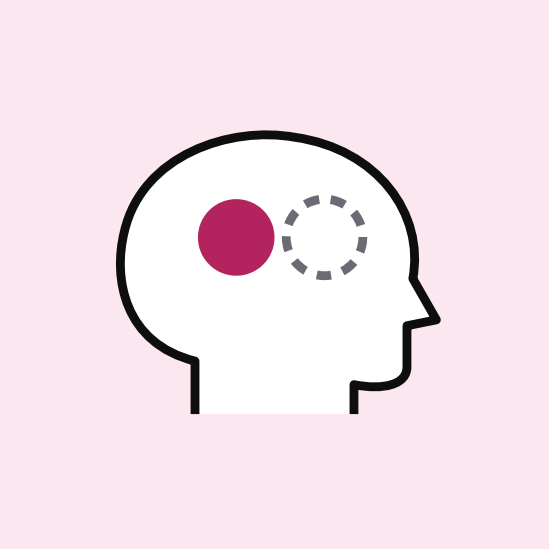
Field

Cognitive psychology

Studies the mental processes by which we perceive, pay attention, remember, reason and decide.



In Spanish

Psicología cognitiva

Origin

Took shape in the 1950s and 60s; Neisser (1967) popularized the name

What it studies

How we process information and what its limits are. It gives design knowledge about what we see, what we remember and how much we can attend to at once when using a product.

Principles

Limited attention

We can't attend to everything at once.

Imperfect memory

We remember by reconstructing, not by recording.

Two modes of thinking

A fast, intuitive kind of thinking is often told apart from a slow, deliberate one, though the model is debated.

Applications in design

✓ Use it like this

Show few things at once and group information so it is easy to remember.

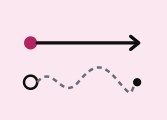
✗ Avoid

Designing as if people read everything and remembered every step.

👁 Don't fall for it

Test with real, distracted people, not just with the team that already knows the product.

Theories and concepts



Theory

System 1 and System 2

We think in two ways: one fast and intuitive, the other slow and deliberate.



Concept

Confirmation bias

We seek out and believe what confirms what we already think.



Concept

Negativity bias

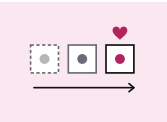
Bad things weigh more and are remembered more than good things of the same intensity.



Concept

Von Restorff effect

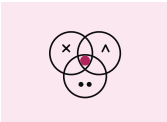
What stands out among similar items is remembered better.



Concept

Mere-exposure effect

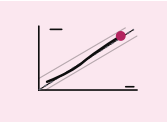
What we see several times ends up appealing to us more, even if we don't know why.



Theory

Self-determination theory

What truly motivates us is what lets us choose, makes us feel capable and connects us with others.



Theory

Flow

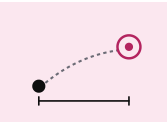
The state of total concentration that appears when the challenge matches our skill.



Concept

False consensus effect

We believe most people think and choose as we do, more than is really the case.



Concept

Fitts's law

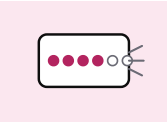
The farther away and smaller something is, the longer it takes us to point at it.



Concept

Hick's law

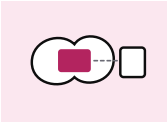
The more options there are, the longer we take to choose, though each new option adds less time.



Concept

Cognitive load

The mental effort a task demands from a memory that can only hold a few things at once.



Concept

Mental model

The idea we form of how something works, which we use to predict what will happen.



Concept

Miller's law

We can only hold a few things at once; grouping them into chunks helps us remember more.



Concept

Serial position effect

We remember the first and last items of a list better than those in the middle.



Concept

Zeigarnik effect

It was said we remember unfinished tasks better. Today that is doubted, but we do tend to resume them.



Theory

Gestalt principles of perceptual organization

We see groups and whole shapes, not loose pieces: what is close, similar or continuous joins up.

Methods and tools



Method

Personas

Research-based characters that represent groups of users and their goals.



Method

Usability testing

Watching real people attempt tasks with the product to find out where they get stuck.

Connections

Campos cercanos

- Behavioral economics
- Human-computer interaction (HCI)

Used in

- Interaction design
- Behavioral design
- UX design

Authors and works

1956	**George A. Miller**	Showed the limits of how much information we can hold at once.
1967	**Ulric Neisser**	Popularized the name of the field with his book Cognitive Psychology.
2011	**Daniel Kahneman**	Brought the idea of the two modes of thinking to a wide audience.

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Last reviewed: October 26, 2026

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