

# On the comprehension-production dilemma in child language

Paul Smolensky

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# The dilemma & language acquisition

- Smolensky's **dilemma**: given an idealised competence, why don't children behave like idealised language users?
- Smolensky gives a purely technical solution (faithfulness outranked by markedness), because it works in OT, not because of evidence.
- OT regards **language acquisition** as central, but:
  - doesn't account for acquiring **representations**. Eg., each word is associated with a unique, abstract representation
  - requires **innate universals**, which are not backed by evidence (Evans 2009). Even Jakobson typology untenable.
  - instead of binary constraints, languages appear to use the whole spectrum of possibilities
  - many constraints would be very domain-specific → innateness implausible

# Suggestions

- cognition consists of **recognition** & **anticipation** → comprehension & production
- comprehension requires only a **discriminative** model:  
eg.  $p(y|x)$  *given* utterance  $x$
- production requires a full **generative** model:  
eg.  $p(x, y)$ , not given  $x$  or  $y$
- Also known from psychology: recognition much easier than recall

# Evidence

Difficulty hierarchy:

learning forms < learning meanings < linking forms & meanings

- pre-verbal infants already generalize in comprehension, but speaking toddlers show weak or no generalization in production (Naigles 2002)
- children appear to use an action response heuristic, which leads parents to overestimate their comprehension abilities (Shatz 1978)
- the item-based nature of acquisition (Tomasello 2000):
  - toddlers do not inflect nonce-verbs like they inflect the verbs they already know  
→ learning is about concrete experience, not abstract rules
  - OT/generative theories assume a dual process model: rules & lexicon,
  - it is estimated that 60% of language is idiomatic