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St. Petersburg, Apartments of the Euler Institute

June 2 1993, Highlights*

Part 1

A. Family

E. D. You started talking about your father. So, please, continue.

V. T. Recently I decided to record my father's recollections on tape, with the intention of writing them down sometime in the future. He is now 87 years old. He was born on June 17, 1906. Despite his age he is still in good health and has a very good memory. He was not involved in raising me. My parents divorced in the very beginning of the war when I was about six. Yet still I feel that he left a certain mark in my childhood memories. While recording an interview with him recently, I asked him as a joke, 'Dad, do you have any memories of me as a child?' That whole evening he had been talking in much detail about various aspects of his life, but, pretty much as I expected, he couldn't recollect anything about me.

He began his career as a doctor. At first, he did not ascend very high in the ranks. He was a hospital director during WWII and later the head doctor at Yauza hospital in Moscow. Then, all of a sudden, he made a huge career leap. This had something to do with the so-called Jewish Question, when after the war Jewish doctors faced an unprecedented official discrimination. Many of them lost their jobs and were supposed to be replaced with people of pure Russian descent. My father satisfied this requirement and was offered the position of the head doctor of the Barvikha Sanatorium.¹ His Jewish predecessor had been accused of spying for Japan. My father worked there for half a year and had the opportunity to rub shoulders with all the communist elite of the last years of Stalin's rule — with the only exception of the great leader himself, who did not go to any resorts. Barvikha was

* The interview took place during the conference "Kolmogorov and Modern Mathematics, June 1-10, 1993" at the Euler International Mathematical Institute (<http://www.pdmi.ras.ru/EIMI/>).

¹ During the Soviet era, Barvikha Sanatorium was a well-equipped medical center that treated a number of communist leaders.

frequented by the members of the Politburo² along with their numerous friends and relatives: for example, Jiang Qing, the wife of Mao Zedong, Ulbricht³, Brezhnev, and many others.

E. D. But Brezhnev was only a minor official at the time.

V. T. Not quite so. Some 20 years ago my father told me that Brezhnev had been considered more or less a member of the Politburo, which I didn't believe.

E. D. Well, officially at any rate he wasn't a member.

V. T. The fact of the matter is that at the 19th Congress of the Communist Party of the Soviet Union in 1952 Stalin replaced the Politburo with a presidium consisting of twenty-five people, among whom was Brezhnev. As for Brezhnev's sudden promotion, according to my father, it seemed almost a pure accident: reportedly, Stalin said, 'I've seen a handsome Moldovan around here. Let's appoint him.'

I was raised by my grandfather on my mother's side, Iuliy Osipovitch Gurvits. You must have heard the name because he wrote the famous high school textbook on mathematics. He and my grandma were like parents to me.

E. D. You didn't have a mother?

V. T. No, I did. She is still alive, and I visit her every once in a while. However, she wasn't very much involved in raising me. A typical Soviet woman, she worked all the time and didn't have much time for me. She was constantly away at work, and at some point my grandma simply had enough of it. She took me under her wing and raised me as if I were her own son.

Iuliy Osipovitch was born into a family hailing from the Baltic region. Although they were illiterate, they understood the importance of education and sent their son to study in Peter-Paul-Schule, a prestigious German gymnasium, where he made a lot of friends, many of whom later became prominent intellectuals. Later he studied at MSU and after graduation worked as a high school teacher. My grandma on the other hand was of peasant origins from the Tula region. Her father died early, and she had to find a job to support

² The central policymaking and governing body of the Communist Party of the Soviet Union: (http://en.wikipedia.org/wiki/Politburo_of_the_Central_Committee_of_the_Communist_Party_of_the_Soviet_Union)

³ Walter Ulbricht, German Communist leader and head of the post-World War II German Democratic Republic, or East Germany.

herself and help her family. She came to Moscow and became a tailor's apprentice at a workshop that was run by my grandfather's stepmother. They met there, got married, and lived all their lives together.

There is, however, one mystery I haven't been able to solve. My grandpa passed away on February 22, 1953, that is, two weeks before Stalin's death. On January 13, as you remember, the government announced that it had thwarted the Doctors' Plot.⁴ My father didn't flaunt his first marriage because a connection with a Jewish woman, if revealed, could impede his career. Given the situation, it remains a complete mystery to me why he came to visit me sometime between January 13 and February 22, when my grandpa was on his deathbed. He was not on good terms with my grandfather, who considered him guilty of breaking up the marriage to my mom. It is not clear why he visited me not only after years of absence but also at a moment when openly recognizing one's Jewish relatives entailed significant risks. Another interesting thing is that, telling me about the Doctors' Plot, my father refrained from giving vent to his disdain for the accused.

