

Semantic change

Preliminaries

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Language change and linguistics

- ▶ A fundamental fact about languages is that they change. Not without limits, but a lot.
- ▶ How languages change has implications for the synchronic states we normally concentrate on.
- ▶ A good theory of grammar will have implications for how a language changes; a good theory of change will mesh well with a good theory of grammar. Either is incomplete without the other.
- ▶ Long recognized by theorists in other domains.
 - ▶ Phonology (Weinreich et al. 1968, Andersen 1973);
 - ▶ Syntax (Lightfoot 1979).

Semantic change and semantics

- ▶ But semanticists have had relatively little to do with semantic change.
 - ▶ Semantic theorists have tended to focus on synchronic analysis.
 - ▶ People working on semantic change (Heine et al. 1991, Traugott & Dasher 2002) do so in the absence of anything that we would recognize as a theory of semantics (and often even explicitly reject such theories).
- ▶ This has just started to change: Eckardt (2006), Yanovich (2013), Deo (2015), special session at Sinn und Bedeutung 2014.
- ▶ Lots of potential for more work in this area.

Semantic change and semantic theories

- ▶ The first component in a theory of semantic change is a theory of semantics.
- ▶ Sounds obvious, but cuts both ways.
- ▶ Several researchers (e.g. Sweetser 1999) have argued that classic model-theoretic semantics is ill-suited to capturing the gradience and gradualness of semantic change.
- ▶ So there's a challenge: If you like our theory of semantics (you should), show that it can account for gradual change.

Elsewhere in theoretical linguistics

- ▶ Luckily, we're not the first people to see this problem.
- ▶ Syntactic theory typically conceives of grammars as discrete entities, but syntactic change can be extremely slow. Tony Kroch (1989) solved this one.
- ▶ Phonological theory can be cast in the same light, though this is more controversial. Anyway, Kroch could only solve this for syntax because of the innovations of Weinreich et al. (1968) concerning sound change.

Existing work on semantic change

- ▶ Most work on semantic change is tied up with grammaticalization.
- ▶ Meanings tend to become “bleached”. Rough characterization of bleaching: less specific, more abstract.

(1) I am going to read a book.

a. I am going and the purpose of my going is book-reading.

b. FUT (read(book,I)) (Hopper & Traugott 1993)

(2) Je ne vais pas

I NEG go step

a. I am not going and a measure of distance that I am not going is 1 step.

b. I am not going at all.

c. I am not going. (Eckardt 2006)

