

# Re: Epistemology 201: The Science of Science

**Source:** <http://sci.tech-archive.net/Archive/sci.math/2005-02/3990.html>

---

**From:** aeo6 (aeo6\_at\_cornell.edu)

**Date:** 02/11/05

Date: Fri, 11 Feb 2005 12:01:27 -0500

Lester Zick said:

> *On Thu, 10 Feb 2005 15:51:39 -0500, Tony Orlow (aeo6)*

> *<aeo6@cornell.edu> in comp.ai.philosophy wrote:*

>

> *>Lester Zick said:*

> > *On Thu, 10 Feb 2005 09:56:51 -0500, Tony Orlow (aeo6)*

> > *<aeo6@cornell.edu> in comp.ai.philosophy wrote:*

> > >

> > > *>Lester Zick said:*

> > > > *On Wed, 09 Feb 2005 07:21:09 -0500, "robert j. kolker"*

> > > > *<nowhere@nowhere.net> in comp.ai.philosophy wrote:*

> > > > >

> > > > >

> > > > >

> > > > *>Jason wrote:*

> > > > > *Yeah, I guess there are two tensions in maths, the formal system side and the*

> > > > > *appeal that it relates to the world in some (perhaps deep) way. Interestingly*

> > > > > *there is also the artistic side of maths, its beauty and intrigue. Even formal*

> > > > > *systems can't formalise out the human element, whatever that means.*

> > > > >

> > > > *>To be sure. Mathematics is done by humans (and presumably could be done*

> > > > *>by sentients if sufficiently intelligent). On this planet it is*

> > > > *>exclusively a human activity. Other animals do not do it and no*

> > > > *>inanimate devices do it.*

> > > > >

> > > > *People aren't animals and there are certainly animals that count.*

> > > > *Which raises the curious question whether they're counting countable*

> > > > *infinities and doing modern math?*

> > > > >

> > > > *Regards - Lester*

> > > > >

> > > *>People aren't animals????? Lester, Lester..... How do you define an*

> > > *>animal as different from a human without explicitly making an exception*

> > > *>for humans? Humans are apes, which are animals. Are we the tiny little*

> > > *>piece of the ven diagram that eats, breathes, moves, reproduces, thinks,*

> > > *>and is NOT an animal? We are logical animals, albeit in varying degrees.*

> > >

> > > *I didn't say we had no animal heritage, Tony, any more than I say we*

> >> *have no chemical heritage. But that doesn't make us chemicals any more  
> >> than a common heritage with animals makes us animals. The difference  
> >> between us and animals is mechanical and structural in nature. It's  
> >> how we think in abstract self conscious terms that makes us not  
> >> animals.*

> >>>

> >>> *This is where Darwin in order to deny divine creation made the mistake  
> >>> of showing our common heritage with animals and assuming it made us  
> >>> animals. The denial of divine creation is true but that still doesn't  
> >>> make us animals and I have no idea why anybody assumes it does.*

> >>>

> >>> *Regards – Lester*

> >>>

> > *You failed to answer my question. How do you define an animal so the  
> > definition doesn't apply to humans, without explicitly excepting humans  
> > from the definition?*

>

> *I'm not sure one does anymore than one defines chemicals in such a way  
> as the definition of chemicals wouldn't apply to plants and animals.  
> You're looking at the problem the wrong way around. The defining  
> characteristic of homo s. as distinct from animals is whatever the  
> necessary and essential difference or defining characteristic between  
> them is. And that difference or defining characteristic is abstract  
> thought apparently peculiar to homo s.*

>

> *In other words chemicals are thus and such. Animals are chemicals plus  
> locomotion and homo s. are animals plus abstract thought. That is the  
> answer to the question you asked. The definition of animals does apply  
> to homo s. but the definition of homo s. doesn't apply to animals.  
> That's what makes homo s. not an animal.*

>

> *Regards – Lester*

>

Your set theory is broken. If animals are a subset of chemical systems, and humans are a subset of animals, then humans are animals and chemical systems. If there is a distinguishing fact about humans that sets them apart from other animals, then that is an additional condition on the definition of human. If you want to say that humans are animals with a high level of rationality, then I have no problem, but to say people aren't animals is equivalent to saying convertibles aren't cars because you can put the top down.

--

Smiles,  
Tony