



Science for Peace

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Anatol Rapoport: a tribute

Derek Paul, February 2007

Passing

On 20 January, Science for Peace, Pugwash and the world communities of scholars and of peace seekers lost one of their oldest friends and ablest and most trusted colleagues. Born in 1911, Anatol Rapoport, one of the 20th century's most remarkable scholars, accepted a professorship at the University of Toronto and settled here with his family in 1970, after many long and productive years in Chicago and at the University of Michigan. He took mandatory retirement in 1976. Through the next years, he taught and participated in research in Berlin, Louisville (Kentucky), Hiroshima and Vienna. In 1984 he returned to Toronto where he accepted without salary the then unfunded position of Professor of Peace studies at University College. There he set up the University's first program in peace studies, the forerunner of the program at the Trudeau Centre today. He also joined Science for Peace (SfP), was elected to its Board of Directors and, immediately following the Annual General Meeting in May 1984 became SfP's second President. His influence has been strongly felt within SfP in the 22 years since then. He will be greatly missed.



A life well lived

None of us can be separated entirely from our origins, whose child we were, how and where we were brought up, the factors and people that influenced us. Anatol, who exemplifies all of this, has put it admirably into an autobiographical volume: *Certainties and Doubts: a philosophy of life* (Montreal: Black Rose Books, 2000). This most honest book tells us frankly and openly of his strengths and weaknesses. We learn of his early ability to read and of his insatiable appetite for knowledge through reading in his early life and of the people who influenced him. A first-class memory that never seemed to fail added an essential dimension, and enabled him to recount his life to us in such vivid terms, all as if it happened only yesterday.

Anatol's parents were part of a growing group of Russian Jews who had become secular, abandoning the synagogues and speaking Russian, rather than Yiddish at home. Such families sent their children to Russian schools even if they lived in the Ukraine! Anatol was born in the Ukrainian town of Lozovaya, 110 km south of Kharkov. His parents earned their living as tutors — always hoping to obtain university education, though the university admission quota for Jewish students in czarist Russia of the time was three percent. In 1917 the Rapoport family moved to

Feodosia in the Crimea, where they remained during the civil war between the Bolsheviks and White Russians, the latter supplied by various European powers and the United States through the Crimean ports.

By 1921 Anatol had mastered much Russian literature, and foreign literature in translation. He understood Yiddish and Ukrainian and had an introduction to German, French, and colloquial English learned from sailors on shore leave in the Crimea. After the Whites were defeated, the Bolsheviks punished the Crimea for being the last stronghold of resistance against the Reds, and the Rapoport family returned to Lozovaya, since there was virtually nothing to eat in the Crimea. In Lozovaya they began plans to escape from the Soviet Union, eventually achieved through Poland (Certainties and Doubts, pp.22-24; Skating on Thin Ice (RGR Books, 2002)). They went to Chicago, where they had relatives.

Life in Chicago for the Rapoport family, 1922-29, was no picnic. Anatol's father was obliged to take work as a milkman, and later as a storekeeper, where the hours were exceedingly long and often dreary. But Anatol himself persisted in his pursuit of knowledge and in music. He had learned to play the piano in the Ukraine, and in Chicago he had the advantage of a series of fine teachers. At age 13 he obtained a Pick Scholarship, which gave him free instruction on the piano for several years. What is astounding is the content of music he played at his audition. Included was Beethoven's 32nd (his last) sonata, opus 111. Considerably older pianists would generally avoid the last three sonatas of Beethoven in such a situation, not necessarily because of technical difficulties, but because of the maturity required for any kind of interpretation of this highly advanced music. Anatol's tackling of opus 111 at so young an age gives us a vivid indication of his precocity.

