## IN MEMORY OF RABBI DR. AZRIEL ROSENFELD

by Rabbi Yaakov Menken

On Sunday morning, Rabbi Dr. Azriel Rosenfeld z"l, teacher of several of our classes -- and my father-in-law -- passed away after a short illness. The following is edited from the comments I delivered at the levayah, the funeral, on Monday.

Because it was Rosh Chodesh [the New Month, one of the times when one is not supposed to give eulogies that evoke tears], these were intellectual rather than emotional reflections -- and given such a person as my father-in-law, this hardly made it difficult to find something to say.

We stand now between Parshas Mishpatim, which we read last Shabbos, and Parshas Terumah which we will read this coming Shabbos. The Torah portion called Mishpatim deals largely with laws necessary to create a moral and a just society -- in our business dealings and interpersonal interactions -- while the next part of the Book of Exodus, called Terumah, deals with construction of the Mishkan, the Holy Tabernacle.

What is the connection between these two portions? Rabbi Shamshon Rephael Hirsh explains that the building of Jewish society on the basis of justice and humaneness is a prerequisite before the building of the Tabernacle. Rabbi Hirsch was the proponent of Torah Im Derech Eretz, the idea that Torah was to permeate secular endeavors, that a person could be -- and should be -- involved in the ways of the world, while still focusing upon Torah.

My father in law was, simply put, a brilliant man. His father recalls that even in kindergarten they determined he possessed an extraordinary intellect. And there are few people who have so distinguished themselves in Torah and secular fields at the same time.

I would like to give you some examples. In my father-in-law's small study, crowded with bookshelves of primarily sifrei kodesh, Torah books, but secular ones as well, one entire wall is devoted to reprints of most of the papers he has written -- over 500 in all -- in addition to copies of most of his 25 books.

Number 288: Boundary Localization in an Image Pyramid, is one of many papers on computer vision, making computers better able to see, as it were. Similarly, Paper Number 427 is titled "Evaluating digital angles by a parallel diffusion process." This is the sort of writing for which he will receive -- posthumously -- an honorary doctorate from the Technion this spring. [This will be his fourth honorary doctorate, in addition to his two PhDs, and of course his Rabbinic ordination.]

written entirely in Hebrew.

Paper Number B9 (so called, I believe, because it was printed as part of a book), on the other hand, reads "Ketaim MiPirush 'Talmid HaRamban' al masechtos Yuma and Sukkah" -- sections of commentary by a student of Nachmanides on the Talmudic tractates of Yuma and Sukkah. It is

Similarly, Paper number 473: Shehiah v'hatmana b'hilchos Shabbos, discusses the Sabbath laws pertaining to leaving food on the fire and the insulation of hot foods. This paper is part of a series produced in conjunction with his long-time chavrusa, or study partner, Rabbi Hirsch Mendlowitz. Rabbi Mendlowitz took samples of their writings on the laws of Shabbos to Rabbi Shlomo Zalman Auerbach zt"l, one of the world's pre-eminent Torah authorities, before his passing several years ago, and Rav Auerbach encouraged their publication as a sefer.

All of this, of course, is in addition to what he contributed to Torah.org -- two books' worth of classes, Halacha-Overview and Shulchan-Aruch, plus the beginning of a third in Midrash. And above all, he was our Ask the Rabbi expert especially when it came to locating the most obscure comment of our Sages. If he didn't know where it was, he knew where to find it, and this alone reflects tremendous knowledge and willingness to help.

So this is my father-in-law: someone able to write sifrei Kodesh, holy books worthy of the endorsement of the greatest of Torah scholars on the one hand, and to perform leading work in computer vision on the other.

Now, what happens when one has all of this knowledge of Torah, and knowledge of the latest computer technologies, wrapped up in one brilliant mind? You end up with papers that combine the two in ways often far ahead of their time.

For example, paper #160 -- Observance in Orbit, in which he discusses not only how the Sabbath might be observed and when one should pray the morning services, but private and public domains as applied to a space colony.

Or #21 -- from 1966: Religion and the Robot. Some people here will recognize the Turing Test, devised by AM Turing in 1950. He said that a computer will be deemed "intelligent" when a person in conversation with it via teletype will be unable to discern whether it is man or machine. Others will recognize the concept of a golem, an artificial man-like creature. In discussing one that was created by the Talmudic sage Rava, and dispatched back to dust by his colleague R. Zeira. The Chacham Tzvi asks whether such a creature could be counted to a minyan, a quorum of 10 men. The consensus is that the reason why not is that the golem was not intelligent, and could not communicate intelligently.

My father-in-law compares these tests and notes that they are eerily similar, and terms the search for artificial intelligence and synthetic life "building golems." He further calls our attention to certain Jewish sources that seem to question whether humanity can indeed produce an artificial intelligence.

Two years after this article appeared, the movie 2001: A Space Odyssey suggested that a fully intelligent, thinking computer would be available for real-world use by 1999. Not only are we already five years behind schedule, but AI, as it is called, is one of the few areas of computer science where the field hasn't been overturned a dozen times since the film's debut in 1968.

I don't mean to mislead anyone -- my father-in-law devoted his career to computer knowledge and robotics, and even in a recent lecture, to a shul in Silver Spring, still entertained the possibility that one day we'll get there. But despite this he freely acknowledged that the only thing capable of passing the Turing test may well be the neshamah, the soul G-d places within each of us.

In a later paper, #105, Human Identity: Halachic Issues, my father-in-law related the issue of intelligence to other things that might confuse parentage and essential humanness -- such as, in what part of the body does human identity reside? If a Jewish human brain is planted in a robotic body, is the resulting being Jewish? And, lest that be too far off into the land of science fiction, he similarly asks about the parenthood of a fetus conceived by one woman and carried to term by another -- a question similar to that of in-vitro fertilization, but years before it ever became a realistic option.

Finding my wife was, in so many ways, a great shidduch (match) not only because of my Eishes Chayil (woman of valor), but the in-laws that came with the package. It was truly a zechus (merit) to be his son in law, and I don't think the discussion of his ideas -- in computer science, in the ohel (tent) of Torah, and exploring the intersection of the two -- will cease any time soon. May he be a meylitz yosher, a good advocate for all of us, ad biyas goel bimheyra biyameinu (until the coming of the Messiah, speedily in our days).

Good Shabbos,

Rabbi Yaakov Menken

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The author is the Director of Project Genesis - Torah.org.