

The Myth of Rationality

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Views on rationality

- Plato: reason gives us all the answers
- Kant: only reason can tell us the morally right choice
- Plato: only rational people should govern
- Kant: reason is in a world beyond the natural world
- Russell: "It has been said that man is a rational animal. All my life I have been searching for evidence which could support this"

The plan

1. What we think is rational thinking often is not at all rational
2. When it is, that is not a description of what goes on in the mind, but of the outcome

A must-read book

Daniel Kahneman

Thinking, Fast and Slow

System 1 and System 2

System 1: cognitive biases

Ideas accepted if . . .

- Familiar
- Presented nicely
- Fit what we believe

And we . . .

- Jump to conclusions (WYSIATI)
- Are influenced by irrelevant 'nudges'
- Can't handle statistics for toffee

The data

“Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in antinuclear demonstrations.”

The possibilities

- a) Linda is a teacher in elementary school
- b) Linda works in a bookstore and takes yoga classes
- c) Linda is active in the feminist movement
- d) Linda is a psychiatric social worker
- e) Linda is a member of the League of Women Voters
- f) Linda is a bank teller
- g) Linda is an insurance salesperson
- h) Linda is a bank teller and is active in the feminist movement

I, ME, MYSELF

- Just one of me
- The product of all my life to date
- The subject of all my thinking and other experiencing

More biases

- Inherited beliefs and attitudes
- Loyalty to our existing beliefs
- Loyalty to the beliefs of our family and culture
- Wishful thinking
- Laziness

‘Reasoning’ = rationalising

From intuition to reasoning

- Kahneman:

System 1 v System 2

- Bayne:

Associative v systematic

'Systematic' thinking

- A huge variety of things are going on in different people's minds: no single description applies to all 'reasoners'
- What they all have in common is that they come up with the right answer, and can explain it

It's not the *process* but the *result* that counts

It's the result that counts . . .



Deductive Problems

- 7×2
- 7×15
- The 1-in-a million medical condition:
what is the probability of a positive
diagnosis being correct if given by a
99% reliable test?

The Case of the Misbehaving Padlock



The process

- The method occurred to HIM but not to ME
(he's perhaps done this before, or he's just cleverer)
- It occurred to him that it would not take long to see if it worked
- He followed the method until it worked
- Had it not worked, some other method might have occurred to him, or even to me

Memories and ideas

You can't bring one to mind deliberately: it has to be prompted by

- *either* an idea already in the mind
- *or* some stimulus from the environment

- You can't avoid a memory/idea that is triggered



Intelligent thinking can be done unconsciously



walking



drivin
g

talkin
g



Summary

1. System 1 thinking is prone to hundreds of cognitive biases

2. System 2 thinking ('rational', 'systematic') consists of

Anything at all! including maybe . . .

- Automatic responses to stimuli
- Methods of working out that we've learnt, if we remember them and they occur to us

**It's rational IF AND ONLY IF it produces
a rational result**