

Selective reporting in scientific publications: The role of rivalry in head-to-head clinical studies

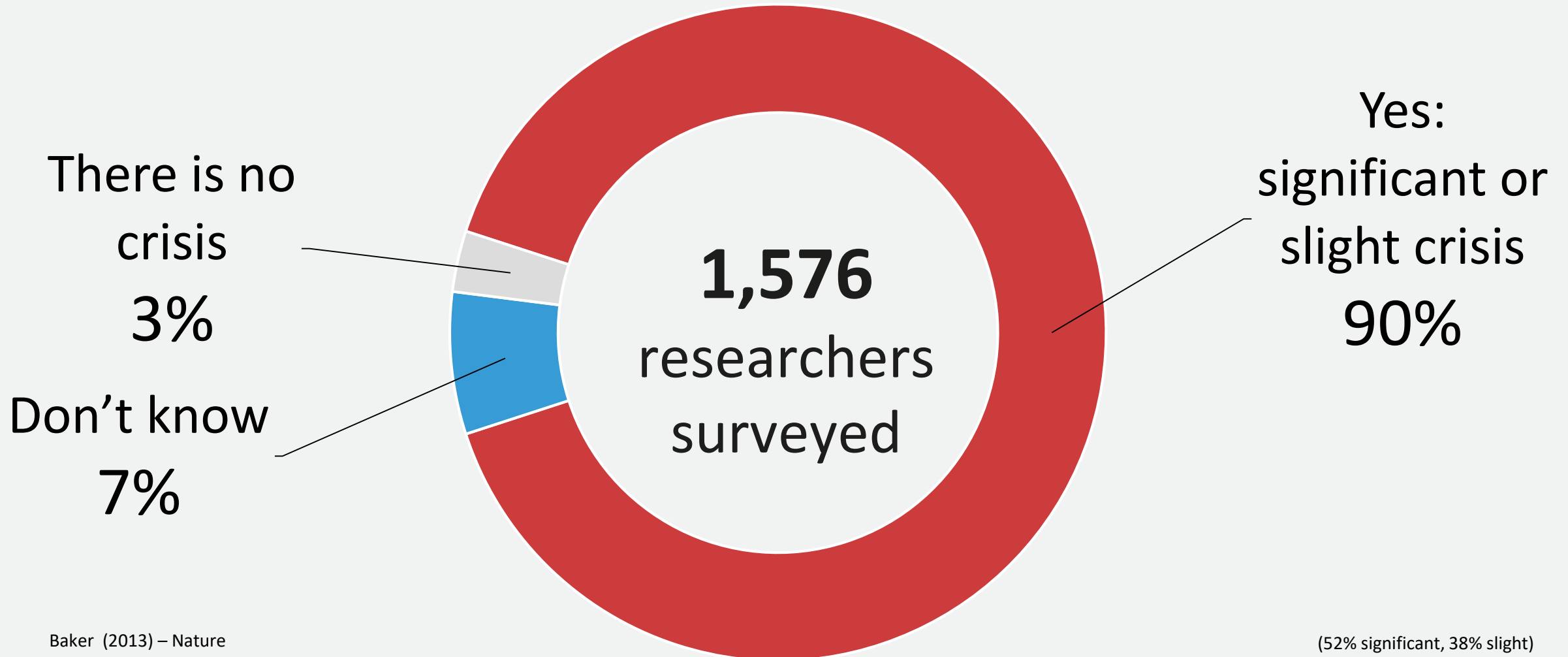
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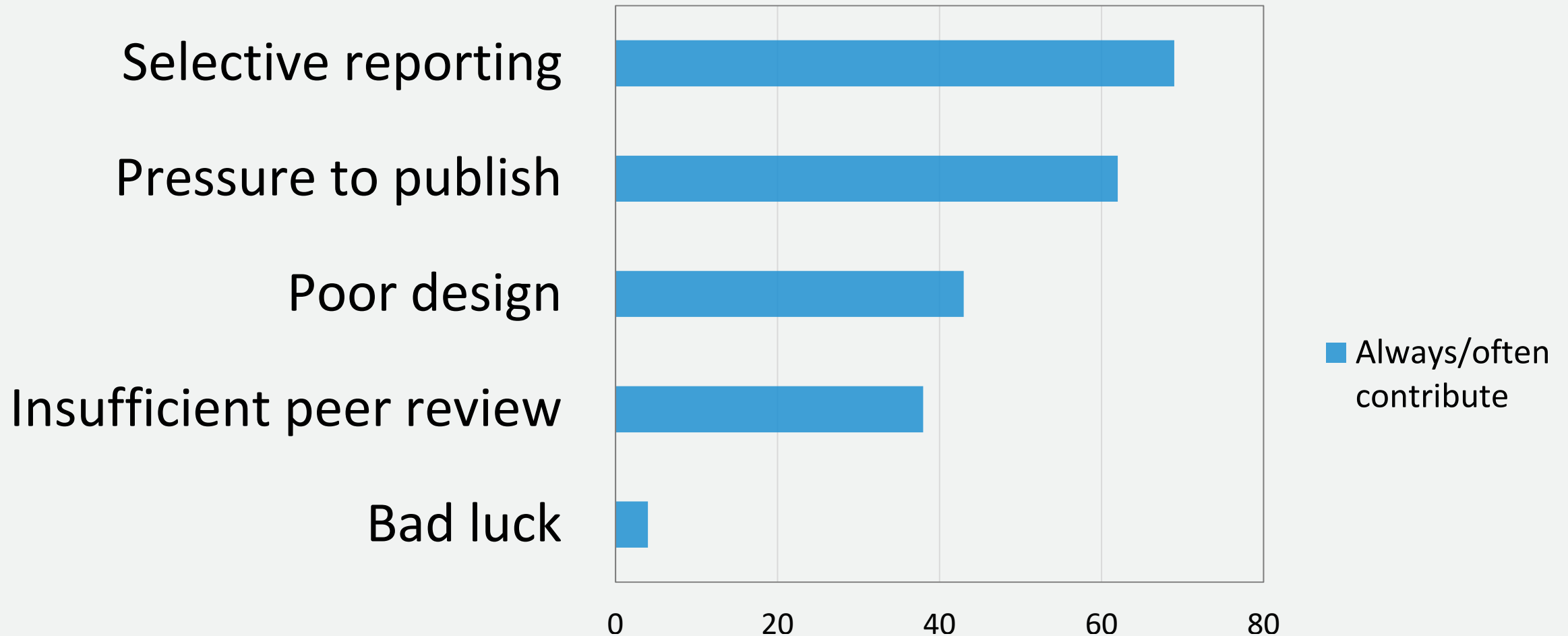
University of Bath Vice-Chancellor's Research Day

