

EXPLAINING EVOLUTION IS A STRUGGLE FOR ENLIGHTENMENT: PROF. DR. CİHAN DEMİRCİ TANSEL

Interview: Zelal Özgür Durmuş

Translation: Eda Şamiloğlu

In this issue of the Journal of Matter, Dialectics and Society, we interviewed Prof. Dr. Cihan Demirci Tansel who specializes in physiology. Professor, who started university in the early 1980s, compares the scientific and political atmosphere of his university years with the current situation. At the Turkish Academy, she discusses the place of the evolutionary perspective in the scientific research process. She tells the course of the struggle of defending evolution, which has been lasting for the last forty years, based on her own experience.



Prof. Dr. Cihan Demirci Tansel

Welcome, Prof. Tansel. In this issue, we will try to reflect to our readers a picture of a long-lasting struggle, a struggle that continues even today. We would like to hear about your observations and actions on the regression in the field of evolution in our country. But first we want to start with earlier times. Did you first come to Istanbul when you started studying at Istanbul University? How was your education in high school? If we compare it with today, was there a difference in terms of the transfer of scientific knowledge and the enlightened stance of the teachers? And in which year did you start university? Can you tell us a little about the atmosphere of those years?

No, I was born Isparta and then we came to Istanbul after I finished elementary school. My dear father's desire to educate us has outweighed and in our city there was no university in 1973. That's why my family moved their business to Istanbul so that our education could be complete. I spent my high school years in a well-established high school, İstanbul Kız Lisesi and had extremely enlightened teachers. "Creation" was not mentioned in biology classes. I had a hard time passing it but I loved it. It was too good to compare with today's education, we had middle school and high school graduation exams, and we were quite educated scientifically. However, the turmoil of the country had begun. This turmoil was tried to be instilled to high schools; in short, we felt the footsteps of the 1980 coup while we were in high school. In fact, my family, who made a sacrifice by moving from the city for us to get a good education, started to worry that something would happen to me when

I enter the university. In this environment of chaos in the country, I completed high school, and I stepped into university. Unfortunately, because of the increasing chaos, while I was dreaming of being a university student and going to the campus in September, education was interrupted in universities. The duration of interruption was being extended again and again while I hopefully waited for it to expire. It's really sad when I think about it now. Thus, as a generation that spent the period between September and August at home or in jail, we were able to start our lessons in the middle of summer. Of course, when we look back today, we understand that the youth of this country was turned against each other and drawn into conflict, and at the end of this, the 1980 coup was tried to be justified. After the coup, we were attending the lectures with armed gendarme in the class, the smallest act, a poster or a word could be grounds for detention.

Could you tell us a little bit about Istanbul University and the biology department? We are curious as to what kind of tradition it has. For example, we know that the academics who left Germany during the Nazi rule came to work at Istanbul University. Did they have a lasting effect?

We were lucky in the Biology Department of Istanbul University; because our faculty was founded by professors who were invited from Germany and escaped from the Nazis as you mentioned -thanks to Atatürk's valuable invitation. Curt Kosswig was my professor's professor; we always remember him with respect and

gratitude. I have heard so much about him from my professor that it is as if I know him. We felt like he was our grandfather. I studied with the professors trained by a scientist who taught biology in nature to his students in Turkey, and who laid the foundations of one of Turkey's finest zoology collections with the samples he brought from Germany, in those times. It was such a delight! All of them were extremely meticulous, enlightened people and they suffered a lot in this political process. Their doors were marked; those who read the newspaper Cumhuriyet were marginalized and survived after experiencing terrible times. As a student of the competent teachers that raised us, I graduated in 1982 and I found myself doing a master's degree suddenly, even though I had never thought about it.

So, being a scientist was not your goal at first, it has evolved over time. How did you grasp the power of the theory of evolution in your field? How is it being taught to the new generations at university?

