# Your handy dandy guide to generalisable research

| | Data | Code |
|---|---|---|
| Same | Reproducible | Robust |
| Different | Replicable | Generalisable |

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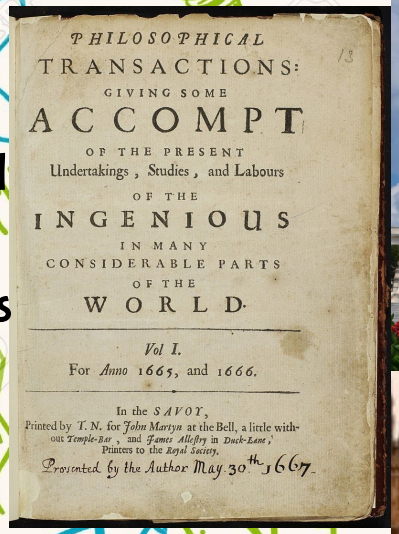
# What is generalisable research? And why do we need it?

The way academia works at the moment is that **scientists do lots and lots of work** and then **publish their work in journals** to share their findings with others.

Originally they were visited in person by other researchers...


PHILOSOPHICAL
TRANSACTIONS:
GIVING SOME
ACCOMPT
OF THE PRESENT
Undertakings, Studies, and Labours
OF THE
INGENIOUS
IN MANY
CONSIDERABLE PARTS
OF THE
WORLD.

Vol I.
For Anno 1665, and 1666.

In the SAVOY,
Printed by T. N. for John Martyn at the Bell, a little without Temple-Bar, and James Allestry in Duck-Lane, Printers to the Royal Society.
Presented by the Author May 30th 1667.

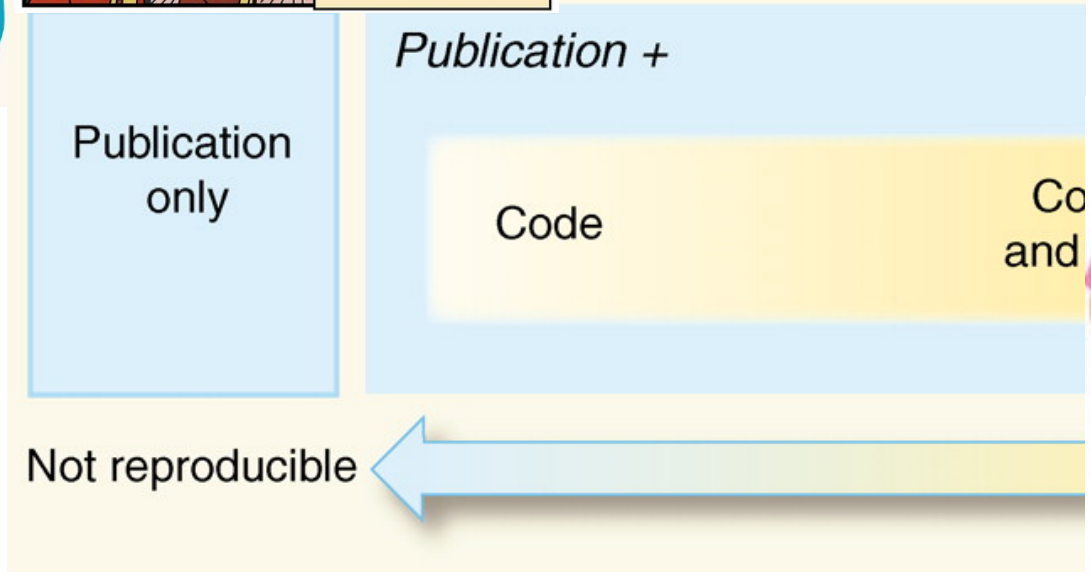

But nowadays its very difficult to know **exactly** what people did! It isn't standard to share data or detailed instructions!



JARGON BUSTIN'

Research is GENERALISABLE when independent scientists come to the same take home result using their own data and methods (but asking the same question!)

**Governments** need generalisable research to make useful policies, and **doctors** need it to know how best to treat you!



**There are lots of ways to skin a cat!**

(But don't worry, this one was born this way!)

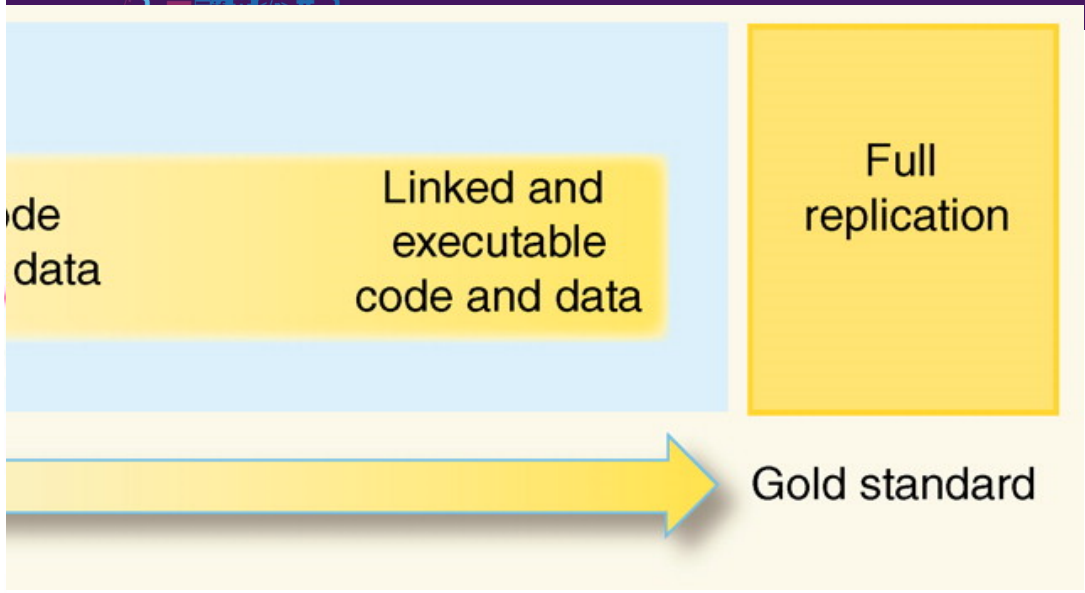
**JARGON BUSTIN'**

*Research is ROBUST if you conclude the same answer even when you use different analysis techniques (on the same data set)*

**JARGON BUSTIN'**

*Research is REPRODUCIBLE if independent scientists can get exactly the same results when you give them your data*

Reproducible research should be the **bare minimum** requirement! Without the data and the code (if you used any) you're only publishing **a nice story**!




JARGON BUSTIN'

*Research is REPLICABLE if other scientists*

*(or you!) conclude the same message*

*when the follow your exact analysis*

*but using an independent data set*

**It's ok if we don't replicate everything!** It doesn't mean anyone is lying.

But it is important to know if the finding only works for the original data.

Otherwise we can't begin to **generalise** the finding.