

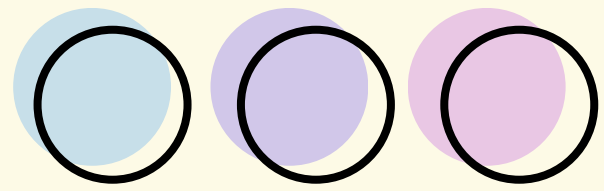
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Zogmaister C.



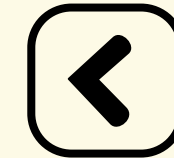
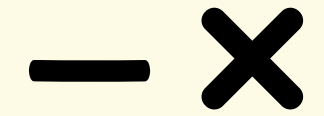
PAGE 01

Meta-research for evaluating replicability in psychological science: roadmap to a crowdsourcing project

START

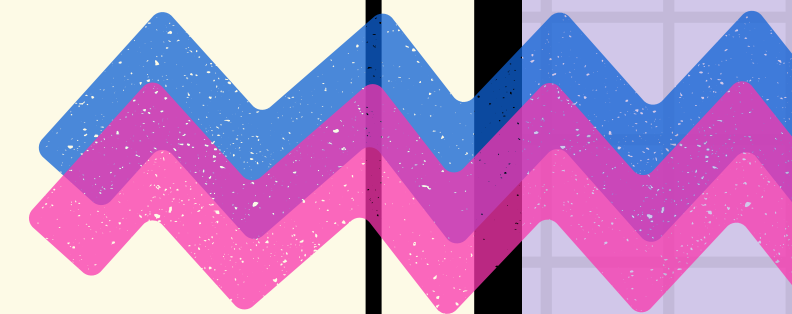


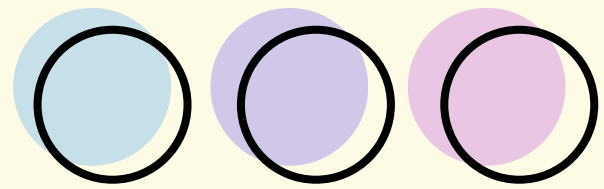
Our Experience



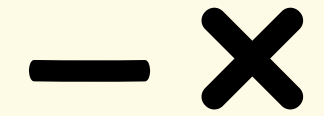
PAGE 02

- Project: “Transparency of Methods”
- Our project is ongoing:
 - First crowdsourcing call: at the ITRN meeting last February
 - Currently: submitting a Registered Report



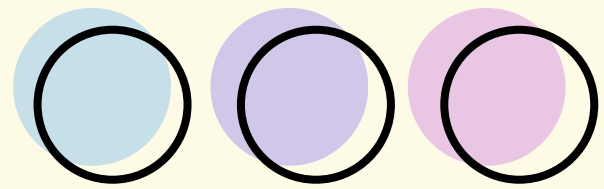


Overview

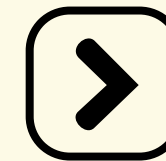
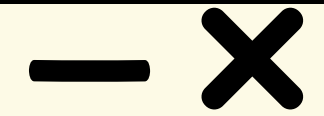


PAGE 03

- Choosing to crowdsource
- Preparing for the “crowd”
- What we learnt
- The road ahead



Our Project



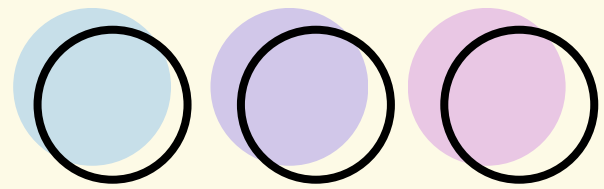
PAGE 04

Background

Increased awareness around the importance of methods replicability. Best practices are still far from being the norm.

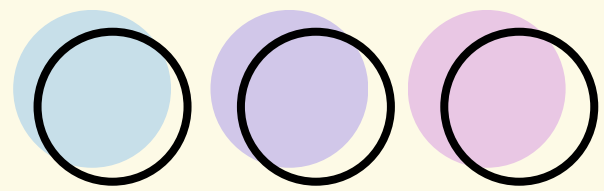
Aim

Quantify the methodological replicability of as many published psychological studies as possible.

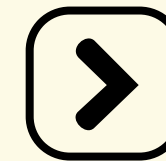
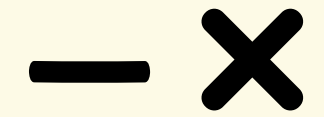


What proportion of published works provide enough information to replicate the study?

What information is most often provided/ missing?

