

Preregistration and Registered Reports: What, Why, and How

Michaelmas Term, 20 Nov 2024 – 14:00-15:30

Everyone please take the poll:
menti.com
Code: **3207 6157**



This session will be recorded



Slides and handouts will be
distributed after the session

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(She/her)
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Workshop plan

- What
 - Preregistration
 - Registered Reports
 - Why
 - Background of scientific justification
 - Selfish reasons
 - Evidence
 - FAQ
- How
 - Deciding whether prereg/RR is right for your project
 - Fundamentals of a good preregistration
 - Practical exercise
 - Where to register
 - What format
 - Personal examples
 - Practical
 - Follow along example on OSF
 - Q&A

Learning Objectives



Describe what preregistration and Registered Reports are (and how they differ)



Explain the benefits (and drawbacks) of preregistration and Registered Reports



Identify what types of research are most suited for preregistration and Registered Reports



Recognise the common pitfalls in writing a preregistration

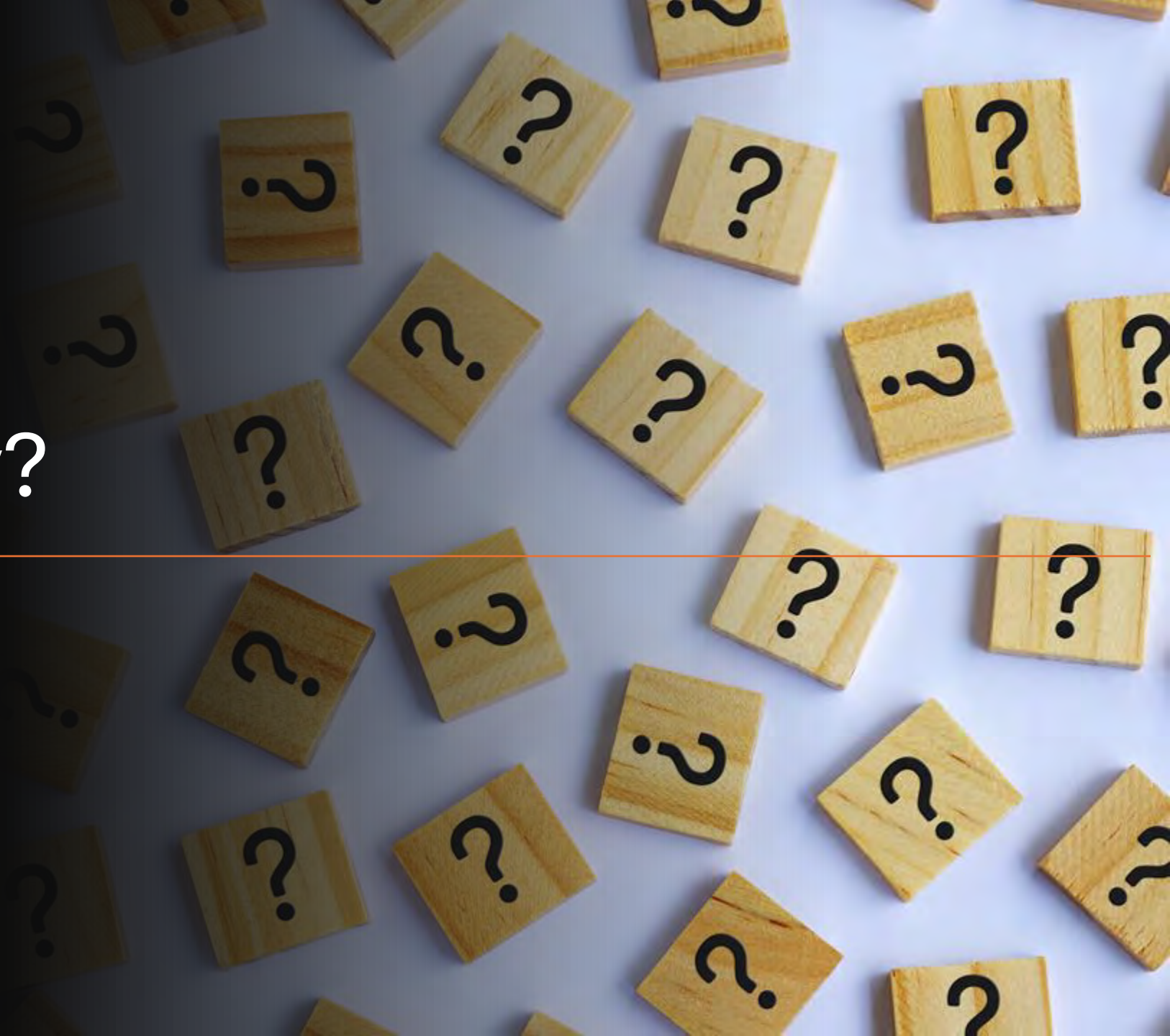


Identify the logistics of preregistering: which format and platform to use

Poll: familiarity

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What and why?



What is preregistration?

A preregistration documents:

- That the study exists
- The protocol:
 - research questions/hypotheses
 - how data will be gathered
 - data analysis and interpretation plans

Document goes into a registry **before** the study is run, where it is **time stamped** and *eventually* **available for readers**.



What kinds of research can be preregistered?

Almost any type!

Researchers have successfully used preregistration for:

- Experiments
- Randomized clinical trials*
- Descriptive studies ([A COVID-19 descriptive study of life after lockdown in Wuhan, China](#))
- Qualitative studies ([Phenomenological strands for gaming disorder and esports play: A qualitative registered report](#))
- Systematic reviews ([An umbrella review on the use of antipsychotics in anxiety disorders: A registered report protocol](#))
- Others

theguardian

News | World | Sport | Comment | Culture

Essay

Why Most Published Research Findings Are False

John P. A. Ioannidis

Replication is the only solution to scientific fraud

If academia is to be cleaned up, the Research Excellence Framework must prize replication over politics and publishing

A question of trust: fixing the replication crisis

The crisis of non-replications in experimental social psychology is a crisis of trust. What's the solution?

THE CONVERSATION

Academic rigour, journalistic flair

Fraud and trouble with replication are chemistry's problems too

Putting psychological research to the test with the Reproducibility Project

THE TRUTH WEARS OFF

Is there something wrong with the scientific method?

The New York Times

Scientific Pride and Prejudice

The Economist

Unreliable research

Trouble at the lab

Problems with scientific research

How science goes wrong

Science is in a reproducibility crisis – how do we resolve it?

Science has an incentive problem

**What's best for
science**

Transparent and high
quality research,
regardless of outcome

**What's best for
scientists**

Producing a lot of
“good results”

Four key factors leading to poor reproducibility

Publication bias Low power P-hacking HARKing



Slide courtesy
Dorothy Bishop

Publication bias

The 'file drawer' problem:
Researchers won't publish
(or reviewers won't
accept) studies with
unattractive (e.g., null)
results



P-hacking creates huge risk of false positives

<u>P-VALUE</u>	<u>INTERPRETATION</u>
0.001	HIGHLY SIGNIFICANT
0.01	
0.02	
0.03	
0.04	SIGNIFICANT
0.049	
0.050	OH CRAP. REDO CALCULATIONS.
0.051	ON THE EDGE OF SIGNIFICANCE
0.06	
0.07	HIGHLY SUGGESTIVE, SIGNIFICANT AT THE $P < 0.10$ LEVEL
0.08	
0.09	
0.099	HEY, LOOK AT
≥ 0.1	THIS INTERESTING SUBGROUP ANALYSIS

Multiple ways to p-hack:

- Continue/stop data collection
- Covariates
- Exclusions (ppts, vars)
- Multiple comparisons
- And much more

Personality and Social Psychology Review
1998, Vol. 2, No. 3, 196–217

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Lawrence Erlbaum Associates, Inc.

HARKing: Hypothesizing After the Results are Known

Norbert L. Kerr
Department of Psychology
Michigan State University

HARKING seems innocuous but it fills the literature with dross



False-Positive Psychology Undisclosed Flexibility in Data Collection and Analysis Allows Presenting Anything as Significant

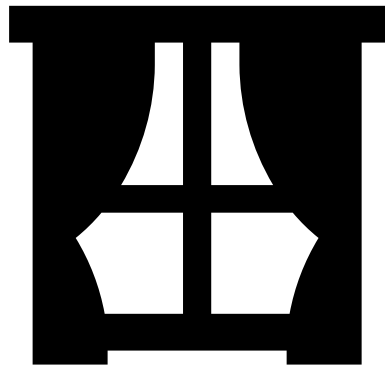
Joseph P. Simmons¹,
Leif D. Nelson² and
Uri Simonsohn¹

Table 3. Study 2: Original Report (in Bolded Text) and the Requirement-Compliant Report (With Addition of Gray Text)

Using the same method as in Study 1, we asked 20–34 University of Pennsylvania undergraduates to listen only to either “**When I’m Sixty-Four**” by The Beatles or “**Kalimba**” or “Hot Potato” by the Wiggles. We conducted our analyses after every session of approximately 10 participants; we did not decide in advance when to terminate data collection. **Then, in an ostensibly unrelated task, they indicated only their birth date (mm/dd/yyyy) and** how old they felt, how much they would enjoy eating at a diner, the square root of 100, their agreement with “computers are complicated machines,” **their father’s age**, their mother’s age, whether they would take advantage of an early-bird special, their political orientation, which of four Canadian quarterbacks they believed won an award, how often they refer to the past as “the good old days,” and their gender. **We used father’s age to control for variation in baseline age across participants.**

An ANCOVA revealed the predicted effect: According to their birth dates, people were nearly a year-and-a-half younger after listening to “**When I’m Sixty-Four**” (adjusted $M = 20.1$ years) rather than to “**Kalimba**” (adjusted $M = 21.5$ years), $F(1, 17) = 4.92, p = .040$. Without controlling for father’s age, the age difference was smaller and did not reach significance ($M_s = 20.3$ and 21.2 , respectively), $F(1, 18) = 1.01, p = .33$.

Preregistration solves these problems



Establishes
transparency



This conveys
credibility

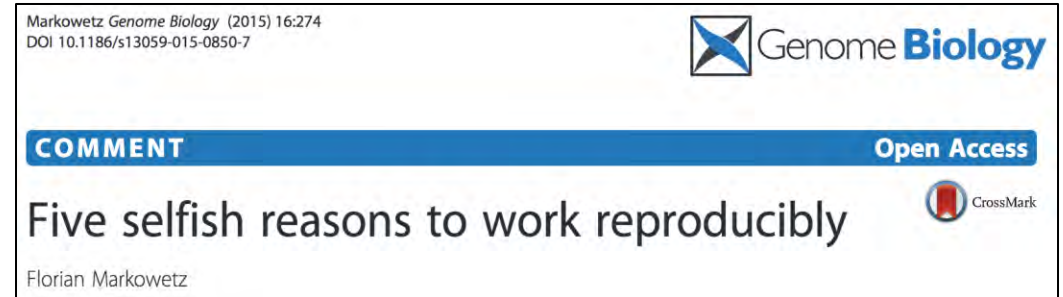
Selfish benefits



Seven Selfish Reasons for Preregistration

ERIC-JAN WAGENMAKERS AND GILLES DUTILH

TAGS: DATA | EXPERIMENTAL PSYCHOLOGY | PREREGISTRATION | REGISTERED REPLICATION REPORTS | TECHNOLOGY

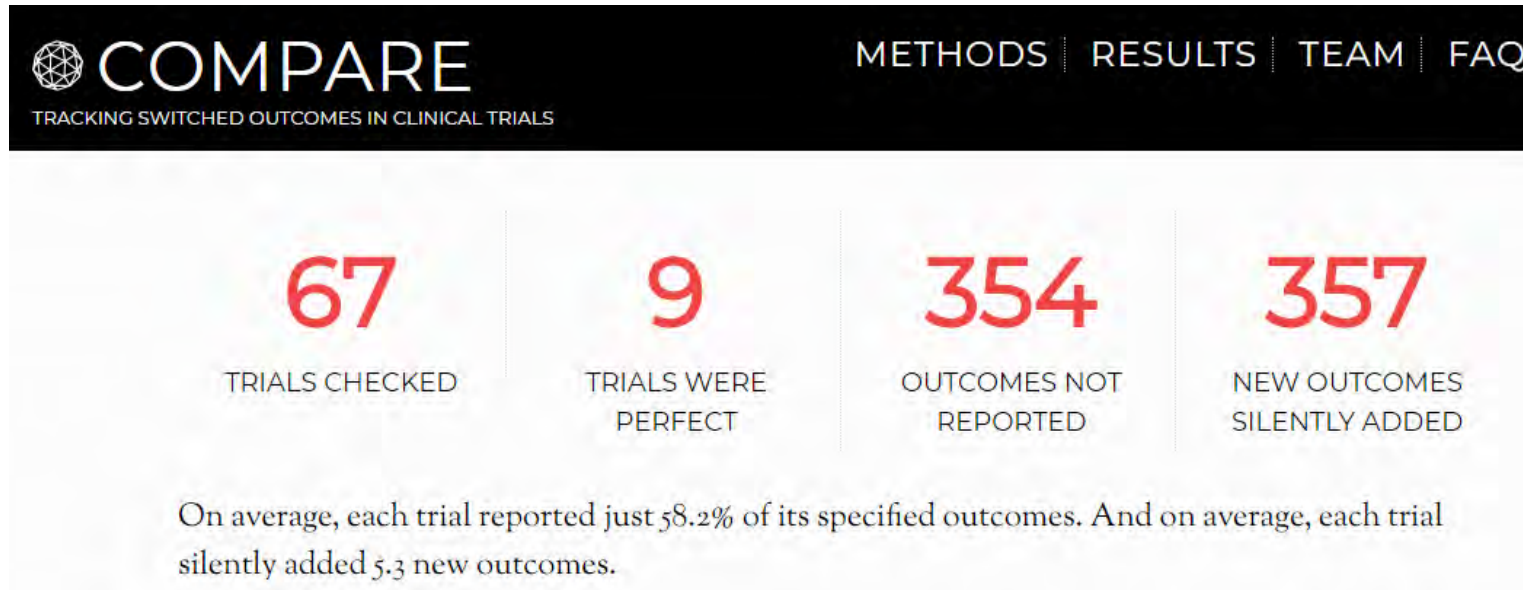


Preregistration...

