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# A JOB LIKE ANY OTHER?

The ideals and values of scientists form the foundation not only of their professional work, but also of their responsibility to society. Fidelity to the ethos of the profession builds trust in scientific institutions – and without this trust, science itself has no reason to exist.

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Science is more than research and its results. It is also a social undertaking – especially today, due in part to the multitude of research activities and the impact of scientific and technological achievements on the everyday lives of millions of people. The vast majority of scientific research is conducted within institutional settings and is funded by public and private entities. Put bluntly, it depends on – and cannot (and should not) operate in isolation from – society.

For this complex research environment to exist and function, and for scholars to pursue their research ambitions, the social legitimation of this type of activity is indispensable. This legitimation, understood as public approval of scientific practices and the values they embody, is grounded in the general public's attachment to truth and the pursuit of understanding, which, among many other values, lie at the center of the axiology of science. Social endorsement of science may take different forms. Laypeople are often convinced that the value of knowledge lies in its potential to foster technological development, which can, in turn, be used to solve practical problems or to satisfy the aspirations of individuals and communities.

At the same time, those engaged in scientific research are likely to emphasize the intrinsic value of knowledge. The standards of conduct governing the everyday practice of scientific research constitute an equally important aspect of science understood as a social phenomenon. These standards include, among others, reliability in presenting and interpreting research results, proper recognition of the achievements and authorship of other researchers, critical assessment of research material, openness to substantive critique, impartiality in evaluating the work of other scientists, and responsibility toward research participants as well as objects of study, whether animate or inanimate. These norms have both cognitive and ethical dimensions. Their observance not only serves the advancement of knowledge but also confers an ethically positive character on research activities and their outcomes. Such standards appear to be grounded in socially accepted ethical patterns which refer, for example, to values and moral ideals such as respect for human beings, truth and truthfulness, honesty, impartiality, fidelity to commitments, and the acceptance of responsibility for one's actions.

## Safeguarding Against Temptations

The vast majority of society comes into contact with the results of research rather than with the process of knowledge production. This is mainly because researchers possess specialized knowledge and



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Recording of the podcast “Human Research – How to Take Care for Research Subjects and Researchers” from the series “Reliability and Ethics in Science.” The interview with Karolina Głowacka was attended by: Anna Duszyk-Bogorodzka, PhD (Department of Biological Psychology, SWPS University), Prof. Paweł Łuków (Department of Ethics, University of Warsaw), and Prof. Barbara Fatyga (Department of Cultural Research Methods, University of Warsaw)

methods, the understanding and application of which become possible only after many years of advanced education. Such expertise enables informed assessments of whether particular actions are justified in light of socially accepted ethical norms. For this reason, social supervision intended to verify whether the process of knowledge production is conducted in accordance with socially sanctioned scientific ideals and values usually cannot be implemented on an ongoing basis.

This situation is not conducive to preventing unethical behavior among scientists, especially today, when researchers are exposed to the temptations arising from competition to establish priority in scientific discoveries. At the same time, scientific institutions compete for prestige, contend with systems of research evaluation, apply for funding, and seek public visibility. Outside academia, particularly in industrial science research, additional source of temptation include competition in technology markets and pressure from

the investors eager to see rapid implementation. The potential for ethical irregularities may also increase when industrial confidentiality is used to conceal unethical behavior.

Being a researcher is not just a job; it is a social role that arises from the social legitimation of science.

The phenomena described above – and this list is by no means exhaustive – create conditions in which responses are often limited to addressing irregularities only after they have occurred. Prevention, it should be emphasized, is possible only to a very limited extent.

As a result, both the scientific community and the general public are exposed to the consequences of potential misconduct by researchers. In a world in which so much depends on scientific knowledge and technological innovation, these costs may be irreversible. On the other hand, highly formalized supervisory systems within scientific institutions may prove too burdensome to allow for the free and productive development of research, not to mention the substantial organizational and human resources such systems would require.

## A Profession of Public Trust

The answer to this situation is trust. For society to be willing to support science – despite the limitations described – and thus continue allocating part of its resources, there must be a justified belief that the vast majority of researchers act, and that scientific institutions operate, in accordance with ideals and values shared by society as a whole. Without social approval, science cannot exist as anything more than a private pursuit of enthusiasts.

Scientific work carries particular social significance, and the tasks performed by scientists are often important in the context of public duties, requiring guidance by the public interest.

The same dynamics are observed in professions such as medicine and law. In these fields too, the ability to prevent irregularities, rather than merely bear the consequences of violations, is severely constrained by the nature and complexity of the knowledge possessed by practitioners. In science, this correlation has only recently become apparent, because the development of scientific knowledge in its currently recognized complexity occurred later than in medicine. From the very beginning of medicine, the foundation of trust in physicians was a public declaration of commitment to ethical ideals that prioritized the patient's well-being, even when personal considerations might have inclined the physician otherwise. These declarations took the form of prayers or oaths, and, from the beginning of the 19th century, professional codes of ethics. In this way,

supervision over the fulfillment of patients' expectations regarding their doctors was largely carried out by the patients themselves.

An analogous, though not identical, situation has existed in science since the Renaissance and continues in its modern form. Researchers are expected to adhere to a set of values, standards, and best practices, that allow people outside the profession to trust that scientists will, among other things: conduct research with integrity, impartially assess the achievements of others and properly recognize their authorship, refrain from claiming the merits of others as their own, critically evaluate their own work, treat research participants and natural objects under study – both animate and inanimate – with responsibility, and avoid conflicts of interest.

