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 2intension, 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 $\langle W_1, W_2 \rangle$ (S is true at W_2 when W_1 is considered as actual): • Atomic S is true at $\langle W_1, W_2 \rangle$ iff S is true at W_2 • 'Actually S' is true at $\langle W_1, W_2 \rangle$ 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 = 'S iff actually S'
'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 = 'The actual F is F'
 T is contingent a priori, but FA-necessary

If T = '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 FAnecessary.

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 = '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 = 'That F is F (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'

Upshot

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 FAnecessity

 (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 1necessary

Names

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.