

# Re: Implementable Set Theory and Consistency of ZFC

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- *From:* Han de Bruijn <[Han.deBruijn@xxxxxxxxxxxxxxxx](mailto:Han.deBruijn@xxxxxxxxxxxxxxxx)>
  - *Date:* Wed, 31 Oct 2007 12:13:48 +0100
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David C. Ullrich wrote:

On Wed, 31 Oct 2007 09:59:33 +0100, Han de Bruijn  
<[Han.deBruijn@xxxxxxxxxxxxxxxx](mailto:Han.deBruijn@xxxxxxxxxxxxxxxx)> wrote:

Jesse F. Hughes wrote:

I will say it once more. I am typing this slowly, since I don't want you to miss anything I say. If you have a proof in a theory consisting of axioms (1)–(4), it is also a proof in the theory consisting of axioms (1)–(4)+(X).

How do you "know" that? Has the Pope told you, by dogma, that it is so?

No. It's trivial to prove this, from the definition of "proof".

By definition, a proof of A from 1–4 is this: A finite sequence of statements, such that each statement is either an instance of 1–4 or a consequence of previous statements, and such that the last statement is A.

Similarly for "a proof of A from 1–8". So a proof of A from 1–4 *is* a proof of A from 1–8, because if each line is either an instance of 1–4 or a consequence of previous lines then each line *is* either an instance of 1–8 or a consequence of previous lines.

So, even if I don't make use of (5–8), a proof of A from (1–4) is a proof from (1–8) ? So, even if I say "there exists a Foo", then such a statement is a valid premise for proving that the integral of 1/t from 1 to x is ln(x) ? Weird ..

Han de Bruijn

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