

Héctor Rubinstein from a Swedish Prospective

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In this note I will give some reminiscences from my forty year long friendship with Héctor.

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1. The early days

I met Héctor for the first time in the summer of 1968. I was a beginning graduate student and Héctor with a Swedish family wanted to have Sweden as a base for his summer activities. He had written to Gunnar Källén to ask if he could stay in Lund for the summer, but Källén had replied that Lund only had funding for important people, so Héctor had then asked Jan Nilsson who gladly had invited him. He reminded me immediately of a poem of Hjalmar Gullberg, one of the leading Swedish poets of last century who in a poem describes a person with the words in my translation. "He came as a wind. What does the wind bother about prohibitions." (It sounds better in Swedish.) Héctor came as a rising star in physics after a very successful year having essentially started what was to become Dual Models and eventually String Theory. I was the youngest graduate student but he somehow picked me out and told me about the new fantastic things that were happening. I had on my own studied Finite-Energy Sum Rules even though my advisor Jan Nilsson had asked me to other things, and my early contacts with Héctor convinced me to go on and follow his subject. I am very grateful for that. Somehow when you look back at your career you find that certain accidental encounters have formed your scientific life.

Héctor got immediately involved in the local politics much to the concern of the senior people and he equally quickly had his opinion clear who were the good guys and who were the bad ones. Fortunately for the senior people he was very busy traveling around Europe that summer so he did not spend so much time in Göteborg. He always wanted to be with the family in Båstad over weekends. Already then he mastered to travel cheaply. He had one long ticket for the whole summer hopping from one place to another. I do not remember how he managed to have Göteborg only once as a destination on the ticket but I am sure he did.

The next summer he came back under the same premises. This time the success of his group was even greater and the Veneziano Model was the hottest topic around. That summer the big particle physics conference was held in Lund and his group gave several talks there. The really hot subject was the so called B_5 -functions that Bengt Pettersson and Nils Thörnqvist had constructed (five-point dual scattering amplitudes) and later in the summer he convinced me to try to get B_6 -functions. Needless to say I was scooped by others, working alone in between my ordinary graduate work, but I learnt a lot and moved more and more into the field. It helped me a lot when I two years later came to CERN as a fellow.

Héctor continued to come for some more summers until the family moved their summer activities to Ingarö in the archipelago of Stockholm. Those summers were somewhat tumultuous in our department and Héctor very quickly chose side on all issues. I was spending those summers at CERN so I only heard all stories from my friends back home. I must say that he probably did not help to improve the situation but he became well-known also outside particle physics in Sweden. I did meet Héctor at CERN many times during those years and our friendship matured. I was now more experienced and could talk to him more as an equal. He accepted me as such and we always had some nice time together.

For the next ten years or so he would drop by to give a talk and to catch up with the local news and he certainly always came as a wind that knows no prohibitions.

2. Héctor, the Swedish professor

I spent the summer of 1984 at CERN and one Saturday in late August I came back from a summer school and went out to CERN to check the mail. There in the mail room Héctor came in and told me that he will move to Sweden. He was afraid for his kids in Israel since they were reaching the age for the Army and he was firm. He was going to move. "Do you have any appointments in Sweden?" I asked. "No, I will use some sabbatical and then we will see." he replied.

Back in Sweden I got in contact with my colleague Bengt Nagel who was a person with a white hat according to Héctor, even though his physics taste was very different. Bengt and I started to look around and we managed to secure some funding from Nordita and other sources and as promised Héctor moved with his family to Stockholm. For a few years Héctor survived in Sweden and got very quickly established in Stockholm, not to the delight of some of the senior scientists whom Héctor told what he thought about their science. After some time I spoke with Helen, Héctor's wife and I told her that I think we will manage to secure him a job. In a very typical Swedish way she said: "I believe it when I see it."

The key person to help Héctor in the end was Sven Kullander. He was dean of physics in Uppsala with many ideas, and one was to get Héctor to Uppsala and with remarkable speed he managed to secure a new chair in theoretical subatomic physics. It was publicly announced and many theorists applied. Héctor was, of course, far superior to all the other applicants and got the job. He was now a Swedish professor of physics.

It did not take him long till he managed to be interviewed by Dagens Nyheter, one of the leading Swedish newspapers. In that interview Héctor told them what he thought about nuclear physics in Sweden and the article fell as a bomb on the Swedish physical society. We were not supposed according to the old tradition to criticize each other openly but we could fight each other with any kind of means behind locked doors, in faculties or research councils. The society became even more divided, most people appreciated his frank statements but mostly an older generation became his enemies. This division was to stay to Héctor's untimely death. It did cost him a lot of support in Uppsala since most of the people he had criticized were colleagues of his in Uppsala or Stockholm where he also kept an office. When I once told Harry Lipkin about it he said that at Weizmann they had liked his frankness and appreciated it. That was a different culture and in this sense Héctor never became a Swede.

His frankness, of course, made him impossible in any academy, faculty committees, research council and other deciding organ. This gave Héctor ample time to do research and it was in the aftermath of his collision with the establishment that he made his greatest and still lasting contribution to Swedish physics. Héctor had changed subjects several times during his career and around 1990 he became interested in astrophysics creating together with his helpful colleague, Lars Bergström, the Swedish activities in astroparticle physics. They started the theoretical activity and were also instrumental to get the experimental one started which ended up in the South Pole with the Amanda and the IceCube projects. Other will tell about that so I refrain from discussing it more.

3. "I am so depressed"

During the last twenty years or so Héctor and I talked on the phone at least once a week.

He always started with "I am so depressed." The depression was invariably due to some problem he had found with Swedish physics. He used to compute what the Swedish facilities cost us taxpayers and could estimate how much every publication from them really cost. For most often good reasons he had all the rights to be depressed, but he always took it personally. We would then go on to discuss news in physics and Héctor was always à jour with all the new papers. This was always very useful for me and after a while in the discussion the depression was gone and in the end of the call he sounded optimistic again.

Héctor's heart problems started early as we know. He had his first heart operation in the mid-90's in Israel and after it he came back to Sweden convinced that the heart would last another fifty years. Some time after he had to have another huge operation in Sweden. Six months later we made a tour in Chile and Argentina and in Bariloche we one day should climb one of the mountains. Héctor was convinced he should come along and we had to use all our strength to get him to understand that he should stay in the village. The trip was otherwise very memorable. Héctor was a fantastic guide on the trip and took us to places where no tourists had been before. In 2005 I saw him in Stockholm and he looked pale and tired. He told me that he should go to Buenos Aires for three days to see his mother who was 99. I asked him if it was advisable but his feelings for his mother made him go. It was on this trip that he had his next major heart attack in the airport of Sao Paulo.

In recent years we went over to talk on Skype and the last conversation we had was two days before his death. We decided then that we would meet in Israel in October if he could make it.

4. Héctor's legacy in Sweden

Héctor was associated with Swedish physics for a period of forty years. For the last twenty-five years he lived in Sweden and was a very active member of Swedish academia. He was a truth-sayer under all circumstances, a quality that few Swedes have. He was not always right, he saw the world in black and white, but his opinions made people reflect. He introduced astroparticle physics and helped many a Swede to get the right contacts in the world of physics. He scrutinized physics funding in a way that people had not done before, and he certainly influenced us who were members of the deciding committees. Even though many persons got upset, we should be grateful for him for that hard and honest work. Héctor, we miss you a lot!