Journal of Humanistic Mathematics

Volume 13 | Issue 1 January 2023

Self-Reference and Diagonalisation

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Self-Reference and Diagonalisation

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Do you know when you know everything?
Or is knowing the unknown something?
Do you know when you know nothing?
Or doesn't this knowledge rely on anything?
Thoughts perform acrobatics
when in self-reference.
A look at mathematics
and infinity makes a difference.
First example: machine automatics
where to find evidence.

Is it stoppable when encodable
in itself as insertion?
A problem solvable for some predicable
of finite instantiation.
Neither haltable nor decidable
for infinite recursion.
Because assumable if it's computable
then look at the version.
One is programmable becoming loopable
in destructive perversion.
An argument undeniable when diagonisable
is terminating the motion,
while unthinkable also unendable.
Therefore a solution
which is undisputable turingable.
It follows the assertion.

Away from machines, back to naturals.
Maybe horizontal sequences in vertical sequentials?

[1] Even though Joël Doat pursued a career in software development after his studies, one of his main interests still lies at the intersection of mathematics and art. This poem was written as an exercise in an introductory course on mathematical logic highlighting Epimenides', Cantor's, and Turing's contributions to self-reference.

Now suppose
ones and zeros
playing the key roles.
Align those
in several rows.
Then diagonally transpose.
Here it goes!
When they compose,
it shows
unwanted weirdos
in their outsider pose.

A path represents
what uncountably defines
Cantor's proof extends
broader cardinality confines
finishing his arguments.
Look at the last three lines,
the respective contents
and word combines.
This is how to diagonalise.

Get ready,
this one is tough.
'cause infinity
isn't always enough.
Talking about the original Or.D.
and no... not a speech disorder.
His rhymes teach how to well-order.
Not only ordinal words, but transitive letters.
No one reduces him to a set when he enters.
Nobody else containing his skills at this efficiency.
For you simply too high classy.
He is the only true Or.D.

All this rationalise
a poem to exercise.
Self-reference it memorialise.
Paradoxes it implies.
Ending with overemphasise:
Poems tell lies...