

## Re: Name the thesis: "Formal sentences capture informal ones"

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In article <ctid7v\$dus\$1@phys-news1.kolumbus.fi>, Aatu Koskensisilta <aatu.koskensisilta@xortec.fi> wrote:

>*tchow@lsa.umich.edu* wrote:

>> (\*) *Intension-preserving formalization of informal mathematical statements is always possible.*

>>

>> (+) *Con("PA") is an intension-preserving formalization of "PA is consistent."*

>

>But (+) *isn't an instance of (\*)*.

Right, that's what I meant by "abusing the term `schema.'" What I want is probably neither (\*) nor (+) but some schema of which (+) will be an instance.

>*For example, how do we know that Con("PA") – expressed in what ever way – instead of the myriad other possible arithmetical sentences is the formal counterpart of "PA is consistent"?*

I don't see why this is relevant. I am not concerned with saying that Con("PA") is *the* formalization of "PA is consistent"; indeed, that is surely totally false. I only want to say that it is *an* acceptable formalization.

>*The point I'm trying to make here is that in order to instantiate (\*) to get something like (+) for a particular mathematical statement P we would need to know what formal sentence is the intension-preserving formalization of P. This in turn requires that the notion of "intension-preserving formalization" is explicated in an informative, hopefully mathematical, way.*

As I understand it, this is precisely the kind of project that Sol Feferman undertook in his early years. He made a number of striking contributions, which I have not taken the time to understand fully. However, I think I understand enough of the issues involved to say something about the idea of explicating "intension-preserving" in a mathematical way.

sci.logic: Re: Name the thesis: "Formal sentences capture informal ones"

Let me first refer you to my article `What makes a representing formula "reasonable"?' that I posted to sci.logic on Dec 12 2002. (You can find it on Google Groups; I'd give the URL, but Google currently has an annoying