I wanted to study medicine; I accidentally found myself in biology. It is interesting: I found myself studying biology due to a gap of five points. Therefore, in my scientific research, I paid more attention to research on human health and studied physiology. Evolution seemed indispensable while studying kidney pathology, sepsis, diabetes, microcirculation etc. I developed my knowledge of evolution by reading. Then I thought that I could take responsibility with the retirement of our professors who were teaching the evolution course. I think what makes biology a science is the theory of evolution, and someone had to teach it. After all, I've been teaching evolution to biology students for nearly 20 years. Then, when I realized that no one knew human evolution properly, I offered to teach it as an elective course, and it was accepted. I am still trying to support young people by teaching courses such as human evolution and evolutionary physiology.



Picture 1. Cihan Demirci, University years, 1988.

What is the general situation in your university? How do the evolution lectures go? Or are there academics who are against the theory of evolution?

The Biology Department of Istanbul University, which was founded by the professors that came from Germany, is still one of the best in Turkey, indeed. Afterwards, METU Biology and Boğaziçi Biology were added; but they focused more on the fields of modern and molecular biology, whereas the Biology Department of the Faculty of Science of IU continues its long-standing tradition of focusing on natural and life sciences. Of course, younger generations tried to protect this tradition and we always raised each other. I can say that there is no anti-evolutionary academic in our department at the moment. But we are hesitant to teach evolution courses. Our young academics do not always dare if they do not have a certain knowledge; because the lectures are open to provocation and questions can be asked to provoke, rather than to understand. In this situation, if they do not have a history of long-term and intense reading, young people think that it will be difficult for them to teach. But as I said, I started my lessons in the 80's with a tiny "Evolution" book by Atif Şengün. We had a pleasant knowledge of "Evolution" (which was then translated into Turkish as *evolüsyon*), which we did not understand well, but had a great faith in. Twenty percent of today's scientific knowledge did not exist in the 80s, and despite that, we tried to understand and explain evolution. Because it was the backbone for doing scientific research. Later, with the contribution of young scientists, serious evolution courses began to be taught from the 90's on. Especially in the 2000s, it reached a level where we cannot follow the many approved publications describing the general rules of evolution on the shelves of bookstores in Turkey. We really owe this to young scientists.



Picture 2. Cihan Demirci with Prof. Dr. Gönül Bara, 1984 (the second sitting).

As I mentioned, the Biology Department of the Faculty of Science really tried to embrace this job. However, apart from population genetics and molecular biology studies, we could not do any serious evolutionary studies. Actually, a group of scientists are trying to do so-

mething in the field of systematic biology with molecular biology methods. But of course, evolution is a subject that exists outside the laboratory as well, in fact, the basis of philosophy and biology. We have a responsibility to carry it not only within the university but also to the society, believe me, we encounter this question most often on the street: “What is evolution? Do we come from monkeys?” We are sure that this question gets asked to every biologist. Therefore, I think that the person must improve themselves in this regard, both by themselves and by the education they receive in their institution.



Picture 3. Cihan Demirci with Prof. Dr. Saime Hacer Özarslan, 1984.

Beginning in the 1980s, the anti-evolution idea spread from primary and secondary education to university. All resources, formal and informal, were used for that. An organized struggle was waged against evolution. Can you tell us a little about this history?

It had not extended to our faculty. However, not in the 80's but with the AKP government, it became very difficult to organize conferences and seminars. At work, we were subjected to provocation attempts. For this reason, there were many meetings organized by our friends, for example many times at the Nazım Hikmet Cultural Center around 2012. After 2000, universities took a break for a while. However, evolution symposiums and conferences at METU and Boğaziçi are very important. We should especially mention Prof. Aykut Kence at METU. He had put up an incredible effort. Aykut Kence always kept a watchful eye on turning points such as the slow-down of evolution education in high schools in Turkey and the entry of non-scientific currents such as creation and intelligent design –which were imported from America by the policies of the Evangelists– into Turkey by official authorities in 1985.

