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Of doctoral degrees

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Various governmental, academic, university, scientific research authorities, politicians, research and higher education managers have recently raised the doctoral (PhD) "problem" in Romania. In an honorable democratic impetus, researchers, professors, doctoral supervisors and students are invited to participate in a debate on this issue. To this end, they were provided with a set of documents, so called "materials", whose content would constitute the subject of the debate. These documents are bulky, with little meaning, if any. Moreover they do not clearly define the problem: why would it be necessary a discussion on the way the doctorates are organized in Romania, what would be the doctorate "problem", do the doctorates have any shortcomings as they are at present? All these make me prudent. Maybe the organizers of this debate are aiming at getting a democratic vote for a set of measures dictated by their vested interest. Or, maybe they were allotted funds for carrying out a "research project" on this matter and they need execution reports, a broader democratic meeting and its corresponding minute. Or, maybe they will want to check off another action commanded by their superior "organs".

The only thing I can keep in mind, from all the Recommendations that should be voted at this meeting, is the replacement of the designation of "associate professor" with "research professor" which is quite difficult to translate into Romanian. And also, a studiously vague organization of some Research Schools within universities, namely, exactly where there is not and has never been performed a scientific research in Romania. Not to mention the even vaguer and not justified set up of some Consortia between the research institutes, on one hand and universities and Academia, on the other hand. A collaboration is of course desirable, but the consortia "fabricators" fail to grasp its whys and wherefores. At the same time they evade the real problems facing the organization of the doctorates such as the sub-mediocrity of the doctoral supervisors and implicitly of their students and theses, the compulsory cycle of Doctoral School where doctoral students are intoxicated with anti-scientific doctrines, the interdiction to supervise doctoral programmes imposed on the research institutes (the only places where a genuine Romanian scientific research could still be done), corruption and fraud embedded in the present doctoral system in Romania.

I'll briefly discuss all these issues in the following. And let me remind you on this occasion about a former article that I wrote some time ago on this subject. [1]

The issue of the doctoral studies is a complex one as it is closely connected to the issue of scientific research, higher education, to the general societal condition. Anyway, however complex, we still can express a few reasonable opinions about it relying on our education, training, experience and power of judgment. Everyone according to his capability. Who shall we trust more? Those with a greater capability, of course. How shall we gauge this capability? According to the clarity, logic, appropriateness and responsibility of the facts and actions.

In such matters, it is customary, particularly in Romania but also elsewhere, for the government to grant a project, sufficiently financed, to a group, to some persons, for the ostensible purpose of clearing up the problem. To carry out this project, these persons amass, in a democratic manner, a higgledy-piggledy collection of views and opinions from all those they know more or less. Afterwards, these ramblings, this folklore, all are put by their secretaries in cool-looking electronic format. Lastly, a tinge of seeming professionalism is given to these documents by the delphics. Thus are prepared the phase reports of the project, bringing the project managers heaps of money. Nothing can be understood from these "materials". They are just a collection of empty words. Completely useless for the problem in question, lavishly remunerative for the managers. The same holds true for the documents put at our disposal on the occasion of the aforementioned discussion. Unfortunately.

How shaky is this undertaking it is easily obvious right from the beginning: these documents do not define the problem. So what do we solve / is there to solve? No one knows but all provide solutions. To what? No one can tell. Is it not bizarrely hilarious this too sad a situation?

Before the '90s I supervised the PhD studies of about five or six colleagues of mine, unofficially, because the party bodies at that time would not promote people like me and, accordingly, I was not granted the right to supervise PhDs. After the '90s when the door to freedom was widely opened I was officially appointed as PhD supervisor and so were tens and hundreds of others across the country. Nowadays we are reaching the point where the PhD supervisors outnumber the PhD students. Are all these people really capable to do this? Wouldn't they more likely be a mass of impostors? After the '90s I have supervised another four or five PhDs. Some of my students abandoned along the way. I have never had more than two-three students at a time, often only one. I could not coordinate many. At present I have no PhD student under my supervision and I think this situation is not going to change in the future. Meanwhile, some of my comrades in the institute supervise 17 PhD students at the same time. Do you really think this is normal? I think that's an aberration and I consider it a huge disservice to these young people.