E. D. That means that the subject was at least brought up.

V. T. Yes, it was. I asked him about it.

When I visited my father a couple of years later, he told me something that later was leaked to the public. More or less at the time of his visit, a high KGB official told him in Barvikha that Soviet Jewry was subject to deportation and extermination; that the directives to this effect were already in place, and that some initial preparations had already been done.

E. D. Ehrenburg wrote about the construction of the barracks to house the deportees.

V. T. Yes, they say that these barracks exist to this day, and that Khrushchev once suggested using them for grain storage. At any rate, it seems clear that the government was determined to provide a 'final solution' to the Jewish Question.

E. D. ... much like Hitler.

V. T. It was assumed that a certain number of deportees would perish en route to their destination, while the rest would be 'taken care of' later, after their arrival to this

⁴ http://en.wikipedia.org/wiki/Doctors%27_plot

newly built ghetto. I have a strange feeling that that day my father came to bid me farewell. To be honest, I can't see any other motives for his visit.

E. D. He never said that explicitly, I assume.

V. T. No, he didn't, and now he simply doesn't remember the event. He seems to have expunged it from his memory. I asked him a few times because I couldn't find any explanation. It may have been a purely intuitive gesture on his part. Anyhow, in accordance with this plan, I fully qualified to be deported and killed. As is typical with any fascist regime, all the details of the procedure were meticulously worked out.

Another interesting part of my father's biography is that the person who had been accused of spying for Japan and whose position he occupied managed to return. He was cleared of all charges, and there was no reason why he could not get his job back. Although my father had to vacate his post at Barvikha, he was offered a broad spectrum of career opportunities. He made a huge mistake, however. He refused the position of a deputy minister because he considered that as too risky. People who occupied this post were often thrown to jail. Thinking that Stalin's methods of government were not going to change anytime soon, he declined the offer in favor of the head doctor position at the Polyclinic of the Academy of Sciences.

E. D. I think the top people preferred to be treated at 'Kremlyovka', not at the Academic Polyclinic.

V. T. This is certainly true, but there was a large number of influential patients, including friends and relatives of high government officials. The fact must have gratified my father's vanity to some extent. You see, my father has this almost comical trait: when he calls me, it is usually to inform me that he was in the company of some high-ranking official. For example, a few years ago he called to tell me that he had appeared on TV with Gorbachev.

Coming back to my maternal grandfather, one of the most sensitive subjects for him was the textbook he co-authored with Gangnus.⁵ He never told me that it was a total failure. I learned about that only just before his death. He was himself quite a bit surprised that nobody told me, and I must say that to this day I have never even once opened it.

⁵ Gurvits, Iu. O., and Gangnus, R. V., *Systematic Course in Geometry. Textbook for Middle and High schools*. Moscow, 1936.

E. D. I studied in high school using this textbook, and I remember that, when I was in the 7th grade, I discovered in it an obvious instance of circular reasoning, which might have been justified because he was not dealing with a logical system. Nevertheless, I remember feeling outraged.

V. T. To be completely honest with you, I don't think my grandfather was prepared to write a textbook. He was a brilliant teacher, and his students still remember and appreciate him. However, writing a textbook requires a very particular type of skill, and I think that the criticism against him was to some extent justified. But the vitriol and destructiveness of the Soviet-style criticism was absolutely uncalled for.⁶ It was particularly unfortunate that the most vocal critic of the textbook was Lev Genrichovich Shnirelman.⁷

B. Kolmogorov on Vinogradov and other mathematicians

E. D. Earlier today we talked about Kolmogorov's remarks on Vinogradov. I remember one of these remarks made under the following circumstances. At the beginning of 1950s one of my students Lyonya Rozenknop was nominated for the PhD program.

