TURKISH SCIENTISTS ABROAD: PROF. DR. UTKU ÜNVER



This week's guest on our "Turkish Scientists Abroad" series, which we brought to life with TAF Network, is Prof. Dr. Utku Ünver, who is currently conducting his research at Boston College in the USA. After completing his engineering degree, he pursued postgraduate studies in economics and is currently working on 'matching theory'. Ünver's advice to young people for undergraduate studies is to study mathematics and industrial engineering and double major in economics.

Ünver also gives an example from her own life, urging them to "learn independence." Describing the biggest challenge she faced when she first went abroad as "being separated from family," Ünver says, "That's why I'm now instilling a little independence in everyone, including my own children."

IN WHICH FIELDS ARE TURKISH STUDENTS SUCCESSFUL?

Ünver, stating that students from Türkiye are very successful in their studies in the US, describes the difficulty they face as follows: "You need to produce and write on your own. Therefore, students from our country experience a certain period of difficulty. Some overcome this more quickly, some overcome it with more difficulty. I think the most important difficulty is this issue of independence."

The interview with Prof. Dr. Utku Ünver was conducted by Canan Altun from the TAF Network team for pervinkaplan.com.

Could you introduce yourself, starting with your undergraduate education?

Hello. I started studying Electrical and Electronics Engineering at Bilkent University in 1989. At that time, Bilkent was a relatively new university. After graduating, I realized that engineering wasn't really for me. While researching what I could do, I found economics to be a suitable field. Then I started my master's degree at Bilkent. Until then, I hadn't considered a doctorate, but after deciding that economics was a very good field for me, 4-5 successful friends and I applied to doctoral programs abroad. In 1995, Bilkent wasn't a very well-known university because it was still new. Boğaziçi University and METU were better known. Despite this, we were accepted to some doctoral programs. I went to the University of Pittsburgh, where I was accepted. To be honest, I didn't know what to expect. Initially, it was a bit boring because it was similar to what was happening in Türkiye. Then, research topics gradually emerged, and it became more enjoyable. I finished my doctorate in 2000 and found myself in my first job as an assistant professor at Koç University. That's how I returned from the USA. I spent about 5 years at Koç

University, where I met Tayfun Sönmez, with whom I collaborated on my research. Later, I returned to the university in the US where I completed my doctorate, this time as an assistant professor. Now I am a professor of economics at Boston College.

You studied engineering for your undergraduate degree and then switched to economics. Do you regret this, or do you wish you had studied economics during your undergraduate studies ? Did pursuing an undergraduate degree in engineering give you a different perspective ?

That's a great question. Actually, I'm very glad I didn't study economics at university, but I would consider the question of whether I would have preferred to study engineering or electrical/electronics engineering. Maybe industrial engineering or mathematics, but I wouldn't want to study economics solely, although I might want to combine it with another field. Because economics is a bit different from other fields. At university, it's not like engineering; in engineering, you take courses that continue the undergraduate curriculum, but economics undergraduate and graduate/doctoral programs are very different. There's a significant difference, especially in terms of mathematical depth. So I would have preferred to start with a better mathematical foundation. Although engineering provided that, a mathematics department that could have given it even better, or industrial engineering, due to its proximity to economics, would have been better. I even recommend these two fields to young people today. I say, study economics too, there are even opportunities for double majors now. It definitely adds a different perspective, both in terms of mathematical depth and in terms of thinking as an economist. I definitely think a different perspective is necessary.

So, was it difficult for you to change fields?

Yes, it was difficult at first, to be honest. In our time, it was the case that the most successful students always went into electrical and electronics engineering. Now, this situation has diversified, which makes me happy. Because it was creating a one-sidedness. In that sense, even though it was difficult, developing myself in a different field relieved me a lot because I realized it was a field I didn't want to be in. The advantages far outweigh the disadvantages, but of course, the disadvantages were also upsetting. For example, there were times when I regretted not developing myself more in economics at the undergraduate level, or not knowing more about economic history. I saw the difficulties of these things during my master's and doctoral studies, but once you're dedicated to something, you overcome these difficulties. Now, there are many intelligent young people here from Türkiye or other countries, and even if they have an undergraduate degree in a field other than economics, they can overcome it if they have a good foundation in mathematics because it's not like medicine. You can't become a doctor without studying medicine. It doesn't present itself as a professional field in that way, so many people can adapt.

Professor, you went to the USA in 1995. Could you describe the difficulties or advantages of living in the USA during that period when you went ?

