



UNIVERSITATEA BABEȘ-BOLYAI  
BABEȘ-BOLYAI TUDOMÁNYEGYETEM  
BABEȘ-BOLYAI UNIVERSITÄT  
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TRADITIO ET EXCELLENTIA

# *REGISTERED REPORTS*

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# CRIZA REPLICABILITĂȚII – CAUZE MULTIPLE

- recompensarea preferențială a rezultatelor semnificative – publicare preferențială (*publication bias*), citare preferențială etc => acces la resurse (finantare, promovare etc)

⇒ cercetătorii – motivați să producă rezultate semnificative cât mai frecvent

Generezi idei noi

a) Funcționează → rezultat semnificativ

b) Nu funcționează → Questionable Research Practices → rezultat semnificativ

QRPs: – manipulezi datele (ex. excluzi anumiți participanți)

– teste statistice multiple (condiții multiple, variabile dependente multiple) – te folosești de faptul că odată cu efectuarea suficientor teste statistice, o parte dintre ele vor fi semnificative din întâmplare (ex. Simmons et al., 2011)

**Lipsa de transparență** (ex. raportezi testul statistic semnificativ ca și cum ar fi singurul pe care l-ai efectuat)

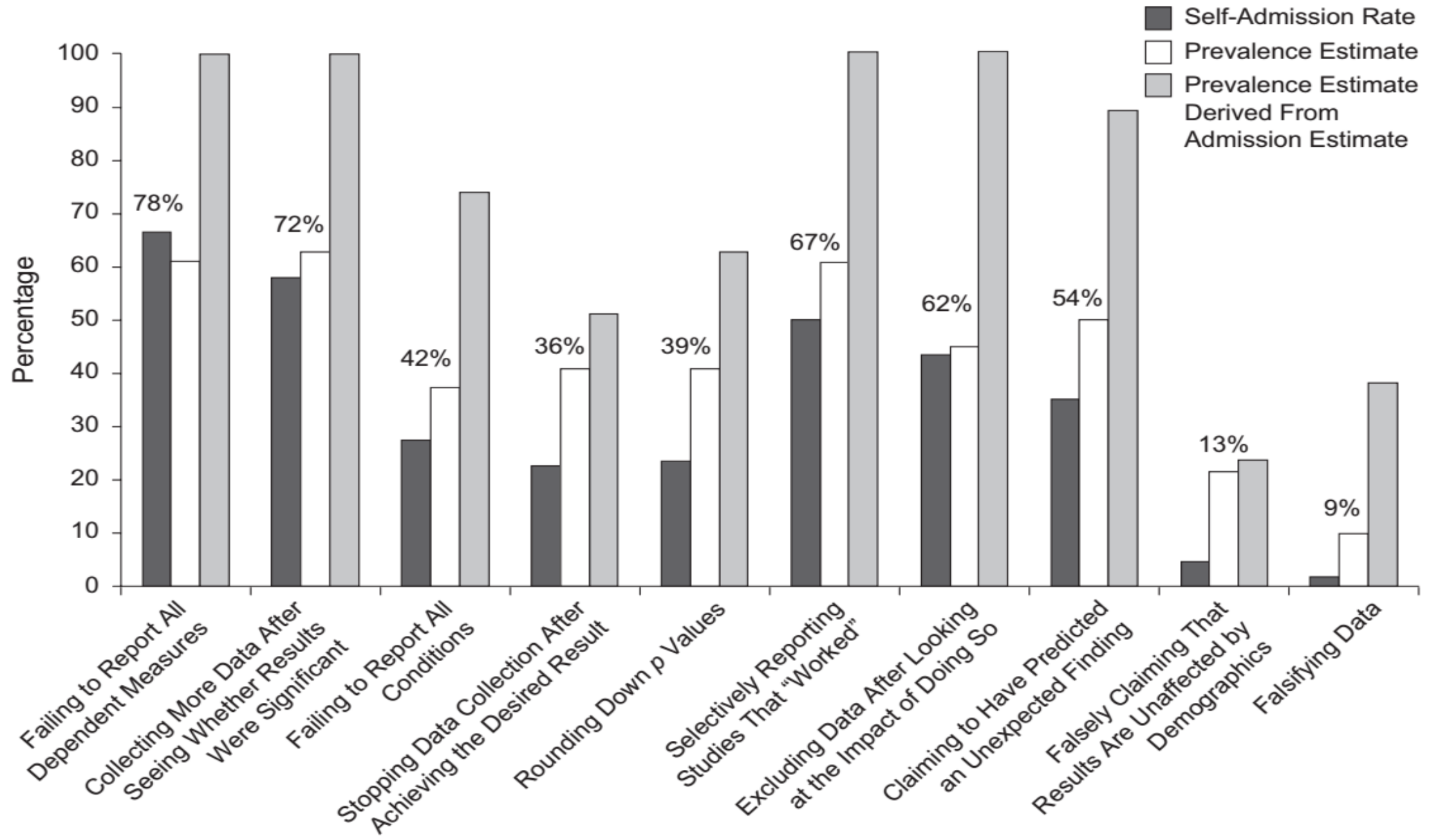
# Measuring the Prevalence of Questionable Research Practices With Incentives for Truth Telling

