

Critical Thinking & Innovation

JAKE CHANDLER

Arguments, Part 2



COUNTERARGUMENTS

Counterarguments

- We previously asked: what makes an argument a good one?
- One rough answer:
 - (1) Its premises **are true**, and
 - (2) Its premises **support the conclusion**
- **Building metaphor**: premises as foundations and support relations as walls/pillars, etc.
- So an argument can be **defective** because we have
 - (1) grounds to doubt the premises **are true**, or
 - (2) grounds to doubt that the premises **support the conclusion**
- **Counterargument** (aka “objection”): set of claims presented as reasons to believe that another argument is defective

Types of counters

- 3 broad types of counter, which I’ll illustrate using:

Example

“The suspect is guilty: indeed, she confessed!”

- (1) **Undermining**: give a reason to doubt the premises are true

Example

A reliable insider says the suspect *didn’t* confess.

Types of counters (ctd)

- (2) **Defusing**: give a reason to doubt the premises support the conclusion

Example

The confession was extracted under torture.

- (3) **Opposing**: give at least as strong a reason to doubt the conclusion as the premises provide for believing it

Example

CCTV places the suspect in another state.



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REPRESENTING ARGUMENTS

Standard form

- For ease of readability and future reference, philosophers like to present arguments in **standard form**
- How to present in standard form:
 - Identify the conclusion
 - Identify the premises
 - Number the premises $P_1, \dots, P_n$ and write them out in order
 - Draw in an “inference bar”
 - Write out the conclusion, placing “C” in front of it

Standard form: Examples

Examples

(P₁) Bart has two sisters

(C) Bart is not an only child

(P₁) Helping someone to commit suicide is murder

(P₂) Murder is wrong

(C) Helping someone to commit suicide is wrong

Standard form: Examples (ctd)

Example

(P₁) The sign on the red door says that the prize is behind the red door.

(P₂) The signs on both the blue door and the green door say that the prize isn't behind the blue door.

(P₃) At least one of the signs states a falsehood and at least one of the signs states a truth.

(C) The prize is behind the green door.

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Standard form: Examples (ctd)

Example

(P₁) Either Alice had green tea or she had a cappuccino.

(P₂) And if she had a cappuccino then she didn't take sugar.

(P₃) But she did take sugar.

(P₄) So she had green tea. (From (P₁)–(P₃))

(P₅) If Alice had green tea, then the Dormouse didn't.

(P₆) If the Dormouse didn't have green tea, then he had nothing at all.

(C) Therefore the Dormouse had nothing at all.

Argument diagrams

- Useful complement to standard form: **argument diagrams** (aka **argument maps**)
- Particularly handy for representing:
 - multiple arguments to same conclusion
 - argument chains
 - counterarguments

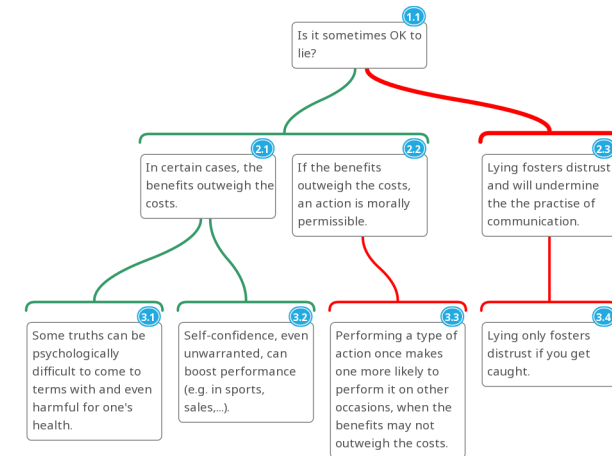
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Conventions

- Boxes represent propositions
- Arrows represent inferential relations:
 - **Green arrows:** support (reasons to believe)
 - **Red arrows:** attack (reasons to not believe)
- Strength of relation: arrow thickness
- Propositions that only support or attack *jointly* are grouped together

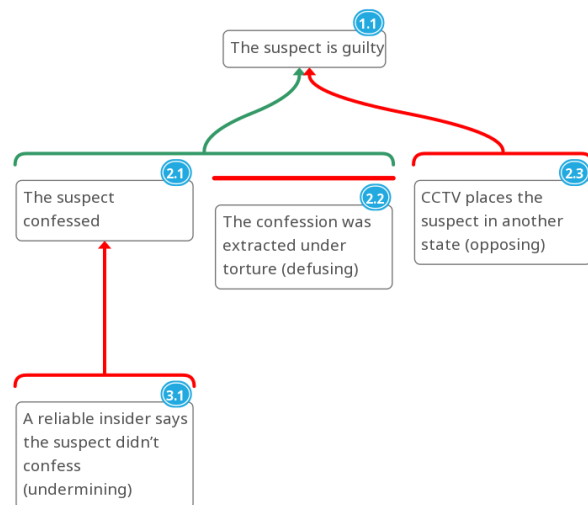
An argument diagram



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Another argument diagram



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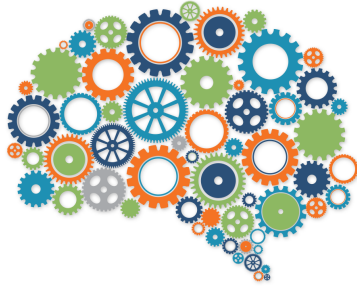
Online tool

