

8 Theses for Introducing a Random Element

Quality assurance is and remains absolutely indispensable for science. However, the limitations of peer review are becoming increasingly evident. New approaches are therefore urgently needed. Since 2017, the Volkswagen Foundation has been testing a novel partially randomized selection procedure in the initiative “Experiment!”: Following initial quality assurance by a jury, it selects a share of the funded projects by lot. What effect does this random element have on the selection of projects? The following 8 theses are based on practical experience and initial results from the accompanying research.

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In the case of highly competitive procedures, the lottery relieves the burden on reviewers faced with the problem of differentiating quality among a large number of equally high-ranking proposals.

Decisions by lot are free of any bias and of any influences caused by group dynamics.

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The lot is blind to quality. To work properly, therefore, the process requires an initial quality assurance.

In the event where a reviewer panel does not cover all topics equally well, such a procedure ensures fairness among eligible applications.

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Regarding the outcome, diversity is enhanced by drawing lots. Often, procedures based on consensus tend to favor established topics and conventional methods (“mainstreaming”).

Accompanying research shows that the partially randomized selection, i.e. including a lottery, encourages the submission of risk-taking research proposals.

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The introduction of a randomized element is broadly welcomed by the scientific community, including reviewers, and by an increasing number of funding organizations.

Selection by lot has to be regarded as a useful supplement – but not an alternative – to peer review and cannot replace scientific discourse.

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