Parallel Science as a Challenge for Philosophy of Science

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Abstract
The prestige of science in contact with parallel researchers loses its value, and the only values which remain are the obtained title and power. Parallel researchers do not care about spreading knowledge, seeking out the truth, or serving the scientific community. Their motive for action is very simple – keep the power and keep the submissives close. This type of "scholar" despite having an academic title is often market by the lack of any language different than their mother tongue, their achievements are based on constant recycling of one topic, which will be shared during conferences, in which, for decades the same group of different parallel scholars participate, convinced of their omnipotence and near divinity. Independent scholars with notable international achievements, speaking languages, cooperating with different study centres and publishing globally in the most recognisable scientific journals are, however, nothing to them, unless they show their submission. Then, and only then, will the road to scientific promotion be opened for them. Otherwise, they will stay nobodies, and their scientific achievements will be trampled on by the environment, with measurements used only nationally by a hermeneutic group of omniscents.
Key words: scholars, researchers, reviewers, prestige, university pathologies, journals

Introduction

Making science is generally associated with prestige since scientific research results determine societal development and, ultimately the well-being of entire countries and their citizens. If anyone (inspired by different anti-scientific movements) had any doubts regarding the accuracy of this thesis, it is enough to recall the effects of the arbitrary antiscientific action in recent world history, for example, agrarian pseudo-experiments by Trofim Lysenko. Ignoring science in general sooner or later leads to catastrophe, the greater the power of the ignorant.

University professors are trusted because of the widespread belief that they have attained truths unavailable to others. Scientific output, in the form of research results published by prestigious scientific publishers and respected, well-cited journals, is the basis for evaluating a scholar's achievements. This allows them not only to enjoy prestige and public trust but also to act as experts, settling disputes and evaluating the work of other scholars.

Nevertheless, of the position of scholar and researcher is not just the research results and prestigious publications. The significant meaning is the recognition of the community itself, whose representatives invite valued colleagues to review, attend conferences and join research teams. Informal contacts and sympathy/antipathy are often crucial when it comes to choosing coworkers for obtaining grants, conducting common research and generally to share financial resources spent on science.

Science as a Perfect System of Power

Science can be perceived as prestigious due to some stereotypes and beliefs regarding the rules prevailing in the case of conducting research, creating knowledge, and verifying it. Some of those beliefs are based on the imagination of the whole knowledge creating process, as something that can be done only by a specifically

chosen ones – people who are especially intelligent, talented, impartial and honest (Goćkowski, 1984). Meanwhile, making science as time went on, had less and less to do with mission and more and more to do with practising a profession like any other (Weber, 1995). Thus, in this sphere, we also have a chance to find good craftsmen and artists, but also scammers and scorekeepers and even perpetual students and perpetual journeymen also appear. The latter group found themselves in the profession accidentally and do not have any idea what they are taking part in. Whereas scorekeepers will do everything so they would not accidentally be exposed and could pretend to be great scholars for as long as possible, enjoying undeserved prestige, which only decent, hardworking, talented craftsmen and artists really deserve.

In the literature, various types of pathologies in the world of science are quite well described, such as falsification of results, plagiarism, research design to sponsor's order, hermetic language of texts and empty words (Krimsky, 2003). All of them are a big problem, and their scale is difficult to assess. However, the scientific community generally agrees that such phenomena are undesirable, as they spoil the mechanism of truth discovery. They are also a cause of doubt in science as a system and undermine the prestige of scientists themselves (Świtalska, 2010).

So, to understand more subtle mechanisms of destroying science, one should reach the basics and define what the ideal system should look like. At the beginning, it could be assumed that the system of knowledge is made up of a collection of theories describing and explaining the elements of reality and scientific research verifying the correctness of theories and concepts (Such & Szcześniak, 1999).

In both cases (both in theories and methods) the crucial meaning has scholars' communities, which decide on what should be considered truth and what is fabrication, delusion and pseudo-science (Goćkowski, 1999). It should also be assumed that scholars' communities are led by scholars who have significant research experience, scientific achievements and who can beyond dispute – in the form of numerous monographs and/or papers published in prestigious scientific journals, claim eligibility. Such scholars should also have numerous supporting citations, which additionally confirm their engagement, knowledge and position in the world of science.

Methodological correctness is verified at many stages. The first independent assessment already takes place when applying for a grant, which must be obtained for virtually every major research project. The last assessment is verification of the text by editors and independent reviewers, often in double-blind mode.

