

Lewis's Argument for Possible Worlds

1. **Possible Worlds:** You can't swing a cat in contemporary metaphysics these days without hitting a discussion involving **possible worlds**. What are these things? Embarrassingly, philosophers don't agree, despite the popularity of their mention.

There are **three aspects** of possible worlds on which metaphysicians agree:

- (a) Possible worlds are "**Opinionated**": they represent the world as being a certain way. They are more opinionated even than the talking heads on TV: **every** possible world has an "opinion" on **every issue** you can think of. For instance, every possible world will weigh in on the truth of such **momentous** claims as:

- (1) Joe Biden won the 2020 election
- (2) Donal Trump won the 2020 election

but also such **trivial** claims as:

- (3) More than 2 million beanies were manufactured in 2020.
- (4) Fewer than 2 million beanies were manufactured in 2020.

The possible worlds **don't all agree** on the truth of these sentences. According to some possible worlds, (1) is true and (2) false. According to others, (1) is false and (2) true. Still others hold that both (1) and (2) are false.

[**TERMINOLOGY**]: If a sentence S is true according to a possible world w (*i.e.* w represents S as true), then we will say that S is **true at w** . (Alt.: s is **true in w**).

OPINIONATION For any claim ϕ and any possible world w , either ϕ or $\neg\phi$ is true at w . ("Every possible world decides every question.")

- (b) Possible worlds are **possible**: whatever **is** true at some possible world **might have been the case**. Thus, **there are limits** on the opinions that possible worlds may have. No possible world can count as true

- (5) $2 + 3 \neq 5$

since it is impossible. Every possible world will count as

true:

$$(6) \quad 2 + 3 = 5$$

by (OPINIONATION). This implies that every possible world agrees on the necessities and impossibilities: every possible world counts a necessity as true; and every possible world counts an impossibility as false.

POSSIBILITY If ϕ is true at some possible world, then it is possible that ϕ .

- (c) Possible worlds are **plenitudinous**: there are **plenty** of them. In fact, there are enough of them so that **every possibility is covered**: whatever might have been the case is true at some possible world. Thus there is a possible world at which each of the following claims is true:

(7) The average age of UVM students is 20

(8) The average age of UVM students is 20.5

(9) The average age of UVM students is 20.75

(10) The average age of UVM students is 20.875

[...]

Each of these possible worlds disagrees about the average age of UVM students. Thus, plenitude plus the modal facts reported by (7)-(10) and the obvious extension of that series will require that there be **lots and lots** of possible worlds (probably **infinitely many**).

PLENITUDE If it is possible that ϕ , then ϕ is true at some possible world.

- (d) Putting (POSSIBILITY) and (PLENITUDE) together, you get the **Leibnizian Biconditional**:

LB $_{\diamond}$ It is possible that ϕ if and only if ϕ is true at some possible world.

(Named in honor of Leibniz, who is credited with introducing the notion of a possible world into philosophy.)

[ASK]: Can you complete the following claim?

LB $_{\square}$ It is necessary that ϕ if and only if ...

2. **Lewis's Argument**: why believe that there are all the possible worlds required by the Leibnizian biconditionals? An argument

is needed, and Lewis provides one:

I believe, and so do you, that things could have been different in countless ways. But what does this mean? Ordinary language permits the paraphrase: there are many ways things could have been besides the way they actually are. On the fact of it, this sentence is an existential quantification. It says that there exist many entities of a certain description, to wit ‘ways things could have been’. [...] [T]aking the paraphrase at face value, I therefore believe in the existence of entities that might be called ‘ways things could have been’. I prefer to call them ‘possible worlds’. (p. 84)

Lewis’s Argument:

- (a) There are many ways the world might have been. [**common sense**]
- (b) Every way the world might have been is a possible world [**Definition “possible world”**]

- (c) There are many possible worlds.

3. **Lewis on the nature of possible worlds:** How plausible is the conclusion of this argument? It’s hard to say if we don’t know what the nature of the things Lewis is calling “possible worlds” is supposed to be.

We already have **one clue**: possible worlds are “ways things could be”. What sort of entity are these **ways**?

Lewis provides us with the following explanation:

When I profess realism about possible worlds, I mean to be taken literally. Possible worlds are what they are, and not some other thing. If asked what sort of thing they are, I cannot give the kind of reply my questioner probably expects: that is, a proposal to reduce possible worlds to something else.

