

## Keenan & Moss Chapters 1 & 2, some highlights

- A fundamental query of modern linguistics: How do speakers of a natural language produce and understand novel expressions?
  - **Natural languages** = languages human beings grow up speaking naturally as their normal means of communication (i.e. not programming/mathematical languages)
- Things to care about: Completeness, Soundness, Interpretability, Universality
- Infinity tests:
  - If for every natural number  $k$ , a set  $A$  has more than  $k$  elements
  - If a set  $A$  has an infinite subset  $B$
  - If a set  $A$  has the same cardinality as a known infinite set (like  $\mathbb{N}$ )
- English has infinite subsets of expressions.
  - *my (great)<sup>n</sup> grandparents*, for all  $n$  in  $\mathbb{N}$ .
  - *(the mother of)<sup>n</sup> the President*
- "If you can't say something two ways you can't say it at all."
- Prenominal possessors (*the President's mother's mother*) seem harder to process than right branching paraphrases (*the mother of the mother of the president*). "We have no explanation for this."
- p.13, "It is plausible that there is some  $n$  such that once we have stacked  $n$  adjectives in front of a noun, no further ones can be added. If so, the number of adjective-noun nominations is finite."
  - But what about... *my (great)<sup>n</sup> grandparents*?
- Center embedding is hard for English speakers to process.
  - Some forms are harder than others ((22) > (18)... is (22) even bad?).
  - Nepali seems to have center embedding.
  - Unbounded center embedding isn't **regular** (=higher complexity).
- An infinite set is one which has the same cardinality as some proper subset of itself.
- \* vs #: (35) *Either every student or every student came to the party*, etc.
- "Each English expression itself is finite. Our claim is only that there are infinitely many of these finite objects."

- Ch 2, Figure 2: lattices (and other posets) can be represented with a Hasse diagram.
- "Larger sets than  $\mathbb{N}$  do not arise naturally in linguistic study."