- allows you to take credit for your predictions
- prevents you from being being fooled by your own data
- builds your reputation
- reassures reviewers
- associated with increased citations (van den Akker et al., 2023)
- makes your studies better (plan ahead!)
- aids continuity of your work (do it for Future You)



Limitations: Compliance



COM-Pare-trials.org

The image shows the header and title of a PsyArXiv preprint. The header is teal with the PsyArXiv logo (a red square with a white Greek letter psi) and the text 'PsyArXiv Preprints'. To the right of the logo, there is a link: 'Submit a Preprint'. Below the header, the title 'Preregistration: Comparing Dream to Reality' is displayed in large white text. Below the title, the authors are listed: 'Aline Claesen, Sara Gomes, Francis Tuerlinckx, wolf vanpaemel'. At the bottom, there are two columns of text: 'CREATED ON May 09, 2019' and 'LAST EDITED May 12, 2019'.

Submit a Preprint

Preregistration: Comparing Dream to Reality

AUTHORS
Aline Claesen, Sara Gomes, Francis Tuerlinckx, wolf vanpaemel

CREATED ON May 09, 2019 LAST EDITED May 12, 2019

<http://psyarxiv.com/d8wex/>

Risks to Preregistration

Some fields are newer to these practices

Shifts in time spent at different steps of research process

Process of preregistration may change your study before it starts

Preregistered \neq GOOD! Prereg does not address some crucial problems:

- Linking theory to experiment
- Importance of research question
- Quality/appropriateness of study design

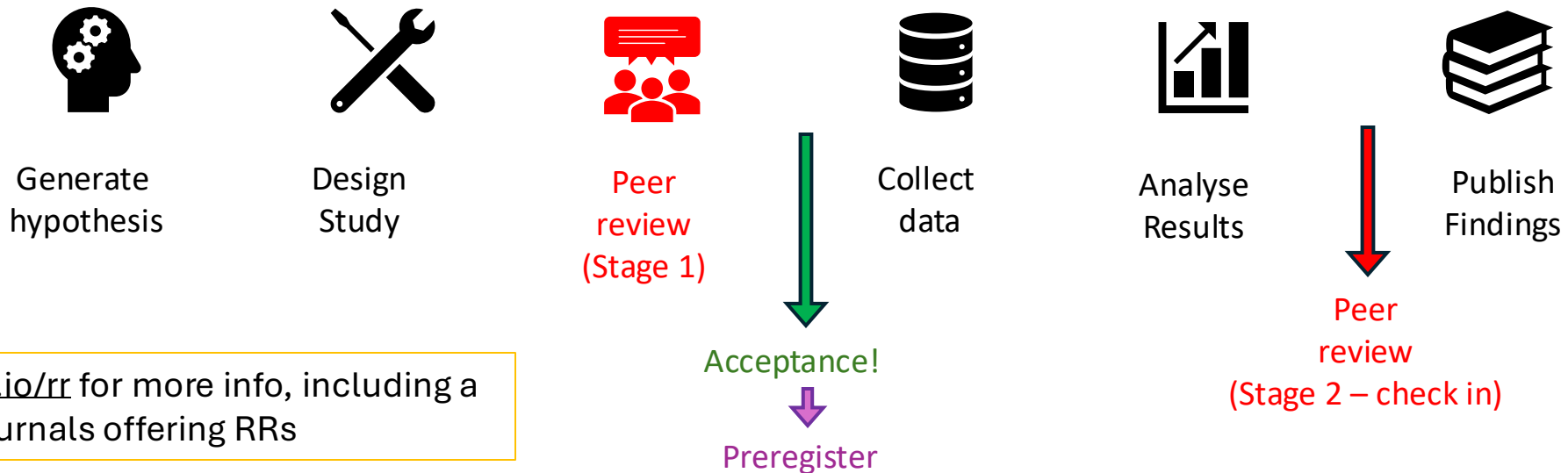
A photograph of an airplane wing, likely from a commercial jet, extending from the top right towards the center of the frame. The wing is white with dark markings on the leading edge. Below the wing, a vast expanse of white, fluffy clouds fills the lower two-thirds of the image. The sky above the clouds is a mix of light blue and pale yellow, suggesting a sunset or sunrise. The overall mood is serene and expansive.

Upgrading preregistration: Registered Reports

Typical study



Registered Reports



See cos.io/rr for more info, including a list of journals offering RRs

Registered Reports, step by step

- **Stage 1 manuscript:**
 - Submit protocol: fully-written introduction, methods, analysis plan (no changes allowed after it is accepted)
 - Peer review and any rounds of revisions happen
- **In-principle acceptance (IPA):**
 - Journal gives the promise to publish the eventual results
 - The accepted Stage-1 manuscript is registered in a registry (either by journal or authors)
 - A minority of journals may publish the Stage-1 manuscript on its own, as a protocol (most wait and publish it later, with results)
- **Study is run:**
 - If any changes need to be made, authors run them by the editor
- **Stage 2 manuscript:**
 - Authors write up results and discussion, and submit the full manuscript to journal
 - Peer reviewers check that it followed the accepted protocol
 - Journal publishes the final, full article

Preregistration vs Registered Reports

	Preregistration	Registered Reports
<u>Includes:</u>		
Preregistration	✓	✓
Pre-study peer review		✓
‘Assured’ publication		✓
<u>Solves issues of:</u>		
P-hacking	✓	✓
HARKing	✓	✓
Publication bias		✓
<u>Other attributes:</u>		
Flexibility	Anytime before running	Wait for peer review/ acceptance
Publish in	Any journals	Limited journals (but growing)
Quality assurance	Moderate	Higher
Embargo of prereg	Fully possible	Usually possible, except for reviewers

Benefits to Registered Reports

Formal feedback comes at a more opportune time (can still get informal feedback on a preregistration)

Shifts evaluation of the study to decisions around methods and analysis (which you can control) rather than the results (which you can't control)

Eliminates reviewer bias against negative or null findings

Eliminates researcher pressure to produce 'attractive' results

Acceptance rates are high, due to the points above

Reduces need/time for “journal hopping”

Limitations to Registered Reports

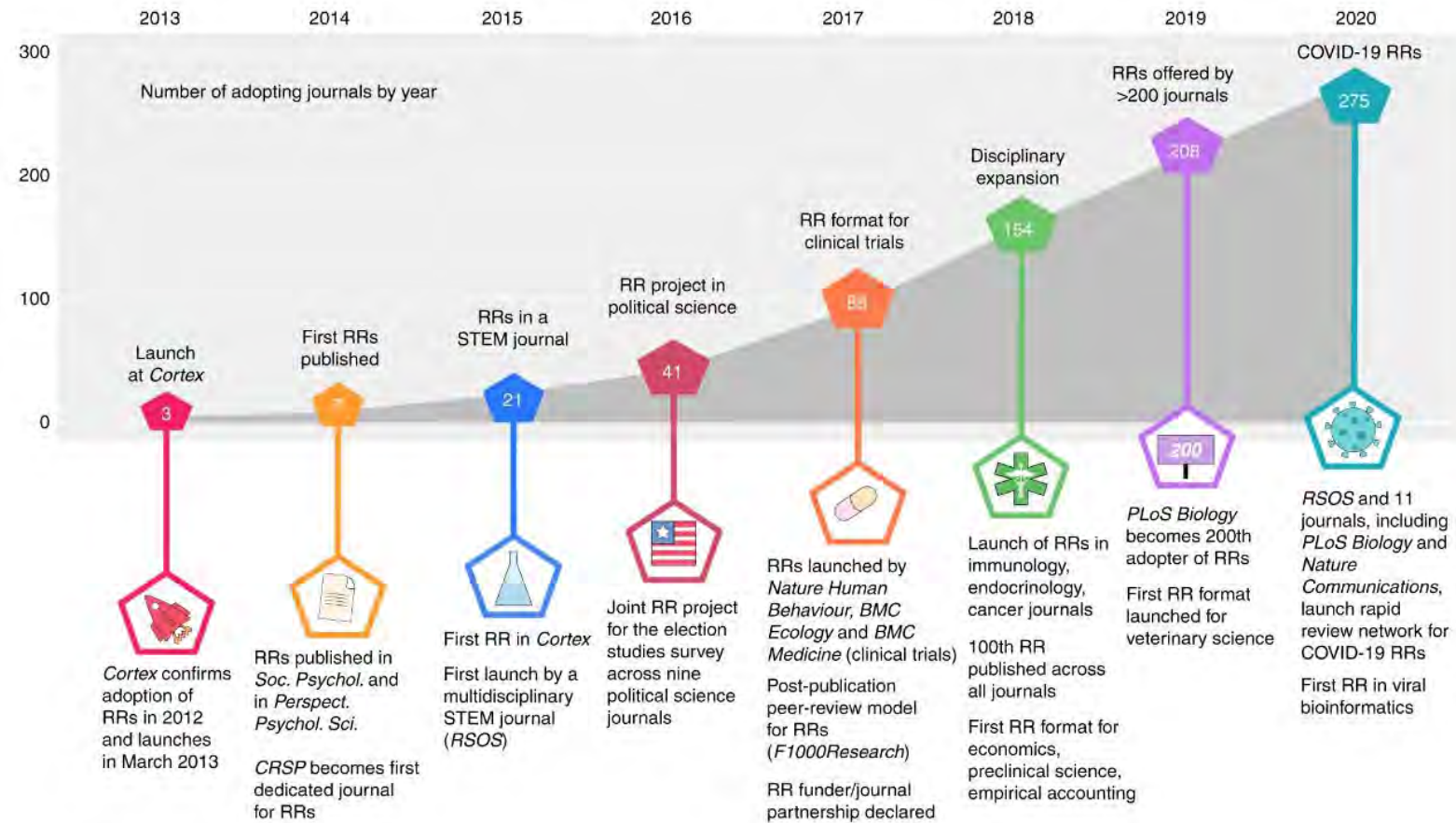
Timing: pushes back start date to wait for review (although review can be scheduled in advance with PCI-RR)

Rigidity: may not be easy for iterative multi-study papers or very loosely-defined projects (although can use decision trees, or register final stage of a multi-study project)

Best suited for quantitative, hypothesis testing research (although qualitative work can still be RRs)

History of Registered Reports

- First proposed 1976 (European J of Parapsychology)
- Introduced in Cortex 2012
- Now available at 300+ journals



Are Registered Reports working as intended?

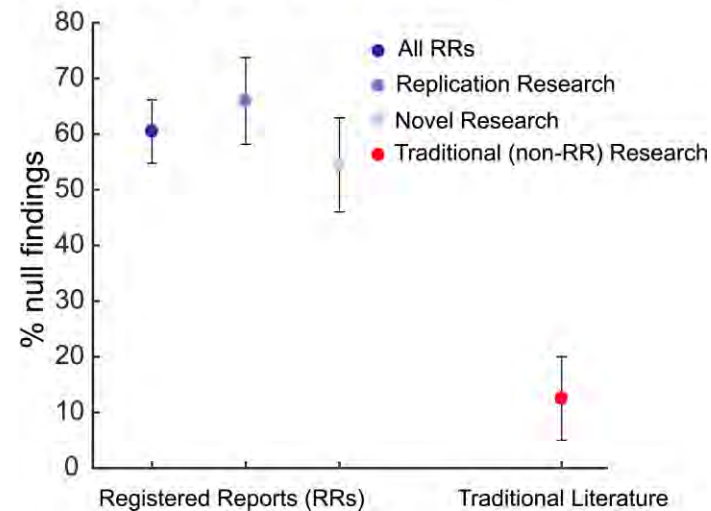
NEWS • 24 OCTOBER 2018

First analysis of 'pre-registered' studies shows sharp rise in null findings

Logging hypotheses and protocols before performing research seems to work as intended: to reduce publication bias for positive results.

