Large-Scale Psychological Science: Reflecting on lessons learned.

The Psychological Science Accelerator

1194 researchers, 80 countries





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Increasing reliability by:

- Using multiple methodological approaches and measures to examine a research question (i.e., methodological generalizability)
- Examining research questions in multiple regions/cultures (i.e., cross-cultural generalizability)
- Examining how changes in data processing/analysis impact scientific conclusions (i.e., analytic generalizability)
- Etc.



Loss: if you *do not practice* these four steps, you can *endanger* yourself and others

Gain: If you *practice* these four steps, you can *protect* yourself and others

Loss: if you *do not practice* these four steps, you can *endanger* yourself and others

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Loss: if you *do not practice* these four steps, you can *endanger* yourself and others

Gain: If you *practice* these four steps, you can *protect* yourself and others





















		Behavio	ral Intenti	ons	
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CRI-		1		
CZE -	1	1	1	
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EGT-			1	
FIN -	1			
CRR -	1	1	1	
HRV-	1	1	1	
HUN -			1	i i
IRN -	1			
ISR -	1	1	1	
ITA -	1	1	1	
JPN -	1		1	
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KOR -	1		1	
MEX-	}	1	1	
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SWE -	1			i i
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USA-	ł		1	1
ZAF -				1
Overall -	•	· · · · · · · · · · · · · · · · · · ·		†
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		Cone	and a (1033-framea framea grant-framea c	, on all only



Country



it4 it3 it2 it1 avg -

















p < .05

p > .05

model convergence issue

manipulation check decisions



model convergence issue

outlier decisions

p > .05







Most analysis strategies did not yield significant evidence of a message framing effect.

Models that did suggested that the magnitude of the effect was negligible (< 0.03 change on a 7-point behavioral intentions measure)





Country



Contributor

BEHIND THE PAPER

Promises Psychology

of Big Team

Lessons behind the paper, "To which world regions does the valence-dominance model of social perception apply?"



Nicholas Coles and 5 others See all

Postdoctoral Research Fellow, Harvard Kennedy School

≗⁺ Follow

Promises and challenges of Big Team Psychology

Lessons behind the paper, "To which world regions does the valence-dominance model of social perception apply?"



Nicholas Coles and 5 others See all

Nature Human Behaviour

Postdoctoral Research Fellow, Harvard Kennedy School

ട⁺ Follow

Translation I - Finding translators

Who?	Advantages	Disadvantages
RAs / (PhD) Students / PostDocs	 Subject Matter Expertise Cheap / free labour 	 Little translation experience Require a lot of "handholding"
Professional Translators	 Translation Experience Very fast 	 Very expensive, particularly on a large scale No subject matter expertise Typically use specific translation process

Translation II - Choosing a translation process

- 1. Forward Translation: Original Language to Target Language
- 2. Backward Translation: Target Language to Original Language
- 3. Discussion among translators and integration into one semi-final version
- 4. External Readers: Two non-academics check the translated version.
- 5. Data Collection Labs: All data collection labs check the translated version

CREP & Students

It rhymes with "grape" The logo is a bunch of grapes



CREP -> Collaborative Replications and Education Project



Velveeta knows what's up

CREP & Students

👬 OSFHOME 🔫

Collaborative Replications and Educatio...

Files Analytics Wiki Registrat

Notice: Attention all users - Due to a recent spike in spam activities, we have increased our measures to fla

Check us out!



Collaborative Replications and Education Project (CREP)

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Sara LePine, Kiersten Baughman, Allie VanBenschoten, M	osf.io/wfc6u
Date created: 2013-05-30 09:56 AM Last Updated: 2020	
Identifiers: DOI 10.17605/OSF.IO/WFC6U ARK c7605/osf	CRFP is a framework
Category: 🍞 Project	
Description: CREP's mission is to provide training, suppor	that coordinates and
cited studies in the field.	supports "direct"
Wibi	raplication work by

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Click "Read More" below to get started.



replication work by students



Get started with a CREP project!

CREP & Students: Biggest Lessons Learned and Evidence of Each

- 1. Students can contribute to the literature in a systematic way through their coursework. **Evidence -> Our publications, their OSF pages**
- Students can disappear after all their graded stuff is done. Evidence -> Experience
- 3. Students can be good replicators (my opinion)
 - a. They don't tend to have strong opinions about whether the effect will replicate. Evidence -> anecdotal, beginning to collect data (*n* = 23)
 - b. They can follow the replication recipe pretty closely and collect high-quality data. Evidence -> anecdotal; review of site work; conversations with external authors of meta-analyses; publications
 - c. They like having the option of extension hypotheses & this is the "best of both worlds" psychology CURE model. **Evidence -> Anecdotal**

Implementation and Methods

Learning to love Open Source

How do we implement large studies?

