

## Re: Where's respect? was Re: Corrective interpretation of real numbers

**Source:** <http://sci.tech-archive.net/Archive/sci.math/2005-02/0049.html>

---

**From:** Herman Jurjus ([h.jurjus\\_at\\_hetnet.nl](mailto:h.jurjus_at_hetnet.nl))

**Date:** 01/31/05

Date: Mon, 31 Jan 2005 11:33:06 +0100

Eckard Blumschein wrote:

> *On 1/29/2005 11:48 AM, Herman Jurjus wrote:*

>

>

>>> *Since I am just an engineer, I cannot overlook the putative consequences  
>>>for formal mathematics. As far as I can see every effort so far led just  
>>>to another rather useless mathematical construct.*

>>

>> *'without leading to anything of much value'. Exactly.*

>

>

> *I am not sure about that. Muechenheim intends to show that there is no  
> actual infinity.*

It doesn't make sense to 'show' that. You can –assume– that it doesn't exist, and then see what you end up with.

In principle, the most valuable raw materials of future

> *are the so far overlooked mistakes. Not just students would certainly  
> benefit from exclusion of unnecessary and possibly wrong elements from  
> education. Is Cantor's theory such a ballast? As a layman, I cannot  
> judge, even if there seem to be several indications confirming this  
> suspicion.  
> My objections against current theory arose from different problems.*

The point is not whether these objections are justified objections against Cantorean set theory or not. The point is that everything is kept too vague, and not even an attempt is made to clarify \*exactly which assumptions one still should want to uphold, and which not\*. In other words: not even an attempt is made towards an –alternative– system (mathematical system, that is).

>

>

>> *However, I hope for*

>>

>>>clarification concerning some consequences of  $\delta > 0$  in applied  
>>>mathematics.  
>>  
[snip]  
>>Two questions come to mind:  
>>1. What kind of 'clarification' would satisfy you?  
>  
>  
> At first, I would appreciate the insight that fully elaborated  
> mathematical systems are not necessarily the ultima ratio as long as  
> they contain any arbitrariness.

You're right about arbitrariness. But formal mathematical systems are (imo) definitely the ultima ratio of mathematics. If you don't build a formal system, or better: if you have not even the intention to eventually do so, then you're doing trivial things, namely vague theorizing.

[snip]  
> I consider for final the notions of Aristotele concerning infinity and  
> of Peirce concerning the continuum. Weyl frankly admitted that there are  
> unresolved fundamental problems.

Yes, they are unsolved, and yes they are fundamental (although apparently not 'essential' to do good mathematics). But vague theorizing will not bring a solution closer. At least, things shouldn't –remain– in the realm of vague theorizing.

[snip]  
> Given, I am considering the situation correctly, then it will perhaps be  
> the best solution to merely explain why the current system works well  
> with a very few tiny exceptions. The only desire of mine is the hold  
> back the stupid dogs who are trained to bite anybody who does not  
> entirely comply with the rules.

:-)

But so far, Mueckenheim and you just provide an easy extra bite.

>>A fully elaborated  
>>formal mathematical system, like some axiom system + some alternative  
>>set of logical rules?  
>  
>  
> A hate systems claiming to be politically perfect even if they  
> apparently just quite a little bit violate logics and justice.

The fact that you emotionally associate 'systems' with political systems that you hate is understandable. But if that means you reject all mathematically precise systems altogether, you yourself may be much more an oppressor of free thought and progress than you'd want to admit.

sci.math: Re: Where's respect? was Re: Corrective interpretation of real numbers

>>*Or are you only interested in vague stories in*

>>*natural language?*

>

>

> *Cauchy was perhaps much more prudent and far-sighted than Weierstrass.*

But were his works equally beneficial for the further development of mathematics?

>>2. *What examples of actual applications do you have in mind? If you*

>>*start with 'vague theorizing' too early, you may have lost contact with*

>>*reality sooner than the pure mathematicians.*

>

>

> *I several times outlined several problems.*

Just fyi: they were not concrete enough for me, so far.

--

Cheers,

Herman Jurjus