

# Metaphysics of Modality

## Lecture 2: David Lewis's Concrete Modal Realism

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# 1. Lewis's Thesis

$\Diamond p$  is true iff there is some world  $w$ , such that  $p$  is true at  $w$

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

# 1. Lewis's Thesis

-It's uncontroversially true that things might have been otherwise

-Things could've been countless ways

-The ordinary language paraphrase of this is that there are many ways things could've been besides the way they actually are

-There exist entities of a certain description: 'ways things could've been'

-These entities that might be called 'ways things couldn't been' are what Lewis calls 'possible worlds'

(Lewis, 1986: 84).

# 1. Lewis's Thesis

“I advocate a thesis of plurality of worlds, or *modal realism*, which holds that our world is but one world among many. There are countless other worlds...There are so many other worlds, in fact, that absolutely *every* way that a world could possibly be is a way that some world *is* (Lewis, 1986: 2).

2. What are possible worlds?

## 2. What are possible worlds?

- A possible world is the same kind of thing as our world

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- A possible world is a maximal sum of spatiotemporally related objects
  - an object  $W$  which has a number of smaller objects as parts, where any  $x$  and  $y$  are parts of  $W$  **iff they are spatiotemporally related to one another** (they are some time and distance apart)

## 2. What are possible worlds?

- A possible world is causally isolated from every other world
  - If  $x$  is part of  $w_1$  and  $y$  is part of  $w_2$ , and  $w_1 \neq w_2$ , then  $x$  and  $y$  are not spatiotemporally related to one another



## 2. What are possible worlds?

- (1) It's possible that there exists an object distinct from every actually existent object **True**

$$(\exists x)\neg(\exists y)(x = y)$$

(there exists something that does not exist)



**Indexical theory of actuality**

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**unrestricted** quantifier  $\exists$ : ranges over all possible objects (those that are actual, and those that are not actual)

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# 2. What are possible worlds?

**unrestricted** quantifier  $\exists$ : ranges over all possible objects (those that are actual, and those that are not actual)

**restricted** quantifier  $\exists_{\alpha}$ : range is limited to the actual world

**Indexical theory of actuality**

## 2. What are possible worlds?

So, analyse ‘there exist things that do not exist’ as

$$(\exists x) \neg (\exists_{\alpha} y)(x = y)$$

(there exists something that does not *actually* exist)

### 3. Analysis of modal truths

(2) “There are pink swans” is true at a world  $w$  iff some part of  $w$  is a pink swan

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(2) “There are pink swans” is true at a world  $w$  iff some part of  $w$  is a pink swan

(3) “Everything is a pink swan” is true at a world  $w$  iff every part of  $w$  is a pink swan

### 3. Analysis of modal truths

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



### 3. Analysis of modal truths

- (4) “**It’s possible that** there is a pink swan” is true iff there is some world  $w$ , such that some part of  $w$  is a pink swan

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- (4) “**It’s possible that** there is a pink swan” is true iff there is some world  $w$ , such that some part of  $w$  is a pink swan
  
- (5) “**It’s necessary that** there is a pink swan” is true iff for every world  $w$ , some part of  $w$  is a pink swan

### 3. Analysis of modal truths

- (4) “**It’s possible that** there is a pink swan” is true iff there is some world  $w$ , such that some part of  $w$  is a pink swan
- (5) “**It’s necessary that** there is a pink swan” is true iff for every world  $w$ , some part of  $w$  is a pink swan
- (6) “**It’s contingent that** there is a pink swan” is true iff there is some world  $w$  such that some part of  $w$  is a pink swan, and there is some world  $w^*$  such that some part of  $w^*$  is not a pink swan, and  $w \neq w^*$

### 3. Analysis of modal truths

- (4) “**It’s possible that** there is a pink swan” is true iff there is some world  $w$ , such that some part of  $w$  is a pink swan
- (5) “**It’s necessary that** there is a pink swan” is true iff for every world  $w$ , some part of  $w$  is a pink swan
- (6) “**It’s contingent that** there is a pink swan” is true iff there is some world  $w$  such that some part of  $w$  is a pink swan, and there is some world  $w^*$  such that some part of  $w^*$  is not a pink swan, and  $w \neq w^*$
- (7) “**It’s impossible that** there is a pink swan” is true iff for every world  $w$ , no part of  $w$  is a pink swan

### 3. Analysis of modal truths



## 4. *De re* contexts



- (8) Mark could've been 6ft tall and he could've been 5ft tall

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*There's an individual  $x$  and worlds  $w_1$  and  $w_2$ , such that  $x$  is 6ft at  $w_1$  and  $x$  is 5ft at  $w_2$*

## 4. *De re* contexts



- (8) Mark could've been 6ft tall and he could've been 5ft tall

*There's an individual  $x$  and worlds  $w_1$  and  $w_2$ , such that  $x$  is 6ft at  $w_1$  and  $x$  is 5ft at  $w_2$*

So  $x$  must exist at  $w_1$  and  $w_2$ , but what is it for some individual to exist at different worlds?!



