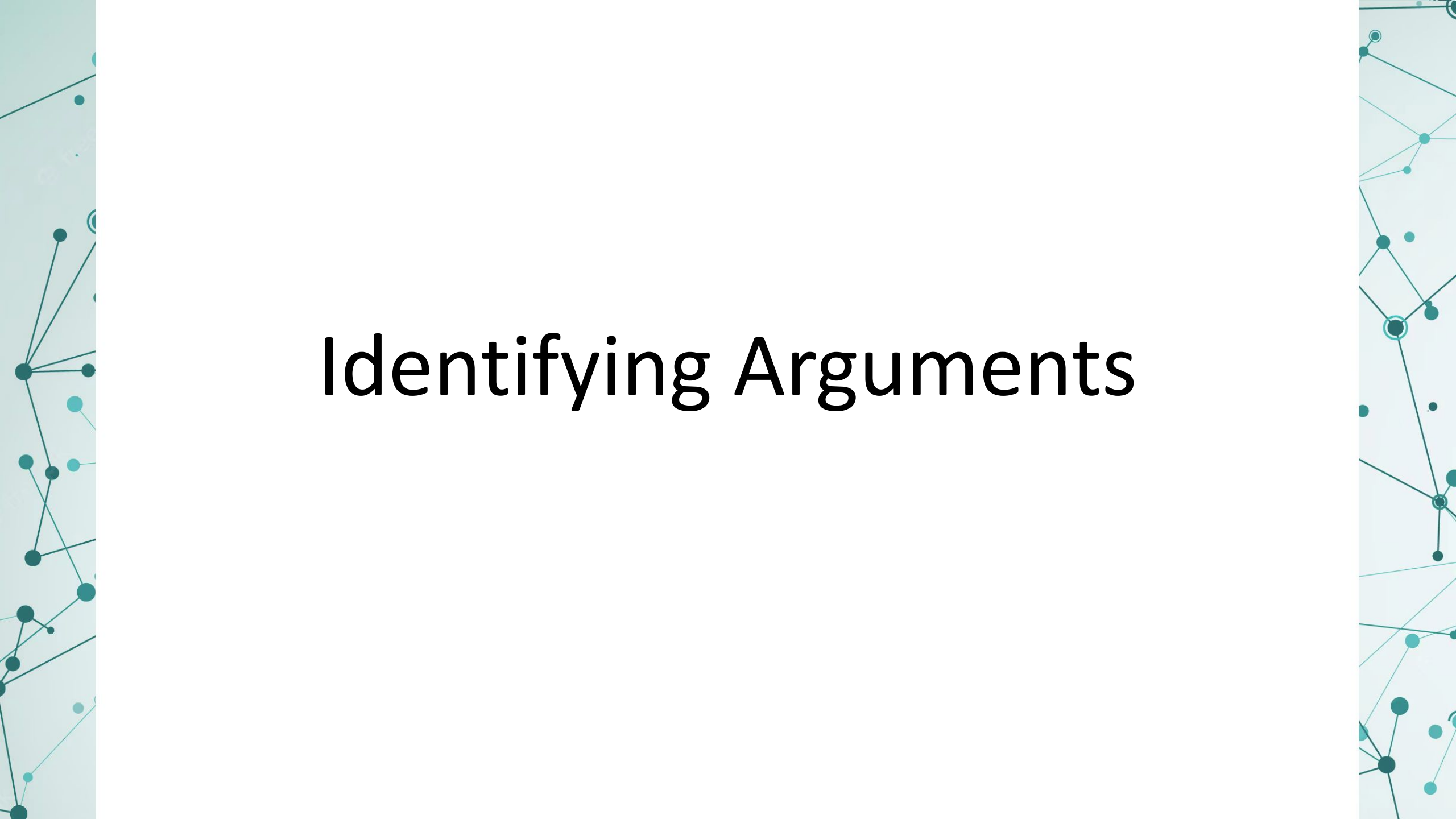


The image features two vertical decorative bars on the left and right sides. These bars contain a network diagram with nodes (circles) and edges (lines). The nodes are in various shades of teal and dark blue, and the lines are thin and light blue. The central area of the image is white and contains the title text.

Identifying Arguments

Overview

- We have been focused on symbolic logic, and using symbolic logic to evaluate argument forms.
- But when we argue with one another, we do not use argument forms.
 - One exception: logicians, people who study logic as a career
- People use natural language to argue with one another.
- So, if we are going to apply logic to actual arguments made by real people, then we must learn **how to translate symbolic logic into natural language.**
- That is what we will start to learn today.

Overview

The process:

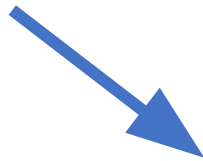
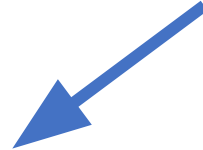
Put the argument
into simple standard
form.

Translate into
symbolic logic

Assess whether
the argument is
sound

Identify hidden
premises

Assess whether
the argument
is valid



Using Simple Standard Form

- Simple standard form clearly identifies the premises and conclusion of an argument.
- It helps us strip out rhetorical devices that can feel persuasive, but which are logically irrelevant.
- This helps us assess the strength of the argument.
- But it takes practice and effort to take an argument from real life and put it into simple standard form.

Using Simple Standard Form

Guidelines:

- Start by looking for the conclusion.
 - What is the author's main point?
 - Are there any indicator words, like *So, so, thus, or it follows that* ?
- Look for premises that support the conclusion.
 - Identify other claims that the author makes, and ask are they relevant to the conclusion?
 - Look for indicator words like *since, because, after all, for two reasons, etc.*

Using Simple Standard Form

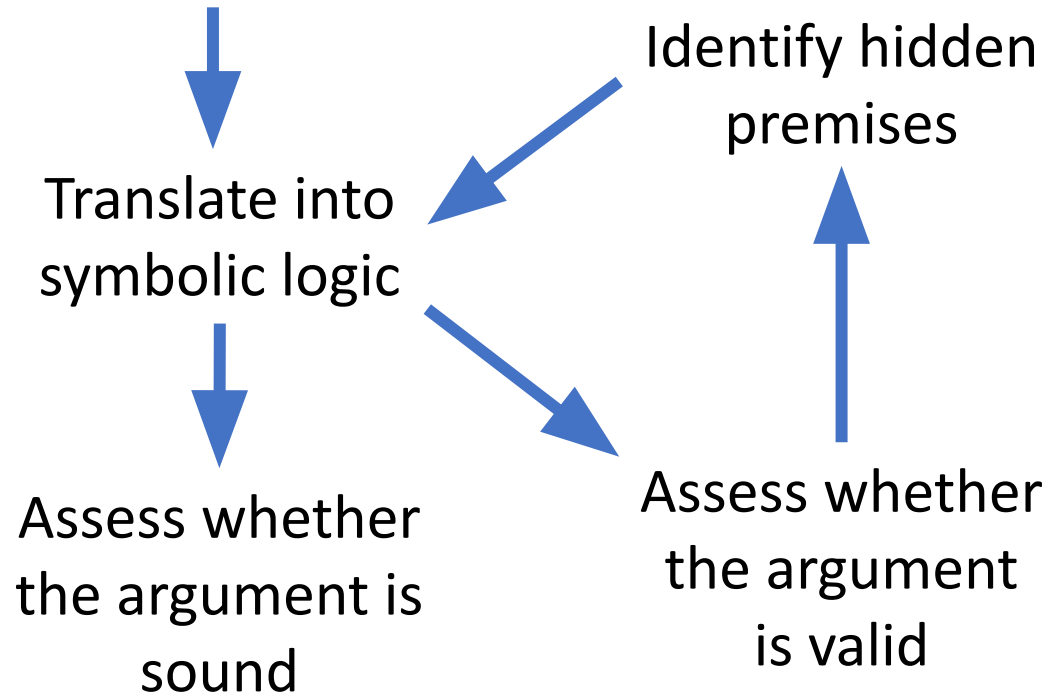
Many people think that having a dark tan is attractive. But the fact is that too much exposure to the sun is very unhealthy. It has been shown that sunlight can cause premature aging of the skin.

- What is the conclusion of this passage? Excessive exposure to the sun is unhealthy.
- What other claims does the author make? (A) Many people think a tan is attractive. (B) Sunlight can cause premature aging of the skin.
- Which of these claim are relevant to the conclusion? Just (B). (A) is merely introducing the topic and why it is important.

Overview

The process:

Put the argument
into simple standard
form.



Translating into Symbolic Logic

Many people think that having a dark tan is attractive. But the fact is that too much exposure to the sun is very unhealthy. It has been shown that sunlight can cause premature aging of the skin.

Just translating into simple standard form, the argument looks like this:

1. Excessive sunlight can cause premature aging of the skin.
2. So, excessive exposure to the sun is unhealthy.

Overview

The process:

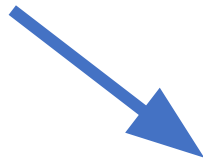
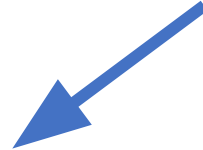
Put the argument
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form.

Translate into
symbolic logic

Assess whether
the argument is
sound

Identify hidden
premises

Assess whether
the argument
is valid



Translating into Symbolic Logic

1. Excessive sunlight can cause premature aging of the skin.
2. So, excessive exposure to the sun is unhealthy.

Our basic statements:

A: Excessive sunlight causes premature **aging**.

U: Excessive sunlight is **unhealthy**.

The argument, translated into logic:

1. A
2. So, U

Overview

The process:

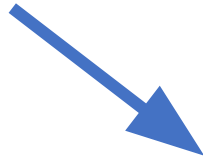
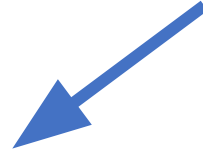
Put the argument
into simple standard
form.

Translate into
symbolic logic

Assess whether
the argument is
sound

Identify hidden
premises

Assess whether
the argument
is valid



Assessing Validity

1. A
2. So, U

Is this valid? Absolutely not!

We simply have two different statements here, with no connections between them.

