

# Re: Universal grammar

---

*Source:* <http://sci.tech--archive.net/Archive/sci.lang/2006-10/msg01329.html>

---

- *From:* "Rob Freeman" <[groups@xxxxxxxxxxxxxxxxxxxxxx](mailto:groups@xxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* 19 Oct 2006 01:28:30 -0700
- 

Hans Aberg wrote:

In article <1161231426.615399.55320@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, [groups@xxxxxxxxxxxxxxxxxxxxxx](mailto:groups@xxxxxxxxxxxxxxxxxxxxxx) wrote:

Didn't Goedel prove back in the '30s that a general theorem prover was not possible?

He proved that in an axiomatic theory essentially containing the natural numbers as an entity, there are true statements that cannot be proved. If one would have such a statement P, and tries to prove P and not P in parallel, the theorem prover would end up in nontermination. So the theorem prover cannot decide whether it is such a statement. But one does not know of any such explicit statement in working math.

I am interested in the parallel you get if you think of a "statement", or a rule, as an ordering over a set. If ordering A is true (that is, a valid ordering over the set), but incompatible ordering B is also true, then A and not A can be true, depending on the truth of B.

This happens all the time in the real world. For instance if you try to order people w.r.t. height and IQ at the same time.

What I want to know is what this says about our ability to resolve a distribution down to some parametrization in terms of rules. Is it always possible to find a consistent set of rules which completely describes all the patterns in a distribution?

This is relevant to language, because it is exactly the problem you get if you try to learn natural language grammar from distributions of word associations.

In fact I have read it was inconsistencies of this kind which first led Chomsky to reject the idea language could be learned from examples and propose it must be parametrized innately. A "grammar" which because innate, must be universal. Hence a Universal Grammar, of which the

Re: Universal grammar

important property was that it could not be observed in distributions of word associations.

-Rob

.