- Consider some of the following:
- Not everyone has access to paid software and tools (Qualtrics, Survey Monkey, SPSS)
- Not all countries have open access to the internet (Google, Qualtrics)
- Each lab may not have the skill set to run the study
- Ensuring equality of methods between labs can be difficult
- Combining datasets is a nightmare
- Learning a new toolset for each study can be daunting



We were supported by a AWS Grant for the majority of this project but this part isn't free.



One practical consideration here is tech-pertise.



formr survey framework



Implementation Suggestions

- Find ways to standardize the study
 - One data collection point
 - One data collection protocol
- Use open source systems
 - Share your method!
 - More open to all countries and contributors
- PSA hosted server space + member/project management system

FUNDING

(and, well ... lots of related issues)

FULFILLING PSA ASPIRATIONS REQUIRES RESOURCES

Diversity & Inclusion

- Leadership from outside North America and Europe
- Grants to labs in developing regions

Democratic decision-making

• Fast & fair elections

Transparency

- Curated datasets & methods
- Reproducible code

Rigor

- Good power analyses
- Well-implemented studies
- Appropriate analysis plans
- Good measurement practices

Openness to criticism

• Leadership with the time & bandwidth to collate criticism

https://psysciacc.org/2020/12/11/the-financial-cost-of-the-psas-vision/

FULFILLING PSA ASPIRATIONS REQUIRES RESOURCES

MINIMAL VISION

The PSA as mailing list

MAXIMAL VISION

The PSA as project implementer



https://psysciacc.org/2020/12/11/the-financial-cost-of-the-psas-vision/

VOLUNTEERISM MAY NOT WORK FOR EVERYTHING

PROJECT MONITOR

WHAT'S REQUIRED

- Coordinate between 50+ project team members
- Sit in on meetings at the project monitoring committee
- Assist with study implementation strategy
- Ensure project materials are documented on OSF page
- Ensure project team members are properly credited
- Keep project on schedule

WHAT YOU GET

- Project management skills
- Connections
- Place ~4 on a 50+ author paper

WHAT ARE THE OPTIONS?

GRANTS

Strengths

• Big

• Flexible

• Scientists have skills

Weaknesses

- High-risk (~15% success)
- Inefficient
- Inflexible

CHARITABLE GIVING

Strengths

- Flexible
- Leverages community

Weaknesses

- Small
- High overhead

FEES-FOR-SERVICE

Strengths

Weaknesses

- Mission capture
- Leverage org strengths Startup risks

MEMBERSHIP DUES

Strengths

- Flexible
- Can tap hidden money
- Dues linked to benefits

Weaknesses

Could alienate members

https://psysciacc.org/2021/01/11/how-should-we-fund-the-psa/

CODA

WE NEED BETTER WAYS OF FUNDING SCIENCE INFRASTRUCTURE

Grants typically fund *projects* but projects rely on *infrastructure*

Infrastructure requires ongoing *maintenance*

Maintaining infrastructure involves a *collective action problem*: people want to use the infrastructure for free

CODA

WE NEED BETTER WAYS OF FUNDING SCIENCE INFRASTRUCTURE

...

...



Big COI for me in this take (there was consulting money written in for me in the proposal) but one of the things that concerns me the most in the @PsySciAcc NSF reviews was the criticism that we didn't need the money because we were doing the work anyway. (1/2)

10:26 PM · Jun 26, 2019 · Twitter Web Client



It hits on something I worry about in the methods reform movement broadly - that people (especially ECRs) will put in the leg work to improve things and enact change anyway, and therefore don't need more/longer-term support. That seems like a pretty harsh model of change. (2/2)

How to get involved

- 1. Potential roles: PI, committee member, board of directors member, translator, data manager, methodologist etc
- 2. Become a member
- 3. Register for the newsletter to receive up to date information on:
 - a. Committees looking for new members
 - b. Study leads looking for data collection labs, translators etc.
 - c. The need for project or data managers for new studies
 - d. Studies outside the regular roster (like the latest PSACR studies)
 - e. Newly formed committees looking for members (recently, we saw a metascience committee forming up!)
- 4. Join our slack and twitter!

Alternative opportunities for collaboration

- 1. Networking with PSA members via public events
- a. Invited lectures and conference presentations
- b. Workshops and hackathons
- 2. Disseminate and promote PSA via press coverage and posts
- a. Commentaries
- b. Opinion pieces
- c. Perspectives
- d. Blogs and social media posts
- 3. Inspire and inform about PSA via educational materials
- a. Chapters
- b. Edited volumes
- c. Textbooks