



(MENTAL) GRAMMAR AND THE (MENTAL) LEXICON

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BUILDING FIGURATIVE LANGUAGE REPOSITORIES: METHODS, RISKS, AND CHALLENGES
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PROBLEM

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- How many generative engines in language (processing)?
- The relationship between the lexicon and the grammar

CLASSIC APPROACH TO THE PROBLEM

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- **Classic generative approaches:**
 - Chomsky (1957) *Syntactic structures* and further
 - only one generative engine – syntax
 - strict differentiation between the lexicon and the grammar – principled distinction between rules (of grammar) and lists (of lexemes)
 - “The recursive rules of the syntactic component provide the generative capacity of language. The relation between sound and meaning arises through mapping syntactic structures into phonetic form (PF) (or the “sensorimotor interface”) on one hand and logical form (LF) (or the “conceptual–intentional interface”) on the other.”

IN BETWEEN

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- Best way to distinguish classic GG from other approaches – answer to a question:
 - “What is the best way to allocate the generative capacity of language, so as to account for the observed relations between sound and meaning?”
 - ✦ Ray Jackendoff (2009) Parallel Architecture in Cognitive Science

DIFFERENT APPROACHES TO THE PROBLEM

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- **Modern generative approaches:**
 - Cognitive Grammar (Langacker 1987); Emergent Grammar (Hopper 1987); Construction Grammar (Goldberg 1995, 2006); Parallel Architecture (Jackendoff 2002)
- **Experimental approaches:**
 - Bates and Goodman 1997 (On the Inseparability of Grammar and the Lexicon: Evidence from Acquisition, Aphasia and Real-time Processing)
 - Hilpert 2008 (New evidence against the modularity of grammar: Constructions, collocations, and speech perception)
- **Particular insights:**
 - Schönefeld 2001 (*Where lexicon and syntax meet*)
 - Haspelmath 2007 (Pre-established categories don't exist: Consequences for language description and typology), 2014 (The geometry of grammatical meaning: Semantic maps and cross-linguistic comparison)

MODERN GENERATIVE APPROACHES

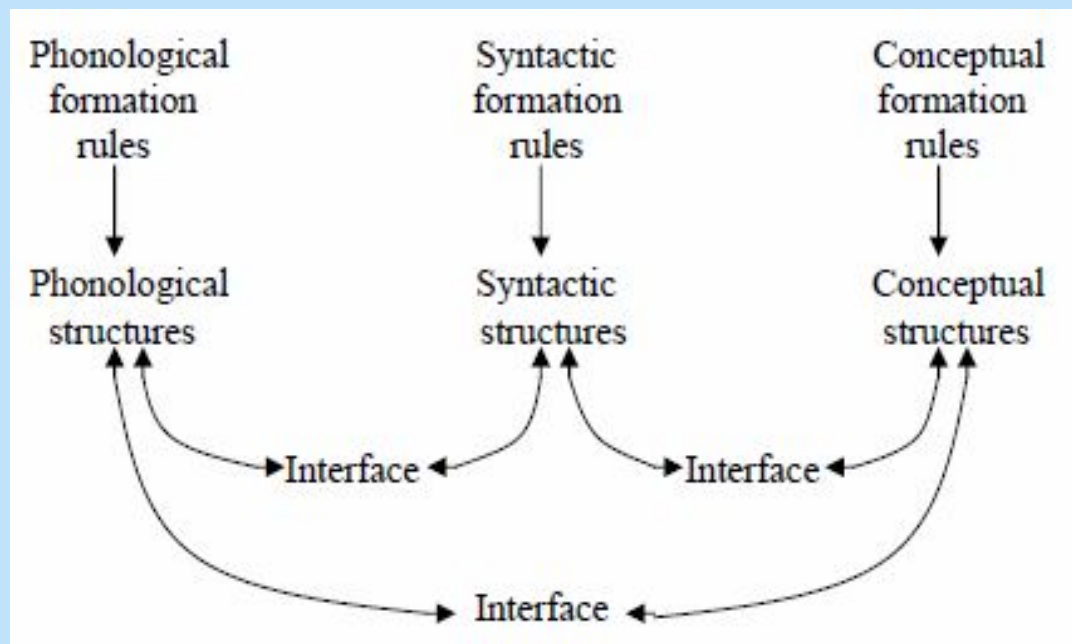
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- Generativity is **shifted from syntax**, sometimes implicitly, sometimes explicitly.
- The rules are no more treated as **procedures**, but as **templates or schemas** (pieces of structure with variables), interface components are seen as **possibly violable constraints**, which establish (or license) well-formed links among different kinds of structure, which brings them closer to lexemes.

PARALLEL ARCHITECTURE

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- THREE INDEPENDENT GENERATIVE SYSTEMS:
phonology, syntax, and semantics
- + INTERFACE CORRESPONDENCE RULES



PARALLEL ARCHITECTURE

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- no strict division between the lexicon and the grammar
- WORDS and STANDARD RULES – at the opposite corners of a **multidimensional continuum** (“mixed items” such as idioms and meaningful construction are in between)
- the basic challenge of PA - defining the structure of the lexicon stated in psycholinguistic, and not absolute terms
 - What linguistic material does a speaker have to store in memory?
 - What structures can be built online in the course of speaking and understanding?

