

Culture of Science and Order of Authorship

The report from the Task Force on Authorship¹ and the comment by Kutluk² describe assigning authorship of journal articles strictly by descending order of contribution, with first place being the first prize. When I worked in basic science (primarily cellular and molecular biology), I was accustomed to an order of authorship in which first place and final place both were first prizes. This order of authorship connoted position in the hierarchy, with authors closer to first authorship being lower in the hierarchy and authors closer to final authorship being higher in the hierarchy. As described in a wonderful book about the race to clone the human insulin gene,³ “The first author, by consensus, has made the greatest contribution to the project; it is also the convention of molecular biology that the last author listed is the senior scientist of the team, the team leader.”

Suppose the order of authorship is A-B-C-D. Even when I didn't recognize the authors, I routinely inferred this order to connote that postdoctoral fellow (or graduate student) A had been assigned a project in supervisor D's laboratory. Postdoctoral fellow A and supervisor D had invited supervisor C as a collaborator to provide some essential material or technique. Supervisor C had assigned the collaborative task to postdoctoral fellow (or graduate student) B.

The culture of basic science calls for attaining an independent position and then maintaining and strengthening it. The A-B-C-D order reveals the position in the hierarchy as subordinate or supervisor. The order connotes that postdoctoral fellow A is sufficiently independent to be in charge of a project and is therefore worthy of the prize of first-name authorship. This helps postdoctoral fellow A attain an independent position. The order also connotes that supervisor D supervises postdoctoral fellow A and engages others in collaborative research and is therefore worthy of the

prize of final-name authorship. This helps supervisor D maintain and strengthen his or her independent position.

The A-B-C-D order connotes that postdoctoral fellow B and supervisor C are worthy of being invited to participate in collaborative research and are therefore worthy of inclusion as coauthors. Postdoctoral fellow B and supervisor C were listed from lower to higher in the hierarchy; this is analogous to the order of postdoctoral fellow A and supervisor D. This helps postdoctoral fellow B attain an independent position and helps supervisor C maintain and strengthen one, but the “help” is not as much as of those who initiate a project and are chiefly responsible for it—postdoctoral fellow A and supervisor D in this instance.

In the culture of authorship order in basic science, supervisors strive for final-name authorship just as postdoctoral fellows and graduate fellows strive for first-name authorship. Perhaps the culture of authorship order in clinical medicine differs from that in basic science. Maybe I have difficulty understanding the authorship order described by the Task Force and by Kutluk, which refer primarily to clinical medicine, because I'm from a different culture, that of basic science.

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