to the girl'   'the girl's brother'

     c. Postposed articles (not in Greek); for example, Bulgarian

        i.   *məʒ*   ii.   *məʒ-ət*
           'man'   'the man'

     d. Periphrastic future — futures signaled by an auxiliary verb corresponding to 'want' or 'have' (not in Bulgarian or Macedonian); e.g. Romanian

        i.   ***voi** fuma*   ii.   ***am** a cínta*
           'I will smoke' (literally 'I want smoke')   'I will sing' (literally 'I have to sing')

     e. Periphrastic perfect (with an auxiliary verb corresponding to 'have').

     f. Absence of infinitives (instead, the languages have constructions such as 'I want that I go' for 'I want to go'); e.g., 'give me something to drink' has the form corresponding to 'give me that I drink', as in:

        i. Romanian   ii. Bulgarian   iii. Tosk Albanian   iv. Greek
           dă-mi să beau   *daj mi da pija*   *a-më të pi*   *dós mu na pjó*

     g. Use of a personal pronoun copy of animate objects so that the object is doubly marked:

        i. Romanian *i-*   *am scris lui Ion*
           lit.   to.him- I   wrote him John
           'I wrote to John'

        ii. Greek *ton*   *vlépo ton jáni*
           lit.   him.ACC I   see the/him.ACC John
           'I see John'

- All of these features originated in one language or another, and *spread/diffused* into the other languages of the area.
  - → These can thus be referred to as "**areal**" features, i.e. typical properties of languages of that geographical area.
    - ○ (This term can be used whether the area is thought of as a true sprachbund or not.)

- ⋆ There are many more known sprachbunds in the world (see Campbell for more examples), including South Asia, Mesoamerica, the Baltic, Ethiopia, and the Pacific Northwest.

3.2 Using language contact to diagnose genetic relationship

- Areal features are bad clues for determining genetic relationships.
  - → Especially in sprachbund situations, areal features are just as / more likely to represent borrowing than true language-internal innovations.
    - ○ Therefore, it's multiple related languages could end up displaying the same innovations without representing a "shared" innovation.

- Consider the following sound correspondences from the Nootkan languages, which are part of the Pacific Northwest sprachbund:

(14)   Sound correspondences in Nootkan (Campbell 2013:307)
        [" C' " = *glottalized* C, ʕ = voiced pharyngeal fricative, ħ = voiceless pharyngeal fricative, χ = voiceless uvular fricative, q = voiceless uvular stop]

TABLE 12.1: Nootkan sound correspondences

	Makah	*Nitinat*	*Nootka*	*Proto-Nootkan*
(1)	b	b	m	*m
(2)	b'	b'	m̓	*m̓
(3)	d	d	n	*n
(4)	d'	d'	n̓	*n̓
(5)	q'	ʕ	ʕ	*q'
(6)	q'ʷ	ʕ	ʕ	*q'ʷ
(7)	χʷ	χʷ	ħ	*χʷ
(8)	χ	χ	ħ	*χ

- Many of the languages of the Pacific Northwest sprachbund **lack nasal consonants**.
- ⋆ With that in mind, *how should we subgroup Makah, Nitinat, and Nootka?*

References

Campbell, Lyle. 2013. *Historical Linguistics: An Introduction*. 3rd edn. Cambridge, MA: MIT Press.
François, Alexandre. 2014. Trees, Waves and Linkages: Models of Language Diversification. In Claire Bowern & Bethwyn Evans (eds.), *The Routledge Handbook of Historical Linguistics*, 161–189. London & New York: Routledge.
Katz, Josh. 2016. *Speaking American: How Y'all, Youse, and You Guys Talk: A Visual Guide*. Boston/New York: Houghton Mifflin Harcourt.