

(Very Preliminary)

Author ordering in scientific research: evidence from scientists survey in the US and Japan¹

Sadao Nagaoka

Institute of Innovation Research, Hitotsubashi University,

Hideo Owan

Institute of Social Science, University of Tokyo

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Abstract

This paper examines what drives author ordering in scientific research. We first discuss a theoretical framework for the choice between relative-contribution-based ordering and alphabetical ordering, focusing on nature of research, and the role of a principal investigator (PI). Base on this, we hypothesize that (1) alphabetical ordering is more used when division of labor cannot be defined ex-ante and unplanned collaboration (help⁴) is important as well as when the measurement cost is large, and (2) the existence of a PI promotes the use of contribution-based ordering. Our empirical examinations, based on the new large scale original scientists' surveys in the US and Japan, show the consistent results. In particular, an alphabetical ordering is more used when the research is theoretical and when the team size is large, and less used in a project with a PI. We also find that there exist significant residual differences across fields, suggesting the importance of field norms. Finally we find that author ordering sends two signals in contribution based ordering, the first author for the largest research contribution and the last author for the PI.

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