

Management of Science, Serendipity, and Research Performance:
Evidence from a Survey of Scientists in Japan and the U.S.

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Abstract

In science, research teams are increasing in size, which suggests that science is becoming more organisational. This paper aims to empirically investigate the effects of the division of labour in management and science on serendipity, which has been considered one of the great factors in science. Specifically, in examining the survey of scientists conducted in Japan and the U.S., this paper treats the following questions: Does pursuing serendipity really bring about better scientific outcomes? How does the division of labour in science influence serendipity and publication productivity? The empirical results suggest that serendipity actually brings about better research quality on average. It also finds that if the managerial role is played by a leading scientist in the team, this is positively associated with the quality of the paper through allowing researchers to pursue serendipitous findings. In contrast, if the managerial role and leading research role are played by different members, this has a positive association with the number of papers published, as the project size becomes larger. These results indicate there is a trade-off between serendipity and publication productivity in science via who plays the leading role in research and management.