V. T. I know him quite well. We participated in your seminar together.

E. D. He was writing a paper on algebraic topology, and at the time even Pontryagin showed some interest in his work. However, the usual problems occurred with his nomination because he was Jewish. Discussing the situation with the dean, Andrei Nikolaevich Kolmogorov remarked that, unlike regular people, mathematicians stop in their development at a certain age. He claimed that his own development stopped somewhere in the teens, whereas that of Vinogradov – who was obviously a much more distinguished scholar – at the age of six or seven when many children amuse themselves in mutilating insects and torturing animals. In other words, he insinuated that Vinogradov was an infantile person with sadistic inclinations. This was more or less the gist of his

⁶ Cf., for example, a devastating review of F. R. Gantmakher, L. A. Lyusternik, and S. A. Khristianovich:

http://www.mathnet.ru/php/archive.phtml?wshow=paper&jrnid=rm&paperid=8924&option_lang=eng

⁷ <http://www-history.mcs.st-and.ac.uk/Biographies/Shnirelman.html>

words. But the remarks that you heard from him were made in an entirely different context. Is that correct?

V. T. No, the context was exactly the same. I am surprised that even some tiny details match. This is what happened. Andrei Nikolaevich invited his recent students to attend a Christmas party in his Moscow apartment on December 25, 1956. This was the first time I had ever been at his place. There were a number of people in attendance. I remember Uspenski, Dobrushin.⁸ Arnold must have been there too, even though I don't remember him. There were also Shiryaev and others. At first, we had some general conversations. Then Andrei Nikolaevich uncorked a bottle of champagne, filled our glasses, and gave a speech. I remember only a part of it. As in the story you told, his speech had something to do with ages. Arnold remembers more than I do, and he will publish his own account in his memoir.⁹ Arnold and I differ slightly from your account in numbers but the essence is more or less the same. Arnold repeats the part about insect mutilation almost word for word.

E. D. Yes, I think this was his way of expressing his views indirectly, for he obviously could not just say that Vinogradov enjoyed hurting others.

V. T. I didn't know anything about Vinogradov at the time but was shocked by this analogy. Kolmogorov mentioned it to me over and over again later. Moreover, he told me a story about how in the presence of several scholars, including himself, Vinogradov was talking about what kind of death he would inflict on Hitler if only he could. His description was full of graphic details. It involved cutting up Hitler's belly, taking out the intestines, and winding them around a drum or something gruesome like that. He told this story to other people as well. I would like to think, however, that his goal was not to denigrate Vinogradov because for most of us, young students gathered at the party, Vinogradov was not a relevant figure.

E. D. I must say that my impression of Andrei Nikolaevich was that he, unlike many of his colleagues, didn't like to speak ill of others. Moreover, I never heard from him even a slight criticism toward anyone.

V. T. Yes, I agree. We already talked about that, but I would like to qualify what I have just said. Andrei Nikolaevich never said anything bad about those whom he

⁸ http://en.wikipedia.org/wiki/Roland_Dobrushin

⁹ Kolmogorov v vospominanizkh, Moscow, Nauka, 1993

considered to be important scholars. Even though they sometimes deserved it, I never heard him criticize Vinogradov, Bernstein, Pontryagin, or even Tikhonov whom most mathematicians of my generation hold in utter contempt. Every time people tried to voice their negative opinions about Tikhonov in his presence, Andrei Nikolaevich would always either try to switch the conversation to a neutral topic or speak in his defense, even though Tikhonov did a lot of vile things to many people, including Kolmogorov himself. He was a person of low moral standard. For example, knowing full well that he was responsible for thwarting the career of Ivan Georgievich Petrovsky, Tikhonov nevertheless insisted on delivering a speech at his funeral.

E. D. As for Tikhonov's scientific achievements, I think they are quite dubious.

V. T. Possibly, but Andrei Nikolaevich always praised them. I once tried to tell him more or less what you have just said, but Andrei Nikolaevich curtly interrupted me and started enumerating the papers of Tikhonov that he liked. However, Andrei Nikolaevich didn't refrain from criticizing some scholars of my generation who in his view enjoyed unduly high reputation. Sometimes he criticized them simply because didn't like their outward appearance or something like that.

E. D. By the way he didn't like Skorokhod¹⁰ even though he recognized his caliber. I remember that, when Gnedenko¹¹ left for Germany, his PhD students Korolyuk, Mikhalevich, and Skorokhod came to Moscow. The first two were already advanced, while Skorokhod was still in his first year. Kolmogorov decided to supervise Korolyuk¹² and Mikhalevich¹³ and left Skorokhod to me, saying that nothing good could possibly come out of him since he was a heavy drinker. Yet, as we know, despite all his weaknesses Skorokhod stands head and shoulders above the other two.

