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A Scientist in the Game of Power over Knowledge. In the Light of the Act 2.0

Abstract

Academics and faculty members are entangled in many interests. Selfless science for cognitive purposes is a thing of the past. There is a constant game of the power over knowledge. Apart from scientists, many entities with various interests are participants of the game. They are: politicians, officials, academic administration, research sponsors, accreditation agencies, publishers, resort scientific institutes, industry, business. The scientists themselves sometimes work for the truth and sometimes they work for profit; they create knowledge which is public property, or when they are employed commercially, e.g. by the industry, they create private knowledge. This paper presents five factors which may contribute to restricting the cognitive autonomy of the scientists.

Keywords: power over knowledge, scientists' autonomy, social impact, academic science, industrial science, post-academic science, research funding, academic strategy

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1. The freedom of expressing one's own views is regarded as a subjective right of a scientist. The academic freedom of speech is "something more than freedom of expression", Timothy Garton Ash claims. "It assumes a demand for the institutional autonomy and self-governance of research workers within higher education institutions. (...) It covers (...) both what is spoken on campus (...) and what academics say in a wider public debate..."² This freedom concerns classically understood academic research which should be subordinate to seeking the truth, and should not be entangled in political games.³

Is this possible nowadays if so many stakeholders attempt to have an influence on science and scientists? A stakeholder is any entity which may influence the achievement of the objectives of a higher education institution, and indirectly of the scientists themselves and their research, or which may be subject to that institution's action in relation to the achievement of those objectives.⁴ Do academics and faculty members have all the power over knowledge?

Two citations below illustrate centuries-old issues with the autonomy of scientists and lawyers. The first one illustrates fighting for a free relationship between science and politics, the other one concerns the acknowledgement of a lawyer's professionalism in relation to the ruler.

Every scholarly lawyer has for centuries had, and also has in the 21st century, these two problems simultaneously. The number of stakeholders who enter into relationships with science and compete for results increased significantly.

1. "Rage with fury and kick at what I say (...) and think of me as of the biggest wretch and defame me in the eyes of the world. If you find pleasure

² T.G. Ash, *Wolne słowo. Dziesięć zasad dla połączonego świata*, Kraków 2018, p. 249.

³ Academic science is science which retains Mertonian properties. Robert Merton dreamed of science which has the following properties: universalism (confirmed knowledge exceeds the particularism of a specific culture), communalism (scientific results are treated as public, common knowledge, the results should be widely available); selflessness (research is conducted regardless of ideology or personal benefits); science is based on organised scepticism. R.K. Merton, *Teoria socjologiczna i struktura społeczna*, Warszawa 1982, p. 580. In 2000, John Ziman, a British physicist, divided science into academic, industrial, and post-academic one. For more information, see: S. Krinsky, *Nauka skorumpowana*, Warszawa 2006. In this classification, academic science has properties indicated by Merton.

⁴ A. Piotrowska-Piątek, *Interesariusze zewnętrzni w misjach i strategiach rozwoju polskiej nauki*, "Edukacja" 2016, 1, pp. 129–141.

in it, gore me with your spear, as I am the only man from whom you will hear the truth, you will not know it from anyone else." The legend says that these are Diogenes' words, addressed to the ruler Alexander the Great.⁵

2. With the beginning of the 17th century after the end of the Tudor dynasty, the English gave the throne to Mary Stuart's son James who was the King of Scotland. It took long for him, who was accustomed to absolutist Scottish relations, to get over the limitations of the monarch's power in England. He particularly raged at being refused the right to "tamper" with the judiciary. "How so?" he once said at the judiciary officials' meeting once. "Do you think that I am not wise enough to pass good judgements?". Then the famous lawyer Coke got up from his chair and said, "God gifted Your Majesty with great virtues, but Your Majesty is not a scholar in the law of Your Majesty's English kingdom, and cases concerning the lives or possessions of Your Majesty's subjects should be decided not with one's natural reason, but with knowledge which is acquired by long learning and experience."⁶

A lawyer who is a scientist at the same time plays both roles, so they have double ethical duties. They should look for the truth without any limitations and conduct neutral research.⁷ They also have an interest: they should achieve results and announce them. They have to confront different interests of other important participants of the game of the power over knowledge.

