

## Intro

Rationality important to philosophers (e.g. Plato, Kant).  
But they're not optimistic about it (Plato, Kant, Russell).

## Part 1: Cognitive Bias

Classic book is by Daniel Kahneman: *Thinking, Fast and Slow*. Research on the way people think, or not.

System 1 (quick thinking, intuition) vs System 2 (systematic reasoning)

System 1 beset by cognitive biases, of which these are a few:

- We succumb to familiar ideas
- We jump to conclusions: what you see is all there is (WYSIATI)
- We are influenced by words/pictures we see just before we are told something (the 'nudge' factor)
- We are generally useless at statistics

Example: *the Linda Problem*. People think she is more likely to be 'a bank teller who is active in the feminist movement' than to be 'a bank teller'. I mean, honestly! We assume things that we don't realise we are assuming.

General comment on our thinking:

- When thinking, we are still our whole self – includes all our attitudes, memories, prejudices, moods. These are bound to affect our thinking.
- When we think we have reasons for our beliefs, we are often thinking up reasons to justify what we believe for other reasons – e.g. upbringing, culture, loyalty to existing beliefs or to family/community.

## Part 2: Proper Reasoning

What about System 2 (Kahneman)? Or systematic thinking as opposed to an associative train of thought (Bayne)? Is this genuine 'reasoning'?

Thinking about a problem may take many different forms – words, images, a general jumble. *Rationality is a feature of the outcome, not a characteristic of the process.*

Three types of problem one might have to solve:

1. Simple calculation: remembered facts and methods – no real intelligence needed. If you know the method, you get it right; if not, you get it wrong (e.g. the 99% reliable test for a 1-in-a-million medical condition).
2. More complex right-answer problems (e.g. anagrams): the right answer just occurs, as if by inspiration, and can then be checked.

*Digression:* RED CHIPMUNK is the anagram of which composer's surname?

3. Complex problem of judgment, where there is no provable right answer.  
Do animals have souls? How to arrange the school timetable.

- Relevant facts occur to you, if known (and not, if not).
- Sensible (or not) ideas occur to you if you are lucky, or if your experience is likely to throw them up.

The rationality of your solution is judged *on its merits, when analysed*; no one cares about the details of the process of conscious thinking that led up to it.

#### *General comment*

All ‘reasoning’ consists of ideas/memories just occurring to us in a sequence, where one prompts the next – according to our personality, history, surroundings, the other people with us.

#### *Two particular negative features*

1. Thinking/remembering is *not in our control*: you can’t decide to think of something unless you are already thinking of it. (Think about it!)  
And you can’t avoid thinking/remembering something if that thought is triggered.

2. Much of our ‘rational’ thinking and behaviour is *not done consciously*, e.g. walking and talking.  
When we talk – the most characteristic instance of rationality – the words just tumble out; we may have an idea of what point we want to make, but we do not plan the words or phrases.

#### **Conclusion**

1. Much of our thinking is gut reaction – often useful, but prone to myriad cognitive biases.
2. Our apparently rational thinking, our reasoning, is . . .

*either* (a) automatic learnt responses triggered by the stimulus of questions or earlier thoughts  
*or* (b) intuitive/inspired ideas triggered by earlier thoughts or by other people/sensations/memories

‘Reasoning’ is *not a process of inferential thinking*; it is an anarchic series of one damned thought after another, and is judged to be ‘reasoning’ if the *outcome stands up to rational analysis*.

Useful books:

*Thinking, Fast and Slow* by Daniel Kahneman (2011), Penguin  
*The Intellectual Powers* by Peter Hacker (2013), Wiley Blackwell  
*Thought: A Very Short Introduction* by Tim Bayne (2013), OUP  
*The Concept of Mind* by Gilbert Ryle (1949), Penguin