Constructing the World
Lecture 2: The Cosmoscope Argument

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Discussion meeting: Thursdays 10:45-12:45, Ryle Room.

Definitions, theses, arguments

S is **empirically scrutable** from C iff: if the speaker knew all members of C, she would be in a position to know S. [i.e. it would be possible for the speaker to know S by idealized reasoning without further empirical investigation]

S is **conditionally scrutable** from C iff: the speaker is in a position to know that if all members of C obtain, then S.

S is **a priori scrutable** from C iff: the speaker is in a position to know a priori that if all members of C obtain, then S.

An **ordinary truth** is an ordinary macroscopic truth about the natural world [hard cases deferred], uttered by a normal human speaker.

P: microphysical/macrophysical truths in (final plus classical) physical vocabulary.
Q: phenomenal truths (optional: secondary quality truths, intentional truths).
T: a that's-all truth
I: indexical truths

PQTI: P, Q, T, I plus laws/counterfactuals in PQTI vocabulary
PQI: P, Q, I plus laws/counterfactuals in PQI vocabulary

A **positive truth** is one such that if it holds in a scenario, it holds in all scenarios that outstrip that scenario.

Today's scrutability theses: all ordinary positive truths (henceforth: ordinary truths) are [empirically, conditionally] scrutable from PQI.

Cosmoscope: (i) supercomputer to store PQI and calculate, (ii) holographic tools that use P [and Q] to convey truths about matter in a region, (iii) virtual reality tools that use Q to convey truths about experience, (iv) a "you are here" marker using I to convey indexical truths, (v) simulation mechanisms to convey truths about counterfactuals.

Cosmoscope argument:

1. All ordinary truths are scrutable from a Cosmoscope.
2. If a truth is scrutable from a Cosmoscope it is scrutable from PQI.
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3. All ordinary truths are scrutable from PQI.

A **Fitchian truth** is one that is unknowable because properly investigating its truth-value [by a given method] one would change its truth value.

A **remote** truth is one that is unknowable because of physical barriers of space, time, observation.

Argument from knowability

1. All knowable ordinary truths are scrutable from PQI
2. If all knowable ordinary truths are scrutable from PQI, all unknowable ordinary truths are scrutable from PQI.
3. All ordinary truths are knowable or unknowable.
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4. All ordinary truths are scrutable from PQI.

5. All knowable ordinary truths are knowable through perception, introspection, and reasoning.
6. Any truth knowable through perception, introspection, and reasoning is scrutable from PQI.
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7. All knowable ordinary truths are scrutable from PQI.

8. All unknowable ordinary truths are either Fitchian truths or remote truths.
9. If all knowable ordinary truths are scrutable from PQI, all remote ordinary truths are scrutable from PQI.
10. If all knowable ordinary truths are scrutable from PQI, all Fitchian ordinary truths are conditionally scrutable from PQI.
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11. If all knowable ordinary truths are scrutable from PQI, all unknowable ordinary truths are conditionally scrutable from PQI, and all non-Fitchian unknowable ordinary truths are empirically scrutable from PQI.

12. All ordinary truths are conditionally scrutable from PQI.
13. All non-Fitchian ordinary truths are empirically scrutable from PQI.

Core Knowability Thesis: All knowable truths are knowable by reasoning from phenomenal beliefs and core perceptual beliefs.

Perceptual beliefs: those that take perceptual experience at face value.
Core perceptual beliefs: those about core properties.
Core properties: primary and secondary qualities (and phenomenal properties).

1. For all noncore p, all perceptual experience and perceptual knowledge of p is produced by transitions from core representations.
2. For all noncore p, if perceptual knowledge of p is produced by transitions from core representations, knowledge of p can also be produced by inference from core (perceptual) beliefs.
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3. For all noncore p, if perceptual knowledge of p is possible, knowledge of p can be produced by inference from core perceptual beliefs.