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Publication bias, the File Drawer Problem, and how innovative publication models can help

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Publication bias, the File Drawer Problem, and how innovative publication models can help

Abstract

One of the topics that has come up frequently in the discussions on open science has been the "filedrawer problem", otherwise known as publication bias (Rosenthal, 1979 Psychological Bulletin 86(3), 638-641). Traditional publishing practices have tended to favour positive results that reject the null hypothesis, leading some researchers to suggest that, in the extreme case, "most published results are false" (Ioannidis, 2005 PLoS Medicine 2(8), e124). What does this mean for vision science, and how can an open science framework help address this problem? I will suggest that innovative publishing initiatives such as PsychFileDrawer.org and the Reproducibility Project can harness the new technologies available to researchers to encourage replication of important published research. In addition, new publication models could use methods similar to the registration of all clinical trials in medicine (eg initial peer review of only the Introduction and Methods) to help lessen or abolish publication bias.

Keywords

file, bias, help, publication, can, models, innovative, problem, drawer

Disciplines

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◆ **Publication bias, the File Drawer Problem, and how innovative publication models can help**

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