Matthew Warren

Percentage of null findings



Hypotheses are ~5 times more likely to be **unsupported** in Registered Reports compared with regular articles

Allen C, Mehler DMA (2019) Open science challenges, benefits and tips in early career and beyond. PLOS Biol 17(5): e3000246. <https://doi.org/10.1371/journal.pbio.3000246>

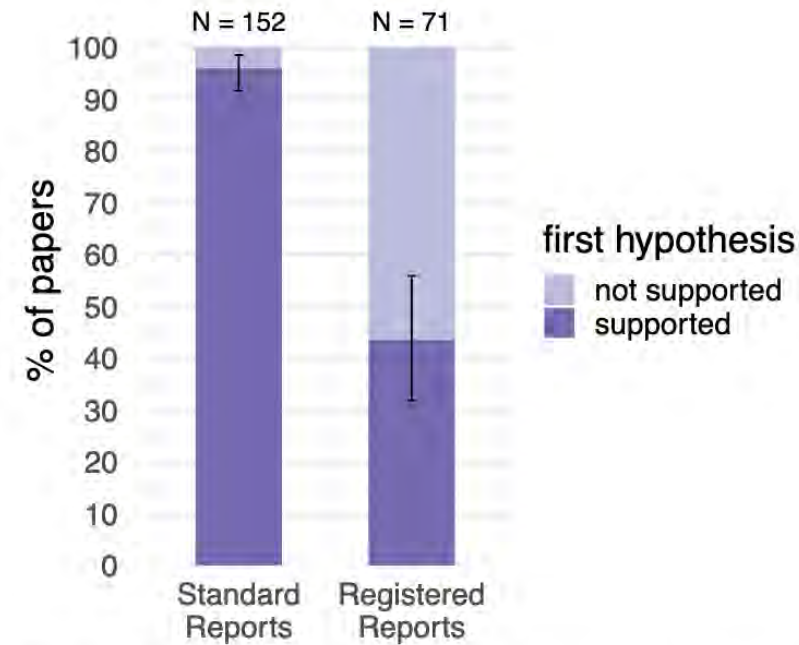


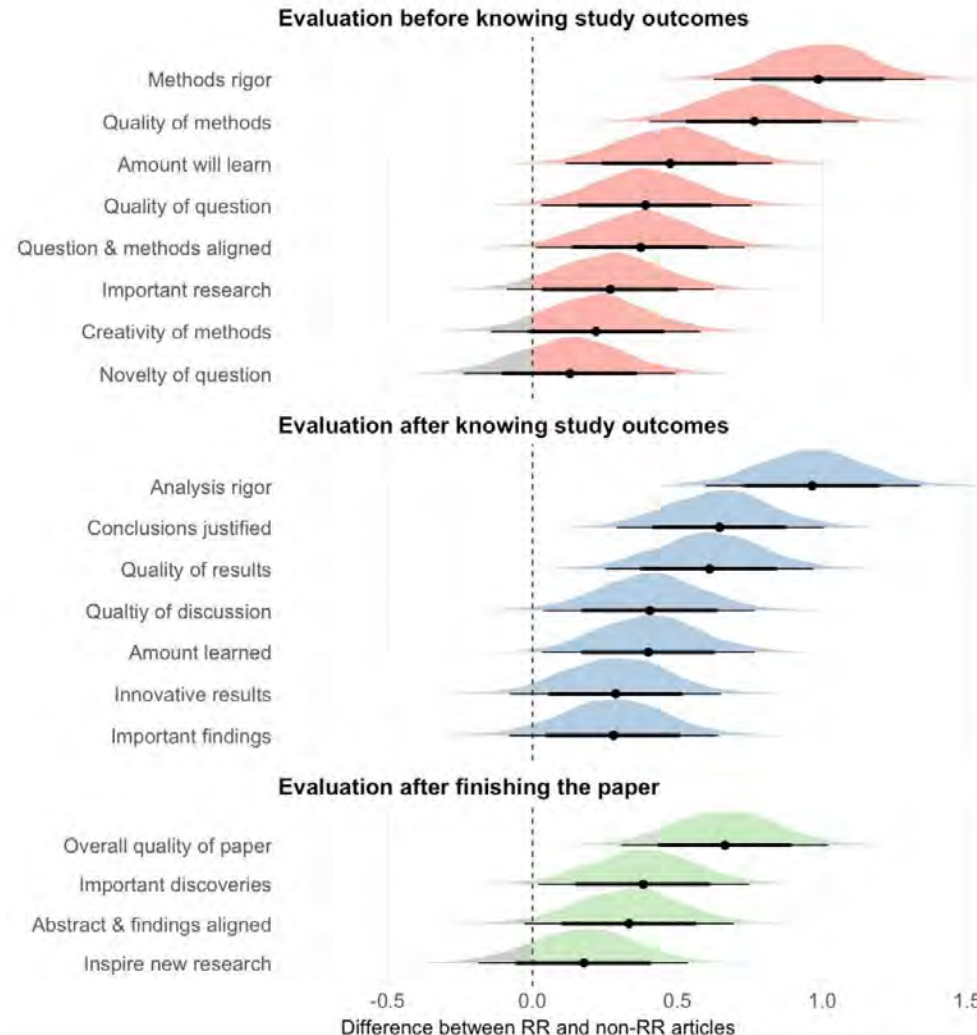
Figure 2. Positive result rates for standard reports and Registered Reports. Error bars indicate 95% confidence intervals around the observed positive result rate.

Same observation in RRs within psychology specifically

Scheel, Schijen & Lakens (2021)

<https://journals.sagepub.com/doi/full/10.1177/25152459211007467>

Are Registered Reports working as intended?



ARTICLES

<https://doi.org/10.1038/s41562-021-01142-4>

nature
human behaviour

Check for updates

Initial evidence of research quality of registered reports compared with the standard publishing model

Courtney K. Soderberg^{1,6}, Timothy M. Errington^{1,6}, Sarah R. Schiavone², Julia Bottesini², Felix Singleton Thorn³, Simine Vazire^{2,3}, Kevin M. Esterling⁴ and Brian A. Nosek^{1,5}✉

In registered reports (RRs), initial peer review and in-principle acceptance occur before knowing the research outcomes. This combats publication bias and distinguishes planned from unplanned research. How RRs could improve the credibility of research findings is straightforward, but there is little empirical evidence. Also, there could be unintended costs such as reducing novelty. Here, 353 researchers peer reviewed a pair of papers from 29 published RRs from psychology and neuroscience and 57 non-RR comparison papers. RRs numerically outperformed comparison papers on all 19 criteria (mean difference 0.46, scale range -4 to +4) with effects ranging from RRs being statistically indistinguishable from comparison papers in novelty (0.13, 95% credible interval [-0.24, 0.49]) and creativity (0.22, [-0.14, 0.58]) to sizeable improvements in rigour of methodology (0.99, [0.62, 1.35]) and analysis (0.97, [0.60, 1.34]) and overall paper quality (0.66, [0.30, 1.02]). RRs could improve research quality while reducing publication bias and ultimately improve the credibility of the published literature.

Soderberg, C. K., Errington, T. M., Schiavone, S. R., Bottesini, J. G., Singleton Thorn, F., Vazire, S., ... Nosek, B. A. (2021). Initial evidence of research quality of registered reports compared with the standard publishing model. *Nature Human Behaviour* <https://doi.org/10.1038/s41562-021-01142-4>

Well cited – on average, cited same or slightly higher than regular articles

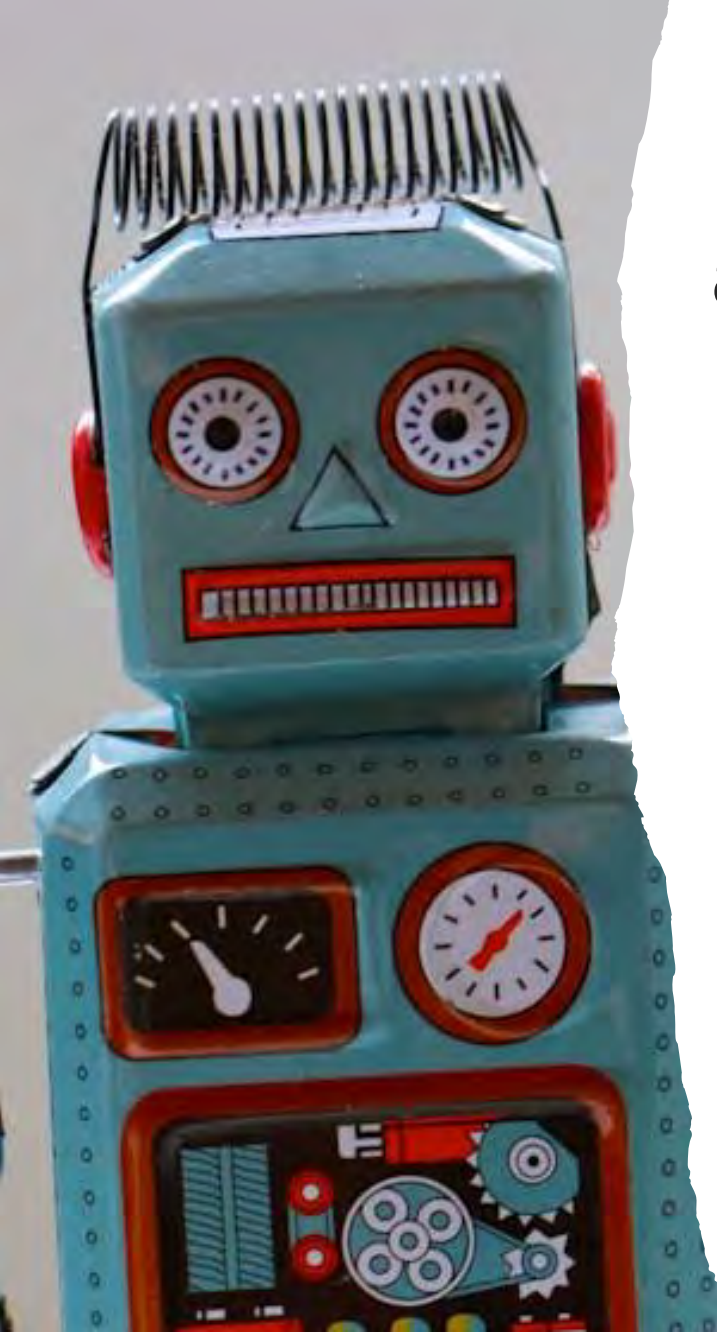
See Hummer, L. T., Singleton Thorn, F., Nosek, B. A. & Errington, T. M. Preprint:

<https://doi.org/10.31219/osf.io/5y8w7>

Slide courtesy
Chris Chambers

An imperfect solution for an imperfect environment

- Prereg and RRs are not panaceas, but they can be useful
- They wouldn't be necessary in ideal research environment
 - No practical need if we were all robots
 - No credibility need if we were all angels
- Designed for the system we currently have
 - e.g., RRs may change if publishing formats and norms change



Alternatives to preregistration or RRs?

- Nothing rivals the transparency of a timestamped plan
- But other practices can improve credibility:
 - Triangulation
 - Multiverse analysis
 - Open peer review

FAQ and concerns



1

“But what if I want to do exploratory analyses?”

(Prereg takes the ingenuity out of science.)

You can do (and report) as many exploratory analyses as you want – as long as these are labeled “exploratory” and separated from the confirmatory analyses in your report



2

“But what if I make a mistake or change my mind?”

Before data collection: you can easily revise it

After data collection: can still do alternative (perhaps more appropriate) analyses in addition to planned ones (justify why these are more appropriate)

For more details, see:

<https://cos.io/blog/preregistration-plan-not-prison/>



3

“But what if my analysis depends on how the data turns out? I can’t prereg every possible analysis choice”

That’s ok – you can preregister a decision tree of how your analysis will change given possible data outcomes.

You can also preregister sequentially

No prereg will be perfect – you can catalogue your deviations from plan



4

“But what if others read my prereg and steal my idea?”

You can avoid getting scooped by setting an embargo on your project until your anticipated completion date

Also, timestamps on the prereg can help show your claim to an idea



5

“But what if I'm using existing data?”

