

# Two Concepts of Metaphysical Possibility

David Chalmers

# The Possible and the Actual

“There is a picture in Leibniz, in Lewis, and in other metaphysicians that the actual swims in a wider sea, the sea of the possible. The actual is just one case of the possible. What is true about this, if our account has been on the right lines, is that truths about the actual are a sub-class of the truths about the possible. But at the metaphysical level, at the level of the truthmaker, the sphere of the possible is determined by the actual.”

David Armstrong, *A World of States of Affairs*

# Prior and Posterior Metaphysical Possibility

- Prior metaphysical possibility (prior to actuality)
- The actual swims in the sea of the possible
- Posterior metaphysical possibility (posterior to actuality)
- The possible swims in the sea of the actual

# A Puzzle About Physicalism

1. Physicalism entails supervenience
2. Haecceitism entails nonsupervenience
3. Physicalism and haecceitism are compatible

# Supervenience

- Supervenience: Any two possible worlds that are microphysically identical are identical simpliciter.
- Better: Any minimal microphysical duplicate of the actual world is a duplicate simpliciter of the actual world.
- Or: The microphysical truths and a that's-all truth necessitate all the truths.

# Physicalism

- Intuitively, physicalism says: Everything is physical. Or: everything is grounded in the microphysical.
- Common view: physicalism entails supervenience (whether or not supervenience entails physicalism).
- Intuitive support: If physicalism is true, then when God fixed the microphysical truths (and said “that’s all”), he fixed all the truths.

# Object-Involving and Qualitative Truths

- Object-involving truths: truths about specific objects, e.g. 'Fred is happy'.
- Qualitative truths: non-object-involving truths: e.g. 'There exists someone who is happy'.

# Haecceitism

- (Modal) Haecceitism: There are qualitatively identical possible worlds that differ in the objects they contain.
- Or (better): The qualitative truths do not necessitate the object-involving truths.



# The Case for Haecceitism

- Suppose the actual world has two symmetrical objects A and B.
  1. It could have been that A had  $\phi$  and B didn't exist (in a world  $w$  qualitatively  $\varphi$ ).
  2. It could have been that B had  $\phi$  and A didn't exist (in a world  $w$  qualitatively  $\varphi$ ).
  3. If (1) and (2), qualitative truths about  $w$  do not necessitate object-involving truths.

---

  4. Haecceitism (about  $w$ ).

# The Case for Haecceitism II

- Suppose A and B are near-symmetrical with properties  $\phi_1$  and  $\phi_2$  (in the actual world @).
  1. It could have been that A had  $\phi_2$  and B had  $\phi_1$  (with all else qualitatively the same).
  2. If 1, the qualitative truths (about @) don't necessitate the object-involving truths.

---
  3. Haecceitism (about @).

# A Puzzle About Physicalism

1. Physicalism entails supervenience
2. Haecceitism entails nonsupervenience
3. Physicalism and haecceitism are compatible

# Support

- 1 is supported by attractive reasoning (all God had to do was fix microphysical truths).
- 2 is true by definition (and haecceitism is supported by counterfactual reasoning)
- 3 is intuitively plausible. A physicalist can be a modal haecceitist. One can think that objects are purely physical and nevertheless that they could have been permuted.

# Options

- 1. Reject physicalism (because of case for haecceitism).
- 2. Reject haecceitism (because of case for physicalism).
- 3. Reject entailment from physicalism to supervenience (because of compatibility of physicalism and haecceitism).
- 4. Make a distinction in notions of supervenience and possibility.

# Haecceitism and Posterior Possibility

- The case for haecceitism turns on an appeal to posterior metaphysical possibility.
- Given that the actual world contains these objects, such-and-such counterfactual situations are possible.
- Possible worlds are constructed from contingent elements of the actual world.
- There are distinct microphysically identical posterior possibilities.

# Physicalism and Prior Possibility

- The case that physicalism entails supervenience turns on an appeal to prior metaphysical possibility.
- When God created the actual world, fixing microphysical facts fixed everything
- God is choosing from among the prior metaphysical possibilities.
- There are no distinct microphysically identical prior possibilities.