Considering the above, do the freedom of research, the unlimited right to announce results belong to scientists who are not subordinate to any external interests in the 21st century? And is these scientists' fundamental goal knowledge or working for profit for the orderer? Who evaluates scientific results? Are they evaluated by collegial scientific assemblies according to the internal criteria of scientific discoveries, is the evaluation influenced by political elements or public authorities? Are every scientist's attempts to realise Robert Merton's postulates and his ideals of academic science still the fundament of research? Or perhaps it is a vanishing current of the academics' activity? Is there one direction: do scientific results, as

⁵ T.G. Ash, op. cit., p. 131.

⁶ Anecdote quoted from: M. Szerer, *Kultura i prawo*, Warszawa 1981, p. 231.

⁷ In this text, I do not discuss the issue of restricting autonomy in view of the common good, the protection of public policy or other important state interests, a real danger of conducting certain research for units and for whole societies.

Merton wanted, still aim at universalism (they are confirmed knowledge that is beyond the particularism of a specific culture), are they communal (the results of science are treated as public, common, widely available knowledge); is research selfless (it is conducted regardless of ideology or personal benefits); and is knowledge based on organised scepticism?⁸

When it comes to legal sciences, only some of those questions can be answered in the affirmative. Some research certainly fulfils several postulates provided above.⁹ And what about the other ones?

Every scientist who conducts research nowadays has to play transactional games with the stakeholders of the system of higher education and science, seeking goods which are necessary measures for producing satisfying effects of one's work.¹⁰ When they have that fundamental goal which is knowledge, they may use various strategies and tactics in different stages of the research process; starting from the stage of acquiring funds for the research to the stage of moving the scientific results into the world of practice.

2. Let us analyse five selected factors which distort the idyllic image of free science and cause the scientists, lawyers included, who conduct research, to have to reckon with many factors which limit their cognitive freedom and autonomy, and they are forced to play a game for power over knowledge.¹¹ These are universal factors, but they are shaped in their current forms by the Act of 20 July 2018 – Higher Education and Science Act, executive acts to it, and by the acts of soft law.¹²

Firstly, many lawyers – academics and researchers – co-operate with public authorities and with business, and engage in general research on legislation and interpretation of the law, undertake empirical studies, write expertises and opinions commissioned by authorities and industry bodies.

Secondly, the Act 2.0 introduced a new factor for evaluating research results, which is very significant for the evaluation of a higher education institution. It is called a “social impact”. Research workers have to reckon with obligations resulting from the act.

⁸ R. K. Merton, *Teoria socjologiczna i struktura społeczna*, Warszawa 1982, p. 580.

⁹ The text concerns social sciences, particularly legal sciences.

¹⁰ J. Karcz, *Gry organizacyjne i polityczna perspektywa analiz organizacji*, [in:] K. Klincewcz (ed.), *Zarządzanie, organizacje i organizowanie – przegląd perspektyw teoretycznych*, Warszawa 2016, pp. 173–184.

¹¹ There are more factors, but the scope of this text allows for a glimpse at only some of them.

¹² Act of 20 July 2018 – Higher Education and Science Act (*Ustawa z dnia 20 lipca 2018 r. Prawo o szkolnictwie wyższym i nauce*), Journal of Laws of 2018, item 1668. Hereinafter referred to as “the Act 2.0”.

Thirdly, the Act 2.0 strengthened the importance of the strategies of higher education institutions. Scientists should design research embedded in these strategies. Pursuant to the new act, these acts are adopted by senates after consulting new academic bodies, that is, academic boards. Since 2019, each board includes i.a. external stakeholders who may influence the allocation of funds and thus may indirectly influence the research profiles of workers.