Part 2

C. Work with Kolmogorov

¹⁰ http://en.wikipedia.org/wiki/Anatoliy_Skorokhod

¹¹ http://en.wikipedia.org/wiki/Boris_Vladimirovich_Gnedenko

¹² http://en.wikipedia.org/wiki/Volodymyr_Korolyuk

¹³ <http://www.springerlink.com/content/68k32378w5534154/>

V. T. First I worked under Prokhorov.¹⁴ This wasn't a good experience. He was not very enthusiastic about working with me. In April of 1956, after I had defended my term project, Andrei Nikolaevich approached me on his accord and asked me if I wanted to become his student. My hair stood on end with astonishment. This was contrary to all my expectations. I could never imagine that this was at all possible. As I began babbling something to the effect that my adviser was Prokhorov, he said, 'Don't worry. I will settle the matter with him'. I had no choice but to say yes. He gave me his address and invited to his house in Komarovka. I paid my first visit in May of the same year. There was nobody in the house itself or in the garden beside it. I was wandering around for a while, when I heard the sound of the typewriter. It appeared there was a second floor with a terrace that, according to the legend, was very much liked by Olga Leonardovna Knipper-Chekhova,¹⁵ one of the previous tenants of the house. I climbed upstairs and found him there. He asked me about my term project but quickly lost interest, since it was obviously puerile. He puzzled me with a number of problems, and at first I was a bit wary of working with him. I didn't feel confident as a scholar, unlike Kolmogorov's other students, Rosanov and Yerokhin, both of whom had already attained quite a bit of success. But I was lucky. I made a small discovery on infinite-dimensional spaces determined in terms of Lipschitz continuous functions. Andrei Nikolaevich liked it a lot and thought it was very neat. Since then I started visiting him more frequently, and we began our collaboration in the field of entropy.

All this happened at the time when Kolmogorov was at the peak of his creative work, from 1953 to 1963. This was the decade marked by some of his most outstanding achievements. The 40s were not very successful in this respect. This was atypical of him since he enjoyed a steady rise in the 20s and the 30s when he had done an exceptional amount of research in many fields: analytic methods in probability theory, stochastic processes, topology, logic... Judging by the number of his publications, there was a noticeable slump in the 40s.

E. D. There was a war after all.

V. T. True, but it doesn't explain everything. Andrei Nikolaevich was taking up

¹⁴ http://en.wikipedia.org/wiki/Yuri_Vasilevich_Prokhorov

¹⁵ Russian stage actress, who was married to Anton Chekhov.

various projects that he never saw through. In the decade between 1943 and 53 he didn't produce anything remarkable, nor did he have a lot of students. Then followed an explosion in his research output. In 1963, writing an article about him on the occasion of his 60th anniversary,¹⁶ I asked him about the causes of this resurgence. He attributed it to the sense of excitement and of new vistas opening out before him in the wake of Stalin's death. He conducted some groundbreaking research in classical mechanics, the results of which he presented at the International Congress of Mathematicians in 1954.¹⁷ He had quite a bit of success in the field of probability theory and also became interested in the theory of information. In the course of this decade he supervised some twenty-five students: Uspenski, Medvedev, Dobrushin, Belyaev, Barenblat, Arnold, to name but a few. In addition, he had a very heavy teaching load.

In 1957 he taught a course which combined elements of a seminar and a regular lecture class. In it he posed the following problem. In one of his papers Shannon has suggested a formula for the mean dimension of a stochastic process with the bounded spectrum. Since such a process is singular, its dimension is 0, and the Shannon formula understood literally cannot be true. Kolmogorov conjectured that it holds for the limit of mean dimensions of a certain sequence approximating the process. A proof of this conjecture was the basis of my diploma work.

Despite my success, however, I always had a nagging feeling that my work wasn't up to the level of Andrei Nikolaevich. By modern standards, my undergrad thesis would be superior to many PhD theses written these days. Yet I wasn't satisfied with my work and even went so far as to decline the Stalin stipend,¹⁸ claiming that I was not worthy of it, even though I badly needed this money. I didn't get the award, but not because of my refusal but because of my "improper" behavior during contemporary events in Hungary.

