

# Lexical Semantics provides a methodology for building ontologies

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C L E A R

# Outline

- Lexical semantics is much more than just an ontology
- Our ontologies should be derived from language and how it is used
  - From word co-occurrences (Poesio's concepts)
  - From syntactic patterns (Lee's use of Levin)
  - From Chinese radicals (Huang)
  - OntoNotes Ontology from VerbNet (Palmer)

# Lexical Semantics is ontology+

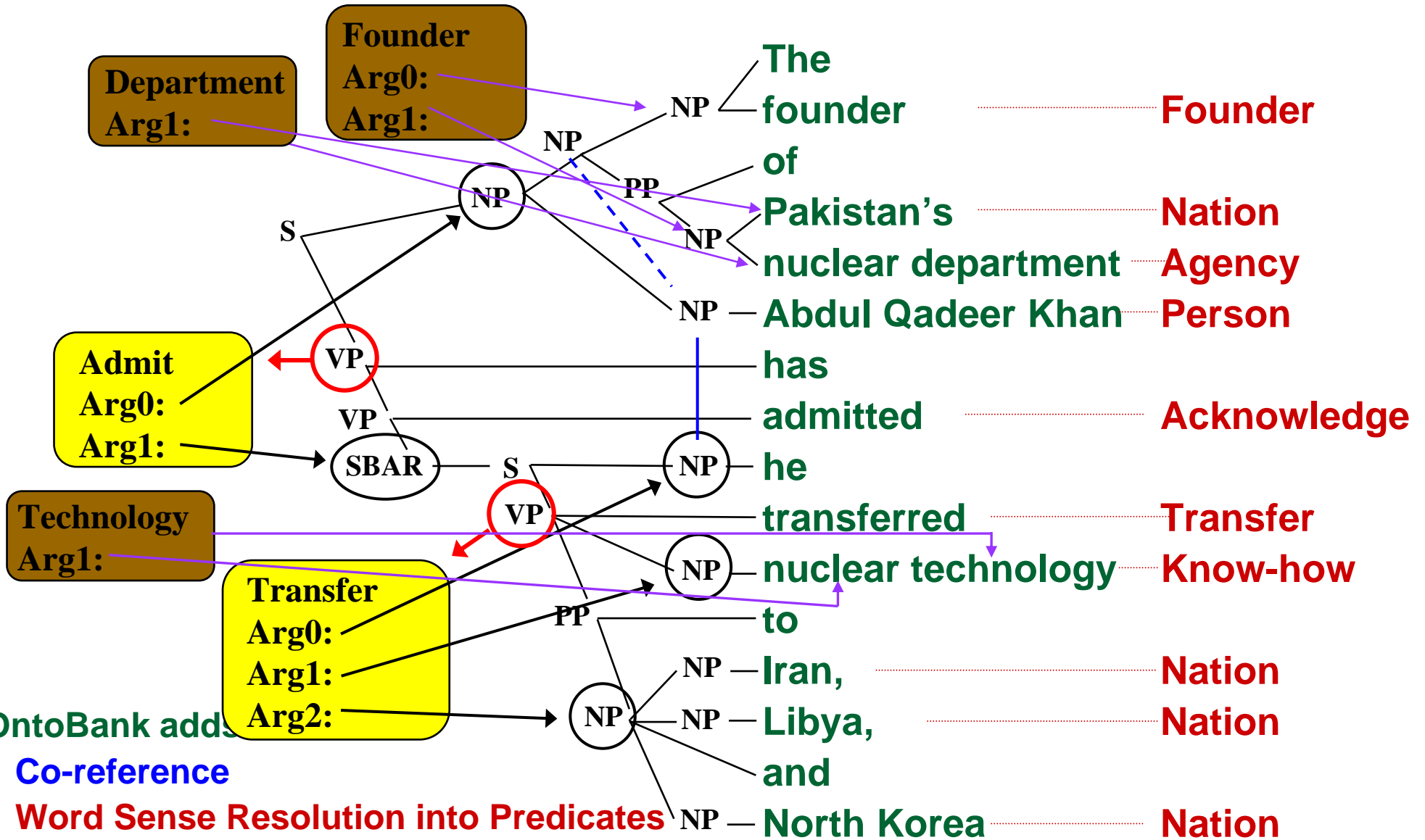
- Everything we know about the world is encoded in language
- Surface forms provide crucial clues to what those concepts are and subtle distinctions between them
  - Psych verbs - *Fear/frighten*
  - Alternations - *Spray/load*
- “decoding” of language can provide a methodology for extracting ontologies