Among many factors deciding on the reliability and integrity of the research process, two seem to have a crucial meaning: competencies and independence. In case of a lack of competence, scholars would use scientific idiolect and create their own truth or at most an intersubjective truth, working only in minor societies, competing with other intersubjective truths, presented by other competing societies (Sokal & Bricmont, 2014). In such an atmosphere, discovering scientific truths and projecting impact on reality would be impossible. Science would become speculative and could be made from behind the desk by so-called cabinet scholars, who have never seen with their own eyes the reality described by them.

Independence of a researcher is, in turn, closely related to freedom of scientific research and published results (Ossowski, 1986). It means that in scientific discussions, during debates and conferences and in the pages of specialist journals, can be published contradictory data and findings, which should be successively subjected to further verification by different researchers and their teams (Jedlikowska, 2015). Science as the system of verified and justified knowledge currently is an result of long and tedious work of many people. Single researchers can build interesting, inspiring concepts but it is the scientific teams who verify their ideas (Jedlikowska, 2016).

The term parallel science indicates that we deal with parallel reality – functioning next to the normal scientific discipline, recognised in the world (Górecki, 2019). Sometimes the two parallel systems interact, but generally they develop independently of each other, or the parallel science is inspired by the achievements of world science, as if the scholars involved were inhabitants of a Platonic cave, which is not really accessible!

However, external constraints are not an obstacle but ignorance/incompetence of the cave inhabitants themselves, which is an effective cognition barrier. An equally good term could be "weak science" or endemic. The first one prejudices that parallel science is a shadow of a real science, the second one reflects the specificity of a discipline, which is developing on a specific area, in strictly defined borders, not able to cross them. Such science develops independently from external influences.

Method

Research on university and science pathologies is a murky area. Many people may feel personally offended when comparing the description of ethically doubtful practices with their scientific work. Researchers tackling this issue must expect to investigate phenomena that are already relatively well researched (such as plagiarism or data falsification) or risk personal attacks and undermining of everything from concept to method to findings. In the first case, their contribution to science would not be much, in the second case, they put themselves at risk of marginalisation, ostracism and a loss of funding for further research. Thus, researchers undertaking this problematic zone have to prove their strong independence, reckon with the resistance of the whole environment. Quite often, strong and distinct criticism of scientific pathologies follows only when the researcher has retired and does not have to worry that jealousy of associates may block his/her career path or harm coworkers. The fact that critics cannot afford to stand firm against pathologies, when they are still active, shows how thick and strong a network of relationships functions in the world of science.

In such cases, when we have to investigate sensitive issues, which in the environment are rather hidden or unspoken, first of all, qualitative research methods can be used. Especially useful becomes autoethnography (Kacperczyk, 2014). Participatory observation of the researcher immersed in the environment, in combination with interviews with purposefully selected people and field notes, can result in a proper picture of the situation. Personal experience of negative phenomena may lead to a dense description of situations and mechanisms, of which analysis would not be possible from the outside. Personal stories of marginalised individuals rise to prominence, examples of injustice, and ostracism experienced personally by those who faced the glass ceiling in their careers.

Autoethnography becomes supported by virtual ethnography – analysis of digital texts in form of numerous statements exposing hidden mechanisms, promotions, notes and building careers in the world of parallel science.

Features of Parallel Science

One of the basic problems of a weak parallel science is the low competencies (or even lack of competencies) of scholars who make it. At the same time, parallel researchers are able to project an image of high-quality work, competencies and prestige/authority. The effectiveness of this simulacrum (Baudrillard, 1994) is possible thanks to the functioning in hermetic community, in isolation from the world of a great science and unclear criteria for assessing scientific output quality.

People from outside the environment may have the impression that everything is all right. There exist assessment commissions (for example Rada Doskonałości Naukowej [Council for Scientific Excellence], of which the name itself is the

evidence on the lack of humility and a firm belief about the omnipotence of its members), scientific promotion procedures, scholars and researchers with "enormous" achievements in a form of numerous books and articles. Crowds of specialist scholars also regularly meet at numerous scientific conferences, usually interdisciplinary, sometimes even international.

Yet, a person who is deeply rooted in the environment is able to penetrate beneath the surface of scientific simulacra and reach the real meaning of this great science, which is being made by parallel researchers. On further acquaintance, it appears that the fame and prestige of the parallel scholars do not cross the local scientific environment, limited at most to a specific country. Their works, usually contributory or review, rarely researched, are cited and commented on only by colleagues and their students.

