

By the numbers: Track record, flawed reviews, journal space, and the fate of talented authors

Warren Thorngate and Wahida Chowdhury

Psychology Department and Institute of Cognitive Science
Carleton University, Ottawa, Canada
warren_thorngate@carleton.ca,
WahidaChowdhury@cmail.carleton.ca

Abstract. We conducted a computer simulation of hundreds of competitions for limited journal space, varying (a) the correlation between the talent of authors and the quality of their manuscripts, (b) the correlation between manuscript quality and quality judged by peer reviewers, (c) the weights reviewers and editors gave judged quality versus number of previous publications (track record), and (d) the proportion of manuscripts accepted for publication. The results show that even small decreases in the correlations, and small increases in the weight given to track record, quickly skew the outcomes of the peer review process, favouring authors who develop a track record of publications in the first cycles of journal publication while excluding many equally-talented or more-talented authors from publishing (the *Matthew Effect*; Merton, 1968). Implications for declines in the quality of published manuscripts and for wasting talent are discussed.

Keywords: peer review, reputation, track record, competition

Full text in Springer Conference Proceedings:

Advances in Social Simulation: Proceedings of the 9th Conference of the European Social Simulation Association, Bogumił Kamiński and Grzegorz Koloch (Eds.), Series: *Advances in Intelligent Systems and Computing*, Vol. 229, Springer, 2013.