

Re: Calculus XOR Probability

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- *From:* imagination@xxxxxxxxxxxxx
 - *Date:* 17 May 2006 11:46:03 -0700
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Tony Orlow wrote:

imagination@xxxxxxxxxxxxx said:

stephen@xxxxxxxxxxxxx wrote:

Matt Gutting <tchrmatt@xxxxxxxxxx> wrote:

stephen@xxxxxxxxxxxxx wrote:

Matt Gutting
<tchrmatt@xxxxxxxxxx>
wrote:

Tony Orlow
wrote:

MoeBlee
said:

Tony
Orlow
wrote:

MoeBlee
said:

Tony
Orlow
wrote:

To
say
all
elements
are
finite
but

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the
set
is
infinite
implies
that
there
is
some
largest
finite
with
an
infinite
successor.

In
what
theory?
In
set
theory?
No,
what
you
said
is
not
true
of
set
theory.
So
in
some
other
theory?
If
in
some
other
theory,
then
what
are
its
axioms
and
primitives
and
what

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are
its
definitions
of
'infinite',
'largest',
'finite',
and
'successor'?

I
was
speaking
of
the
logic
behind
the
limit
ordinals,
and
how
it
is
flawed.

You
said
"To
say
all
elements
are
finite
but
the
set
is
infinite
implies
that
there
is
some
largest
finite
with
an
infinite
successor."
That

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statement
contradicts
set
theory.
So
my
question,
which
you
did
not
answer,
is:
In
what
theory
do
you
claim
that
your
statement
holds?

And
there
is
no
flaw
in
the
logic
behind
limit
ordinals.
The
only
logic
involved
in
set
theory
is
first
order
predicate
logic.

I
suppose
what

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it
boils
down
to
here
is
infinite
induction.
Since
the
size
of
the
set
is
the
successor
to
the
maximal
element
in
all
finite
sets,
this
relationship
should
hold,
being
an
equality,
in
the
infinite
case.
If
that
is
so,
then
omega
is
successor
to
the
largest
finite,
and
the
notion

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is
self-
contradictory.
Infinite
induction
appears
to
be
discredited,
but
the
only
counterexample
in
this
thread
is
easily
explained
otherwise,
and
"infinity
did
it"
doesn't
fly
when
it
comes
to
explaining
an
error
of
 $\sqrt{2}$.
The
limit
ordinal
 ω
is
in
direct
contradiction
with
infinite
induction,
so
one
of
them
is

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wrong.
Hint:
it's
not
infinite
induction.

The
problem I
see with
this is that
the finite
cases, as
you
yourself
point out,
deal with
sets having
maximal
elements.
Since this is
not true
for "the
infinite
case", I
don't see
how you
can apply
the same
reasoning
there.

Matt

But Tony's infinite sets do
have maximal elements,
such as
{1, 2, ... BigUn }. Tony is
absolutely incapable of
imagining a set
without a maximal element.
Everything must have two
endpoints and be on
"the number line" or else he
is simply incapable of
understanding it.

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Basically Tony like to use the word infinity, but he really does does not understand or believe in the concept.

Stephen

But apparently even Big'Un isn't a maximum element, since you can go beyond it by adding another unit infinity. It looks like the system has "endpoints" which are functionally not endpoints (since you can surpass them) but which are nevertheless declared to be so.

Matt

Big'Un is not the maximum element in an absolute sense, but when you "declare" an infinite set, you have to specify a range. Big'Un is apparently the default. The point is that in Tony's system { 1, 2, 3, } is apparently meaningless. You have to specify some upper bound such as Big'Un, or Big'Un+1, or whatever before you can say anything meaningful about the set. A set must have a maximal element. That is one of the absolute rules of Tony's logic, and one of the main reasons he rejects standard set [theory] is because it allows for sets that do not have a maximal element.

Hmm, I'm not sure the rule is that the maximal element must actually exist. There was certainly a stage at which Tony would agree that it didn't exist. But the rule appears to be that – existent or not – you are able to refer to it in the course of an argument.

Boys, the rule is simple. If you are going to measure a set by a mapping function from a standard set, that mapping function gives a measure of the set density at any given point. In order to measure the set using the density of

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one sort or another, one must have a value range. It's not that sets with no defined range can't exist. One just cannot accurately measure them, except using the range as an independent variable and applying the mapping over that range. Big'un serves as a declared unit infinity, used for measuring and comparing infinities, declared and compared formulaically.

"Serves as a declared unit infinity". What the hell does that mean? Are you prepared to accept that no-one here except yourself has the first clue what it could mean in any coherent piece of thinking. Consider the pofnats. They go on for ever. (You agree, I believe.) Lined up like this:

0, 1, 2, 3, ... 67, 68, 69, ... 13,556,346,236,465, ...
13,556,346,236,466

....there is no right end. But to "count" them, we need a right end. So we declare one.

Is this a mischaracterisation of your ideas? If so, where, exactly?

Brian Chandler
<http://imagination.org>

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