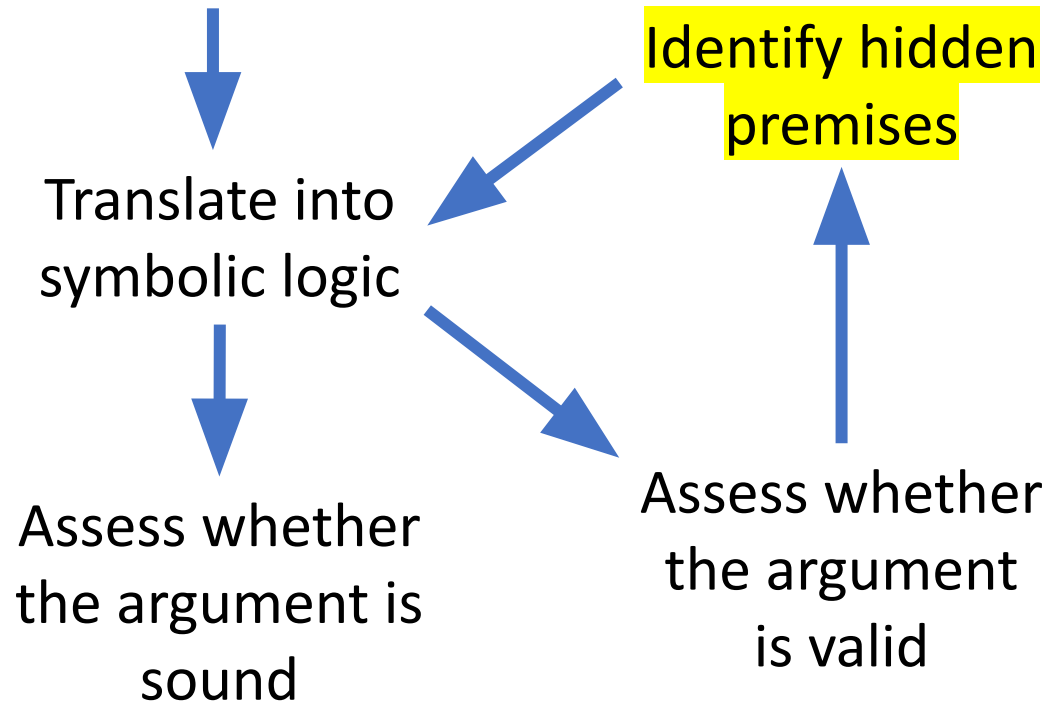
But this is not a very good reconstruction. The person giving the argument clearly thinks there is a connection between the two different statements.

So we are not done.

Overview

The process:

Put the argument
into simple standard
form.



Identifying Hidden Premises

The two basic statements:

A: Excessive sunlight causes premature **aging**.

U: Excessive sunlight is **unhealthy**.

The person making the argument thinks that these claims are connected.

The connection could be expressed in different ways:

- “Anything that causes premature aging is unhealthy.”
- “Premature aging is unhealthy.”
- “Excessive sunlight’s tendency to cause premature aging makes it unhealthy.”

Finding arguments: an example

Many people think that having a dark tan is attractive. But the fact is that too much exposure to the sun is very unhealthy. It has been shown that sunlight can cause premature aging of the skin.

Now we can add the **hidden premise** that is not explicitly stated in this argument:

1. Excessive sunlight can cause premature aging of the skin.
2. **Anything that causes premature aging is unhealthy.**
3. So, excessive exposure to the sun is unhealthy.

Overview

The process:

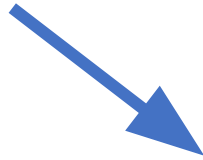
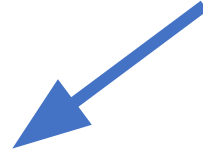
Put the argument
into simple standard
form.

Translate into
symbolic logic

Assess whether
the argument is
sound

Identify hidden
premises

Assess whether
the argument
is valid



Translating into Symbolic Logic (again)

Two claims:

A: Excessive sunlight causes premature **aging**.

U: Excessive sunlight is **unhealthy**.

The important point is that, according to the argument, there is a logical relationship between A and U: if A is true, then U is true.

We know how to express that: using a conditional.

$A \rightarrow U$

"If excessive sunlight causes premature aging, then excessive sunlight is unhealthy."

Translating into Symbolic Logic (again)

1. Excessive sunlight can cause premature aging of the skin.
2. If excessive sunlight causes premature aging, then excessive sunlight is unhealthy.
3. So, excessive exposure to the sun is unhealthy.

The logical form is:

1. A
2. $A \rightarrow U$
3. U

Soundness

Now it seems like we have a good reconstruction of the argument. It seems to capture what was meant by the person giving the argument, and we know the logical form.

So it is time to move on, and ask whether the argument is *sound*.

Is it valid, and are the premises true?

If it is, then the argument should convince us of the conclusion.

If it is not, then the argument should not convince us of the conclusion.

Overview

The process:

Put the argument
into simple standard
form.



Translate into
symbolic logic



Assess whether
the argument is
sound

Identify hidden
premises



Assess whether
the argument
is valid

Soundness

1. Excessive sunlight can cause premature aging of the skin.
2. If excessive sunlight causes premature aging, then excessive sunlight is unhealthy.
3. So, excessive exposure to the sun is unhealthy.

The logical form is:

1. A
2. $A \rightarrow U$
3. U

This argument is valid.

But are the premises true?

Soundness

Consider premise (1)

1. Excessive sunlight can cause premature aging of the skin.

This is a well-established empirical claim.



Natural and Sun-Induced Aging of Human Skin

[Laure Rittié](#) and [Gary J. Fisher](#)

▶ [Author information](#) ▶ [Copyright and License information](#) [PMC Disclaimer](#)

So this premise is very plausible.

Soundness

Now consider the hidden premise, (2):

2. If excessive sunlight causes premature aging, then excessive sunlight is unhealthy.

This is a conditional, and we know how to evaluate conditionals!

This is part of the reason why we bother to translate the statement into symbolic logic!

Conditionals are false just in case the first part is true and the second part is false.

We can use this to evaluate the conditional.

Soundness

Now consider the hidden premise, (2):

2. If excessive sunlight causes premature aging, then excessive sunlight is unhealthy.

How plausible is it that the first part is true and the second part is false?

In other words, how plausible is it that excessive sunlight causes premature aging, and excessive sunlight is healthy?

It's not *impossible*, but it's not very plausible.

So it's not very plausible that (2) is false.

So (2) is a plausible premise.

Soundness

Why did we do all this?

- Because we can now evaluate the different parts of the argument, and assess whether each of them is true or plausible.
- The argument is only as strong as its weakest link!
- If the argument is sound, then we should be convinced!

Notes on finding hidden premises

- To find a hidden premise, ask:
 - Are there any obvious gaps in this argument?
 - If so, can they be easily filled by a claim that we take for granted in the context?
 - Or, does anything the author says hint that they might have a further idea in mind, even if it they did not state it explicitly, and it might not be taken for granted?
- These questions do not always have a clear answer!
- We want to be charitable in interpreting others. Try to find the best argument you can attribute to them.
- But we don't want to put words in their mouth. Balance finding the best argument with staying faithful to their original intent.

Notes on finding hidden premises

- Sometimes an author expresses their point with a rhetorical question.
- We will rephrase these as statements when we represent the argument in standard form.

“How can you believe that corruption is acceptable? It is illegal and unfair!”

- What is the conclusion? What are the premises? Are there any hidden premises?
1. Corruption is illegal and unfair.
 2. Anything that is illegal and unfair is unacceptable.
 3. So, corruption is unacceptable.

Notes on finding hidden premises

“Strict gun laws are counterproductive. Isn’t it obvious that if we ban guns, then only criminals will have guns?”

- What is the conclusion of this passage? What are the premises? Are there any hidden premises?
1. If guns are banned, then only criminals will have guns.
 2. If only criminals had guns, that would give criminals even more power, while ordinary people had fewer ways to protect themselves.
 3. If criminals had more power and ordinary people had fewer ways to protect themselves, that would be bad for public safety.
 4. So, banning guns would be bad for public safety.

Notes on finding hidden premises

- In many arguments, the person making the argument assumes that there is a connection between the premise and the conclusion.

1. It's a beautiful day outside.
2. So, we should go for a walk.

1. All the evidence suggests that she committed the crime.
2. So, she committed the crime.

1. It's four in the morning.
2. So, I need to go to sleep.

1. He is not answering the phone.
2. So, he must be at work.

Notes on finding hidden premises

- There are many different statements that can connect the premise to the conclusion:

1. It's a beautiful day outside.
2. So, we should go for a walk.

1. All the evidence suggests that she committed the crime.
2. So, she committed the crime.

1. It's four in the morning.
2. So, I need to go to sleep.

1. He is not answering the phone.
2. So, he must be at work.

Notes on finding hidden premises

- There are many different statements that can connect the premise to the conclusion:

1. It's a beautiful day outside.
2. We should go for a walk whenever it is beautiful outside.
3. So, we should go for a walk.

1. It's four in the morning.
2. So, I need to go to sleep.

1. All the evidence suggests that she committed the crime.
2. So, she committed the crime.

1. He is not answering the phone.
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Notes on finding hidden premises

- There are many different statements that can connect the premise to the conclusion:

1. It's a beautiful day outside.
2. We should go for a walk whenever it is beautiful outside.
3. So, we should go for a walk.

1. It's four in the morning.
2. So, I need to go to sleep.

1. All the evidence suggests that she committed the crime.
2. If all the evidence suggests one person, then that person committed the crime.
3. So, she committed the crime.

1. He is not answering the phone.
2. So, he must be at work.

Notes on finding hidden premises

- There are many different statements that can connect the premise to the conclusion:

1. It's a beautiful day outside.
2. We should go for a walk whenever it is beautiful outside.
3. So, we should go for a walk.

1. It's four in the morning.
2. If it is past midnight, I need to go to sleep.
3. So, I need to go to sleep.

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2. If all the evidence suggests one person, then that person committed the crime.
3. So, she committed the crime.

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2. If it is past midnight, I need to go to sleep.
3. So, I need to go to sleep.

1. All the evidence suggests that she committed the crime.
2. If all the evidence suggests one person, then that person committed the crime.
3. So, she committed the crime.

