Metaphysics of Modality

Lecture 3: Abstract Modal Realism/Actualism

Daisy Dixon
dd426
1. Introduction

• Possible worlds are *abstract* and *actual*
1. Introduction

- Possible worlds are *abstract* and *actual*

There are different views of the kind of abstract object they are
1. Introduction

- Possible worlds are *abstract* and *actual*

Possible worlds exist in only the actual world, but are *non-actual* in that they fail to represent things as they actually are.
1. Introduction

(1) There’s only one world
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• **Lewis:** (1) is true when using a *restricted* quantifier (quantifying only over what’s actual) but is **false** when said with an *unrestricted* quantifier (quantifying over all worlds)
1. Introduction

(1) There’s only one world

• **Lewis**: (1) is true when using a *restricted* quantifier (quantifying only over what’s actual) but is *false when said with an unrestricted quantifier* (quantifying over all worlds)

• **Abstractionist**: (1) is *true when said using an unrestricted quantifier* – there really is just one world!
1. Introduction

- Possible worlds represent...
1. Introduction

• Possible worlds represent...
  - Like sentences do [Linguistic]
1. Introduction

- Possible worlds represent...
  - Like sentences do [Linguistic]

- Like propositions do
1. Introduction

• Possible worlds represent...
  - Like sentences do [Linguistic]
  - Like propositions do
  - Like states of affairs do
1. Introduction

- Possible worlds represent…
  - Like sentences do [Linguistic]
  - Like propositions do
  - Like states of affairs do
  - Like pictures do [Pictorial]
1. Introduction

- Possible worlds represent…
  - Like sentences do [Linguistic]
  - Like propositions do
  - Like states of affairs do
  - Like pictures do [Pictorial]
  - They just do! [Quiet]
1. Introduction

- The main views on the table include:
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Possible worlds are:
- Sets of sentences [linguistic] (Carnap 1947, Sider 2002)
- Sets of propositions (Adams 1974)
- States of affairs (Plantinga 1976)
- Properties (Stalnaker 1976)

Kripke also falls into the Abstractionist camp (see Kripke 1980: 17).
1. Introduction

• The main views on the table include:

*Possible worlds are:*
- Sets of sentences [linguistic] (Carnap 1947, Sider 2002)
- Sets of propositions (Adams 1974)
- States of affairs (Plantinga 1976)
- Properties (Stalnaker 1976)
1. Introduction

The concrete actual world

- Abstract world 1
- Abstract world 2
- Abstract world 3
1. Introduction

Abstract world 1

Abstract world 2

Abstract world 3

The concrete actual world
“[of abstractionism] There are abstract surrogates fit to play the same theoretical roles as the concrete possibilia that are to be rejected” (Lewis, 1986: 137)
2. Analysis of modal truths

- Remember that truth at a world for Lewis was truth of a world

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

- Contrastively, abstractionists give possible worlds where a swan is pink without also having the pink swan!
2. Analysis of modal truths

Eg: *Harry Potter series*

- It’s *true of* this series of books that it contains 7 books, is made of paper etc.
- It’s *true according to* this series of books that there exists a character called Hermione and that she’s an intelligent witch

The books do not need to contain such a character for these things to be *true according to* the books
2. Analysis of modal truths

Eg: *Peep Show program*

- It’s *true of* the Peep Show program that it contains moving image and sound

- It’s *true according to* the Peep Show program that there exists a character called Mark Corrigan who constantly fails to find the One

  The program does not need to contain such a character for these things to be *true according to* the program
2. Analysis of modal truths

✓ **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

✓ **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
2. Analysis of modal truths

- **Fidelity to modal opinion**: Abstractionist’s possible worlds are made up of things we already believe in: we don’t have to believe in concrete pink swans (escapes the incredulous stare)

- **Ontology**: Abstractionism accommodates the possible worlds framework but without postulating an ontology that recognises quantification over non-actual objects

- **Ideology**: A theory should give a reductive analysis of modality with few primitives

- **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
3.1. Linguistic Abstractionism

• Possible worlds are constructed out of language
3.1. Linguistic Abstractionism

- Not any set of sentences will do to construct a possible world
- The set must be maximal and consistent
3.1. Linguistic Abstractionism

- Not any set of sentences will do to construct a possible world
- The set must be **maximal** and consistent

For every atomic sentence $s$ the set contains either $s$ or its negation, but not both

(Example: if $P$ and $Q$ are the only sentences, \{P,Q\} or \{P,\neg Q\} are maximal, but \{Q\} and \{P\} are not maximal).

Why? Because otherwise the set may describe the world incompletely.
3.1. Linguistic Abstractionism

- Not any set of sentences will do to construct a possible world
- The set must be maximal and consistent

The members of the set must be possibly true altogether

(Example: \{P, \neg P\} is inconsistent, but \{P, Q\} is consistent).

