

Rapoport at Ninety¹

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A few months ago Science for Peace celebrated Anatol Rapoport's ninetieth birthday. I couldn't go, so during the August heat wave I took my tape recorder and paid a social call instead. Anatol's wife Gwen welcomed me again into the house that first became familiar to me in the early eighties, when Anatol was president of Science for Peace and the directors used to meet there, planning a peace and conflict studies program at the University of Toronto.

The house is the same and the occupants are as kind and engaging as ever, but even the Rapoports have not entirely escaped the effects of time: Gwen is half blind and Anatol half deaf. Last autumn he finished his teaching career but he is still publishing circles around the rest of us. In 2000, his memoirs, *Certainties and Doubts*, appeared in English, and a book about Tolstoy, Dostoevsky, and Lenin is being published in Russia. A Canadian publisher is dickering to bring it out in English. This year he has produced a paper on ecology, and he is working on another book on whistleblowers – notably Alexander Solzenitsyn. I have known of Rapoport's work since the early 1960s, but only during the eighties was his extraordinary influence made apparent to me when Rob Prichard, then president of the university, asked me to write a letter supporting Anatol's nomination for a Nobel Peace Prize. He didn't win it, but not for lack of admiring letters. Later I was in Estonia with him and Gwen, attending the European Nuclear Disarmament conference, and could watch the journalists surround him requesting interviews. Throughout the Cold War his books had been published in the Soviet Union but kept in the special section of libraries to which only party members and a few other reliable intellectuals had access. Books acquired a special cachet by being kept there; the privileged readers used to show off at parties by discussing the "dangerous ideas gleaned from such sources. I have heard that Alexander Yakovlev, the most influential person in Gorbachev's circle, was influenced by one of Rapoport's books."

Certainties and Doubts recounts, not only the main intellectual concerns of his mature years, but also some great stories about his youth. He was born in Ukraine before the revolution, the only child of a couple who soon moved to Crimea. Both of his parents tutored children privately in their home. They were socialists – his father a social democrat, his mother initially leaning toward the Bolsheviks because they promised to quit the war in Europe. In the civil war following the revolution, the Bolshevik regime punished Crimea for being a "White" stronghold. The Rapoports' relatives could hear the screams of victims being massacred nearby, so no one believed anymore that those Bolsheviks in power were beneficent. The only decent people had been killed, had emigrated, or were powerless. Although this

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was the New Economic Program period, when partial free enterprise was reinstated, its lenient rules did not apply to Crimea, where the inhabitants were starving.

FLIGHT TO THE WEST

In 1921, Anatol's father had a month-long leave from his job and took his family to visit his wife's parents in Ukraine, where food was plentiful. Anatol's mother announced that she would not go back. She convinced her husband to go to the border of Poland and Russia – a no-man's land where no government had established itself. She managed to cross over into Poland and to contact an agency that helped Jewish refugees. Only after hair-raising adventures did her husband and son succeed in following her a few weeks later. Eventually they were able to join relatives in Chicago, where Father became a milkman (later a grocer) and 11 year old Anatol resumed his schooling.

He was an exceptional musician, and at the age of 18 was sent to Vienna, where he studied piano five years. His training culminated in a successful recital, and as he returned to America hoping to establish a career as concert pianist. However, in both Chicago and New York, any young pianist needed to be the protégé of wealthy people, and Anatol disliked any such dependence. He went to Mexico for a year and concertized throughout the country, learning Spanish along the way. But even then, he realized that sponsorship would be necessary to gain recognition in the United States, so he decided to go into mathematics instead. (But he continued performing sometimes, playing his last concert on his 85th birthday). He had always enjoyed math and quickly proceeded through to a doctorate at the University of Chicago, finishing exactly at the time of Pearl Harbor and immediately entering the armed forces.