1. He is not answering the phone.
2. He would only fail to answer the phone if he is at work.
3. So, he must be at work.

Notes on finding hidden premises

- These arguments are valid! But if we want to use logic to show that they are valid, then we can translate them into clear conditionals:

1. It's a beautiful day outside.
2. We should go for a walk whenever it is beautiful outside.
3. So, we should go for a walk.

1. It's four in the morning.
2. If it is past midnight, I need to go to sleep.
3. So, I need to go to sleep.

1. All the evidence suggests that she committed the crime.
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3. So, I need to go to sleep.

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3. So, she committed the crime.

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1. It's a beautiful day outside.
2. If it's a beautiful day outside, then we should go for a walk.
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1. It's four in the morning.
2. If it is past midnight, I need to go to sleep.
3. So, I need to go to sleep.

1. All the evidence suggests that she committed the crime.
2. All the evidence suggests that she committed the crime, then she committed the crime.
3. So, she committed the crime.

1. He is not answering the phone.
2. He would only fail to answer the phone if he is at work.
3. So, he must be at work.

Notes on finding hidden premises

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2. If it's a beautiful day outside, then we should go for a walk.
3. So, we should go for a walk.

1. It's four in the morning.
2. If it's four in the morning, then I need to go to sleep.
3. So, I need to go to sleep.

1. All the evidence suggests that she committed the crime.
2. All the evidence suggests that she committed the crime, then she committed the crime.
3. So, she committed the crime.

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Notes on finding hidden premises

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3. So, we should go for a walk.

1. It's four in the morning.
2. If it's four in the morning, then I need to go to sleep.
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1. All the evidence suggests that she committed the crime.
2. All the evidence suggests that she committed the crime, then she committed the crime.
3. So, she committed the crime.

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2. If he is not answering the phone, then he must be at work.
3. So, he must be at work.

More Practice

The US contains one of the biggest art markets in the world. After all, New York is one of the biggest art markets in the world. And New York is renowned for its food and opera.

More Practice

First Step: Write down all the statements.

1. The US contains one of the biggest art markets in the world.
2. After all, New York is one of the biggest art markets in the world.
3. And New York is renowned for its food and opera.

Next Step: Sort the statements into *premises*, a *conclusion*, and *irrelevancies*.

- Find *indicator words*:
 - Conclusion: *So, so, thus, it follows that*
 - Premises: *since, because, after all, for [number] reasons*
- Is there a statement in the list that is *supported* by some other statements?
 - The statement that gets supported is the conclusion.
 - The statements that support are premises.
 - Statements that neither support nor get supported are irrelevancies.

More Practice

Next Step: Sort the statements into premises and conclusion.

- Find *indicator words*:
 - Conclusion: *So, so, thus, it follows that*
 - Premises: *since, because, after all, for [number] reasons*
- Is there a statements in the list that is *supported* by some other statements?
 - The statement that gets supported is the conclusion.
 - The statements that support are premises.

2. The US contains one of the biggest art markets in the world.

- Conclusion: Supported by (2)

3. After all, New York is one of the biggest art markets in the world.

- Premise: Supports (1), and includes premise-indicator words (“after all”)

4. And New York is renowned for its food and opera.

- Irrelevant: Not supported by (1) or (2), and does not support (1) or (2)

More Practice

~~New York is renowned for its food and opera.~~

1. New York is one of the biggest art markets in the world.
 2. The US contains one of the biggest art markets in the world.
-

Next Step: Assess for validity.

N: New York is one of the biggest art markets in the world.

U: The US contains one of the biggest art markets in the world.

1. N

2. So, U

Obviously invalid...

More Practice

~~New York is renowned for its food and opera.~~

1. New York is one of the biggest art markets in the world.
 2. The US contains one of the biggest art markets in the world.
-

Next Step: Look for *hidden premises*.

- Is there anything that is being *assumed* in the argument, without being explicitly stated?
- If this assumption were explicitly stated as a premise, would it make the argument valid?
- Remember, we want to be charitable (reconstruct a good argument on behalf of the speaker) but also faithful (don't put words in the speaker's mouth).

More Practice

~~New York is renowned for its food and opera.~~

1. New York is one of the biggest art markets in the world.
 2. New York is in the US.
-
3. The US contains one of the biggest art markets in the world.

The added premise seems like it's being assumed in the argument. The speaker isn't talking about New York for no reason; they're talking about it *because* it's in the US.

The added premise also makes the argument valid. So it's a safe bet that this is a hidden premise.

More Practice

~~New York is renowned for its food and opera.~~

1. New York is one of the biggest art markets in the world.
 2. New York is in the US.
-
3. The US contains one of the biggest art markets in the world.

Next Step: Translate back into logic.

I: New York is in the US

1. N
2. $N \rightarrow I$
3. So, U

More Practice

~~New York is renowned for its food and opera.~~

1. New York is one of the biggest art markets in the world.
 2. New York is in the US.
-
3. The US contains one of the biggest art markets in the world.

Next Step: Translate back into logic.

I: New York is in the US

1. N
2. I
3. So, U

- Once again, this is invalid.
- An obvious indication of invalidity:
a sentence letter in the conclusion that is nowhere in the premises!
- But it still seems like we are missing something in the argument.

More Practice

~~New York is renowned for its food and opera.~~

1. New York is one of the biggest art markets in the world.
 2. New York is in the US.
-
3. The US contains one of the biggest art markets in the world.

Next Step: Look for *hidden premises (again)*.

- Is there anything that is being *assumed* in the argument, without being explicitly stated?
- If this assumption were explicitly stated as a premise, would it make the argument valid?
- Remember, we want to be charitable (reconstruct a good argument on behalf of the speaker) but also faithful (don't put words in the speaker's mouth).

More Practice

~~New York is renowned for its food and opera.~~

1. New York is one of the biggest art markets in the world.
 2. New York is in the US.
 3. If New York is one of the biggest art markets in the world and New York is in the US, then the US contains one of the biggest art markets in the world.
-
4. The US contains one of the biggest art markets in the world.

- The person making the argument clearly assumes (3) is true.
- It is okay to assume this because it is obviously true, but we need to say it explicitly to make it clear that the argument is valid.

More Practice

~~New York is renowned for its food and opera.~~

1. N
2. I.
3. $(N \& I) \rightarrow U.$
4. U.

- **Next Step:** Translating into logic (again)

More Practice

~~New York is renowned for its food and opera.~~

1. N
 2. I.
 3. $(N \& I) \rightarrow U.$
 4. U.
-

Final Step: Assess the argument for soundness.

- Is the argument valid? This one is.
- Are the premises plausible? In this case all three premises are very plausible.
- So this argument looks good!

Indicator words for translating into SL

R $\leftrightarrow$ W:

- It is **rainy** *if and only if* it is **windy**.
- I will go to the **restaurant** *just in case* I **want** to go.
- The leaves **rustle** *when, and exactly when,* the **wind** blows.
- For it to be **raining** is *necessary and sufficient* for the streets to get **wet**.

C&S:

- It is **cold** *and* it is **sunny**.
- It is **cold**, *but* it is **sunny**.
- *Although* it is **cold**, it is also **sunny**.
- It is **cold**, *also* it is **sunny**.
- It is **cold** *as well as* **sunny**.

LvC:

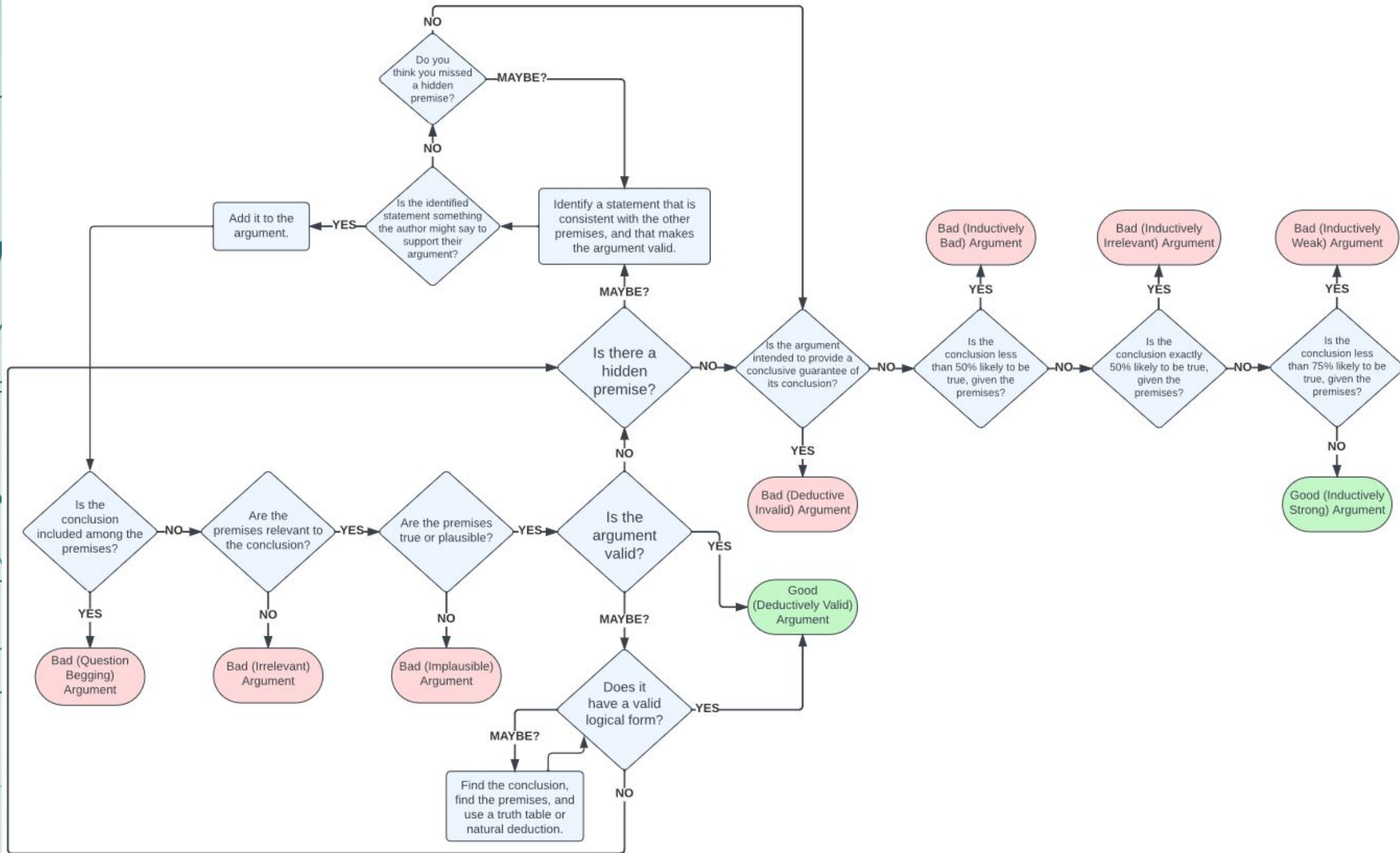
- *Either* **Lebron** lives in LA *or* Lebron lives in **Cleveland**.
- We should go to the **lake** *or* we should go to the **cafe**.
- The **library** is open *unless* it is being **cleaned**.