E. D. Did you publish your thesis?

V. T. Yes, part of it appeared in the *Doklady*, while other parts, but not everything, in

¹⁶ Tikhomirov, V. M., 'Kolmogorov's work on ϵ -entropy of functional classes and the superposition of functions', *Uspokhi Mat. Nauk*, 18:5 (113) (1963), 55–92. The Russian text is available here: http://www.mathnet.ru/php/archive.phtml?wshow=paper&jrnid=rm&paperid=6406&option_lang=eng

¹⁷ http://en.wikipedia.org/wiki/Kolmogorov%E2%80%93Arnold%E2%80%93Moser_theorem

¹⁸ A prestigious award conferred by academic institutions upon a small number of outstanding students.

my joint article with Kolmogorov.

D. Problems with admission to PhD program

V. T. Because of my “sin”, my admission to the Mekhmat PhD program didn’t go smoothly either. Kolmogorov recommended me for such a program at Steklov Institute. Unaware of any problem, I was invited to have a conversation with Vinogradov. I didn’t know anything about him except that he was a great scholar who, as per Kolmogorov, liked to mutilate insects. Our conversation was rather strained. Vinogradov was talking about my career prospects if I were accepted. I couldn’t understand what this strange bold man wanted from me. Then Borodin¹⁹ asked me what the maiden name of my mother was. ‘Gurvits’, I replied. There were no further questions. Later Andrei Nikolaevich also invited me and asked in a roundabout way if I had any Jewish ancestry. I said that I did. “Now I see”, he said.

Given the situation we had to consider Mekhmat again. A person by name Boris Malyshev assigned by the ‘Partkom’²⁰ to interrogate me gave me a really hard time. He was narrow-minded and obsequious in the face of authority. I wasn’t a dissident by any stretch of the imagination. I was a regular, law-abiding person.

E. D. But what did they actually want from you? Did they want you to condemn the Hungarian ‘counterrevolution’?

V. T. I don’t quite remember. I think I was expected to condemn my own behavior or something like that, which I didn’t do. Surprisingly, Malyshev let me get away with it, even though he was not supposed to under any circumstances. I also think that Ivan Georgievich Petrovsky may have supported my case.

To make a long story short, I managed to become a PhD student but withdrew from any form of political involvement. I was an active member of Komsomol before, but afterwards I attended the meeting of the Mekhmat Komsomol bureau only once, in 1984, under circumstances which deserve a brief mention. There is a mathematician by name

¹⁹ Scientific secretary of Steklov Institute.

²⁰ Party Committee of Mekhmat

Sasha Goncharov,²¹ a student of Gelfand. He received the European Mathematical Society Prize at the First European Congress of Mathematicians in Paris in 1992. When he was nominated for a PhD program, it became quickly apparent that the Komsomol bureau was against him. Sergei Konyagin,²² a very talented student and winner of International Mathematical Olympiads, asked me to step in. He felt that Goncharov's problems were partly his fault because he worked in the Komsomol Committee and was supposed to get Goncharov involved in public activities. Having enlisted the support of Gelfand and Kolmogorov, who had written letters on behalf of Goncharov, Konyagin, I, and a few other people met with the Komsomol Committee. Our arguments in favor of Goncharov's admission were as follows. First, he had straight A's on his transcript. Second, he received a national level award for the best paper on socio-economic subjects. This paper was devoted to finding a solution to the so called National Question in the USSR. He was awarded a runner up prize, however; according to the vice-dean, Goncharov skipped some lectures on mechanics and therefore could not possibly receive the first prize. On the other side, the Komsomol Committee claimed that Goncharov was not involved in public activities. Konyagin responded that Goncharov took a medical leave of absence but prior to that had been very actively involved and could surely make up for the time of his absence. The secretary of the Komsomol bureau finally rendered the verdict, 'We very much respect you, and you are entitled to your opinion. But we have our own opinion, and we are not obliged to you in any way'. It is interesting that all this happened despite the fact that Goncharov's father was a high-ranking engineer in Dnepropetrovsk. But even that was not sufficient to get him admitted to a PhD program. Such was the power of Komsomol.

E. D. And he was not Jewish!

V. T. He was.

E. D. Now I understand.

V. T. To conclude this story, I am delighted to say that later Goncharov *did* in fact win the first prize in the national competition for the best student paper in mathematics.