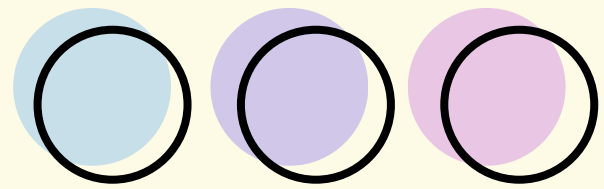


Research Plan

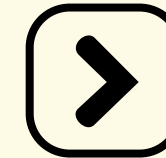
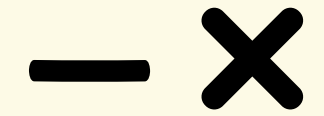


PAGE 06

- Use a **checklist** to quantify and qualify the reporting of research methodology in published academic papers.
- Papers published in different years (2011 & 2021) to monitor **changes across time**
- Papers published by different journals and in **different fields** of psychological research

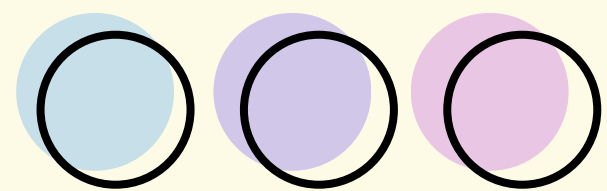


Overview

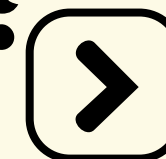
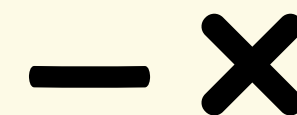


PAGE 07

- Choosing to crowdsource
- Preparing for the “crowd”
- What we learnt
- The road ahead




Why Crowdsource?

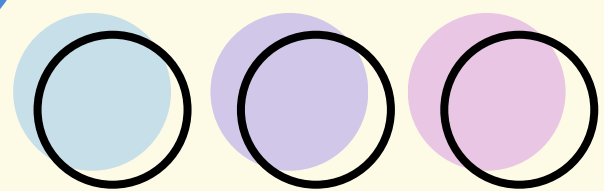


PAGE 08

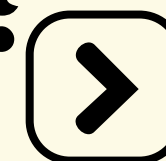
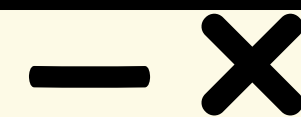
Our project aims to evaluate the **methodological replicability** of published Psychological research studies



So the goal is to rate as many studies as possible according to how replicable their methods are.



Why Crowdsource?



PAGE 09

01

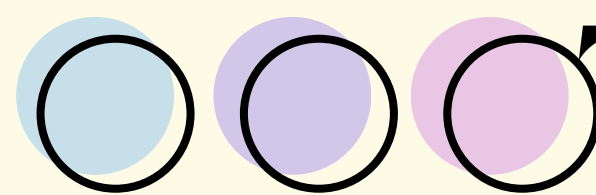
Many Researchers = Many Studies Evaluated

-> necessary to achieve the desired **impact**

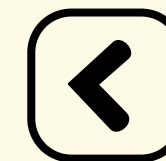
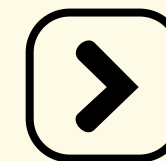
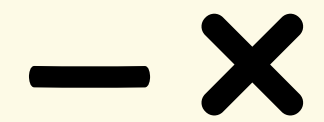
02

