

Phil/Ling 375: Meaning and Mind
[Handout #10]

W. V. Quine: Two Dogmas of Empiricism

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§ Main Theses

1. **Anti-analytic/synthetic divide:** The belief in the divide between *analytic* and *synthetic* statements is ill-grounded.
2. **Anti-reductionism:** Meaningful statements cannot be reduced to terms that refer to immediate experience.
3. There is no sharp line between metaphysics and natural science. Physical objects and gods are all but “cultural posits.”
4. We should shift toward pragmatism.
5. We should get rid of the notion of *meaning*.

§ The Two Dogmas

1. **Analytic/synthetic divide:** The belief that there is some fundamental cleavage between *analytic* truths (grounded in meanings independently of matters of fact) and *synthetic* truths (grounded in fact).
2. **Reductionism:** The belief that each meaningful statement is equivalent to some logical construct upon terms which refer to immediate experience.

§ The First Dogma: the analytic/synthetic divide

Hume	Leibniz	Kant	
Knowledge based on relations of ideas	Truths of reason	Analytic statements	Examples
Knowledge based on <i>a priori</i> reasoning. We know it from reflection of our intellect. We do not need to accumulate empirical evidence for such knowledge.	Statements, if true, are true in all possible worlds. Statements that could not possibly be false; statements whose denials are self-contradictory.	Statements that attributes to its subject no more than what is already conceptually contained in the subject. A statement is analytic when it is true by virtue	Geometry, algebra, arithmetic, logic, statements based on definitions such as “All bachelors are unmarried.”

		of meanings and independently of fact.	
Knowledge based on matters of fact	Truths of fact	Synthetic statements	Examples
Claims about the world are about matters of fact. They cannot be verified by <i>a priori</i> reasoning.		In all judgments in which the relation of a subject to the predicate is thought, the judgment is synthetic if the predicate <i>B</i> lies entirely outside the concept <i>A</i> , though to be sure it stands in connection with it.	Empirical declarative statements such as “The sun will rise tomorrow.” “Obama is the President of the United States.”

Quine’s Argument against *Meaning*

1. Supposedly, only linguistic forms have meanings.
2. Meaning is not the same as reference. Two co-referential terms do not necessarily have the same meaning.
3. However, it is not clear what kind of entities *meanings* are (if they are not reference), or when two terms are said to *have the same meaning*.
4. The appeal to meanings as entities will not have played a very useful part in the enterprise of defining *synonymy*.
5. Therefore, we should abandon positing any special realm of entities called “meanings.”

Singular terms	Meaning/Sense	Reference/Naming
General terms	Intension: the sense of the term	Extension: The class of all entities of which a general term is true of.

§ Synonymy ≠ Definition

1. Definition rests on synonymy rather than explaining it.

- i. Synonymy cannot be established dictionary definition since the lexicographer is merely an empirical scientist, whose business is the recording of antecedent facts.
 - ii. Therefore, if two terms are defined as synonymous by the lexicographer, it reflects the fact that people are already using the two terms interchangeably.
 - iii. Therefore, synonymy is established by the linguistic behavior of the community. In other words, synonymy (except for cases of *explication*) is grounded in usage.
- 2. Recognizing that the notion of definition does not hold the key to synonymy and analyticity, let us look further into synonymy and say no more of definition.**

§ Synonymy ≠ Interchangeability

[Interchangeability]:

___ Two terms are interchangeable *salva veritate* when sentences contain one of them can be changed into the other without change of truth-value.

* Note:

___ Two expressions with the same reference should be freely exchanged without altering the truth value of the original sentences. When the truth value is preserved after the substitution of two co-referential terms is made, we call it “*salva veritate*” (saving the truth).

E.g. ‘George W. Bush is the current President of the U.S.’



‘The former President Bush’s oldest son is the current President of the U.S.’

Quine’s critique:

1. Synonymous terms are not always interchangeable *salva veritate*. In some contexts the truth-value will change when you replace one term with its synonymy.
2. Some extensionally equivalent terms or expressions are interchangeable *salva veritate* without being cognitively synonymous (e.g. ‘creature with a heart’ and ‘creature with a kidney’).
3. Therefore, interchangeability *salva veritate* is neither the necessary nor sufficient condition for synonymy.
4. Therefore, synonymy ≠ interchangeability *salva veritate*.

