

Re: Aaron Sloman's "The Irrelevance of Turing Machines to AI" article

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"Wolf Kirchmeir" <wwolfkir@sympatico.ca> escreveu na mensagem news:haPPc.23036\$Vm1.458145@news20.bellglobal.com...

> *Sergio Navega wrote:*

> [...]

>> *I agree, but there's an important point to be made. The domains where*

>> *children usually refine their discrimination abilities are linked to*

>> *conceptual categories (as opposed to perceptual categories).*

>> *Successive conceptually refined categories (such as "edible stuff",*

>> *and then "food", later "liquid food" and finally "milk") are categories*

>> *that are refined mostly because of top/down processes. The perception of*

>> *stimuli in these cases may be the same for an adult and an infant,*

>> *but the former has developed these categories while the latter hasn't.*

>> *Perceptual categories (or bottom-up categories) are those which seek*

>> *for similarity and clustering based on the raw elements captured by*

>> *the senses. After some time, our brain becomes unable to discriminate*

>> *all the sort of things that an infant appears to be discriminating*

>> *(the example of the japanese children is evidence of such a thing).*

>>

>> *Sergio Navega.*

>

>

> *Again, granted that "categorisation" takes place. But what, exactly, is*

> *it? I submit it's behaviour.*

And so your investigation of the subject stops. Cognitive scientists want to develop abstract (even mathematical) models of categorization.

> *There is some pre-linguistic categorisation*

> *going on, evidenced for example via the peekaboo game, and experiments*

> *that are in carefully controlled versions of that game. There seems to*

> *be no reason to assume that this stops with adulthood, although it would*

> *be harder to detect, since adults have this habit of talking. :-)*

>

> *But mostly, categorisation is language use. The question is, how do I*

> *get you to "understand" a new use of the language? How do I arrive at*

- > *that new use? The first question is easier to answer than the second – I*
- > *train you to use the language the same way I do, by, for example,*
- > *"agreeing with what you say" in response to my speech. ***

One can only agree with which another person says if both can share a great deal of the perception of that object being talked. If I tell you about the stem of an apple, you will only understand what I say if you also perceive that stem. Language is something that can only work *after* perception.

- >
- > *The second question is harder. Introspection and reports on "how I feel"*
- > *suggest there are unpleasant feelings attached to certain language uses,*
- > *and that these feelings may change to pleasant ones when a new use is*
- > *produced. Euphemisms seems to work this way, for example. (That is, the*
- > *discriminator in this case is a feeling. That feelings act as*
- > *reinforcers should be obvious.)*
- >
- > *Metaphor is a little harder, but it seems to be a case of experimenting*
- > *with different usages until that positive feeling is evoked. The fact*
- > *that "poetry programs" can produce interesting and striking metaphors by*
- > *semi-random combinations of words supports this explanation: we, the*
- > *readers of those random collocations, judge them as interesting/etc. So*
- > *do reports by poets, who say they "search for" the right*
- > *phrase/image/etc, ie, they try out different words and phrases until one*
- > *"sounds right." That's a remarkably behaviorist account, allowing for*
- > *the non-technical terminology.*
- >
- > *** When I was first teaching, a question that vexed me from the*
- > *beginning was, How do I know that a student has understood a text? The*
- > *answer is, of course, that the only evidence we have is his or her*
- > *language about the text. Tests and exams are designed to elicit such*
- > *language, but the relationship between text/exam answers and*
- > *understanding a text is obscure, to put it mildly.*

And I say that only cognitive explanations can shed some light about this subject.

Sergio Navega.