Honesty and trust in psychology research

Subject: methodology

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*Summary [short; max. 50 words]*

Knowledge about how to increase trust in research findings in psychology and trust among psychology researchers is crucial. In four talks we discuss perceived reasons for reporting errors, the prevalence of questionable research practices in Italy, statistical techniques to detect data fabrication, and in-group biases among scientists.

*Summary [long; max. 500 words; 260 used]*

Knowledge about how to increase trust in psychological research findings and trust among psychological scientists is crucial. In this symposium, we discuss four different factors that we believe should be addressed in discussions on how to increase this trust.

While it is clear that *p*-values are often misreported in the psychological literature (e.g., Nuijten et al., 2015), we have to know why this occurs. Jelte Wicherts discusses his recent work that tries to answer this question. It is also clear that many American psychologists admitted to engaging in questionable research practices (John, Loewenstein, and Prelec, 2012), but we need to know whether these results are a worldwide problem, and why researchers engage in these practices. Franca Agnoli discusses her very recent work demonstrating that the prevalence estimates of John et al. (2012) generalize to Italy, and highlights some of the justifications that researchers mention for engaging in these practices. Next, it is clear that data fabrication occurs, but we need to know how people do this, and how we can detect it. Chris Hartgerink discusses his recent study in which he asked researchers to fabricate data, and used statistical methods to distinguish these fabricated data from genuine data, which were available from the Many Labs projects. Finally, all of the factors discussed so far may negatively affect trust among scientists. Coosje Veldkamp discusses her recent work demonstrating that internationally, established scientists have a very negative image of early-career scientists, particularly with respect to integrity, and that female scientists have a very negative image of male scientists in this respect.

**Presenter: Franca Agnoli**

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*Italian psychologists use of questionable research practices*

We surveyed 277 members of an Italian psychological association and found a pattern of questionable research practices very similar to results reported by John et al. (2012) for American researchers. Extreme forms of scientific misconduct are rare, but some researchers explained why they consider some common practices to be justifiable.

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*How do researchers fabricate data and how to detect fabrication?*

How researchers fabricate data and the validity of statistical methods to detect data fabrication are still relatively unknown. We asked 36 psychology researchers to fabricate datasets, mixed them with 36 genuine datasets, and examined whether we could distinguish the fabricated from genuine data with statistical methods.

**Presenter: Coosje L.S. Veldkamp**

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*The storybook image of the scientist*

Do lay people and scientists believe in the ideal scientist image of exceptional objectivity, rationality, open-mindedness, intelligence, integrity and communality? In four studies (n = 3,644) we compared lay people’s and scientists’ perceptions of scientists, and examined scientists’ perception of different groups of scientists. Strong in-group biases among scientists emerged.

**Presenter: Jelte M. Wicherts**

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*Why do so many researchers misreport p-values?*

Large scale studies have shown that about 12.5% of psychology articles show *p*-values that are incorrectly reported as being significant or vice versa. In a survey, I ask psychological researchers why they believe this misreporting occurs so frequently.