Many Researchers \sim Many Areas of Expertise

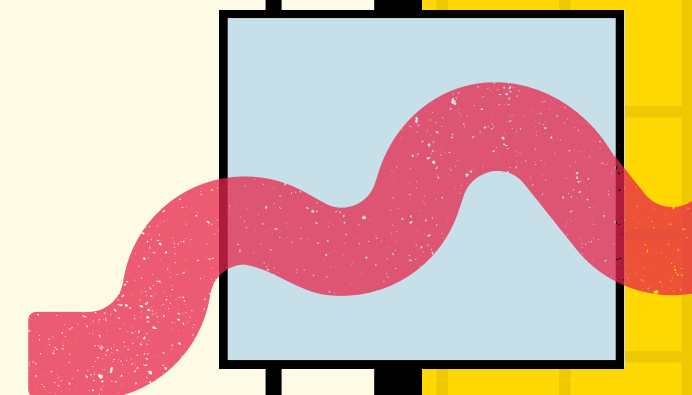
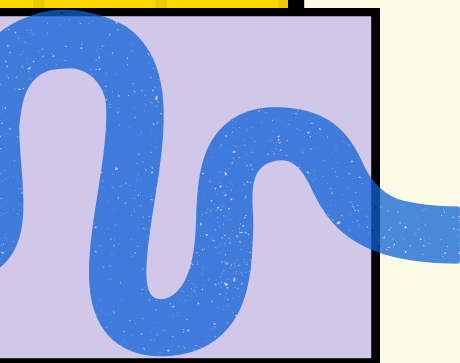
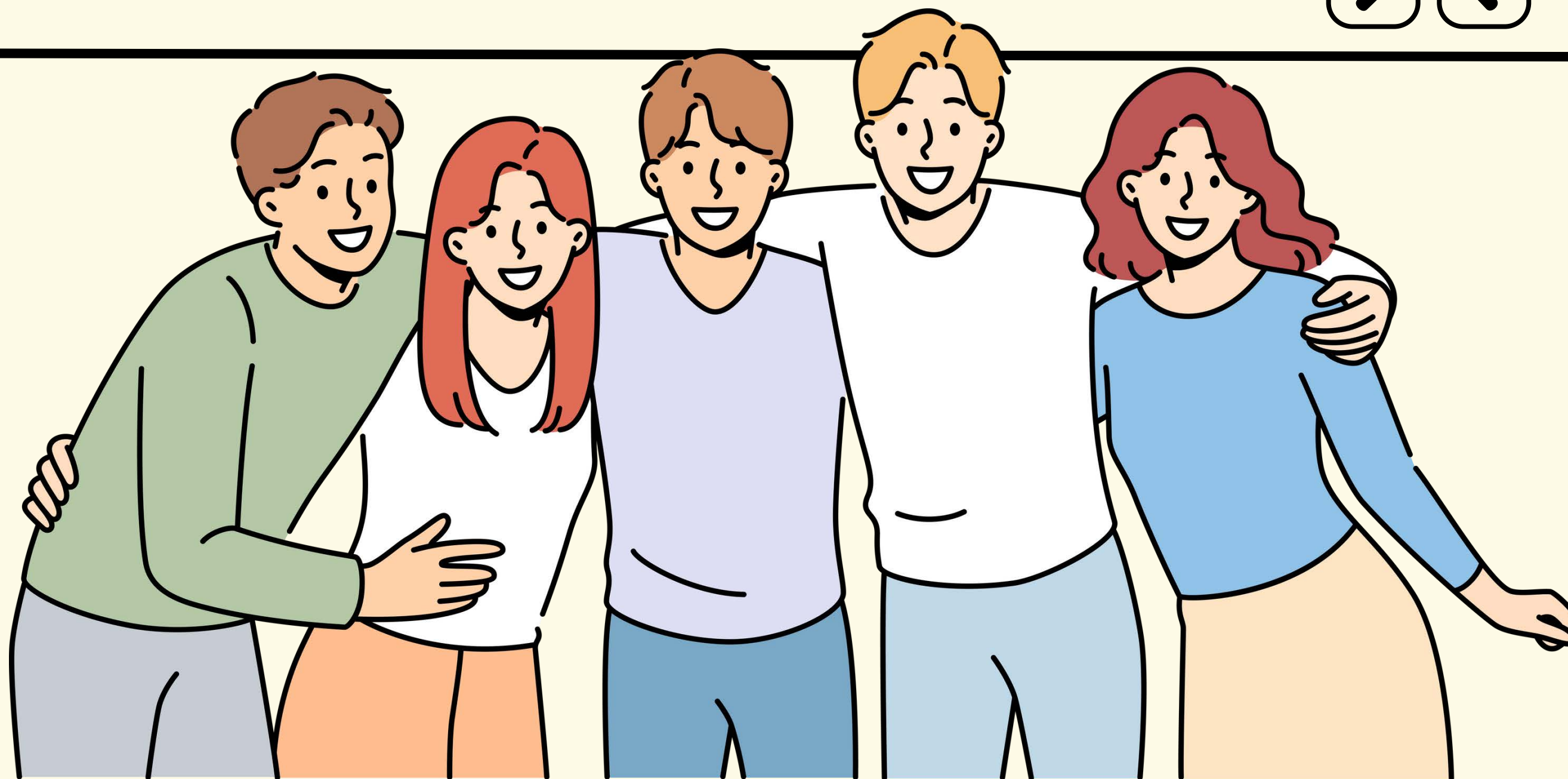
-> more comprehensive **theoretical evaluation**

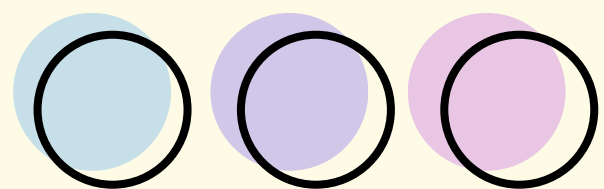


The more the merrier?

