

## Re: A theory of beliefs

**Source:** <http://sci.tech-archive.net/Archive/sci.econ/2004-07/1911.html>

---

**From:** Lester Zick ([lesterDELzick\\_at\\_worldnet.att.net](mailto:lesterDELzick_at_worldnet.att.net))

**Date:** 07/26/04

Date: Mon, 26 Jul 2004 22:04:58 GMT

On Mon, 26 Jul 2004 19:18:11 -0000, Ron Peterson <[ron@shell.core.com](mailto:ron@shell.core.com)>  
in comp.ai.philosophy wrote:

>In sci.econ Lester Zick <[lesterDELzick@worldnet.att.net](mailto:lesterDELzick@worldnet.att.net)> wrote:  
>> On Mon, 26 Jul 2004 16:27:02 -0000, Ron Peterson <[ron@shell.core.com](mailto:ron@shell.core.com)>  
>> in comp.ai.philosophy wrote:  
>  
>>>I said *\*that\** concept of truth.  
>  
>> OK, the scientific standard of truth is not derived from axioms. But  
>> there is a paradigm of experimentally defined properties against  
>> which the truth of scientific theories is gauged in terms of self  
>> contradiction. If there is no contradiction the theory is assumed  
>> true.  
>  
>No, scientific theories are never assumed true. The best we have is a  
>working hypothesis.

Scientific theories are assumed true in the sense that experiments show no inconsistency between the paradigm and theory. I didn't mean that theories are assumed true without validation. I just meant that theories aren't proven true as the result of experimental validation because we can't test every aspect of paradigm-theory consistency. Rather by experiment theories are shown to be consistent with paradigm parameters to the extent tested. However this isn't to imply that there is no standard of experimental truth. It just means we don't know how to test paradigmatic truth exhaustively.

>>>Why do you need a standard of truth for scientific theories? And, what  
>>>is a standard of truth?  
>  
>> You need a standard of truth for scientific theories for the same  
>> reason you need a standard of truth for axiomatic theorems, to judge  
>> the self consistency of theories drawn in terms of the paradigm in  
>> terms of self contradiction. In geometry and mathematics generally  
>> axioms provide the basis against which to judge self consistency. In  
>> non axiomatic science an experimentally determined paradigm is used.  
>

>*The consistency of a theory is a separate issue from whether the theory  
>is true.*

Actually not. Paradigm–theory consistency is the only standard of  
experimental truth.

>> *The origins of axioms and physical paradigms are different. But that  
>> doesn't mean that axioms are any less experimentally determinate.*

>> *For example, the geometric axiom that a straight line is the shortest  
>> distance between two points is experimentally validated to the extent  
>> possible. ...*

>

>*The truth of mathematical propositions don't depend on experimental  
>validation.*

Well, the truth of mathematical theorems does depend on validation of  
the axioms on which it is based. These can be arbitrarily assumed but  
by and large are taken to reflect actual circumstances as nearly as  
anyone can make out. And to this extent the experimental validity of  
theorems does depend on the experimental validation of axioms. The  
most we can know is that theorems and axioms are mutually consistent.

Regards – Lester