Wednesday 15 January 2020

Is there a crisis of replication in research?



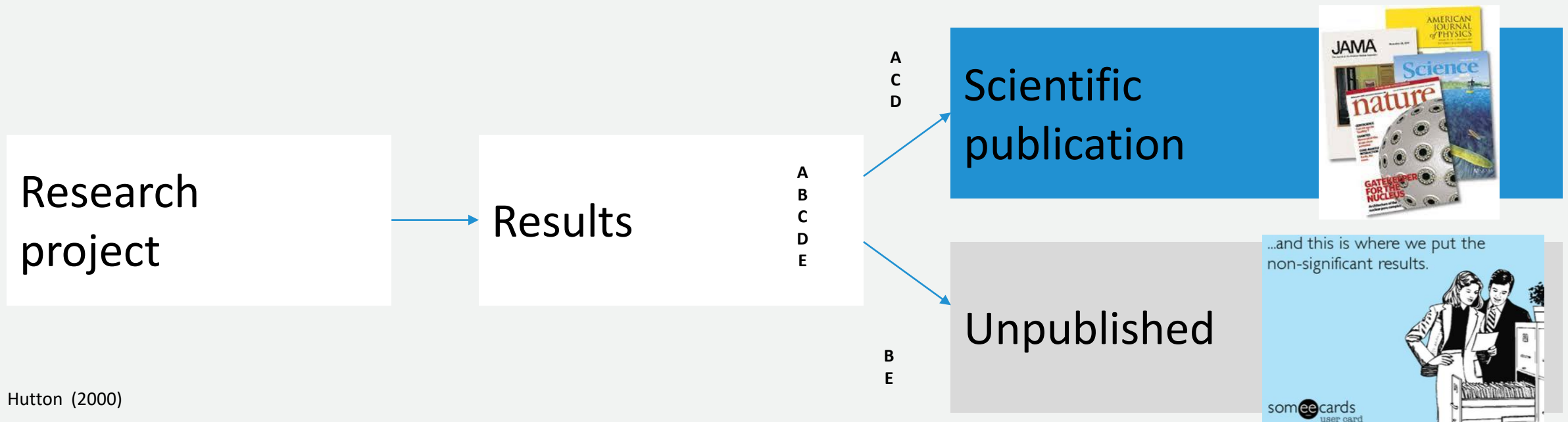
What factors contribute to the crisis of replication?