I do not know the names of many Ministers of National Education, but I know Hasan Âli Yücel as a wonderful example; and Vehbi Dinçer, of whom we do not want to make mention. Those were the years when ministers who acted all religiously went regularly to the United States, practiced anti-evolutionism in Turkey, remo-

ved evolution from the books and put creation instead, made critical moves. Of course, there is military rule behind the history of this, their fear of the rising power of communism, the fear that “Religion is going under!”, or more precisely, their aim to bring religion forward and throw science behind in order to raise calm young people who will obey. If there were fewer young people who questioned, the society could be managed much more easily. And this is indeed what happened. Today we all experience the aftermath of this. Of course, we are happy to see that the activities continue at Boğaziçi and METU. But apart from that, scientific thought, which is officially ignored, inevitably imposes itself, as I just mentioned. There is plenty to read in bookstores. In addition, the COVID-19 pandemic taught people about mutation and made us think about evolution. Therefore, I am not much worried, I believe that we will bring scientific studies to a better place by working a little harder.

What kind of change do you observe in the 2000's? Education is tried to be shaped at all levels as a crucial pillar of the program of religionization of society.

The 2000's were indeed the years when things started to change radically in Turkey. I remember very well, during the 1999 Earthquake, students were in a great hurry to find out where to find dormitories and scholarships. And at that time, we were taking registrations from a single center at Istanbul University. All Istanbul University students were gathering at the Avclar Campus, and we were trying to make their lives easier by providing dormitories and scholarships to our students. But what I saw at that stage took me by surprise. Minibuses of religious sects had arrived in front of the campus gate... This is one of those memories I cannot forget. And each of them grabbed the students and said, “Scholarship and dormitory for you” etc. It was as if they were on a student hunt. On the contrary, we were trying to guide our students by saying “You should get into a government dormitory”, “You should get a government scholarship”. This was a process that started before 1999. The establishment called today the Feto terrorist organization laid its foundations in the 1980's. Many intellectuals, one of which is my dear professor Türkan Saylan, was warning the society in a political TV program in 1997 and fighting harder on behalf of our younger generation. Actually, with the start of the religious current in 1989 with Erbakan, she cofounded the Society to Support Modern Life (Çağdaş Yaşamı Destekleme Derneği) –whose mastermind was Prof. Dr. Aysel Ekşi– together with a group of intellectual friends of her who cared about their country and the youth. As you can see, the 1980's were the preparations for the religious obscurantism, and around 1989 was the beginning of the regime change efforts, and the struggles initiated by the intellectuals continue. In 2002, the AKP government took over the country. In those times, there was a presidential election, the prime ministry passing to

the AKP, there were the Republic rallies, incredible... I do not know if young people remember those days. It was a time when the foundations of today's conditions were being laid. And in that times, sane students came running to find us a few months after they were obliged to stay in Fethullah Gülen's dormitories, "Save us!" they were saying. Because they lead students to dogmatic thinking, they expected special things from them at five in the morning. It is difficult to explain evolution and to teach asking questions to such a child. We were saving as many students as we could; but many of them really went that way - which we saw on July 15.

In other words, this ideology uses evolution as a tool. They are suggesting that "Evolution raises atheists!", "Evolution is a lie!", "Life has not changed for 80 years, 800 years, 1000 years!". People unrelated to science, such as Adnan Oktar who was exported from America, were allowed to reach the youth for decades. At that time, websites of Harun Yahya outnumbered actual evolution websites on the internet, in fact, when you searched for evolution, you accessed his sites. We can say that it was a period spent with, unnecessary distractions away from science. "Thank goodness!" I will say, I hope it does not continue. But they will not end. I think that the more intellectuals and curious young people we can raise, the sooner we can get rid of them.

In the same years, institutions trying to raise intellectuals, such as the Çağdaş Yaşamı Destekleme Derneği (ÇYDD), were being investigated as if they were criminals.