I can only ask him to admit that he knows what sort of thing our actual world is, and then explain that other worlds are more things of *that* sort, differing not in kind but only in what goes on at them. (p. 85)

[**SLOGAN**]: Possible worlds are worlds, things of the same kind as this world (*i.e.*, the actual world).

Lewis characterizes this world as “I and all my surroundings” (p. 86).

4. **The incredulous stare:**

Lewis says that people often respond to his view with an **incredulous stare**: they just can’t get themselves to believe him.

What makes Lewis’s view so implausible?

Consider:

(11) It is possible that there be talking donkeys. [by common sense]

(11) seems to be true. Applying the Leibnizian biconditional (11) implies:

(12) There is a possible world in which “there are talking donkeys” is true. [by (11) + LB_{\diamond}]

Apply Lewis’s explanation of the nature of a possible worlds: (12) then implies

(13) There are some surroundings – a large, variegated thing of the same kind as these surroundings here – in which “there are talking donkeys” is true. [by (12) + Lewis’s theory of the nature of possible worlds]

But what makes “there are college students” true in these surroundings is that these surroundings contain some college students. Thus, it is plausible to assume that

(14) “there are talking donkeys” is true in some surroundings only if those surroundings contain some talking donkeys [ass.]

(13) and (14) together give us

(15) There are talking donkeys. [by (13) + (14)]

In short, **whatever might have existed really does exist**. This is hard to believe, since it seems at least coherent to suppose the following is true:

(16) Though there are no talking donkeys, there might have been.

Lewis is straightforwardly committed to denying this.

Here's how Nathan Salmon expresses his incredulity:

[Lewis proposes] as serious defense, *a priori*, of Lewis's notorious doctrines (here called "modal realism") to the effect that there are tiny purple anthropologists who study human culture unobserved, colossal human-eating monsters 50 feet in height, professional philosophers earning annual salaries in excess of 37 million dollars (pre-inflation), and the like, and that these oddities reside in fabulous alternative universes that are never empirically detected by us. (*The Philosophical Review*, Vol. 97, No. 2. (Apr., 1988), p. 237)

5. **Lewis's Responses:** Lewis offers two responses to the incredulous stare:

(a) **Mitigate the implausibility:**

It is said that realism about possible worlds is false because only our own world, and its contents, actually exist. But of course unactualized possible worlds and their unactualized inhabitants do not *actually* exist. To actually exist is to exist and to be located here at our actual world. Other worlds than ours are not our world, or inhabitants thereof. (p. 86)

- i. Lewis's **theory of 'actual'**: We use 'actual' and its cognates to **confine our attention** to what goes on **in a certain place**: the world in which we live, move, and have our being. The actual world is **these surroundings**. [expansive gesture]. Thus, when we say,
(17) There actually are no Nobel-prize-winning Supreme Court justices
, we're confining our attention to the actual world. This claim **does not conflict** with the claim that:
(18) There are Nobel-prize-winning Supreme Court justices.

Analogy:

- (19) There are no Michael Jackson fans **in the United States**
is consistent with

(20) There are Michael Jackson fans.

Thus, Lewis can claim that we are mistaking the **false** claim (16) with the **true claim**:

(21) Though there actually are no talking donkeys, there might have been.

- ii. **Implicitly restricted quantification**: Worse, sometimes we intend to insert an “actually” without **pronouncing** one: the restriction to actual things is **implicit**.

Our idioms of existential quantification may be used to range over everything without exception, or they may be tacitly restricted in various ways. In particular, they may be restricted to our own world and things in it. (p. 86)

Lewis is here pointing out a **real phenomenon**. Suppose you host a party, and your guests imbibe a little more than you had planned on. You might say something like this to your friends:

(22) There is only one bottle of beer left

This is a **quantificational claim**. (It answers a “how many” question.)

[**NOTICE**]: you **don’t** intend to convey the fact that your guests have drunk so much that **the universe** now contains only a single bottle of beer. Your friends don’t interpret you that way either.

[**Standard Philosopher’s Humor**]: interpret someone’s claim without the implicit restrictions. **Why do we find this funny?**

Lewis claims:

There is an implicit restriction to actuality in (16), so that what you intend can be explicitly stated by (21).

