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Review

The "Fourth Musketeer". Bioethics: Within life sciences – or above? A choice to make now*

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Nothing in life is to be feared, it is only to be understood.
Now is the time to understand more, so that we may fear less.
Marie Skłodowska-Curie

The rich history of Polish science is full of famous names – names that foreigners and people out of science may confuse with the names of other scientists, or other Polish celebrities.
Confusing "*Szybalski*" and "*Przewalski*" – this may happen when too excited science students give a presentation about important persons with a Polish background in history science.
Calling "*Zurzycki*" as "*Żurawski*" also, this mistake can happen – but rather as a creation of a nervous German lecturer in Poland who is interested in both, science and football.
Confusing names of famous scientists may not entirely lack a specific kind of nerdy humour and usually no harm is done. Mixing up entire sub-disciplines dealing with moral implications of science, on the other hand, can create serious consequences – for science.
In our time we deal with four different types of bioethics, and very often they get confused with one another.
All four kinds of "*bioethics*" have their location somewhere else; they each cover different fields of expertise, they each use different methods, and address different objectives.
What they all have in common is their approach to determine the frames of life sciences at work and justifying their restrictions with a moral reason. All but one kind of "*bioethics*" usually include the ones doing the work the entire affair of bioethics is built on.
It is an amazing fact that although the general influence of bioethics on societal approaches, rules, regulations, declarations, and law has been growing immensely over the past years, in all kinds of bioethics, the life scientists are rarely involved.

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***This paper is dedicated to Professor Wacław Tadeusz Szybalski on the 100th anniversary of his birth**

POLITICAL BIOETHICS

is represented by governments, by lawmakers and decisionmakers in higher positions, for examples in ministries.

Perhaps, in terms of sophistication, this kind of bioethics is both the most naïve and the most primitive form of bioethics – but I suppose that it is the one with the most power over life sciences.

Political Bioethics, unlike the three other kinds of bioethics, does not lack a certain democratic legitimacy. Governments and parliaments rule due to majority, and their representatives have been elected by the people. At best, these representatives stand for the same attitudes, approaches and morality as the voters who have elected them. This way, not just the spirit of specific morality of the people gets mirrored in parliaments, in governments, in ministries and administration but also the immense imbalance between simple, traditional approaches towards life science, often driven by ignorance and fears, on one hand, and the difficile, complex, and morally challenging nature of developing life sciences on the other hand.

The competence of *Political Bioethics* is based more on simple power than on a moral comprehension of the work of life sciences between risk and benefit.

As said above, *Political Bioethics* may not lack a certain democratic legitimacy – but the main questions on the two problematic leitmotifs of all democracy also concerns *Political Bioethics*:

The general justification for the majority ruling the State by its representatives (and, e.g., not the best specialists and experts), and the fundamental idea that the majority and their representatives have more rights to rule a nation or union than the minority who may know it better. Some say that we are beyond these fundamental questions because modern democratic systems have proven to be better for most of the citizens than any other political system. However, sometimes even fundamental, natural and chartered rights can get challenged, e.g., the control over one's own life and body or the *freedom of science* when the State establishes binding guidelines and legal restrictions with the goals to take bioethical decision or to rule life sciences.

The ways of politics ruling bioethics can be organised in different ways. In Germany, e.g., the role of the German Ethics Council in governmental decisions on bioethics aspects of the current Corona-pandemic cannot be overestimated; this is not surprising, for the members of the Council are appointed due to the majority ratio in the German Bundestag (Ethics German Council, 2021).

Due to its power position, *Political Bioethics* has the unjustified privilege to be freed from exhaustive explanations and even the necessity of having the better arguments justifying decisions. The legitimacy of *Political Bioethics* rests solely in the power position, the political system stipulates for the ones representing relative majorities – and so, the convictions of a majority that may be wrong can become philosophy of the State.

This is in so perfidious ways wrong, mainly because moral decisions on ethical implications are not truer, better or more plausible when taken by majorities or getting legally established *par ordre du mufti – by virtue of State authorities*. The ethical discourse is per se a liberal one – or it is not an *ethical* discourse.

ADMINISTRATIVE ETHICS

is the second youngest kind of bioethics.

In Europe, over the past two decades countless ethics committees, commissions, expert organisations, governmental boards, and consulting groups have been established in *Administrative Bioethics*. The detailed description of each of their different settings would exceed the frame of this paper, but it can be said here that there is this one function they are dedicated to, and that binds them all. It is a very old problematic issue, deeply rooted in all ethics:

Administrative Ethics tries to bypass the gap between ethics on the one side, and law, rules, regulations, and administration on the other side.

