



# Revelation, Humility, and the Structure of the World

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David J. Chalmers

# Revelation and Humility

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- Revelation holds for a property  $P$  iff
    - Possessing the concept of  $P$  enables us to know what property  $P$  is
  - Humility holds for a property  $P$  iff
    - We are unable to know what property  $P$  is [through certain methods of investigation]
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# Examples

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- Revelation holds for (arguably/allegedly):
    - Primitive color properties?
    - Phenomenal properties?
    - No-hidden-essence properties, e.g.  
*philosopher, action, friend?*
  - Humility holds for (arguably/allegedly)
    - Fundamental physical properties such as mass, spin, charge?
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# Revelatory Concepts

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- A *revelatory concept* is a property-concept such that possessing the concept puts one in a position to know (through a priori reflection) what the property is.
    - E.g. *friend* is arguably revelatory, *water* is not
  - How to formulate more precisely?
    - ... if one can know a priori *C is such-and-such*, where *such-and-such* is a revelatory concept of the referent of C? [circular]
    - ... if one can know a priori *C is essentially such-and-such...* [likewise]
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# 2D Analysis

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- Maybe: A revelatory concept is one such that it picks out the same property in all worlds considered as actual.
    - *Heat*: picks out different property depending on which world turns out to be actual (molecular motion, whatever plays the heat role).
    - *Philosopher*: arguably picks out the same property no matter which world turns out to be actual.
  - Equivalently (given modal analysis of properties):
    - A property concept is revelatory iff whether an object in a world considered as counterfactual falls into the extension of the concept is independent of which world is considered as actual
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# Epistemic Rigidity

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- I.e., a revelatory concept is an *epistemically rigid* property-concept
    - Where a concept is epistemically rigid iff it has the same referent in all epistemically possible worlds (in all worlds considered as actual).
    - The referent of an epistemically rigid concept does not vary with empirical variation in how the world turns out.
  - Given theses about the a priori availability of 2D semantic values, we can see the referent of an epistemically rigid concept as a priori available.
  - N.B. this isn't a wholly reductive characterization of revelatory concept, since related notions (e.g. that of semantic neutrality) are needed to characterize 2D evaluation. But it's at least informative.
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# Humble Concepts

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- A humble concept is a property-concept  $C$  such that we can't know what the referent of  $C$  is.
  - More precisely: a humble concept is a concept  $C$  such that we are unable to know any identity of the form  $C=R$ , where  $R$  is a revelatory concept.
  - E.g. *mass* is humble iff we can't know  $mass=R$ , where  $R$  is a revelatory concept of mass.
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# Revelatory and Humble Concepts

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- No revelatory concepts are humble.
  - Some nonrevelatory concepts may be nonhumble
    - E.g. *Dave's favorite property*.
    - Or *water*, if *H<sub>2</sub>O* is revelatory.
  - Among humble concepts, some may be humble because there is no revelatory concept of their referent.
    - E.g., no revelatory concept of mass or *H<sub>2</sub>O*?
  - Some concepts *C* may be humble because although there is a revelatory concept *R* of their referent, we can't know  $C=R$ 
    - E.g. there's in principle a revelatory concept *R* of mass (Stoljar's o-concept?), but we can't possess *R*, or we can possess *R* but we can't know  $mass=R$ .
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# Which Concepts are Which?

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- Candidates for revelatory concepts:
    - *consciousness* (and other phenomenal concepts)
    - *redness* (or perfect redness) and other secondary quality concepts
    - *cause*
    - spatiotemporal concepts
  - Candidates for nonrevelatory concepts:
    - most theoretical property-concepts (*the property that actually plays role R*)
    - *redness* (imperfect redness) and other secondary quality concepts
    - concepts of the property of being a certain individual
  - Candidates for humble concepts
    - All the nonrevelatory concepts above: especially theoretical concepts of fundamental physical properties
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# Ramseyan Humility

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- Ramsey-sentence analysis of physical theory:
    - Where physics says  $T(\text{mass}, \text{charge}, \dots)$
    - This can be restated as: exists  $P1, P2$ , such that  $T(P1, P2, \dots)$
    - Mass = the property  $P1$  that best witnesses the Ramsey sentence
  - If so, our theoretical concept of *mass*, *charge*, and so on are nonrevelatory: they pick out whatever property actually plays the specified role, and so pick out different properties in different worlds considered as actual.
  - Lewis: physical theory can't tell us which of these worlds is actual, so it can't tell us which property really plays the mass-role.
  - So *mass* is a humble concept (at least with respect to physical theory).
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# The Structure of the World

