

Peering into authorship: figuring out cuckoo's eggs in crow's nest

List of publications seems a key measure in assessing a scientist's performance. The nature/position of authorship is a weighing criterion for such performance measures¹⁻³ besides the custom parameters like number of publications (Σ_{Pub}) and journal impact factors (JIF). According to 'Committee for Publication Ethics (COPE)', UK, there is no universally agreed definition for authorship, however, it insists that 'the award of authorship should balance intellectual contributions to the conception, design, analysis and writing of the study against the collection of data and other routine work'⁴. Due to the competing needs for high-quality publications, the proportion of multi-authored papers is on the rise. The question of how to weigh an authorship when the paper is multi-authored (e.g. four authors and thereof), remains a difficult task for evaluators. This task gets easier on papers that devote a section for 'authors' contribution'. However, there is no such information in a sizeable number of publications. Thus, evaluators have to judge for themselves each of the author's contribution⁵.

The first and corresponding authors are traditionally assumed to have contributed to every part of the paper. However this may not be true in case of first authorships of graduates/postdoctoral fellows. Though the first authors may have a wagon-wheel contribution in a paper, there are first authors whose contribution is almost negligible in raising hypotheses/questions, critical statistical analyses of data and writing a substantial portion of a manuscript, but have instead contributed just to the data collection and vice-versa. Here begins the defying task of how to discriminate these 'few-in-all', 'some-in-all' fellows from 'all-in-all' fellows. To arrive at a justifiable evaluation, one has to look first at the list of publications for a preliminary perception on the consistency/frequency of first authorship. Thorough reading of at least five publications of a researcher would yield unbiased assessment on the veracity of holding first authorship.

Yet the climax of judgement in weighing candidates who hold more first-authored papers against the candidates who hold more number of publications, is still intricate. Multi-authored papers have a tailored combination of people who contribute to the core intellectual

part of the study, complicated/expensive laboratory analyses/assays, and to the robust statistical/graphical representation of data and finally, to the scientific writing. So, the task is shared by a number of specialists and thus getting the paper published in high-impact journals is quite promising. Having experienced this, there are sneaky scholars who contribute very little, but still manage to find a place in such publications. However, if they consistently do so, they would accumulate more number of publications (with higher average JIF) within a short span of time, regardless of their position of authorship in the paper. This in turn would have adverse consequences as they could often outweigh the independent-thinking, and stand alone researchers both in number of publications and average JIF. Therefore, the upshot of the evaluation would rate these sneaky researchers' scientometric scores high over the independent researchers' scores. The point is that independent scholars (who often prefer to be first authors) are overloaded with tasks to accomplish until the paper is published. This will have a negative impact in accumulating number of publications and average JIF at a given period. But these factors are usually overlooked in a majority of evaluations.

The crux is that independent scholars start publishing usually in low-impact journals and gradually publish in medium- and high-impact journals. Furthermore, such scholars would take more time to accumulate number of publications as their contribution, on average is about 50–70% in each publication. Contrarily, sneaky scholars who contribute about 10–30% can easily attain an impressive list of publications at any given time (both in terms of number of publications and average JIF). This leads to drastic differences in scientometric scores, wherein tricky scholars will score more than genuine, independent scholars.

For any entry level position, the candidates should have an average of about 10–15 refereed publications. Herein, independent scholars would usually have about 50–75% of his/her publications in low-to-medium impact journals, whereas sneaky scholars are able to achieve the same proportion in medium-to-high-impact journals. This is the circumstance wherein sneaky scholars outperform independent scholars. Again, this is

exactly the circumstance wherein evaluators happen to go with the evaluation scores while overlooking the real independent skills. In fact, this is a major setback in scientometrics that paves way for non-meritorious, (maybe) parasitic, 'salami slice' contributors who have less independent skills, while upsetting admirable, highly independent and diligent contributors. At least, future scientometric measures should see these gaps through the lens of genuineness and should not consider the custom scientometric scores alone⁶. Such practices would not only save the 'endangered' independent practising scientists, but also put off the 'mind voice frustrations' of future trend-setters in science.

In essence, independent ('all-in-all') scholars exert an excellent/outstanding performance as and when they start a faculty/scientist position. By contrast, given the same position, sneaky scholars will either continue to be dependent on others, or else, just start (struggling) to learn how to make independent contributions, soon after attaining the position. Heeding these facts would revolutionize the existing paradigms of scientometric-centered, numerical evaluation of performance. Well-established scientists in the juries do realize the fact that they are not choosing/promoting numbers, instead of a person with a gamut of intellectual and technical promises/abilities that are necessary to advance science. Hopefully, they would act in a way to change the scientometric-driven scientific pursuit among young professionals.

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