Due to this approach, in typical ways, it is ethics that are "cast in mould", e.g. the highest Ethics Council of the EU evaluates regulations, e.g. the GDPR (Polish:RODO) (EGE, 2021, pp7).

The question for the relation between ethics and law is an old question that has never forfeited currency. Is it ethics that determines the law, or is it more the case that ethics even naturally culminates in the law, as the final stage of any ethical metamorphosis?

Administrative Ethics stands for the transfer of the ethical discourse into rules, regulations and the law. The serious problem it tries to solve this way is that any ethical opinion lacks a real justifiable fundament, for the only one it usually has is an individual- or interest-group -approach claiming to be of general validity. Once ethical opinions turn to administrative rules and legal regulations, the quasi-capricious and indiscriminate character of ethics has changed into normative guidelines that need to be followed.

The practical aspect of this difficult and complex relation of ethics and law becomes openly visible when ethical evaluations by institutions lead to specific requests for researchers.

First: There is no other sector in society but science that is subjected to a necessary positive **ethical** evaluation of specific working schedules and research goals. In all other societal sectors but science, laws, rules and regulations need to be fulfilled – and get the permission for action.

Any ethics evaluation on science based on principles can be classified as a subjective contemplation by the beholders if not based on a set of rules, regulation, or the law.

Ethical evaluations of science projects appear to be arbitrary, and only regulatory and legal check-ups fulfil the requirement of an unbiased, "objective" assessment, following fixed norms.

In administrative processes, ethical evaluations cannot enjoy the same status as any legal assessment, and so, ethics suffers so much on that gap of inferiority that even its legitimacy is at issue; but once bioethics gets transferred to rules, regulations, and laws, no ethicists will be necessary or fit for any kind of review – if an ethics evaluation is based on rules and regulation a lawyer or even an administrator can do the job.

This way, *Administrative Ethics* may ironically become "the undertaker of ethics".

HUMANISTIC BIOETHICS

is mainly represented by academic advocates of humanistic origin, mainly from theology, philosophy, and sometimes from social sciences.

Due to their usual approach that religious faith and/or philosophical thinking are the only routes to a full understanding of the entire world, it is plausible that their omnipotent approach naturally leads to claims for also morally ruling life sciences, being busy with *just* the material aspects of the world.

Certainly, *Humanistic Bioethics* also has any right to deal internally with moral implications of science because it reflects and creates ethical ideas that generally would not even exist without them. That pioneering work of *Humanistic Bioethics* is undisputed, but if now it can be more than an auxiliary "science" is doubtful.

A refreshing, very reflective and very critical point of view of synonymous "philosophical bioethics" is what Flynn presents in her paper "Theory And Bioethics" (Flynn, 2021).

Especially her remarks referring to the self-understanding and limit of "philosophical bioethics" are of outstanding quality, for they mean a restriction of philosophical understanding of moral impacts when it comes to connected biological facts – that are beyond philosophical comprehension and competences.

Humanistic Bioethics lacks essential competences, and these gaps make them appear insufficiently prepared for appropriately dealing with *bio-ethical* issues. In addition to this, its representatives are outsiders that factually are not connected to life sciences, and nothing can justify their claim for moral leadership or being in any way responsible for life sciences.

Biomedical competence and practical experience are of absolute essence when dealing with bioethical issues, as much as understanding *in detail* what life sciences precisely do. In terms of bioethics, professional competence in science cannot get substituted by a basic philosophical or theological approach towards the human being or the environment because this is irrelevant.

The humanistic world of terms or (religious) feelings stands in such a radical diametral contrast to the sole material world of facts of life sciences that the only explanation for the attempt of *Humanistic Bioethics* to have a say in bioethics must be an attitude of superiority.

Finally, the main gap of the humanities referring to ethical implications of life sciences can be seen in their natural status of being solely theoreticians without any practical attitude or experience. This basic circumstance especially concerns the facts that their notional bioethical drafts often do not meet the reality of research and science. It is not them from *Humanistic Bioethics* who practically have to do what the fruit of their foresight dictates to do. So, why shall any scientist obey to moral orders from the outside?

It cannot be denied that the humanities can contribute to a better understanding of science as such. Rarely - too rarely, scientists have reflected on their own work, its settings and procedures, its limits, its consequences, and also moral implications.

