

The future of research communication and evaluation: An interactive thought experiment

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Redesigning the publication system

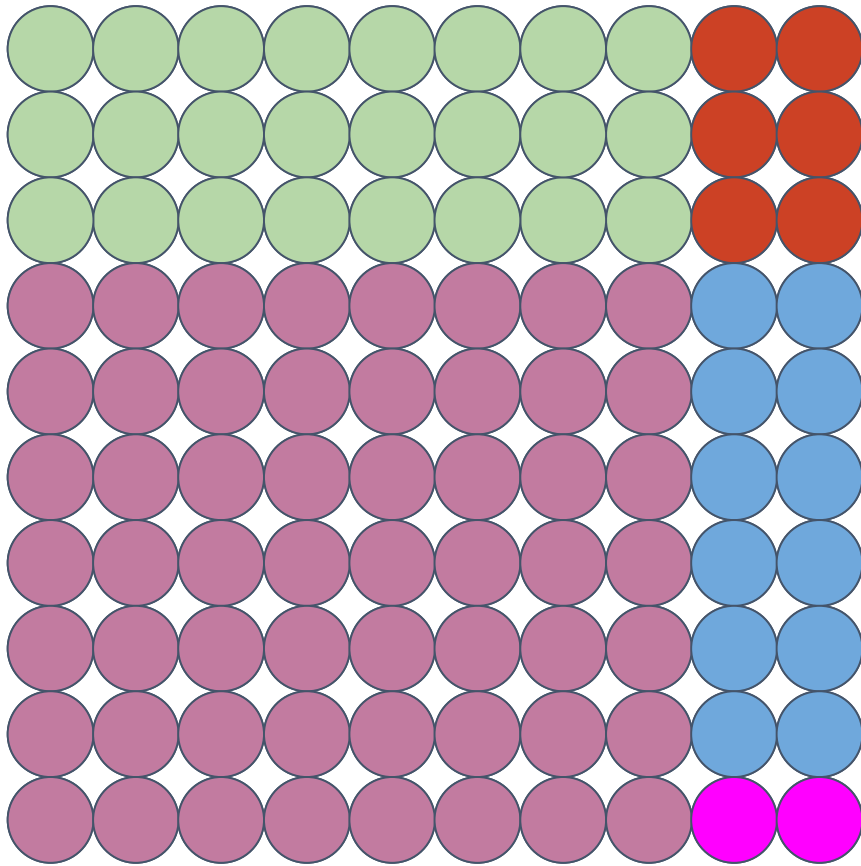
- Themes of today's Metascience workshops:
Funding practices, open science, reproducibility, replication
- All of these issues are linked through:
 - 1) how we communicate research
 - 2) how we evaluate research(ers)
- Goal of today: develop critical thinking of how we 'science'







Functions of the current publication system

<u>Function</u>
Registration
Certification
Awareness
Archiving
Rewarding

Adapted from [Hartgerink \(2018\)](#)





-  Studies conducted
-  Published = statistically significant + consistent
-  Not pub = statistically significant + inconsistent
-  Not pub = statistically nonsignificant + consistent
-  Not pub = statistically nonsignificant + inconsistent
-  Not pub = genuine design mistake

Functions of the current publication system

<u>Function</u>	Narrow vision (current)
Registration	Select works are registered
Certification	Peer judgment (including bias)
Awareness	Some can access outputs
Archiving	Dark archives
Rewarding	Perverse incentives

Adapted from [Hartgerink \(2018\)](#)