Fourthly, the funds for research are to a large extent allocated i.a. by external entities: the National Centre for Research and Development,¹³ the National Science Centre,¹⁴ various other foundations and organisations, also international and EU ones. These bodies have their own science policies, and within states they are strictly connected with the science policies of governments.

Fifthly, the announcement of research results should occur in journals and publications which are officially regarded valuable. Policies in this regard are pursued by minister of higher education and science, by nobilitating (or not) specific publishers. Private publishers, according to their business policies, control the publishing possibilities for their authors. Private companies which index journals and publishers of scientific literature also join to control the research results.

3. Let us analyse these factors more closely. The representatives of social sciences (including legal ones) use their knowledge and skill set not only for strictly academic work, but also for ordered research work for the public authorities and for business. In 2000, John Ziman, a British scholar, divided science into academic, industrial and post-academic.¹⁵ J. Ziman noticed that apart from academic science, the practical meaning of science with other properties is increasing. He conventionally called that science "industrial".

"Industrial science is the one which: creates knowledge which is someone's particular property (...), it deals with solving local problems on a wider scale more frequently; it is subject to strict control; its purpose is to achieve specific and practical results; it employs experts in solving specific problems rather than people who carry out independent research, undetermined by anything."¹⁶

¹³ Narodowe Centrum Badań i Rozwoju [translator's note].

¹⁴ Narodowe Centrum Nauki [translator's note].

¹⁵ J. Bieliński, *Etos nauki w Polsce. Nauka akademicka, postakademicka, czy przemysłowa?*, www.researchgate.net/publication (access: 10.11.2019).

¹⁶ J. Ziman, *Real Science*, Cambridge 2000, p. 33.

The name “industrial science” was coined by J. Ziman to reflect the science-business relationship, and it is not an adequate name for defining many research works which are conducted for the public authorities. However, the properties of knowledge of this type – regardless of whether it is created for the industry or for the public authorities – were indicated very accurately.

Clear differences between academic science and “industrial” one (and expert one for the public authorities) involve the disparity of the autonomy of research and the availability of results.¹⁷ In academic science, all control over a scientist is regarded as limiting their cognitive autonomy, it threatens with a disturbance of the neutrality of the results. The results should be passed on to the society, in “open access” (this will be discussed further), they should be shared. In “industrial science” (and expert one for the authorities), control over information and the confidentiality of the results are key for business, and in the case of research regarding legal sciences, this is also controlled by the public authorities and it is not always public. The effects of research are produced under control, and they are frequently not published in their entirety, which leads to problems in the case of research for the authorities due to provisions on access to public information.¹⁸ Thus, certain elements of power over knowledge get out of the researchers’ control if they carry out industrial research or research for state authorities.

Furthermore, the selection of research topics alone, and the evaluation of their social position, according to the Act 2.0, depend not only on basic values (discovering a new truth), but also on achieving measurable pragmatic values, that is, a so-called social impact.¹⁹

The Act introduces into the system a new, strong criterion for the evaluation of the quality of scientific activity: the impact of scientific activity on the functioning

¹⁷ I further use the term “industrial science”, though the discussion also covers science “for the authorities”.

¹⁸ Act of 6 September 2001 on Access to Public Information (*Ustawa z dnia 6 września 2001 r. o dostępie do informacji publicznej*), Journal of Laws of 2001 No. 112, item 1198.

¹⁹ See the Ordinance of the Minister of Science and Higher Education of 22 February 2019 regarding the evaluation of the quality of scientific activity (*Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 22 lutego 2019 r. w sprawie ewaluacji jakości działalności naukowej*), Journal of Laws of 2019, item 392, Vol. 1, quoted from § 23 of the Ordinance: “1. The evaluation of the impact of scientific activity on the functioning of the society and the economy is conducted on the basis of descriptions of relationships between the results of research or development work or scientific activity regarding creative activity and the economy, the functioning of the public administration, medical care, culture and arts, environmental protection, national security and defence, or other factors which have an influence on the development of the civilisation of the society, hereinafter referred to as the “descriptions of impact”, prepared on the basis of evidence of that impact, particularly in the form of reports, scientific publications, and citations in other documents or publications.” [own translation – translator’s note].

of the society and the economy²⁰. The evaluation of the impact of scientific activity on the functioning of the society and the economy will be conducted for the first time in 2021 on the basis of descriptions justifying the relationship between research and the functioning of the administration, medical care, culture, and the like. So-called studies of individual cases, which allow for a reliable measurement and assessment of the impact, are to be considered during the evaluation of that criterion.²¹ What does this mean for a researcher?