**Leslie K. John<sup>1</sup>, George Loewenstein<sup>2</sup>, and Drazen Prelec<sup>3</sup>**

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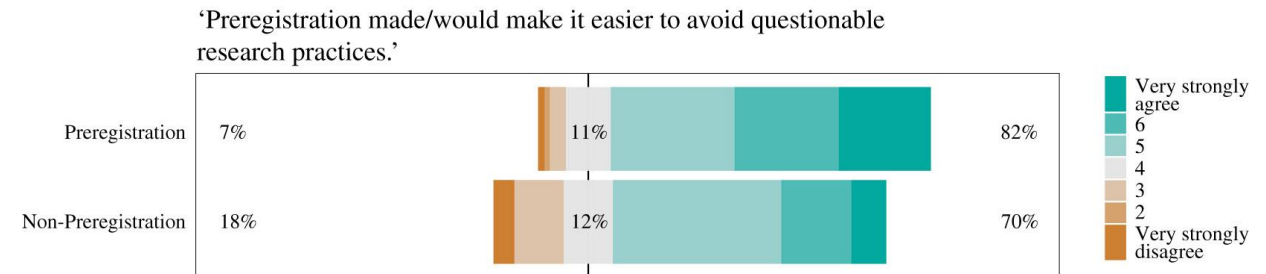
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# PREÎNREGISTRAREA

- Specificarea deciziilor analitice înainte de colectarea datelor, într-un formular accesibil public (imediat sau la o dată ulterioară)
  - ipoteze, design, nr de participanți/strategie de eșantionare, instrumente, analize statistice, praguri decizionale (*p value*, *Bayes factor*)
- Creșterea transparenței – restrângerea posibilității cercetătorului de a se angaja în QRPs
- Beneficiu: Credibilitate



Sarafoglou et al., 2022, *RSOS*

- Î: *Mai mult de lucru?* R: *raportezi aspect pe care oricum le raportezi într-un articol standard*

# PREÎNREGISTRAREA



*Open Science Framework*

<https://help.osf.io/article/158-create-a-preregistration>



<https://aspredicted.org/>

# PREÎNREGISTRAREA – LIMITE

- Raportarea selectivă – ex. fac mai multe studii preînregistrate, dar nu le trimit spre publicare pe cele care nu îmi susțin agenda (totuși, preînregistrarea rămâne publică)
- Publication bias (din parte revistelor) – unele rezultate nule pot să nu fie considerate suficient de interesante de către revistele „mari”,
- Recenzorii pot să aibă opinii diferite – uneori au dreptate\*, alteori nu
- \* nu orice respingere a unui studiu preinregistrat = bias; studiul poate fi slab chiar dacă e preînregistrat

# REGISTERED REPORTS

Specificarea deciziilor analitice (ipoteze, teste statistice etc) înainte de colectarea datelor, dar în cadrul unui manuscris care este trimis la revistă **înainte de colectarea datelor**

- Manuscrit tipic (Introducere, Ipoteze, Metode, Analize statistice planificate), dar fără rezultate și concluzii



# REGISTERED REPORTS

- ⇒ procesul de recenzie este efectuat și decizia editorială „principală” este luată înainte de colectarea datelor (*in principle acceptance/revise/reject*)
  - ⇒ Recenzia vizează rigoarea metodei propuse și legitimitatea (importanța) întrebării de cercetare
  - ⇒ NU rezultatele (semnificative/nesemnificative, spectaculoase/predictibile etc)
- După colectarea datelor, evaluarea vizează doar măsura în care s-a respectat planul și măsura în care discuțiile/concluziile reflectă conținutul rezultatelor;



# REGISTERED REPORTS

- > 300 reviste
- > 70 de reviste din psihologie

Ex.

Cognition and Emotion

Cortex

Nature Human Behaviour

Psychological Science

Journal of Personality and Social Psychology

Psychological Assessment

Journal of Experimental Social Psychology

Journal of Experimental Psychology: Learning,  
Memory, and Cognition

Consciousness and Cognition

Journal of Occupational and Organizational  
Psychology

British Journal of Clinical Psychology

BMC Medicine

Nature

Nature Communications

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## Ratings of Registered Reports peer review process

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Search:

