

Truth over publishability

Stavros & David

Based on: *Scientific Utopia: II. Restructuring incentives and practices to promote truth over publishability*, B. Nosek, J. Spies, M. Motyl, University of Virginia

The problem

"Even if a researcher conducts studies **competently**, analyzes the data **effectively**, and writes up the results **beautifully**, there is no guarantee that the report will be published."

Why publishing is important?

Publication influences:

- hiring
- promotion
- tenure
- salary
- grant acquisitions
- ranking of whole departments and universities

Motto for early-career scientists:

"Publish as many articles as possible in the most prestigious journals that will accept them"

Publishability over truth

"Novelty and positive results are vital for publishability, but not for truth"

1. Generating new ideas vs. confirming old
2. Reporting positive results vs. negative ones
3. Driving research methodology towards the discovery of positive results

Examples

- "Cleaning out" data points in experimental results.
- Dismissing "failed" experiments while "refining the method", but accepting "successful" ones as "correct", unconditionally.
- Performing data collection only up to the point where supporting results have been obtained.
- Describing a discovery as a "confirmatory result".

Solutions?

- *"Wrong claims will be corrected eventually."*
- *Journals for replications or negative results.*
- *Drawing attention to the problem.*
- *Requiring replication before publishing.*

More effective solutions

- Paradigm-driven research
- Author, reviewer, and editor checklists.
- Metrics to identify what is worth replicating.
- Lowering or removing barrier for publication.
- Open data, materials, workflow.

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