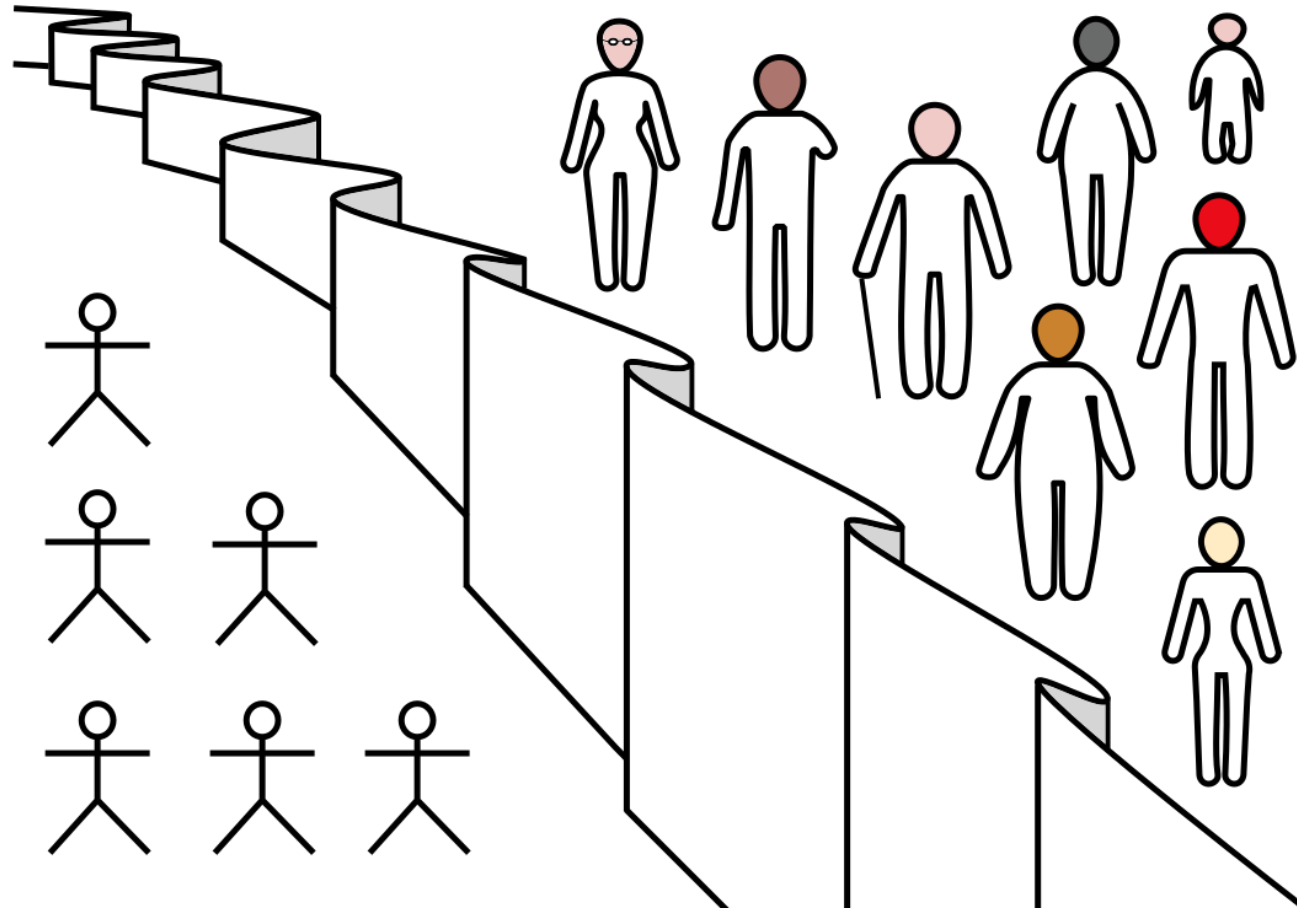
A Theory of Justice (John Rawls, 1971)

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- Structure: distribution of skills, positions, and resources

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'Veil of ignorance'



A Theory of Justice (John Rawls, 1971)

- In 'the original position', the parties select principles that will determine the basic structure of the society they will live in.
- Structure: distribution of skills, positions, and resources
- Parties select principles with a 'veil of ignorance'
- Rawls conclusion: Leads to adoption of 'maximin rule' as design principle

Redesigning research communication and research evaluation

- And consequentially, the entirety of academia?
- The rest of this workshop is about designing research communication and research evaluation using 'the original position' as a starting point

Principles of the redesign

- You want to participate in the ‘academic society’
- You want to contribute to better science
- You are completely unaware of your scientific skills
- Rewards and resources need to be distributed in some way

Assignment

- How do we communicate how we 'scienced'?
- How do we evaluate research(ers)?
- Keep in mind:
 - You have no clue what your own skills are, but you want to 'survive'
 - The five functions of a publication system

A future of the publication system?

<u>Function</u>	Narrow vision (current)	Wider vision
Registration	Select works are registered	All research outputs are registered
Certification	Peer judgment (including bias)	Process + peer judgment (minus bias)
Awareness	Some can access outputs	All can access outputs
Archiving	Dark archives	Live archives
Rewarding	Perverse incentives	Incentives promote rigorous results

Adapted from [Hartgerink \(2018\)](#)