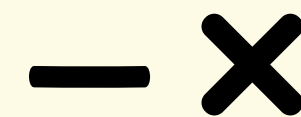


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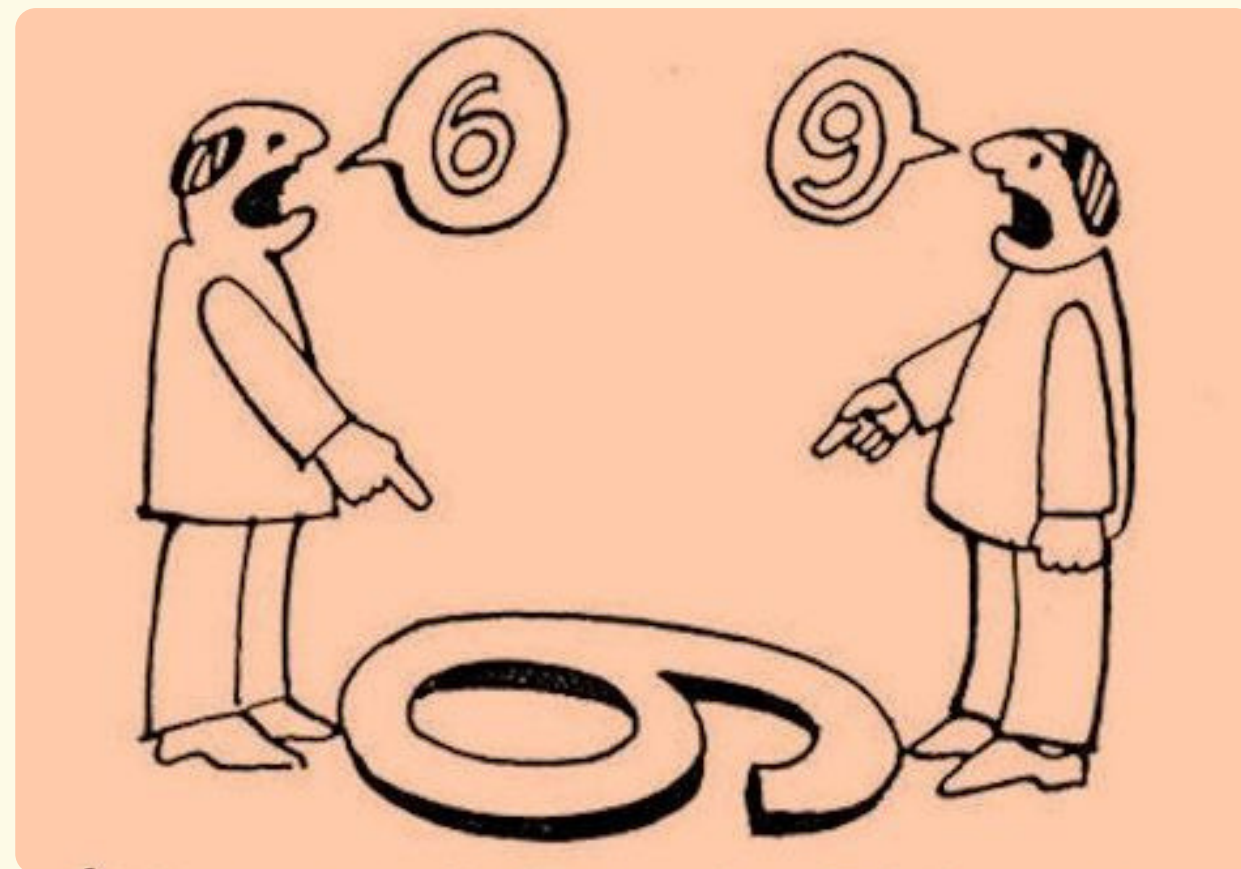


