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From Fighting for Human Rights to Building a Bridge to Peace: A Scientist's Role and Responsibility

Zafra Lerman

FOR the past thirty years, I have been motivated by the belief that science and human dignity go hand in hand. From 1986 to 2010, I was the chairperson of the Subcommittee on Scientific Freedom and Human Rights for the International Activities Committee of the American Chemical Society (ACS). In this capacity, I worked with dissidents in the Soviet Union, China, and many other countries. One might ask why someone would take risks like that in order to help people they had never met. Yuri Tarnopolsky, one of the Soviet dissidents we succeeded in bringing to the United States in 1987, captured the motivation in a letter he wrote to me:

> I often wondered what could make a person living in freedom, safety, and comfort to fight for someone deprived of all that and languishing on the other side of the globe.... I realized that both the faraway victim and his American guardian angel had something in common. They had the same ability to go against the tide, and they did for science something which could hardly be rationalized, an exhausting messy job of fixing its very foundation, invisible on the pages of professional journals they kept science both human and humane.

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This common spirit led me from helping Soviet scientists such as Yuri escape to freedom to helping the Middle East find peace through science.

To help Soviet dissidents make their way to freedom, I went to the Soviet Union and worked with forty to fifty dissidents, conducting seminars in attics, distributing scientific magazines, and collecting their CVs. I had taken a crash course in Russian to avoid the need for a translator and met dissidents after midnight in dark alleys in Moscow and Saint Petersburg (then Leningrad). A lot of these activities were considered illegal and would have resulted in prison time if I had been caught.

The collapse of the Soviet Union did not end the need for the ACS Subcommittee on Scientific Freedom and Human Rights and its work. In 2001, after 9/11, the subcommittee turned its focus to the Middle East. Our experience with the Soviet Union had demonstrated that defending scientists and standing up for their freedoms was supportive of efforts to improve the human condition. The situation in the Middle East was different. As opposed to a bipolar world pitting political systems against one another, the Middle East represented a place where centuries-old rivalries at personal levels created an air of mistrust and instability.

I suggested to the subcommittee that we convene a conference of the top scientists from all over the Middle East and use science for diplomacy as a bridge to peace in the region. It was a dream! Nobody believed that we could pull it off. The idea of bringing together scientists from fifteen Middle East countries (Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, the Palestinian Authority, Qatar, Saudi Arabia, Syria, Turkey, and the United Arab Emirates) did not seem possible. As I explained to the ACS board, which ultimately approved the proposal, scientists have a special status in the Middle East and can influence their governments. I also emphasized that scientists have an obligation and responsibility to use their special status and scientific knowledge for the betterment of humankind. A conference for scientists from the Middle East would allow them to discuss issues important to the region and the world, such as air and water quality, alternative energy sources, science education at all levels, and chemistry safety and security.

When our planning started, the second intifada was taking place. We had to be very careful and vet every scientist invited to the conference. Many of the scientists I had approached were hesitant to accept the invitation because they feared how their governments would react to their working with Israelis. To alleviate this problem, I invited six Nobel laureates to attend the conference and then wrote to the Middle East scientists that this would be their only chance to spend five days with six Nobel laureates in a small group. That helped—the ones who needed approval from their governments to attend told me that their ministers of science encouraged them to go so that they could interact with the Nobel laureates.

The first conference was scheduled for December 2003. The location had to be chosen very carefully for security reasons. I felt that an island would be safer than the mainland, and that led us to choose Malta. Another advantage was that Malta was not easily accessible for travel. There were no direct flights to Malta from most

of the participating countries, and everybody was required to change flights in one of three European cities. I felt that this was an advantage for security reasons.

To use science as an instrument for diplomacy was an unusual concept in 2003. We titled the first conference, "Frontiers of Science: Research and Education in the Middle East—A Bridge to Peace" (Malta I).

The conference had several purposes:

- provide a forum where scientists from fifteen Middle East countries, which individually and collectively often have hostile relations with one another, can explore what unites them rather than what divides them
- provide a forum where there are opportunities to develop activities that require cooperation among the partners to solve regional problems
- reduce the level of personal animosity that exists in the region and the tendency to demonize the unknown "other"

We encountered many obstacles along the way, but we were persistent. One of the main obstacles for Malta was ensuring that Palestinian scientists could leave the West Bank in the midst of the intifada in 2003. I spent a lot of time thinking about how best to approach this. Sometimes, luck intervenes. As it happens, Israel's then deputy prime minister, Ehud Olmert, was lecturing at an event organized by the Chicago Council of Global Affairs in March 2003, and I was invited to attend. After the lecture, I approached him with a list of ten Palestinian scientists who were invited to participate in the first Malta Conference and asked him to guarantee that they would arrive to the conference without encountering any barriers and with smiles on their faces. He promised to do just that.

On December 6, 2003, we were at the Hilton Hotel in Malta anxiously awaiting the arrival of the participants. I was especially worried about the Palestinians. At approximately 2:00 p.m., all ten of them arrived smiling brightly. They told us that they had a wonderful experience leaving the West Bank for their trip to Malta. They each told me something to the effect of, "I got a call on my cell phone from a person who identified himself as someone who worked in the office of Deputy Prime Minister Ehud Olmert and that he was assigned to make sure my departure went smoothly and that I would arrive to Malta with a smile on my face."

By 6:00 p.m. that day, we had all gathered together for a reception and dinner. The scientists from each country were sitting together at one table, hesitant to leave each other. Each of them knew my name from previous correspondences, so I made my way around the room introducing myself to every one of them and moving them around so that each table had representatives from several different countries. The tension in the room was evident. However, with each day of the conference, the atmosphere grew noticeably more relaxed, and the Nobel laureates helped smooth things over by mingling with the participants.