That is what science can generally be blamed for, and for the circumstance that its own phlegm has created a situation that life science is now ruled from the outside.

is the attempt to establish ethics within life sciences.

It is an eclectic model, using methods from different disciplines – ranging from philosophy to management - with the one goal:

– to create a strong voice of life sciences in the world of bioethics.

That is a question of autonomy.

Integrated Bio-Ethics is not more and not less political than life sciences as such with their powerful new technologies creating controversies.

On the ground of its fundament, *Integrated Bio-Ethics* picks a quarrel within life sciences. The wide-spread approach within all science, to create "just" knowledge on facts is an approach that due to the potential of new technologies can be called negligent and ignorant.

The responsibility for the findings and technologies in life sciences is a cost-by-cause issue. Hiding behind a positivist attitude is naïve, inappropriate, and if maintained, it makes it necessary to put life sciences under moral surveillance and regulations from the outside.

Up from the dawn of *Integrated Bio-Ethics*, there has been one question that is crucial for the acceptance of ethics within life sciences.

Are researchers morally competent?

Amazingly, this question has been more often asked in a form of a negative statement by scientists than even by voices from outside life science, believing that scientists just play around with the elements of life.

If scientists had indeed no moral compass and no sense for ethics whatsoever – what would that mean?

It would mean that you cannot trust scientists in *any* regard, and that they are ruthless mobsters.

It would also mean that these gangsters urgently need to get under control from the outside, under the rule of the law (and that is precisely what happens now.)

But: if scientists had indeed no moral compass, how could we explain their obvious dedication to the factual **truth**, the **honesty** that rules their work and the publications on their research results, and how could we explain all the other leading "philosophical and ethical" principles of life sciences like *Communalism*, *Universalism*, *Disinterestedness*, and *Organised Scepticism* (Merton, 1942)[1]?

Can scientists from life sciences give an ethics lecture on the case of the "Chinese CRISPR-babies", or are they incompetent?

The answer is of course a clear "Yes, they can!" – and one of them did! At the Faculty of Biotechnology of the Jagiellonian University, in July 2019, the known biochemistry professor Grzegorz Węgrzyn gave a brilliant ethics lecture on that issue. He has proven that it is not only possible, but also appropriate, and it is even an obligation for life sciences to deal with that case because it is first a topic *pro domo*, an "internal affair".

It is a prime obligation of scientists to evaluate the moral impacts of "their" science.

If they do not see that, then science has earned to be ruled from the outside.

And that is what *Bio-Ethics* is not: it is ruling from the inside!

It is amazing, but I suppose that all four different kinds of bioethics miss a fundamental point of ethics.

Ethics as such is neither primarily a governmental affair like in Political Bioethics nor is it foremost a humanistic sub-discipline or an issue of individual philosophers and visionaries like in *Humanistic Ethics*; and it is also nothing that expert groups can fix and transfer to law like in Administrative Ethics.

By its very nature, ethics is a societal issue, a democratic discourse of different pressure groups at best, and all kinds of bioethics introduced here seem to miss this point.

The question is, however, how to do that: to bring back ethics on the societal stage it belongs to?

It is profane – but a starting point needs to be providing explanations of modern life sciences to the public.

I hypothesise that if research is not understood, legends and conspiracy theories will grow and create fears in society; and fears of science lead to negative moral evaluations – by the one decisive instance that finances all science: the public.

Therefore, I presume that only an informed public can appropriately deal with the ethical implications and challenges of modern science.

One must not mix up *Political Bioethics* with *Humanistic Bioethics*, or this one with *Administrative Ethics* and *Integrated Bio-Ethics*. In a figurative sense that would mean to confuse "Szybalski" with "Przewalski".

All four kinds of *Bioethics* are different but obviously they also represent different characters of one "nation", so to speak: just like the above mentions of great Polish scientists.

The leading motif they have in common is not just the dedication to morality; in my opinion the one thing they all share is their leading motive: the will to rule over life sciences.

Meanwhile, the first three "musketeers of bioethics" are fighting for fixing ethical frames from the outside, only the fourth one stands with both legs in science.

From my point of view, the only chance for life sciences to determine moral frames for their work is *Integrated Bio-Ethics*.

Just like in the famous novel by Dumas (Dumas, 1844): it is not at all about The Three Musketeers but about the fourth one: the one that is and shall be starring in life sciences.

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