

Quine's Two Dogmas of Empiricism

By Spencer Livingstone

An Empiricist?

- Quine is actually an empiricist
 - Goal of the paper not to refute empiricism through refuting its dogmas
 - Rather, to cleanse empiricism
 - Refute supposed “bad” (modern) empiricism for a better account of scientific empiricism

The Dogmas

D1: There is “some fundamental cleavage between truths which are *analytic*...and truths which are *synthetic*” (pg. 155).

D2: Reductionism—“Each meaningful statement is equivalent to some logical construct upon terms which refer to immediate experience” (pg. 155).

D1 Expounded

- “Truth in general depends on both language and extralinguistic fact” (163)
 - “Brutus killed Caesar”
- Truth can be analyzed by its two components
 - Language and extralinguistic facts
- In some statements, one needs only the language component
 - These are the analytic statements

D2 Expounded

- Reductionism holds that statements are confirmed or disconfirmed individually
 - As a function of experiences
- Logical empiricists held that statements' meaning depends on the method used to verify it
 - Found in logical positivism and Carnap's *Aufbau* (*The Logical Structure of the World*)

D2 Continued

“As long as it is taken to be significant in general to speak of the confirmation and infirmation of a statement, it seems significant to speak also of a limiting kind of statement which is vacuously confirmed...and such a statement is analytic”
(Quine, 166)

- The belief that sense experience can be individually verified leads to the understanding that some statements can be confirmed “come what may”

Distinct Dogmas?

- The two dogmas are related—intimately connected, at root identical
 - Only if you can say that statements take their meaning individually as a function of their verification, can you say that some statements need not be verified empirically, but as a function of their components.

What is Analyticity?—A Background

- Leibniz: truths of reason vs. truths of fact
 - Truths of reason are true in all possible worlds
 - Statements whose denials are self-contradictory
 - Problem: explains little
 - “Self-contradictory” is as poorly described as analyticity itself
- Kant: statements that attribute to their subjects no more than the subjects already contain
 - True by virtue of meaning rather than of facts
 - Necessitates explanation of “meaning”

Meanings

- Following after Frege and Russell, meaning is distinct from naming
 - Evening Star; Morning Star
 - Name the same thing (Venus); possess different meanings
- Meaning is crucial to the theory of synonymy and analyticity

Two Kinds of Analytic Statements

- (1) No unmarried man is married
- (2) No bachelor is married

- What is the difference between these two statements?
 - Are they the same?

Two Kinds of Analytic Statements

- 1. Logical Contradictions

- LC: $P \bullet \sim P$

- A contradiction in any instance of P, so long as P refers to the same thing in both instances

- The contradictoriness is obvious and explicit within the statement itself

- (1) No unmarried man is married

- $\sim(\exists x)(\sim Mx \bullet Mx)$

- M and x can refer to anything, and the truth value of the statement is unaffected

- A contradiction in all cases

Two Kinds of Analytic Statements

- 2. Other “analytic” statements
 - They are not intuitively self-contradictory, but we nonetheless consider them analytic
- (2) No bachelor is married
 - $\sim(\exists x)(Bx \cdot Mx)$
 - Not a contradiction in itself
 - Unless we know what B and M refer to
- Thus, the two kinds of analytic statements are distinct
 - One that is true as a function of logical particles
 - One that is true as a function of...what?

Synonymy

- Can we restate (2) so as to turn it into the form used by (1)?
 - Can we make “No bachelor is married” into a logical truth?
- We can, if we can show that “bachelor” and “unmarried man” are synonymous and therefore capable of being substituted for one another
- But can we show that?

“We still lack a proper characterization of this second class of analytic statements, and therewith of analyticity generally, inasmuch as we have had in the above description to lean on a notion of ‘synonymy’ which is no less in need of clarification than analyticity itself” (Quine, 156).

The Case for Synonymy

- Turning (2) into (1) presupposes the existence and logical function of synonymy
 - Thus, we need an explanation of synonymy to test its legitimacy
- Three possible characterizations of synonymy
 - S1: Meaning postulates
 - S2: Definitions
 - S3: Interchangeability

S1: Meaning Postulates

- The understanding that a given thing can be defined in terms of its relation to other things
 - Can create axioms (semantic rules)
 - $(\forall x) (Bx \exists Ux)$
- Atomic sentences: true or false declarative sentences that cannot be broken down into simpler components
 - Becomes a state-description once it bears a particular truth value
 - Using logical particles and semantic rules, can build complex sentences
- Analytic sentences are those that will be true for every state-description
 - Semantic rules permit substitutions—(2) into (1)

Quine's Response to S1

- Meaning postulates do not help to explain analyticity
- Presenting a list of semantic rules for synonymy provides a definition for analyticity in a given language
 - Not language itself
- By defining statements as analytic due to adherence to semantic rules, we need to know what we are ascribing to them

Quine's Response to S1

- Semantic rules can tell us which sentences are analytic
 - Does not help explain the ascribing
- Semantic rules can also identify which sentences are among the truths
 - It therefore defines analyticity as true according to the semantic rules
 - Provides no explanation for what exactly semantic rules are or why they are significant
 - “By saying what statements are analytic for L_0 we explain ‘analytic for L_0 ’ but not ‘analytic’, not ‘analytic for’” (Quine, 162).