It is beyond dispute that the assessment of impact depends on who formulates the evaluation criteria. Furthermore, the social impact can frequently be observed after a very long time after completing research. There is no doubt as to the fact that the “social impact” of lawyers’ works may be assessed differently, depending on the general political, social and economic situation, depending on one’s point of view, the current science policy and axiology accepted by the evaluating entity.

Then how should evidence for the social benefits, resulting from conducted research work, be presented? Currently, a scientist’s duties do not end with achieving a scientific result. It is hard for lawyers who engage in academic science to acknowledge the fact that they also have to accomplish non-scientific goals. To describe “social impacts”. They are afraid that they will be entangled in politics and ideology. Most of them think that non-scientific goals are not immanent for science.

Paradoxical problems also arise: how to address a negative impact (e.g. in the case of an impact on specific political facts which are judged negatively with time)? How to document the causative dependency “from research to its impact”, how to distinguish an accidental impact from a designed one? What exactly can be considered evidence for the existence of an “impact” in legal sciences (what quantitative data, what qualitative data of a narrative nature)? Is designing an influence exclusively for instrumental purposes, only to improve the rating in the evaluation, unethical? Should the forms of transforming the results into practice also be projected already at the stage of designing research? Is parliamentary lobbying for the results one of the acceptable roles of a research worker? “Admittedly, one should not automatically assume that experts are not neutral, but it is hard to expect them not to be subject to their own opinions on what is important in a given field. Controversies, and even blatant irregularities concerning the scale of the impact of a given publication are unavoidable.”²²

²⁰ The term “social impact” will be first filled with content in Poland at the end of 2021, thus, during the first evaluation according to the new rules.

²¹ <https://konstytucjadlanauki.gov.pl/ewaluacja> (access: 10.11.2019).

²² J. Hertrich-Woleński, *Naiwni reformatorzy nauki*, “Rzeczpospolita” 3.09.2018, <https://www.rp.pl/Publicystyka/309039938-Naiwni-reformatorzy-nauki.html> (access: 10.11.2019).

The concept of the “social impact” is supposed to provide equal chances for social sciences and humanities, and natural sciences, and technical sciences. Scientific perfection was measured by influencing exclusively in the area of research by indicators of prestige and impact (e.g. the Impact Factor) for many years. Since the end of the 20th century, economic transformations have widely opened higher education institutions for the commercial needs of external stakeholders. The results of social sciences do not translate easily into commercial successes, and even though they are important, they are, however, local. The concept of the “social impact” is a form of a “prosthesis” of scientific perfection. It is also to reflect the impact of research on the economy and the society better.

Higher education institutions are working on the methodology of such applications and descriptions. Scientists will probably soon be able to or have to include the descriptions of the social effects resulting from various research projects, in which they were involved, in their CVs. Perhaps this will also be a significant criterion in awarding grants by the NCRD and the NSC.

Measured and described social impact will, as it seems, be more and more important in research funding and assessment in the following years. Scientists have to reckon with the influence of those on their research profiles.

In general, the impact of achievements in legal sciences may very frequently be recognised only after a time longer than four years considered in the evaluation. That is why discoveries in legal sciences, which occurred in a period prior to the evaluation, but were recognised and noticed in the last four years, can also apply for an assessment in this criterion. Besides, the commercial importance of the results of research by lawyers (in academic science, not industrial one) is generally not easy to measure directly. It will be necessary to study individual cases of influencing, standardisation concerning legal sciences is very difficult. The real achievements of the lawyers in so-called industrial science will remain private and confidential – and this is where direct relationships of research and serious changes are hidden.