He served the four war years as a supply officer in Alaska and India. Then he returned to Chicago, took an academic post, and married Gwen, who had been involved in industrial relations. The new family would grow as they became parents of a daughter, Anya, and two sons, Alexander and Anthony. Anatol had belonged to the Communist Party from 1938 to 1941, quitting when he joined the military. After the war he would have joined again, but its US leadership had become more inflexible and Anatol was keenly sensitive to demagoguery, which was prevalent both in the party and among anti-communists. During that witch hunt period he expected to be called to testify about his previous activities in the party, but this did not happen. While still preoccupied with such political concerns in 1954, he left Chicago for a year at Stanford's prestigious "think tank" – the Center for Advanced Study in the Behavioral Sciences. There he continued discussions with several like-minded scholars with whom he created the International Society for General Systems Research. After the year in California, he and his family moved to the University of Michigan, where he taught fifteen years.

Although he was still calling himself a mathematical biologist and working in the field of mental health, his interests actually centered on general systems analysis and conflict situations – especially the theory of non zero sum games, of which the most famous example is the "Prisoners' Dilemma". He wrote a book about that dilemma and he continued expanding that area of mathematics as a field called "decision theory". (See the sidebar on Prisoners' Dilemma). This interest inevitably led him into an intellectual confrontation with strategic analysts, the theorists who were developing the nuclear deterrence model on which the Cold War was being waged. This interest combined with his popularity as a teacher, and in the 1960s led to his active opposition to the Vietnam War, particularly by taking a leading role in Ann Arbor's mass tech-ins. By then, more than half his publications dealt with themes of peace, war, or conflict.

He was feeling that the United States was not where he wanted to live and raise his growing sons. After briefly immigrating to Denmark, the family settled in Toronto in 1970, where Rapoport taught until his official (mandatory) retirement in 1976. (In fact, he continued teaching in Canada and abroad until 2000). For four years he was director of an institute of advanced study in Vienna, spending his summers in Toronto.

THE STUDY OF CONFLICT

In 1984 Rapoport joined the newly-formed organization, Science for Peace, which was encouraging the application of science to problems of peace. He was elected president of the group and proposed to form an inter-disciplinary curriculum in peace studies at University of Toronto, of which he offered to teach two courses. After two years of discussions and revision, Science for Peace received permission to launch this four-year degree program. It is still flourishing.

I asked Anatol why he had developed such an interest in peace, war and conflict. Was there a special personal motive behind his scholarly preoccupation? After reflecting a moment, he said that probably Gwen had influenced him, for they have been married over half a century. Gwen had even been opposed to fighting World War II, whereas he had served in the military without hesitation. He would not do so today, if he had to make such a decision again, for he calls himself an abolitionist.

By this term he means to set himself apart from pacifists. The distinction in his mind is between two alternative approaches to the elimination of warfare. A pacifist, to him, is someone who believes that the willingness or unwillingness to engage in violence is a moral trait, and that peace requires a change in the minds and souls of individuals, so they will refuse to wound other human beings. Tolstoy and Martin Luther King were pacifists. Rapoport, however, believes that Gandhi was not a pacifist, but an organizer of nonviolent resistance. An abolitionist is someone who thinks of war as a social institution. Anatol sees warfare as a system with sub-systems, including the military complexes of various states. Military institutions support each other, each one of them justifying the existence of its counterparts in potentially adversarial societies. To abolish war, he argues, we must uproot it institutionally. This effort has little to do with the psychology of individuals. Studying the inclination of individuals to fight will not get us very far. "I'm for killing the institution of war," he says. Of course, even though he advocates an institutional, political approach, he personally admires pacifists, such as the Quakers and Mennonites. He spoke especially fondly of Kenneth and Elise Boulding – both devout believers and anti-war activists who had been his close friends in Michigan.