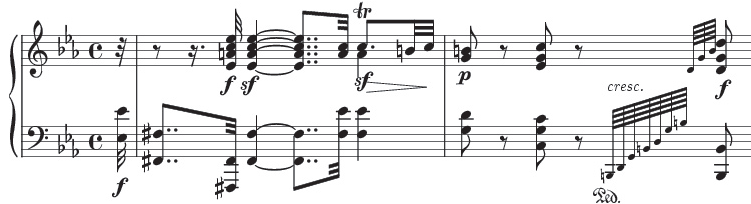
In September 1929, he was able to go to Vienna to study music, with support of \$50 per month from Mr Albert Pick, his erstwhile scholarship provider. In May 1934 he passed his last music exams in Vienna and launched himself into a career as a concert pianist. By this time he

had given concerts in Austria, Hungary, Poland and Italy. Now it was Chicago, then New York, and, for a year, Mexico. Following a holiday back with his parents in Chicago, he returned to Mexico, but his agent had disappeared, and he went again to New York. There, as he put it, "a significant factor in [my] change of outlook must have been the fact that I was not making much progress. Moreover, my 'lack of charm', to which Albert Pick had drawn my attention, must have played a significant part. I finally admitted to myself that I did not like the people on whose help I had made myself dependent. Most disturbing was also the recognition that I had to see young musicians like myself as rivals competing for attention and benevolence of people I didn't like."

Like Beethoven, whose productive life is considered to be divisible into three periods, Anatol now began his transition to his second period. In a sonata we would call it a bridge passage. He turned his mind to mathematics, gaining admission at the University of Chicago, and graduating in 1938, having written the four sets of exams then required: in physical sciences, biological sciences, social sciences, and humanities. He next entered graduate school to pursue a PhD in mathematics, completing the defence of his thesis — on the "Construction of Non-Abelian Fields of degree p^2 with prescribed arithmetic" — on 5 December 1941.

This was also in the period of his membership of the communist party, which he had joined in 1939. He quit the party in December 1941, "not because I was disillusioned but because I was asked to quit." Since the invasion of Russia by the Germans in August 1941, the communists had been supporting the Bolsheviks, whom they had previously opposed. Anatol and his family had not supported the Bolsheviks since the civil war in the Crimea. Their socialism was opposed to aggression and fighting. Later, Anatol says that he was unable to put himself back into the frame of mind that had characterized his revolutionary days as a communist.

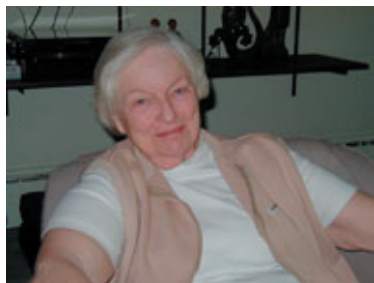
The Sunday following completion of his PhD, Pearl Harbor was attacked, and Anatol



joined the US forces, obtaining a commission in the US Air Force. During the war, he forced himself to suppress his pacifism. He first was assigned to teach mathematics and physics to air cadets, and was later transferred to Alaska, where a lease-lend operation taught Russian aviators to fly US aircraft. The trained pilots then flew these aircraft across the Bering Straits and eventually on to Stalingrad, where the most crucial WWII battle was raging at the time. Anatol was later transferred to India (near Dacca, now Bangladesh). This chapter of his life tells of the wastage in war, of utter senseless callousness of some military operations, and of a devastating famine in India, largely induced by speculators hoarding food.

Gwen

As we enter Anatol's second period, in which our demobilized scholar enters academic life at the Illinois Institute of Technology, we also meet Gwen. Anatol was first introduced to Gwen in December 1947 but did not see her again until the same time in 1948. They then very soon began a courtship, which led to marriage in 1949. Rather little has been written about Gwen, and we might well ask, what woman could be



so remarkable as to interest this scholar who was into everything from philosophy to politics, mathematics and biology, and seemed to be able to hold his own with the leaders in so many fields. For certain it would not be someone ordinary.

