

Eulogies for Shmuel Fishman

Shmuel Fishman (September 30, 1948 – April 2, 2019)
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I met Shmuel fifteen years ago when I was considering what to study for my doctorate. Shmuel was then the master's thesis advisor for my office mates, Michael Sheinman and Tali Olikier, now Pinsky. His frequent presence in our office, his enthusiasm for research, and his great concern for Michael and Tali didn't leave me with any doubts about the identity of my future advisor. And so it was.

Many of us who are present here today knew Shmuel as a scientist, but its not my intention to talk about his many scientific contributions, Doron spoke about some of them, but rather about the way Shmuel did science and what science meant to him.

Shmuel grew up all his life without a close family. He became an orphan at an early age and grew up in boarding schools. His brother, nine years younger, moved to South Africa and later to the US, where he died four years ago from cancer. Despite all of his difficulties and against the odds, Shmuel was able to become a leading world class scientist, overcoming the **loneliness** that accompanied him all his life with his scientific activities. Science was his life, and his biggest fear was to become a "poochlatz" (literally a stuffed animal), which was what Shmuel called scientists who stopped working on science.

Shmuel worked on science every waking moment and sometimes even when he was dozing. He always had a pen in his pocket with which he was ready at any moment to pull out to write equations, either on a piece of paper, a napkin, or a table cloth. At a conference at Cambridge university Shmuel became very excited by the presence of a chalk board in the men's room, and he asked me to photograph him next to this chalk board, I believe that this photo which appears on Shmuel's web page, illustrates his character very well

Shmuel was an advocate for the purity of science, and only one thing interested him – the search for truth. Everything else was of secondary importance. Whenever he heard someone say, “I **believe** such and such” he would stop that person and politely say “Lets leave belief to the rabbis.” Over many years Shmuel was scientifically creative, always without a shred of bias or pretense.

Pretense was one thing that Shmuel couldn't stand, and his penetrating questions during scientific seminars, well known to all of his colleagues, his critical analyses, and his insistence that people **stand behind** the things they say in scientific discussions or seminars, **was firm and not open for dispute.** That's how he educated his students. More than once Shmuel said to me “If you don't know something, say so, it's fine not to know something but it is not fine to talk B.S..” (Please excuse my rough language.) It's easy to say, but hard to carry out, because to admit to ignorance or error is one of the hardest things for everyone and especially for scientists. But hubris, a sickness that many scientists suffer from, was foreign to Shmuel. In scientific discussions he “left his ego at home” and he carried out his discussions in a straight forward way with dignity and respect for anyone with whom he was speaking, regardless of their level or rank.

Despite his many contributions to science, Shmuel was forceful in his opposition to conferences organized to honor him. This happened on his 60th, 65th, and 70th birthday last year. The mere fact that a conference might be organized, not only for science, **but also** as a gathering of his friends, would irritate him. His modesty wouldn't permit that: “If I were Michael Fisher”, he would say, “then maybe.” (Michael Fisher is a famed physicist, the recipient of many prizes, who was Shmuel's post-doctoral supervisor.) Actually, to make sure that the question of his birthday, during the month of Tishri, wouldn't arise, Shmuel would disappear from Israel for a customary visit to the US, where he would visit his family in New York, and his friends at the University of Maryland.

Shmuel's influence as an advisor was significant. It was difficult not to absorb his unbounded love for science, his striving for truth, his critical approach, and his belief in the pluralism of science, not to mention his revulsion with pretense and ego

games. Shmuel was not only an advisor for a doctorate, he was a true mentor. Just as our parents would shape us as human beings, Shmuel shaped the way I understand and do science.

Our relationship didn't end with the completion of my doctorate. For Shmuel the ultimate goal was not just to produce another doctoral student but to cultivate the science he loved by means of producing the next generation of scientists. I remember the intense pressure Shmuel put me under when he learned that I was considering not to continue in academia. He acted forcefully and with his characteristic nudnick-ness, and in order to change my mind he wasn't averse to using "heavy artillery", as he referred to his good friend Moti Segev. I have no doubt that without Shmuel's support and his activities in plain sight and behind the scenes, I would not have reached the place where I am now. I'm not the only one. Alexander Lomin, an immigrant scientist, asked in a choked-up voice, that I say to you, in his name, only five words "I owe everything to him".

At our weekly Sunday meetings at the Technion's Café Nuna, Shmuel and I would discuss science and things that interfere with science such as bureaucracies and politics. Last Sunday was the last time I saw Shmuel. It was a rainy day and I was contemplating whether or not I should come. When I met Shmuel, he was in an elevated mood. His last doctoral student, Alexandra Backman, had just submitted her last paper, and Shmuel asked me to serve as an examiner on her doctoral examination. He also told me about his very successful visit to Santa Barbara where he was collaborating with Mark Srednicki, and that he was really looking forward to move to his recently purchased new apartment. Last Tuesday he was supposed to meet with Saar Rahav, a former student and now a professor on the chemistry faculty at the Technion. To this meeting Shmuel never arrived.

It is impossible to be indifferent to the tragic story of Shmuel's life. In the book of Jeremiah, Chapter 22, verse 30, its written

*"This is what the Lord says:
Record this man as if childless,
a man who will not prosper in his lifetime,
for none of his offspring will prosper,*

*none will sit on the throne of David
or rule anymore in Judah.”*

But look around. Is this “*a man who will not prosper*”, about whom Jeremiah was speaking? Bob Dorfman, his good friend of from the University of Maryland, who was unable to attend the funeral for health reasons, wrote

“I think Shmuel would have been very surprised by how many friends he had, all of whom liked and admired him, especially because he always claimed he had no friends, despite our telling him that we were his friends and that he changed our lives for the better. He was a very thoughtful and kind man, in addition to being a very accomplished scientist and teacher. We miss him terribly”

Thus, Shmuel who had no one left to sit shiva for him, left many academic descendants who will continue his very special legacy. Throughout his life, Shmuel surrounded himself with people who loved him deeply, and he died quietly, in his office at the Technion doing what he loved best: Science. May his memory be a blessing!

Yevgeny Bar Lev, 08.04.2019,
Doctoral student of Shmuel's, 2005-2010.