# Newly Consistent Triad

1. Physicalism entails supervenience among prior metaphysical possibilities
2. Haecceitism entails nonsupervenience among posterior metaphysical possibilities
3. Physicalism and haecceitism are compatible



# Different Roles

- Prior metaphysical possibility is especially relevant to questions about fundamentality and grounding (e.g. physicalism).
- Posterior metaphysical possibility is especially relevant to questions about essence and de re modality (e.g. haecceitism).

# An Alternative Strategy

- Qualitative physicalism: all truths are grounded in (and so supervene on) existential microphysical truths.
- Object-involving physicalism: all truths are grounded in (and so supervene on) object-involving microphysical truths.
- Perhaps: we should reject qualitative physicalism and accept object-involving physicalism, thereby reconciling physicalism and haecceitism.

# Same Issue

- But: one can argue that there are worlds with the same micro object-involving truths but different macro object-involving truths.
- This haecceitist thesis seems compatible with object-involving physicalism.
- Diagnose as before: on this view, macro truths prior-supervene but don't posterior-supervene on micro object-involving truths.

# Other Applications

- This brings out that the prior/posterior distinction doesn't simply relabel the qualitative/object-involving distinction.
- Rather, it's a more general conceptual distinction with numerous specific potential applications (depending on one's views).
- For example...

# Spatial Location

- E.g. assuming a Newtonian world, is it possible that everything be displaced one meter (in a uniform direction) from where it actually is?
- Arguably: this is not a prior metaphysical possibility, but it is a posterior metaphysical possibility.

# Left and Right

- Is there a world that is left-right reversed with respect to our world?
- Arguably: not a prior metaphysical possibility, but a posterior possibility.

# Ontological Argument

- Perhaps: it is a prior metaphysical possibility that there exists a god whose essence includes existence, and it is a prior metaphysical possibility that there is no such god.
- But if there exists such a god, then such a god exists in all posterior metaphysical possibilities.

# Law Necessitarianism

- On a necessitarian view where the laws of our world are the laws of all worlds
- One might hold that counterlegal worlds are prior metaphysical possibilities, but they are not posterior metaphysical possibilities.



# Prior and Posterior Possibility

- What's the relationship between prior and posterior metaphysical possibility?

# Epistemic and Metaphysical Possibility

- Perhaps prior = epistemic, posterior = metaphysical? (Cf. epistemic 2D-ism)
- But: both notions are subjunctive, concerning what might have been the case.
- No invocation of centered worlds, Hesperus/Phosphorus cases, etc.
- Both are kinds of metaphysical possibility.

# Worlds and Possibilities

- Perhaps prior possibilities = worlds, posterior possibilities = possibilities?
- Lewis: Worlds = ordinary Lewisian possible worlds, with no haecceitistic differences.
- Possibilities (for an object) = de re possibilities for that object = worlds plus counterpart relations (to that object).

# Differences

- The world/possibility distinction is tied to the qualitative/object-involving distinction but the prior/posterior distinction is more general.
- Posterior possibilities aren't relativized to objects (they're just worlds).
- Posterior possibilities needn't be analyzed using counterpart theory.

# Counterpart Theory

- One *could* analyze posterior possibilities using the actual world, prior possibilities, and a flexible counterpart relation.
- But one needn't: one can instead construct them as maximal consistent propositions involving propositions constructed from actual objects and properties.

# Two Operators?

- It's natural to introduce two operators  $\diamond_{PR}$  and  $\diamond_{PO}$ .

# Ordinary Language?

- Are  $\diamond_{PR}$  and  $\diamond_{PO}$  expressible in ordinary natural language, and if so how?
- $\diamond_{PO}$ : “might have been”
- $\diamond_{PR}$ : “might have been prior to actuality”?  
“might fundamentally have been”?

# Which Concepts?

- Related question: what are the two concepts of possibility? Prior/posterior look more like constraints than concepts.
- Posterior = what might have been?
- Prior = ways actuality might have been?  
ways god might have created a world?  
ways a world might fundamentally have been?