INDIVIDUAL AND COLLECTIVE RATIONALITY

Rapoport's greatest intellectual fascination has concerned the deceptiveness of rationality. We need to distinguish between individual and collective rationality, as we learn from the familiar allegory, the "tragedy of the commons." In a village all the cows graze on a common pasture. It is in their individual interest for all farmers to keep as many cows as possible and let them eat their fill. But if all the farmers do so, the grass will soon be gone and all the cows will starve. So it is in their collective interest for each farmer to limit her herd. A similar example comes from fishing: if all the fishers take the maximum number of fish, the fishery will soon be depleted because individual rationality again runs counter to collective rationality. Or, to cite one more example, in a burning theater everyone wants out, but if everyone rushes to the exit without self-restraint, no one will escape. Again, the rational pursuit of individual and collective interests are contradictory. But the clearest example is the Prisoners' Dilemma, where it is perfectly rational to defect, though doing so yields a worse result than mutual cooperation. Fortunately, the motivation to defect can be overcome over the course of a series of games instead of a single game, for it is possible to build up mutual trust.

Trust is strongly influenced by the evidence the other player provides by demonstrating his actual decisions, one after another. Clearly, if I can trust you, the other player, to cooperate, it will make sense for me to cooperate too, and by continuing our mutual cooperation over a whole series we both would win. But if you defect on one game while I cooperate and lose, you probably cannot convince me to trust you next time and cooperate again. That is how we establish our trustworthiness in real life – by demonstrating it in a series of interactions. The question then becomes, what kind of game plan allows a player to benefit most over an indefinitely long series of games? In 1984 Robert Axelrod published a book, *The Evolution of Cooperation*, which presented a solution to the Prisoners' Dilemmas. He had

established it by organizing a computer tournament that pitted strategies against each other, pairwise, over a series of games. Game theorists around the world had submitted these strategies. Anatol Rapoport won the tournament with a strategy called TIT-FOR-TAT, which always entered the first round of games with a cooperative play. Thereafter, it played exactly as the other side had played in the preceding game. If the other side had defected, TIT-FOR-TAT also defected for that one game. If the other side had cooperated, TIT-FOR-TAT then cooperated on the next round.

In effect, TIT-FOR-TAT punished the other player for selfish behavior and rewarded her for cooperative behavior – but the punishment lasted only as long as the selfish behavior lasted. This proved to be an exceptionally effective sanction, quickly showing the other side the advantages of cooperating. TIT-FOR-TAT won the tournament. It also set moral philosophers to proposing this as a workable principle to use in real life interactions.

LET YOU AND HIM FIGHT

I asked Anatol why this simple rule of reciprocity was so powerful. To my surprise, he said that TIT-FOR-TAT cannot beat anyone! It can never get a better score than the other player, since all it is doing is following what that player had just done. Then how did it win the tournament? By allowing all the other strategies to eliminate each other. (“Let you and him fight!” he explained).

He gave some examples to illustrate the principle. A former student of his had developed a scenario called a “truel” – a duel for three shooters, all of whom should shoot at the same moment. The first man is known to be a crack shot; he hits his target 95% of the time. The second man is almost as good a shot; he hits his target 90% of the time. The third man is a poor shot; he can hit a target only 50% of the time. So which of these three “truelists” is most likely to survive? Answer: the third guy. The other two men will kill each other, leaving the worst marksman unscathed. TIT-FOR-TAT’s victory represented a similar outcome: it allowed the other strategies to kill each other off.

Illustrating the principle in another way, Rapoport recalled having put this question to friends in Russia and the United States during the Cold War: During a war would you be safer in the United States or Costa Rica? In Finland or the Soviet Union? The answer was obvious, yet it was a telling criticism of the whole theory of deterrence.

“So you decided to be an ‘abolitionist?’” I inferred.

“One doesn’t make decisions,” he replied. “One discovers them. And I guess Gwen discovered this one first.”

“How should we pursue the abolition of war?” I asked.

He said, “I hope a world-wide unified left will develop from today’s left – the ecologists, the peaceniks, the anti-capitalists, and the champions of true democracy. I want to get the war makers completely out of power. That will be abolition!”