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- Russell, *The Analysis of Matter*:
    - Science and perception reveal only the structure of the world
  - Carnap, *The Logical Structure of the World*:
    - The only objective conception of the world is a structural conception.
  - Structural realists (Worrall, etc):
    - Scientific theories are structural theories
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# Russellian Metaphysics

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- Russell advocates
    - (something like) humility for fundamental physical properties [at least relative to scientific/perceptual investigation]
    - (something like) revelation for mental properties
  - Further Russellian suggestion: maybe fundamental physical properties are in fact mental or proto-mental properties.
    - Cf. Maxwell, Stoljar, etc.
    - If so, humility may ultimately fail for physical properties, as philosophical/phenomenological investigation can help reveal their nature.
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# Question

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- Russell's structuralism is often held to have been refuted by M.H.A. Newman in 1928, who argued that structural descriptions are near-vacuous descriptions.
  - Q: How to reconcile this problem for structuralism with the popularity of quasi-Russellian views in the philosophy of mind?
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# Newman's Problem

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- A *purely structural* description of the world is a description of the form  
there exist relations  $R_1, R_2, \dots$ , and there exist entities  $x, y, z, \dots$ , such that .... [ $xR_1y, \sim xR_2z$ , and so on]
  - Pure structuralism (Russell, Carnap): The content of science can be captured in a purely structural description.
  - Newman: Purely structural descriptions are near-vacuous.
    - They are satisfied by any set of the right cardinality.
    - Given such a set, we can always define up relations  $R_1, R_2, \dots$ , that satisfy the descriptions relative to members of the set
    - (Compare: Putnam's model-theoretic argument.)
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# Impure Structuralism

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- Russell's response:
    - Newman is right about pure structuralism
    - Science delivers more than a purely structural description of the world
    - Its description involves a basic relation: the relation of “spatiotemporal copunctuality” between sense-data and physical objects.
    - We assume this relation  $R$ , and give an impure structural description:  
there exist entities  $x, y, z$ , [relations  $R_1, R_2, \dots$ , properties  $P_1, P_2, P_3 \dots$ ]  
such that  $xRy, yRz$  [ $P_1x, xR_1y, \dots$ ]
  - Presumably we grasp relation  $R$  by understanding it
    - I.e. we have a revelatory concept of  $R$ ?
    - Perhaps  $R$  is one of the universals with which we have Russellian acquaintance.
    - Interpretive puzzle: what happened to acquaintance (with universals as well as with sense-data) in Russell's structuralism?
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# Carnap's Structuralism

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- Carnap's construction can initially be read as a weak structural description:
    - Assume relation  $R$  = recollected phenomenal similarity between elementary experiences
    - $R$  is taken as epistemically basic
    - Use  $R$  to define all other objects and properties
    - Yields a weak structural description  $D$  of the world, invoking  $R$ .
  - Carnap wants to be a pure structuralist, so ultimately tries to drop  $R$ 
    - i.e. “there exists a relation  $R$  such that  $D$ ”
    - To avoid vacuity, he stipulates that  $R$  is a “founded” (“natural”, “experientable”) relation.
    - Can of worms! Better to keep  $R$  and be a weak structuralist.
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# Ramseyan Structuralism

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- The Ramseyan approach leads to something akin to structuralism
  - The Ramsey sentence for our best scientific theories will take the form  
exists  $P_1, P_2, \dots, R_1, R_2, \dots$   $T(P_1, P_2, \dots, R_1, R_2, \dots)$   
where  $T$  uses only *O-terms*
  - Some *O-terms* will themselves be theoretical terms, definable by their own Ramsey sentences with other (fewer?) *O-terms* in turn.
  - Ultimately: a sentence with basic *O-terms* that we cannot eliminate
    - This sentence specifies the structure of the world as characterized by science?
  - Q: What are the ultimate *O-terms*?
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# Global Ramsification

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- Extreme view: global Ramsification (or “global descriptivism” in Lewis):
    - No O-terms! All non-logical terms are treated as theoretical terms.
    - Result: a pure Ramsey sentence with no non-logical O-terms  
exists  $x, y, x, P1, P2, \dots, R1, R2, \dots T(x, y, \dots, P1, P2, \dots, R1, R2, \dots)$   
(where T involves only logical expressions)
  - This is a sort pure structuralism, and suffers from Newman’s problem
    - Lewis recognizes/rediscovers the problem in “Putnam’s Paradox”
    - His way out: restrict quantifiers to natural properties and relations -- cf. Carnap
  - Alternative way out: allow basic O-terms that are not theoretical terms.
    - These terms don’t express non-revelatory role-realizer concepts
    - The O-terms (for properties and relations) will express revelatory concepts?
    - Cf. Weak structuralism
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# Spatiotemporal Structuralism