²¹ <http://www.math.brown.edu/faculty/goncharov.html>

²² http://en.wikipedia.org/wiki/Sergei_Konyagin

Part 3

E. Kolmogorov Readings at the Euler Institute

E. D. I am surprised that neither Rozanov, nor Sazonov, nor Prokhorov are among the speakers.

V. T. The conference program has been drafted by Arnold, Sinai, and myself, and approved by Fadeyev. As you can tell, it strongly reflects the personal preferences of Arnold and Sinai.

E. D. I assume I am no longer considered *persona non grata*.

V. T. Absolutely not. From the very beginning it was our intention to invite you.

E. D. By the way, your invitation reached me in a very unusual way. It was written in September but postmarked in February and, oddly enough, mailed from Oberwolfach, Germany.

V. T. It must have been a duplicate. The fact of the matter is that a number of invited speakers didn't receive our invitations. When we learned about it, we decided to mail them again through a third party.

E. D. How could it happen: poor postal service or some something else?

V. T. It is difficult to say, but I can't rule out anything. It is quite possible that the person who was in charge of sending them out simply lost or completely forgot about them.

Anyhow only few of those invited couldn't come. The conference has proved a success. There have been no events at this level in the Soviet Union.

E. D. What about Prokhorov?

V. T. We didn't invite him. I just can't deal with him. It's impossible. He is the kind of person who doesn't take his commitments very seriously. For example, he was supposed to talk about his recollections at a recent session of the Mathematical Society dedicated to Kolmogorov's 90th birthday.

E. D. Did he dodge it?

V. T. No, he promised to give a talk. Knowing him too well, however, I didn't announce his name in advance. I just wrote 'Recollections'. I told him plain and simple that, if he didn't want to give a talk, he just had to let me know, and there would be no 'Recollections' at that session. He assured me of his attendance and didn't come. He didn't even bother to give me a call.

E. D. What about Gnedenko?

V. T. He was not invited either. He is very old now and has a tendency to go off on tangents. I never invited him to any meetings dedicated to Kolmogorov, except for the meeting of the Scientific Council, where Gnedenko, Rozanov, and I were slated to speak. Gnedenko's speech was the most "interesting". Out of the blue he started talking about environmental issues and how bad the overall ecological situation in the country was. None of this had anything to do with Kolmogorov. Finally, Misha Kozlov, one of the more recent students of Kolmogorov, had enough of it and said, 'Boris Vladimirovich, I also want to speak. But, if you continue in this manner, there will be no time left for me.' 'I will let you speak,' retorted Gnedenko and continued rambling on.

E. D. In the old days, people would have been invited on hierarchical principle alone.

V. T. Yes, but we did not invite Nikolsky.²³ His formal speeches tend to be long and tedious and he hardly would tell anything of interest at the conference. However he is a very interesting character and one can learn a lot from him in private conversation. He was Kolmogorov's first student, and unlike Prokhorov he did not betray his teacher. Even though he was a member of the Communist Party and enjoyed all the benefits of being close to Vinogradov at such an epicenter of power as the Steklov Institute, he refused to join the vicious attacks against Kolmogorov's attempt to reform the teaching of mathematics in high school. Somehow they let him get away with it without any consequences.

F. Change in St. Petersburg

E. D. Here in St. Petersburg there is a clear sense of renovation, to judge from the mere fact that the Euler Institute is up to international standards in terms of financing and organization. Also, there is good news from LOMI. Vershik is now a department head there. They also hired a number of people with problematic "*pyatyi punkt*".²⁴ So something is definitely changing in St. Petersburg, although historically the situation here was much worse than in Moscow.

V. T. I agree, in this sense St. Petersburg is a much better place now than Moscow.

G. Stagnation in Mekhmat

V. T. In Mekhmat we have Iuliy Ilyashenko,²⁵ a great enthusiast of science. Unfortunately, the administration of Mekhmat just cannot stand him.

E. D. Is he a professor?

V. T. No, he is still a docent. But he is very active in supporting the right causes in the department.

E. D. The number of such positive people in Mekhmat is very small I presume.

V. T. Yes, they are almost non-existent.

E. D. Oleinik probably does not play any positive role at all.

V. T. No, and she never did. Her major flaw is egoism, egoism of the most unsophisticated kind. She is completely unable to cast a critical look at herself.