Gwen came from the small town of Greenville, Ohio, a few tens of km west of Columbus. Her parents were, like Anatol's, not religious people. Since I knew Gwen to be a pacifist, I once asked her the origins of her pacifism — which was clearly not that of a pacifist sect. She mentioned some US Legion WWI memorabilia, which she discovered in a hope chest at her home. These depicted life at the front in WWI. "They were graphic," she said, more so than modern-day movies showing the horrors of that war. Perhaps her pacifism

derived partly from that exposure. Gwen, like Anatol, was an avid reader from a young age. She not only frequented the Carnegie Library in Greenville, but strayed from the children's literature section into areas not yet permitted to her when young, to read the astronomy books, for example. Her thirst for knowledge paralleled Anatol's, and she too had, and still has a fine memory. Gwen's success at high school got her into the State University in Columbus in 1938. Her teens had coincided with the terrible depression of the 1930s, and she became involved in the cooperative movement — anything that would enable people to make a living in the appalling economic circumstances of those times. At Columbus she studied in the School of Agriculture, focusing on rural sociology and economics, farm management and "a great deal of chemistry."

In 1940 she went to Chicago, entering the School of Social Group Work at Northwestern University. During her time at Northwestern, she served as Program Director of a neighborhood house in Chicago. She recalls that her extensive knowledge of folk music and dances was crucial in one of her assignments.

At the close of the academic year she moved to Minnesota to work with local cooperatives and the Center for Continuing Studies at the University of Minnesota.

In 1945 she returned to Chicago as the Assistant Director of Education of the Cooperative League of the USA and Executive Secretary of the Cooperative Health Federation of America. It was there she met and worked with Margedant Peters Hayakawa, whose husband Don was professor at the Illinois Institute of Technology, where Anatol began his academic career after WWII.

Marriage, teaching, research and publication

When Gwen and Anatol met for the second time at the Hayakawas' in 1948, they each had a career or two behind them, but Anatol's principal scholarly work was just beginning. Of his marriage he wrote, "Since then my private life was marked by contentment." Children followed at intervals: Anya, born in 1952, Alexander (Sasha) in 1957 and Anthony (Tony) in 1962.

In those early post-war years, Anatol taught at the Illinois Institute of Technology (1946-47), but did his research with Rashevsky's relatively new Committee on Mathematical Biology at the University of Chicago. It was a time of pioneering in mathematical biology, and very productive in research results. From 1947-1954 he was assistant professor at the University of Chicago. Throughout his career, Anatol published very many papers, but he also published numerous books, and it is to these I shall refer. In the Chicago years he produced his first two books: *Science and The Goals of Man*, 1950; and *Operational Philosophy*, 1953. The Chicago period exposed him to science and values, and got him started in the fields of semantics and general system theory.

Anatol has also listed the names of those whom he considered his mentors. These were his father; G.D. Gunn, a piano teacher who influenced him in his teenage years in Chicago; S.I. Hayakawa, author of the best-seller, *Language in Thought and Action*, and colleague at the Illinois Institute of Technology; and N. Rashevsky, who founded *Mathematical Biology* at Chicago.

In the early 1950s McCarthyism raised its ugly head in the United States, and many scholars were victims of its purges, some for as little reason as having at some prior time belonged to the communist party. It should be remembered in this context that communism was not an altogether bad word in the days before the Bolsheviks turned it into a form of stark repression. Furthermore, the communist parties outside the Soviet Union had not always supported the Bolsheviks. Anatol, remarkably, escaped any persecution under McCarthyism, but there was nevertheless an exodus of survivors from the University of Chicago after its brilliant President, Robert Maynard Hutchins, was dismissed. Anatol was one of those who left.

In 1954 the Rapoport's departed for the Center for Advanced Study in the Behavioral Sciences, which was in Palo Alto, California. The Center provided a fruitful ground for developing the theory of general systems, and it was through a convergence of likeminded colleagues at the Center that the International Society for General Systems Research was founded. It was there also that Anatol was introduced to *Prisoner's Dilemma*, a two-person game on which he

subsequently did a great deal of research. And it was also there that the idea germinated for the Institute for Advanced Studies, which became a reality in Vienna, and where Anatol himself became the Director much later on in life.