Why? Because otherwise the set couldn’t describe the concrete world correctly, no matter how the concrete world was.
3.1. Linguistic Abstractionism

- Truth-at-a-world is defined via set inclusion:

A sentence $s$ meaning $p$ is true at a world $w$ iff $s$ is a member of $w$

Possibility: truth at (inclusion in) some world $w$
Necessity: truth at (inclusion in) every world $w$
3.2. Linguistic Abstractionism: evaluation

✓ **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

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3.2. Linguistic Abstractionism: evaluation

• The Lagadonian ‘sentence’ saying that \textit{Mark loves Sophie} is the ordered triple \(<\text{Mark, Sophie, } x \text{ loves } y\>\)
3.2. Linguistic Abstractionism: evaluation

(3) Mark Corrigan could have existed

**True** (not for Kripke (2013) though!) even though Mark Corrigan doesn’t actually exist.

• But since Mark Corrigan doesn’t actually exist, he has no Lagadonian name, so LA cannot formulate a possible world where he does exist.
3.2. Linguistic Abstractionism: evaluation

(4) An object distinct from every actually existing object could have existed

• So LA cannot give an analysis of the truth of such sentences
3.2. Linguistic Abstractionism: evaluation

✓ Give qualitative descriptions of these non-actual individuals rather than using names!

(5) There’s an individual $x$ such that ($x$ is human, $x$ is distinct from Tom, Dick, Harry, etc. $x$ lives in Croydon, $x$ is a loan manager, $x$ cannot find the One, and so on...)
× Explanatory power, × Fidelity to modal opinion

3.2. Linguistic Abstractionism: evaluation

- Simple world
  - Protons aren’t composed of more fundamental particles (like quarks) so there’s no distinctive properties of quarks

- Our world
  - We have quarks here! So we have a property possessed only by quarks: having the RG colour charge of \(-1/2\).
3.2. Linguistic Abstractionism: evaluation

- Explanatory power, × Fidelity to modal opinion

Simple world

Protons aren’t composed of more fundamental particles (like quarks) so there’s no distinctive properties of quarks.

Our world

We have quarks here! So we have a property possessed only by quarks: having the RG colour charge of -1/2.

A possible property: it’s instantiated in some world (ours!)
3.2. Linguistic Abstractionism: evaluation

- Explanatory power, Fidelity to modal opinion

Simple world

is not instantiated in any world that contains only things composed of the kinds of thing that exist in the simple world

Protons aren’t composed of more fundamental particles (like quarks) so there’s no distinctive properties of quarks

Our world

We have quarks here! So we have a property possessed only by quarks: having the RG colour charge of -1/2.

A possible property: it’s instantiated in some world (ours!)
3.2. Linguistic Abstractionism: evaluation

- Explanatory power, × Fidelity to modal opinion

According to the simple world, the property ✨ is an alien property: it cannot be described using any of the actually existing resources at the simple world.

Protons aren’t composed of more fundamental particles (like quarks) so there’s no distinctive properties of quarks.

We have quarks here! So we have a property possessed only by quarks: having the RG colour charge of -1/2.
3.2. Linguistic Abstractionism: evaluation

We could be a simple world!

The world-making language seems to remain impoverished, and so cannot represent these missing possibilities, losing explanatory power and fidelity to prior modal opinion.
3.3. Linguistic Abstractionism: evaluation

× Ideology

• Not any set of sentences of the world-making language constitutes a possible world: it must be a consistent and maximal set
3.3. Linguistic Abstractionism: evaluation

× Ideology

• Not any set of sentences of the world-making language constitutes a possible world: it must be a consistent and maximal set

A modal distinction: a set of sentences is consistent iff those sentences as interpreted could be all true together (if it’s possible they all be true together)
3.3. Linguistic Abstractionism: evaluation

✅ Define consistency without appealing to modality

- Use a syntactic surrogate: a set of sentences $S$ is consistent iff there is no derivation of a contradiction from the sentences it contains

Example: $\{Pa, \neg Pa\}$ is inconsistent because we can derive $Pa$ and $\neg Pa$
3.3. Linguistic Abstractionism: evaluation

(6) An object is (entirely and always) red all over and is (entirely and always) green all over

Ra & Ba

We cannot derive a contradiction from \{Ra, Ba\}
3.3. Linguistic Abstractionism: evaluation

✓ Add non-logical axioms, specifying that we cannot have married bachelors, or objects that are red all over and green all over, and so on.

Example: ‘for all x, if x is red all over, it’s not green all over’

• A set of sentences of the world-making language is consistent iff there is no derivation of a contradiction from the sentences it contains and the axioms.
3.3. Linguistic Abstractionism: evaluation

• If $p$ is a necessary truth then $p$ is an axiom

• But this is a modal notion!
4.1. States of Affairs Abstractionism

- Possible worlds are possible states of affairs (Plantinga)
- States of affairs are abstract objects: some obtain, some do not obtain
4.1. States of Affairs Abstractionism

- Possible worlds are possible states of affairs (Plantinga)
- States of affairs are abstract objects: some obtain, some do not obtain

Theresa May’s being Prime Minister in 2016
4.1. States of Affairs Abstractionism

- Possible worlds are possible states of affairs (Plantinga)
- States of affairs are abstract objects: some obtain, some do not obtain

*Theresa May’s being Prime Minister in 2016*
*Stephen Hawking’s being Prime Minister in 2016*

But still exists!
4.1. States of Affairs Abstractionism

- These differ from those non- obtaining impossible states of affairs such as Jeremy’s having squared the circle.
4.1. States of Affairs Abstractionism

• To construct a possible world, not any possible state of affairs will do: they must be maximal.