There is, of course, a great societal pressure to obtain a doctoral diploma in science, art, in whatever field of study. And a greater one to become professor, doctoral supervisor. In principle, this would not be a bad thing. People are thirsty for science, education, culture. But when seeing how much hard work and talent they have to invest in a sound professional training, there would be a natural selection. Do we, professors, doctoral supervisors, set an example for them in this respect? Not by far. On the contrary, we show them that getting a doctoral degree is a conventional, routine stage at the completion of which, we, professors, are cutting diplomas as a merchandiser cuts receipts. Accordingly, this huge mass of persons is not remotely interested neither in achieving professional proficiency nor in science; their aim is but a rapid advancement in their careers following the obtention of this degree. This situation existed always. The crowd on the banks of Seine longed to get a doctoral degree from the Sorbonne. As they were constantly denied this title and thus threatening to become a potential danger, king Francisc set up the Collège de France for them, from which all these penniless, lice-ridden mobs could get as many titles as they wanted. Modern society too, succumbed to this situation; thus, we have a great number of institutions granting doctoral diplomas with a great number of doctoral supervisors, with a great number of academic disciplines and sub-disciplines, each of them more fanciful than the other and with an even greater number of lousy doctoral theses. And this state of affairs exists not only in Romania. If we go on like this, there will be no surprise if, in the near future, we shall grant doctoral degrees in music or sports, for example in football or manele (manele is a mixture of "oriental" (Turkish/Middle Eastern) influences and Balkan music, with a very strong influence from Romani music. The bulk of manele singers are in fact, ethnic Romani). Obviously, this degrading must be stopped, but in a sensible way, and only the state authorities can do

this. And by no means through senseless discussions but solely through direct action, by force of law.

In their moments of sincerity, young people tell me straight: "it's interesting what you do in physics, but it's too hard and we have easier ways to get our PhD degree. There are colleagues of yours who give us this degree for a numerical calculation, a data statistics, graphics, they also send us in the West where we do the same stuff but with the added benefit of travelling abroad. It's true that we remain "specialists" in keyboards and black boxes, but what does it matter, who cares any longer after getting the PhD along with the legal (actually "legitimated") aspirations to a higher career. Not to mention that these colleagues of yours have also connexions within the circles of international influence, unlike yourself who do not quite have such connections (and don't want to cultivate them either).

They can easily launch our career with papers published in famous journals (actually "falsely famous"), through these relations (it is called "relational launching" and "consensual publication"). On the contrary, you believe in a merit-based career launching; well, Professor, those times are done and dusted". I have learned a great deal from these younger friends of mine. Indeed they raise a serious problem. What do you think it could be done since our society promotes the facile, the superficiality, the impostors, the outright fraud in the doctoral system? I tell you what: nothing. There is nothing to be done simply because we have a problem that we do not want to solve: the problem of the impostors.

If the young doctoral students in Romania are avoiding me (by right!), there are instead foreigners who want me to be their PhD supervisor. In the later years I was approached by four or five persons from abroad, whom I never personally met, asking for my approval to examine them in order to do their PhD under my supervision (poor of them, they did not know me well and did not have the slightest idea what's awaiting them!). I contacted the Romanian authorities who told me that this was out of the question, absolutely impossible in Romania. First of all, Romania demands those foreigners to learn the Romanian language, so they have to pursue one year training to this end. Afterwards, Romania charges them substantial fees for their PhD studies without offering them nothing in exchange (but the Romanian language!). It was excluded that I or my institute should receive a percentage from these fees. Finally, Romania requires those foreign students to pursue the courses of doctoral schools in Romanian (there are no professors of physics in English but only professors of English in physics!). In the end, one of them abandoned due to lack of money, another said he is not interested in Romanian language (since I know English he sees no reason to learn Romanian), two of them I turned down. But the last one really impressed me. After a year he contacted me again to tell me he managed to get some money (9000€) which he deemed sufficient to live in Romania for a few years in order to do his PhD under my supervision. Regretfully, this young man did not receive the Romanian visa.

Speaking of doctorates, money and Romania. In 1986 I was approached by a young Italian from Sicily, whom I did not know personally, asking me to be his PhD supervisor. An European grant provided him the necessary financial support. I asked for the permission of the Romanian authorities who were surprised and put out accusing me of betraying my country and recruiting of foreign citizens (luckily, he was neither a girl nor a minor!). Finally I get their approval following long and prolonged discussions, party analyses, reports of the decisions on the measures adopted etc, etc; an approval with multiple conditions attached to it. Inter alia, this visitor was given a road map drawn on millimetric paper to which he had to stick no matter what. Moreover, a Romanian companion should permanently accompany him (not during the nights). I, with some of my colleagues, was tasked with doing this, each of us in turn. It was an ordeal for us and a great amazement for the Italian. At one point he got himself some girlfriend around here with whom he went to skiing. I had to go with him together with my wife of course (nor I neither my

wife knew nothing of skiing)! I could not bear any longer. It happened to be a hard winter in 1986 with a bitter cold both in our houses and in the offices at the institute, so, my Sicilian friend left after six months. I had already co-authored two papers with him; he was really good. He gave up. Lately, he did his doctorate somewhere in Belgium, took another career path in physics; at present, he is the head of a large and influent group at an Italian university and does not know me anymore. He clearly understood that we have divergent views on life, on its principles and avoids me. He recently visited Romania but avoided me.