Yes, you can still preregister if someone else collected the data already. It helps if you can give evidence that you haven't seen the data yet.

Hard to make a convincing prereg if you have already seen the data, though.

There are templates for "existing data" preregistrations on OSF



6

“But what if I don’t have time?” /

“But prereg is just extra work”

Yes, prereg takes time, as it forces you to think about your design!

Prereg moves the workload earlier (before data collection) – and can actually save time by improving design and reminding of analysis plan



Preregistration takes practice

Trends in Cognitive Sciences

Volume 23, Issue 10, October 2019, Pages 815-818



Scientific Life

Preregistration Is Hard, And Worthwhile

Brian A. Nosek¹  , Emorie D. Beck², Lorne Campbell³, Jessica K. Flake⁴, Tom E. Hardwicke⁵, David T. Mellor¹, Anna E. van 't Veer⁶, Simine Vazire⁷

 [Show more](#)

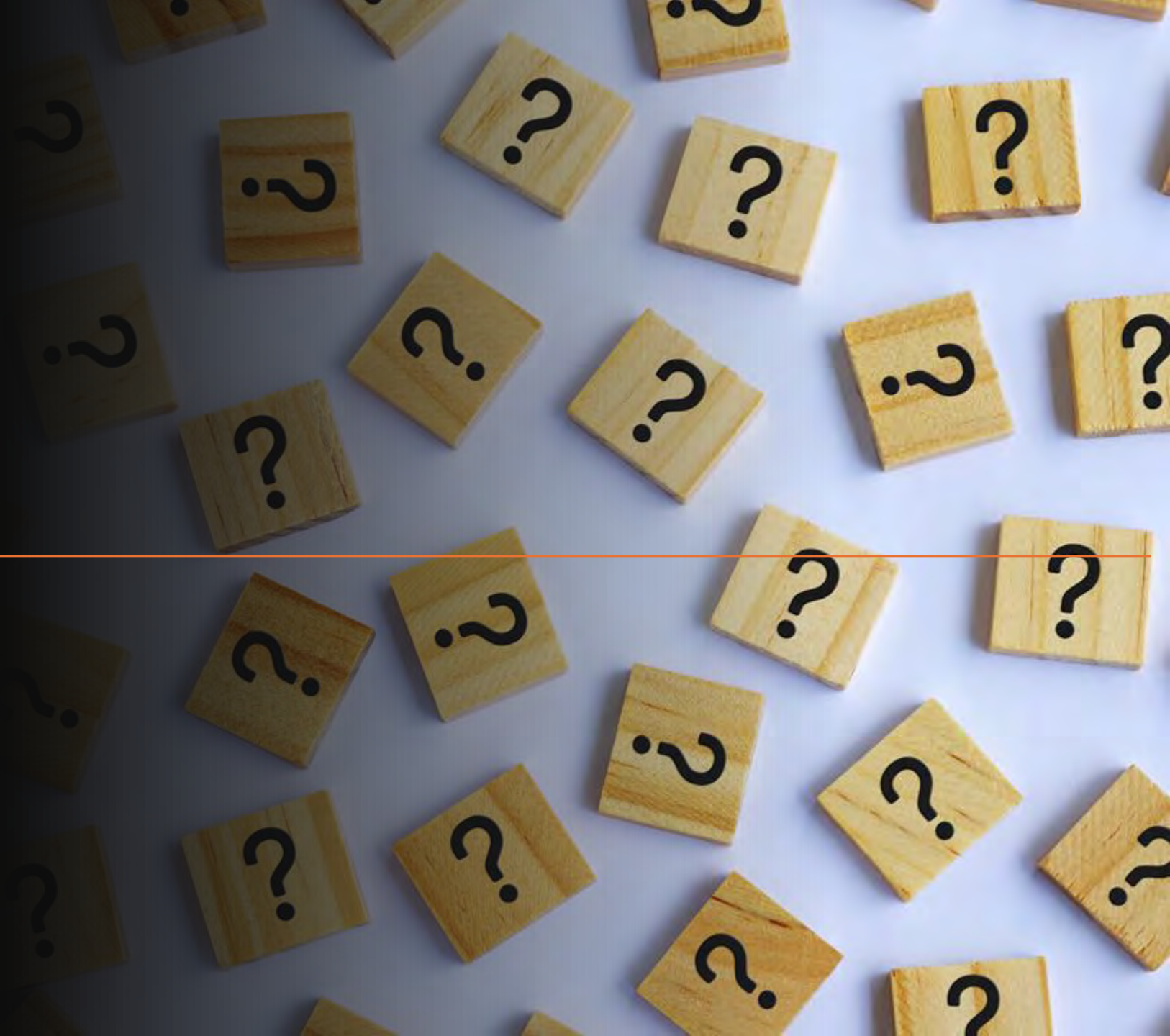
<https://doi.org/10.1016/j.tics.2019.07.009> [Get rights and content](#)

Preregistration clarifies the distinction between planned and unplanned research by reducing unnoticed flexibility. This improves credibility of findings and calibration of uncertainty. However, making decisions before conducting analyses requires practice. During report writing, respecting both what was planned and what actually happened requires good judgment and humility in making claims.

doi.org/10.1016/j.tics.2019.07.009

Short break

How?



Central points:

- It's a Wild West - few norms or required formats
 - (except for clinical trials, which have 'bare bones' requirements)
- Follow the 'spirit of the law' - when in doubt, use your judgement to best serve principles of:
 - Transparency
 - Reducing your 'researcher degrees of freedom'

Is preregistration right for my project?

- Writing a detailed protocol is always worth the time
 - Consider piloting your project, to hone methods and analyses
- Decide whether to preregister, do a RR, or neither
 - How much does your field (and yourself) value credibility?
 - Does your study test hypotheses? (prereg/RRs especially useful)
 - Can you wait to start your study? (RR possible; if not, prereg)
 - Do you have strict ethics requirements? (RR may be difficult)
 - Is your study completely exploratory and ill-defined? (prereg/RR difficult)
 - Is it a multi-study project where each step depends on the last? (series of prereg easier than RR; you can still do a RR for the last study)
 - Are you worried reviewers may reject your study due to its possible results? (do a RR)
 - Would your study benefit from pre-study peer review? (do a RR)
 - Would *you* benefit from having an accepted paper on your CV even before it is run? (do a RR)

Is preregistration right for my project?

- So what happens if you're unsure?
 - you have some hypotheses, and many possible ways of analysing, but not sure which is the 'best' without seeing the data?
- Ideally, design an exploratory pilot and a confirmatory preregistered replication
- Or, simulate data based on similar previous studies
- And/or, make a compromise (just be transparent!)
 - balance constraining your degrees of freedom with being honest about what details you haven't planned yet

What elements go into a preregistration?

- Hypotheses / research questions
 - What is my study trying to find?
- Methods
 - How will I investigate my questions / collect evidence?
- Analysis plan
 - How will I analyse and interpret the evidence?

Hypotheses / Research Questions

What is your research question?

- How could it be improved? – is it too general/too precise

Hypotheses

- Can you formulate specific predictions?
 - E.g. X will be bigger than Y
 - X will be bigger than zero
 - X will vary systematically with Y
- Are predictions directional? (-> 1 or 2-tailed test)
- How will you test each hypothesis? (clearly link each H to a test in your Analyses)
- NUMBER YOUR HYPOTHESES

Methods

- Sample size: give a rationale
 - Power analysis (e.g., GPower, or simulate data)
 - Other constraints (time, money, availability)
- Exclusion criteria
 - What order will exclusion rules apply in?
- How will you measure your variables?
 - Curated list of resources on scale development, validity, and psychometrics: osf.io/zrkd4/

Analysis

- Label each analysis with which hypothesis it tests
- Try simulating data before you preregister
 - Run your planned analyses on the simulated data
 - Check the outcomes for problems
 - See: <https://osf.io/kz52v/> for a workshop teaching data simulation in Excel and R
- In case you get null effects:
 - consider Bayesian analysis
 - or equivalence testing

What makes a good preregistration?

- Be as precise and thorough as possible:
 - Have I limited my “researcher degrees of freedom” as much as possible?
 - If I gave this document to another researcher, could they run the study to my liking?
 - If somebody wanted to undermine my findings, could they poke any holes in this preregistration? (Imagine you are your worst scientific enemy)
- But don't hem yourself in unnecessarily
 - Be as vague/broad as your plans or expectations actually are
- And **use future tense!**
 - make it clear this is a *preregistration*

The Importance of Clear Instructions



[Youtube link](#)

Precise Preregistration Exercise

Your mission:

Think of ways to follow this plan that would result in different choices than intended by the person who wrote this sentence in the preregistration.

Make small groups of 2-3 (try to have a range of expertise)

Based on an exercise created by Anna E. van 't Veer, David Mellor, Chris C. Martin, Katie Corker, Stephen Lindsay, Simine Vazire, Daniel J. Simons

Snippets

1. *“We expect that drinking beer will increase reaction time”*
2. *“We expect to collect data from 100 subjects.”*
3. *“After arrival in the lab, participants will play the ultimatum game on a computer.”*

Think of ways to follow this plan that would result in different choices than intended by the person who wrote this sentence in the preregistration

Snippet 1 (hypotheses)

“We expect that drinking beer will increase reaction time”

- 1) For whom? What is the population to generalise to?
- 2) By how much? What is the minimum effect size of interest?
- 3) How much beer will do the trick? (and with what alcohol level, etc.)
- 4) Will participants be in a place, like a bar or living room, where people typically drink beer? Or will they be in a laboratory?
- 5) ... which hypothesis is this? Number them!
- 6) ...compared to what? Is there a control group, or is it within-subjects?

Alternative:

H1. For male psychology students, drinking 5 Magic Hat IPAs will increase their reaction time as measured by machine X. We expect that the group that drinks 5 IPAs will respond at least 1 second slower, on average, than the group that did not drink alcohol.

Snippet 2 (sample size)

“We expect to collect data from 100 subjects.”

- 1) Does that mean before or after exclusions?
- 2) And, if it means "after exclusions," how do you continue testing if the exclusions bring you under 100. Do you test more than 100 initially?
- 3) What happens if more people show up for your study than you expected so that you test 110 rather than 100. Do you include those subjects or exclude them?
- 4) Do you schedule and test each participant individually, or are they scheduled in groups?
- 5) If you have unexpectedly high levels of exclusions, are there any conditions under which you would stop with fewer than 100 participants?
- 6) if you have multiple groups, how will random allocation take place? And what do you do when that leaves you with too few participants in one group?

Alternative:

We will over sample by 15% in order to account for possible exclusions after we apply exclusion criteria 1 and 2 (see xxx), after 115 participants have started with the study, the computer will redirect the next participants to another task.

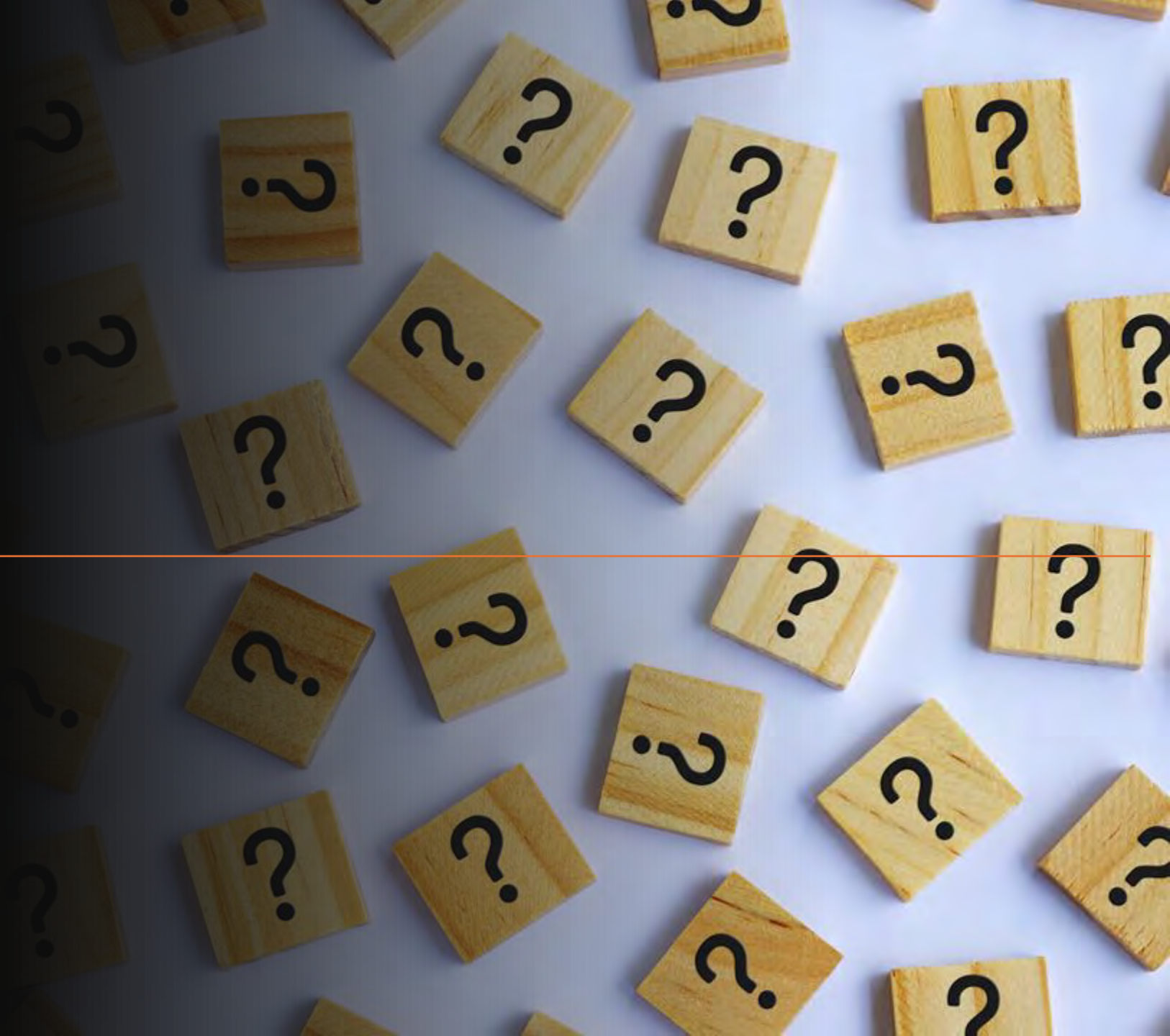
Snippet 3 (testing setting)

“After arrival in the lab, participants will play the ultimatum game on a computer.”

