

Re: logical paradoxes

Source: <http://sci.tech-archive.net/Archive/sci.logic/2004-08/2322.html>

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Date: 08/18/04

Date: Wed, 18 Aug 2004 03:53:10 GMT

On Wed, 18 Aug 2004 02:30:03 +0100, "Jeffrey Ketland"

<ketland@ketland.fsnet.co.uk> wrote:

>>... *but, do you see natural language committing itself to fixed*

>>*interpretation?*

>

>*Even setting aside vagueness, ambiguity and indexicality, no.*

Good!

>*Not in the*

>*sense of a fixed interpreted language, modelled as a pair (L, M) , where M is*

>*the structure over which L -symbols are interpreted.*

M being the meta-language?

> *The problem is Tarski's*

>*indefinability result that genuine semantic self-representation appears to*

>*be mathematically impossible. Such languages cannot express their own*

>*semantical concepts (which natural languages at least appear to do), and the*

>*problem doesn't go away even if you consider many-valued logic. This appears*

>*to force a metalanguage/object-language distinction upon us, with the*

>*metalanguage being "essentially richer" than the object language, as Tarski*

>*put it.*

Does nobody separate language and meta-language from axiomatics? My reading of Tarski has always been that he gave a good formalist doctrine of axiomatic truth, but was never the least bit convincing about any other variety of truth – correspondence, for example.

>*This is a general case of the Revenge Problem. And this leads to a*

>*hierarchy, which is counter-intuitive. As Kripke put it near the end of his*

>*1975 paper, "the ghost of the Tarski hierarchy is still with us".*

I've never understood this, even in terms of Tarski, as above. I happily agree that hierarchy does not solve the problem, but surely there are other architectures considered? Or maybe not so surely.

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- > *There is a descendant of Tarski's hierarchy view, due to Parsons and Burge,*
- > *which proposes that the natural language usage of the word "true" is*
- > *systematically ambiguous in a subtle way, referring to an implicit*
- > *hierarchy, "true_0", "true_1", etc.*

I've sat in on some lectures by (Terence) Parsons on hierarchy and dragged through the papers, but his hierarchy is a lexical range, with $L=M$, and it all seemed nonsense to me.

- > *The problem with any such view of this*
- > *kind is not that we cannot make sense of such hierarchies. We can and there*
- > *is interesting work on such hierarchies. The main problem---which has been*
- > *stressed several times by Hilary Putnam---is that we appear to be able to*
- > *make sense of the whole hierarchy and talk coherently about it within*
- > *English. But we cannot locate English inside the hierarchy, because English*
- > *appears powerful enough to talk about the whole hierarchy.*

The trick is to make each meta-language *less* powerful than that which it interprets, this has been Minsky's lesson for reduction in AI, and is carried out in practice by the BNF specification of computing languages.

The thing is, semantics cannot be an essential part of any language, and it's not even a technical issue. You speak English, so do I. One of your axioms is that "cats are nasty". One of my axioms is that "cats are nice." It is not a property of English that will resolve any sentence about cats that we interpret, it is a separable ontology.

Either that is the case, or no two people speak the same language, radical translation and/or radical interpretation run wild. I guess you can explain it that way, but doesn't it seem more promising, and more natural given today's theories, to simply partition off contentful axioms from mechanical language features?

- > *Unfortunately, I have no idea how to respond to this argument. Maybe humans*
- > *aren't smart enough to solve the problem of semantic self-representation.*

Foocy.

BTW, none of this helps with the liar paradox, IMHO.

Joshua Stern