On the Deeply Contingent A Priori

David J. Chalmers
Contingent A Priori

- ‘Julius invented the zip (if anyone did)’
- ‘Stick S is one meter long (if it exists)’
Deep Necessity

- Evans: ‘Julius invented the zip’ is superficially contingent, but deeply necessary

  - Superficial contingency: ‘It might have been that Julius did not invent the zip’ is true.

  - Deep necessity: ?
Two–Dimensional Evaluation

The two sorts of necessity go with two sorts of evaluation at worlds:

- S is superficially necessary: S is true at all worlds considered as counterfactual
- S is deeply necessary: S is true at all worlds considered as actual [D&H’s term]
Two-Dimensional Semantics

- Can associate S with two intensions (functions from worlds to truth-values).
  - 1-intension of S: maps W to truth-value of S in W considered as actual
  - 2-intension of S: maps W to truth-value of S in W considered as counterfactual
Example

- ‘Julius invented the zip’ has a contingent 2-intension, but a necessary 1-intension
  - false at $W$ considered as counterfactual
  - true at $W$ considered as actual

- $W = a$ world where Kant invented the zip

- ‘Julius is Judson’ has a necessary 2-intension but a contingent 1-intension
  - true at $W$ considered as counterfactual
  - false at $W$ considered as actual
Questions

Q: Does this pattern generalize?
   (1) Are all contingent a priori sentences deeply necessary? [Evans: yes]

(2) Are all necessary a posteriori sentences deeply contingent? [Evans: no]

If yes, the following will line up
   Apriority vs. aposteriority
   Deep necessity vs. deep contingency
   Necessary vs contingent 1-intension.
Interpretation

- Answer depends on how we understand two-dimensional modal evaluation.

- What is deep necessity?

- What is truth in a world considered as actual?
Davies and Humberstone

- Davies & Humberstone: Interpret these notions via logic of ‘actually’.
  - ‘Actually S’ is true at W iff S is true at the actual world.
  - ‘S iff actually S’ is contingent a priori (if S is contingent)
    - But in some sense necessary?
“Floating” Actual World

- D&H: allow the “actual world” to float.

- S is true at \(<W_1, W_2>\)
  
  (S is true at \(W_2\) when \(W_1\) is considered as actual):

  - Atomic S is true at \(<W_1, W_2>\) iff S is true at \(W_2\)

  - ‘Actually S’ is true at \(<W_1, W_2>\) iff S is true at \(W_1\)
‘Fixedly Actually’

- ‘Fixedly S’ is true at W when for all V, S is true at <V, W>
- ‘Fixedly actually S’ is true when for all W, S is true at <W, W>

I.e. S is true at all worlds considered as actual

- Truth-value may differ from that of ‘Necessarily S’ when S contains ‘actually’
Contingent A Priori Revisited

- If \( T = \text{‘}S \text{‘iff actually} S\text{‘} \)
  - ‘Fixedly actually \( T\)’ is true
  - i.e. \( T\) is FA-necessary

\( T\) is contingent a priori but FA-necessary
- FA-necessity behaves like Evans’ deep necessity.
Descriptive Names

- If $T = \text{The actual F is F}'$
  - $T$ is contingent a priori, but FA-necessary

- If $T = \text{The actual F is a}'$
  - $T$ is necessary a posteriori, but FA-contingent
    - (where ‘a is F’ is contingent and a posteriori)

- Just like ‘Julius’!
Hypothesis

D&H’s Hypothesis:

(1) Descriptive names such as ‘Julius’ abbreviate expressions such as ‘The actual F’

(2) S is deeply necessary iff S is FA-necessary.
The “Simple Modal” Interpretation

- Corresponding notion of modal evaluation
  - $S$ is true at $W$ considered as actual iff $S$ is true at $<W, W>$ (in D&H’s defined sense)

- Corresponding semantic notion
  - 1-intension of $S$ is true at $W$ iff $S$ is true at $<W, W>$
    - (1-intension of $S$ differs from 2-intension only if $S$ contains ‘actually’ )
Generalization?

- Q1: Are all contingent a priori statements deeply necessary in this sense?
  - D&H: Tentative yes (we don’t see any exceptions)

- Q2: Are all necessary a posteriori statements deeply contingent in this sense?
  - D&H: No
Identities Between Names

- Key case: identities between ordinary proper names
  - E.g. ‘Cicero = Tully’

- D&H: This is not deeply contingent, but deeply necessary.
  - N.B. Unlike ‘Julius = Judson’
D&H’s Argument

1. Ordinary names aren’t ‘actually’-involving
   - E.g. ‘Cicero’ doesn’t abbreviate ‘The actual F’

2. In non-‘actually’-involving sentences, necessity entails FA-necessity (deep necessity)

3. ‘Cicero = Tully’ is necessary

So: ‘Cicero = Tully’ is not deeply necessary.
Responses

How should one who wants to align apriority and 1-intensions respond?