## 4. *De re* contexts

(9) Mark Corrigan is a loan manager but he could have been an ancient historian

## 4. *De re* contexts

(9) Mark Corrigan is a loan manager but he could have been an ancient historian

(9) cannot be analysed as: *In the actual world, Mark Corrigan is a loan manager, but in some other world  $w$ , he exists in  $w$  and in  $w$  he's an ancient historian* (Because Mark can exist in only one world)

## 4. *De re* contexts

(9) Mark Corrigan is a loan manager but he could have been an ancient historian

(9) should be analysed as: *Our world has as a part Mark Corrigan himself, who is a loan manager, and another world  $w$  has as a part 'its very own Mark Corrigan' – a man like Mark in origins, intrinsic character, role in society etc – who is an ancient historian.*

## 4. *De re* contexts

**An object  $y$  is a counterpart of an object  $x$   
iff  $y$  resembles  $x$  in a relevant respect**

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**An object  $y$  is a counterpart of an object  $x$  iff  $y$  resembles  $x$  in a **relevant respect****

**(which respects are relevant can depend on context, making the counterpart relation and hence *de re* claims, contextually dependent)**

## 4. *De re* contexts



(8) Mark could've been 6ft tall and he could've been 5ft tall

## 4. *De re* contexts



(8) Mark could've been 6ft tall and he could've been 5ft tall

*All we need for (8) to be true, is for  $w1$  to contain some individual  $Mark_c$  who is relevantly similar to **Mark**, and for  $Mark_c$  to be 6ft, and for  $w2$  to contain some other individual  $Mark_{c1}$  who is also relevantly similar to **Mark**, and for  $Mark_{c1}$  to be 5ft.*

## 4. *De re* contexts

- ‘ $a$  is possibly F’ is true iff there’s some world  $w$  containing a counterpart of  $a$  – call it  $a_c$  – such that  $a_c$  is F



## 4. *De re* contexts

- ‘ $a$  is possibly F’ is true iff there’s some world  $w$  containing a counterpart of  $a$  – call it  $a_c$  – such that  $a_c$  is F
- ‘ $a$  is necessarily F’ is true iff for any world  $w$  containing a counterpart of  $a$  – call it  $a_c$  –  $a_c$  is F

# 5. Evaluating Lewis's View

- ✓ **Fidelity to modal opinion:** A theory should ratify the substantial body of prior modal opinion
- ✓ **Ontology:** A theory should hold a firm ontological view of reality
- ✓ **Ideology:** A theory should give a reductive analysis of modality with few primitives (primitives are resources in your theory which are not to be further explained or analysed)
- ✓ **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

## 5. Evaluating Lewis's View

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- ✓ **Ideology:** Lewis gives a reductive analysis of modality
- ✓ **Explanatory Power:** first order language quantifying over worlds and possible objects

## 5. Evaluating Lewis's View

### ✗ **Fidelity to modal opinion**

#### 1. *Kripke's problem with Lewis's counterpart theory*

(10) If Cameron hadn't promised a referendum on the EU, Brexit wouldn't have happened **True**

# 5. Evaluating Lewis's View

## ✗ **Fidelity to modal opinion**

### *2. Missing Possibilities*

(11) There might have been nothing **True** (?)

# 5. Evaluating Lewis's View

## ✗ **Fidelity to modal opinion**

### *2. Missing Possibilities*

(11\*) There might have been no spatiotemporally extended entities **True (?)**

## 5. Evaluating Lewis's View

### ✕ **Fidelity to modal opinion**

#### *3. The Incredulous Stare*

“When modal realism tells you...that there are uncountable infinities of donkeys and protons and puddles and stars, and of planets very like Earth, and of cities very like Melbourne, and of people very like yourself...small wonder if you are reluctant to believe it” (1986: 133).



## 5. Evaluating Lewis's View

### ✗ **Fidelity to modal opinion**

#### 4. *Irrelevance*

(12) There is no million carat diamond, but there could have been

↓ *reduced to*

(12\*) No million carat diamond is spatiotemporally related to me, but there is a million carat diamond unrelated to me

× **Fidelity to modal opinion:** 4. *Irrelevance*

## 5. Evaluating Lewis's View

“Why should I call a horse that is a part of one of these things a ‘merely possible horse’?” (van Inwagen, 1986: 199)

✗ **Fidelity to modal opinion:** 4. *Irrelevance*

## 5. Evaluating Lewis's View

(13) A tree T, which exists in our world, could have been taller than it actually is.

## 5. Evaluating Lewis's View

### × **Ontology**

- *Qualitative*: keeps down the number of different *kinds* of entities postulated (Eg: sets alone rather than sets and unreduced numbers)

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### × **Ontology**

- *Qualitative*: keeps down the number of different *kinds* of entities postulated (Eg: sets alone rather than sets and unreduced numbers)
- *Quantitative*: keeps down the number of *instances* of the kind postulated (Eg:  $10^{29}$  electrons rather than  $10^{37}$  electrons)

## 5. Evaluating Lewis's View



**Next lecture: Abstract  
Realism/Actualism**