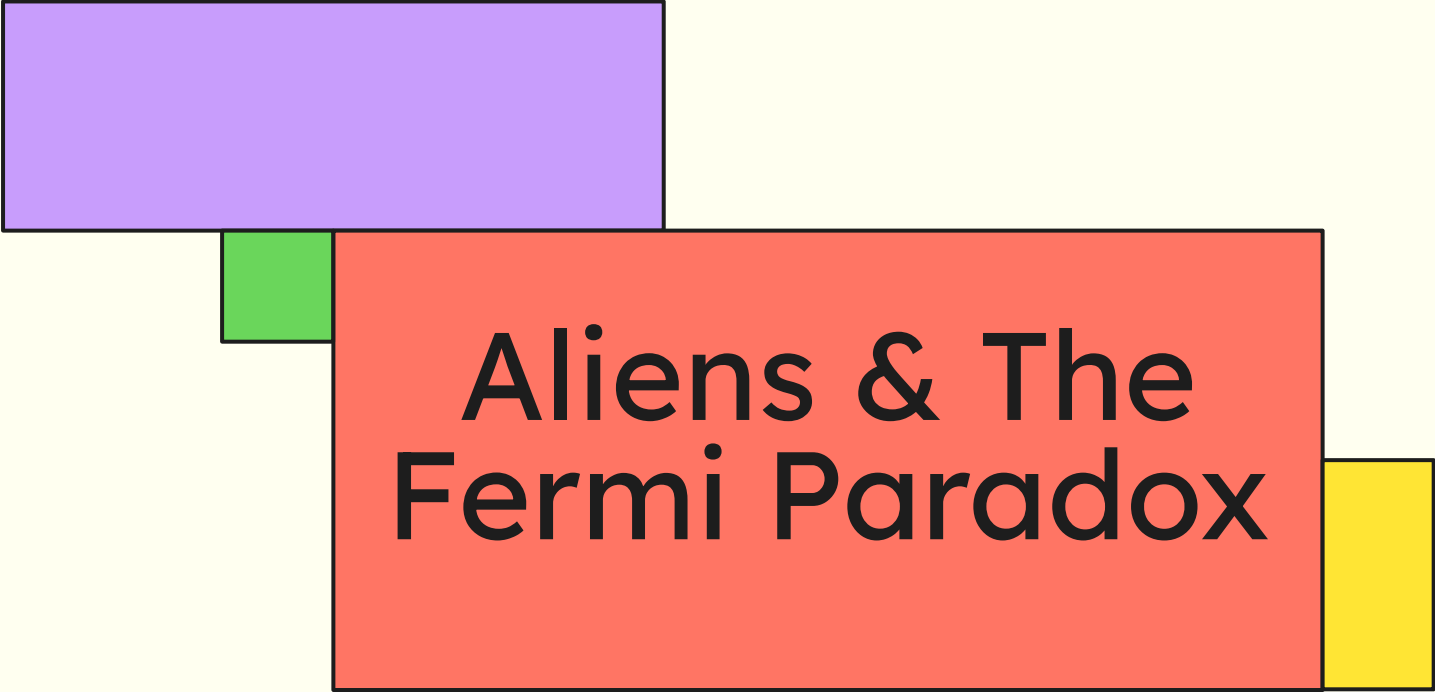
S $\rightarrow$ H:

- *If* it is **sunny**, *then* I will wear a **hat**.
- *Whenever* it is **sunny**, I will wear a **hat**.
- Being a **sombrero** is *sufficient* for being a **hat**.
- Being a **hat** is *necessary* for being a **sombrero**.
- I use **sunscreen** *only if* it is **hot** out.

~S:

- **Santa** does not exist
- It is not the case that **Santa** exists
- It is false that **Santa** exists





Aliens & The Fermi Paradox

Fermi Paradox

2

For various reasons, it seems reasonable to expect that we would find evidence of extraterrestrial intelligence.

We do not find evidence of extraterrestrial intelligence.

What are these reasons?

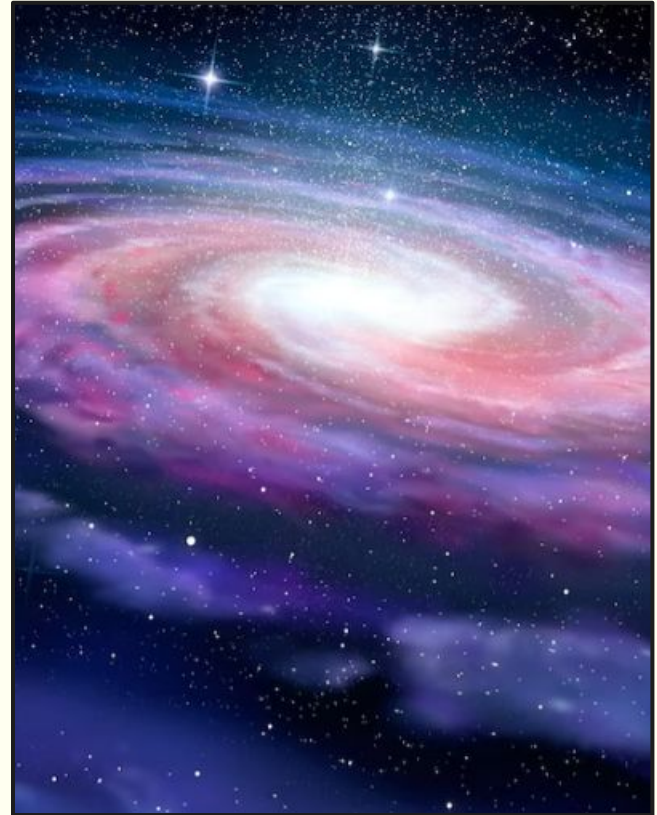
Taking this for granted...

The Bigness of the Galaxy

3

The galaxy is very big and very old.

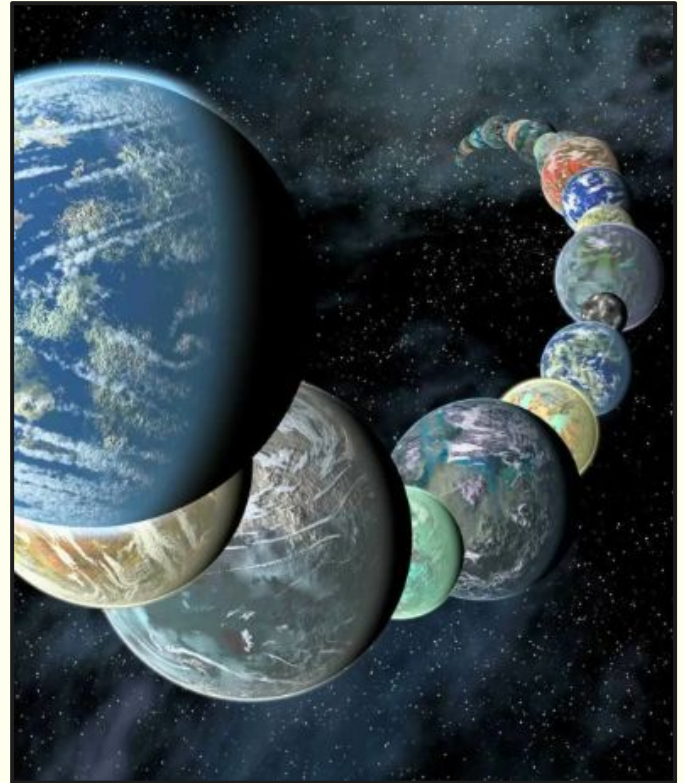
- ~400 billion stars
- ~13.6 billion years old



Earth-Like Worlds

Since the galaxy is very big and very old, it's likely that there are many Earth-like planets.

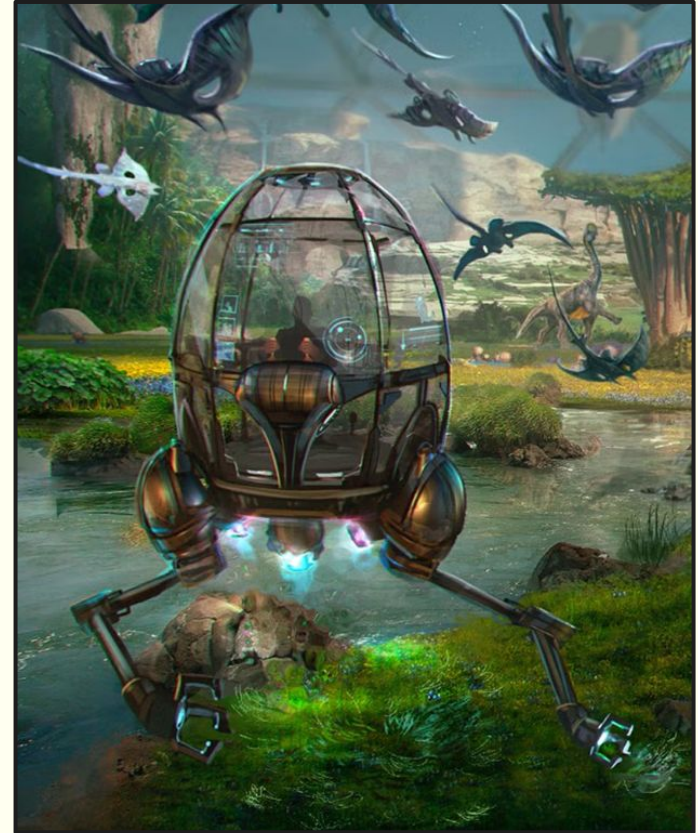
- No definitive numbers!
- Conservatively:
 - 1% of stars are Sun-like
 - 1% of Sun-like stars have an Earth-like planet



Intelligent Life

If there are many Earth-like planets, it's likely that intelligent life has arisen many times.