A state of affairs $S$ is maximal iff for every state of affairs $S^*$, $S$ includes $S^*$ or $S$ precludes $S^*$.
4.1. States of Affairs Abstractionism

• To construct a possible world, not any possible state of affairs will do: they must be **maximal**

A state of affairs $S$ is maximal iff for every state of affairs $S^*$, $S$ includes $S^*$ or $S$ precludes $S^*$

$S$ includes $S^*$ iff it’s not possible for $S$ to obtain and $S^*$ fail to obtain.

**Example:** Tabei’s being the first woman to reach the Mount Everest summit includes Tabei’s being a woman.
4.1. States of Affairs Abstractionism

• To construct a possible world, not any possible state of affairs will do: they must be **maximal**

A state of affairs $S$ is maximal iff for every state of affairs $S^*$, $S$ includes $S^*$ or $S$ precludes $S^*$

$S$ precludes $S^*$ iff it’s not possible for $S$ and $S^*$ to both obtain.

**Example:** Tabei’s being the first woman to reach the Mount Everest summit precludes Wood’s being the first woman to reach the Mount Everest summit
4.1. States of Affairs Abstractionism

- A possible world is a state of affairs $S$ such that, for every state of affairs $S^*$, $S$ includes or precludes $S^*$, and $S$ is obtainable (is possible)

- Plantinga: analysis of $\rho$ is true at $\omega$
4.1. States of Affairs Abstractionism

- A possible world is a state of affairs $S$ such that, for every state of affairs $S^*$, $S$ includes or precludes $S^*$, and $S$ is obtainable (is possible)

- Plantinga: analysis of $p$ is true at $w$

  $p$ is true at a state of affairs $S$ iff $S$ includes $p$
4.1. States of Affairs Abstractionism

- At most one possible world obtains: suppose a world \( w \) and a world \( w^* \) obtained where \( w \) includes a state of affairs \( S \) and \( w^* \) precludes \( S \)

- Here, \( S \) both obtains and does not obtain \( \bot \)

- Reject the assumption that at least two distinct worlds obtain
Possibilia: individual essence

4.1. States of Affairs Abstractionism

• An individual essence is a property possessed by an individual which is essential to its existence and is unique to that individual.
4.1. States of Affairs Abstractionism

- An individual essence is a property possessed by an individual which is essential to its existence and is unique to that individual.

A property $P$ is essential to an individual $x$ iff it’s impossible for $x$ to exist without having $P$ (So Socrates has $P$ in every world in which he exists).
4.1. States of Affairs Abstractionism

• An individual essence is a property possessed by an individual which is essential to its existence and is unique to that individual.

A property E is an individual essence of x iff it is (i) essential to x and (ii) any possible individual y having E is identical to x (so a property possessed by Socrates but not by Plato).
Possibilia: individual essence

4.1. States of Affairs Abstractionism

1. being-a-philosopher is a **non-essential property** (Socrates could’ve been a carpenter)

2. being-coloured-if-red or being-either-prime-or-something-else are **trivially essential properties**
States of Affairs Abstractionism

3. being-human is an **essential property** shared by me, you, and Socrates and Plato, being-Socrates-or-Plato is an **essential property** shared by Socrates and Plato.

4. being-identical-Socrates is an **individual essence** of Socrates (he couldn’t exist without it and no one else has this property).
4.1. States of Affairs Abstractionism

(7) There could have been things which don’t actually exist

Possibilia: individual essence
4.2. States of Affairs Abstractionism: evaluation

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4.2. States of Affairs Abstractionism: evaluation

**Ontology**

“Indeed, precisely because he is not a politician I am inclined to say that this not a state of affairs at all” (Melia, 2003: 133).
4.2. States of Affairs Abstractionism: evaluation

? Ontology

(7) There could have been things which don’t actually exist
4.2. States of Affairs Abstractionism: evaluation

× Explanatory power, Fidelity to modal opinion

(8) My car could have been the same colour as your car actually is
4.2. States of Affairs Abstractionism: evaluation

* Ideology
A possible world is a state of affairs S such that, for every state of affairs S*, S includes or precludes S*, and S is obtainable (it is possible).
4.2. States of Affairs Abstractionism: evaluation

× Ideology
A possible world is a state of affairs S such that, for every state of affairs S*, S includes or precludes S*, and S is obtainable (it is possible).
4.2. States of Affairs Abstractionism: evaluation

× Ideology
A possible world is a state of affairs S such that, for every state of affairs S*, S includes or precludes S*, and S is obtainable (it is possible).

Inclusion: S includes S* if and only if it’s not possible for S to obtain and S* fail to obtain

Preclusion: S precludes S* if and only if it’s not possible for S and S* to both obtain
Next lecture: Modal Fictionalism