(Not) isolating semantic change

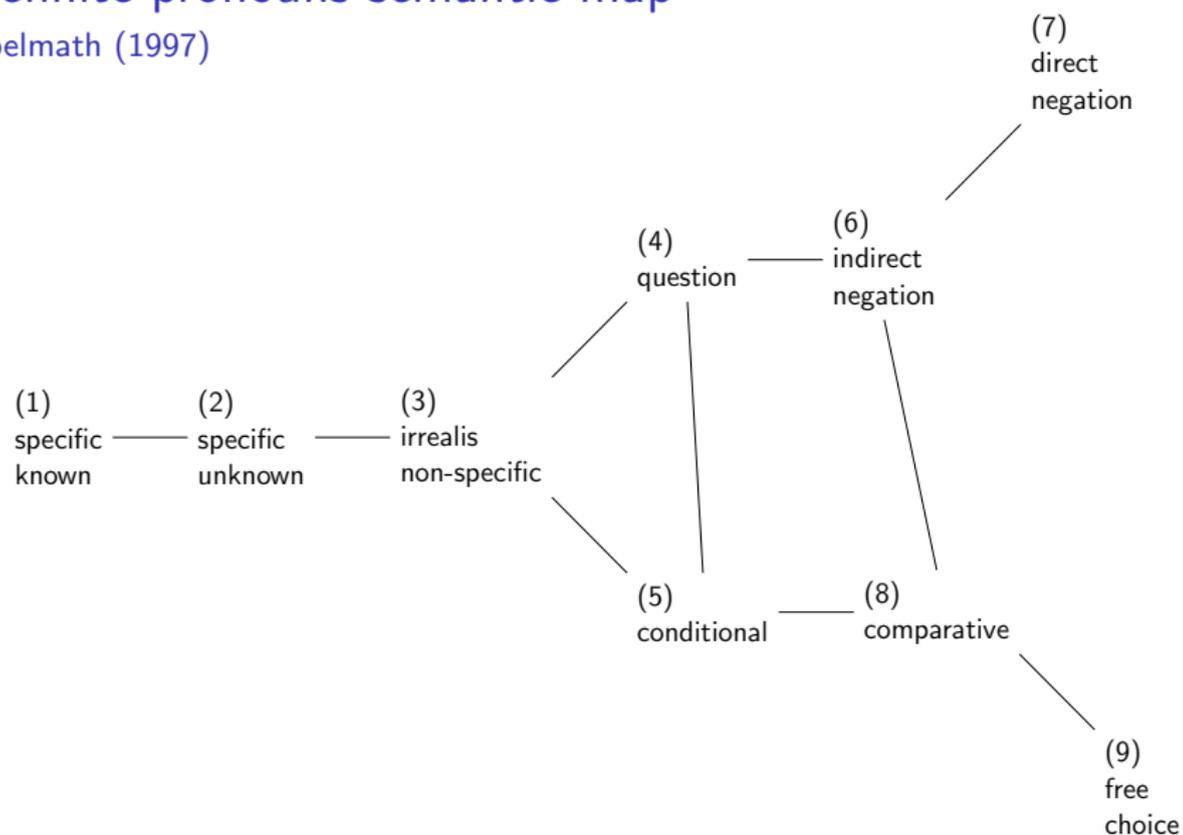
- ▶ Clearly not just semantic changes.
 - ▶ *going*: V → *gonna*: T
 - ▶ *pas*: N → Adv? (NPI) → Neg
- ▶ The syntactic and phonological aspects of the changes are directional, just like the semantic aspects of the changes:
 - ▶ items are merged higher and higher within an extended projection (Roberts & Roussou 2003);
 - ▶ phrases become reanalysed as heads (van Gelderen 2004);
 - ▶ phonological forms are compressed
- ▶ Language as a “gigantic expression-compacting machine”, Langacker (1977).
- ▶ Although purely semantic change is logically possible, we'll focus more on “global” changes which imply juicy problems in compositional semantics.

Pathways

- ▶ Syntactic, semantic, and phonological aspects of expression-compacting form an abstract, recurring pathway of change.
- ▶ Language change also tends to follow more specific recurring pathways (see in particular Heine & Kuteva 2002, 2007).
 - ▶ Ability → possibility
 - ▶ Emphasis → reflexive
 - ▶ ...
- ▶ These pathways can be related to “semantic maps” (sometimes “implicational maps” or “cognitive maps”, e.g. Haspelmath 1997).

Indefinite pronouns semantic map

Haspelmath (1997)



Semantic maps and semantic change

- ▶ Assume that a lexical item occupies a continuous portion of such a map. Change can then occur in one of two ways:
 1. Extension: Further functions accrue to a lexical item.
 2. Reduction: A lexical item ceases to be associated with certain functions.
- ▶ Certain pressures will tend to have the effect that a lexical item shifts, rather than randomly fluctuates. E.g. a putative bias towards entailment over (generalized) conversational implicatures.
 1. X go [to VP] → X intends to VP
≈ X will VP in the near future, all else being equal
 2. X [go to] VP → X will VP in the near future(, all else being equal)
- ▶
 1. X ne vais pas → X won't move one step
≈ X won't move a minimal amount
≈ X won't move at all
 2. X ne vais pas → X won't move at all

A challenge

- ▶ There's a strong tendency for analysts to see fuzziness in all of this:
 - ▶ Fuzziness in the distinction of different ways of conveying a communicative intention (different varieties of noncompositional and compositional meaning).
 - ▶ Fuzziness in the space occupied by a lexical item in a semantic map.
 - ▶ Fuzziness in individual variation and in the gradual, stochastic nature of change.
- ▶ Standard model-theoretic semantics has limited capacity to deal with fuzziness (fuzziness can be built in, but has to be handled with care).
- ▶ This has led to developments of alternative approaches to meaning designed to embrace the fuzziness.