Hirsch indexes, even for the best parallel scholars, recognised as the great scientific authorities by their colleagues from the scientific environment, are usually counted on the basis of alternative measures, like Google Scholar since according to the respected indexes like Web of Science or Scopus, are equal to zero or close to zero. This is due to the fact that parallel scholars do not publish in international journals. This, in turn, is the result of a lack of knowledge of any foreign conference language, in which they could present their research results. Thus, the world of science becomes inaccessible to them for many reasons:

- Lack of possibility to analyse the world's scientific output on a daily basis;
- Lack of significant scientific achievements;
- Lack of knowledge of the principles of scientific texts selection and formal requirements used by recognisable scientific publishers and prestigious journals.

We are faced with a similar situation when it comes to scientific conferences. Typically, they have local character and concern local issues (with national scope at most). Very often these are the same presentations from a few years past, in the same or barely changed format. People oriented in such a type of practice speak about conference tourism. For professors deciding about scientific promotions and assessments, they become a form of additional income and for the rest, a form of a trip on the other side of the country connected with a blast of fun at the taxpayer's expense.

The conference can be considered international if scholars from 2-3 countries meet. In general, during a presentation, each participant communicates in their native language. The presence of a translator is not provided, so the discussion does not make much sense – unless some nation is dominant. Then, the discussion is held in the language of this nation, and the others passively listen, and usually do not even try to understand.

Since scientific creation in parallel sciences becomes a kind of simulacrum, scientific communication at so-called international scientific conferences is reduced to absurdity.

Another feature of parallel science is feudal management of knowledge, careers and research units. The feudal approach is somewhat a result of university tradition, medieval university, enhanced by Wilhelm von Humboldt's concept, and somehow of some stereotypes present in the environment (Szczepański, 1957).

University as a knowledge-generating centre refers to medieval tradition and in Central and Eastern Europe, additionally to the concept of the independent scholar. Hence, it is an entity which has as much in common with democracy as noble democracy. Full-fledged citizens of this republic are titular professors and habilitated doctors. "Citizens" without habilitation are participants of the second category, with whom nobody has to reckon, even if their scientific achievement exceeds many times

the achievements of the average professor. Scientific activity, ability to gain grants, knowledge, experience, and research achievements can be easily downplayed or ignored if only the real citizens (professors) do not see any sense in this activity.

In general, in a parallel discipline, professors know each other personally or from conference presentations, and they perfectly know who promotes whom, from which school they are and by whom they are supported. For this reason, people who are unrelated to a specific environment, having influence on decisions in the world of knowledge, have no chance for promotion. Even the best ones with big international achievements cannot count on recognition and habilitation if they do not have support in a certain centre of power and influence. Anyways, in parallel discipline habilitation is treated as an open sesame to the world of power, and no feudalist would allow an independent person to gain influence.

This can be seen from the criticism. As it was already mentioned – criticism of the existing conjuncture is undertaken only by truly independent people – with no chance for habilitation or those who quickly get retired and can speak truth, without fear of being harassed by the environment (Kulczycki, 2013). The fight for scientific titles becomes pathological and is humility testing – thus, it has nothing in common with the creation of future scholar's independence. Promotions become something in the form of a ritual tribute. If somebody does not pay for it or does something in an inappropriate way, this one will be treated by the environment as unworthy. The same mechanisms apply here as for rites of passage (*rites de passage*). In this context, the phenomenon of so-called habilitational tourism, based on obtaining the title of habilitated doctor beside the system – in a different country, gains specific meaning (Śliwerski, 2017). Academic feudalists, in whose interest such habilitational tourism hits directly, indicate the low quality of scientific assessments of those escaping from the national system. They even have contemptuous terms for them. Hence, comparing the achievements of habilitated in the frames of the system and beyond, it can be concluded that in parallel disciplines, there is no significant difference between one and the other. In both cases, there are low h-indexes, a lack of significant achievements, a lack of international experience, a lack of citations, and a lack of significant international publications, which could at least inspire different researchers. In such a case, habilitational tourism should be rather seen as an attempt to obtain independence and escape from the feudal promotion system, in which it is not truth that has a meaning, but tribute paid to a self-proclaimed guru.

