Concept

Confirmation bias

We seek, interpret, and remember information in a way that confirms what we already believe.



In Spanish
Sesgo de confirmación

Origin
Wason (1960); Nickerson (1998)

What problem it addresses

Explains why it is so hard to change our minds and why research can end up seeing only what it expected.

An example

You are told the sequence 2, 4, 6 follows a rule. You can propose other sequences to discover it.

What most people do

2, 4, 6	✓ Fits the rule
8, 10, 12	✓ Fits the rule
20, 22, 24	✓ Fits the rule

Everything confirms: "even numbers going up by 2"

They test sequences that fit their idea. They all fit, so they announce **"even numbers going up by 2."**

What they should have done

1, 7, 30	✓ Fits the rule
3, 2, 1	✗ Does not fit
5, 5, 5	✗ Does not fit

The rule: three numbers in increasing order

Test sequences that could disprove it. The rule was **"three numbers in increasing order."**

Most people only tested sequences that confirmed their idea. To discover the rule, you had to look for one that disproved it.

Why it happens

1

We form an idea very quickly.

2

We look for cases that confirm it, not cases that test it.

3

Each confirmation makes us more confident, even though it proves nothing.

Applications in design

Use it like this

In research, deliberately look for what contradicts your hypothesis.

Avoid

Designing interviews or surveys with questions that lead to the expected answer.

Don't fall for it

Before deciding, write down what evidence would make you change your mind.

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What the research says

That is how many participants got the rule right on the first try. Most first announced some wrong rule (Wason, 1960).

●●● **Solid evidence.** Nickerson (1998) reviewed decades of studies and described it as a bias present in many domains.

Connections

Used in

- UX research

Related to

- IKEA effect
- System 1 and System 2

Authors and works

1960	**Peter Wason**	Created the 2, 4, 6 task.
1998	**Raymond Nickerson**	Reviewed the research on the bias across many domains.

Sources

Original sources

- Wason, P. C. (1960). On the failure to eliminate hypotheses in a conceptual task. Quarterly Journal of Experimental Psychology, 12(3), 129–140. View source (https://doi.org/10.1080/17470216008416717)

Academic reviews

- Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. Review of General Psychology, 2(2), 175–220. View source (https://doi.org/10.1037/1089-2680.2.2.175)

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