The new Polish system is largely based on solutions used in Great Britain. The British system Impact Agenda involves evaluating impact by means of a qualitative methodology based on case studies, while the result of the evaluation constitutes 20% of the final assessment of a scientific unit.²³ An expert assessment of research is conducted after that research is carried out, this is an addition to the evaluation by scientific boards of individual fields, which distribute means for research projects. The results are assessed by scientists and experts who are not scientists. The British evaluation in 2014 was very expensive, its first edition costed £246 million.

²³ M.N. Wróblewska, *Ewaluacja „wpływu społecznego” nauki. Przykład REF 2014 a kontekst polski*, “Nauka i Szkolnictwo Wyższe” 2017, 1.

In the British system the “social impact” covers, but is not limited to, the impact on behaviours and practice, but also on the knowledge, awareness and understanding of specific groups or units, regardless of their geographic location, on the regional, national and international scale. Limiting of damage or reducing the risk of its occurrence can also be an “impact”. The impact on research and on teaching students in one’s own institution is excluded from the British evaluation.²⁴

Thus, selfless academic science for cognitive purposes, assessed in accordance with internal criteria for the evaluation of scientific discoveries, and not in accordance with a “bill with a price”, becomes a thing of the past. The scientists, reckoning with external evaluators cannot disregard these factors completely and create without being subordinate to current external needs and interests.

The search for academic truth without limitations is also made more difficult due to the new position of the external stakeholders from the social-economic surroundings, who sat in academic boards and may have an influence on the strategies of higher education institutions.

The scientists generally claim that it is they who are professionals and they know how the world works, so they evaluate the “social impact”, or the public usefulness of their research, best, therefore they should also be the ones to decide what and when should be studied.

The external point of view of various other stakeholders is countered to this internal perspective. Politicians, entrepreneurs, and government administration believe that they are the ones who know best what research is worthy of carrying out and how it should be done because they know social, political and economic needs and interests well and they see those from the external perspective. Therefore, scientists should study what was designed in the strategy of a given higher education institution.

Thus, the Act 2.0 strengthened the importance of the external stakeholders i.a. by appointing a new statutory body, that is, an academic board, the function of which is, among others, to represent them. The board is to open the hermetic academic environment to the social-economic environment. The academic board is a body which has been functioning in many high education institutions around the world for years. Similar assemblies can be found in the Netherlands, Austria, Finland, Germany, and Portugal.²⁵

The appointment of academic boards – the third most important body of a higher education institution, next to the rector and the senate – is also to support the improvement of the quality of management in academic institutions.

²⁴ Ibidem, p. 92.

²⁵ M. Goniszewski, L. Jastrzębska, *Rady uczelni – spojrzenie z zewnątrz*, “Perspektywy” 2019, 6.

Pursuant to the new act, the boards are comprised of persons from outside of the academic community. However, the fact whether these individuals constitute the majority or minority of the staff is decided by the higher education institution itself. The members, of whom there are six to eight in a board, were elected by the senate. The president of the student self-government also sits in the board.

Employees of higher education institutions analyse the personnel of the boards and ask questions about the future. How much importance in the academic strategy will be attached to e.g. basic research regarding social sciences, including legal ones, if seats in many boards are mostly taken by managers, entrepreneurs, former politician (e.g. a senator, a former province governor), former members of local governments (e.g. former presidents of towns or cities)?

Is such social research even worthy of designing if it does not fit in the priorities of the academic strategy because when there are limited financial resources, there is no doubt that the scarce funds will be probably spent on support for research areas in medical, technical, and natural sciences. Industry 4.0 is more fascinating than medieval legal writings or baroque poetry. The ideas of Francis Bacon, who believed four hundred years ago that a human being can control the mechanisms of nature, are alive again. Bacon claimed that the purpose of science is to gift people with new inventions. Print, the compass, and the powder revolutionised the world then. The laser, the Internet and Artificial Intelligence will win the fight for financial resources with social sciences and humanities in the 21st century. Industrial stakeholders will always readily and primarily support such areas of research.