At the end of the academic year in Palo Alto, Anatol was offered an associate professorship at the University of Michigan, at the Mental Health Research Institute. At Ann Arbor also he was highly productive. His books during those years included *Fights, Games and Debates*, 1960; *Strategy and Conscience*, 1964; *Prisoner's Dilemma* (with A.M. Chammah), 1965; *Two-Person Game Theory*, 1966; and *N-Person Game Theory*, 1970.

It was at Ann Arbor that he came up against the brick wall of nonrecognition that his stance against militarism and the insanity of nuclear deterrence was intellectual, not simply a moral repugnance, as he was accused — though of course moral repugnance accompanies such insights. A purely moral stance could be ridiculed by scholars, and sometimes was; but Anatol repudiated, for example, Herman Kahn's writings and talks on grounds that he had learned from studying two-person, non-zero-sum games. He noted that rationality is not a unique function of a situation, but depends on the perspective of the decision maker. Thus, the game will be played differently if the point of view of one player only is considered, rather than the points of view of both. It turns out in *Prisoner's Dilemma* that the rational decision of the individual acting for her/himself is to defect perpetually, while the maximum benefit for the two players is to cooperate perpetually. Anatol argued against the horrific argument of Kahn that, to preserve the integrity of the United States in the face of Bolshevism (viz. "communism"), it was worth sacrificing 60 million American lives. This was Kahn's rationality. Anatol argued that rationality was non-unique in such situations (see *Strategy and Conscience*, and *Certainties and Doubts*, pp.132 et seq.), and that Kahn was wrong. Anatol once said to me that Kahn was a terrible man, but that one had to pay attention to what he said, because he was widely read and heard and could do untold social damage if his pronouncements were allowed to go unchallenged.

As the Vietnam War progressed in the 1960s, the dissatisfaction of the Rapoport's with

the role of the USA on the international scene became more and more evident, until Anatol “let it be known” that he was available elsewhere. Eventually this led to a professorship at the University of Toronto, in 1970.

In Toronto, Anatol was cross-appointed between the Departments of Psychology and Mathematics. He lectured on control theory, decision theory, inferential statistics, mathematical psychology, social psychology, wrote research papers, and presented papers at conferences. His books during the Toronto years were *The Big Two*, 1971; *Conflict in Man-made Environment*, 1974; *Semantics*, 1975; and *The 2 X 2 Game* (with M. Guyer and D. Gordon), 1976. Several of these books are more readable by non-mathematicians than some of his more technical books from the Ann Arbor days, such as *Prisoner’s Dilemma*. I think SfP members may find *Semantics* extremely readable and enjoyable.

Latter days

Anatol’s career was by no means ended when he took mandatory retirement from the University of Toronto. On the contrary he began a third period. The next years saw him teaching and researching in Berlin, Hiroshima, Louisville (Kentucky); and, in Vienna, he took on the job of Director of the Institute for Advanced Studies, responsible for the academic affairs, until he resigned at the end of 1983. During those years he published *Mathematischen Methoden in den Sozialwissenschaften* (Mathematical Methods in the Social Sciences), 1980, which was translated into English in 1983.

Back in Toronto in 1984, Anatol joined Science for Peace, then in its third year, and became its second President immediately following the Annual General Meeting in May. He was also approached early in the year by Terry Gardner and asked to consider accepting the Professorship in Peace Studies at University College, which had been established in name, but was still unfunded. The professorship had originated from an ad hoc group of people in 1980, all of whom joined Science for Peace following its foundation in 1981. This small group — Jon Cohen, David Leadbeater, Missy Powell and I — met regularly throughout the fall of 1980 until we were sure that a meaningful

