

EDITORIAL

Scientific values

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Albert Einstein once said, “The right to search for truth implies also a duty; one must not conceal any part of what one has recognized to be true”. This statement proposes that research is a method to search for the truth. The search for truth is a highly responsible task and should not be undertaken lightly or carelessly. Therefore, scientists need to prepare themselves both intellectually and morally for the process.

Like any group of professionals dedicated to performing a specialized vocation, there are certain shared, if informal, values that are intrinsic to the scientific community. These values include curiosity, objectivity, skepticism, integrity, honesty, accountability, responsibility, stewardship, fairness, openness and transparency. These values underpin the codes of conduct that should be followed by the profession.

Curiosity is the motivation or driving force for research. Curiosity in children manifests itself in questions. And we all know that the “research question” is the starting point of a research project. And very often finding the answer only raised one or more new questions. Scientists have an urge to know why and how things work or happen. If this curiosity is lost they will no longer be scientists.

But the search for answers is tempered with objectivity or even outright skepticism. The aim is to discover the truth, uninfluenced by personal, institutional or social biases. However, this may be difficult to practice in a milieu that demands publishable results. In this respect, the recent drive to encourage the publication of negative results is a salutary move. Education, training and experience can help to increase detachment. Skepticism helps scientists to remain objective when performing research. It forces them to examine claims (including their own) to be certain that there is sufficient evidence to back them up.

Scientific integrity and honesty is at the core of science. It implies the genuine practice of the scientific method in order to arrive at the truth. The scientist is sincere in designing,

implementing and reporting the research project and conducts the study according to the planned methodology and ethics approval. The results are reported completely, without bias, and interpreted at face value.

Along with integrity comes openness and transparency. All necessary information regarding the research is published in full, allowing other researchers the opportunity to reproduce the results. Openness to criticism and peer review is another facet of this value. In this regard, many open access journals allow the publication of supplementary tables and some require all data to be placed in public access databases.

The funding of research is predicated on the trust the public places in scientists to promote the common good. Scientists are accountable to the public at large, the scientific community, students, publishers, funders etc. to provide the expected services. responsibility, stewardship, fairness, Scientists can no longer live in ivory towers but are expected to take responsibility for their research remain answerable to the public and demonstrate respect for research participants, their culture and the environment. As there is competition for scarce resources, scientists need to demonstrate stewardship and careful effective use of these resources for the benefit of the planet.

In addition to these values, scientists need to collaborate to advance knowledge so collegiality, sharing and reciprocity are important as is respect for intellectual achievement.

Reference

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