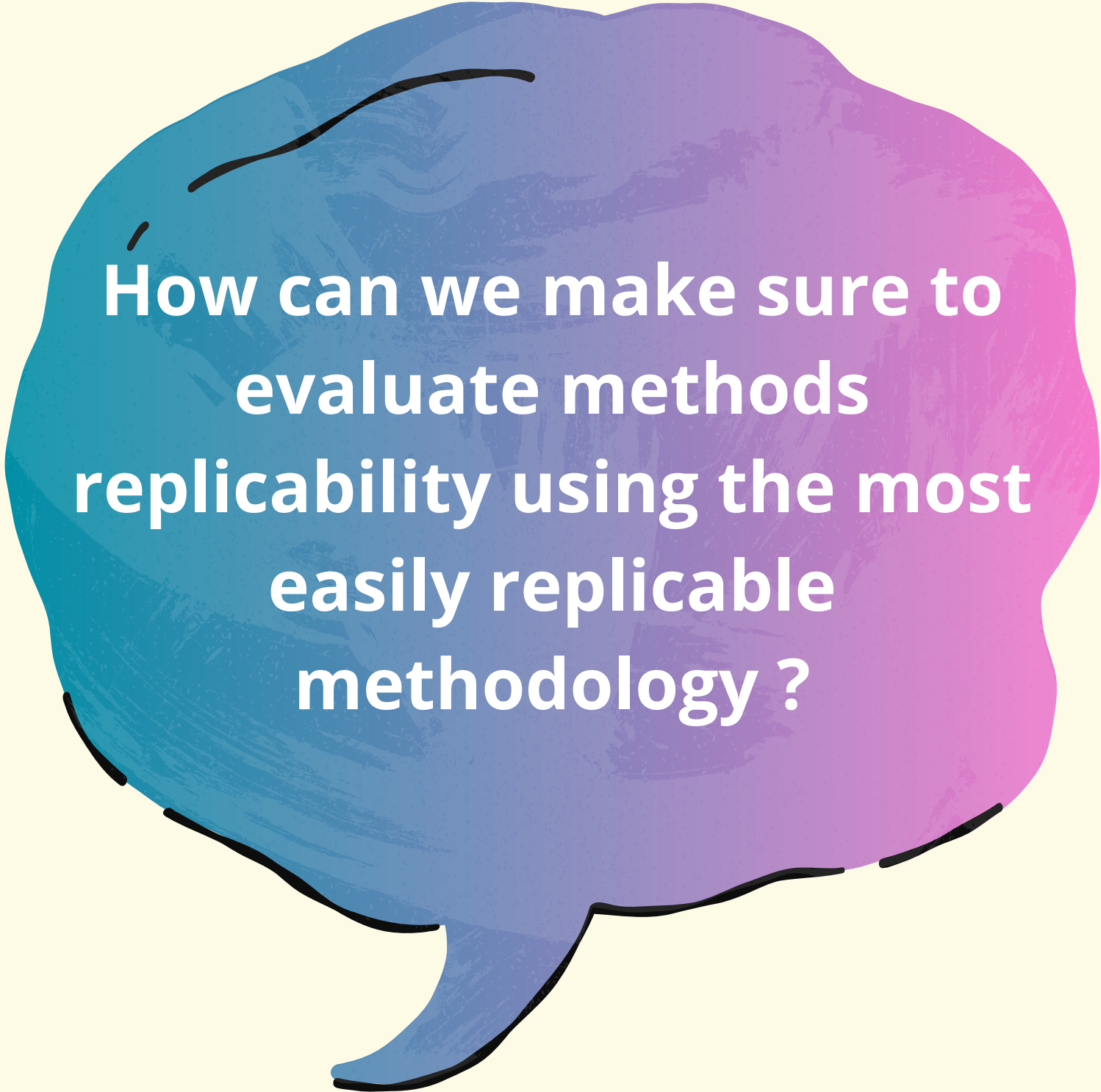


Challenge:



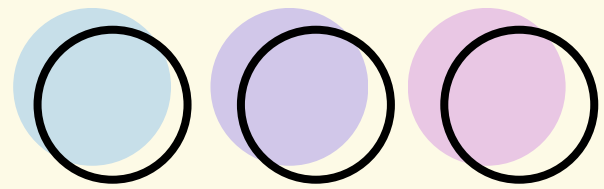
How to obtain coherent results from a large number of raters?



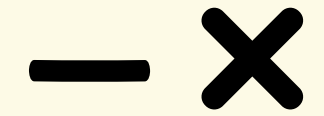


How can we make sure to evaluate methods replicability using the most easily replicable methodology ?