That's a great question. It was harder when I went, but easier than in the old days. Older people used to talk about changing planes in

the Canary Islands or somewhere else; at least I went on a single flight. It was also the early years of the internet, and there weren't the interviewing and other possibilities we have now. It was also the first time I'd been away from my family, which was a shock. Because I grew up and studied in Ankara, I only stayed in a dorm, and the school provided dorm accommodation. So, the biggest challenge for me was being separated from my family. That's why I now instill a sense of independence in everyone, including my own children. Also, the US is truly culturally very different from Europe. You only realize this through movies and such, and even then it felt a bit like a story. There's a very different mindset; individualism is paramount. Although that has started to change over time. And the state you go to is very important. The central parts of the US are very different from the coastal parts. The state I went to was further inland. It was one of the places where the culture was most influential. Of course, you make friends, but adapting wasn't easy. I look at the young people today, those coming from Türkiye. I live in Boston, and I see that they don't have adaptation problems, and I'm happy about that. Boston is a European place, one of the rare places where the unique characteristics of the US don't have a strong influence. So they adapt as quickly as if they were going to any European country, or even faster.

When you return to your education, what can you say about pursuing a PhD in economics , and what are the challenges?

I've mostly talked about social challenges, now let me talk about education. I'll describe the challenges from the perspective of a Turkish student because I think the challenges are different for students from every country. This is due to the differences in their education systems. For one thing, students from Türkiye are very successful in their studies because they work very hard to get into university in Türkiye. But the biggest challenge is that economics is a scientific field. Being able to conduct independent research is especially important. Unlike other quantitative fields, you have to start working independently immediately. You have to produce and write on your own. Therefore, students from our country experience a certain period of difficulty. Some overcome this more quickly, others with more difficulty. I think the most important challenge is this issue of independence.

We see that after receiving your doctorate, you returned to Turkey for a while and continued your work at Koç University. How was that period?

Actually, my initial goal wasn't to return to Türkiye immediately after completing my PhD, but I always had the idea in mind. I initially considered working in the US for a while. However, my research at the time was on experimental economics, which wasn't a very popular field. Neither experimental economics nor the applications of matching theory appealed to people. Therefore, there weren't many people working in these areas in the job market. As a result, people didn't understand much from your articles. So, there weren't many job opportunities in the US. There were job opportunities in Europe, but I preferred to return to Türkiye. At that time, private universities were being established very rapidly. Koç, Sabancı, and Bilkent Universities offered me positions, and I found Koç University more appealing. I was

following the work of Tayfun Sönmez there. Also, the opportunities provided by Koç University were much better than they were then. These factors influenced my decision to choose Koç University. And indeed, after returning, I started working with Tayfun Sönmez. While working with him, my focus shifted to theoretical studies.

Speaking of theoretical studies, can we also talk about matching theory?

Matching theory is actually a slightly different field from normal economic areas because the markets I work in specifically are places where there is no medium of exchange like money. They are more places where barter economies operate. Because buying and selling some goods is not ethically possible. For example: the placement of students in public schools. Public schools are places established to create equal opportunity from an ethical point of view, so it is said that the price mechanism should not be used there. Therefore, something else needs to be used instead of the price mechanism; such as giving priority to those who live close to the school. Under things like this, we are looking for the answer to the question 'How to achieve the most efficient placement?' While I was at Koç University, the area I worked in was how organs should be distributed for transplantation. Tayfun Bey and I started doing a lot of work together, we did studies on the application areas that remained abstract. In 2003, Alvin Roth invited me to Harvard University for a postdoctoral study. I shared this with Koç University. They accepted it but asked me to come back. I went there to work for a year. Alvin Roth had a study on the placement of doctors and therefore was close to doctors. He told me that the topic I was working on at Koç University had an application here. He said it could be used in kidney allocation. Some relatives of people waiting for transplants wanted to donate organs, but this wasn't possible with money. However, the patient's organ might not be compatible with the relative's. In such a case, the patient waits on the waiting list. There is a waste of resources because no one benefits even though there is a volunteer donor. To solve this problem, a pool is created with many patients and their relatives who do not have tissue compatibility, and organs are shared among them. He said that the application of this is very similar to the work you are doing, and we started working on this topic.

From what I've read in your research, the kidney transplant rate has increased from 50 % to 75 % . Despite working in the field of economics, this work directly contributes to saving human lives. What are your thoughts on this?