Ambiguities:

- 1) individual closed cubicles?
- 2) large enough group to ensure anonymity?
- 3) does it matter if participants come in with friends?
- 4) what do you tell them when they arrive?
- 5) who will greet them (requirements to experimenter?)
- 6) Does the lab have standard procedures (e.g. take away their phones?)
- 7) Will instruction texts be shared (like screenshots)
- 8) Who will they play the game with? Other participants?

Logistics



When do I preregister?

The earlier, the better! (Must be before data analysis)

You might preregister:

- Before you've collected any data
- Before your next round of data collection
- After you're asked to collect more data during peer review
- Before you start analyzing an already existing dataset (secondary data)

You can also embargo preregistrations if you'd like to keep the details of your preregistration private for a certain period of time.

Where do I preregister?

Do **not** preregister on your personal or institutional website. Here are some options, though there are others:

- OSF
- American Economic Association (AEA) RCT Registry
- Animal Study Registry
- AsPredicted
- ClinicalTrials.gov
- GitHub/GitLab/Codeberg
- International Clinical Trials Registry Platform (ICTRP) by the World Health Organization
- Preclinicaltrials.eu
- Registry of Efficacy and Effectiveness Studies (REES)
- Systematic review registries: e.g., PROSPERO (health), IDESR (education)
- Zenodo

What formats to use

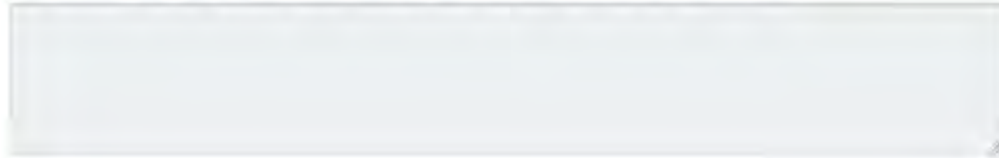
- Template or not? It's your choice
- **Option 1:** use a template, either more general or one developed for your specific methodology/ approach
 - Advantages: structure, guidance, rigour
 - Recommended for beginners
- **Option 2:** write a free-form document that covers all necessary points
 - Advantages: tailored for your needs
 - Recommend that you still consult a template to check what to include, and delineate sections

Comparing sampling questions across templates

AsPredicted.org Template

Sample Size

How many observations will be collected or what will determine the sample size? No need to justify the decision, but be precise about exactly how the number will be determined.

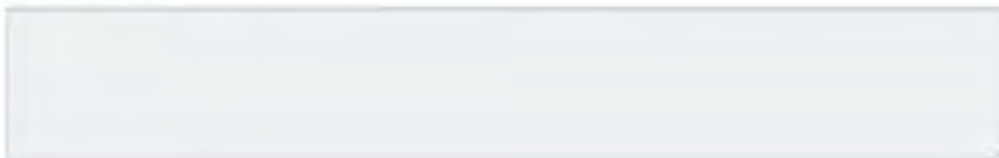


Qualitative Template

Stopping criteria *

Please describe the criteria or rationale behind when you will stop data generation or collection. Possible criteria include (but are not restricted to): data saturation*, when inclusion criteria are satisfied, resource constraints (e.g. time/funding), or when the analysis has produced an enriching answer to the research question(s).

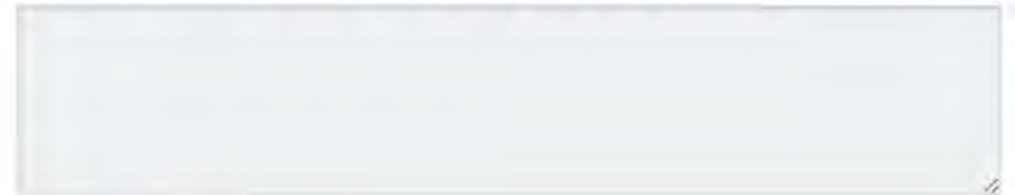
Show example



Social Psychology Template

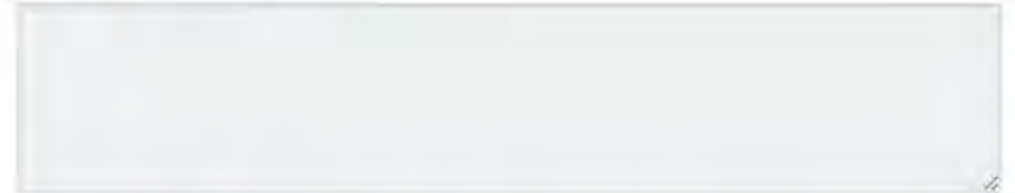
Data Collection *

Indicate where, from whom and how the data will be collected.



Sample Size *

Justify planned sample size



Power Analysis File

If applicable, you can upload a file related to your power analysis here (e.g., a protocol of power analyses from G*Power, a script, a screenshot, etc.).

Where can I find templates?

The OSF currently has templates for:

- General
- Qualitative research
- Psychological replications
- Registered Reports
- Secondary data analysis
- Social psychological research
- Systematic reviews
- *fMRI
- *Modeling

<https://help.osf.io/article/229-select-a-registration-template>

*Community-made templates: <https://osf.io/zab38/wiki/home/>

What journals accept Registered Reports?

Currently, over 300 journals use the Registered Reports publishing format, either as a regular submission option or as part of a single special issue.

Other journals offer some features of the format.

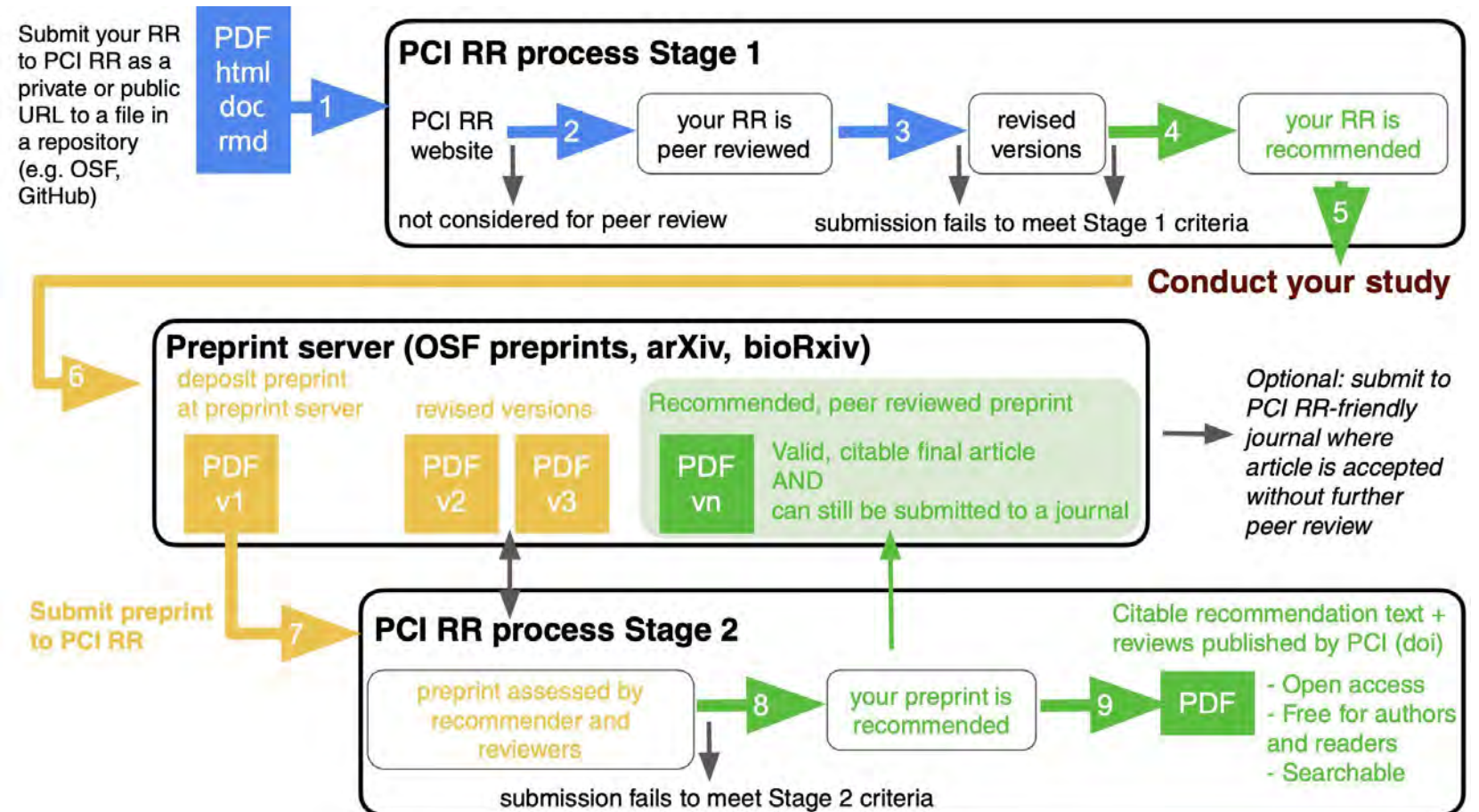
You can see the full list of known participating journals here: www.cos.io/rr

You can also ask a journal (not on this list) if they will accept a RR (some will!)

You can also submit your RR to Peer Community In Registered Reports: <https://rr.peercommunityin.org/>



Free and transparent pre- and post-study recommendations across research fields



What do I do in the final manuscript?

Link to the preregistration

List all preregistered hypotheses

Report results of all prespecified analyses

Distinguish between planned and unplanned analyses

Reporting deviations

Include a section titled “Deviations to the planned study design” or “Transparent changes.”

Make sure to describe:

- Problems with data, missing data, more advanced methods used than predicted
- Changes to the sampling plan
- Changes to the preregistered research design plan

Examples of documenting prereg

EEG (<https://elifesciences.org/articles/73930>)

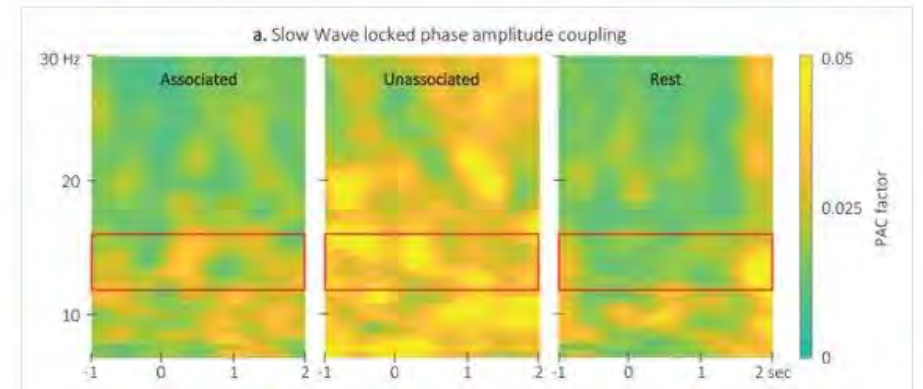
- well-organised prereg (numbered hypotheses)
- list of deviations provided
- Clearly delineated exploratory analyses

Materials and methods

This study was pre-registered in the Open Science Framework (<https://osf.io/>). Our pre-registration document outlined our hypotheses and intended analysis plan as well as the statistical models used to test our a priori hypotheses (available at <https://osf.io/y48wq>). Whenever an analysis presented in the current paper was not pre-registered, it is referred to as *exploratory*. Additionally, to increase transparency, any deviation from the pre-registration is marked with a (#) symbol and listed in Supplementary file 3 together with a justification for the change.

