

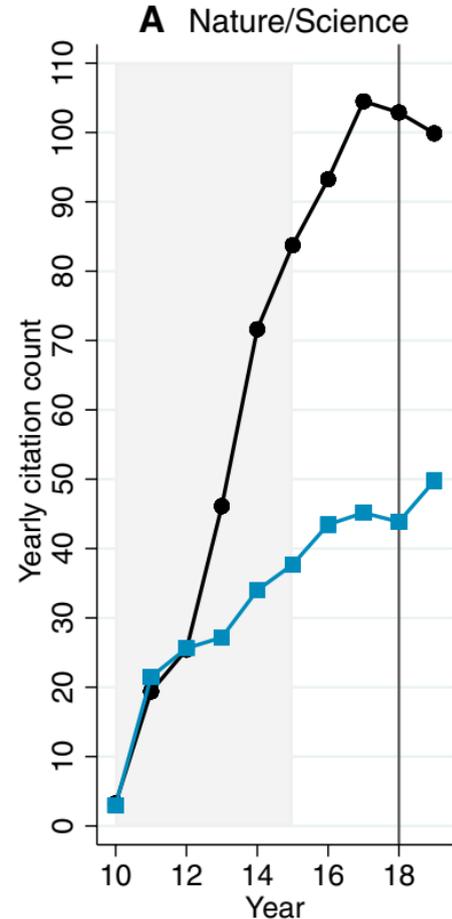
Originality and Academic Integrity

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Originality and Academic Integrity

1. Research on originality in science / humanities
2. Notions of Originality: Social sciences and humanities — Originality as a sign of integrity —
Natural Sciences: “Experiment!”
3. Originality and “Big Science”
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5. The “problem case of philosophy”

Preliminary remarks

Research on originality in science / humanities

Acknowledged as central issue: e.g., Thomas Kuhn: *The Essential Tension: Selected Studies in Scientific Tradition and Change*, 1977)

Of paramount interest for researchers; e.g., Max Weber, *Wissenschaft als Beruf/Science as a Vocation*, 1919: first hazard: tenure; second hazard: being a good researcher and teacher at the same time; third hazard: originality (“**Kommt die ‘Eingebung’ oder nicht?**”)

Nevertheless: “understudied”, conceptually as well as empirically. For instance, nearly absent in Robert K. Merton’s work in the sociology of science, but some work in the last decade

Notions of originality

Social sciences and humanities

Guetzkow/Lamont/Mallard 2004; findings from studying interdisciplinary panels:

“peer reviewers in the social sciences and humanities **define originality much more broadly** [as compared to the natural sciences, where it’s all about discoveries]: as

- using a new **approach** [humanists, historians], theory, **method** [social sciences], or data;
- studying a **new topic**;
- doing research in an **understudied area**;
- or producing **new findings**.”

Guetzkow, J., et al. (2004). What is Originality in the Humanities and the Social Sciences? *American Sociological Review* 69, 190

Notions of originality

Originality as a sign of integrity

Guetzkow/Lamont/Mallard 2004; drawing on interviews with multidisciplinary panels:

“panelists often view the **originality** of a proposal as an **indication** of the researcher’s moral character, especially of his/her **authenticity and integrity**”

“**lack of originality indicates** a scholar who is lazy, disingenuous, eager to please, which shows that s/he possesses **no authentic intellectual passion or interests**. In short, independent and dynamic scholars are authentic, whereas phony scholars are lazy or worse, trendy. Individuals with such **moral integrity** were singled out by panelists for recognition, while applicants who were seen to **lack this integrity** were deemed unworthy of support.”

Notions of originality

Natural Sciences: “Experiment!”

Notions of originality in proposals of the “**Experiment!**” funding initiative, Volkswagen Foundation, 2013. **Barlösius (2019)** argues for “**discipline-specific concepts of scientific originality**”:

- Biology: To Make a Revolutionary Break with Convention
- Computer Sciences: To Create a New Function
- Medicine: To Be Able to Explain How Something Functions
- Neurosciences: To Open a New Research Field
- Physics: To Test Ideas and Hypotheses
- Mechanical Engineering: To Develop and Construct

Barlösius, E. (2019). Concepts of Originality in the Natural Science, Medical, and Engineering Disciplines: An Analysis of Research Proposals. *Science, Technology, & Human Values* 44, 915-937, *passim*.

Fig. Nicolás Aznárez für VolkswagenStiftung, VWS Website, 14.11.2021 (edited).



Originality and fraud

Plagiarism; “Big Science”

Plagiarism seems unconnected to originality (more basic and mundane reasons - sometimes, the question doesn't even seem to arise)

Is originality harder to achieve in “big science”, given an (exponentially) increasing number of researchers/scholars, papers, journals, etc.?

Not in general; specialities split up, **the size of research communities is limited** by the need for effective communication

“**Big Science**”: Derek de Solla Price, *Little Science, Big Science*. New York: Columbia UP, 1963, who pioneered scientometrics and claimed that science growth exponentially.

Abb. Derek de Solla Price. Public Domain, via Wikimedia Commons (edited).



Evidence from replication studies

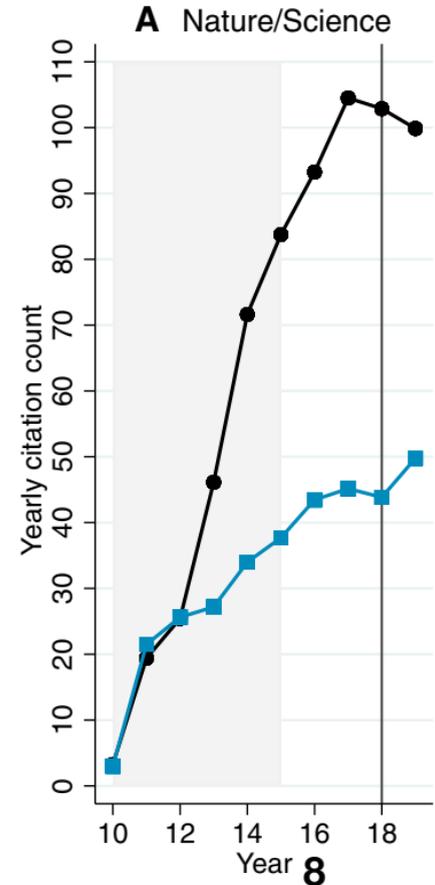
Originality and *fraud

There's evidence for a **trade-off between originality and replicability**.

E.g., articles in **journals with a high JIF** (and general journals in particular) **seem harder to replicate** than articles published in respected disciplinary journals. **Journals often value novelty and originality** over methodological concerns (Nosek et al 2012).

“Our main finding is that papers **that fail to replicate ... are cited more than those that are replicable**. We find no significant change in citation trends, even after the publication of the failed replication,” while “**experts in the field successfully predicted which findings would replicate** before the replication studies were run.” (Serra-Garcia & Gneezy 2021)

Abb. Serra-Garcia, M., U. Gneezy (2021). Nonreplicable publication are cited more than replicable ones. *Science Advances* 7. **Black:** not replicated; **blue:** replicated.



References

Barlösius, E. (2019). Concepts of Originality in the Natural Science, Medical, and Engineering Disciplines: An Analysis of Research Proposals. *Science, Technology, & Human Values* 44, 915-937.

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Serra-Garcia, M., U. Gneezy (2021). Nonreplicable publication are cited more than replicable ones. *Science Advances* 7.