# Metaphysics of Modality

## Lecture 1: Introducing Modality

Daisy Dixon
dd426

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*Laws*: If some salt were in water, it *would* dissolve

*Causation*: A causes B iff B *wouldn't* have occurred if A hadn't had occurred

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- **Dispositions**

This mug is fragile/cheap mugs have a *tendency* to chip

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Validity is a modal notion

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A formula with modal operators is *de re* iff it contains a modal operator R which has within its scope either (1) an individual constant, or (2) a free variable, or (3) a variable bound by a quantifier not within R's scope. All other formulae with modal operators are *de dicto*.

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- The Barcan Formula:

$$\Diamond \exists x Fx \rightarrow \exists x \Diamond Fx$$

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- There could have been an individual that was a child of Wittgenstein (true)
- There is an individual that could have been the child of Wittgenstein (false)

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- (6) Necessarily, the thing Sophie is thinking about is prime (*de dicto*) False

- (7) The thing Sophie is thinking about is necessarily prime (*de re*) True

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(1) The number of planets in our solar system is necessarily greater than 5

- Read *de dicto* about the number of planets our solar system happens to have: $\Box\forall x(Nx \rightarrow Gx)$ False

# 4. *De Dicto* and *De Re* modality

(1) The number of planets in our solar system is necessarily greater than 5

- Read *de re* about the **number** of planets itself: $\forall x(Nx \rightarrow \Box Gx)$ True

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- The modal operators resist a truth-functional analysis.

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$\Box p$ is true iff for any world $w$, $p$ is true at $w$

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✓ Applies to counterfactual discourse:

(8) If Cameron hadn't promised a referendum on the EU, Brexit wouldn't have happened.

- In the world that is closest to (most similar to) our world where Cameron is PM and there are apparent EU issues (etc.), Cameron doesn't promise a referendum and Brexit does not happen.

# 5. Possible Worlds

✓ Applies to supervenience discourse:

> "Among all the worlds, or among all the things in all the worlds…there is no difference of the one sort without difference of the other sort" (Lewis, 1986: 17).

# 6. The Debate

| | **Are there modal truths?** | **If so, should we give a possible world analysis?** | **If so, should we give a theory of what possible worlds are?** | **If so, are possible worlds concrete or abstract?** |
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| Modalism | ✓ | × | - | - |
| Concrete Realism | ✓ | ✓ | ✓ | Concrete |
| Abstract Realism/ Actualism (Plantinga, Adams, Stalnaker, Carnap) | ✓ | ✓ | ✓ | Abstract |
| Conceptual approach (Baldwin, Thomasson, Blackburn) | ✓ | ? | × | - |
| Error Theory (Quine) | × | - | - | - |
| Fictionalism (Rosen, Yablo, Divers) | ? | In a way… | × | - |

Questions taken from Mat Simpson's Metaphysics of Modality lectures 2015-2016, University of Cambridge

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- ✓ **Explanatory power**: A theory should be able to analyse many modal claims without much trouble
- ✓ **Epistemology**: A theory shouldn't mystify the fact that we possess a lot of modal knowledge

# Next lecture: David Lewis's Concrete Modal Realism