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# OntoNote Additions



OntoBank adds

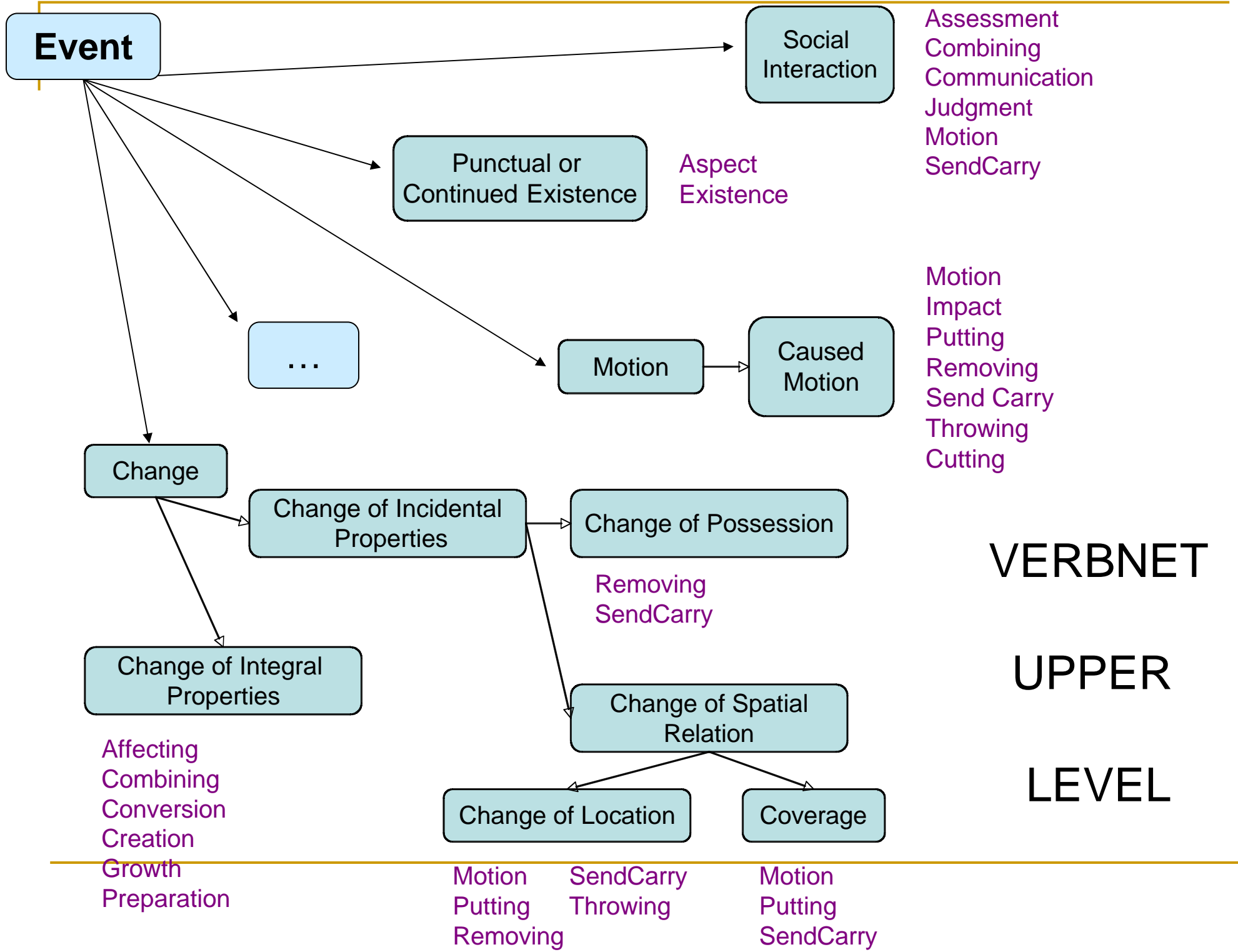
- Co-reference
- Word Sense Resolution into Predicates
- Entity types and predicate frames connected to nodes in

ontology

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# Linking to an Ontology

- Entities, noun phrases, terms, etc – linking to Omega ontology, could also link to OntoWordNet
- Verbs, WordNet and Omega are both pretty sparse
- Building an event ontology based on VerbNet, with careful references to FrameNet



VERBNET

UPPER

LEVEL