

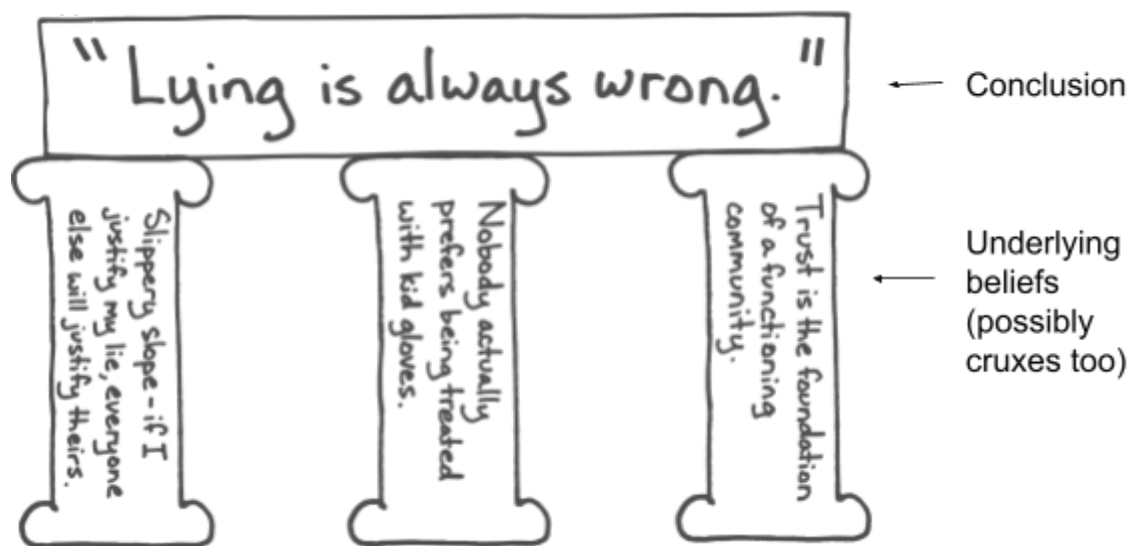
The Double Crux Game

Background

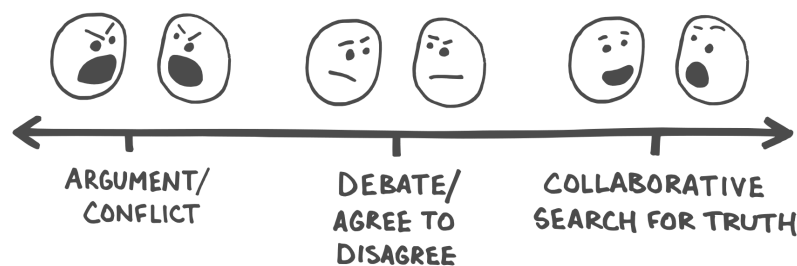
We aren't born with positions on complex issues, we form beliefs and worldviews that *lead* to our positions

- Mental models can be separated into "conclusions" and "underlying beliefs"
- Introspecting on our mental models can be difficult
- A key notion is a **crux** (sometimes called a *crucial consideration*), which is a special kind of underlying belief defined as one where **"if I changed my mind on this underlying belief, I would change my mind on the conclusion"**

Here's a visual representation...



In this game you are not trying to win an argument with the other person.



You are trying to collaboratively uncover your own and your partner's cruxes – the underlying beliefs that, if you were (hypothetically) to change your position on them, would cause you to change your mind about the top level conclusion.

Going through this process causes you to clarify, tidy up and add extra details to your previously uninspected mental models – hopefully bringing you closer to the truth.

Knowing your own cruxes also has an obvious benefit... it means you can be on the lookout for, or even go out and actively seek, information that would change your mind!