program in peace studies could easily be mounted at the University of Toronto. About the time we had concluded that the answer was an unambiguous yes, in December 1980, Terry Gardner joined our group and ably steered the proposal for a Professorship of Peace Studies through the University College Council in the fall of 1981. By this time Science for Peace had been founded and was approaching 150 members. The Executive not surprisingly was asked to help in any way it could with raising funds for the Professorship. Funding a Professorship of Peace Studies met with some resistance among senior academics, though we were never able to detect the principal sources of opposition. I remember going to see President Ham with Terry Gardner on one occasion. The object of the visit was to have the matter of funding the professorship raised to a much higher priority within the university’s fundraising campaign. We met with the most thorough obfuscation I have ever encountered, meaningless statements obviously designed to conceal the hidden opposition. Nevertheless, the Professorship was strongly supported by Peter Richardson, University College’s Principal at that time.

Anatol accepted the professorship without salary, and was remunerated only when he lectured, at the usual too modest sessional rates. He also got a program in peace studies underway, which was the forerunner of the current Trudeau Centre’s program. Furthermore, Anatol carried on the professorship until it was funded, and yielded his position to Franklyn Griffiths in 1996. Franklyn became the first “George Ignatieff Professor of Peace Studies.” The Professorship is currently held by David Welch.

Anatol took over the leadership of Science for Peace (SfP) at a difficult time. The organization was out of funds, and had to trim its activities to its income as it trickled in. I agreed to stand for the position of Secretary-Vice-President to support Anatol’s presidency, but only for one year, and I now acknowledge Gwen’s immense support of the organization, since, during that whole year, she relieved me of most of my duties — I spent most of that year preparing for a small SfP symposium on the defence of Europe. The motivation for the symposium had been my discovery that, even in the peace movement, people were not aware of the strenuous efforts

that had been put into the control of conventional arms since 1964. Strategists (the benign ones I tended to listen to) emphasized the huge number of deaths occurring annually from the use of conventional weapons, while none had died from the use of nuclear weapons in warfare since Nagasaki. Obviously conventional arms control and arms reductions were important. Anatol's expertise was not military, so I did not plan to invite him to prepare a paper for that conference. However, at the last minute, he approached me, insisting he should be allowed to present a paper opposing militarism in his own, abolitionist vein. I of course agreed. The paper he produced, and I believe it was done extremely rapidly, is entitled "An Abolitionist's View." In it he states with complete lucidity why militarism must eventually vanish and, with it, military institutions, military colleges, and the weapons of war. He likens the future demise of militarism to that of slavery — at one time the abolition is seen as impossible, but it is later achieved. His paper is convincing, and does not even involve arguments on the preservation of the ecosphere, which would certainly be added if that paper were to be rewritten today. It was published in full in the proceedings, *Defending Europe, Options for Security* (Taylor and Francis, 1986). I think this paper is one of Anatol's finest works.

Also in 1985-6, he approached me to answer the green paper of the Department of External Affairs, which we did together. We split the work between the two of us, and we each did our parts, which meshed well together, with no changes being required by either of us on the work of the other. Another of his contributions as President of SfP was to participate in a course offered by SfP at the School of Continuing Studies. The remuneration coming from the course was put into the coffers of SfP. He also made the proposal, about that time, that SfP publish books and occasional papers. This proposal was repeated to me about a year later and, soon afterwards, Anatol donated the remuneration he received from presenting a lecture at the

University of Western Ontario as seed funding for book publication. The result was a total of twelve books published by Science for Peace between 1986 and 2000. The occasional papers, however, never got off the ground in the way he intended. We would have had to have peace research projects on the go most of the time to be able to pursue that second goal.

Anatol was succeeded as President in 1986 by George Ignatieff, who in turn was succeeded in 1988 by Tony Arrott at Simon Fraser University. Anatol was understandably offended by the manner in which the transfer of the Executive to British Columbia took place. He came to my office to complain very directly. It looked like a danger point in our relationship. I pointed out that I had not taken part in the final decision,

but had made the proposal to various Board members that the Executive should for two years be out West, where SfP had a large, vibrant chapter, and thus I was very largely to blame. I added that he should blame me entirely, not any of the others. I think that ended the angst, and I never again felt uncomfortable in his presence.

