

Re: representation and replacement

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- *From:* Barb Knox <see@xxxxxxxx>
 - *Date:* Sat, 23 Apr 2005 18:05:25 +1200
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In article <M5fae.1559\$pk5.1255@fed1read02>, "vsgdp" <spam@xxxxxxxx> wrote:

>Okay, suppose you have two objects, where one object A represents the other
>object B, and you can always obtain one object from the other.
>
>I would like to write $A = B$ (to do replacements), but technically, they are
>not of the same type, so it doesn't seem like you can really say they are
>equal unless you accept the abuse of notation.
>
>I thought of using the logical equivalence symbol, but these are objects and
>not truth statements.
>
>What should I do?

Maybe try axiomatizing the behaviour that you want "represents" to have.
For example, let $\text{rep}(a,b)$ mean that a "represents" b. With only that, it's
an undefined notion; so then construct appropriate axioms to define it. For
example, you appear to want various axioms of replacement:
 $\forall a \forall b (\text{phi}(b) \wedge \text{rep}(a,b) \rightarrow \text{phi}(a))$
where $\text{phi}(x)$ is any first-order formula with 1 free variable x.

What other properties do you want "represents" to have?

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- *Follow-Ups:*
 - ◆ **Re: representation and replacement**
 - ◇ *From:* george

Re: representation and replacement

- **References:**

- ◆ **representation and replacement**

- ◇ From: vsgdp

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