Event-related phase-amplitude coupling (ERPAC) analyses were performed across channels on a wider frequency range (7–30 Hz) for completeness; thus, analyses outside the pre-registered sigma band (see red frame in Figure 6) are considered exploratory. The ERPAC values locked to the auditory cues were compared between the two stimulation conditions. The CBP test did not highlight any significant clusters (alpha threshold = 0.025, cluster p-value = 0.44). The preferred coupling phase, which represents the phase at which the maximum amplitude is observed, did not significantly differ between conditions ($F(1,46) = 0.3$, p-value = 0.9). These results suggest that the stimulation conditions did not influence the coupling between the phase of the slow oscillations and the amplitude of sigma oscillations at the auditory cue.

< > Figure 6 with 3 supplements





Targeted Memory Reactivation impacts on electrophysiological sleep signatures involved in motor memory consolidation.

Public registration

Updates



Overview

Metadata

Files

Resources

Wiki

Components 0

Links 0

Analytics

Comments 0

Open practice resources



Data

Analytic code

Materials

Papers

Study Information



Title

The effect of Targeted Memory Reactivation on electrophysiological sleep features involved in motor memory consolidation.

Authors

Description

The fascinating ability to form memories underlies the building of our identity, knowledge as well as our motor and perceptual skills. This function is thus inextricably linked to the efficient performance of everyday life activities. Important discoveries over the last several decades have significantly enhanced our understanding of the neurophysiological mechanisms underlying memory formation and consolidation, i.e. the process by which labile memory traces become more robust. In the present study, we will adopt the acquisition and consolidation of movement sequences as a model to study the neural processes underlying memory. Motor sequence learning (MSL) is ideal for the proposed research because it involves integrating the temporal structure of a series of stereotyped movements into a unitary, well-rehearsed sequence and thus is the basis for the execution of many daily activities (e.g., typing). It also is a dominant motor learning paradigm in the field and, accordingly, both behavioral and neural correlates of these processes have been extensively characterized in young adults. Briefly, initial acquisition of a movement sequence, occurring during online practice of the task and characterized by a substantial improvement in performance, is followed by a slower phase in which smaller improvements emerge across multiple practice sessions. Importantly, the consolidation phase, occurring offline, between practice sessions, offers a privileged time window for the acquired memory to be transformed

Contributors

Judith Nicolas, Bradley King, and Genevieve ALBOUY

Registration type

OSF Preregistration

Date registered

December 2, 2019

Date created

December 2, 2019

Associated project

osf.io/n3me8

Internet Archive link

<https://archive.org/details/osf-registrations-y48wq-v1>

Category

Project

Registration DOI

<https://doi.org/10.17605/OSF.IO/Y48WQ>



<https://osf.io/y48wq>

Supplementary file 3. List of the deviations from the pre-registered analyses followed by their justification. These deviations are marked with a # in the main manuscript.

	Pre-registered	Final report
1	Only right-handed participants	Both right- and <u>left</u> -handed participants
	Justification: Based on the bimanual nature of our motor task, we elected to not restrict our participant <u>pool</u> to only right-handers <u>in order to</u> facilitate recruitment (N= 2 left-handers).	
2	Pre-nap performance for offline gain computation on last 4 blocks of the MSL	Pre-nap performance for offline gain computation on last <u>3</u> blocks of the MSL
	Justification: See main manuscript for details. Briefly, against our expectations based on previous research using learning of a single sequence, participants only reached plateau performance on the two sequences starting on block 2 of the pre-nap test. <u>In order to</u> meet the performance plateau pre-requisite to compute offline gains in performance, we therefore excluded the first block of the pre-nap test and computed offline gains based on the last 3 blocks of the pre-nap test which showed stable performance levels for both sequences.	
3	We will classify auditory evoked responses into evoked SO if the standard criteria of a SO are met (negative peak ≤ -40 μ V and the peak-to-peak amplitude ≥ 75 μ V). Mean auditory-evoked SO amplitude will be computed for each subject in each condition separately.	Auditory-evoked responses were averaged <u>across all trials</u> for each condition. Mean auditory <u>ERP</u> amplitude was computed for each subject in each condition separately.
	Justification: The number of auditory ERPs reaching the pre-registered amplitude criteria was not sufficient to perform a powerful statistical analysis. This issue being highlighted in previous research (4), we followed similar procedures and averaged all the auditory-evoked responses <i>irrespective of their</i>	

Examples of documenting prereg

- Behavioral:
 - exploratory and confirmatory sample
 - They mention they deviated
 - <https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3001566>

For data collection and analysis, we employed a “split sample” approach [33,34]. We first collected a discovery sample that we used to refine and develop hypotheses in a data-driven way. We then used a confirmation sample to test the preregistered hypotheses in a statistically rigorous way. This approach thus combines the benefits of preregistration—reduced risk of false positives due to analytical freedoms—with those of exploratory science—the analytical approach being best adapted to the specific data.

PLOS BIOLOGY

OPEN ACCESS PEER-REVIEWED

PREREGISTERED RESEARCH ARTICLE

The effect of apathy and compulsivity on planning and stopping in sequential decision-making

Jacqueline Scholl , Hailey A. Trier, Matthew F. S. Rushworth  , Nils Kolling  

Published: March 31, 2022 • <https://doi.org/10.1371/journal.pbio.3001566>

Article

Authors

Metrics

Comments

Media Coverage

Peer Review



Abstract

Abstract

Example of a 'failed' RR

- This RR did not uphold assumptions
 - Clinical group did not show fMRI deficits expected
 - But still useful for transparency

Statistical comparisons indicated that the two-factor model fit the data significantly better than the single-factor model, $\chi^2(13)=172.11, p<.001$, however neither **pre-registered** model was a good fit (TLI < .795, CFI < .856, SRMR > .065). We consequently examined the modification indices of both models to improve model fits. For both models, this indicated that expressive and receptive vocabulary scores, as well as the two narrative production measures (ERRNI initial and delayed recall) were strongly correlated with each other, with modification indices of >30. These correlations were subsequently modelled for both the single and two-factor models. In addition, for the single-factor



NeuroImage
Volume 226, 1 February 2021, 117599



Registered Report

Functional organisation for verb generation in children with developmental language disorder

Saloni Krishnan ^{a, b} , Salomi S. Asaridou ^a, Gabriel J. Cler ^a, Harriet J. Smith ^{a, c}, Hannah E. Willis ^{a, d}, Máiréad P. Healy ^{a, e}, Paul A. Thompson ^a, Dorothy V.M. Bishop ^a, Kate E. Watkins ^a

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<https://doi.org/10.1016/j.neuroimage.2020.117599>

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[open access](#)

Highlights

- We scanned the largest cohort of children with developmental language disorder to date.
- Our **pre-registered** predictions were not upheld.
- Children with DLD who accurately performed the verb generation task showed no functional abnormality.

<https://www.sciencedirect.com/science/article/pii/S1053811920310843?via%3Dihub>

My story: some personal examples



Preregistration

Preregistered each study of an iterative, multi-study paper

It improved each time – showed us our mistakes

Made analysis very simple (just followed the plan)

Knowledge of wealth shapes social impressions.

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Database: APA PsycA

**Journal of
Experimental
Psychology:
Applied**

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Deborah A. Starks, Managing Editor
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[Sarkar, Amar](#) [Nithyanand, Dhruv](#) [Sella, Francesco](#) [Sarkar, Radha](#) [Makela, Ilari](#) [Cohen Kadosh, Ro](#)
| [Elliot, Andrew J.](#) [Thompson, Jacqueline M.](#)

Citation

Sarkar, A., Nithyanand, D., Sella, F., Sarkar, R., Mäkelä, I., Cohen Kadosh, R., Elliot, A. J., & Thompson, J. M. (2022). Knowledge of wealth shapes social impressions. *Journal of Experimental Psychology: Applied*, 28(1), 205–236. <https://doi.org/10.1037/xap0000304>

Abstract

Seven experiments conducted in India and the United States (N ~7,000; 5 preregistered) examined the effects of wealth on warmth and competence, 2 fundamental dimensions of social impressions. Wealth causally influenced perceptions of a target's competence: high wealth increased perceived competence and low wealth decreased perceived competence (Experiments 1–3). Furthermore, both high and low wealth reduced perceived warmth compared with control conditions that provided no wealth-related information (Experiments 2 and 3). Attributing prosocial tendencies to the target in the form of charitable donations reversed wealth-induced reductions in warmth, while low levels of charitable donations lowered both perceived warmth and competence (Experiment 3). Reciprocally, information about the target's competence or warmth influenced how wealthy they were perceived to be (Experiment 4). Knowing the source of wealth (e.g., entrepreneurship, corporate fraud, inheritance) also affected perceptions of competence and warmth (Experiments 5 and 6). Moreover, participants expressed greater willingness to hire wealthier targets compared with poorer targets in hypothetical employment scenarios, a relationship mediated by perceived competence, suggesting that an individual's wealth may influence consequential assessments and decisions (Experiment 7). With rising economic inequality, it is crucial to understand how wealthy and poor individuals are perceived and the implications of these perceptions. The present experiments offer insight in this direction. (PsycInfo Database Record (c) 2022 APA, all rights reserved)

Preregistration

Preregistered each study of an iterative, multi-study paper

It improved each time – showed us our mistakes

Made analysis very simple (just followed the plan)

Experiment	Preregistration Status (and number on aspredicted.org)	Planned effect size for 80% power, required minimum n /cell (actual minimum n /cell)	Total Final Sample Size ²
1	No	Cohen's $d = .25^1$, $n = 250$ (206)	426
2	Yes (#3673)	Cohen's $d = .35$, $n = 130$ (131)	443
3	Yes (#4696)	Cohen's $d = .25$, $n = 253$ (265)	2,643
4	Yes (#5017)	Cohen's $d = .35$, $n = 130$ (151)	1,547
5	No	Cohen's $d = .35$, $n = 130$ (156)	317
6	Yes (#7771)	Cohen's $d = .35$, $n = 130$ (155)	831
7	Yes (#27075)	Small mediation effect, a path = .20, b path = .14, $n = 320$ (352)	734



Registered Reports

Submitted an (exploratory) experiment to a journal

They requested a replication experiment

I asked if it could be done as a registered report, on a tight timeline (funding running out)

Editor agreed!

Supervisor was convinced by idea of guaranteed publication

Differential effects of film genre on viewers' absorption, identification, and enjoyment.

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Database: APA PsycArticles



[Thompson, Jacqueline M.](#) [Teasdale, Ben](#) [Duncan, Sophie](#) [van Emde Boas, Evert](#) [Budelmann, Felix](#)
[Maguire, Laurie](#) [Dunbar, Robin I. M.](#)

Citation

Thompson, J. M., Teasdale, B., Duncan, S., van Emde Boas, E., Budelmann, F., Maguire, L., & Dunbar, R. I. M. (2021). Differential effects of film genre on viewers' absorption, identification, and enjoyment. *Psychology of Aesthetics, Creativity, and the Arts*, 15(4), 697–709. <https://doi.org/10.1037/aca0000353>

Abstract

Marketers, filmmakers, and cinema-goers assume that genre has a large effect on how the audience responds to and engages with a film. However, trait measures such as transportability suggest that, in some cases, individual differences may shape audience engagement more than genre does. To investigate this disparity, we compared viewers' enjoyment, identification with characters, and story world absorption (including three subscales: Transportation, Attention, and Emotional Engagement) for film clips from two very different genres (an emotional family film vs. an action chase scene) in a within-subjects design. Across two studies—an exploratory study and a preregistered replication—we found that participants' feelings of being transported into the narrative (a dimension of story world absorption) were more highly correlated across films than other measures were and tended to be less related to genre preference than the other audience response measures were. This pattern of results suggests that feelings of transportation may be more dependent on individual differences, and less sensitive to genre, than other forms of audience response. An exploratory analysis of a short scale measuring trait transportability suggested this measure was not the basis of the individual differences theorized to underlie transportation. Our results further highlight the importance of examining viewer engagement with narrative as a multidimensional, rather than unitary, concept. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

How to convince my supervisor? (or collaborators?)