Why am I telling you all these? To draw a comparison. Before the '90s it was still possible, under very difficult circumstances however, to pursue a PhD in the Romanian research institutes. Today, after the '90s, this is no longer possible. Why? Simply, because after the '90s the power was fully grabbed by the impostors many of whom are coming from the second, third and fourth ranks of the communist party and who are more greedy, more avid of money but most of all less professionally trained than their predecessors.

Do you believe the impostors will ever step back and vacate their positions for the competent ones? Will they ever cease, by their own free will, the siege on the moral, cultural and scientific values? It is naïve to believe that this could happen, they will never do that, their *raison d'être* is exactly the opposite; let loose these migratory barbarians will raid in even larger waves.

This is a well-known natural tendency, a natural law. Societies that saw successful developmental periods, in those periods and insofar as they were successful, had to stop such invasions by using public authority. Of course, this involves knowing who is competent and who is not, making a distinction between the elite and the masses. How can we know which is which? This is a tricky question. Actually, we know, but it seems a little bit more convenient for us to pretend that we do not. However, I will answer this question. The difference between competence and incompetence on the doctoral issue is simple: the one who supervises 17 PhD students at a time is undoubtedly weak, very weak professionally, and his right to supervise PhDs must be immediately withdrawn and perhaps also his affiliation with a university, an institute. The one who submits a doctoral dissertation replete with graphics or simple numerical calculations or statistical analysis etc is undoubtedly very weak professionally and comes from the ranks of impostors. The aforementioned method (*viz.* public authority) must be applied against such characters. The one who takes a PhD aspirant under his supervision and instead of working with him and providing him a sound professional training, sends him to the friends from abroad to fabricate pseudoscientific aberrations, the one who takes a PhD aspirant only to introduce him in his "group" or in the "group" of his comrades from abroad for the sole purpose of building up his fraudulent relations, the one who is a dealer in PhD students, is, undoubtedly, professionally very weak, it's a little impostor. The one who counts his ISI scores but is completely incapable to present, as a professor and PhD supervisor, his own results in seminars, in public, is undoubtedly an impostor. Why are such people still kept in universities and research institutes? Their incompetence is conspicuous and fully certified by their long tenure during which they copiously feast on public money for no purpose. I have many comrades in the institute who have never held a public presentation on their scientific results, though they boast themselves with their remarkable ISI scores, they are professors, academicians etc. Do you consider this normal? Anyway, those are the impostors. As you can see we can identify them! To cut a long story short I suggest you an infallible test to easily recognize the impostors a mile off: ask them to give you a brief outline on a scientific issue, a result, a method. If you do not understand a word from what they said, even after your repeated inquires and comments, do not insist! You find yourself certainly in the presence of an impostor.

Now that we know the impostors how do we block them? Simple enough, the government must call to power the scientific elite, furthermore, it must insist on its coming. Only the elite, cleaned out of impostors. Where science is concerned, democracy is a bad thing, it does not operate;

science can be destroyed if we force democracy into it. I was told that in a research institute in Romania the neutron mass was recently put to vote as it was a dilemmatic issue and opinions on it were anything but convergent. Do we really want to go on like this? Science is aristocratic not democratic. By its very nature the elite consists of a restricted group of people working effectively for the general welfare. The elite is honourable, honest and above all inspired, visionary. Discussing dialectics in the marketplace is not its job. The work of the elite has a great positive impact on the masses though they do not realize where this welfare, this good and this justice are coming from. The work of the elite is comprehended and appreciated only by a few, who are themselves an elite, hence it results the obvious abusiveness of ISI. It is an honour to have few ISI citations. It is a dishonour to have many, it means that either you did not resolve the problem or you have formulated it in such terms that all laymen feel free to give their wrong and nonsensical opinions on it and thus you have contributed to enhancing the general confusion. "Feynman brought the calculus to the masses".