Selective reporting

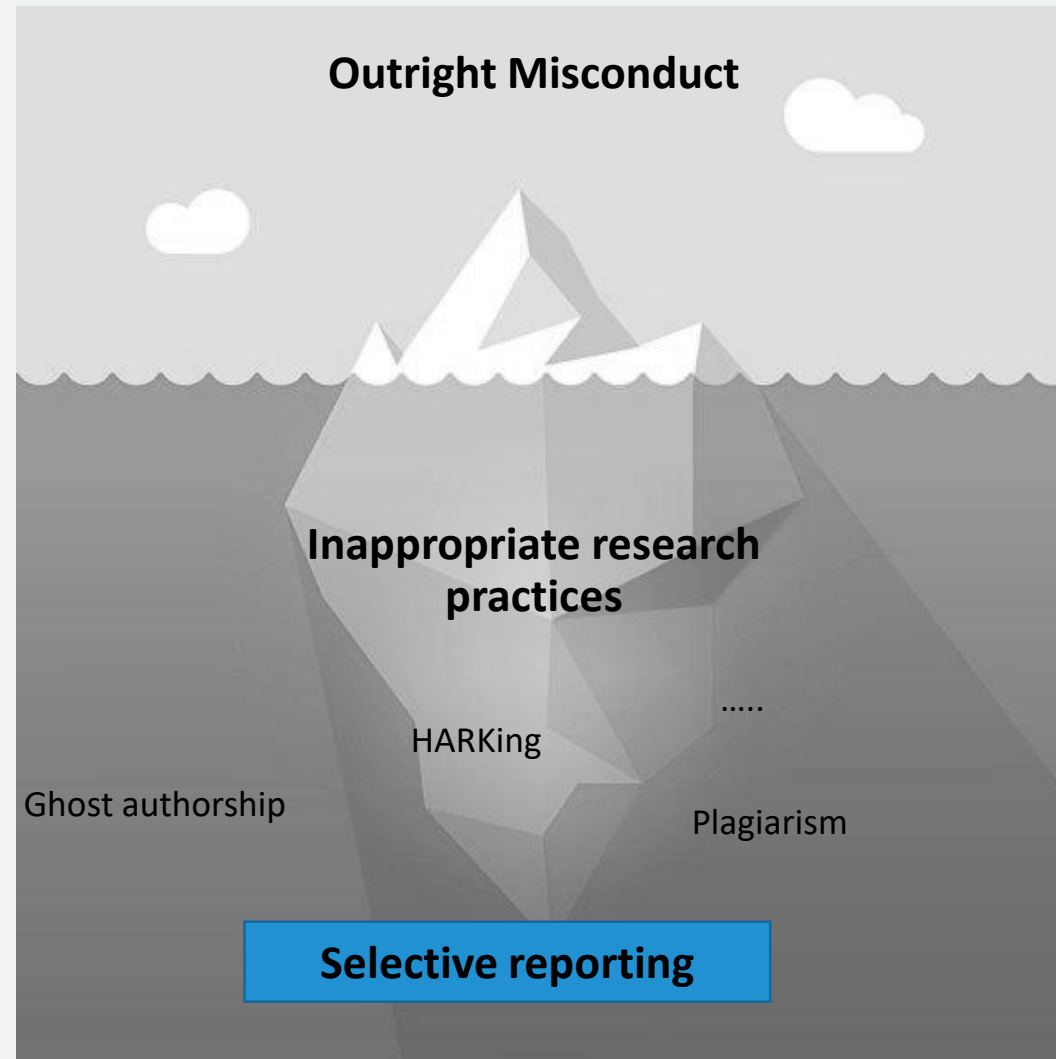
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“ Selection of outcomes for publication based on their significance or direction ”



Selective reporting is classed as an ‘inappropriate research practice’

Misconduct
misrepresentation
and gaming
(MMG)



Also called...
‘Questionable’
‘Irresponsible’
‘Unscientific’
‘Noncredible’
‘Little lies’

My research on selective reporting

Antecedents

When is selective reporting more likely?