Academic feudalism is supported by unclear assessment criteria. The value of scientific output is verified not on the basis of objective criteria, strictly defined (high h-index, articles in prestigious scientific journals), but on the basis of a whim of feudal decision-makers and prestidigitators of the parallel sciences world. Indeed, these eminent specialists, being blind to objective criteria, create their own image of a perfect science, which does not have much in common with truth, integrity, decency and common sense. The assessments seem to be unreasonable because they do not fit into any science assessment criteria used anywhere in the world. Suspicion that such type of notes are fraudulent results from a clear contradiction with the facts:

- The ones who evaluate international outputs do not know foreign languages and themselves do not have any significant achievements in the form of international publications;
- Reviewers are not guided by universally accepted metrics (impact factor, Source Normalised Impact per Paper (SNIP) of the journal in which the paper was published) but gossips and slanders shared by the national scholars on the topic of allegedly dishonest practices of a publisher;
- Reviewers without any research achievements (so called cabinet scholars) undertake an evaluation of the research methodology of large international studies, which are published in prestigious journals;

– Reviewers from one parallel discipline review the achievements of another discipline, in which they have never published any paper, even in local journals.

The cases mentioned above demonstrate that gaining a scientific title, such as habilitated doctor or titular professor – passes to power in the world of science – simultaneously gives the conviction of unlimited omnipotence, bordering on divinity. It allows for the review of everything and everyone without any consequences for the reviewer. Those consequences cannot be drawn either by Rada Doskonałości Naukowej (sic!) (because no one will challenge colleagues' opinions and expose themselves to dissension) nor by independent courts, which themselves depend on the experts coming from scientific environments.

The key issue here is to justify such a far-reaching arbitrariness of the criteria for assessing scientific merit that can lead to assessments contrary to objective measures and common sense. The supporters of maintaining this scientific pathology usually argue their approach with the inadequacy of objective measures. The high h-index, numerous articles in prestigious journals, international achievements – all of that (in their opinion) may be insufficient to determine whether reviewed achievements are significant. Instead, they promote discretionary assessment, discretionary criteria/appreciations only they know and can justify – sometimes against logic and objective measurements. This absolves them from the lack of achievements in an objective sense because they are the ones who decide what is important, international and significant. Thus, they consider themselves lawmakers setting the standards. In this way, parallel science reduces to absurdity and whims.

Unfortunately, such scientific elites of parallel disciplines can endemically develop science to a limited extent. It happens through undertaking specific strands, separately from world achievements or only as a reflection of research problems determined somewhere else on a completely different level. Endemic parallel science, foremost made in the local language, is not able to have a significant impact on the development of a discipline in the international dimension, merely because of the lack of correspondence with global authorities.

Parallel disciplines can only function as far as they are supported by the pathological system of science funding. If a country funds pathological arrangements of common support of pseudo-scholars without any larger (sometimes none) significant scientific achievements and lets them (in the name of independent science) extend pathological, independent agreements, then such a science is sentenced to drifting and forever functioning in the margins of real science. Scholars entangled in unhealthy relations will not be working against their interests. Convinced of their own infallibility, omnipotence, and divinity, will not admit of changes which endanger their position and (after using objective measures) reveal the fineness of their achievements. It is better for them to keep the status quo, although the costs are borne by the taxpayer, paying for their incompetence, the country losing to its competitors on a global market of ideas and technology and finally, science itself as a system.

In a parallel discipline, holding a degree of habilitated doctor guarantees the possibility of advancing through reviews, conference presentations, promoting doctoral students, involvement in deliberations of various types, decision-making bodies, and university governance. It is worth explaining that within the post-Humboldt university, it is not management competencies that determine the possibility of management but habilitation, since among the habilitated are chosen heads, principals, deans, rectors; hence, their real management competencies make no difference. The change would cause the loss of such privileges. No reasonable representative of parallel disciplines would suffer that, although this problem is

characteristic of the post-Humboldt system and parallel disciplines from this pathological deal additionally just gain benefits.

Beside the aforementioned features of parallel disciplines, significant also is the lack of possibility to promote authentic scientific elites, who would be able to change the current pathological situation. Agents of change, proving themselves with talent and research passion, in the described system can be promoted only if they misappropriate the basic rule of scientific research and bow out of independence, agreeing to (at least in the initial phase) servile submission towards (omnipotent) line managers, thus they will agree to function in this pathological quasi-mafia system of common support and protection. Those who will not surrender may choose ignorance, destruction or departure.