PARALLEL ARCHITECTURE

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- no “point in the derivation” where a word is inserted
- word “inserted” into all three structures at the same time, along with the links among them
- **CONTEXTUAL RESTRICTIONS** - among the information coded in a lexical item
 - syntactic contextual restrictions - subcategorization features on syntactic arguments
 - semantic contextual restrictions - selectional restrictions on semantic arguments
- **IDIOMS** and **FIXED EXPRESSION** fit well into such picture

PARALLEL ARCHITECTURE

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- **IMPORTANT CONSEQUENCE** - semantics in not necessarily in a one-to-one relation to syntax, but most often in many-to-many relation, which needs to be explicitly stated
- **AT THE WORD LEVEL** - every lexical item is a **TRIPLE** consisting of small pieces of phonological, syntactic and semantic structure (Jackendoff, FL 2002)
- Therefore, **TRIPARTITE PARALLEL ARCHITECTURE**
- **WORDS are PROTOTYPICAL INTERFACE RULES**

PARALLEL ARCHITECTURE

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- 1. What can be said without syntax or with limited syntax?
- 2. Which part of traditional grammar is already contained in lexicon and which part of traditional lexicon is contained in grammar?
- CONSEQUENCES:
 - Answer to a question – what needs to be specified already in the lexicon as to predict the ways in which words in the sentence fulfill their agreement potential?

AGREEMENT POTENTIAL

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- Some languages have rules which are basically syntactic, others rely on a semantic principle and yet others show interesting combinations of the two principles.
 - Greville G. Corbett (2006) *Agreement*, CH8 “Resolution rules”, pp 175

MENTAL LEXICON

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STOLICA
“chair”



VELIČINA

“largeness”, “greatness”,
“magnitude”



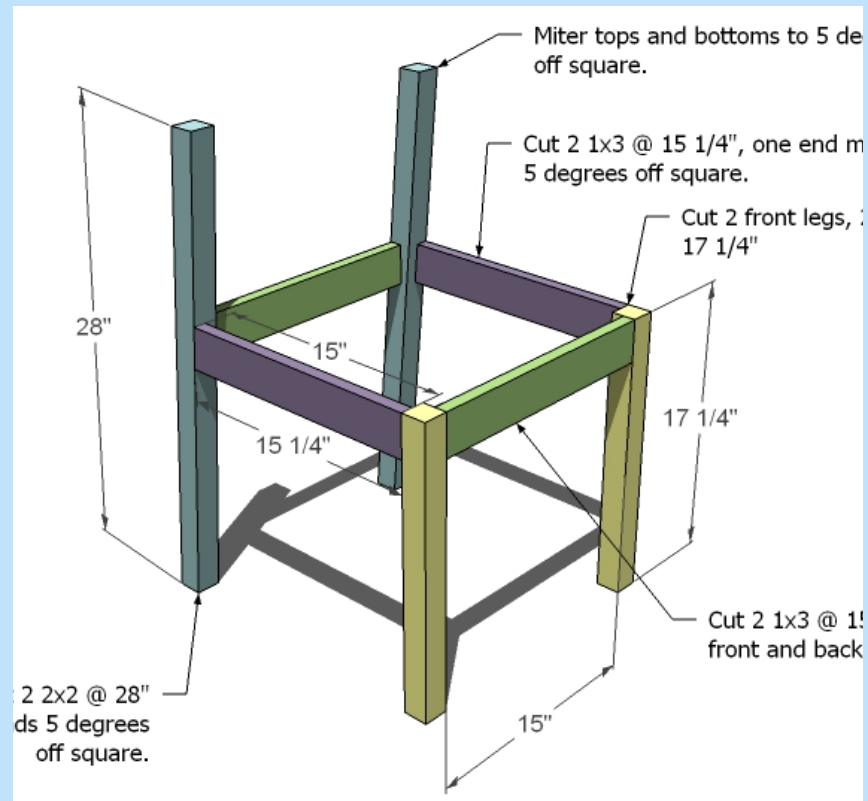
MENTAL LEXICON

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STOLICA
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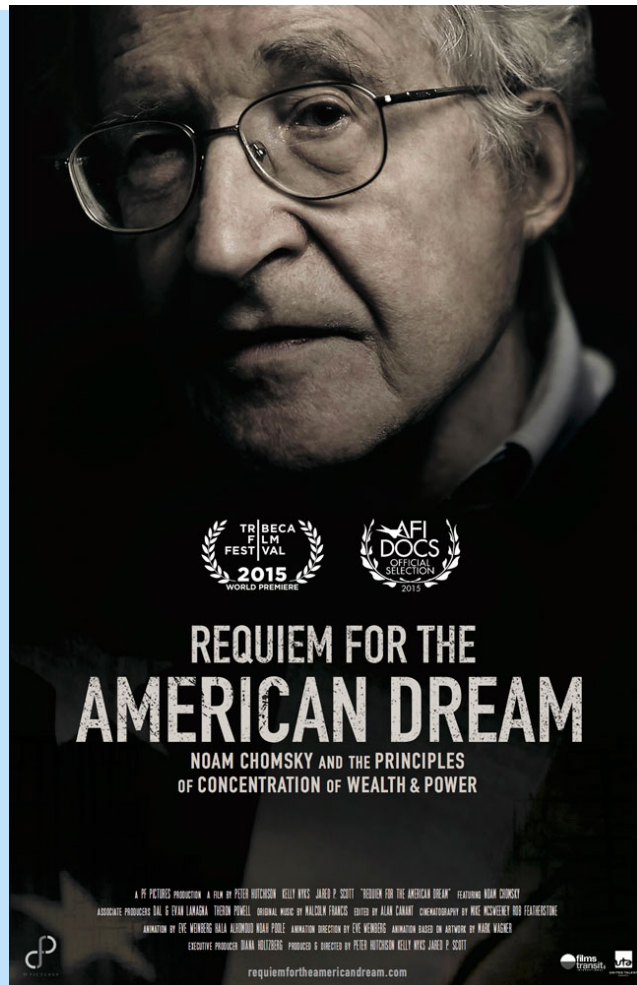
VELIČINA

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MAKE X GREAT (AGAIN)

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HVALA!

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