- Intelligence is adaptive from the standpoint of evolution
- The basic mechanisms of evolution apply anywhere
- Again, suppose 1% of Earth-like planets produce intelligent life...



Interstellar Civilization

6

If intelligent life has arisen many times, it's likely that some intelligent life has spread throughout the galaxy.

- Interstellar travel is difficult, but not impossible in principle.
- Spreading out takes a long time, but a lot less than the history of the galaxy.



Evidence of Intelligence

If intelligent life has spread throughout the galaxy, then it's likely that we'd find evidence of it.

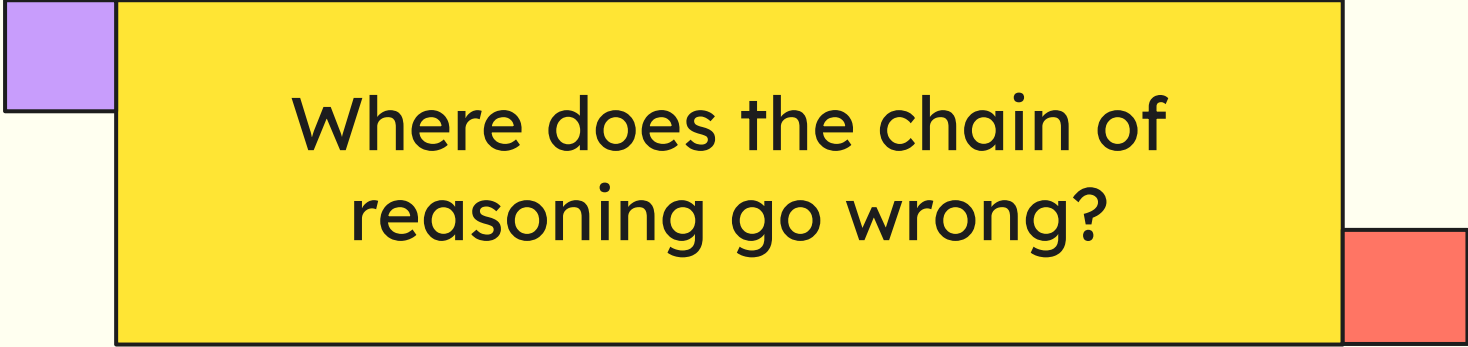
- Civilizations capable of interstellar travel could easily leave signs of their passage.
- They would also be capable of reaching out to us.



The Fermi Paradox

- 1) The galaxy is very big and very old.
- 2) So, it's likely that there are many Earth-like planets.
- 3) So, it's likely that intelligent life has arisen many times.
- 4) So, it's likely that some intelligent life has spread out through the galaxy.
- 5) So, it's likely that we'd find evidence of intelligent life spreading throughout the galaxy.

But... we have not found any such evidence.



Where does the chain of
reasoning go wrong?

Against (1)

10

The galaxy is not very big and very old.

- Seems to contradict all astronomical data!
- Somehow, we are being deceived:
 - Simulation?



Against (1)

11

The Simulation Hypothesis

- Some do argue that we are living in a simulation, and that if so, it is likely to be a “local” simulation
 - Just a planet or solar system, not a universe
- This is a large, separate topic, but it's worth noting...



Against (2)

12

Even if the galaxy is very big and very old, it is not true that there are many Earth-like planets.



Against (2)

13

What does it take to be “Earth-like”, in a way that makes life likelier?

- Earth-like Size
- Rocky
- Habitable Zone

Likely that billions of planets in our galaxy meet these criteria



Against (2)

14

What does it take to be “Earth-like”, in a way that makes life likelier?

- Earth-like Size
- Rocky
- Habitable Zone
- Tectonic Plates
- Oxygen Rich
- Asteroid Shields
- Magnetic Field
- Large Moon
- Tilted Axis
- Stable Orbit

Maybe only a very tiny proportion of planets in the galaxy meet these criteria



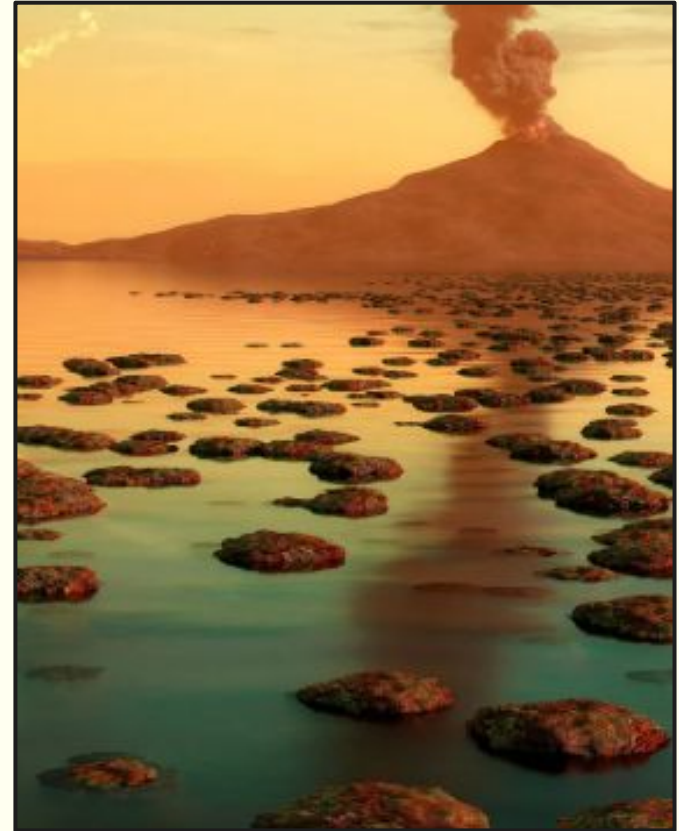
Against (3)

15

Even if there are many Earth-like planets., it is not true that intelligent life has arisen many times.

Maybe it is not life that is incredibly rare, but intelligence.

- There has been life on Earth for 4.3 billion years
- There has been tool use on Earth for only a few million years



Against (3)

16

Why would intelligence be rare?

- Maybe evolution is not highly unlikely to produce intelligence

Compare:

- Crab-like body plan has evolved many times
- Human-like intelligence has evolved once



Against (3)

17

Why would intelligence be rare?

- The conditions for intelligent life may be much more narrow than the conditions for life

Extinction Events:

- Simpler, energy-frugal organisms do better
- Complex, energy-demanding organisms do worse



Pause to Note: If (2) & (3) are false, the odds of life and intelligence must be really, really, *really* small

Not enough to say: It's unlikely.

In a big galaxy, unlikely conditions will occur and reoccur many, many times.

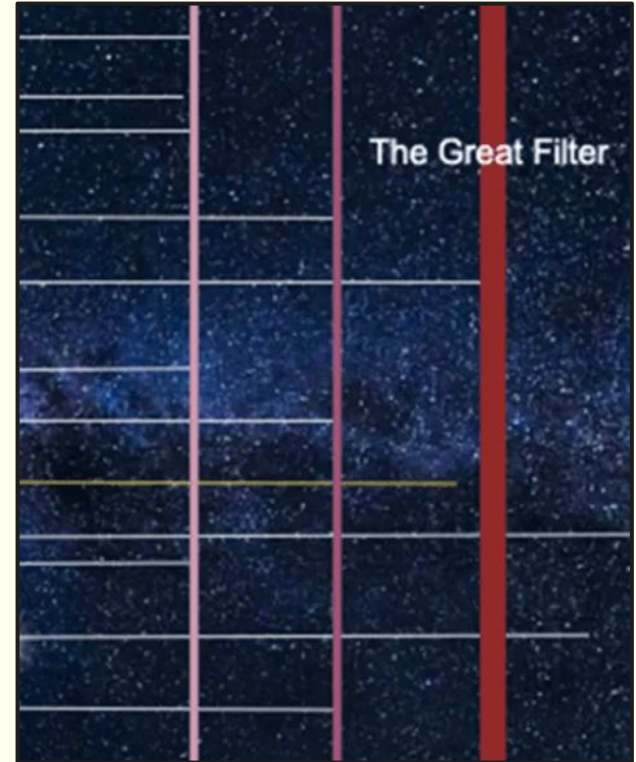
Against (4)

19

Even if intelligent life has arisen many times, it is not true that some intelligent life has spread out through the galaxy.

Maybe intelligence arises with some frequency, but it never manages to get far from home.

Why?

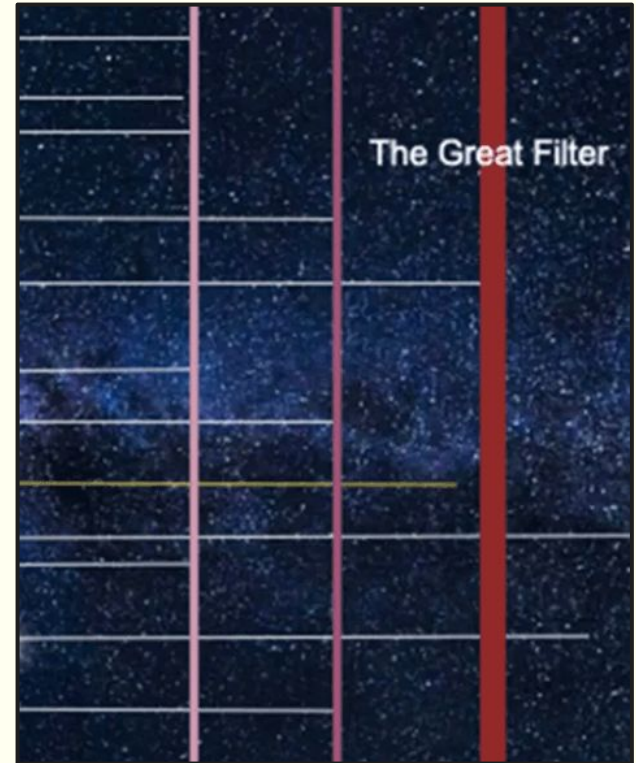


Against (4)

20

Perhaps advanced aliens have something better to do than colonize the galaxy.

