Typicality

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The more typical instances of a concept are acquired earlier by children and adults, remembered best, retrieved faster etc. (Mervis & Rosch 1981). These effects are robust, but scholars hardly agree about the mental models underlying them, and their relation to predicate meaning. The need for an account is strengthened by accumulating evidence for typicality effects in the categories of grammar (Langacker 1987, Lakoff 1987).

Rosch states that evidence about a prototype (an optimal instance or feature set) poses constraints, but does not in itself constitute a mental model (ibid).

Formal accounts based on membership degrees have been proven highly problematic: Fuzzy Logic (Zadeh 1965) predicts that <u>no</u> entity is more typical of a *brown apple* than of an *apple*. However, *typical brown-apples* are counter-examples (*atypical apples*). Partee & Kamp's 1995 solution to this problem fails to account for cases with no syntactic modification: They predict that no entity is more typical of an *ostrich* than of a *bird*. However, *typical ostriches* are counter-examples (*atypical birds*); Worse yet, a prototype cannot be associated with *tall*, because there is no maximum *tallness* (ibid), so the intuition that there are *typical tall people* remains unaccounted for. Similarly for composed concepts: For ex. what is the prototype of *non-bird*: a dog, a day, a number?

I propose different conditions for a feature / entity to be considered *typical*. **Features** like *nesting* are typical of *a bird* if they correlate with ordering (not membership!) in *bird*. The correlation is ceteris paribus:

Any entity more typical in *nesting* than other entities (and <u>not less typical in other features</u>) is more typical of a *bird*.

This typicality ordering (**scale**) is no more than a side effect of the order in which we learn that entities fall under *bird*, which remains encoded in memory. While disambiguating predicate meaning within a particular context, the status of entities deviating from given examples (given birds) is uncertain. Thus:

d_1 *is more typical of P than* d_2 in a context iff: <u>Either</u> the P-hood of d_1 is established earlier than the P-hood of d_2 <u>Or</u> the non-P-hood of d_2 is established earlier than the non-P-hood of d_1.

This correctly predicts that: The earlier we learn that d is a *bird* the more typical we consider d to be; *Atypical birds* (lately acquired birds) may be *typical ostriches* (even the earliest *ostriches* known!) Similarly, even the latest *apples* acquired might be the earliest *brown apples* acquired; The scale of *non-bird* is, by this definition, inverse to the scale of *bird* in each context (see evidence in Smith et al 1988, and Sassoon – work in progress); Context <u>in</u>dependent prototypes (maximal tallness) are not needed: In <u>each</u> context <u>some</u> entities are the best: the earliest given (among the available entities); Finally, concepts like *tall* have fixed ordering features, but *typical* associates with them more contextual features. Thus, the NP *typical tall person*, like *typical bird*, associates with a more context dependent scale.

This is a small part of the facts covered by my proposal.