

Re: Countable models of ZFC

Source: <http://sci.tech-archive.net/Archive/sci.logic/2007-10/msg00193.html>

- *From:* george <greeneg@xxxxxxxxxxx>
 - *Date:* Fri, 05 Oct 2007 09:15:53 -0700
-

On Oct 4, 1:51 am, herbzet <herb...@xxxxxxxxxxx> wrote:

Rupert wrote:

If you're going to take the view that you can never understand any sentence unless you've specified what model it's relativized to, you're going to tie yourself in knots.

Rupert himself is already tied in knots around this.

In the first-order paradigm, there is basically NO SUCH THING as "truth". ALL truth of ALL first-order sentences is model-theoretic.

If you want model-independent truth then you have to GET it via something that IS NOT truth, NAMELY, *provability*.

Everything that's *decided* is decided the SAME way in ALL models of the axioms from which it was decided. EVERYTHING else IS WHOLLY dependent on "models" if it is to have *a* (as opposed to "either") truth-value AT ALL. If a first-order sentence

has a model independent truth-value then you DON'T say that it is "true" (even if it is) or "false" (even if it is): you say that IT IS

A

THEOREM or that it is PROVED, which is of course MUCH STRONGER than being "true".

The truth of some sentences of the language of ZFC are relative to a model.

But that by definition occurs only in the case where those selfsame sentences are, in some OTHER models, FALSE.

Therefore you simply CAN'T say that they are "true".
I am AGREEING with Herbzet here.

Re: Countable models of ZFC

The relevant point here is that there is ONE axiom–set where all this can be worked around, and that is first–order PA. We think we understand N *prior* to this axiomatization and we think we know that N *is ONE* model of this axiomatization. Because this model is standard, we can ABBREVIATE "true in the standard model of PA" with JUST PLAIN "true". We SHOULDN'T have, but we could and we did. Because of this colossal pedagogical error, people like Rupert now think that something ANALOGOUS *must* be available with OTHER RICHER first–order axiom–sets, like ZFC. Since they can't pin down an individual standard model (or maybe they could, but if they could, then it would be, in contradistinction to PA's standard model, which is minimal, MAXIMAL), they are now trying to resort to a class of standard models. But they are not doing a coherent job of it, at least not locally.

.