- Recommendation: **Mindmup**

<https://www.mindmup.com/tutorials/argument-visualization.html?orig=>

- Used at Harvard, CMU and other places
- Suggested homework:
 - (i) watch the 5min tutorial: <https://youtu.be/31-1Ku11cUI>
 - (ii) read Cullen's notes: <https://maps.simoncullen.org/basics>
 - (iii) try making maps for the exercises at the bottom of the notes: <https://tinyurl.com/5ker9krm>

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HUNTING THE WILD ARGUMENT

Argument reconstruction

- Real-life debates don't come in tidy standard form or diagrams: art of **argument reconstruction**
- General strategy: Identify the conclusion, then work your way along the chain
- Crucial guiding principle: Present the views of others as **accurately** and **charitably** as possible
- Why so?
 - (i) it is **courteous**
 - (ii) it **maximises impact**, ensuring your discussion is as effective as it could be
- Note: You'll get a better sense of what charity requires when you have a better idea of what makes an argument a good one

Difficulties

- 2 common issues:
 - (1) Poor signposting
 - (2) Missing claims

(1) Poor signposting

- It's not always clear what's given as a reason for what
- Often, the premise / conclusion division is flagged out by **argument indicators**
- We might have a **conclusion indicator**.

Example

"It has four sides and four right angles. *Therefore* it is a rectangle."

- Other conclusion indicators:
 - hence
 - thus
 - for that reason...

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(1) Poor signposting (ctd)

- We might have **premise indicators**.

Example

"The Cheshire cat could, after all, be beheaded, *since* it was only a head, and anything with a head can be beheaded."

- Other premise indicators:
 - given that
 - as indicated by the fact that
 - for the reason that
 - because
 - seeing as...

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(1) Poor signposting (ctd)

- However: in some cases, there are no explicit indicators *at all*.

Example

"He stole something from the shop: the attendant tells me he saw him acting shifty."

"It has four sides and its inner angles are 90 degrees. It's a rectangle."

- In these cases: try **inserting markers to test**

Example

"He stole something from the shop *since* the attendant tells me he saw him acting shifty."

"It has four sides and its inner angles are 90 degrees. *Therefore* it's a rectangle."

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(1) Poor signposting (ctd)

- Note: indicator words are **not part of the claims** that make up the argument! Don't include them in your representation

Example

P₁ It has four sides and four right angles.

C ~~Therefore~~ it is a rectangle.

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(2) Missing claims

- Premises, intermediate steps and conclusions can be **implicit**

Example

“The Bible says that God forbids tattoos. So you shouldn’t get a tattoo.”

“The Bible says that God forbids tattoos. **Whatever the Bible says is true. Therefore, God forbids getting a tattoo. Furthermore, one should not do what God forbids.** So, you shouldn’t get a tattoo.”

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(2) Missing claims: More examples

Example

“She’s not home. If she’d driven home, her car would be in the drive. And it was raining, so she didn’t walk home.”

“She’s not home. **If she is home, then either she walked home or she drove.** If she’d driven home, her car would be in the drive. **Her car is not in the drive. So she didn’t drive home. If it was raining, then she didn’t walk home.** And it was raining, so she didn’t walk home.”

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(2) Missing claims: More examples

Example

“All Englishmen are idiots. You shouldn’t marry an Englishman.”

“All Englishmen are idiots. **You shouldn’t marry an idiot.** You shouldn’t marry an Englishman.”

Example

“Positive thinking can’t help you win the lottery. If it could, then lots of people would win.”

“Positive thinking can’t help you win the lottery. If it could, then lots of people would win. **But not many people do win.**”

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(2) Missing claims: Argument reconstruction

- Implicit premises are OK, so long as they are:
 - easily recoverable from context
 - entirely uncontroversial
- When reconstructing an argument, try to make things explicit:
 - The missing premises/steps might not be that uncontroversial (see previous examples)
 - It’s charitable to the person offering the arguments
 - It lets you construct the strongest counterargument possible
- Try to find the weakest and most plausible assumptions that make the argument float

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