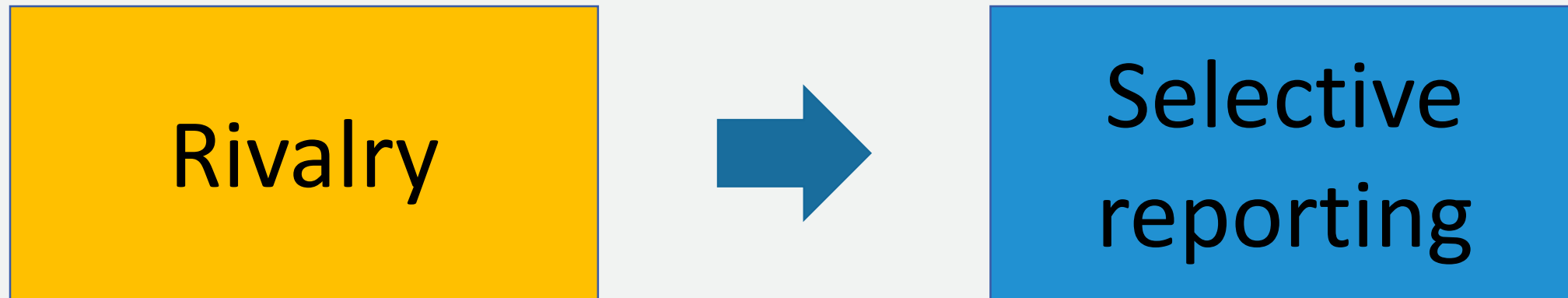
Consequences

What is the impact of selective reporting?



Does rivalry influence selective reporting?

with Jan-Michael Ross (Imperial College Business School)



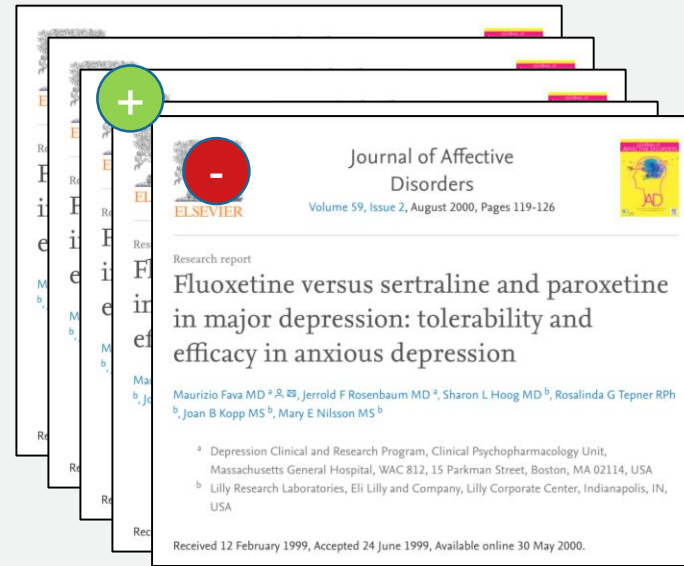
Subjective intensity of rivalry can emerge from historical experiences with competitive interactions, rivalry fosters unethical behaviour (Kilduff et al. 2010, Kilduff 2019)

Data

- discuss **head to head** clinical trials



- for antidepressants



395 clinical research papers

- include risk of **bias due to selective reporting**



- collected from the **Database of Systematic Reviews** maintained by **Cochrane**, a not-for-profit leader in the field of systematic reviews



Does rivalry influence selective reporting?