Yes, you know, the Gülenists had gone so far that a plot was set up to destroy any institution that tried to raise intellectuals and a questioning youth. In 2009, they attempted to almost wipe out the intellectuals using some fake documents, with a scam called "Ergenekon". During that time, I was also affected. In 2009, there was a knock on my door one morning. Six or seven policemen (and I was alone at home) had rushed to get me. They threw me into a jail in the basement, on the lowest floor of the police headquarters on Vatan Street. We had interesting incidents there for four days and four nights. Our crime was to give scholarships to students as the ÇYDD. And one of the accusations was the plot to stage a coup by sending the scholarship students of ÇYDD, who were studying at Kandilli Girls' High School, to Kuleli Military High School. Can you imagine this? So, what I want to say is this: if you raise your head and take a step towards enlightenment, the congregations, especially Fethullah Gülen, trying to change the regime/system attempt to suppress you in various ways. But facts have a way of coming to light. It only makes us lose time. As you can see, the whole process is over; now we can say that they are fighting each other.

In 2009, we celebrated Darwin's 200th birthday. It was also the 150th anniversary of the first publica-

tion of The Origin of Species. In such a year, TÜBİTAK censored Darwin and evolution. Protests were held in Istanbul and Ankara against this. Afterwards, we held the Evolution, Science and Education Symposium in Boğaziçi with a great celebration. How do you remember those days? Can you tell us in detail?

2009 was indeed an important year for Darwin and evolution. But at a time when Fethullah reached its peak, was active, and took over the entire military, police, and education in Turkey, it was unthinkable that he would not take over TÜBİTAK. Therefore, that year, the publication of Bilim Teknik with a cover and a file about Darwin was unfortunately banned. We all rebelled! But after that, we did something different at Istanbul University – Prof. Kence was also involved in this work. We started to organize science symposiums for teachers; called "The Science of the 21st Century: Advances in Biology". At that time, the director of National Education was Ömer Balıbey, he was a wonderful person. We brought the teachers in Istanbul to the Biology Department of the Faculty of Science and held a two-day evolution symposium. It was very interesting! The opening speech was given in the morning; There were only 10-15 of the teachers. The director of National Education is there and there are no teachers! Because it was called the "Evolution Symposium", high school teachers will be informed about evolution... In most places, the school administrations did not give permission to the teachers. They could not come. Balıbey immediately went to the directorate, he sent a fax to the schools - there was no internet then - 500 teachers gathered at noon and a two-day symposium was held. Further, a motion was made for an investigation in the parliament: "Teachers are taught the lesson of evolution!". We went through such difficult times. While there is nothing more natural than a biology teacher knowing about evolution and transferring it to their students, this was really hard work in 2009, in the 2000's in general.

The years around 2009 were, as we said, a period when truly enlightened people started to revolt at some point. In particular, the increase of anti-evolutionism and the proliferation of sects directed young people to evolution symposiums, and there was a high participation rate in the symposiums. Symposiums were held which lasted three or four days, filled huge lecture halls, gave hope to people and showed the existence of our enlightened youth. It continues; our dear friends continue this every year both at METU and Boğaziçi. At certain times, I also try to contribute by giving a small conference or a presentation. I think it will continue, even if it is suspended a little bit during the pandemic process. Now, so to speak, "it is in full flood." No one can stand in its way and prevent it. I think science is unstoppable.

One of the important protests was against the attempt to hold the Creation Symposium at Marmara University in 2012. Vehement opposition came out against

the Symposium, petitions were written to the rectorate and YÖK, public statements were made, the symposium was questioned by many people. You were at Haydarpaşa Campus to protest the symposium that was held for show.

