

PNAS Policy on Prior Publication

Because the mission of PNAS is to publish the results of important original research, we do not accept papers describing work that has been published before. This prohibition against double publishing is the policy of virtually all primary literature journals and hardly seems controversial. Yet, when applied too fastidiously, it constricts the free exchange of science. Authors may fear distributing preprints to review writers and commentators or putting preprints up on the web so as not to jeopardize subsequent publication. Journal policies on what constitutes prior publication vary so widely or are so vaguely stated that many authors conclude that the safe course is to restrict dissemination before publication. The aim of this editorial is to set out clearly the PNAS policy on what constitutes prior publication. Our overall philosophy is to adopt a liberal prior publication policy in which the paramount goal is free scientific exchange. We set out below specific examples of permitted and proscribed prior publication. We invite your comments.

PNAS considers results to have already been published if they have appeared in sufficient detail to allow replication, are publicly accessible with a fixed content, and have been validated by review. A paper has surely been published if it has appeared in a journal cited by any widely used abstracting service, whether in print or online, in English or in any other language. Gray areas result when two of the three criteria (replicability, public accessibility, and review) are met or only a portion of an article has appeared before. What if only one figure has been published previously? That need not doom subsequent publication in PNAS, but the authors must convince us at the time of submission that the figure is essential for the submitted paper yet not the major contribution.

Preprints have a long and notable history in science, and it has been PNAS policy that they do not constitute prior publication. This is true whether an author hands copies of a manuscript to a few trusted colleagues or puts it on a publicly accessible web site for everyone to read, as is common now in parts of the physics community. The medium of distribution is not germane. A preprint is not considered a publication because it has not yet been formally reviewed and it is often not the final form of the paper. Indeed, a benefit of preprints is that feedback usually leads to an improved published paper or to no publication because of a revealed flaw. Analogous to

a preprint is the often detailed oral presentation of work at a conference. Once again we do not view this as prior publication but as a salutary step toward publication.

With the rapid expansion of the scientific literature, summaries of work in reviews, commentaries, and perspectives have become increasingly important. Also, only a few scientists are privileged to attend small elite meetings, and publication of a meeting summary allows the whole scientific community to share in some of the benefits. Unfortunately, scientists are often reluctant to provide the needed preprints or even clear descriptions of unpublished results to the summarizers because they fear it will compromise subsequent publication. The synthesizers often feel obliged to do a verbal dance of forward and backward steps to say enough to make the results clear, but not enough to prejudice later publication. PNAS policy is that a summary of work in a review, a perspective, a commentary, a newspaper or magazine article, or wherever does not constitute prior publication. Our guiding principle is that journals should interfere minimally in such exchanges; authors themselves should dictate the dissemination of their own work.

All investigators should strive to inform the public about the accomplishments, methods, and motivations of science. This is best done in the popular press. The public has a right to know what we do and why we do it. We do ask that once a paper is accepted you coordinate your discussions with reporters with the National Academy of Sciences press office so that the current procedures, which allow a wide range of journalists to gain information in an equitable fashion, are honored.

A word of caution, particularly to younger scientists. A liberal policy on prior publication should not in any way slow down ultimate publication in a journal. Preprints and the other forms of prior disclosure discussed in this editorial do not prejudice publication in PNAS; neither do they guarantee it. Precisely because a preprint is not a publication, it does not guarantee priority. Dissemination of your results in any form before publication carries with it the risk that others will publish them first, or supersede them. Either will definitely prejudice subsequent publication. Free exchange of unpublished work should be followed by timely publication.

—The Editorial Board