# Re: All panduks are green

***Source:*** http://sci.tech−archive.net/Archive/sci.logic/2008−04/msg00441.html

- *From*: Newberry <newberryxy@xxxxxxxxx>
- *Date*: Thu, 10 Apr 2008 07:08:24 −0700 (PDT)

On Apr 10, 3:30 am, stevendaryl3...@xxxxxxxxx (Daryl McCullough)
wrote:

> Newberry says...
>
> > If you want to argue that one horn is not the
> > essence of unicorness,
> > and therefore "all unicorns have two horns"
> > is not analytic, that's
> > fine. But it still does not make the sentence
> > true.
>
> Whoa, Nellie! How is it not true? It is meaningful, right?
> And
> hence has a truth value, right?

No. Meaningless statements are a proper subset of statements that do
not have a truth value.

> Look, we know perfectly well the conditions under which "all Xs are Ys"
> can be assigned a truth value true or false. If there is some object
> that is X but is not a Y, then the sentence "all Xs are Ys" is true.
> Otherwise, it is false.
>
> What is the *point* of calling it meaningless? What is the *point*
> of saying it has no truth value, when we have a perfectly good
> way to assign it a truth value?

This is a very good question and I will give you a very good answer.

1. We need a sensible definition of truth. "A sentence is true iff it
corresponds to an existing state of affairs" is a sensible definition.

Similarly "a sentence is meaningful iff it is a picture of a possible state of affairs" is a sensible definition. Accordingly we have "all round squares are green" is meaningless because it is not a picture of a possible state of affairs. "All unicorns are green" is meaningful because it is a picture of a possible state of affairs. It is not true because the state of affairs, which the sentence is a picture of does not exist. "all unicorns are NOT green" is not true either.

2. I could turn the question around and ask why we need to assign a truth value if we do not have to? What is the tradeoff? There is one advantage in not assigning a truth value to the so called "vacuously true" sentences − most logic puzzles will disappear. If we decide to treat the "vacuously true" propositions as neither true nor false then

(x)(x # x −−> x > x)

does not have a truth value because ~(Ex)(x # x). Analogically, if

~(Ex)Pxm

then

~(Ex)(Ey)(Pxy & Qy)

does not have a truth value, if Q is satisfied only by y = m. Do I need to go any further in describing what P and m might be?

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