These requirements are articulated by the scientific community in various forms, including doctoral oaths, codes of ethics (e.g., *The European Code of Conduct for Research Integrity*, *Code of Ethics for Researchers of the Polish Academy of Sciences*), and the declarations of research funding agencies (e.g., *The Code of the National Science Centre on Research Integrity and Applying for Research Funding*). Often, the ideals, standards, and good practices of science are embedded in legal requirements or contractual provisions, such as those found in research funding agreements.

In important respects, the work of scientists displays the characteristics of a profession: it relies on advanced knowledge, entails significant independence in the professional activities, and is governed by ethical standards for its practice. For these reasons, the work of researchers resembles other professions of public trust. By its very nature, scientific work carries special social significance, and the tasks performed by researchers often serve public purposes and must be guided by the public interest. This social importance is evident not only in research itself but also in the work of scientific experts, for example, in legislative processes, consulting, or within the justice system.

## Declarations Are Not Enough

The teaching activities of scientists hold particular importance. In this domain, their primary duty is to provide students with the current state of knowledge, as established by consensus within the scientific discipline they represent. Because the knowledge and skills conveyed through academic instruction influence graduates' work in both science and various aspects of social life, educators bear a special social responsibility.

The phenomena and correlations described above demonstrate that ethical standards in science protect society from the consequences of unacceptable behavior by members of the scientific community. Public

declarations of the ideals of scientific ethics constitute a voluntary commitment of researchers to follow socially accepted standards and to be prepared for scrutiny in the event of violations. In this way, scientists provide the public with a basis for trust in both themselves and the institutions in which they conduct research.

Naturally, declarations which are not backed by behavior consistent with them can, at best, be considered expressions of good intentions. For these declarations to translate into action, scientists must demonstrate the corresponding beliefs and attitudes that Robert Merton referred to nearly 60 years ago as the *ethos of science*:

“That affectively toned complex of values and norms which is held to be binding on the man of science. The norms are expressed in the form of prescriptions, proscriptions, preferences, and permissions. They are legitimized in terms of institutional values. These imperatives, transmitted by precept and example and reinforced by sanctions, are in varying degrees internalized by the scientist, thus fashioning his scientific conscience.”

– *Sociological theory and social structure*

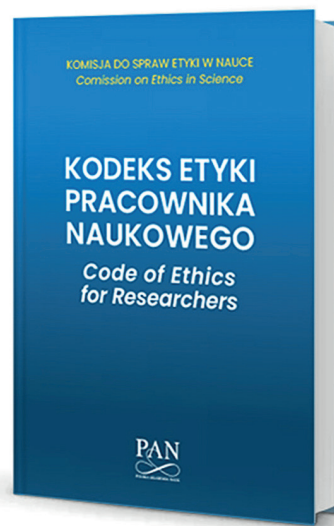
## Outside Academia

The concept of the scientists’ ethos integrates individual, institutional, and social dimensions of scientific work. A researcher’s personal commitment to the standards of scientific practice – standards that derive their social legitimation by being grounded in widely shared moral norms – means that these standards are expected not only within the workplace but also in broader social contexts. Misconduct by a researcher outside the institutional context of science often provokes greater public outrage than similar behavior by representatives of other vocations. Being a researcher is therefore not simply a job; it is a social role that arises from the social legitimation of science.

Participation in the scientific ethos – similarly to other professions – is accompanied by obligations to society. By virtue of the social legitimation of science, researchers are expected to apply their knowledge to improve social life or protect it from harm. Those bound by the scientific ethos also have a responsibility to disseminate research findings, including popular science publications, media appearances, expert reports for authorities, and technical, organizational, or regulatory consultations.

The responsibility of the scientific community to disseminate knowledge has become particularly evident in recent years. In public discourse, distortions of scientific knowledge, pseudoscientific claims, and anti-scientific views have proliferated. While scientists may be reluctant to intervene – for example, out

Researchers must be aware of the weight of responsibility they bear. Maintaining high ethical standards is essential not only for the internal cohesion of science but also for sustaining its credibility social authority.



The Committee for Ethics in Science, established in 2011, has developed and regularly updates the *Code of Ethics for Researchers*, which provides recommendations for handling scientific data, conducting research, publishing practices, and reviewing and evaluating scholarly works.

of fear of stigmatization – their social role entails an obligation to respond when such situations arise.

At the same time, this type of engagement must remain within the bounds defined by social legitimation. It is unacceptable to act as an expert outside one’s scientific competence, or to exploit one’s own scientific authority, the authority of science in general, or one’s institutional position to promote personal worldviews or political agendas.

This does not mean that the scientific ethos precludes researchers from actively participating in social or political life. Like other citizens, scientists have the right to hold and express opinions on issues relevant to society, and their expertise in their scientific disciplines – such as legal sciences or other social sciences – can make important contributions to knowledge-based public debate. ■

Further reading:

Committee for Ethics in Science at the Polish Academy of Sciences. *Ethical Aspects of the Dissemination of Non-Scientific Views*, 2020 Available at: [https://ken.pan.pl/images/KomitetEtyki\\_Stanowisko\\_Pseudonauka\\_Internet\\_29022020.pdf](https://ken.pan.pl/images/KomitetEtyki_Stanowisko_Pseudonauka_Internet_29022020.pdf)

A series of podcasts by the Committee for Ethics in Science. *Reliability and ethics in science Polish Academy of Sciences*. Available at: [https://youtube.com/playlist?list=PLR5r2UnXbA\\_eLhCXpG9oOX25hNVPw88UF&si=3UsmDi\\_FFmMWue\\_m](https://youtube.com/playlist?list=PLR5r2UnXbA_eLhCXpG9oOX25hNVPw88UF&si=3UsmDi_FFmMWue_m)