Non-Physical Causation in Creation Biology

Taking perception, problem-solving and choice seriously

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Is Reality Just Physical?

(in other words, strictly computational)

Choice in Scripture

- “The LORD said to Cain, ‘Why are you angry, and why has your face fallen? **If you do well**, will you not be accepted? And **if you do not do well**, sin is crouching at the door. Its desire is for you, but you must rule over it.’” (Genesis 4:6-7)

- “See, **I have set before you today life and good, death and evil**. If you obey the commandments of the LORD your God that I command you today, by loving the LORD your God, by walking in his ways, and by keeping his commandments and his statutes and his rules, then you shall live and multiply, and the LORD your God will bless you...**I call heaven and earth to witness against you today**, that I have set before you life and death, blessing and curse. Therefore, choose life, that you and your offspring may live...” (Deuteronomy 30:15-20)

Choice Requires a Non-Physical View of Reality

- Choice means that certain events could have happened either way (ruling out determinism)

- Choice also means that there is a responsible party (ruling out simple indeterminism)

- Attempts have been made to get around what choice indicates, but they usually ignore one or both of the above

- Therefore, choice suggests a larger causative structure than modern physics suggests

- Creation biology is constrained by scripture, not by physics

Some Basic Categories of Non-Physical Causes

- Perception
- Creative Problem-Solving
- Choice
- Others?

Can we do science with the non-physical?

And why would we want to?

The Problem of Non-Physical Causation in Science

- Science prefers problems where:
    - the solutions are determinable
    - the mechanisms are knowable (facilitates knowledge-building)
- Non-physical causation runs counter to these preferences

Requirements of a non-physical model of causation

- **Needed - a model of causation that**:
  - is non-computational
  - still facilitates knowledge-building

Alan Turing to the rescue!

How one of the leading lights of computational materialism helps us out of our quandry

Alan Turing’s Oracle Construct

- An Oracle is a **theoretical construc**t developed by Alan Turing, which is a mathematical operator that **represents** for the calculation of the result of an incalculable function

- Therefore, its results can only be **characterized**, never calculated

- However, because it is rigorously characterized, it can be useful for knowledge building

- When used in conjunction with operators that are calculable, the result is called an **Oracle Machine**.

An Example - The Halting Problem

- In computer science, the **halting problem** states that there is no single computer program which can tell if another arbitrary computer program will halt.

- Note that, in theoretical computer science, **“halting” is good** (it gives back a value), and **“not halting” is bad** (no value is given).

- A “halting problem oracle” can be **used as a stand-in** for a function that takes an arbitrary computer program as input and solves the halting problem (i.e. determines if that program will halt).

- Because the function of the oracle is well-defined, such **an oracle lets us logically reason** about how programs utilizing such an oracle would act, without having to actually be able to run it

Using Oracles for Non-Physical Cognition

- Oracles, since they can be used as stand-ins for calculations that aren't physically computable, may also be usable to model non-physical modes of cognition

- The problems, then, for working with oracles, would be:
  - Determine which oracles are in use with humans
  - Show how oracles interact with each other and with computational cognitive abilities in a larger model of human cognition

How might this be researched?

An outline for a research program in non-physical causation

A Research Program for Studying Oracles in Humans

- Create a variety of oracle concepts and related problems for which the oracle should be applicable

- Test each oracle with a group of test subjects in the following way:
  - Measure the time it takes them to solve the problems without training
  - Measure the time it takes them to solve the problems with training
  - Measure intuitional response by only giving them two seconds to solve the problem
  - Ask subjects to introspect how they solved the problem

Using the Data

- High intuitional responses across a large group of people - probably a fundamental oracle

- High response across a large group of people, but not with high intuitional responses - use introspection results to see if there is perhaps another oracle which is being used to solve the problem

- High response with training - probably a composite oracle - figure out how training enabled subjects to access other oracles to solve the problem

- Good responses from a few individuals - determine differences between those and others (giftedness? culture? training?)

Possible Oracle Concepts

- Halting-problem Oracle
- Framing Oracle - restricts attention to relevant information only
- Tool Oracle - selects appropriate mental tools for a task
- Many other possibilities

Questions?

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