§ Analyticity

Q: If we can’t define ‘analyticity’ via ‘meaning’ or ‘synonymy’, then how do we define analyticity?

- (i) A statement *S* is said to be *analytic for* a language *L*, if and only if it is included in the semantical rules of *L* (an artificial language) for analytic statements.

- (ii) A statement *S* is said to be *analytic for* a language *L* (an artificial language), if and only if it is true according to the semantical rule of *L*.

Quine's Critique:

1. Semantical rules determining analytic statements of an artificial language are of interest only in so far as we already understand the notion of analyticity; they are of no help in gaining this understanding.

Quine's Conclusion of Part I:

1. We cannot really make sense of analyticity, let alone the distinction between analytic and synthetic statements.
2. A boundary between analytic and synthetic statements simply has not been drawn.
3. The very distinction between analytic and synthetic statements is a metaphysical article of faith; it is an unempirical dogma of empiricists.

§ The Second Dogma: The Verification Theory of Reductionism

[The verification theory of meaning]:

1. The meaning of a statement is the method of empirically confirming or informing it.
2. An analytic statement is confirmed no matter what, since a statement is analytic when it is synonymous with a logically true statement.

[Radical reductionism]: science → statements about immediate experience

___ The relationship between a statement and the experiences which contribute to or detract from its confirmation is that of *direct report*.

___ Every meaningful statement is held to be translatable into, hence *reducible to*, a statement (true or false) about *immediate experience* (sense data).

___ Radical reductionism gives emphasis on statement (over word or term) as unit of significant discourse.

___ It is reductionism in that it sets itself the task of specifying a sense-datum language and showing how to translate the rest of significant discourse, *statement by statement*, into it.

Quine's Critique:

1. Language of physical objects is *in principle* irreducible to (untranslatable into) Carnap's initial language of sense data and logic.
2. Carnap himself gave up on this idea, but the verification theory of meaning continues to influence the thought of empiricists: To each statement, or each synthetic statement, there is associated a unique range of possible sensory events such that the occurrence of any of them would add to the likelihood of truth of the statement, and that there is associated also another unique range of possible sensory events whose occurrence would detract from that likelihood.

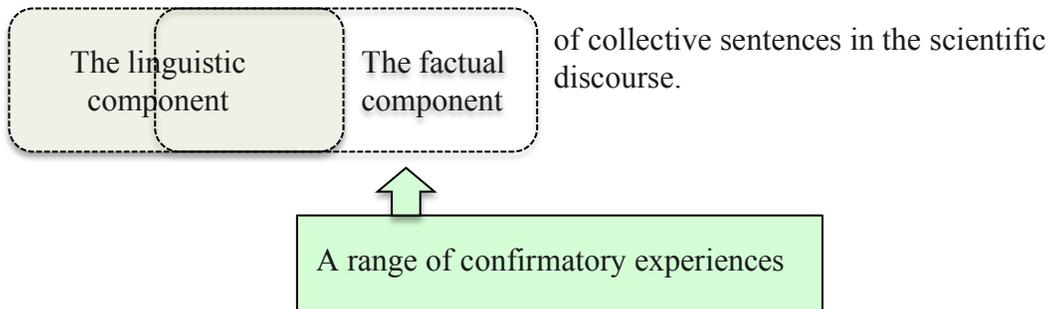
Verificationist's Atomistic Assumption versus Quine's Holism:

Atomism: Each statement, taken in isolation from its fellows, can admit of confirmation or information.

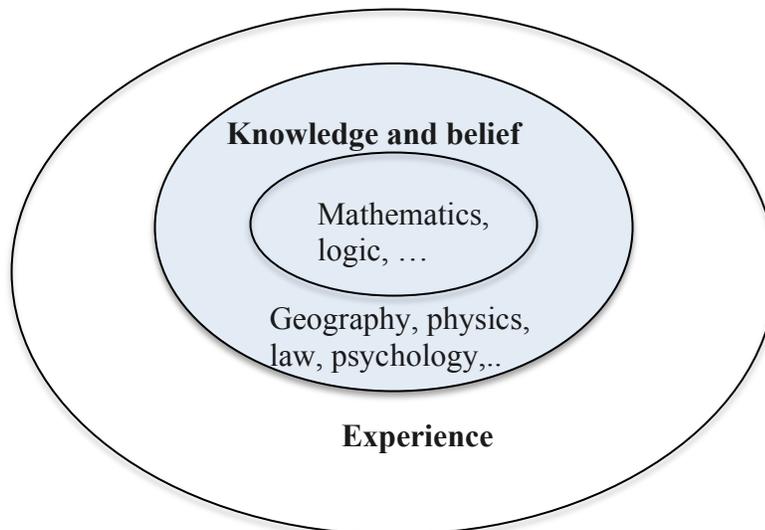
Holism: Our statements about the external world face the tribunal of sense experience not individually but only as a corporate body.

