

Re: Troolean operators

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Kilgore Trout wrote:

Although I think I understand your point, two-value logic has great strength and utility. For instance, that computer you are using is made possible because of this system of 0/1 – on/off – t/f logic.

The excluded middle is a concept which has great utility. Some situations are not only true/false. Especially complex ones.

Now, if your point is that these logical systems are incomplete, well, perhaps you have heard of Gödel.

In the strictest sense, it is perhaps true that this logic simply mimics our experiences (thus making it more inductive than deductive) in the real-world, without saying anything really deep about that world.

My understanding is that Gödel showed that within any deductive system we can produce statements that basically claim to be decidable iff they are not decided.

A rough (and somewhat crappy) analogy is the old statement: "This statement is false", which cannot be assigned a truth-value.

Yes,
Godel's
theoerm
is
built
on

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the
Epimenides
paradox,
"This
statement
is
false";
it
is
a
very
complex
extension
of
it.
And
strictly
speaking
Godel's
original
theorem
only
applies
to
the
Principia
Mathematica.
However,
it
has
analogs
in
many
different
areas.

Anyways, it's been a long time since my last logic class, so I am probably garbling some of this. But the basic idea that these systems and even the meta-systems which analyze them are flawed is pretty much accepted at this point.

Flawed,
yes,
but
not
unusable.
GT
is

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a
self-referential
paradox..
It's
a
consequence
of
a
system
being
very
rich
and
powerful.
The
key
is
to
learn
to
deal
with
it.
It's
a
small
price
to
have
to
pay
to
have
access
to
virtually
unlimited
knowledge,
having
to
deal
with
self-ref
messiness..
Self-ref
is
what
makes
us
intelligent.
It's

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what
rose
us
above
the
apes..
Once
a
system
achieves
self-ref,
stand
back.

– Don

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