In 1990 Anatol was put forward for the 1991 Nobel Peace Prize, and many dozens of his acquaintance sent in letters of recommendation.

The University of Toronto had a new President at the time, Robert Prichard whom I had not met, since I was on sabbatical in Belgium. At Christmas I paid a brief visit to Toronto and made a point of asking for five minutes with Prichard, who was collecting the letters of recommendation and sending them on to Oslo. Prichard was ecstatic about the quantity and quality of the letters and said he had never seen anything like it in his life. I got half an hour, instead of the requested five minutes, and Prichard and I maintained contact through some other quite different matters that ensued later, where I might otherwise not have had his



attention.

In the Rapoport's Toronto years from 1984, Anatol published several more books: *General System Theory*, 1986; *The Origins of Violence: Approaches to the Study of Conflict*, 1988; *Decision Theory and Decision Behavior*, 1989; *Canada and the World* (with Anthony Rapoport) 1991; *Peace, an idea whose time has come*, 1992, *Certainties and Doubts*, 2000; *Skating on Thin Ice*, 2002; and *Conversations with Three Russians*, 2005.

Anatol was also one of the earliest scholars to recognize the institution of war for what it was, an addiction to weapons, and a mutually reinforcing system sustaining parasitically the professions and industries involved. He maintained that the militaries on both sides of the Cold War benefitted by being able to skim from civil society huge sums that should have been expended for civil purposes, but were justified for defence. The situation has not changed. When an enemy collapses, another is sought or must be created, so as to maintain justification for the monstrous military burden that is to be borne by civil society.

Anatol was much loved by his students at the University of Toronto so, if Albert Pick's remark had any validity back in the 1930s, things must have changed since then. I ask myself, looking back, whether Anatol had a blind spot — most people do. I can't be sure if he had, but I did notice, in reading *Certainties and Doubts*, his general choice of male authors, almost to the exclusion of female scholars and writers. This was no doubt circumstantial, an affect of the times and places where he worked. I never felt that he downgraded women. He

was actually very impressed and influenced by Helen Caldicott, and had tremendous respect for female colleagues, including Ursula Franklin and Joanna Santa Barbara. He also had a long and productive relationship with Alva Myrdal, during her days as Swedish Ambassador to the UN, and in the establishment of the Stockholm International Peace Research Institute. There was also a science fiction story he was fond of paraphrasing, in which technology results in mass infertility, ending with the women of the world rising up to destroy all machines.

Peace research must in future pay full attention to the work of female researchers.



War and militarism correlate with the growth of male dominance in human society, not just advancing technology. Truth in mathematics follows from axioms and proofs. But truth in the complex fields that Anatol so bravely pioneered is based upon that part of reality one has

the opportunity to observe. If the male aspect cannot perceive the whole and the female aspect can also not perceive the whole, then at least the combined aspects will see more than either separately and a wider truth will emerge. Providing the female perspective is a function of feminism that is not always recognized in just that light. It is essential to enlarge the perspective as far as we can, and embrace more of the truth.

Anatol's passing leaves us with a vacuum, but it is one we are expected to fill, and the next generation can do this. He covered more perhaps than anyone, in 20th century scholarship and study of conflict, but the work is not over.

We extend our sympathies and our pride in knowing him to his family.

Two years ago, in honour of his many contributions as teacher and mentor, the

Dr. Anatol Rapoport Scholarship Fund

was established at the

Pierre Elliott Trudeau Centre for Peace and Conflict Studies
at the University of Toronto.

The goal of the scholarship is to support the research of a new generation of peace researchers whose work is inspired by Dr. Rapoport's own research on the mathematical approaches to peace and conflict.

Friends are invited to make a contribution to the scholarship by contacting Jim Lawson at the Office of Development and Alumni Affairs, University of Toronto.

(jim.lawson@utoronto.ca 416-978-0271)

