

# PsychDisclosure.org

## Grassroot Support for Reporting Standards Reform in Psychology

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Unprecedented level of doubt regarding reliability of findings in psychology (Pashler & Wagenmakers, 2012)

One contributor to this unreliability is low reporting standards, which prevent proper evaluation of reported findings

### Primary goals

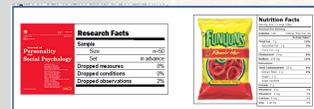
1. Gauge extent to which our journals' reporting standards are inadequate
2. Drum up grassroot support to reform our reporting standards

### Method

Emailed random 50% of authors of articles from *PSCI*, *JPSP*, *JEP:LMC*, and *JEP:G* (2012 onward) inviting them to publicly disclose 4 key methodological details (extension of Simmons et al.'s 2012 21-word disclosure):

1. **Exclusions:** Disclosed total number of excluded observations and criterion for doing so.
2. **Conditions:** Disclosed all tested experimental conditions, including failed manipulations.
3. **Measures:** Disclosed all administered measures and items.
4. **Sample size:** Disclosed data collection termination rule.

Details not required to be reported but necessary to accurately interpret and evaluate research findings (Simmons et al., 2011)



“One of these labels is not mandatory”  
(Simmons et al., 2012, Dialogue)

### Email text currently being sent to corresponding authors:

Dear [Author],  
As you may know, several common research practices in psychology have been highlighted as potentially impeding knowledge development and hurting the reputation of our field. For instance, it has become acceptable -- and action editors often have required authors -- to selectively exclude and report measures, manipulations, samples, and analyses on the basis of whether these practices yield significant results or tell more compelling stories rather than for principled reasons. (Though of course many methodological design specifications are also often not reported for reasons which have nothing to do with increasing the statistical significance or compellingness of the story.)  
Regardless of the source of these suboptimal research practices, it is our belief that many of us would appreciate the opportunity to provide more details about the methods actually used to obtain findings reported in published articles (indeed about 50% of contacted authors have provided such details). Our initiative provides this opportunity. Our effort builds upon a recently proposed initiative wherein authors submitting manuscripts for publication voluntarily include a 21-word disclosure statement regarding crucial methodological details that are not required to be disclosed under currently accepted reporting standards (see appendix to this email for details).  
We are inviting a subset of corresponding authors of recently published articles (2012 and onward) in prominent psychology journals to make these details publicly available to increase the information value of their article. Within 5 minutes, you can answer the four questions below by replying to this email. Responses will be posted on a public website (please visit to see exactly how this will be posted).  
**QUESTIONS:**  
For all studies in your recently published [Journal Name] article titled [Article Title], please endorse the following statements: (please type an X to indicate your answer)  
1. We reported the total number of observations which were excluded (if any) and the criterion for doing so. (If no observations excluded, please indicate Yes)  
Yes: \_\_\_\_\_ No: \_\_\_\_\_  
If no, please report this information here (e.g., data from 3 participants in Study 2 excluded due to computer malfunction; 4 participants in Study 1 excluded for not following instructions).  
2. We reported all tested experimental conditions, including failed manipulations.  
Yes: \_\_\_\_\_ No: \_\_\_\_\_  
If no, please provide brief explanation for not reporting this information (e.g., critical software implementation error; editorial request):  
3. We reported all administered measures/items.  
Yes: \_\_\_\_\_ No: \_\_\_\_\_  
If no, please provide brief explanation for not reporting this information (e.g., measures not related to research question; scores from unreported measure insufficiently reliable).  
4. We reported (a) how we determined our sample size and (b) our data collection stopping rule.  
Yes: \_\_\_\_\_ No: \_\_\_\_\_  
If no, please describe (a) the basis for the sample sizes used and (b) how you decided to stop collecting data (e.g., decided ahead of time to collect data until minimum sample size achieved and this was followed; sample size determined by power analysis but didn't achieve it by the end of term).  
This initiative has received appropriate ethics clearance in accordance with APA guidelines. To protect the anonymity of non-respondents, only a randomly determined subset (i.e., half) of the corresponding authors in your journal and issue have been contacted.  
We emphasize that the additional information requested is not intended to question or stigmatize published research, but to give a more accurate picture of the actual methods used to obtain the findings, correcting for artificially rigid standards of evidence in publication. The project is committed to transparency and open science practices (information and project materials available [link]).  
Please let us know if you have any questions (see FAQ section below). Thank you for considering our request.  
Best regards,  
Etienne LeBel  
University of Western Ontario  
Denny Borsboom  
University of Amsterdam  
Etc.

## RESULTS

Journal	N	Response Rate	Full Disclosure Rates (%)			
			Exclusions	Conditions	Measures	Sample Size
<i>Psychological Science</i>	141	50.4	88.3	88.3	46.7	15.0
<i>Journal of Personality and Social Psychology</i>	102	49.0	92.5	87.5	20.0	10.0
<i>Journal of Experimental Psychology: Learning, Memory, &amp; Cognition</i>	90	48.9	84.6	84.6	87.2	5.1
<i>Journal of Experimental Psychology: General</i>	45	55.6	90.9	95.5	81.8	13.6
Overall	378	50.3	88.8	88.2	54.7	11.2

Note. All numbers represent percentages, except the N column, which indicates the number of articles for each journal selected for inclusion as of May 16, 2013. Full disclosure rates indicate the percentage of articles wherein authors answered “Yes”, indicating they had fully reported the respective methodological design specifications in the published article.