- iii. **Summary of Lewis’s mitigation**: Lewis’s position is:

- (16) is **false** when considered out of context, with no restriction; **but**
- (16) does not say what it seems to, **because**
- when interpreted as intended, (16) is paraphrased

by (21). **Thus**

- (16)'s truth when interpreted in context as intended is **consistent** with Lewis's theory.

(b) **Criticize the alternatives:**

Lewis's idea is: **"If you think my theory's bad, the alternatives are even worse!"**

- i. **Alt.#1:** Deny the existence of possible worlds.

You can avoid the rigamarole by simply denying that the Leibnizian Biconditionals (LB_{\diamond}) and (LB_{\square}) are true: there are no possible worlds other than this one [**expansive gesture**].

Lewis has **two responses** available:

A. **Remember the argument:** you believe (as do I) that there are many ways things could be, other than the way they actually are. Denying possible worlds means denying this bit of common sense.

B. **This is not an alternative theory:**

If our modal idioms are not quantifiers over possible worlds, then what else are they? . . . We might take them as unanalyzed primitives; this is not an alternative theory at all, but an abstinence from theorizing. (p. 85)

I confess that I think this is one of the silliest things David Lewis ever wrote. Lewis's idea is that every theory should share the following commitments:

- (LB_{\diamond}) and (LB_{\square}) provide an analysis of modal idioms (*e.g.*, "possible", "necessary") in terms of possible worlds.
- Such an analysis provides a paraphrase of modal claims in non-modal terms.
- Every fact we state using modal language could equally well be stated without using modal language.
- Thus, the universe is, at bottom, non-modal. Modal facts can be "analyzed away".

But there's no reason to think that analyzing modal claims in terms of possible worlds is either necessary

or advisable.

MORAL: Lewis assumes that the only point of discussing possible worlds is to **define** modal locutions like “possible” and “necessary” in other terms.

But we STILL shouldn’t take this way out:

Despite the fact that Lewis’s response is silly, denying Leibnizian Biconditionals like (LB_{\diamond}) is still unattractive, on the assumption that **we are ontologically modest**.

MODESTY It’s not the task of the philosopher to correct the zoologist (or any other serious investigator) regarding what there is. If the zoologist claims that there are no talking donkeys, then the philosopher should not say otherwise. If the zoologist claims that there are paramecia, the philosopher should not say otherwise.

The reason is that thinkers and theorists working in a **number of different areas** use the notion of a possible world in their theorizing.

It’s used in **metaphysics** constantly. But it’s also used in **linguistics**, **ethics**, **epistemology**, and even **economics**. Possible worlds have proven too useful to do without for a large number of theoretical endeavors. (Basically, any theoretical endeavor where it’s useful to talk about **possibilities**.)

Now, we **could** say to the epistemologists, ethicists, and economists, “Your theory is false: there are no possible worlds!” But if we wish to be **modest** about our ontological commitments, then we won’t go around trying to correct the results of serious investigation. We’re **stuck with possible worlds**, if we wish to accommodate the theories which rely on them.

This lands us with a kind of dilemma: **Lewis’s** view is **definitely not ontologically modest**: it commits us to the existence of **talking donkeys**. But

denying the existence of possible worlds is not ontologically modest either: reference to possible worlds is embedded in a diverse array of theoretical investigations far removed from the provinces of metaphysics.

So we have two choices, **neither of which** is modest:

Deny Possible Worlds	Accept Possible worlds
immodest because economists, <i>etc.</i> , use possible worlds	immodest because it seems to commit us to talking donkeys

But there is a way out of this dilemma, if we can find some explanation for the nature of possible worlds other than Lewis's.

Lewis's view, in effect, consists of two claims:

(1) **A commitment to PW's**: "There are possible worlds"

(2) **A theory of the nature of PW's**: "Possible worlds are things of the same sort as this world – I and all my surroundings."

You can evade the dilemma by **accepting (1) and denying (2)**. Accepting (1) **accommodates reliance on possible worlds** by economists, linguists, *etc.*; denying (2) and substituting **some other explanation** of the nature of possible worlds may allow you to avoid commitment to talking donkeys.

- ii. **Alt.#2**: Provide an alternative explanation of the nature of possible worlds.

Lewis considers an alternative characterization:

Ersatzism: Possible Worlds are sets of sentences: possible worlds are sets (like the set of solutions to an equation); what they contain are sentences; intuitively, a possible world is the set of sentences which are **true at** that world. Possible worlds are "opinionated" because they are just a **collection of opinions**.