E. D. Evidently Arnold could not get along with her. And of course he, not she should be the head of the Chair.

V. T. I have no problem with her being the head of the Chair, although clearly Arnold deserved this

²³ http://en.wikipedia.org/wiki/Sergey_Nikolsky

²⁴ The so-called "*pyatyi punkt*" ("fifth point") in the Soviet passport identified the ethnicity of the bearer. Identified as "Jewish", a person was likely to face a *de facto* (if not *de iure*) discrimination. See ru.wikipedia.org/wiki/Пятая_графа.

²⁵ <http://www.math.cornell.edu/People/Faculty/ilyashenko.html>

position more.

E. D. This situation reveals a general pattern of negative selection, whereby the least talented people are selected for key positions. Small wonder that this country has fallen apart. In the West it is the other way around. There young people become leaders by the age of thirty. Take for example people like Thurston²⁶ or Durett.²⁷

V. T. Yes, you are right. Mekhmat is a horrible place. I told you that when two or three times I came forward with proposals at the Scientific Council, they were struck down by eighty votes against ten.

E. D. The Scientific Council is a strange administrative body. In the US we have faculty meetings, and all faculty members holding permanent positions have a say in these meetings. And they vote for all job offers and promotions.

V. T. How big is Cornell?

E. D. Our university is small.

V. T. How many faculty members do you have?

E. D. In the Department of Mathematics there are about forty. And about sixty doctoral students are also considered a part of the Department.

V. T. We have seven hundred people in the Department of Mechanics and Mathematics. Many of them serve on the Scientific Council, and I don't even know their names.

E. D. On the other side many distinguished professors are not members of the Scientific Council.

V. T. Yes, naturally.

E. D. No, this is unnatural.

V. T. ... unnatural from the Western point of view.

E. D. But I would assume that universities in Russia today try to emulate Western models.

V. T. This reminds me of how I met Manin²⁸ shortly before he left the country for good. When I asked him how he was doing, he said proudly, 'Congratulate me! I have become a member of the Scientific Council.'

E. D. Where?

V. T. Somewhere in Paris, I believe. Also, I remember when I once asked Arnold about his son, he said, 'He is doing much better than I. He has three girls under his supervision.'

E. D. Where?

V. T. In some small lab in the middle of nowhere. I think that now he moved to the US. Arnold himself on the other hand never held any administrative position and he never has been a member of any Scientific Council.

E. D. Well, this system had to fall apart one day. Consider a person like Margulis,²⁹ who had been toiling for many years as a junior researcher but, once in the US, was courted by some the most prestigious

²⁶ http://en.wikipedia.org/wiki/William_Thurston

²⁷ http://en.wikipedia.org/wiki/Rick_Durrett

²⁸ http://en.wikipedia.org/wiki/Yuri_I._Manin

²⁹ http://en.wikipedia.org/wiki/Grigory_Margulis

universities.

V. T. He and I were on the same flight during my first trip to Israel. We talked a lot, and I told him that I would be very happy if he could teach a special course at Mekhmat. He only smiled in response.

No, Mekhmat is incorrigible, although occasionally I do encounter some sensible young people; for example Konyagin, who is at my Chair.

E. D. What is the name of your Chair?

V. T. Control Problems.

E. D. It would be called Operations Research in the US.

V. T. The Chair was originally established by Petrovsky for Fomin.³⁰ But Fomin's career was pretty much over after he signed a petition in support of Essenin-Volpin.³¹ He was expelled from the Communist Party, had a heart attack, and died soon after. He was only in his early fifties.

But I can't complain. Over the years I have encountered and made friends with a lot of interesting and bright people in Mekhmat.

E. D. But now they are gradually disappearing.

V. T. Mediocre people remain.

E. D. Still, at the Chair of Differential Equations there are such distinguished people as Vishik and Landis, although they are well beyond their prime and are probably not in good physical condition.

V. T. Yes, of course.

E. D. Aren't they also members of the Council?

V. T. What are you talking about?! This is impossible. I remember of one of my last conversations with Vishik, before Olya Oleinik became a member of the Academy of Sciences. There were some kind of elections again, and I asked him who was nominated from their Chair. He said, 'Obviously, Oleinik. There are no other worthy candidates.' I said, 'Why? I know at least one.' Not getting my joke, he asked, 'Who?' 'How about Mark Vishik?' I said. 'Please, Volodya, keep quiet!' he exclaimed in a low, startled voice, 'Don't even think about that!'

³⁰ http://en.wikipedia.org/wiki/Sergei_Fomin

³¹ http://en.wikipedia.org/wiki/Alexander_Esenin-Volpin