- This can take some creativity!
- Key: figure out what matters most to them, and frame it that way
 - E.g. supervisor who only cares about publications - emphasise that IPA guarantees publication
 - Norms can also be powerful
- Make it concrete (write it first and show them the full draft)
 - Easier to say no/be scared when it's abstract

How to Register (and Update!) a Study on the OSF



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OPEN SCIENCE

Getting Started with Preregistrations

<https://osf.io/registries>



The screenshot shows the OSF Registries website. At the top, a dark blue navigation bar contains the OSF logo, the text "OSF REGISTRIES" with a dropdown arrow, and links for "Add New" (highlighted with a green box), "My Registrations", "Help", and "Donate". Below the navigation bar is a teal banner with the text "SHARING RESEARCH DATA AND CREATING VISIBILITY FOR YOUR RESEARCH COMMUNITY" and a "REGISTER" button. On the left of the banner is a date box for "SEPTEMBER 7 1:00PM ET". The main content area is dark blue and features the OSF logo, the text "OSF REGISTRIES", and the tagline "The open registries network". A search bar with the placeholder "Search registrations..." is located below the tagline. At the bottom, there is a link "See an example".

OSF REGISTRIES

SEPTEMBER 7 1:00PM ET

SHARING RESEARCH DATA AND CREATING VISIBILITY FOR YOUR RESEARCH COMMUNITY

REGISTER

OSF REGISTRIES

The open registries network

Search registrations...

See an example

Offline versions: <https://bit.ly/osf-reg-template>

Creating Your (Pre)Registration

<https://osf.io/registries>



The screenshot shows the 'Add New Registration' page on the OSF Registries website. The header includes the OSF logo and 'REGISTRIES' with a dropdown arrow, and navigation links for 'Add New', 'My Registrations', 'Help', and 'Donate'. The main heading is 'Add New Registration'. Below this, a message states: 'You are submitting to OSF Registries. Click here to learn more about other hosted registries.' The form is divided into two steps. Step 1 asks 'Do you have content for registration in an existing OSF project?' with 'YES' and 'NO' buttons. Step 2 asks 'Which type of registration would you like to create? *' with a dropdown menu showing 'OSF Preregistration' and a 'Create draft' button.

OSF REGISTRIES ▾ Add New My Registrations Help Donate

Add New Registration

You are submitting to OSF Registries. [Click here](#) to learn more about other hosted registries.

STEP 1

Do you have content for registration in an existing OSF project?

YES NO

STEP 2

Which type of registration would you like to create? *

OSF Preregistration

Create draft

Offline versions: <https://bit.ly/osf-reg-template>

Registration Metadata

<https://osf.io/registries>

Registration Metadata




This metadata applies only to the registration you are creating, and will not be applied to your project.

Title *

Untitled

Description *

Contributors

Name	Permission	Citation
 Crystal N. Steltenpohl	Administrator	<input checked="" type="checkbox"/>  

Category

Uncategorized

Next →

Auto-saved:
4 minutes ago

Delete Draft

Caution
Only one person is able to edit a registration draft at a time. Be sure to coordinate with any other contributors.

License FAQ: <https://help.osf.io/article/148-licensing>

Offline versions: <https://bit.ly/osf-reg-template>

Study Information

<https://osf.io/registries>

✓ Metadata

● Study Information

Design Plan

Sampling Plan

Variables

Analysis Plan

Other

Review

Study Information

Hypotheses *

List specific, concise, and testable hypotheses. Please state if the hypotheses are directional or non-directional. If directional, state the direction. A predicted effect is also appropriate here. If a specific interaction or moderation is important to your research, you can list that as a separate hypothesis.

Hide example

If taste affects preference, then mean preference indices will be higher with higher concentrations of sugar.

This field can't be blank.

Next →

← Metadata

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Design Plan

<https://osf.io/registries>

The screenshot shows the 'Design Plan' section of the OSF registration form. On the left is a sidebar with a progress indicator showing 'Metadata' and 'Study Information' as completed, 'Design Plan' as the current step, and 'Sampling Plan', 'Variables', 'Analysis Plan', 'Other', and 'Review' as pending. The main content area is titled 'Design Plan' with a help icon. It contains two sections: 'Study type *' and 'Blinding *'. The 'Study type' section asks the user to check one of four statements: 'Experiment', 'Observational Study', 'Meta-Analysis', or 'Other'. The 'Blinding' section asks the user to mark all that apply from four options: 'No blinding', 'Human subjects unaware of treatment', 'Double blind', and 'Data analysts unaware of treatment'. Both sections have red error messages indicating that a value must be selected. On the right side of the form, there are navigation buttons: 'Next →' (blue), '← Back' (light blue), 'Auto-saved: a few seconds ago' (text), and 'Delete Draft' (red). A 'Caution' note at the bottom right states that only one person can edit a draft at a time.

Design Plan ?

Study type *

Please check one of the following statements

- ☐ Experiment - A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.
- ☐ Observational Study - Data is collected from study subjects that are not randomly assigned to a treatment. This includes surveys, "natural experiments," and regression discontinuity designs.
- ☐ Meta-Analysis - A systematic review of published studies.
- ☐ Other

You must select a value for this field.

Blinding *

Blinding describes who is aware of the experimental manipulations within a study. Mark all that apply.

- ☐ No blinding is involved in this study.
- ☐ For studies that involve human subjects, they will not know the treatment group to which they have been assigned.
- ☐ Personnel who interact directly with the study subjects (either human or non-human subjects) will not be aware of the assigned treatments. (Commonly known as "double blind")
- ☐ Personnel who analyze the data collected from the study are not aware of the treatment applied to any given group.

You must select at least one value for this field.

Next →

← Back

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Offline versions: <https://bit.ly/osf-reg-template>

Sampling Plan

<https://osf.io/registries>

✓ Metadata

✓ Study Information

✓ Design Plan

● Sampling Plan

Variables

Analysis Plan

Other

Review

Sampling Plan ?

Existing Data *

Preregistration is designed to make clear the distinction between confirmatory tests, specified prior to seeing the data, and exploratory analyses conducted after observing the data. Therefore, creating a research plan in which existing data will be used presents unique challenges. Please select the description that best describes your situation. See <https://cos.io/prereg> for more information.

- ☐ Registration prior to creation of data ?
- ☐ Registration prior to any human observation of the data ?
- ☐ Registration prior to accessing the data ?
- ☐ Registration prior to analysis of the data ?
- ☐ Registration following analysis of the data ?

Explanation of existing data

If you indicate that you will be using some data that already exist in this study, please describe the steps you have taken to assure that you are unaware of any patterns or summary statistics in the data. This may include an explanation of how access to the data has been limited, who has

Next →

← Back

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Variables

<https://osf.io/registries>

✓ Metadata

✓ Study Information

✓ Design Plan

✓ Sampling Plan

● Variables

○ Analysis Plan

○ Other

○ Review

Variables


Manipulated variables

Precisely define all variables you plan to manipulate and the levels or treatment arms of each variable. This is not applicable to any observational study.

[Show example](#)

You may attach up to 5 file(s) to this question. Files cannot total over 5GB in size.

Uploaded files will automatically be archived in this registration. They will also be added to a related project that will be created for this registration.



Next →

← Back

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Analysis Plan

<https://osf.io/registries>

✓ Metadata

✓ Study Information

✓ Design Plan

✓ Sampling Plan

✓ Variables

● Analysis Plan

○ Other

○ Review

Analysis Plan ⓘ

Statistical models *

What statistical model will you use to test each hypothesis? Please include the type of model (e.g. ANOVA, RMANOVA, MANOVA, multiple regression, SEM, etc) and the specification of the model. This includes each variable that will be included, all interactions, subgroup analyses, pairwise or complex contrasts, and any follow-up tests from omnibus tests. If you plan on using any positive controls, negative controls, or manipulation checks you may mention that here. Provide enough detail so that another person could run the same analysis with the information provided. Remember that in your final article any test not included here must be noted as exploratory and that you must report the results of all tests.

[Show example](#)

You may attach up to 5 file(s) to this question. Files cannot total over 5GB in size.

Next →

← Back

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ⓘ Caution

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Offline versions: <https://bit.ly/osf-reg-template>

Other

<https://osf.io/registries>

The screenshot shows the 'Other' section of an OSF preregistration form. On the left is a vertical sidebar with a list of steps: Metadata, Study Information, Design Plan, Sampling Plan, Variables, Analysis Plan, Other, and Review. The 'Other' step is currently selected, indicated by a black circle. The main content area is titled 'Other' and contains a text box with the instruction: 'If there is any additional information that you feel needs to be included in your preregistration, please enter it here. Literature cited, disclosures of any related work such as replications or work that uses the same data, or other helpful context would be appropriate here.' Below this text is a large, empty light-blue rectangular box for input. On the right side of the form, there is a blue 'Review' button, a 'Back' button with a left arrow, an 'Auto-saved: a few seconds ago' status message, and a red 'Delete Draft' button. At the bottom right, a 'Caution' message states: 'Only one person is able to edit a registration draft at a time. Be sure to coordinate with any other contributors.'

Other

Other

If there is any additional information that you feel needs to be included in your preregistration, please enter it here. Literature cited, disclosures of any related work such as replications or work that uses the same data, or other helpful context would be appropriate here.

Review

← Back

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Offline versions: <https://bit.ly/osf-reg-template>

Review

<https://osf.io/registries>

Review

- Metadata
- Study Information
- Design Plan
- Sampling Plan
- Variables
- Analysis Plan
- Other
- Review**

Metadata

Title

Untitleddfsdf

Description

dsfsdfsdf

Contributors

Crystal N. Steltenpohl

Category

Procedure

Affiliated institutions

No affiliated institutions

License

Academic Free License (AFL) 3.0

Subjects

Medicine and Health Sciences

Register

[← Back](#)

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a few seconds ago

Delete Draft

Caution
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Offline versions: <https://bit.ly/osf-reg-template>

Almost done...

<https://osf.io/registries>

Select Components

Contributor changes for included components must be done on the component contributor page before submitting this registration.

Select All | Clear All

- ☒ Mental Effort and the Uncanny Valley: A TCD study
 - ☒ Phase 2: Detection on Uncanny Agents
 - ☒ Phase 1: Blood flow on Uncanny Agents

Almost done...

Remember:

- Registrations cannot be modified or deleted once submitted.
- Changes to any files (1) in the projects or components being registered, (2) uploaded or selected as prompt responses, including those connected through add-ons during archiving will result in archiving failure and loss of your registration timestamp. Please do not modify your files until after you have received email confirmation of archiving completion. If this registration has been archiving for more than 72 hours, please email support@osf.io for assistance.
- The content and version history of Wiki and OSF Storage will be copied to the registration.
- This project may contain links to other projects. These links will be copied into your registration, but the projects that they link to will not be registered. If you wish to register the linked projects, they must be registered separately. [Learn more about links.](#)


☐ Make registration public immediately

☐ Enter registration into embargo

Offline versions: <https://bit.ly/osf-reg-template>


Registration Pending

<https://osf.io/registries>

 OSF REGISTRIES

Add New Help Donate

Mental Effort and the Uncanny Valley: A TCD study



This registration is currently archiving, and no changes can be made at this time.

Please note:
Changes to any files (1) in the projects or components being registered, (2) uploaded or selected as prompt responses, including those connected through add-ons during archiving will result in archiving failure and loss of your registration timestamp. Please do not modify your files until after you have received email confirmation of archiving completion. If this registration has been archiving for more than 72 hours, please email support@osf.io for assistance.

Contributors
[Mark Call](#)

Description
We are investigating the correlation between transcranial doppler sonography with mental workflow when humans interact with agents that fall within the uncanny valley.

Registration type
Open-Ended Registration

Date created
March 23, 2021

Category
Project

Date registered
March 23, 2021

Registered from
[staging2.osf.io/hrkan](#)

Offline versions: <https://bit.ly/osf-reg-template>

Updating preregistrations through the preregistration

The screenshot displays the OSF Registries interface for a preregistration titled "Sugar Concentration on Taste Preference". The top navigation bar includes links for "Moderation", "Add New", "My Registrations", "Help", and "Donate". The left sidebar contains navigation options: "Overview", "Files", "Wiki", "Components", "Links", "Analytics", and "Comments". The central content area shows a list of updates, with the "Update" button highlighted in green. A pink arrow points to the "Hypotheses" section. The right sidebar provides details about the registration, including the contributor, description, registration type, date registered, and date created.

OSF REGISTRIES ▾

Moderation Add New My Registrations Help Donate

Sugar Concentration on Taste Preference

Public registration ▾ Updates ▾

Overview

- Files
- Wiki
- Components 0
- Links 0
- Analytics
- Comments 0

Latest

Update to the original registration

Update 2 was made on Nov 22, 2021

Update 1 update: questions was adjusted to better gauge brownie enjoyment.