[**BLACKBOARD**]: draw a couple of windbags.

The idea is that what we call possible worlds are something like very long, detailed **stories**.

This **immediately avoids** Lewis's commitment to talking donkeys. What generates the commitment to talking donkeys is the idea that **possible worlds are worlds**, just like **this world**. The way that a sentence like "There are talking donkeys" gets to be true in some surroundings like these is by those surroundings containing talking donkeys. But the alternative view we have here **denies** that possible worlds are worlds: they aren't **concrete** entities like the thing of which you and I are a part; they are **representational entities**, like a story.

Lewis	Alternative
"Possible worlds are worlds "	"Possible worlds are stories "

[**ANALOGY**]: Saying that "there are talking frogs" is true according to the book *The Wind in the Willows* does not commit you to the existence of talking frogs. Similarly saying that "there are talking donkeys" is true at some possible world does not commit you to the existence of talking donkeys.

Lewis's Two Objections:

A. Which sets of sentences?

Not just any set of sentences can be a possible world. For instance, there are sets of sentences which contain such impossibilities as:

(23) $2 + 3 = 6$

(24) Some tax attorneys are not only giraffes, but also supernovas.

So there must be some restrictions on the sets of sentences that are possible worlds.

We need to find a way to fill in the blank in:

A possible world is a set of sentences s such that

so that the Leibnizian Biconditional (LB_{\diamond}) comes out true.

NOTICE: (OPINIONATION) already requires that every possible world contain, for any claim we can state, either a sentence stating that claim or its negation.

Other desiderata:

- The restriction has to be **restrictive enough** that no possible world contains an impossibility.
- The restriction has to be **liberal enough** that no possibility is excluded.

The obvious restriction: Every possible world is a set of sentences S such that **it is possible for every member of S to be true at the same time.**

Lewis says: this is circular!

The charge is **certainly true** if you're trying to **define** or **analyze** possibility in terms of possible worlds. It's **not so obviously true** if that's not what you're trying to do. (As I've said, I see no reason to follow Lewis on this matter).

The Consistency Restriction: Every possible world is a set of sentences S such that S is **consistent.**

(There are actually **different notions of consistency.** Here's a representative: a set of sentences is **consistent** iff **no contradiction is derivable** from the sentences in that set.)

The problem is that there are **consistent** claims that are nevertheless **impossible:**

- (25) Nicki is Miley's foe but not her enemy.
- (26) I have a ferret that is not only invisible but also a reddish shade of green.

So sets containing sentences like these will be consistent, but contain impossibilities. [MORAL]: **The consistency restriction is NOT restrictive enough.**

Lewis claims that every restriction shares either the fate of the obvious restriction or the fate of the consistency restriction. Thus Ersatzism faces a **dilemma: EITHER**

(A) the theory uses “possible”, in which case it is circular; **OR**

(B) the theory is false, either leaving some possibility out, or letting some impossibility in.

B. The Argument from Actuality:

I have already said that it would gain us nothing to identify possible worlds with sets of sentences (or the like), since we would need the notion of possibility otherwise understood to specify correctly which sets of sentences were to be identified with worlds. Not only would it gain nothing: given that the actual world does not differ in kind from the rest, it would lead to the conclusion that our actual world is a set of sentences. Since I cannot believe that I and all my surroundings are a set of sentences (though I have no argument that they are not), I cannot believe that other worlds are sets of sentences either. (p. 86)

Lewis’s argument here is:

- The actual world is not a set of sentences.
- The actual world is a possible world.
- All possible worlds are the same kind of thing: one of them is a set of sentences iff they all are a set of sentences.

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- No possible world is a set of sentences.

An Ersatzist Response:

There is an **equivocation on “actual world”** in the argument from actuality. On the Ersatzist theory, there are **two interpretations** one might give to the expression “actual world”:

- **The universe interpretation:** “I and all my surroundings”, the universe in which we all live, move, and have our being.
- **The story interpretation:** “The set of sentences all the members of which are true”, the true story about how things are. (This is a simplification.)

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On the universe interpretation: the **first** premise is true, the **second** false.

On the story interpretation: the **second** premise is true, the **first** false.

There is **no interpretation** of “actual world” on which **both** the first and second premises are **true**. So the argument fails.