But even if many of them choose to stay home, is it really likely that all of them do?



Against (4)

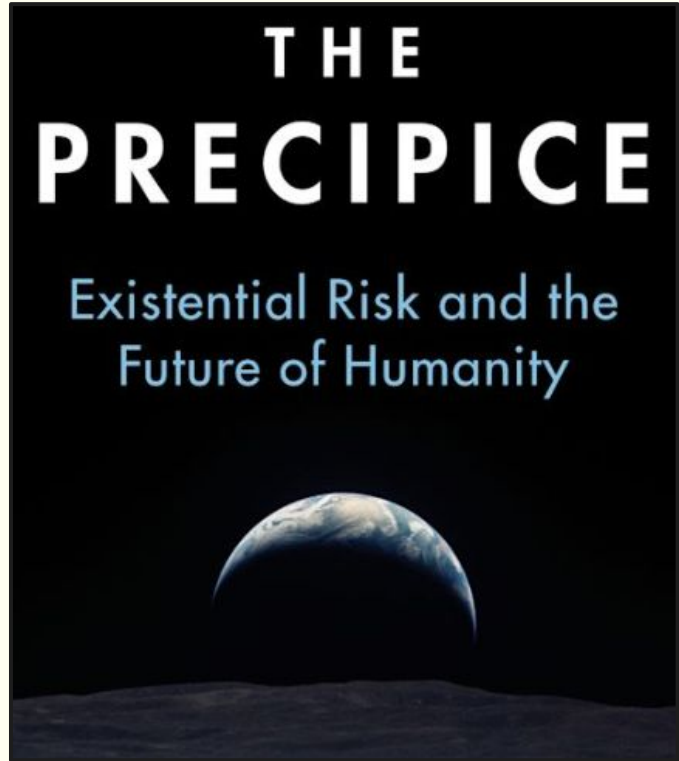
21

Intelligent life is able to destroy itself with weapons and technology

Increasingly sophisticated weapons and technology make self-destruction more likely

Compare:

- Humans' capacity for self-destruction
- Crabs' capacity for self-destruction

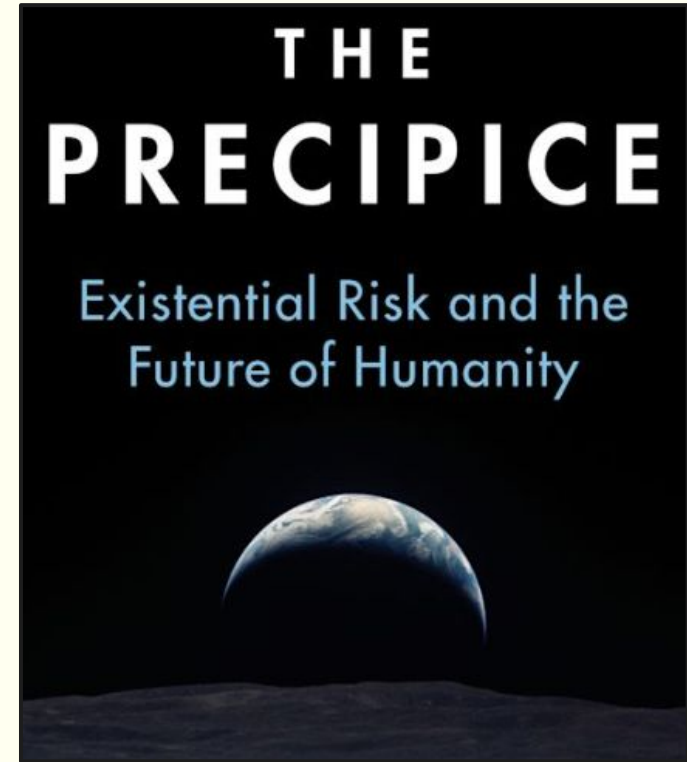


Against (4)

22

Perhaps any civilization sophisticated enough to roam the stars is also overwhelmingly likely to destroy itself?

- Filling the galaxy would take millions of years
- Spreading out at all seems to make self-destruction less likely



Against (5)

23

Even if intelligent life has spread throughout the galaxy it's not likely that we'd find evidence of intelligent life

Why not?

Perhaps we're enclosed in an “alien zoo”?

Why do all aliens respect our “enclosure”?



Against (5)

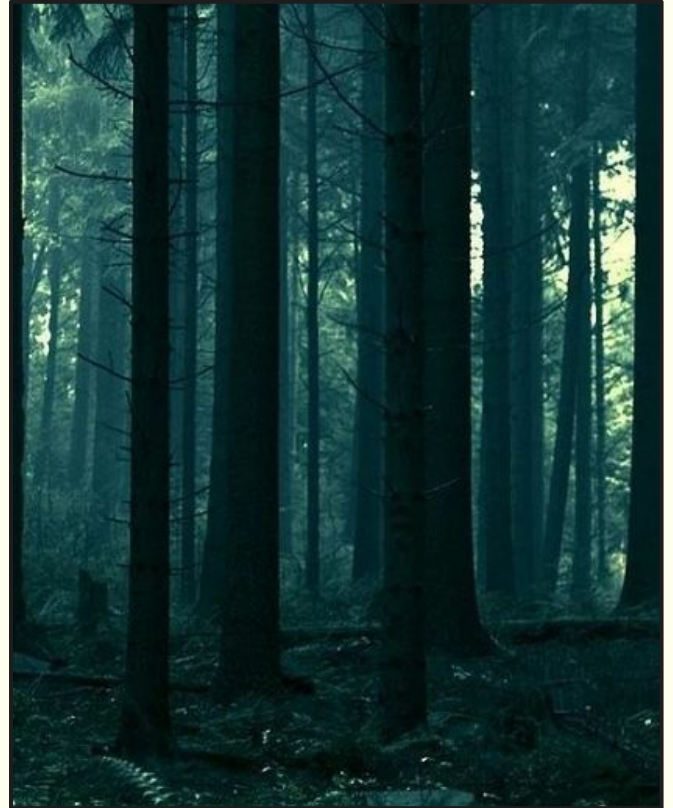
24

Or perhaps any alien civilization that makes itself known is destroyed.

Why would that be?

Civilizations have an overriding interest in destroying each other?

This brings us to: The Dark Forest





INTELLIGENT BEHAVIOR

RYLE

TURING RECAP

Turing can be read as responding to the epistemological problems of dualism.

1. **What does it mean** to say that something “thinks”, “has a mind”, or “is conscious”?
2. **How could we test** whether something “thinks”, “has a mind”, or “is conscious”?

TURING RECAP

Turing can be read as responding to the epistemological problems of dualism.

1. **What does it mean** to say that something “thinks”, “has a mind”, or “is conscious”?
 - Disambiguate: capable of conversing like a human
2. **How could we test** whether something “thinks”, “has a mind”, or “is conscious”?
 - The “imitation game”: if it passes, it can converse like a human

TURING RECAP

- Turing is addressing the epistemological problems of dualism.
- If everything he says is correct, then it might be easier to defend physicalism.
- However, with all that said, Turing is not arguing directly against dualism.
- He is not proposing an alternative to dualism.

Gilbert Ryle, by contrast, is proposing an alternative to dualism.

“DESCARTES’ MYTH”

Dualism as Ryle understands it:

1. Everyone has both a **body**, and a **mind**.
2. The physical body **occupies space**; the mind **does not occupy space**.
3. The physical body is **observable to outsiders**; the mind is **not observable to outsiders**.
4. Everyone has **perfect knowledge of at least some of what goes on in their minds**, but **no direct knowledge of what goes on in others’ minds**.



“DESCARTES’ MYTH”

Ryle’s Central Claim: Dualism is a category mistake.

It’s not the case that mental states are something that exist in addition to the observable, physical world.

Instead, talking about the mental states is a way of talking about the observable, physical world.

Dualism involves a kind of confusion about how to use mental state terms.

CATEGORY ERRORS

Example of a category error:

Suppose that each individual banana costs \$5, and each bunch of three bananas costs \$10.

You get a bunch of three bananas and the cashier charges you \$25:

- \$5 for each of the individual bananas
- \$10 for the bunch



CATEGORY ERRORS

The cashier is making a **category error**.

The **bunch of bananas** is nothing over and above the **individual bananas**.

Talking about **bunches of bananas** is a way of talking about **individual bananas**.

You should only get charged \$10!



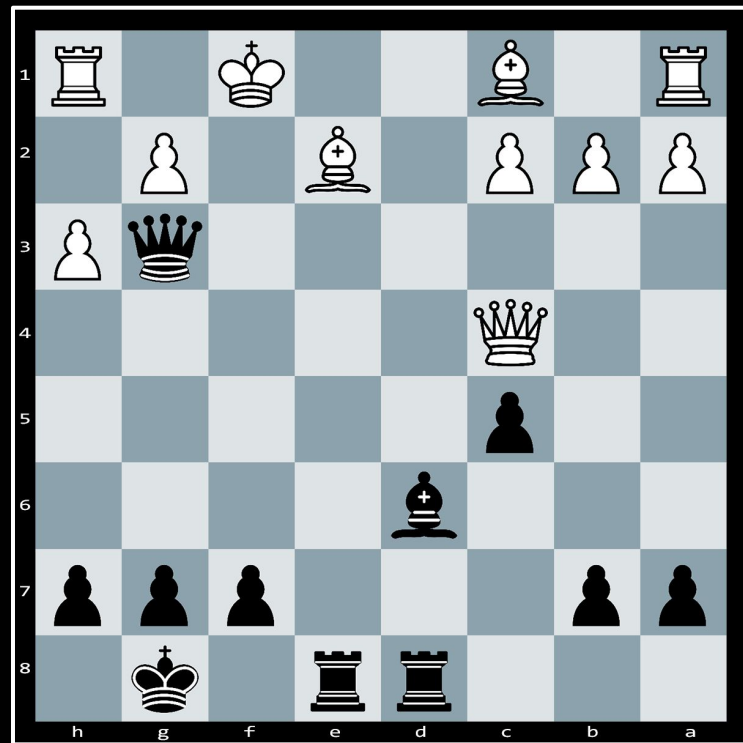
CATEGORY ERRORS

Gilbert Ryle thinks that that dualists are making the same sort of mistake.