Instructions

1. **On your own**, place a tick or a cross next to each statement indicating whether you agree or disagree
 - a. Spend no longer than 5 seconds per statement
 - b. Feel free to guess or skip. You can change your answer later
 - c. Where the questions are ambiguous take the interpretation that is most obvious to you
2. **Pair up with a partner**
 - a. Circle all statement numbers where you gave opposite answers to your partner
 - b. Resist the urge to start debating!!
 - c. Choose an interesting circled statement to double crux on
3. **Double Crux:** Attempt to uncover and write down next to the question each person's full list of true cruxes. To do that follow these steps
 - a. Operationalise: Make the statement clear and concrete for both people – replacing words or crossing out and rewriting the whole statement if necessary
 - i. Technique 1: Underline any vague load-bearing words in the statement and agree on a more precise definition
 1. e.g. if the statement was “we are in a climate emergency” you should probably underline “climate emergency” and replace it with a more concrete term
 - ii. Technique 2: Look for opportunities to narrow down the statement by talking about a specific example, trade-off or a hypothetical action you would/wouldn't take
 - iii. (Note: The improved statement should still be one that you disagree on)
 - b. Collaboratively work out person A's true cruxes
 - i. Person A freely brainstorms reasons why they think they hold their position on the statement
 - ii. Filter: For each underlying reason, imagine a world where you came to no longer believe that underlying belief. (Hint: pay attention to your gut-level emotional reaction.) Does it make a difference or was that underlying reason unimportant? If it would change your conclusion, you've identified your first crux!
 - iii. Person B helps by keeping them on track, encouraging them and asking soft-touch clarifying questions
 - iv. Write down all the cruxes you're able to identify
 - c. Repeat above with Person B
4. Go back to step 3, switching partners after 30 minutes

Some possible fun outcomes are

- i. You realise after clarifying the statement that you agree after all
- ii. You fully understand why you believe what you believe, why your partner believes what they believe and therefore why you disagree
- iii. As you're searching for cruxes (and hearing your partner's) you end up naturally changing your position... and improving your understanding of the world!
- iv. You find that you and your partner have overlapping cruxes. This is the “double crux” from the name of the game. It's an underlying belief that is central to both people's conclusion — a critical point that, if resolved, would shift both perspectives. You might even find that your double crux is something that can be factually checked with a 10 second Google search. (You won't often find double cruxes like this, but it's great when you do!)

Tips

- The most likely way this goes wrong is by one or both partners **going into ‘debating mode’** via force of habit
 - You might feel the urge to debate and argue because *debating intellectual ideas is fun* or because *your principles and morals are being threatened and it’s important to defend them*.
 - You need to actively notice and suppress the urge to fire back rebuttals when you hear something you disagree with and refocus on the goal which is to uncover and write down each person’s cruxes
 - Suggestion: follow the step-by-step instructions above rather mechanically at first
 - (Note: I’m not suggesting debating and argument has no value, there are certainly contexts where it’s necessary and works better than double crux style collaborative exploration. But that’s not what we’re doing today.)
- The 2nd most likely way this goes wrong is **you forget that your mental models contain emotions**
 - Some of the cruxes you find might turn out to be vague emotional reasoning that you weren’t fully aware of, rather than well reasoned cerebral arguments – this isn’t a problem. You want to find what’s really there, not what you wished was there
 - e.g. “I think Brexit will be bad for the economy, so this feels like a crux, but really, if I became convinced otherwise, Brexit would still feel like the thing that a bunch of racists believe... Ah, that’s my true crux!”
 - Suggestion: Emphasise the intuitive, rather than the analytical as you’re checking for your true cruxes – because it’s very easy to trick yourself if you refuse to engage honestly with your emotions
- The 3rd most likely way this goes wrong is you **underestimate how much brain power Double Crux requires**, feel insecure, get overwhelmed and give up
 - There’s no denying Double Crux is cognitively demanding. “What’s a thing that if I didn’t believe it, I would change my mind about the conclusion” is a twisty and complex mental move
 - It gets much easier with practice so don’t worry if you get lost the first few times, have to slow down and backtrack, reread the instructions, ask your partner for help etc.
 - Suggestions: Admit when you’re confused and would like help. Try and make your partner feel safe, cared for and consider bringing in some silliness rather than taking this too seriously 😊

The Double Crux technique was developed by [CFAR](#)

These notes took much inspiration from Neel Nanda’s excellent [Having Productive Disagreements workshop notes](#)

Many of the controversial opinions came from [Julia Galef’s list of controversial opinions](#)