Searching for, obtaining, and accepting funds for research, also in legal sciences, is not a process that is free from valuation. This is not a neutral process. The funding of research from various sources has an influence on its result to a varying extent. This influence also largely depends on the form of financial support.

A scientist has to fight for that funding with numerous competitive interests.

Firstly, being aware of the limitations, the scientist may have an idea for universal, selfless research, which is controlled intersubjectively, and then search for sources of funding for it. For academic research, such sources are generally traditional grants. Secondly, the scientist may act in an opposite way: look for offers nearby and reply to industrial or government offers. Accepting an offer means that a research worker conducts research under supervision, within a time limit, their specified goals and expected results are set in advance. This kind of research does not correspond to Mertonian academic science any more. This corresponds to the model of "industrial science" or "post-academic science" in John Ziman's concept.²⁶

²⁶ J. Ziman, *op. cit.*, p. 33.

“Post-academic” science is hybrid in nature. It involves “the inoculation of a number of practices on the grounds of academic science, which are basically foreign to its culture” and belong to industrial science.²⁷ For instance, one carries out research and writes a report commissioned by a minister, a company’s management board or a political party. Then the scientist prepares objectives for research which is not necessarily important for that scientist, but is compatible with the ideology of the orderer. Such research would not be undertaken on that scientist’s own initiative.

Scientists in the 21st century feel more and more frequently no longer obligated to resolve social issues as such, they are not involved in favour of impersonal, non-instrumental values. The choice of issues which they are devoted to results from commercial priorities and not a social mission.

The funds which a scientist obtains for research constitute, in a sense, the basis for the evaluation of that person’s scientific value because the financial effects of scientific research and development works are an important criterion of evaluating a higher education institution in the Act 2.0. They are measured according to three parameters: projects financed via competitions by Polish and foreign institutions; the commercialisation of the results of research or development works, and research services for entities which are not part of the system of higher education and science.²⁸

Thus, researchers who obtain funds are considered as having success important to their higher education institutions. They are highly ranked on the scientific market. Other scientists who are less experienced orientate themselves towards them because they regard those successes as good information on what research is accepted or well appreciated by the external stakeholders – funders, and what similar project may be funded externally in the future. “Attracting financial resources” by scientists to a higher education institution is of great importance to that institution, but the researcher has ethical doubts. “How do I survive in an academic climate where I, like every other facet of the context, am being reduced to a dollar value worked out according to a series of formulae?”²⁹

If the sum of money obtained is a good key to being successful in science, then will an ambitious scientist who does not apply for any funding or applies for small

²⁷ Ibidem, p. 36 and 180.

²⁸ Ordinance of the Minister of Science and Higher Education of 22 February 2019 regarding the evaluation of the quality of scientific activity (*Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 22 lutego 2019 r. w sprawie ewaluacji jakości działalności naukowej*), Journal of Laws of 2019, item 392, Vol. 1.

²⁹ J. Cheek, *Praktyka i polityka w badaniach jakościowych finansowanych ze źródeł zewnętrznych*, [in:] N.K. Denzin, Y.S. Lincoln (eds.), *Metody badań jakościowych*, Vol. 1, Warszawa 2019, p. 552.

sums because they do not need any valuable equipment and costly quantitative research have an identical chance of being on top of the ranking of best scholars?

The issue is ethically quite simple if one engages in industrial science or works for the government. In this case research is undertaken if there are appropriate sources of funding. However, when it comes to post-academic science, a researcher has a problem. First of all, there is still the question asked by Julianne Cheek in her work "The Practice and Politics of Funded Qualitative Research": "Is the funding to do a project that I believe is important and should be done my driving motivation, or is it more that an opportunity to get funding has arisen and I should pursue that? In other words, what is more important to me – the funding or the project? (...) I find myself on occasion torn between these positions because I, like many other researchers, am buffeted by the political context in which I operate."³⁰

"Subtexts" which are currently created by the publishing business and private companies which prepare international rankings of journals, having a heated debate with the supporters of the idea of open science, is another serious issue which questions engagement in selfless science.