The struggle for enlightenment is a struggle that has been going on for centuries. But unfortunately, next to 400 sects work in a terrible way in Turkey, one ends and another one appears. No matter how many evolution symposiums we hold and publish books, the sects, on the contrary, attempt to organize symposiums that seek to find God and prove the existence of it. Regarding this a state university -Marmara University, which also has a biology department, tried to host such a symposium in 2012 while it should have been on the side of science. It was unbelievable! You know, science was tangible, visible, proven by experiments. But there is not a single scientific article that the anti-evolutionist can present before us. They base their thoughts on religious books and try to prove it based on this. This is not the scientific method, this is a different thing.

As people trying to explain evolution, we published petitions and objections saying "This cannot happen! This is unacceptable in 21st century's Turkey!" No matter how hard we fought, we couldn't make them accept it. The symposium was held. So, we said "Let's do an evolution lesson." in the garden of Marmara University campus in Haydarpaşa with a group of people. We prepared banners. I never forget, I brought cabbage and mustard plant. You know, it's one of the best proofs of evolution: the selection of the wild mustard plant into cabbage, cauliflower, and broccoli is quite convincing evidence. As a result, something serious happened there. "You cannot do this, you cannot enter," said the rector's office. We entered, with the help of our friends inside, we made our protest in the yard. Then, 10-15 days passed, a yellow envelope arrived at my house. "Insulting humanity!" Why is that? Because I said that "Ape and human genomes are 98.8% similar", someone wrote to CIMER and filed a criminal complaint. They said, "Come to Vatan Street for questioning." I got up and went to Vatan Street – which I had just come back from because of "Erge-nekon" recently. The second time we went, we gave a statement. After all, of course, scientific facts are undeniable. Nothing came out of the investigation. It was clear that nothing would come out; but what I am trying to convey here is, the other side is constantly trying, "Can we intimidate? Can we silence them?". We all know this already. Atatürk struggled so much since the day the Republic was founded. There is a revolution; A counter-revolution will surely confront it. By asking "Evolution or creation?" they follow a philosophy of confusing people and turning people away from science. But now I think that this effort can be stopped today. These days of pandemic in the last two years, have shown us how important science is. The things we are going through for the vaccine... However, if we continued to value science, we

would have found the mutated virus much earlier, we could have made the vaccine much faster, and we would not have had the troubles of buying the vaccine. If we had really taught about evolution, nature, science, or if we had made a small investment – not a big one, we wouldn't be in this situation. We wouldn't have to walk around with masks, we would get our vaccine much earlier, as in the developed societies. I assume that even this is connected to us not learning evolution well enough – no, I don't assume, I say it with certainty.

We can deduct from this then: The struggle to teach the theory of evolution cannot be separated from the struggle for enlightenment. What would you like to say about the togetherness of the two terms?

Actually, the struggle to teach the theory of evolution is the same as the struggle for enlightenment. Although we have a great scientific institution like TÜBİTAK, projects related to evolution can be ignored while weird projects are funded. Even in the competitions held between high schools, TÜBİTAK gives awards to projects that are funny and far from science while it eliminates the projects related to evolution because of political reasons; these are not good examples for young scientists who take steps towards enlightenment. Therefore, the institutions which support these scientific projects being impartial and investing in positive sciences should be one of the priorities of enlightenment. It looks like we have more work to do; but there is no room for despair. Enlightenment passes through the teaching of evolution and science.

Let us not forget that evolution is not just a sub-branch of biology, it is related to every aspect of living things. Every person should ask these questions; "Where am I coming from? Where am I going? What is the origin of life?". On the other hand, creation is a contradiction that makes one never question what religious books say and makes them memorize and apply these. The two are completely different things. For this reason, I hope we will not give up on the teaching of evolution and those who give up will back down from this mistake as soon as possible. If we lay the foundations of scientific education already in primary school and kindergarten, then we can become an enlightened society and we will not have to establish an Academy of Science and Enlightenment or hold symposia; these will develop naturally. I would like to thank the Academy of Science and Enlightenment –our academy– for giving me this opportunity. Because I was also involved in its establishment. So glad we have you! I hope it has plenty of readers, has a great audience.

Thank you very much, so glad that we have you, too.