

# Re: Implementable Set Theory and Consistency of ZFC

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*Source:* <http://sci.tech-archive.net/Archive/sci.math/2007-10/msg03992.html>

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- *From:* Han de Bruijn <[Han.deBruijn@xxxxxxxxxxxxxxxx](mailto:Han.deBruijn@xxxxxxxxxxxxxxxx)>
  - *Date:* Mon, 22 Oct 2007 16:46:09 +0200
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Jesse F. Hughes wrote:

Han de Bruijn <[Han.deBruijn@xxxxxxxxxxxxxxxx](mailto:Han.deBruijn@xxxxxxxxxxxxxxxx)> writes:

Not in my article:

[http://hdebruijn.soo.dto.tudelft.nl/jaar2007/set\\_theory.pdf](http://hdebruijn.soo.dto.tudelft.nl/jaar2007/set_theory.pdf)

Look, what you said was simply wrong. You said (piecing things together):

Only the first four axioms are necessary for a constructive build of all sets of any "implementation" (model?) of ZFC – Infinity.

In the first case, it's not at all clear what this statement means.

It's quite clear! Once you take the effort (but .. wow, now I'm asking something) to read and absorb what I've actually written.

But whatever it means, since a model of ZFC is also a model of ZFC – Infinity, you seem to be claiming that you can build an infinite set using only the first four axioms.

But the reverse is not true: a model of (ZFC – Infinity) is not a model of ZFC(Infinity included). So I'm building only (ZFC – Infinity), with those first four axioms: extensionality, empty set, pairing, union. All finite sets can be build with these 4 axioms (but there are infinitely many of these finite sets, like with the naturals).

Obviously, you do not believe that, so I am sure you did not say what you mean.

Han de Bruijn

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