It is difficult to predict where the evolution of the concept of open access goes. Does the idea of open science has a chance of winning? Opinions vary in the scientific world.

The European Union is currently working on adopting so-called Plan S (S from the word *shock*), that is, a project which aims at obligating researchers whose works are publicly funded to publish all their obtained results in such a way that these are available in open access, that is, in open repositories or in journals available for all.³¹ The plan should come in force on 1 January 2021. It received various reactions from the scientific community. For instance, over 1,500 scientists signed an open letter, expressing their concerns regarding the perceived unintentional results of the plan if it is implemented.³² The other group, of 1,900 scientists, was of an opposing opinion, accepting the plan.³³ The completion of the project requires a serious transformation of publishers' business models. Numerous problems of big and small publishers and of creators themselves arise.

An initiative of the publication of scientific papers in open access, which was launched by Science Europe on 4 September 2018, comes from the consortium

³⁰ Ibidem, p. 550.

³¹ www.scienceeurope.org (access: 10.11.2019).

³² Open Letter from Undersigned Researchers. Reaction of Researchers to Plan S: Too Far, Too Risky, <https://www.fairopenaccess.org/2018/11/16/the-open-letter-reaction-of-researchers-to-plan-s-too-far-too-risky/> (access: 10.11.2019).

³³ Open Letter in Support of Funder Publishing Mandates.

cOAlition S established by big local research agencies and funders from twelve European countries. The Polish NSC is in this consortium.³⁴

The initiative, acting with support from the European Commission, is the realisation of the document, Amsterdam Call for Action on Open Science, adopted by the Competitiveness Council of the EU on 27 May 2016.³⁵ According to Plan S, creators retain their copyrights, and papers should be published with free licences (Creative Commons, for instance). Funders should define the criteria for the openness of journals and platforms; they will also monitor compliance with the new standards. Furthermore, institutions which provide funding for research will ask universities, research units and libraries to formulate their publishing policies and strategies so that they retain their coherence and transparency. This is a project. For now, scientists look for highly ranked journals to publish their texts there and not to risk losing their job and being a burden for their own higher education institution during the next evaluation.

The examples provided above show that “free” academics and faculty members are entangled in many interests and thus do not have all the power over knowledge. Selfless science for cognitive purposes is a thing of the past. There is a constant tough game of the power over knowledge. Apart from the scientists, many entities with various interests are open or hidden participants of the game. They are: politicians, officials, academic administration, research sponsors, accreditation agencies, publishers, resort scientific institutes, industry, business.³⁶ The scientists themselves sometimes work for the truth and sometimes they work for profit; they create knowledge which is public property, or when they are employed commercially, e.g. by the industry, they create private knowledge. Every published paper which reports research results has a complicated subtext. It is entangled in the reality, preserving the ethical rules of science, so it requires that the scientist have many additional social and diplomatic talents, apart from the ability to carry out research and make scientific discoveries. Nowadays, one needs to feel responsible for obtaining research funding, for fitting in the academic strategy, and for transferring scientific statements into the world of practice.

³⁴ <https://otwartanauka.pl/component/search> (access: 10.11.2019).

³⁵ <https://www.government.nl/documents/reports/2016/04/04/amsterdam-call-for-action-on-open-science> (access: 10.11.2019).

³⁶ In periods of axiological chaos, cognitive orientation is replaced by emotional orientation: volitional and mental consideration becomes more important, legal myths may enter the argumentation. Believing in myths makes various entities unable to make an independent, critical assessment of reality. Behaviours become oriented towards others, towards the group which an individual is part of. The myths also make the creation of taboos possible, they serve hiding unsolved problems. This is especially about those problems which are unsolvable in a given axiological system, and hiding that fact is desired for the level of general support in the system and support for specific legal solutions.