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- What might serve as ultimate O-terms for Lewis?
    - Theoretical terms defined in terms of impact on observables
    - Observables are definable in terms of effect on experiences
    - Experiences are definable in terms of effect on behavior/processing
    - Cause/effect definable in terms of counterfactuals
    - Counterfactuals definable in terms of laws
    - Laws are definable in terms of spatiotemporal regularities
  - Possibly: Some spatiotemporal terms are O-terms, not theoretically defined
    - N.B. The Humean supervenience base is a distribution of properties across spacetime.
    - Truths about this base analytically entail all truths, but are themselves unanalyzable?
    - Some spatiotemporal concepts are revelatory concepts?
  - Spatiotemporal structuralism: Science characterizes the distribution of certain (existentially specified) properties and relations over spacetime, in terms of spatiotemporal relations among their instances.
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# Spatiotemporal Revelation?

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- Problem: Spatiotemporal concepts are arguably not revelatory
    - E.g. pick out relativistic properties in our world considered as actual, classical properties in classical worlds considered as actual.
    - Or: pick out computational properties in a Matrix world considered as actual.
    - In effect: spatiotemporal concepts are concepts of that manifold of properties and relations that serves as the normal causal basis for our spatiotemporal experience.
  - If so: spatiotemporal terms are not among the ultimate O-terms.
  - So what are the ultimate O-terms?
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# Nomic/Phenomenal Structuralism

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- Alternative hypothesis: Ultimate O-terms include phenomenal terms and nomic terms
    - These show up ubiquitously in Ramseyan analyses of other terms.
    - Somewhat plausibly, phenomenal concepts aren't theoretical and are revelatory
    - Same for *cause*, or *law*, or *counterfactually depends*.
  - If so, then the ultimate Ramseyan description of the world characterizes a manifold of existentially specified properties and relations, connected to each other and to experiences by nomic (causal, counterfactual) relations
    - A post-Russellian weak structuralism?
    - Humility with respect to most theoretical properties
    - Revelation with respect to nomic and phenomenal properties, and various properties analyzable (without rigidification) in terms of these
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# Thin and Thick Conceptions

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- This is a “thin” description of the world -- largely in terms of causal/nomic relations between entities, leaving their underlying categorical nature unspecified (except for occasional mental properties).
- Intuitively, it seems that we have a “thick” conception of the world, which includes categorical properties of things in the external world.
- Where does this thick conception come from, and how can we accommodate it?

# Eden and the Manifest Image

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- Suggestion: Our thick conception of the external world comes from the “Edenic” properties presented in perception
    - Primitive colors, primitive spacetime, primitive mass, solidity, etc...
  - Our concepts of these primitive properties are revelatory
    - These concepts ground a natural thick conception of an Edenic world
  - But these properties are (arguably) uninstantiated
    - So this thick conception is not a fully accurate conception of the world
    - In the scientific image, we need not invoke these properties (except...)
  - But the categorical properties play a central role in our manifest image of the world
    - In everyday cognition, the thick, revelatory manifest image serves as a cognitive substitutive for the thin, non-revelatory scientific image.
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# Noumenal and Phenomenal

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- We might think of the Edenic manifest image as the “phenomenal” world: the world as it is presented to us in experience.
  - The structural scientific image is what we can know of the “noumenal” world: the world as it is in itself.
  - The noumenal world also has intrinsic properties, not revealed by science
    - Cf. Van Cleve, Pereboom, Langton.
    - Cf. The Matrix: A noumenal world whose nature is computational
  - Phenomenal world = Eden; Noumenal World = The Matrix
  - Our conception of the phenomenal world is revelatory
  - Our conception of the noumenal world is largely humble.
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# Beyond Humility

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- Q: Can we know the nature of the “noumenal” properties of the world?
  - Possibilities:
    - The noumenal properties are quasi-Edenic properties
    - The noumenal properties are phenomenal or proto-phenomenal properties
    - The noumenal properties are properties of which we have no conception
  - On the first two, revelatory concepts of these properties may be possible
  - Connecting our humble concepts of physical properties with these revelatory concepts of the same properties will be harder
    - *Maybe* joint abduction from physics and phenomenology could eventually help
  - If so, then the domains of revelation and humility would come together to yield a fuller conception of the world.
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