1. Proper names are ‘actually’ -involving (e.g. ‘The actual F’)

2. FA-necessity is not deep necessity

3. 1-intensions (differently understood) needn’t go with (this sort of) deep necessity.
Asymmetry

- I’ll argue:
  - If deep necessity is FA-necessity then there are cases of the deeply contingent a priori (“intolerable” for Evans)
  - So the alleged asymmetry is weakened
  - Deep necessity probably isn’t FA-necessity
Indexicals

- $S = \text{‘I am here now (if I exist and am spatiotemporally located)’}$

- $S$ is contingent
- $S$ is a priori
- $S$ is not ‘actually’-involving

- So $S$ is deeply contingent a priori.
Possible Responses

(1) Deny apriority  [implausible]

(2) Appeal to a hidden ‘actually’
   - ‘I’ = ‘the actual speaker’  [no good]
   - ‘here’ = ‘the actual place where I am now’  [would work, but implausible]
Complex Demonstratives

- $S = \text{‘That } F \text{ is } F \text{ (if it exists)’}$
  - e.g. ‘That picture is a picture (if it exists)’

- $S$ is contingent
- $S$ is a priori
- $S$ is not ‘actually’-involving

- So $S$ is deeply contingent a priori
Possible Responses

(1) Deny apriority
   (1a) Deny nominal policing
      [But surely a term *could* work that way]

   (1b) Assert perceptual justification
      [But then try a blind demonstration]

   (1c) Say: not true if no object
      [Odd treatment of negative existentials]

(2) Appeal to a hidden ‘actually’
   [Implausible, or doesn’t work correctly]
Partially Descriptive Names

- ‘Lake Tahoe is a lake (if it exists)’
- ‘Professor Smith is a professor …’

- These are a priori
- These are contingent
- These are not ‘actually’-involving

- So these are deeply contingent a priori
Possible Responses

1. Deny apriority
   - ‘Professor’, ‘Lake’ don’t constrain reference
     [maybe, but...]

2. Deny contingency

3. Appeal to a hidden ‘actually’
If deep necessity = FA-necessity, there are cases of the deeply contingent a priori
Possible Reactions

- (1) Interesting discovery: the deeply contingent a priori!
- (2) Deep necessity is not simply FA-necessity
- (3) We should develop 2D notions more general than deep/FA-necessity.
Intermediate View

- Intermediate response:
  - Deep necessity isn’t FA-necessity
  - But ‘Cicero is Tully’ still isn’t deeply necessary

- E.g. alternative argument by Davies:
  - ‘Cicero’ has object-dependent meaning
  - So 1-intension picks out same object everywhere

- Q: Is this a valid inference?
My View

- My view: FA-necessity is an instance of a more general phenomenon
  - One that is not just limited to ‘actually’ - involving expressions

- Applies also indexicals, demonstratives, and semi-descriptive names

- And even to ordinary proper names.
The Epistemic Interpretation

- Epistemic interpretation of 2D semantics:
  - S is true in W considered as actual iff
    - The epistemic possibility that W is actual is an instance of the epistemic possibility that S
  - I.e. “If W is actual, then S” is epistemically necessary
  - Strictly: “If D, then S” is a priori, where D is a neutral description of W.
Julius Revisited

- Then: ‘Julius is invented the zip (if anyone did)’ is 1-necessary

- ‘Julius is Judson’ is 1-contingent
  - For some W, ‘W is actual’ does not epistemically necessitate ‘Julius is Judson’
Indexicals, etc

- ‘I am here now (if…)’ is 1-necessary
  - Assuming centered worlds

- ‘That F is F (if…)’ is 1-necessary
  - (Some tricky details here)

- ‘Prof. Smith is a professor’ may be 1-necessary
Further: ‘Cicero is Tully’ is 1-contingent

- There exists $W$ such that the hypothesis that $W$ is actual epistemically necessitates ‘Cicero is not Tully’

- Same for other a posteriori necessities: arguably, all are 1-contingent.
Deeply Contingent A Priori?

- One can argue that on the epistemic interpretation
  - If S is a priori, S has a necessary 1-intension
  - If S is a posteriori, S has a contingent 1-intension.

- If so: then on this interpretation
  - there is no deeply contingent a priori
  - there is no deeply necessary a posteriori.