

Complexity science: language dynamics
Speech perception/production and syntactic change
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Monday

1. key ideas of complexity science: change reveals structure, phase transitions, non-linearity, emergence, attractors, adaptability, self-organization, chaos and extreme sensitivity to initial conditions, complexity science/theory
2. examples of the above in physics, biology, language
3. syntax as a complex system, poverty of stimulus reasoning, cue-based acquisition.

Tuesday

4. some qualitative mathematics for complex systems
5. phenomena of syntactic change in English: Modal auxiliaries, verb movement, *be*+part, change in meaning of *like*, *repent*, *ail*, etc. Methodologies.
6. dynamics and non-linearities in perceptual categorization

Wednesday

7. explanations for historical changes through acquisition (thresholds and phase transitions). E-language vs. I-language.
8. other explanations for change: grammar evaluation, principles of change (grammaticalization, UG biases).
9. dynamics of speech categorization, symbolic/dynamic descriptions

Thursday

10. phoneme acquisition
11. Language as embedded: phase transitions in conversation, interactions with environment etc.
12. traditional, 19th century approaches to historical change: reconstruction of proto-syntax vs. records (no induction). External languages. Gradualism.

Friday

13. evolution of the language faculty: mutations and natural selection.
14. changes in Hungarian
15. Research topics: microvariation and abstract categories

Complexity science outline2