The issue of the doctoral degrees, as all other issues germane to it, stems from the fact that our present society is going in a completely wrong direction. Greatly overstated, as any other bad or nonsensical thing in Romania, it has led to the systematic destruction of the scientific research and education. Let's notice first that science politicians and managers do not formulate the proper mission for science, for scientific research, notably what should we expect from science in proper terms if we keep financing it? In turn, they formulate completely outside requirements, improper for this socio-professional field of activity such as visibility, competitiveness, output (including scientific papers), impact factors, development of knowledge-based society (another nonsense). All these aberrations are emanating from the European Union (where the "tone" is set by people with an ideological formation of Stalinist extraction; the elder will still have vivid memories of the relentless Stalinist struggle against the American imperialism, the proletarian struggle to surpass capitalism in science and technology, the cultivation of Stakhanovism, the socialist competition in work and creation etc; do you see any difference between the historical slogans and the demands of the European Union? There is no difference). If we demand quantity how could my aforementioned comrade not supervise 17 PhD students at the same time? How could people not chase ISI scores (scores are quantifiable, are they not? Therefore they have quantity?). If we demand visibility, how could someone not cultivate influential relationships and simulate with them the scientific research, substitute them to the scientific research and dissimulate these relations with the scientific research? If we demand competition, how could we possibly teach a young PhD student during an honest doctorate so that he would later be capable to further carry on science, when this young student can become a potential adversary in this aberrant competition, and furthermore, armed with our own weapons? Can you see now why we fail, again, to solve the doctoral problem? Mostly because we, ourselves, do not want this problem to be solved. Because we ask for one thing and complain about its painful consequences after getting it. We can now see, again, which is the outcome of a poor reasoning.

I assume that you will ask me which could be, in my opinion, the proper mission for science, for the scientific research? Well, hereby hangs a tale: a ship strands on a desert island in Pacific. After two weeks the sailors fix the ship, leave the island but forget a violin on its shore. What's this? the indigenes ask themselves and start fretting about an answer. After two years, the younger son of the tribe chief, who was also the smartest of them, comes up with the answer: Evrika! I got it, he cried happily. The violin is a musical instrument! How come? ask the indigenes. It's simple, says the young man, we turn it upside down and beat the drums on its back.

The unhappy and perfidious measure to introduce project-based scientific competition spells the doom for the scientific research in every country which was stupid enough to apply it, prevalently in Romania. In this way, a researcher does not seek to get a valid scientific result, but to get

more money on behalf of the scientific research (not for the scientific research!). That is why we have comrades who press in their pockets 5000€ per month, while someone like me, who gives a favourable evaluation to their execution reports, gets only 700€ per month. In this context, is there any room for collegiality, collaboration, knowledge transfer within the doctoral studies; can we really speak of an institute, an institution? Not by far. Can you see now why we fail again to solve the doctoral problem? No young scientist will ever come to do science for 300€ per month, when my comrade next door gives him 2000€ per month to compile the "materials" for project phase reports. Under this unhappy circumstance, our research institutes and universities turn themselves into government agencies (I was about to say "intelligence agencies") facilitating and contributing to the pillage of public coffers. The pillagers are prevailing themselves of the long standing prestige build up by many generations of honest scientists who are currently hold, the few of this kind who still remained, in derision and professional humiliation.

In 1999, in Romania, the universities entered into an unholy alliance with the Academy and, by political clout, withdrawn the research institutes the right to supervise doctoral studies. By tradition, scientific research was never performed within universities or Academy. And, regrettably enough, neither is it performed at present. Moreover, neither teaching, nor education, nor training are performed within the universities. Why not? Because of the impostors who have been raised and cultivated through such completely aberrant political measures. The reason invoked was, again, the European Union, then Bologna, then Lisbon. Again, can you see why we cannot put things right, not even in the matter of doctoral studies? Because the European Union itself, to which our leaders and instigators are blindly acceding (as they did it in the past when adhering the glorious Stalinist dictatorship) opposes this. And it is this same little Jesuit Union that has the impudence to allegedly demand us to "solve" the problem. In 1999 I was freshly returned from America where, I must confess, I was a little bit stirred up by my American friends against this abusive measure. It happened that a young man wanted me to be his PhD supervisor but he had to pay universities fees and had no money. As this situation stirred me up further, I went to the prorector of the university (at present he is the rector) and forced him (he was reluctant!) to have a talk with me. How did I force him? It's funny; I'll tell you the story. I ask to see him and his secretary keeps putting me off for a few days in a row. Finally she tells me that the prorector is in a conference with some foreigners in an adjoining room. I enter the room and address those people in English: do you think it's normal for the prorector to refuse to see a professor of this university about some problems concerning the PhDs despite this professor's repeated attempts, for days in row, to meet him? That's the way things work in your universities as well? They remained astounded, confusedly muttered a few vague "no", but the prorector jumped up as if something had bitten him, left those foreigners flat, invited me for a cup of coffee and accepted my proposal without demur: the institutes, particularly IFA (Institute of Atomic Physics), shall continue to supervise the PhD studies, shall be exempted from taxes, but, of course, I finally had to concede him to be written on the PhD diploma "university" as the issuer of this document. The protocol of this agreement was impeccably perfected in the ensuing days by IFA director and the dean of the Department of Physics of the University of Bucharest. Meanwhile the situation has deteriorated and currently the universities and Academia keep the research institutes deprived of their right to supervise PhD studies. Furthermore, the universities have set up their own doctoral schools where they are ostensibly teaching science to PhD students. As it were, I supervise them and others teach them! Good thinking! Because, if I have just one PhD student I cannot hold classes for him at the Doctoral School, as courses cannot be organized for only one student and so, one like me, is automatically excluded. I know the situation fully: the so-called professors from the doctoral schools teach the PhD students nothing but utter aberrations, throwing the poor guys into bewilderment and confusion so they come running to me to help them with extensive