Fighting the formalist corner

- ▶ The major people standing up for model-theoretic semantics has been Regine Eckardt (especially 2006), and more recently Ashwini Deo (2015) and others. Two crucial points:
 1. Good semantic theories make general predictions (e.g. regarding behaviour of NPIs). Semantic change occurs in accordance with those predictions. When you behave like an NPI, you behave like an NPI in all respects.
 2. (stated more clearly by Deo 2015): grammars composed of discrete objects can approximate gradient grammars, but make distinct (and sometimes demonstrably superior) predictions.
- ▶ Semantic maps are graphs: they have a finite set of distinct, interconnected nodes. Lexical items occupy some subset of the nodes in a semantic map. But that's all they do.
 - ▶ They can't occupy "halfway house" positions between nodes.
 - ▶ They can't recombine features associated with nodes in novel ways.

Clustering of properties

- ▶ German *selbst* 'self' developed from an NP-internal "intensifier" into a clausal focus particle.

- (3)
- a. Der König selbst öffnete die Tür
The king SELF opened the door
"The king himself opened the door"
 - b. Selbst der König verstand den Witz
SELF the king understood the joke
"Even the king understood the joke"

- ▶ Each use has a cluster of distinctive properties.

Clustering of properties

selbst₁ (≈ -self)	selbst₂ (≈ even)
1. associates with NP (adnominally: with definites, proper names, and specific indefinites)	associates with anything
2. accent on <i>selbst</i>	no accent on <i>selbst</i>
3. no accent on associated element	accent on associated element
4. centrality effects	no centrality effects
5. non-scalar uses are possible	all uses involve a scale (of surprise / likelihood / strikingness)
6. additive and exclusive uses	only additive use
7. usually follows associated element	precedes associated element (c-command, locality)

Clustering of properties

- ▶ You can't mix the clusters: if *selbst* associates with anything other than NP, it is interpreted relative to a scale
 - ▶ e.g. the king is the least likely person to understand the joke.
- ▶ This is an important reminder: complexity doesn't imply total absence of order and prediction.
- ▶ The rich and complex descriptions of semantic change can benefit from formal modelling, and the formal analysis can benefit from the richness of the descriptions.

Open questions

- ▶ Directed semantic change is a more general phenomenon than can be subsumed under grammaticalization. We need a more general account of directionality.
- ▶ Change really is gradual (and sometimes very slow) at the population level. We need an account of how idiolectal grammars relate to the population-level phenomena that we tend to call “language” (even if we’re all told we shouldn’t).
- ▶ Huge amounts of fairly well-described patterns of change should provide rich pickings for analysts.
- ▶ This week is a plea for interest: we’ll sharpen the open questions, but don’t expect too many answers. . .

What's ahead

- ▶ Lecture 2: Describe a case study (the development of relative clauses in Indo-European, with special focus on English), with several interesting properties.
 - ▶ A complex interrelated set of syntactic and semantic changes.
 - ▶ Recurs (to varying extents) in many IE languages; vanishingly rare outside of IE.
 - ▶ Plays out over centuries; possibly millenia.
 - ▶ Not classical grammaticalization: no bleaching, no “moving up the clausal spine”.

A theory of semantic change should make things like this look like reasonable ways for a language to behave.

- ▶ Lecture 3: Plunder theories of grammatical change and try to bend our semantic theories to make them fit these more general ideas.
- ▶ Lecture 4: Embed individual-level theories of change in models of population dynamics, to relate models of semantic competence to gradual semantic change.
- ▶ Lecture 5: attempts at synthesis, and directions for future research.

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