## Identifying linguistic hypotheses & engineering artifacts in the Grammar Matrix

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DELPH-IN SIG A Coruña Summit June 29, 2023

### **Definitions**

- Linguistic hypothesis
  - Cross-linguistic (general, phenomenon-specific, phenomenon-interaction)
  - Language-specific
- Expression of a linguistic hypothesis
- Engineering artifact (systematic, thoughtful, deliberate)
- Engineering artifact (stop-gap)

# A sampling of hypotheses (Slide from Ling 567)

- Words and phrases combine to make larger phrases.
- The semantics of a phrase is determined by the words in the phrase and how they are put together.
- Some rules for phrases add semantics (but some don't).
- Most phrases have an identifiable head daughter.
- Heads determine which arguments they require and how they combine semantically with those arguments.
- Modifiers determine which kinds of heads they can modify, and how they combine semantically with those heads.
- No lexical or syntactic rule can remove semantic information.

### Murkiness

- Expression of linguistic hypotheses can be shaped by engineering decisions
  - Nominalization/gerunds expressed as lexical rule rather than mixed category
  - SLASH list of max length 1 (deprecated)
- Engineering decisions can overtime come to be seen as linguistic hypotheses
  - Binary-branching approach to head-comp (maybe; perhaps revisionist)

### Suggested topics/activities

- Produce definitions of concepts on first slide
- Brainstorm examples of linguistic hypotheses & engineering choices (and murky cases)
- Advice on how to approach the Grammar Matrix code base to look at this in a data-driven way