Re: Cantor Confusion

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- *From*: mueckenh@xxxxxxxxxxxxxxxxx
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Dik T. Winter schrieb:

> > No, there is *no* node in your tree that represents 1/3. Because there
> > is *no* node in your tree that represents an infinite sequence. On the
> > other hand, Cantor's diagonal proof is about infinite sequences.
>
> You do not require that one digit represents the number 1/3 in Cantor's
> list. You do not require that any digit there represents an infinite
> sequence.

Of course not.

> But you require that one digit (node) represents 1/3 in the tree?
> But you require that one digit (node) in my tree represents an
> infinite sequence?

Of course.

That is unfair.

> Are you trolling, Dik?

Not at all.

> There is no node in the tree which represents 0.000... and no node
> which represents 0.1 But these real numbers are represented in the
> tree by paths.

I do not understand. You state that the bits are the nodes.

Yes. And an infinte sequence of bits is the representation of a real
number.

> I have
> shown how you can extend that to the nodes representing numbers.

I do no want not extend anything to nodes representing numbers. The paths represent numbers.

> And
> I also have shown how the numbers represented by the nodes all have
> a finite sequence of bits. There is *no* node that represents 1/3.

No. There is no digits in Cantor's list representing 1/3.

> And when you switch to paths representing numbers you have something
> completely different.

I did not switch to paths but defined from the beginning that the paths represent the numbers.

> Let's assign to a finite path the number of the
> node where the last edge terminates.

There is no last edge, because the paths are infinite, like the decimal representations used in Cantor's list.

> Also in this case 1/3 is not in
> your paths.

Then 1/3 is not in Cantor's list.

> There are no numbers assigned to the non−terminating
> infinite paths.

Then there are no numbers assigned to non−terminating decimal representations.

> I think you wish that the edges represent the bits,
> not the nodes.

No, I do not wish that. (I could do so, but it would again confuse you.
So we it as it is.)

Regards, WM

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