Suppose we are watching a grandmaster play chess. If she moves her bishop, she will lose the game. So you say:

“She knows that if she moves her bishop, she will lose the game.”

Seems reasonable!



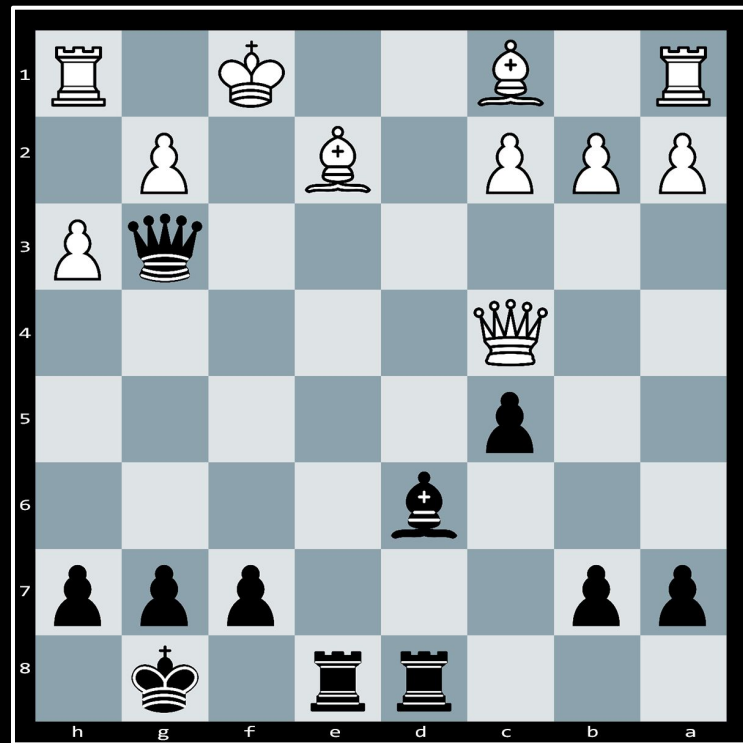
CATEGORY ERRORS

But I say:

“Well, we don’t know what she believes, or knows, or thinks! We can observe how she plays, but we cannot observe her inner mental states.”

Ryle thinks this is like saying:

“Sure you’ve paid for all the bananas, but you haven’t paid for the bunch.”

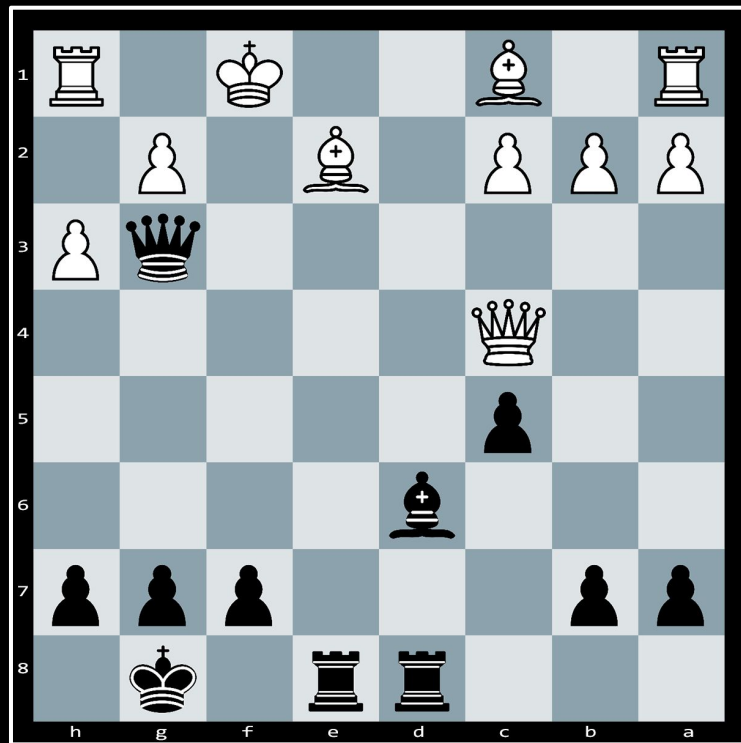


CATEGORY ERRORS

Ryle: When we observe how the chessmaster plays, we are observing her beliefs and knowledge about chess.

It is not the case that there are two things here: the **gameplay**, and her **inner thoughts about the gameplay**.

Rather, there is just **one thing**, described in **two different ways**.



RYLE'S ANTI-DUALISM

So far, this is all just a statement of Ryle's anti-dualism.

Why believe it?

RYLE'S ANTI-DUALISM

An argument from our **knowledge of other minds**:

Theorists correctly assumed that any sane man could already recognized the differences between, say rational and non-rational utterances or between purposive and automatic behaviour. Else there would have been nothing requiring to be salved from mechanism.

In other words, we already know how to recognize mental states...

RYLE'S ANTI-DUALISM

But...

Yet the explanation given presupposed that one person could in principle never recognize the difference between the rational and the irrational utterances issuing from other human bodies, since he could never get access to the postulated immaterial causes of some of their utterances.

Dualism makes it mysterious how we could know these things, since we cannot observe their minds.

RYLE'S ANTI-DUALISM

As an argument:

1. We can recognize the mental states of other people.
2. If dualism is true, then we cannot recognize the mental states of other people. (This is because we cannot observe non-physical minds.)

Therefore,

C. Dualism is not true.

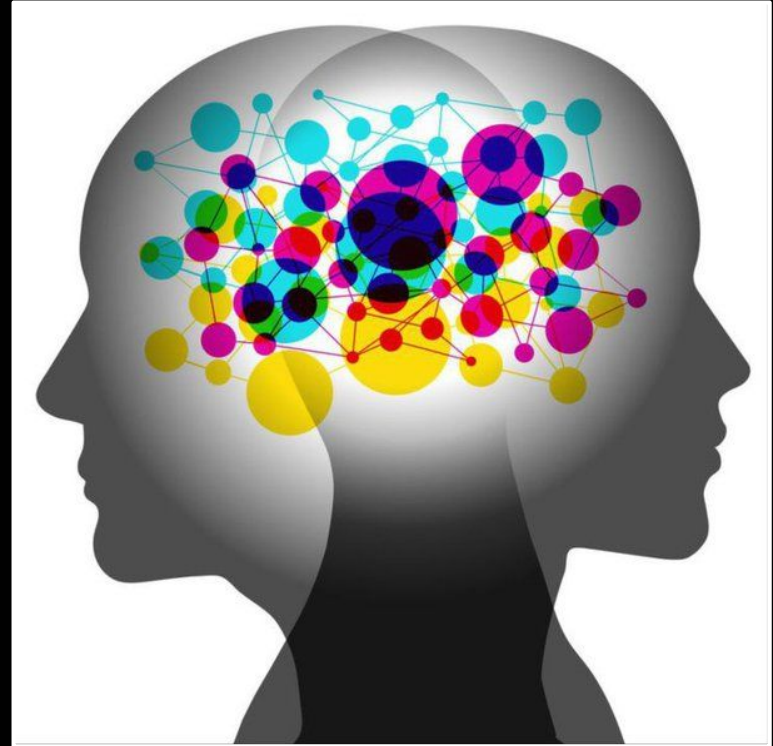
This argument is valid, so if the premises are true, then the conclusion is true.

A DUALIST RESPONSE

Perhaps even if we cannot observe other's minds directly, we can observe them indirectly.

I know that, in my own case, certain thoughts and feelings go along with certain behavior.

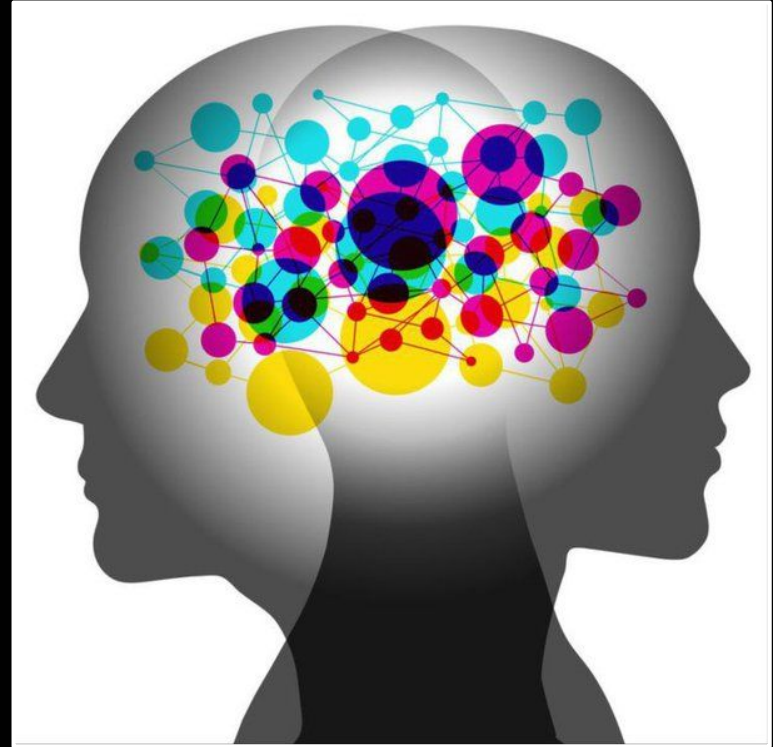
Why not infer that, in the case of other people, the same thoughts and feelings go along with that same behavior?



A DUALIST RESPONSE

Ryle: This inference is “pitiably weak”.

It’s a generalization from just one case:
your own.



A DUALIST RESPONSE

An analogy:

Suppose a small child breaks open a **gray rock**, and sees that it has **crystals inside**.

They conclude that **all gray rocks** probably have **crystals inside**.

A “**pitiably weak**” inference!



RYLE'S ALTERNATIVE

Clearly, Ryle is not a dualist.

But what is his **positive** view?

BEHAVIORISM

Behaviorism: Mental states are analyzed dispositions to behave in certain ways.

