PERSONALIA

SOF'JA ALEKSANDROVNA JANOVSKAJA:
A FEW REMINISCENCIES

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1. This is not a biography or an essay about the scientific activities of S. A. Janovskaja, about the school in history and philosophy of mathematics and mathematical logic she founded. Such information can be obtained from the thorough work of I. Anellis [*1987*]. Instead, I would like to share my memories about S.A., as I had the exceptional privilege to meet her and to talk with her in the last years of her life. I was young then and I did not understand the full significance of this interaction. Various other things, completely of a non-mathematical nature, attracted me, so I missed many opportunities to listen to S.A., to attend her lectures and seminars. Well, I can only feel only about that today.

2. One nice day in the early 60's, when I was a junior in the Mathematical School of Moscow University, I heard a friend of mine talking about lectures on mathematical logic given by Professor S. A. Janovskaja. The man was quite excited about the matter. So I decided to see what it was all about. Next day, being, as always, late, I snuck into a large amphitheater audience on the 16th floor of the main building of Moscow State University. The room was almost full and I found a place

only in an upper row. Near the blackboard stood a little old lady in an out-of-fashion black dress (she almost always wore this dress, as I was to learn later). Her face, rather round in shape, was very kind, and big round glasses were in complete harmony with the face. A small, shabby, leather briefcase on the desk was somehow similar to its mistress and completed the picture. All those non-official and old-fashioned attributes immediately charmed me, as well as the very slow and distinct manner in which the lecture was delivered. The point, as far as I remember it now, was something like the hangman paradox. Somebody faces a death sentence and is allowed to ask a single question. There are some additional restrictions the executioners are subjected to. So, what question must the unfortunate man ask to put his hangman into a deadlock? Somehow I found my university-mates to be very interested in problems of this type, though the time of hangmen in the USSR was then past to some extent (I mean that people were no longer still killed by the State in a matter-of-fact way), and though the Cheka, GPU, NKVD, MGB, etc.,* never played logical games with their victims, and were not subjected to any human logic at all. All in all, S.A. left the impression of an intellectual, a university professor *par excellence*. Nothing would let one suspect what a stormy youth she had. And her youth *was* an unusual one. She enthusiastically took up the Bolshevik cause in the Civil War, was a commissar in the Red Army, and, as I heard, she was captured and almost shot on one occasion by the opposing side of this unfortunate war. As far as I remember, her feats were even praised by Isaak Babel, a Jewish-Russian writer of tremendous talent who fell a victim of the Great Terror in 1941. Well, it is always sad to think how many young intelligent people were taken by primitive Communist agitation, by Bolsheviks, who were to become the greatest criminals in history, how uncountably many lives were sacrificed to their barbaric idols. I think that the life of Janovskaja is similar in this respect to some extent to the life of Jean van Heijenoort, who was in his youth a devoted secretary and bodyguard of Lev Trotsky, the trivial demagogue and another criminal outstanding even in the Bolshevik gang. (One can read about the life of van Heijenoort in an excellent book by Anita Feferman [*1993*]).

S.A.'s lecture marked the beginning of my interest in mathematical logic and finally, after a very impressive presentation given later by A. A. Markov, Jr. (I wrote about it in my essay [*1993*]), I chose this area

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* These are all earlier incarnations of the K.G.B.

for my specialization and, hence, entered the Department of Mathematical Logic (I believe this happened in 1963).

More than 30 years have elapsed but I still remember with complete vitality that sunny day, S.A. in that black, straight dress, her round glasses that gave her the appearance of a kind grandmother, and the famous small briefcase.

As a senior, and later a Ph.D. student in the Department of Mathematical Logic, I was not in close cooperation with S.A. My research interests were rather remote from hers, although she was always quite enthusiastic about my achievements and gave me all possible support. Our short and occasional conversations took place in breaks of seminars, in meetings of the department and on other occasions of this type. I have to mention here that being one of the oldest Professors of the School of Mathematics of Moscow State University, S.A. was in rather an unusual situation. The point was that she was not an original researcher but an exegete. She did not prove theorems, lemmas, etc. She was a thinker, an historian, philosopher, and a defender of mathematics (what she was to defend, and against whom, I would write about later). It is well known that mathematicians appreciate most of all concrete results and can be quite aggressive when people with no impressive list of mathematical achievements try to speculate about their sacred land, Mathematics. So, the position of S.A. in the middle of an incredible constellation of Professors (Kolmogorov, Aleksandrov, Markov, Sobolev, Tikhonov, Lyusternik, . . .) of the School of Mathematics could be uneasy. In reality, it was not. She was deeply respected and I had many occasions to notice it. Her whole personality, kind, open and deep, the tremendous and dangerous war she conducted against demagogic dialecticians — all that commanded respect. It is probably not easy for a Western reader to grasp the essence of the war and the deadly danger to which S.A. was exposed. After all, Logic is Logic, something quite abstract and remote from any politics. — Wrong! — Beginning with Lenin, Russian Communist ideology considered every issue, be it music, art, literature, science etc., as related to the class struggle. Nothing and nobody could remain on the sidelines, be neutral. One had to take a side and it is easy to guess what side had to be taken in order to *survive*. Only after arriving in the US did I discover (to my great surprise) that some people are capable to create a censoring system without institutions like the KGB, using pure enthusiasm, stupidity (stupidity is often very enthusiastic), demagogy and "networking". Some aspects of American university life have a distinct Orwellian touch ("new speak", and "double-thinking" are definitely

