

## A FEW WORDS ON GELFAND'S LIFE

By Tatiana V.Gelfand.

There were many amazing things one can say about Israel Gelfand.

One of the amazing things for me about him was how easily he made decisions as well as his incredible strength and persistence in following them. I will give a few examples.

He told me how he quit smoking. He said that he was smoking quite seriously for many years. Then one day he was looking out of the window and smoking a cigarette. Suddenly he decided that he should quit smoking. He put out the cigarette. And this was it. As he said, he left it together with the unfinished pack on his desk and never touched it again.

Certainly, he stopped eating meat the same way. One evening when I was serving him chicken he said that he would not eat it from that point on. To all my questions why, or why today, or why not start after eating the already cooked chicken he only repeated, "I am not going to eat any meat. I have decided". Sorry to say, but Little Tanya had to be the one to "save the dinner".

After Israel broke his hip, at the age of 87, he was in a Rehabilitation center. He was told to do physical therapy. A physical therapist would tell him, for example, to lift his leg with weights and do so to a comfortable level so that he would not get tired. He said: "I don't understand what a comfortable level is. How many times?" She would say, try 10 or 15 if you can. He would clarify whether 10 or 15 and would do exactly as she said. Next time she told him to increase the number and again he would say he does not understand. When she specified he would do exactly what she said. It surprised her how strong and persistent he was. She said that he was recovering better than most of her patients in their 50's and 60's. And at least for the past 30 years Gelfand never seriously exercised before this physical therapy.

After a few months in Boston, in 1990 we were back in Moscow. Israel told me that he received an invitation to work at Rutgers and that we would have to make a decision soon. Obviously, this was not a minor decision to make! We have never previously considered the possibility of moving anywhere from Moscow. Moscow was where Israel lived since he was 16. Moscow was where he worked, held seminars, and had many students, colleagues as well as extended family.

So I told him, "Let's talk about this later and discuss everything". Before I could even think about this again and understand what to discuss, and what would this all imply, -- I think it was just the next day, -- he suddenly told me, "I have decided. We are going to America."

For many people this decision might not be a difficult one to make. If they offer you something, just grab it. But here is what Gelfand himself said in his talk at Rutgers during the Conference devoted to his 80-ies birthday. "Many people think that America is a paradise. America is not a paradise. But I am not in a hurry to go to paradise."

After Gelfand had decided something he had an incredible energy and persistence in following his decision. It seemed that nothing could ever stop him. I think his energy (“напор”, in Russian) was what Andrei Zelevinsky mentioned in his blog. He said that Gelfand had "energy" which was not easy to withstand and many people indeed, could not.

Gelfand approached his work in the same way. Once he decided that he would learn a new area of mathematics, or anything else, he would soon know the major results and who knew what in this area. He collected all preprints related to this area and put as many as he could (or could not) lift in his bag. This was the bag which Bob MacPherson mentioned and had “the honor” to carry. However, Israel mainly looked at these preprints when we were waiting in a line to buy groceries or at similar occasions.

Besides being persistent, Israel was the most kind and sensitive human being I have ever met in my life. He understood any small nuance, any feeling that one can hardly formulate into words.

I remember when he listened to music he was so much involved with the music that it felt like he was playing all the instruments himself. It was as if the music was going through him and he amplified it. It was a very unique experience to listen to music together with him.

While he worked in mathematics, he would almost always listen to classical music. It was not by chance that he compared music and mathematics in his talk “Unity of Mathematics.” He truly felt their unity and common beauty.

The most amazing thing for me was his integrity. All the different aspects of his complex character did not create any doubts or conflicts but instead amplified or enhanced each other. The unity which Israel saw in mathematics and in life in general was part of his own being.

I want to end with a metaphor from a film. Gelfand was touched by the films of Federico Fellini which combined for him tragedy and humor, depth, beauty and simplicity. Shortly after we met, he mentioned the film “Clowns”. In this film, an old clown dies. Another clown keeps asking everybody where the old clown is. Then he stops and says, “I don’t understand. He could not disappear like that. He owes me 10 sausages. He must be somewhere!”

I feel that this metaphor also applies to Gelfand. Since October 5th, I have felt that he could not have disappeared because we owe him so much. I believe that it is not even easy to understand, even less to describe, his real impact on science and his influence on all the people he met. He mentioned that his best results in mathematics were usually understood and appreciated only after 10 years. It seems to me that it might take about the same time for us to understand all that “we owe him”.