Original

Update formation

Hypotheses

If taste affects preference, then mean preference indices will be higher with higher concentrations of sugar.

Contributors

Mark S Call

Description

This study explore the affects of sugar concentration on taste preference.

Registration type

OSF Preregistration

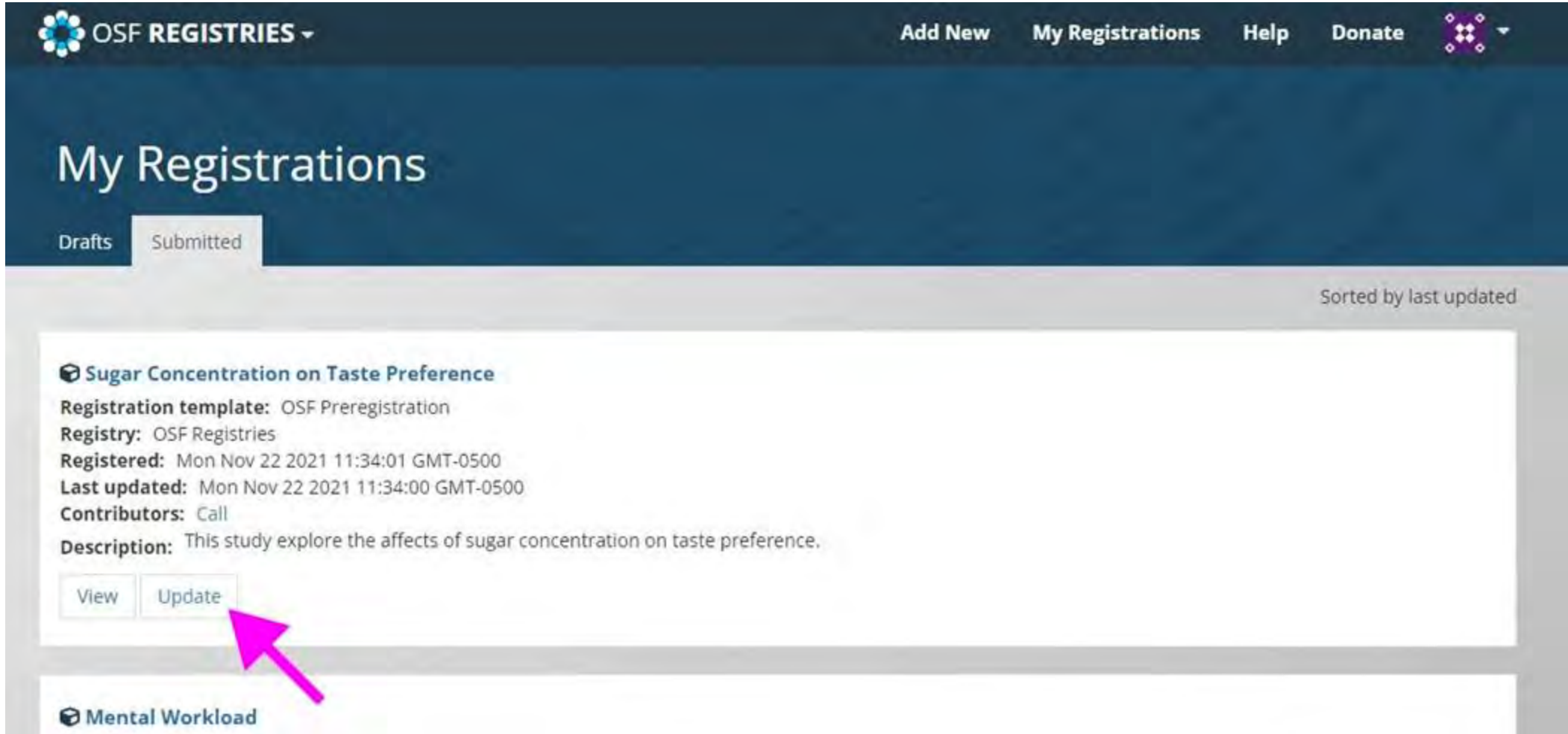
Date registered

November 22, 2021

Date created

Remember that any changes must be accompanied by a justification.

Updating preregistrations through registrations list



OSF REGISTRIES ▾

Add New My Registrations Help Donate

My Registrations

Drafts Submitted

Sorted by last updated

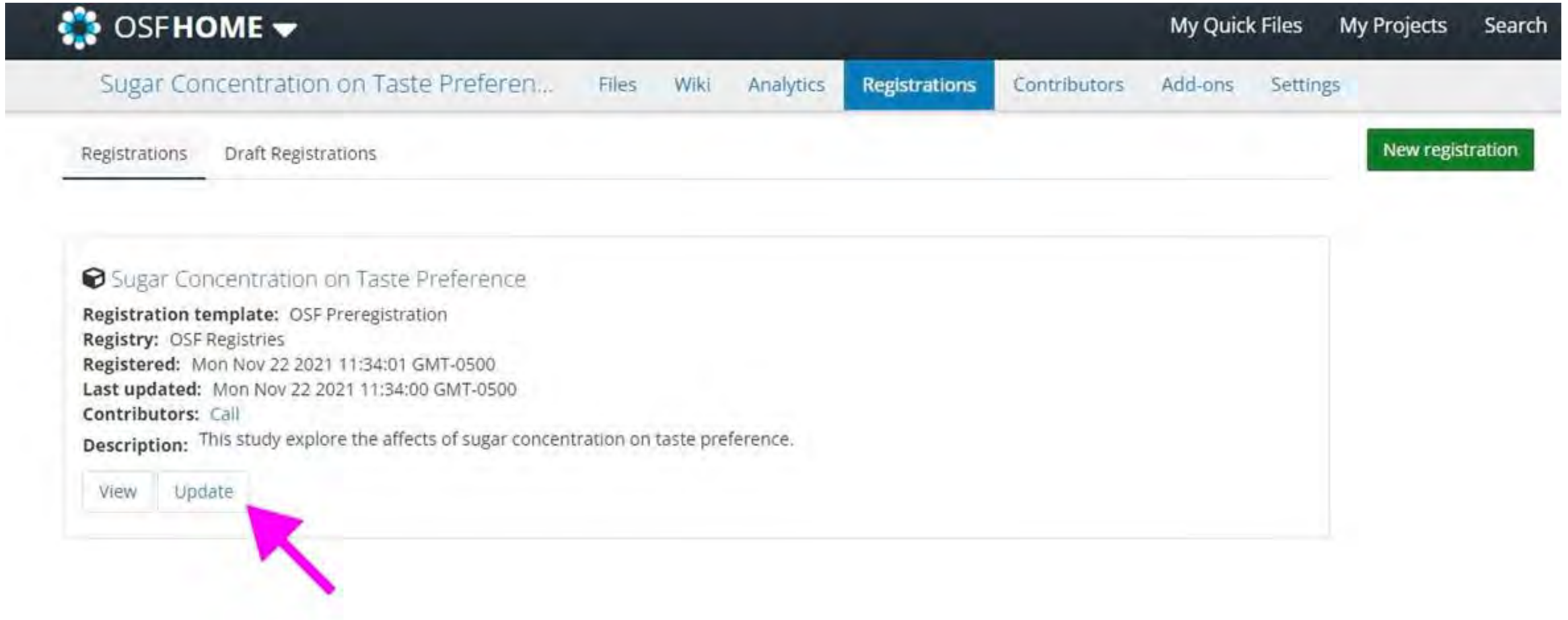
Sugar Concentration on Taste Preference
Registration template: OSF Preregistration
Registry: OSF Registries
Registered: Mon Nov 22 2021 11:34:01 GMT-0500
Last updated: Mon Nov 22 2021 11:34:00 GMT-0500
Contributors: Call
Description: This study explore the affects of sugar concentration on taste preference.

View Update

Mental Workload

Remember that any changes must be accompanied by a justification.

Updating preregistrations through OSF projects



The screenshot shows the OSF HOME interface. At the top, there is a dark navigation bar with the OSF logo and 'OSFHOME' on the left, and 'My Quick Files', 'My Projects', and 'Search' on the right. Below this is a light gray bar with project-specific tabs: 'Sugar Concentration on Taste Preferen...', 'Files', 'Wiki', 'Analytics', 'Registrations' (highlighted in blue), 'Contributors', 'Add-ons', and 'Settings'. Under the 'Registrations' tab, there are two sub-tabs: 'Registrations' (underlined) and 'Draft Registrations'. A green button labeled 'New registration' is on the right. The main content area shows details for a registration titled 'Sugar Concentration on Taste Preference'. The details include: 'Registration template: OSF Preregistration', 'Registry: OSF Registries', 'Registered: Mon Nov 22 2021 11:34:01 GMT-0500', 'Last updated: Mon Nov 22 2021 11:34:00 GMT-0500', 'Contributors: Call', and 'Description: This study explore the affects of sugar concentration on taste preference.' At the bottom of this card are two buttons: 'View' and 'Update'. A pink arrow points to the 'Update' button.

OSFHOME

My Quick Files My Projects Search

Sugar Concentration on Taste Preferen... Files Wiki Analytics Registrations Contributors Add-ons Settings

Registrations Draft Registrations New registration

Sugar Concentration on Taste Preference

Registration template: OSF Preregistration
Registry: OSF Registries
Registered: Mon Nov 22 2021 11:34:01 GMT-0500
Last updated: Mon Nov 22 2021 11:34:00 GMT-0500
Contributors: Call
Description: This study explore the affects of sugar concentration on taste preference.

View Update

Remember that any changes must be accompanied by a justification.

What if I need help?

Help Guides: <https://help.osf.io>

Email: support@osf.io



Thank you!

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Resources: Why Preregistration

Avey, M. T., Moher, D., Sullivan, K. J., Fergusson, D., Griffin, G., Grimshaw, J. M., ... & Canadian Critical Care Translational Biology Group. (2016). The devil is in the details: incomplete reporting in preclinical animal research. *PLoS One*, 11(11), e0166733.

Gelman, A., & Loken, E. (2013). The garden of forking paths: Why multiple comparisons can be a problem, even when there is no “fishing expedition” or “p-hacking” and the research hypothesis was posited ahead of time. *Department of Statistics, Columbia University*.

Mertens, G., & Kryptos, A. M. (2022). Preregistration of studies with existing data. In *Integrity of Scientific Research: Fraud, Misconduct and Fake News in the Academic, Medical and Social Environment* (pp. 361-370). Cham: Springer International Publishing.

Nosek, B. A., Ebersole, C. R., DeHaven, A. C., & Mellor, D. T. (2018). The preregistration revolution. *Proceedings of the National Academy of Sciences*, 115(11), 2600-2606.

Resources: How to Do Preregistration

Krypotos, A. M., Klugkist, I., Mertens, G., & Engelhard, I. M. (2019). A step-by-step guide on preregistration and effective data sharing for psychopathology research. *Journal of Abnormal Psychology, 128*(6), 517.

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2021). Pre-registration: Why and how. *Journal of Consumer Psychology, 31*(1), 151-162.

Willroth, E. C., & Atherton, O. E. (2024). Best laid plans: A guide to reporting preregistration deviations. *Advances in Methods and Practices in Psychological Science, 7*(1), 25152459231213802.

Arpinon, T., Espinosa, R. A practical guide to Registered Reports for economists. *J Econ Sci Assoc* 9, 90–122 (2023). <https://doi.org/10.1007/s40881-022-00123-1>

Kirtley, O. J. (2022). Advancing credibility in longitudinal research by implementing open science practices: Opportunities, practical examples, and challenges. *Infant and Child Development, 31*(1), e2302.

Resources: Effects of Preregistration

Chan, A. W., Pello, A., Kitchen, J., Axentiev, A., Virtanen, J. I., Liu, A., & Hemminki, E. (2017). Association of trial registration with reporting of primary outcomes in protocols and publications. *JAMA*, 318(17), 1709-1711.

Dechartres, A., Ravaud, P., Atal, I., Riveros, C., & Boutron, I. (2016). Association between trial registration and treatment effect estimates: A meta-epidemiological study. *BMC Medicine*, 14, 1-9.

Scheel A. M., Schijen M. R. M. J., Lakens, D. (2021). An excess of positive results: Comparing the standard psychology literature with registered reports. *Advances in Methods and Practices in Psychological Science*, 4(2).

van den Akker, O. R., van Assen, M. A., Bakker, M., Elsherif, M., Wong, T. K., & Wicherts, J. M. (2023). Preregistration in practice: A comparison of preregistered and non-preregistered studies in psychology. *Behavior Research Methods*, 1-10.

Resources: Introductory Videos

Introduction: What are preregistration and registered reports?

<https://www.youtube.com/watch?v=h0Pin-OUIS4>

Testimonial video about researchers' experience with prereg/RRs:

<https://www.youtube.com/watch?v=q4yf7Pt4q5c>