Journal	Speed ?	Quality ?
<a href="#">PCI RR (Peer Community In Registered Reports)</a> (24 ratings)	4.8 ★★★★★ (41)	4.8 ★★★★★ (345)
<a href="#">Cortex</a> (30 ratings)	4.7 ★★★★★ (54)	4.7 ★★★★★ (434)
<a href="#">Royal Society Open Science</a> (24 ratings)	4.7 ★★★★★ (42)	4.7 ★★★★★ (335)
<a href="#">Journal of Cognition</a> (8 ratings)	4.2 ★★★★★ (13)	4.7 ★★★★★ (107)
<a href="#">Collabra: Psychology</a> (6 ratings)	3.6 ★★★★★ (5)	4.6 ★★★★★ (65)
<a href="#">Comprehensive Results in Social Psychology</a> (15 ratings)	4.3 ★★★★★ (25)	4.5 ★★★★★ (182)
<a href="#">BMC Medicine</a> (5 ratings)	4.9 ★★★★★ (8)	4.5 ★★★★★ (73)
<a href="#">PLOS ONE</a> (5 ratings)	4.4 ★★★★★ (9)	4.5 ★★★★★ (74)
<a href="#">Cognitive Research: Principles and Implications</a> (5 ratings)	4.9 ★★★★★ (7)	4.4 ★★★★★ (68)
<a href="#">Journal of Experimental Social Psychology</a> (8 ratings)	4.4 ★★★★★ (8)	4.6 ★★★★★ (74)

- <https://registeredreports.cardiff.ac.uk/feedback/dashboards/>

# REGISTERED REPORTS – BENEFICII

- Reducerea (eliminarea?) publication bias

## HYPOTHESES NOT SUPPORTED BY RESEARCH PAPERS (%)



Estimates from general literature **5–20%**

Registered reports for novel studies **55%\***

Warren, 2018, *Nature*

- Rigoare și credibilitate

Soderberg et al., 2021, *Nat Hum Beh*: "...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]).**"

# REGISTERED REPORTS – BENEFICII

- Posibilitatea integrării feedbackului recenzorilor în realizarea studiului (cca 90% dintre RR trimise la Cortex, acceptate – Zoltan Dienes, comunicare personală)
- *Peer community in: Registered reports* (<https://rr.peercommunityin.org/>) – *Scheduled review* (trimit un pre-submission de o pagină în care specific faptul că de ex într-o lună voi trimite un ms – recenzori pregătiți, review time 3-5 zile)
- Majoritatea RR publicate până în prezent – au ca prim autor ECRs –reducerea presiunii rezultatului

**Table 1 | Misconceptions and realities of RRs**

The misconception	The reality
RRs hamper exploratory research	RRs can include clearly labelled post hoc analyses at stage 2, and almost all published RRs do.
RRs limit creativity or serendipity	The opposite is more probable. Assessing study design and rationale in the absence of results encourages a perceptive evaluation of why a study is worth conducting in the first place, and IPA protects serendipitous discoveries from publication bias.
RRs are only for ‘single shot’ studies	RRs in many journals can include preliminary studies (for example, Heycke et al. <sup>308</sup> ), prespecified sequences of studies (for example, Ait Ouares et al. <sup>309</sup> ) or incremental registrations after stage 2 acceptance.
RRs are particularly vulnerable to scooping	In 7 years, there have been no reports of scooping linked to RRs, and stage 1 protocols can be kept under private embargo until stage 2 submission or acceptance. In the rare event of an idea being appropriated and implemented by a reviewer faster than the authors, doing so would have no effect on publication of the RR because ‘novelty’ is not assessed at stage 2.
RRs can be easily gamed by ‘post-registering’ a study that the authors have already conducted	When submitting a RR, authors must certify that no data collection or analysis—other than that undertaken as part of any preliminary studies—has yet been undertaken. Post-registration would therefore constitute fraud and would in any case be ineffective because stage 1 reviewers and editors usually ask for at least minor changes to the proposed study design.
RRs require authors to prespecify a fixed plan that cannot be changed	RRs can be changed en route in consultation with the journal editor and (where changes are substantial) the reviewers, as long as all changes are transparently reported at stage 2.
RRs are not suitable for studying hard-to-reach samples and/or for researchers with limited resources	Some journals do set high requirements for statistical power or Bayes factors (for example, <i>Nature Human Behaviour</i> , <i>PLoS Biology</i> and <i>Cortex</i> ), but others (such as <i>Royal Society Open Science</i> ) set no requirements at all. Authors who are constrained by data availability and/or resources need only justify why their proposed study would make an important contribution to the field.
RRs are not suitable for ECRs	Since RRs eliminate publication bias, stage 1 IPA can be time-saving and anxiety-relieving. It is perhaps not surprising that most RRs are first-authored by ECRs (Supplementary Note). ECRs should carefully consider journal requirements when there is a constraint on time and/or resources <sup>47</sup> .
RRs will slow the pace of research	Even if the RR review process at any one journal does take longer (which is currently unknown), the rejection rate is probably lower (for example, at <i>Cortex</i> , the rejection rate is -10% at stage 1 and 0% at stage 2, -90% for regular articles). In contrast, regular articles are often resubmitted to multiple journals and rejected because of unfixable flaws or unattractive results. RRs may therefore accelerate rather than hinder discovery.

# VĂ MULȚUMESC!

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