S2: Definitions & Quine's Response

- S2: Analytic statements are true by definition. Words that possess identical definitions are therefore synonymous
- Where do we find definitions?
 - “Are we to appeal to the nearest dictionary, and accept the lexicographer's formulation as law? Clearly this would be to put the cart before the horse. The lexicographer is an empirical scientist, whose business is the recording of antecedent facts” (Quine, 157)
- In searching for an explanation for synonymy, we cannot rely on an explanation that *presuppose* synonymy

S3: Interchangeability

- “The synonymy of two linguistic forms consists simply in their interchangeability in all contexts without change of truth value” (Quine, 159).
 - *Salva veritate* (Leibniz)
- Thus, synonyms are terms that can be exchanged in any given use of the term without a change in truth value
 - Can therefore substitute “bachelor” for “unmarried man” to turn (2) into (1)

Quine's Cheap Responses to S3

- (1) No unmarried man is married
- (2) No bachelor is married
 - So it seems bachelor \leftrightarrow unmarried man
- (3) I have a bachelor of arts diploma
- (4) “Bachelor” has less than ten letters

Quine's Proper Response to S3

- Cognitive synonymy—more precise version of synonymy
 - Information that a term expresses such that it is synonymous with a different term's cognitive meaning
- Not looking for why “no bachelor is married” is true, but why it is analytical like (1)
 - An explanation of the intensional (analytic) in extensional terms
 - Since an intensional explanation is circular
- But a purely extensional language would create erroneous extensions
 - Since would allow interchangeability of all coextensive terms

So Is D1 False?

- 1. For an analytic/synthetic distinction, we must be able to explain synonymy
- 2. We can only explain synonymy by interchangeability or definition
- 3. Interchangeability cannot explain synonymy
- 4. Definition cannot explain synonymy
- C. There is no analytic/synthetic distinction
 - Logical truths remain

D2 Revisited

- D2: Reductionism—“Each meaningful statement is equivalent to some logical construct upon terms which refer to immediate experience” (pg. 155).

The Verification Theory of Reductionism

- What is a term's meaning?
 - How is it acquired?
- Verification Theory of Reductionism:
 - “The meaning of a statement is the method of confirming or infirming it. An analytic statement is that limiting case which is confirmed no matter what” (Quine, 164).
 - Thus, statements can be synonymous iff their methods of empirical confirmation or infirmation are identical
- Can we save D1?

Quine Against D2

- “The dogma of reductionism survives in the supposition that each statement, taken in isolation from its fellows, can admit of confirmation or infirmation at all” ...but “our statements about the external world face the tribunal of sense experience not individually but only as a corporate body” (Quine, 166).

Quine's Holism

- Individual statements do not possess a distinct linguistic component and a factual component
 - Rather, they are “double dependent”
 - Cannot use one without the other
 - “The unit of empirical significance is the whole of science” (Quine, 166)
- Without an analytic/synthetic distinction, there are no sentences that hold “come what may”
 - All ideas are confirmed or disconfirmed as a whole (confirmation holism)
 - We can hold onto whatever statement, so long as we revise other statements and logical components to avoid contrary experience

Semantic Holism

- The unit of meaning is the entire language
 - Meaning arises from the cohesive theory that best accounts for *all* of our sense experience
- Web of Belief
 - Sense experiences are “peripheral statements”
 - Logic, mathematics, etc. are “central statements”
- When we make adjustments to statements according to experiences, we do not do so one sentence at a time, but altogether
- Every belief is capable of being abandoned; no belief is immune from revision; no sentence is ever decisively refuted

Holism's Repercussions to Ontology

- No experience is tied to any particular statement
 - Must determine our ontology by appeal to the whole of science
- We scientifically posit some things taken as existent (objects at the atomic level, etc.)
 - All our experiences of physical objects are of the same kind

What Does This Mean?

- Yes, even logical laws can be revised
 - A precedent of logical/scientific laws being reevaluated and refined
 - Newtonian physics in favor of Einsteinian physics
- Science is not so much after truth as a prediction of future experiences
 - For Quine, changes in our web of belief—our science—are pragmatic

The Verdict?

- Which is superior?
 - Quine's theory of semantic holism
 - Meanings arise from a web of sensory experience
 - Every statement is susceptible to refutation or change, so long as we change other statements for compatibility
 - Verification theory of reductionism
 - Meanings arise from individual sensory experiences that either confirm or disconfirm statements.