Re: 'Navie set theory': why when S(x) is (x = x), the specified x's do not constitue a set?

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- *From*: William Elliot <marsh@xxxxxxxxxxxxxxxxxx>
- *Date*: Sat, 21 May 2005 14:31:39 −0700

On Sat, 21 May 2005, porky_pig_jr@xxxxxxxxxxx wrote:

> I''m reading 'Naive Set Theory' and the end of Section 3 there is a
> following sentence:
>
> In case S(x) is (x \notin x), or in case S(x) is (x = x), the specified
> x's do not constitute a set.
>
What are we suppose to do? Buy a copy of your text book to understand the
notation? You are asking why S = { x | x = x } isn't a set? If it were
then S in S which would violate the axiom of foundation or regularity
provided your in a set theory such as ZF, that has that axiom.

Thus in that set theory, S doesn't exist. In other set theories
(and you haven't made it clear what set theory you're using for you
are naive to think everybody knows Naive Set Theory) S exists as
a class but not as a set, while in yet another S is set.

> The first one, (x \notin x) is Russell's Paradox, that one I
> understand. I''m not clear what's wrong with the second one, (x = x).
> Seems like this is tautology, always true. So if I have something like
>
> B = { x \in A : x = x }
> then B = A, since (x = x) is valid for all x's in A.
>
> I assume I'm missing something, but what?
>
A Rosseta Stone to decipher the thinking of the previous two lines.
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- ***Follow−Ups***:
  - ♦ ***Re: 'Navie set theory': why when S(x) is (x = x), the specified x's do not constitue a set?***
    - ◊ *From:* porky_pig_jr@xxxxxxxxxxx
- ***References***:

- ***'Navie set theory': why when S(x) is (x = x), the specified x's do not constitue a set?***
  - *From:* porky_pig_jr@xxxxxxxxxxx

- Prev by Date: ***Re: Calculating slope of roof: What is the arc−sine of (4/12) ?!***
- Next by Date: ***Re: 'Navie set theory': why when S(x) is (x = x), the specified x's do not constitue a set?***
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