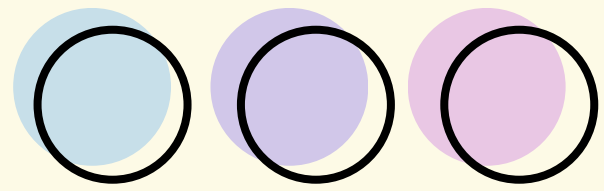


Overview

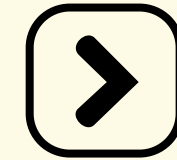
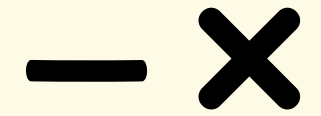


PAGE 13

- Choosing to crowdsource
- Preparing for the “crowd”**
- What we learnt
- The road ahead



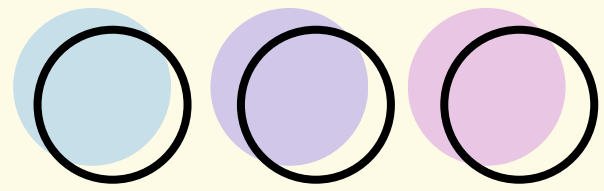
The Pilot Study



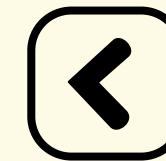
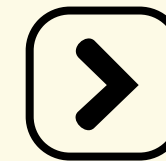
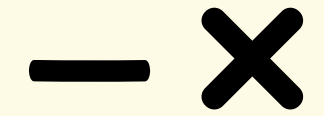
PAGE 14

Aims:

- Define **instruments** and **procedures**
- Evaluate the **feasibility** of the project
- Understand **potential challenges** and **their solutions**




The Pilot Study



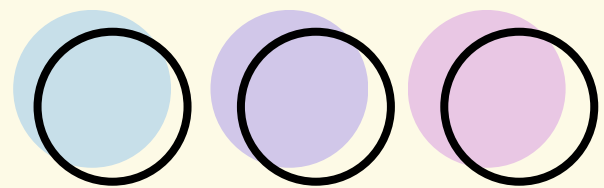
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Methods

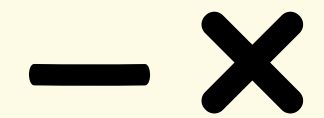
“People-sourcing”

- 6 Researchers/ raters 
- **180** social and general psych. papers from 5 journals
 - JPSP, EJSP, JEP:general, Cognition, Collabra
- Adapted **PECANS** checklist*
 - general requirements, participants, design, procedures, tasks

* Preferred Evaluation of Cognitive And Neuropsychological Studies
(Costa, 2022)



The Pilot Study

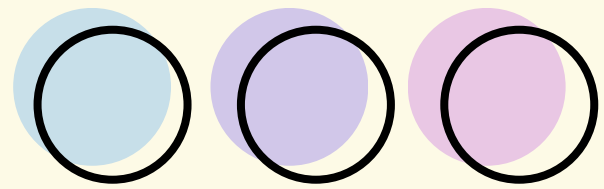


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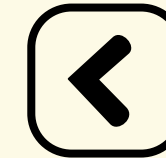
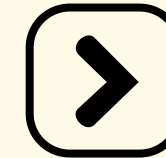
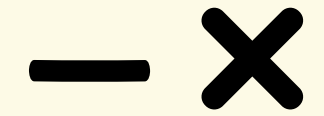
Results

Replicability index

by Year	M(sd)	by Journal (2021)	M(sd)
2011	0.41 (0.18)	Collabra	0.54 (0.16)
2021	0.50 (0.16)	Others	0.49 (0.16)

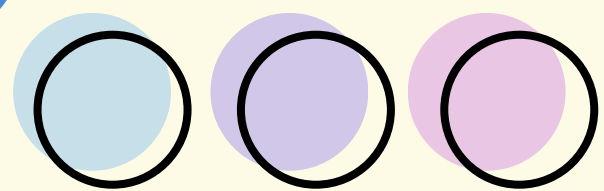


Overview

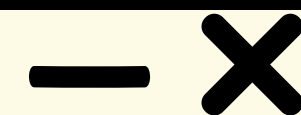


PAGE 17

- Choosing to crowdsource
- Preparing for the “crowd”
- **What we learnt**
- The road ahead



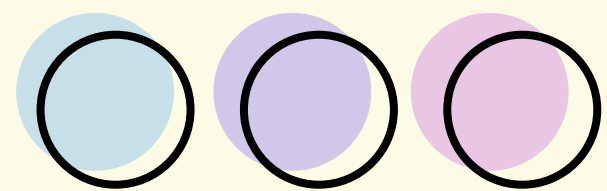
About this project



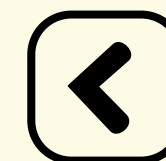
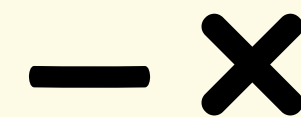
PAGE 18

- Define study inclusion **criteria** (e.g., only human participants)
- Define collaborators **workload** (i.e., number of assigned papers)
- Define **strategies** (e.g., matching collaborators' expertise)

Bonus: expanding the study by asking collaborators how their outlook was changed by participating



Biggest Challenge?