For example, desiring shiny rocks might be a matter of being disposed to pick up shiny rocks.

Probably not right to describe Ryle as a behaviorist. He is an **anti-dualist**, but it's not clear he thinks that mental states can be analyzed at all.

More concerned with understanding how we talk and think about mental states.

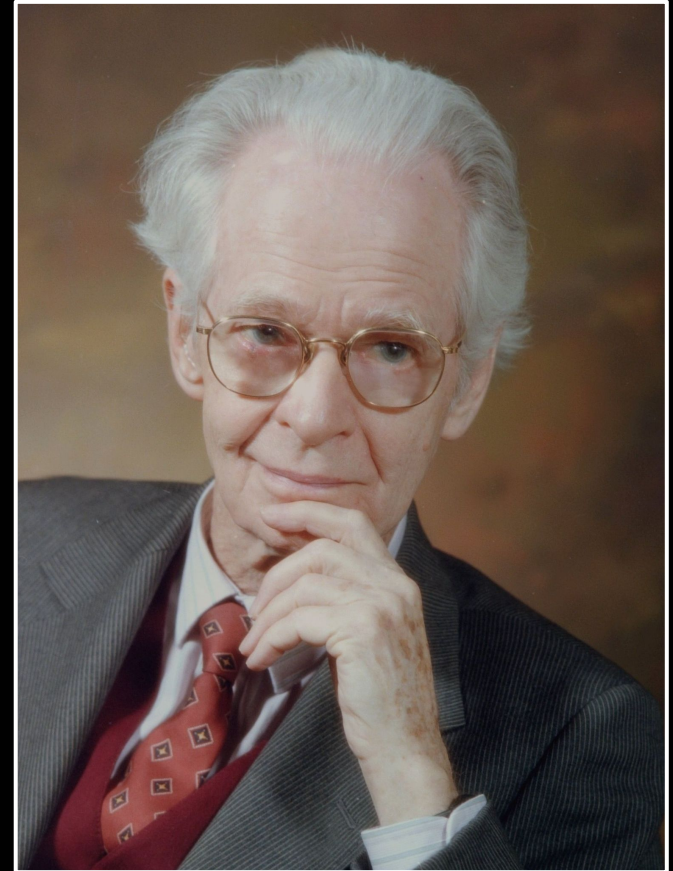
BEHAVIORISM

Ryle was certainly an inspiration for behaviorists.

But behaviorism has never been all that popular in **philosophy**.

It has had a better reception in **psychology** (less so today).

Behaviorism as **scientific methodology**, rather than as **metaphysics**.



Xunzi

Philosophy of Happiness

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Life of Xunzi

- Lived 3rd century BCE, during Warring States Period
- Sometimes described as the third of the great classical Confucian philosophers (alongside Mencius and Confucius himself)
- Studied and taught at Jixia Academy
- Teacher of legalist philosopher Han Fei



Individual vs. Social Well-Being

- As in classical Daoism, individual happiness or well-being is not a major focus of classical Confucianism
- More of a focus on “social well-being”
 - How should we act, and what should we do, to accord with the correct norms of social order?
 - Individual well-being less central than it was to the Greeks



The Dao of Ritual Propriety

- Xunzi's ethics is focused on following the dao of “ritual and propriety” as established by ancient sage-kings.
 - Esp. founders of Zhao state like King Wen
- “People by birth have desires. Desiring something without obtaining it, they cannot fail to seek it. Seeking things without measures or boundaries, they cannot fail to come into conflict. Conflict leads to disorder and disorder to poverty. The former kings abhorred such disorder, so they instituted rituals and propriety to divide them, so as to provide for people's desires and give them what they seek.”



The Dao of Ritual Propriety

- Community-level justification for following the dao of ritual and propriety:
 - a. promotes material wealth (instrumental to social well-being)
 - b. provides for people's desires (instrumental to social well-being)
 - c. good order (intrinsic to social well-being)



The Dao of Ritual Propriety

- Individual-level justification for following the dao of ritual and propriety:
 - Providing for one's desires
 - life
 - wealth
 - gratification of the senses
 - honor
 - ...but not necessarily better than another dao!
 - Xunzi concedes that acting immorally can have better results in some cases.



The Dao of Ritual Propriety

- Individual-level justification for following the dao of ritual and propriety:
- Realizing one's humanity
 - humans as social, value-creating animals
 - not developing something inherent, but conforming to distinctively human social way of life
 - not a matter of individual human capacities as it is for the stoics (for example)



The Dao of Ritual Propriety

- Individual-level justification for following the dao of ritual and propriety:
- **Refinement**
 - “...dedication to and habituation in ritual and propriety also render the individual qua individual orderly, refined, and beautiful...”
 - “...through the study and practice of ritual and propriety, he transforms himself from an ignorant boor who indulges his ugly, inborn nature to a beautiful, elegant person who has patterned and decorated himself to perfection.”



Well-Being & Happiness

- The junzi or gentleman enjoys all these goods:
 - Provision of material needs
 - Realization of distinctly human nature
 - Aesthetic refinement
- This seems to be Xunzi's theory of well-being or happiness, though it is not his focus



Well-Being & Happiness

“Being a gentleman, one is consistently secure and honored; being a petty person, one is consistently endangered and disgraced. All people desire security and honor and detest danger and disgrace. So only the gentleman is able to obtain what he prefers; as to the petty person, he meets daily with what he detests.”



The Zhao Traditions

- Why is the specific social organization of the Zhao dynasty necessary for securing these goods?
 - Provision of material needs
 - ...but other social systems could secure these
 - Realization of distinctly human nature
 - ...but most any social system of cooperation would give us this
 - Aesthetic refinement
 - ...but Zhuangzi's Cook Ding is graceful as well, despite being a butcher rather than a master of rituals.



The Zhao Traditions

- Fraser: “To Xunzi, the patterning and ornamentation of the gentleman's life are probably **intrinsically good and beautiful apart from their purported efficacy as a means of provision**. For he sees them as the most perfect embodiment of good order - an order that embeds natural events and human affairs in an authoritative normative structure and thus bestows a sense of security and meaning on individuals' lives via their place in a greater, intelligible whole.”
- Xunzi is embedded in this particular tradition and is engaging an audience who agrees that it is best.



Well-Being & Happiness

- The junzi or gentleman enjoys all these goods:
 - Provision of material needs
 - Realization of distinctly human nature
 - Aesthetic refinement
 - Affective engagement with a dao that is uniquely authoritative:
 - Developed by genius sage-kings
 - Uniquely conforms to natural patterns of things



Xunzi and Zhuangzi

Similarities and differences in Xunzi and Zhuangzi's conceptions of the good life:

Xunzi:

Provision of material needs

- not guaranteed

Realization of distinctly human nature

- through social cooperation

Aesthetic refinement

- through the order of the Zhao traditions

Affective engagement with a dao that is uniquely authoritative.

Zhuangzi:

Provision of material needs

- not guaranteed

Realization of distinctly human nature

- through wandering

Aesthetic refinement

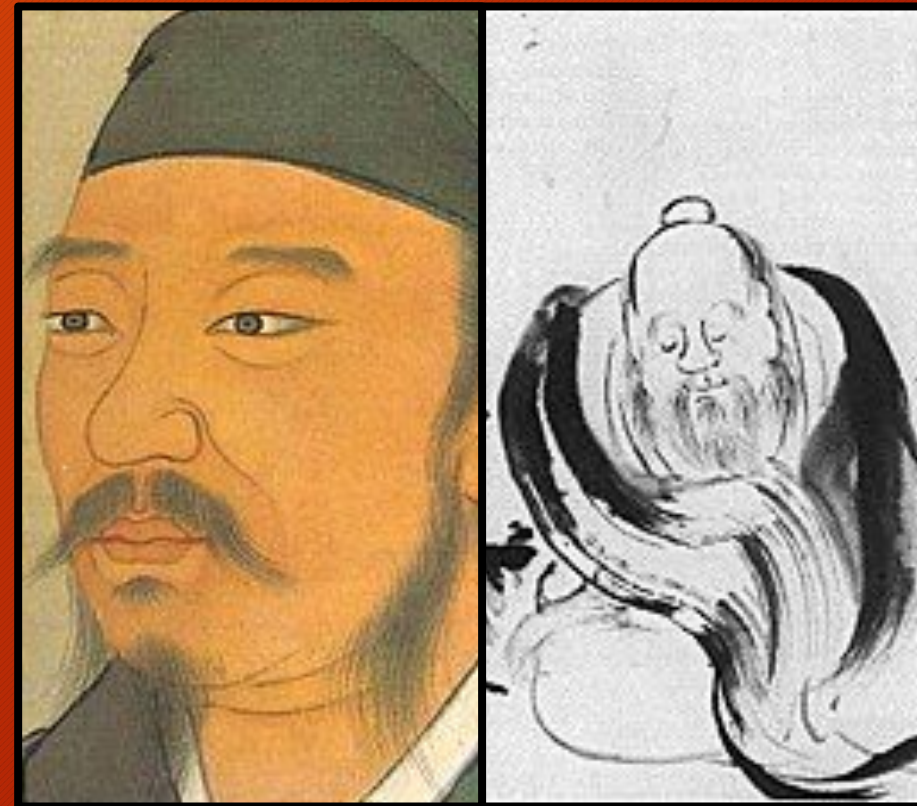
- through skillful wandering of the way

Affective engagement with multiple dao, none of which are uniquely authoritative.

Xunzi and Zhuangzi

Fraser suggests that Xunzi's view is getting at something important: "The centrality of such a dào in the Xúnzian view is distinctive and intriguing, and I suggest this characteristic fits well with a vague, commonsense understanding of happiness that many of us share. Inquiring into what we ourselves regard as happiness, we may find that aesthetic appreciation of and engagement with some dào have a central role."

Is this right? Do we need to engage in some good and beautiful practice to be happy?



Xunzi and Zhuangzi

...but Zhuangzi has the more plausible view:
“My main reservation about the stress the Xúnzian view places on dào is that a happy life could involve engagement not just in a single, authoritative dào, as Xúnzǐ would have it, but in a plurality of dào which may shift or evolve throughout one's life.”

Is this right? Do we switch between paths or ways of life or do we need to stick to just one?

