If we rely on trust, articles do not need to report results

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The recent push to make research data available represents a worrying pattern of distrust in scientists. I suggest that we not only return to the Good Old Days of closed data, but that we fully embrace a trust-based system of science in which results sections are replaced with a simple statement that analyses were conducted and results supported the hypotheses. I demonstrate this is non-inferior to current practices and indeed has several novel benefits.

“Omnia in verbis”

Correlation matrices, scatter plots, and test and summary statistics can all be used to test the accuracy of reported results or even for novel analyses.

We have mistakenly created a false dichotomy between ‘data’ and ‘results’ when it comes to sharing with other scientists. On the one hand, ‘data’ is treated as a rare and precious resource that is jealously hoarded an shared with great reticence. Even when journal policy requires it, the majority of authors do not share data upon reasonable request (REF). In contrast, reporting the results of statistical analyses is currently ubiquitous.

This is surprising or even incoherent given that the line between ‘data’ and ‘results’ is in fact quite blurry. For example, entire analyses can be reconstructed from a correlation matrix, which are commonly reported in papers. Effect sizes can be constructed from summary statistics, and meta analyses across papers can be constructed upon these.

Anecdotal evidence even suggests that researchers conflate modality with substance, for example whose who are unwilling or unable to share ‘raw’ data, but are happy to share a scatter plot of that same data, both of which contains the same information (REF to dan Quintana tweet).

For the cautious researcher who is wary of data parasites, I suggest that the only response if you want to keep your data to yourself is to stop reporting results at all.

Should the unlikely issue ever arise of whether a test has been correctly applied, reported, or interpreted or – god forbid – a researcher has intentionally massaged their results to support their hypotheses, such situations can easily resolved by asking the chap for his word as a gentleman that everything is above board.

Future research might generalize the concepts explored in this paper to hypotheses and research questions, by asking whether researchers might better safeguard their ideas against intellectual theft by never publishing or communicating their ideas to other scientists at all.

Data is frequently not shared on the basis of ethical concerns, or the idea that participant confidentiality would be violated.

Researchers have traditionally been cautious about sharing data but routinely report the results of statistical analyses in their papers. Given a recently acquired understanding that the line between ‘data’ and ‘results’ is in fact blurry, I would argue that the existing sound arguments against sharing data therefore also apply to sharing results. I recommend that future research articles should not include results sections, or that these should be extremely shortened so as to not give away the Big Ideas that these sections have in the past. For example, a results section might instead read: “A series of quantitative analyses were performed. Results supported our hypotheses.”

A more cynical reader infected with the disease of transparency might suggest that this is insufficient on a number of fronts, given it does not include sufficient detail to be able to establish computational reproducibility (i.e., producing the same results using the same data) or experimental replicability (i.e., producing the same conclusion using new data). However, the astute reader will immediately realise that the proposed system is of course non inferior to current modal practices, which have been repeatedly shown to fail to provide these characteristics too (REFs). However, the proposed system also has the benefit of accelerating research through brevity.

Replication isn’t needed to believe claims

Reproducibility isn’t needed to believe claims

Results aren’t needed to believe claims