PAGE 19

The **checklist**: several items needed clarification

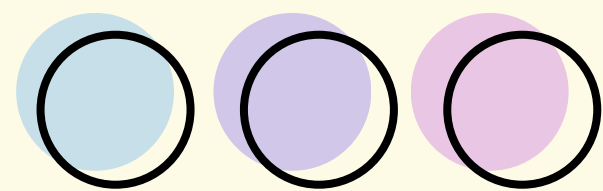
Collect Feedback

Improve Checklist

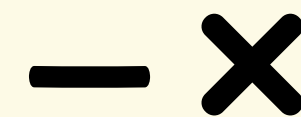
Test Checklist

Recruit Raters





On crowdsourcing



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01

**Crowdsourcing
at EVERY step.**

It is important to have differing viewpoints since the first project formulation.

02

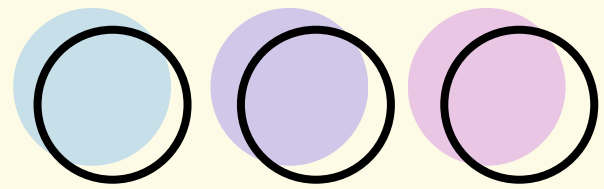
**Starting small and
growing gradually.**

Practice collaborating with increasingly larger and more diverse groups.

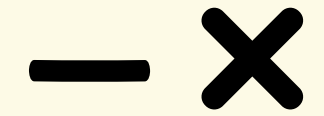
03

An iterative process.

It can't all be planned out from the start: some issues can only be identified and solved "on the field"

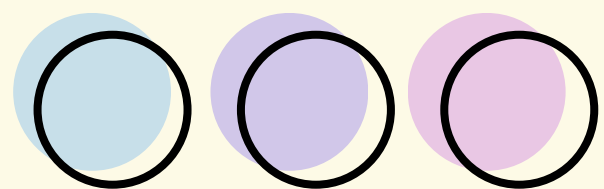


Overview

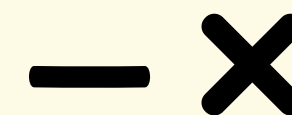


PAGE 21

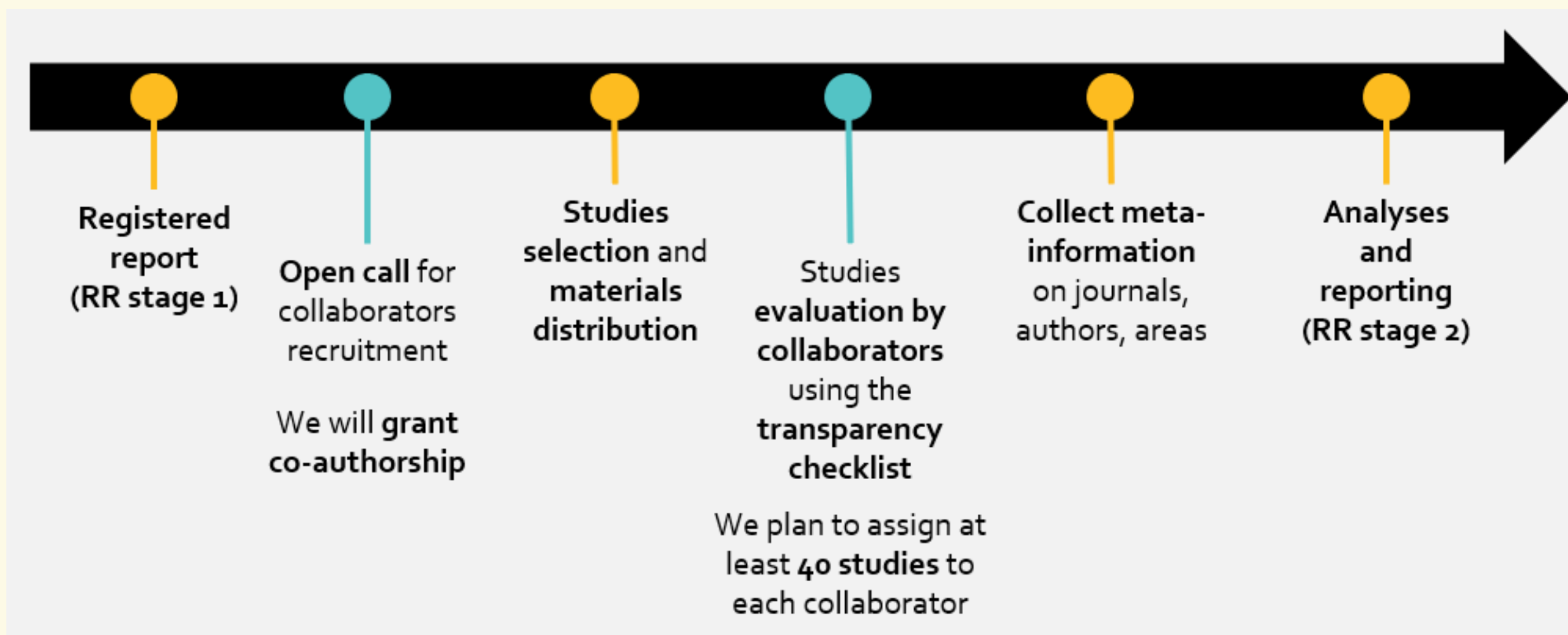
- Choosing to crowdsource
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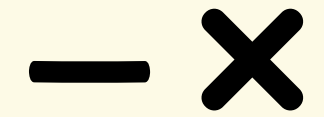
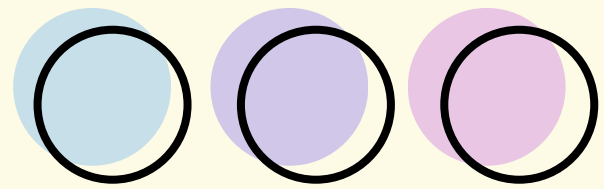