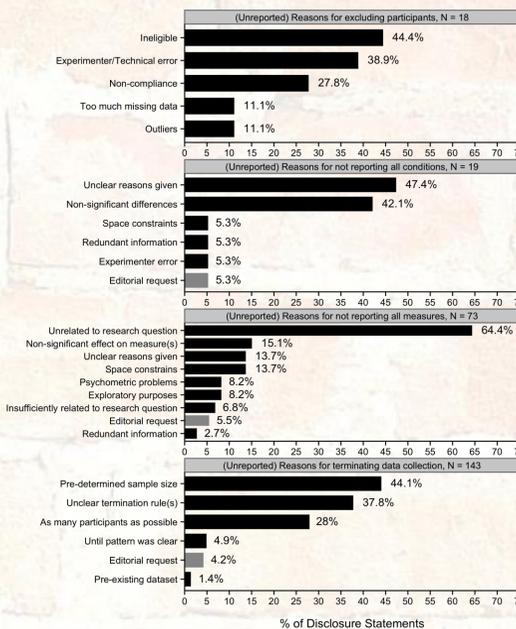


Figure 1. Reasons given for not including the methodological design specifications in the published article (later provided to PsychDisclosure.org). Within each disclosure category, totals are greater than 100% because more than one reason was sometimes mentioned. Ns indicate the number of design specification statements the percentages are based on (out of the 347 possible articles).

### Example design specification statements:

**Psychological Science**  
Laran & Salerno (2013): Life-History Strategy, Food Choice, and Caloric Consumption  
1. **Exclusions:** Full Disclosure  
2. **Conditions:** An entire study, from the first submission, did not make the final version of the paper as per editorial request.  
3. **Measures:** In study 2, we included a few other filler questions unrelated to our research questions that were included to support our cover story. These measures did not vary as a function of our experimental conditions.  
4. **Sample Size:** Study 1: We aimed to collect at least 25 participants per cell. We obtained our final sample by asking our undergraduate research assistants to recruit as many participants as they could over a two day period of a few hours each day and ended up with more participants than the 25 per cell initially expected (n = 121). ...[more]  
**Journal of Personality and Social Psychology**  
Feinberg, Willer, & Keltner (2012): Flustered and faithful: Embarrassment as a signal of prosociality  
1. **Exclusions:** Full Disclosure  
2. **Conditions:** Full Disclosure  
3. **Measures:** We also conducted a study displaying a picture of President Obama expressing an ambiguous emotion with a caption indicating he was expressing embarrassment or amusement. When labeled as embarrassed, the president was rated as more prosocial. This study was included in the initial submission, but reviewers suggested results had confounding implications for our theory, so it was removed.  
4. **Sample Size:** Study 1a: Without prior precedent, we intended to run about 50. 57 participants had taken part when the data-collection week ended. Study 1b: Research assistants were directed to continually advertise the survey online for a week with the hope of collecting about 40 participants, a target based on Study 1a results. ...[more]  
**Journal of Experimental Psychology: General**  
Jensen, Vangkilde, Frokjaer et al. (2012): Mindfulness training affects attention- Or is it attentional effort  
1. **Exclusions:** Full Disclosure  
2. **Conditions:** Full Disclosure  
3. **Measures:** Full Disclosure  
4. **Sample Size:** Full Disclosure

## IMPLICATIONS

1. Journals' reporting standards clearly inadequate (also, Questionable Editorial Practices must stop)
2. Community of psychologists want reformed reporting standards at systemic level (over 50% response rate & ample appreciative feedback)

Mandatory disclosure (of at least those 4 categories) would be important step toward improving reliability of findings in psychology

This has already happened in other areas of science (Fanelli, 2013):

1. Medicine (CONSORT-statement; consort-statement.org)
2. Biomedical research (EQUATOR Network; equator-network.org)
3. Biology (minimum information reporting guidelines; biosharing.org/standards/mibbi)

Also, *Nature*, *Marketing Science*, and *Management Science* recently announced editorial policy changes improving reporting standards

“If a job is worth doing, it's worth doing twice!” (Russell, 2013)

However, improved reporting standards can only take us so far, because scientists are humans and humans make errors

Independent direct replications of each others' work is the only guarantee for producing reliable findings

This requires a change in research culture and incentivization of direct replications by top journals (Pottery Barn Rule)

Preliminary evidence that this is starting to change:

1. First (failed) direct replications to grace the pages of a top journal  
LeBel, E. P., & Campbell, L. (in press). Heightened sensitivity to temperature cues in highly anxiously attached individuals: Real or elusive phenomenon? *Psychological Science*.
2. Reproducibility Project (Open Science Collaboration, 2012)
3. Special initiatives @ *Perspectives on Psychological Science*, *Cortex*, and *Social Psychology* journals  
(But replications should not be seen as special; they are part of the normal scientific process and are the crucial ingredient that makes scientific knowledge self-correcting.)