clarifications and explanations! These impostors are just pumping up their heaps of teaching loads. And now, in line with the Recommendations lay out in the documents which we were talking about in the beginning of our discussion, they will further pump up their pockets with incomes from these doctoral schools. Moreover, according to the regulations of these schools, the students who fail to submit their PhD thesis within 3 years are expelled from the doctoral programme, they lose their admission fees and the university requires them to pay again these fees for a new re-admission. Do we know that this year alone, as much as 50 graduates from the doctoral school of the Department of Physics of Bucharest will be expelled from the doctoral programme because they fail to submit their PhD thesis within the allowed duration of 3 years? Those who have received grants from the institutes must return them. They are encouraged to re-enroll at the doctoral school, to resume the doctoral programme with new fees, fresh money, etc, etc, to repeat the cycle, another 3 years, another expel, another amount of money, another good fun! Is this not fraud? And we now want to make it larger with a bigger one: the doctoral school! You see, when the student learns that is all about money not science, would it not cross his mind, especially if he is fairly well off, to go to the dean, put a few thousand euros into his account and the dean, in return, through his connections (namely relational) - of course in exchange for some cash - pass this student's PhD thesis within 3 years? But of course! Again, can you see why we cannot put things right, in the matter of doctorates in Romania? Because we do not want to remove these fraudulent people from universities and institutes. Furthermore, we named them deans and directors.

Speaking of deans (and money). I was recently appointed in a PhD thesis commission and the organizers asked me a receipt from the university attesting that I am a professor. Let me mention in passing that I was appointed professor by a minister's order according to which this title was conferred upon a few, not on all those self-entitled professors by the generosity of various councils and scientific committees. Most likely the organizers found it difficult to rummage through the archives and probably they got their fingers burnt with many false professors so they required an official proof. Well, to cut a long story short, my dean was refusing to give me this document. Certainly, I finally obtained the receipt, could not stumble on a poor professor. I have succeeded in getting the paper but not in getting him out of the faculty. Do you really think that you will be able to straighten things out in the case of doctorates in Romania, that is if you are really interested in doing this, with such people in power?

I fail to understand why in the Recommendations presented to us, the retrocession of the (historic) right of supervising the doctoral studies by the research institutes is not required. I fail to understand why the elimination of the impostors from universities, Academia and research institutes, the revocation of their right to supervise doctoral studies is not required. I fail to understand why the directors, the rectors do not resiliate the contract of employment of these fraudulent people - many of whom of pensionable age since a long time ago. I fail to understand why in these Recommendations the dissolution of the universities lacking credibility, turning them into simple colleges for example, is not required. I fail to understand why in these recommendations the dissolution of the fraudulent research institutes of the academia is not required. I fail to understand why the opinion of someone like me is not considered but the democratic aberrations of all mediocrities are obeyed to the letter. But, perhaps, I get carried away without fully understanding what the problem is. Maybe it is about something else and I misunderstood that it would be a problem. By the way, do we have any problem concerning the doctoral studies in Romania? The printed materials that have been put to our disposal do not formulate any problem. Only alleged solutions. But to what? Why should we restructure, reconfigure the doctoral studies in Romania? What is "the instance with the nuisance and the query with the quandary"? No answer, the documents are silent. Furthermore, they are not signed, they are anonymous. Typical of our times. Did anyone complain about the doctorate system in Romania? I did, here, but maybe it is a false problem,

maybe I am a cry-baby. I have fallen in the trap and, oh my! I think I have written in vain. After all, for whom have I written? It would have been better if I didn't write at all.

References

[1] M. Apostol, *De ce au cazut doctoratele in Romania*, Antiphys. Rev. **106** 9 (2005).

(Tranlated from Romanian Antiphys. Rev. 163 by Iulia Negoitza).