

## Re: .999... ?= 1

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Herman Jurjus wrote:

>>>> *I see zero having three aspects of equal value but different sign:*  
>>>> *minus 0.0 over bar*  
>>>> *just zero*  
>>>> *plus 0.0 over bar.*  
>>>>  
> *[snip]*  
>  
>>>> *Both the negative and the positive description, from the left and from*  
>>>> *the right, respectively are identical with just zero.*  
>>>>  
> *[snip]*  
>  
>> *Do not consider it an attack on*  
>> *numbers like 0 and 1 if I try to add some subtleties. Since language of*  
>> *mathematics has failed for centuries to satisfactorily resolve the*  
>> *issue, it might be worth pondering about alternatives. What does +0*  
>> *mean? How does it differ from -0? We agree about the identity of their*  
>> *value zero, no matter whether it is seen from the left or from the right.*  
>  
>  
> *Do you happen to know the book "Inconsistent*  
> *Mathematics", by Chris Mortensen?*

The title sounds interesting. Our library doesn't have it.

> *The function such that  $f(x) = 0$  for  $x < 0$  and*  
>  *$f(x) = 1$  for  $x > 0$  can be turned (according to the*  
> *book) into a \_continuous\_ function, by defining*  
> *both  $f(0) = 0$  and  $f(0) = 1$ .*

That is exactly what practice sometimes needs but gospel-like tenets do not allow.

> *The rather flagrant*  
> *contradiction (  $0 = f(0) = 1$  ) is made harmless,*  
> *by using a non-standard logic (a 'paraconsistent')*

> *logic = logic in which the ex-falso-quodlibet rule*  
> *fails).*

If I recall correctly, quodlibet means whatever. People used to obey the ban of division by zero. Why don't they accept that other rules also fail at the infinitely small.

> *They claim this leads to very handy calculus*  
> *rules in applied situations.*  
>  
> *Is this close to what you have in mind?*

Perhaps it is, at least as concerns the practical needs.

Thanks and Regards,  
Eckard Blumschein