Re: Another stab at Cantor

Source: http://sci.tech−archive.net/Archive/sci.math/2006−09/msg03916.html

- *From*: "georgie" <geo_cant@xxxxxxxxx>
- *Date*: 19 Sep 2006 13:53:47 −0700

Arturo Magidin wrote:

> Do you know what a red herring is?

Its something you would probably try, to avoid the real issue.

> ...
> He then asserted that after doing this an infinitely
> countable number of times, he would obtain a list. −>That<− assertion
> is false. What he "ends up" with in the limiting case is a
> "pseudo−list" (I'm making up the term right now, only for the purposes
> of this paragraph)

I noticed that about you. You "make things up" as we go.

> > You can't seem to accept that and have resorted to personal attacks.
>
> Oh, I can accept perfectly well that you have failed to understand the
> rebuttals. I have chosen to express my contempt for you in the form of
> personal attacks. This has nothing to do with denial, but merely with
> contempt.

That seems to be a character flaw that you have.

> The original poster describes a process whereby, if you have a list,
> you produce a new string, pre−append it, and obtain a new
> list. Lather, Rinse, Repeat.
>
> The original poster then talks about continuing this process via the
> "totality of all possible steps of this procedure." The procedure can
> only be applied so long as you have a list. This can certainly be done

> at each natural−numbered step. If you take the union of these steps,

Taking the union was never discussed or implied.

> what you end up with is an ORDERED set which, AS GIVEN, is not a list;
> among other reasons because each term has an infinite number of
> predecessors. At this stage, the "procedure" cannot be applied, so the
> process STOPS.
>
> So we are done with −>that<− process.

If we aren't done with all possible steps, we better go back, because
that's what the OP said.

> At this stage, it was asserted the resulting (ordered) set contains
> all possible strings. That is false. While the set, ordered as given,
> is not a list, it can nonetheless be REORDERED

That reordering step is a possible step. It *MUST* be in the set of
all possible steps.

> so that the result
> −>IS<− a list, and we can easily produce strings not on THAT list, and
> therefore not in the original (ordered) set.

Except for the fact that it can't be.

> I think that what is sticking in your craw is that you somehow decided
> that the original poster meant to CONTINUE applying the process
> anytime he could take the collection of everything he had produced
> thus far and somehow turn it into a list.

I think you ignored that all possible steps means all of them, not all
of them except the ones Arturo Magidin might want to describe.

> But that is NOT what he said.

Even if what he said or meant was that the sky is blue, the set of all
possible steps includes steps you describe in all your posts you will
ever write or even think about. Even if he didn't have the insight to

mean to include those, we can assume he did and your argument about reordering and such is meaningless.

> What he gave was a specific
> deterministic algorithm that does not allow you to reorder the sets you obtain.

For the sake of argument, we could be adults and understand that your restrictions are just avoiding the real issue. The OP didn't explicitly say one way or the other so lets forget about the trivial cases. His set of "all possible steps" includes all steps.

Then again, your character flaw may not let you be an adult. I'm not sure.

> You can only take a list, produce the diagonal string, and preappend the diagonal string to obtain a new list. You don't get to reorder what you get. That process has a limiting case, which what I described, and that limiting case is not a list if ordered as the procedure dictates it MUST be ordered.

> > "If Arturo Magidin's step is a step then it is one of all possible steps." is true.

> No, it is false. You are putting far more into the procedure than the original poster provided. And then you are claiming that the proof presented is insufficient because it fails to address something which was not put into the original procedure. Well, DUH.

You aren't thoroughly considering the OP. If not, well DUH.

> What I described is not a "possible step" in the original poster's algorithm; it takes place AFTER the original poster is done with his algorithm, which can only be applied omega times. What I described "takes place" at step "omega + 1", which is incompatible with the original poster's description.

What a joke. Suppose he was thinking of your step when he said "all possible steps". It really isn't much of a stretch to think "all possible
steps" means all of them. Did he really need to anticipate your argument and say "all possible steps and Arturo Magidin's steps that

wouldn't be included in the set of all steps because Arturo Magidin's steps
are special"?

> So by definition, there is no
>
> > diagonalization steps remaining after they've all been performed. There
> > can be no diagonalizing outside the set of all diagonalizations.
>
> L_Omega is NOT the set obtained by applying "all possible
> diagonalizations", unless you change the procedure described.

Nonsense.

> > L_Omega can't be a list. It can't be diagonalized. It can't be
> > achieved by performing all the diagonalizations either, but that
> > doesn't mean it doesn't exist.
>
> Who said it doesn't exist? Still savaging strawmen, while beating your
> wife?

I didn't realize you were special and your steps don't get included in the
set of all steps. Are there other people who feel this way too? Every
time I say "all of..." do I have to mention other peoples names besides
yours?

At least now we know that there is agreement that nobody has proven
L_Omega is incomplete.

.