present). And still, one who resists a fashionable political or cultural trend here is in danger of losing his/her (*sic!*) job. No more, as yet. In the case of the USSR, the side that lost an ideological discussion was normally exterminated. It is enough to recall, say, the famous biological discussions, and the fate of N. I. Vavilov (*cf.* my work [*1994*]). I believe that the Soviet school of mathematical logic owes to S.A. probably its very survival. The war that S.A. conducted could not always be offensive. She sometimes had to retreat, to use self-criticism as a shield, to fight demagogy with another demagogy, to make compromises unconceivable for somebody who is not aware of the historical background. I recall Faust when I think about it. A reader who knows Russian could look through S.A.'s forewords to the Russian translation of Hilbert and Ackermann's *Grundzüge der theoretischen Logik* ([*1946*]). It would give a strong flavour of what I am talking about. E.g., one can find there citations from Lenin and Zhdanov** (both are definitely great experts in mathematical logic!) and even a really exciting remark about Russell who began with the ideologically ambiguous *Principia* and arrived allegedly to appeals to use A-bombs against the USSR. But I heard from older colleagues that S.A. stated that she never wrote those words! And it is quite possible: such a practice of publishing some ideological statements in the name of a celebrity without even notifying him/her was a normal practice in those years. (E.g., Dmitri Shostakovich was a notorious victim of such practices (*cf.* [Wilson *1994*])). But, finally, a Russian translation of the Hilbert and Ackermann book was published and it influenced the Russian logical school very favorably. Later, S.A. was very instrumental in establishing the Department of Mathematical Logic in Moscow State University. A. A. Markov (Jr.) was invited from Leningrad to chair the department.

I have to add to this her readiness to offer practical help to gifted young children, especially in tough times (see, e.g., Posnikov [*1993*]). Sure enough, this commanded respect, too.

A. A. Markov (Jr.), being rather a sharp individual with a dangerously sarcastic mind and permanent readiness to perpetrate a hoax, was especially polite, warm and respectful to S.A. I remember a funny incident on one of Markov's lectures on constructive logic. S.A. was always present in the first row and took notes very carefully. Once a

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** Andrei Zhdanov was one of Stalin's chief lieutenants and, next to Stalin himself, the leading ideological mouthpiece of the Communist Party. He argued for the superiority of Communist ideology over all forms of intellectual expression and asserted that art and science must serve ideology.

little discussion arose between S.A. and A.A. "But listen, listen to me, please," said S.A. — "after all, I am older than you are!". "Well, Sof'ja Aleksandrovna," smiled back A.A. , "you still should not use such an argument with me. You could find here somebody younger. . . ." With these words A.A. began to scan the audience looking for a victim. I was criminally young those days, so I hid myself in my back row as well as I could. A.A. finally picked on somebody else.

In the winter of 1966, A.A. Markov invited me to join a group of colleagues and visit S.A. on the occasion of her birthday. She stayed at that time in a *dacha* [a vacation home in the country] near Moscow. We left the train on the station "Platforma 42 km." It was a beautiful cold winter day, the snow so white and pure. It took a long time of searching along the empty streets of the *dacha*-village, full of snow and pine trees, before we discovered a wooden house with warm lights in the windows covered with ice. We spent there a very warm, friendly evening. Everybody was happy and I heard for the first time A.A. reading (better to say performing) his poems. He did it at S.A.'s request.

Unfortunately, it was the last birthday party for S.A. Her health never was good. For many years she suffered from a strong form of diabetes. And her private life was not easy at all. Her son suffered from a mental disease. In her last years she had to bring him with her to seminars (it seems he could not be left alone). Once he escaped and hid himself in the men's room. S.A. asked me to find him and bring him back. What a tragic story! As far as I know, the poor man committed suicide shortly after his mother's death.

That same spring I used to see S.A. home after seminars. Once she told me: "This spring is the last for me. I do not feel its perfume anymore. . . ." I tried to object but she only smiled back. She died in the Fall. . . .

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