Honestly, this was a huge opportunity for me. It has both a theoretical and mathematical aspect, and it saves human lives. I'm not a medical doctor, but I worked on something that effectively saves lives. It's something not everyone gets to experience, and I'm truly lucky for it. I'm very happy and proud. It motivates you to work even harder. Sometimes I forget what I'm doing, then I remind myself how important my work is. That's why I feel so fortunate.

As you mentioned, Professor, you also conduct research on student placement in universities. From what I've researched, it seems the US student placement system experienced a collapse, and subsequently, the government requested assistance from academia, asking for studies to be

conducted on this matter. Do you think similar requests have increased in Türkiye recently? Let's discuss this a little.

Actually, what you're saying is very true. I'd especially like to talk about what Tayfun Sönmez did. One of his projects involves placing students in US public schools. Students don't take exams similar to the TEOG exam. They have priority in schools near their homes, but they also have the opportunity to go to other schools. Of course, they weren't doing this very well. After an article my friends wrote together, the Boston Globe made a story about it. The idea of students being able to go to other schools starts in Boston. And the organization dealing with Boston's education system contacted Tayfun and Atilla Bey, and together they designed this system. So, based directly on the article about the system not working, the city of Boston contacted academics. Frankly, the story had a huge impact. It wasn't just that government officials came and asked for the academics' help; it was the result of several things. One of them was that the journalists here did their job and made a good, effective news story. Afterwards, parents put a lot of pressure on the local government. The local government then came and asked for the academics' help. That's how the process unfolded.

So, it's the product of a collaborative effort?

Of course. After that was successful, we also worked on kidney exchange projects. We went directly to doctors for kidney exchanges and told them that if our project worked, we could be successful. Because at that time, these exchanges were happening completely by chance. Of course, they were a little hesitant at first, they didn't want to listen, but when we showed them the work we had done before, the medical world became interested in us, and we gained their trust. As these things accumulate, the things you want happen. Consulting companies contact you and say they want to develop this further. Although I haven't done paid consulting work so far, I've always done scientific consulting, but these things happen. There are also developments in this sense in Türkiye. In particular, our consul general here, Ömür Budak, works almost like a scientific attaché. They have created something like a registration system of what Turkish scientists in the US are doing, or rather, they are somehow aware of our work. About 8-9 months ago, Mr. Ömür contacted us and asked us to inform him about our health minister's visit and our kidney exchange project, saying that it would be an opportunity for this to be done in Türkiye as well. We also met with Mr. Recep Akdağ here, and it was a very productive meeting. And we received a promise that this system will be established in Türkiye. Of course, as you know, recent events in our country have caused delays in these matters. Let me briefly tell you the difference between the US and Japan. Especially in Japan, when they say they will do this, they do it even if it takes a long time. In Türkiye, however, projects are started with great enthusiasm and excitement, but unfortunately, they don't continue. There's even a proverb: 'Start like a Turk, finish like an Englishman.' We are experiencing some difficulties, but I think we will overcome them.

Let's talk a little about your social life, professor. What's social life like in the US , what do you do outside of work?

Actually, when I was a young academic, I didn't have much of a social life. That's somewhat necessary, especially when you're just starting out in science. Frankly, I was practically dedicated to science. I read books and watched movies, that was it. But now I'm more social. The workload doesn't decrease, but over time, as you learn to manage it, you can find time. I've started getting into sports. I'm more interested in mountain hiking and running. I also listen to scientific, philosophical, and literary books. When time is limited, you end up listening to books more than reading them.

Thank you so much for the valuable information you provided. Finally, let's move on to our 5 Questions 5 Answers section with scientists. My first question is, what excites you?

I'm thrilled to see that creative spark in all kinds of scientific beauty.

What kills your excitement?

I can say that dealing with daily routine tasks really overwhelms me.

Which profession would you not want to do?

I probably wouldn't want to do any routine work.

Do you have a hero?

If I had to name a single person as a hero, I would say Mustafa Kemal Atatürk. But I think there can be heroes in groups too; for example, the lives of people who emigrated to the US and managed to make a living there are also examples of heroism. One of the reasons I admire Mustafa Kemal Atatürk is that they were able to revive something that was finished from scratch; that's admirable.

Do you have a slogan or phrase that describes your life philosophy?

Life isn't fair. I wish it were, but it isn't. So we can do two things: either we can sulk and withdraw, or we can do our best and accept it. "Life isn't fair, but we must do our best" – this understanding has always guided me.

You can watch the YouTube version of this interview at this link .

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