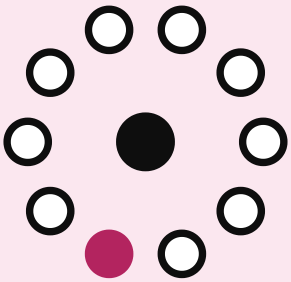
Concept

Hick's law

The time to choose among several options grows with their number, but more and more slowly: in proportion to the logarithm of the number of options.



In Spanish
Ley de Hick

Origin
Hick (1952) and Hyman (1953)

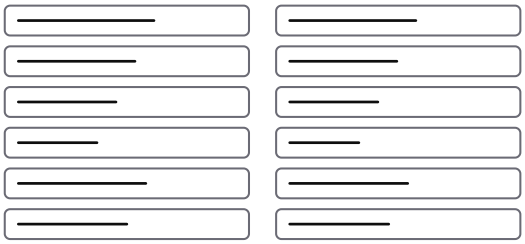
What problem it addresses

Explains why a menu with many options makes people hesitate, and why reducing or grouping them helps decide sooner.

An example

An app's settings menu.

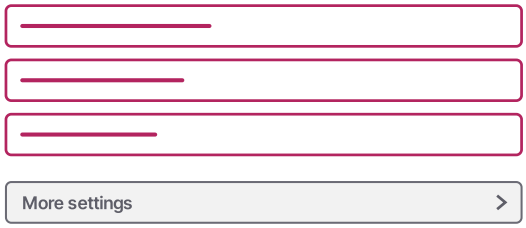
Twelve equal options



Twelve options with the same weight

All with the same weight, in a single list. **You have to read them all.**

Three in view



Three in view and the rest grouped

The three most used at the top and the rest grouped under "More settings". **You decide sooner.**

Fewer options at once make the decision faster, as long as what matters stays within reach.

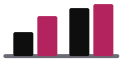
Why it happens

1 

Each extra option is one more possibility to rule out.

2 

Time grows with the logarithm: doubling the options always adds the same amount of time.

3 

That is why going from 2 to 4 is more noticeable than going from 10 to 12.

Applications in design

✓ Use it like this

Show the few most chosen options first.

✗ Avoid

Hiding important options just to make the menu look short.

👁 Don't fall for it

Grouping badly is worse than not grouping: group names have to be understandable.

10 lights

What the research says

Hick (1952) used lights and keys to measure how long people took to respond depending on how many lights could turn on. Hyman (1953) confirmed that the time depends on the information in the signal, even when some options are more likely than others.

●●● **Solid evidence.** The law was measured with known options and simple signals. In a menu you have to read, searching also takes time, so apply it with care.

Connections

Used in

- Information architecture
- UI design

Related to

- Cognitive load
- Progressive disclosure
- Fitts's law
- Miller's law
- Choice overload

Authors and works

1952	**William E. Hick**	Measured that reaction time grows with the logarithm of the number of options.
1953	**Ray Hyman**	Showed that the time depends on the information that has to be processed.

Sources

Original sources

- Hick, W. E. (1952). On the rate of gain of information. Quarterly Journal of Experimental Psychology, 4(1), 11–26. View source (https://doi.org/10.1080/17470215208416600)
- Hyman, R. (1953). Stimulus information as a determinant of reaction time. Journal of Experimental Psychology, 45(3), 188–196. View source (https://doi.org/10.1037/h0056940)

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