

Re: Challenge to the behaviourists, #1

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"Chris Hooley" <hooleys@highstream.net> escreveu na mensagem
news:10kjbhgd1lpua9@corp.supernews.com...

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>

> Sergio Navega wrote:

> > "Chris Hooley" <hooleys@highstream.net>

> >>

> >> *Each input/response iteration modifies a working model within SCC of*

> >> *SCS's internal system structures. That model is never complete.*

> >> *However, SCC can eventually have a high degree of confidence in the*

> >> *model that it has created about SCS.*

> >

> >

> > *That high degree of confidence, I offer, is the result of SCC watching*

> > *SCS's behavior, but it is **also** a result of SCC's previously learned*

> > *"mental schemas". When we learn something by our own experience we*

> > *seem to develop causal models of how the external world works. These*

> > *models help us with the learning of other, more complex, experiences.*

> > *Observing someone else's behavior will inform us of some things, but*

> > *this can only make sense if the observer **also have** coherent models*

> > *of what is lawful (or expected) in this world.*

> >

> > *For example, suppose you see an old lady stumble in the sidewalk*

> > *and falls. You also perceive that a nearby man runs toward her.*

> > *Why is this man running toward her? What is his intention? What*

> > *he wants to accomplish? These seem obvious questions, but it*

> > *only makes sense provided we have a model that people demonstrate*

> > *solidarity for the other's misfortune. This is a very complex*

> > *reasoning (many levels of abstractions, extensive use of*

> > *common-sense ideas) even if the event is as simple as watching*

> > *a man running toward another person that fell.*

> >

> > Sergio Navega.

> >

> Right.

>

> *I think that experiential systems develop models of their internal*

- > *worlds. These models are not static. They are not a catalogue of*
- > *objects. They mirror the dynamics of the experiential space, a sort of*
- > *"push hands" of the significant flows within the space. One side of the*
- > *"push hands" is the system's hierarchical center. The other is the*
- > *environmental pressure from outside the experiential space.*

I may agree with the gist of what you say, but there's something we must keep in mind: although dynamic, the conceptual structure of agents is not that much mutable. Lots of our conceptualizations of the world remain constant throughout the years, with only minor adaptations. The greatest changes happen during our childhood or when we embark into new experiences, such as flying a delta wing or learning how to discover the sex of chicks (the animal, that is ;-).

- > *The model that is generated then acts as a filter for experience. What*
- > *is to be attended? What is the "difference that makes a difference"?*
- > *Experience pushes back, confirming or denying the model's effectiveness.*
- >
- > *The process is, of course, much more complex and messier than this. It*
- > *is cumulative, multi-layered, and self referent.*
- >
- > *We need to explore these internal models. What "seeds" them?*

I have something to propose: the statistical relevancy of the experiences when compared with what the agent knows. This is known to work at the more elementar level of our experiences (such as phonological perception). There are some studies that find these statistical learning even with higher level experiences.

- > *What is*
- > *the role of evolution in experiential system development? How would*
- > *"cultural" influence on model development work in ai?*
- >
- > *Lots of questions.*
- >
- > *I feel sure about this though; For ai to be robustly intelligent, it*
- > *must be an experiential system.*

Definitely.

Sergio Navega.