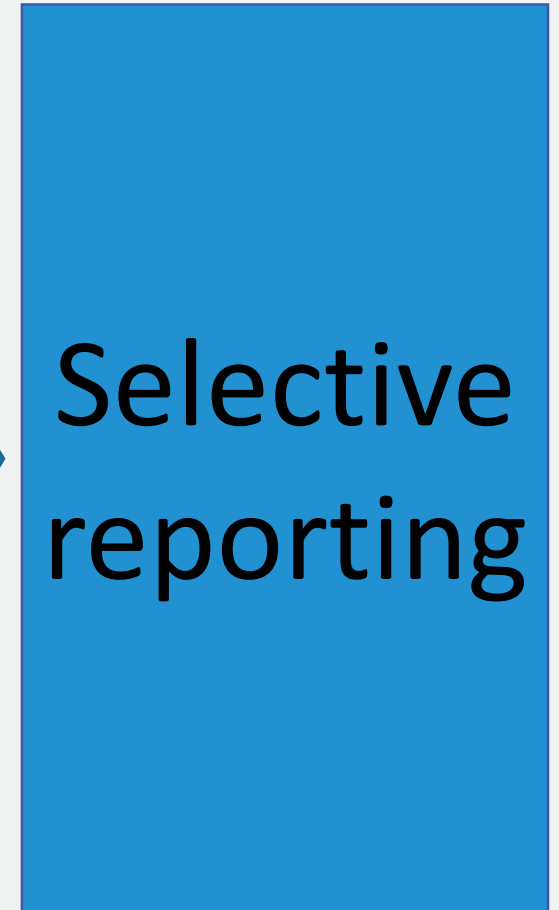
- **Similarity** among a pair of competitors

AGAIN
AND
AGAIN
AND
AGAIN
AND

- **Repeated interaction** over past contests



- **Competitiveness** (evenly matched competitions)



Findings

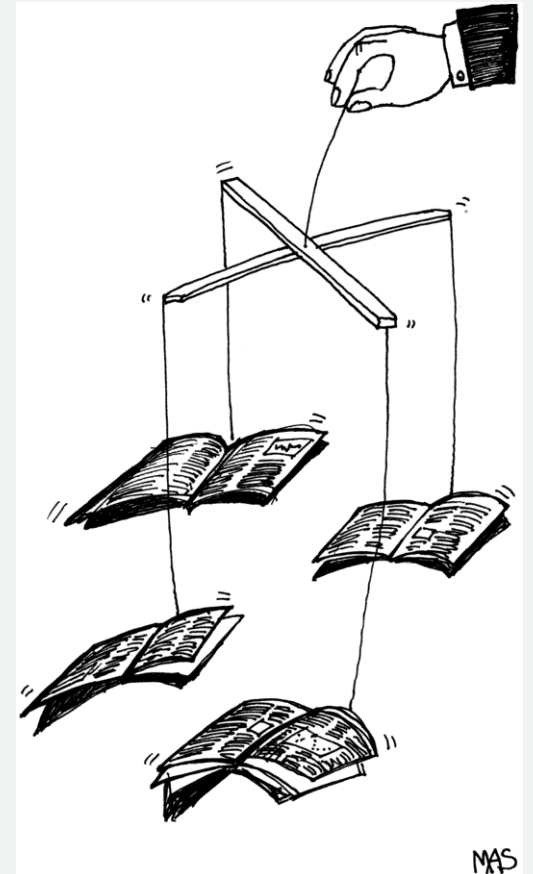
Rivalry

Selective
reporting

- Relational nature of rivalry helps explain selective reporting in clinical studies
 - Generally the case across multiple manipulations of rivalry e.g., the longer the two drugs have been ‘competing’ in the market, the higher the chances of selective reporting
 - Opposite to our predictions, trials with similar drugs were less likely to show selective reporting. Why?

Contribution

- Opportunity to integrate strategy, innovation, and marketing perspectives
- Science publications as “strategic tool” to position innovations in the marketplace: from exploring the use of scientific publications to the content of publications (Polidoro/Theeke 2012, Azoulay 2002)
- Consequences of relational rivalry: testing theory in context of pharmaceuticals (Kilduff et al. 2010, Kilduff 2019)



Future research

- Exploring boundary conditions of our arguments
- Pharmaceutical industry is a special case. However, automotive and food industry may also use strategic reporting of product features



Thank you!

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