

Re: Platonism

Source: <http://sci.tech-archive.net/Archive/sci.math/2004-12/1967.html>

From: Eray Ozkural exa (*examachine_at_gmail.com*)

Date: 11/26/04

Date: 26 Nov 2004 12:32:15 -0800

Hi Neil,

In short, does your position in philosophy of mathematics have a name?
I found it quite interesting!

Comments follow.

Neil W Rickert <rickert+nn@cs.niu.edu> wrote in message news:<co7gak\$2am\$1@usenet.cso.niu.edu>...

> -----BEGIN PGP SIGNED MESSAGE-----

> Hash: SHA1

>

> examachine@gmail.com (Eray Ozkural exa) writes:

> >Neil W Rickert <rickert+nn@cs.niu.edu> wrote in message
news:<co59g8\$6hg\$1@usenet.cso.niu.edu>...

> >> examachine@gmail.com (Eray Ozkural exa) writes:

>

> >> >I agree. However, as evidenced by this newsgroup most mathematicians

> >> >are naive platonists. They don't understand the distinction between

> >> >the reality of a table and mathematical ideas.

>

> >> Nonsense! Of course mathematicians understand the distinction.

>

> >Well, I don't think most of them have even an inkling. Otherwise, they

> >would stop suggesting that PCs are not models of Turing Machines, or

> >that real numbers "exist" or other silly Platonism.

>

> It is a mistake to assume that "exist" as used by mathematicians has
> the same meaning as it has when we talk of the existence of ordinary
> things. Likewise, mathematical usage of "model" is different from
> ordinary usage.

I actually like your point about "model". But I cannot say if I like
the point about "exist". What is this sense used by *most*
mathematicians then? Would you care to explain? [I don't say "all", I
say "most" in the above discussion.]

I am hoping you do not mean that in (most!) mathematics consistency is
identical to existence. That would be quite silly, would not it?

sci.math: Re: Platonism

- > > *In particular, they should acknowledge that consistency alone is no*
- > > *indication of reality. That is the issue. I can come up with a*
- > > *completely consistent, and a completely fabricated story, like the*
- > > *Bible. But that is a fairy tale. It is not real.*
- >
- > *This is not relevant to mathematics.*

So in mathematics consistency does not entail existence.

What causes something to "mathematically exist" then?

- > > *It is not real. Likewise,*
- > > *mathematicians can come up with consistent and un-real stories.*
- >
- > *That's your misunderstanding of mathematics. It is not a system of*
- > *creative fiction.*

What kind of a system is it, then?

- > > *Most*
- > > *mathematicians do not appreciate that whatever idea they can think*
- > > *about is not automatically "real".*
- >
- > *Silly. You are confusing the mathematical sense of "real" with the*
- > *ordinary meaning of the word.*

So, this reality has an altogether different sense than reality. Good.

So, this reality must be something else!

I think when I say a mathematical object, I usually mean a mathematical thought.

I assume you may want to explain that, because a kind of reality I can attribute to mathematical "thoughts" is squarely in your head, which is itself physical! (regardless of whether these ideas fit empirical reality, e.g. "real" reality) These thoughts are contained in your brain, sometimes as good descriptions of physical reality (e.g. physical properties can obviously be mathematical!) And sometimes their representations are to be found on extraneural marks, like mathematical articles.

Can there be mathematical objects that are not thoughts? Perhaps. I don't know. It could be said that the integers necessarily exist in any good representation of computations out there. We have an interesting picture, then. Every version of "mathematical object" has a physical existence. Not surprising if the world is only physical!

So, reality of mathematical statements seems quite like the reality of physical statements! They are theoretical. They are first and foremost thoughts (to us!). They can be derived from thought experiments or empirical observations. This might be an easier route for you to

answer. In exactly which fashion can we distinguish physical statements from mathematical statements?

The only answer I can find is that (in current mathematics)

* They don't have to directly correspond to physical systems, they can talk about certain mental constructions with desirable properties such as abstractness which are not *directly* derived from sensory experience or empirical trials e.g. graph theory. A graph is an abstract concept. But it is wrong to say that graphs do not exist in the real world. They certainly do, especially when programmed on a computer!

But unfortunately there can be cases in mathematics that are not even *indirectly* derived from observations, that are solely the result of thought experiments and are indeed incompatible even with the basic features of our universe. I don't find this a desirable thing, because I find these to be misleading thought experiments. I suggest we put them aside until we can find a use for them.

> *>In my opinion, most mathematicians think that "real numbers" existed
> >before humanity.
>
> Of course they existed. But that's in the mathematical sense of
> "exist". In the ordinary meaning of "exist", real numbers do not
> exist even today.*

This mathematical sense of existence you are portraying gets even stranger.

I assume you would want to state where I can find this intriguing position.

What is it called? If it's so common, it ought to have a name. By now, it appears that it is not intuitionism, which is something I might want to favor.

Is it mathematical realism? And what kind of a mathematical realism?

Or is it an unnamed fuzzy philosophical position like Torkel's? (He avoided giving a name, because he probably has no clue what his position could be called) It's gotten quite mysterious. I'm anxious to know its name!

> *> That is seen by their naive reliance on the strict
> >truth of their assumptions about real numbers, and by the fact that
> >they think it is clear what is real!
>
> It is clear that you are quite ignorant about mathematics, and
> apparently proud of your ignorance.*

Educate this ignorant person, then, Neil. What is this unique philosophical position of yours called? (If it's determinate, that is)

Platonism?

But if that is so, I already knew well about it, which is why I have taken the chance to show its absurdity. So, then either of the following is true

1) You are talking about a position other than Platonism, and I'm sincerely wondering what this position is. Because despite some self-study, I cannot predict the name from your post exactly.

2) You don't know what Platonism is.

By the way, another view that I might regard good enough would be some kind of mathematical instrumentalism, that might say that "exist" is used only as a figure of speech in mathematics, which is precisely what I'm suggesting is the current practice. IOW, this "exist" has *nothing* to do with "exist" in the ordinary sense... Which is perhaps what you want to say... Are you an instrumentalist of some sort? But we should beware, when we say that, we are really coming to mathematical solipsism that I talked of a while ago! That does not seem desirable either!

Regards,

--

Eray Ozkural