Project Timeline

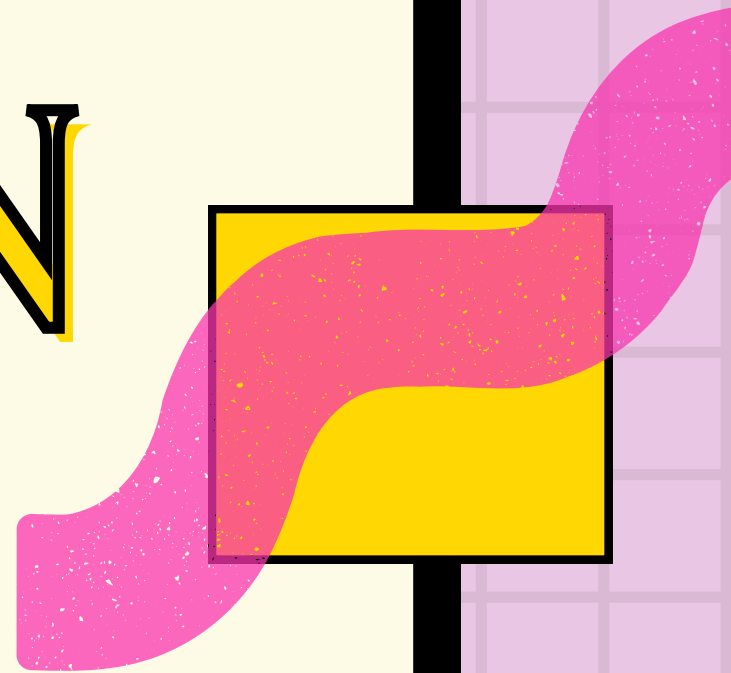
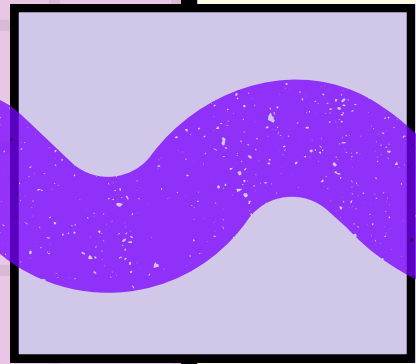


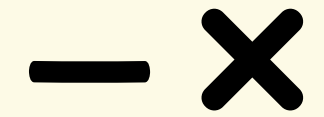
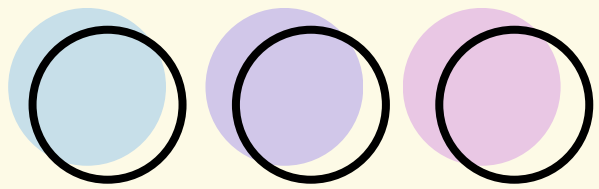
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THANK YOU
FOR YOUR
ATTENTION





Dr. Alessio Facchin

Francesco Giaquinto

Dr. Ezia Rizzi

Dr. Michela Vezzoli

Prof. Cristina Zogmaister