Quine's Conclusion of Part II

1. The two dogmas are at root identical: As long as it is taken to be significant in general to speak of the confirmation and information of a statement, it seems significant to speak also of a limiting kind of statement which is vacuously confirmed, *ipso facto*, come what may; and such a statement is analytic.
2. In general the truth of statements does depend both upon language and upon extralinguistic fact; however, it is nonsense to speak of a linguistic component and a factual component in the truth of any *individual statement*.
3. Taken collectively, science has its double dependence upon **language** and **experience**; but this duality is not significantly traceable into the statements of science *taken one by one*.
4. Even though taking statements, rather than the term, as unit of significant discourse is an improvement over Locke and Hume, it is not enough: *the unit of empirical significance is the whole of science*.



§ Empiricism without the Dogmas



Quine's important insights on science and confirmation:

1. The totality of our knowledge or beliefs is a man-made fabric which impinges on experience only along the edges.
2. Total science is like a field of force whose boundary conditions are experience.
3. A conflict with experience at the periphery occasions readjustments in the interior of the field, and thus truth values have to be redistributed over some of our statements.
4. Reevaluation of some statements entails reevaluation of others because of their logical interconnections.
5. But the total field is so *underdetermined* by its boundary conditions, experience, that there is much latitude of choice as to what statements to reevaluate in the light of any single contrary experience.
6. No particular experiences are linked with any particular statements in the interior of the field, except indirectly through considerations of equilibrium affecting the field as a whole.

Quine's Revision Holism:

1. It is misleading to speak of the empirical content of an individual statement, especially if it is a statement at all remote from the experiential periphery of the field.
2. Even a statement very close to the periphery can be held true in the face of recalcitrant experience by pleading hallucination or by amending certain statements of logical laws.
3. Hence it is a folly to seek a boundary between synthetic statements, which hold contingently on experience, and analytic statements, which hold come what may.
4. *No statement is immune to revision.* **Q:** Do you agree? Can you think of some counterexamples?
5. A recalcitrant experience can be accommodated by any of the various alternative reevaluations in various alternative quarters of the total system, but our natural tendency to disturb the total system as little as possible would lead us to focus our revisions upon the specific statements near the periphery.

Quine on the breakdown of the boundary between science and ontologies

1. The conceptual scheme of science is a tool for predicting future experience in the light of past experience.
2. In point of epistemological footing the physical objects and Homer's gods differ only in degree and not in kind. Both sorts of entities enter our conception only as a cultural posits.
3. The myth of physical objects is epistemologically superior to most in that it has proved more efficacious than other myth as a device for working a manageable structure into the flux of experience. → **pragmatism**
4. Physical objects are posits which server merely to *simplify our treatment of experience.*
5. Positing does not stop with macroscopic physical objects. Objects at the atomic level are posited to make the laws of macroscopic objects, and ultimately the laws of experience, simpler and more manageable.

6. Physical objects, atoms, forces, energy, matter, and even mathematical objects such as numbers and sets — Epistemologically these are myths on the same footing with physical objects and gods, neither better nor worse except for differences in the degree to which they expedite our dealings with sense experiences.
7. *Science is a continuation of commonsense*, and it continues the commonsense expedient of swelling ontology to simplify theory.
8. Ontological questions are on a par with questions of natural science. Questions about classes, for example, are not questions of matters of fact but of choosing a convenient language form, a convenient conceptual scheme or framework.

Q: Do you agree with Quine that macroscopic physical objects, microscopic physical elements, forces, energy, matter, and even mathematical objects such as numbers and sets, are all human “posits” to simplify our experience? Do they serve only a *pragmatic* role in our ontology?