

The Filter Curve: Toward a Measure to Prevent p-Hacking

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Abstract

Many empirical studies filter participants (e.g., for incorrect attention checks or quick responses), especially when using participant pools such as Amazon MTurk. Yet, there is no consensus on whether and how to filter. This might originate from different perspectives on filtering participants: it may be evaluated positively (e.g., as it might be necessary to prevent inattentive participants from biasing results) or negatively (e.g., as it may enable p-hacking). This research aims to bridge these opposites: first, we empirically compare the effects of different filters and filter levels on validity, reliability, power and effects sizes of the results. Second, we introduce the Filter Curve and our R-package “FiltR” as a means to recognize filtering which might be used to p-hack results. We suggest that filtering is not per se bad – although some filters decrease reliability and validity – but that researchers should be transparent in how sensitive results are for different filter combinations.

Keywords: *p-hacking; filter curve; Mechanical Turk*

Track: Consumer Behaviour