

## Re: logic is innate?

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Mitch Harris <[harrisq@tcs.inf.tu-dresden.de](mailto:harrisq@tcs.inf.tu-dresden.de)> wrote in message news:<[310mqkF35dgm5U1@uni-berlin.de](mailto:310mqkF35dgm5U1@uni-berlin.de)>...

> *Mxsmanic* wrote:

> > *Mitch Harris* writes:

> >

> > > *Wow. Do you know of any scientific support for this?*

> >

> > *Just about all the accumulated data for psychological testing over the past century support this.*

>

> *Maybe you could be more explicit just to help me out.*

>

> > > *There's quite a bit of support for the innateness of language*

> > > *ability, but I have never heard of such a claim for innateness*

> > > *of -deductive logic- ability.*

> >

> > *Since it's difficult to survive without it, I'm surprised that anyone*

> > *questions it.*

>

> *Well, that's not a particularly satisfying reason to not question*

> *something. Humans seem to need reasoning to survive, but jellyfish*

> *don't seem to need much. Do rats and crows reason (successfully use*

> *abstract logical inferences)? Where and how does it start (both in*

> *the individual and in the species)?*

>

> > *In any case, one certainly doesn't need a math class to learn to reason.*

> > *We all are born with the ability to reason, both deductively and*

> > *inductively.*

>

> *Sure. Informally, I'm with you. But just not convinced. Maybe people*

> *do learn how to reason. Or maybe there's an innate capacity for*

> *reason (a logic module, analogous to a face recognition area of the*

> *brain) which, through exposure, we develop well. Is there a brain*

> *lesion/freezing study that shows where "modus ponens" lies?.*

I think that most people have strong intuitions about the meanings of the words 'truth' and 'falsity' and rely on those to do the intuitive equivalent of a model-theoretic argument. However, their notions of

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truth and falsity are often not sophisticated enough, since things like the Paradox of Material Implication, are, well, paradoxical to many people until they shift their point of view. I have \*some\* empirical evidence for this, since I've tutored both math and logic -- but obviously not enough to make sweeping claims.

'cid 'ooh