# Mutual Entailment

- Does  $\diamond_{PR} p$  entail  $\diamond_{PO} p$  or vice versa?
- $\diamond_{PR}$  to  $\diamond_{PO}$ : reasonably plausible (although god case, law case?)
- $\diamond_{PO}$  to  $\diamond_{PR}$ : problematized by haecceitistic differences: e.g.  $\diamond_{PO} (\varphi \ \& \ \phi(A))$ . But  $\diamond_{PR} (\varphi \ \& \ \phi(A))$ ?

# Prior Possibility of Singular Propositions

- More simply, consider  $\diamond_{PR} \phi (A)$ .
  - E.g. is it a prior metaphysical possibility that particle  $A$  have a different position?
  - Is it a prior metaphysical possibility that I have a different occupation?
  - Could God have created such a world, prior to actuality?

# Options

- Perhaps:  $\diamond_{PR} \varphi$  for a relevant qualitative  $\varphi$ . The  $\varphi$ -possibility might be loosely but not deeply described as one in which  $\phi$  (A).
- Option 1:  $\diamond_{PR} \phi$  (A) isn't well-defined.
- Option 2: give it a counterpart semantics.

# Counterpart Route

- If one takes option 2, it's not obviously out of the question that  $\diamond_{PR} S$  iff  $\diamond_{PO} S$
- E.g. when there's a posterior object-involving possibility in which  $S$ , there's a prior qualitative possibility describable as  $S$  under some counterpart relation.

# Potential Differences

- $\diamond_{PR} S$  without  $\diamond_{PO} S$ 
  - Actuality-dependent necessities (laws, God)
- $\diamond_{PO} S$  without  $\diamond_{PR} S$ 
  - De re possibilities without natural counterpart analyses
- Different underlying semantics
  - Counterpart vs. simple

# Two Spaces of Worlds

- Prior possibilities are constructed from actuality-independent abstract entities such as qualitative properties.
- Posterior possibilities are constructed from these plus actuality-dependent (concrete, contingent?) entities such as objects.
- N.B. Actualism may be true of both.

# Accessibility Structure

- For any prior possibility  $w$ , there will be a space of posterior possibilities.
- Tempting to say: the posterior possibilities for  $w$  are the worlds accessible from  $w$  (and the prior possibilities are those accessible from some null point?).
- Not the Kripkean accessibility structure, though: e.g. crossworld variation in posterior possibilities is consistent with S5

# Privileged Vocabulary

- Plausibly: There's a privileged vocabulary for questions of prior metaphysical possibility: questions of  $\diamond_{PR} \varphi$  when  $\varphi$  is in this vocabulary have priority.
- What's that vocabulary?
  - Exclude singular terms and related terms, e.g. species terms.
  - Also exclude Kripkean kind/property terms?



# A Posteriori Necessities

- Kripkean a posteriori necessities derive (largely? wholly?) from rigid designation.
- Rigid designation derives from de re modality.
- De re modality (for some/all entities?) derives from posterior possibility.
- So Kripkean a posteriori necessities derive from posterior but not prior possibility?

# A Posteriori Necessities

- So: a posteriori necessities arise fundamentally for posterior possibility?
- Plausible for 'Hesperus = Phosphorus'
- What about 'Light is made of photons'? 'P iff actually P'? Not obvious what to say!
- But plausibly: 'light' and 'actually' shouldn't enter the basic vocabulary for describing prior possibilities.

# Prior Possibilities

- If so: then perhaps the space of prior possibility is relatively unaffected by the Kripkean necessary a posteriori.

# Epistemic Possibilities

- Prior metaphysical possibilities haven't been characterized epistemically.
- But there may be some link
- E.g. prior metaphysical possibilities = epistemic (a priori) possibilities for God.
- God can actualize any situation that he can't rule out a priori.

# Conceivability and Prior Possibility

- If so, then one can argue that when  $p$  is a proposition in the basic vocabulary
- If  $p$  is conceivable ( $\sim p$  is not a priori), then  $\diamond_{PR} p$ .

# Speculative Rationalist Conclusion

- Prior metaphysical possibility is what's relevant to ontological questions of fundamentality and grounding (e.g. physicalism).
- So even if conceivability is not a guide to posterior possibility, there may be a path from conceivability through prior possibility to ontology.