Parallel discipline cannot offer much to doctoral students, who at the moment of defence have higher achievements than their supervisors. It is also difficult for them to accept situations where their achievements are ignored since the parallel science professors are not able to appropriately review them as they do not have the competencies to do so (a lack of international achievements, significant researchers, methodological knowledge). Sometimes they persist for a while in the world of parallel science, a little disbelieving of what they see. Often, they hope that it is only the local environment that is disoriented and that on the post-doc stage, it will be better. Over time, however, they notice that what happened to them is not an aberration but the rule of discipline functioning. After the period of adaptation trials, they see that there is no one to cooperate with since the environment does not know the basic rules of healthy science functioning, and finally, they decide to drop their dreams about making science, and they leave. Every such departure of talented, young people is a huge failure of a scientific discipline. Ignoring the idealists' enthusiasm, especially in a situation where earnings are not so satisfying and hard work is a betrayal of science in many dimensions. Perhaps, it is a better solution (at least it is what is indicated in the statements of those who left) than staying in a toxic, non-developing environment of parallel scholars, who in the real science are like babes in the woods. The sense of depression, burnout, exhaustion and low competencies are the feelings which are characteristic of a researcher in general; in the case of representatives of parallel disciplines, they can be even more intense.

Parallel disciplines are not able to provide for successors. The basic reason is obviously a lack of competencies – parallel scholars cannot teach the rules of how science works and how knowledge circulates in the world, since they do not know those mechanisms. They cannot teach humility towards knowledge; instead, they teach humility towards supervisors, thereby preserving a pathological power structure based not on competencies but on a quasi-feudal arrangement. Thus, they are not able to reform the endemic science system.

Conclusion

Parallel science is pathological science, weak and endemic. The described features and mentioned mechanisms can be treated as a collection, which does not function the same way everywhere and always. Some scientific disciplines may have a greater propensity for such a type of degeneration; however, to determine more precisely how pathological the entire discipline is, large-scale qualitative research should be conducted. These, in turn, are not possible due to the sensitivity and irritability of the scientific environment. Researchers themselves are often unwilling to become the subjects of their own research, even if they have nothing to hide. Here, the researcher's task would be doubly difficult.

Parallel science can work thanks to the strength of pathological scientific environments and the weakness of political environments.

For example, consider a situation where, for decades, a group of scholars has developed its scientific journals, which have always been published in the national language. Based on the ranking of such journals, universities are awarded points for their publications, which then translate into state funding. Any attempts to change the criteria of scientific research assessment into such as would be based on international measures (Scopus and Web of Science) scientific lobby representing parallel scientific environments gains large preferences for their local journals in form of additional points given by the ministry and recognised only locally (the world not only does not know about this peculiar scoring but also about the existence of those "distinguished" journals).

It also happens that local journals, which publish only in the national language, achieve the same maximum scoring as those that are among the best in the world, such as *Science* and *Nature*. It leads to an absurdity. Local science can still function endemically, and parallel researchers can continue their work without fear that they will face international competition, either earlier or later.

In this way, science can be reformed over decades without any visible effects. Neither do universities rise in the international rankings, nor do researchers bring any spectacular results. The country loses enormous amounts of money on subsidising local journals, which are not able to reach the global level since supporting them, the environment of parallel sciences representatives do not know how the best global journals work. Since it does not know the rules, it is sentenced to accidental growth, reaching high quality through trial and error.

The development limitation of parallel disciplines is also influenced by the inability to attract and retain new, healthy staff. Those who manage to escape a toxic environment and enter the global scientific community with their research results, after all, must submit to the assessment of local authorities, which will properly protest their compliance and bring them down to their own level. It could be expected that in the best case they would be marginalised. It is unlikely that they themselves would be expected to allow colleagues who might threaten them into power.

It leads to two final conclusions. First of all, all types of explanations by representatives of parallel disciplines that internationally recognised measures of evaluation of science are inadequate should be treated as derogatory to the intelligence and diligence of decent scholars, who succeeded according to international standards. No additional, deeply secretive assessment criteria are necessary. They can just justify promoting weak ones and marginalising the eminent ones. As a result, costs are borne by the entire scientific system, which becomes even more endemic, corrupt and feudal.

Second, the philosophy of science should be enriched with new terms. Alongside the knowledge like doxa, episteme, techne, and pseudo-knowledge (or lack of knowledge), there should also exist a term of parallel knowledge, which is the creation of a parallel science. Parallel knowledge has been created locally as a result of research on local problems, and its status remains unverified. We do not know how it relates to other types of knowledge. Perhaps there are hidden breakthroughs and concepts which could enrich global science only if anyone in the world would learn about them. However, the described practices make us assume that, beside this, there is a hidden system of feudal schools and nurseries, which are engaged in some kind of speculations on the topic of how many angels can dance on the head of a pin.

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