The conference began with a plenary lecture by a Nobel laureate, which was followed by a discussion. Afterward, there were two consecutive workshops where participants could give an oral presentation or present their work in a poster session. Each of the workshops had an action committee responsible for the follow-up of the recommendations.

Because of the nature of what we were doing, the meals, coffee breaks, and tours were just as important as the lectures and workshops. This was where friendships and collaborations were formed and strengthened. One of the rules for the conference was that no spouses were allowed. As chemists, we understood that in order to facilitate the best interaction, we should not dilute the solution. Many of the Middle Eastern participants commented that this was one of the rules that made the conference so successful. The participants unanimously voted to have a second conference in 2005.

On the last day, when people were departing, tearful goodbyes were plentiful. The scene resembled the end of a family reunion more than the end of a conference of scientists from countries that were hostile toward each other.

There have now been six conferences. The second one was held in Malta, as was the most recent one, in 2013. In between, conferences were held in Turkey (2007), Jordan (2009), and France (2011). Each has had its highlights and challenges, but all provided a platform where scientists from fifteen Middle East countries were able to collaborate and cooperate on scientific issues, as well as develop professional and personal relationships with each other.

Among the highlights were a resolution on water in the Gaza Strip at the conclusion of Malta III that was delivered to Tony Blair, the Middle East envoy on behalf of the United States, Russia, the United Nations, and the European Union, and the participation of HRH Prince El Hassan bin Talal of Jordan in Malta IV. Collaborations also continued between conferences, and while I was shuttling between Israel, the West Bank, Egypt, Jordan, and Turkey, I organized mini conferences for the working groups so that the work could continue. The common language of science is used for science diplomacy, serving as a bridge to tolerance, understanding, and peace among the Arabs, Iranians, and Israelis, and between the Muslim world and the West.

One running obstacle has been the travel of some participants to the conference. During Malta II in 2005 the border between Gaza and Egypt was closed, so participants from Gaza could not fly from Egypt. They could fly out from Jordan, but that meant crossing Israel in order to get there, and the Erez Crossing into Israel was closed. I went to the Israeli consulate in Chicago and asked the deputy general counsel for help. He put me in touch with the officer responsible for the Erez Crossing, and I began communicating with him on a daily basis via telephone. As the conference got closer, I emphasized to him that time was running out. Finally, two days before the conference, he called me at 4:00 p.m. Chicago time, midnight in Gaza. He told me that they would give me a window of three hours

to get the participants from Gaza through the Erez Crossing. I called Gaza right away and told the scientists to get their suitcases and rush to the border before the window closed. They managed to do this and arrived with minutes left before closing. They crossed the border, took a taxi, then rushed to Amman to catch the flight and arrived to Malta right on time. This was another period full of anxiety and hopefulness.

Visa challenges were the main obstacles for the conferences in Jordan, France, and even most recently in Malta. In Jordan, acquiring visas for the Iranian participants took six months, when I worked with two Jordanian ministers to guarantee the visas. They were issued only two weeks before the conference began.

Malta V in 2011 was part of the International Year of Chemistry events and was held at the headquarters of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris. Irina Bokova, the director-general of UNESCO, opened the conference, and HRH Prince Hassan delivered the first lecture. Notwithstanding the efforts of UNESCO, numerous participants could not obtain a French visa. The Iranian scientists especially encountered many difficulties. Despite being called several times to the French embassy in Tehran, which was a considerable distance from their homes, they were all denied a visa in the last week before the conference.

When the conference returned to Malta in 2013 for the ten-year anniversary, the visa system had dramatically changed as Malta had become a member of the European Union. In countries where Malta had an embassy or a consulate, the visas were issued with no problems. However, Malta being a very small country, with a limited number of embassies and consulates around the world, it is represented by other European Union embassies in countries where Malta does not have one of its own. In Iran, Malta is represented by Austria; in Iraq and Jordan, it is represented by Italy. Despite all of the promises I received from the Malta authorities, the scientists in Iran, Iraq, and Jordan encountered many hardships. I asked UNESCO officials to intervene on our behalf. They had success in many cases but could not solve all of the problems. For example, from Iran, only one scientist received a visa; all the rest of the applications were denied three days before the conference. In Iraq, five female scientists who were looking forward to joining the Malta family were all denied visas and only three male scientists managed to attend. I was in daily conversations with all of these scientists and with the embassies in their countries, but in the end, we could not solve the problem. As a result of the visa problem in Malta V and VI, we decided to no longer hold the conference in any of the European Union countries.

Despite this, there is still hopefulness. As His Excellency President George Abela said when he opened Mata VI, "In 2003, a great idea was born in Malta, this idea being the use of Science as a Bridge to Peace in the Middle East. At first, there were slender hopes of it surviving, yet it has thrived, grown and returns home to Malta…" In 2011, with the help of ACS, which started the conferences, the Malta

Conferences Foundation was established as a nonprofit organization 501(c)(3). This made the conference an independent body, which could raise money and extend its efforts.

I know it will continue to thrive and grow as Malta VII is already scheduled for November 2015 in Rabat, Morocco. This next conference will continue to build on the more than four hundred distinguished scientists from fifteen Middle East countries who have participated in the six Malta Conferences. This critical mass of cooperators, who know and respect each other, is being developed to foster better cooperative relations between countries, while the political negotiations to settle regional disputes play out. Considering that each of these scientists is a university professor working with high numbers of students, the ideas of the Malta Conferences reach much further than just the participants. Additionally, fourteen Nobel laureates have participated in the six Malta Conferences. Most have attended several times.

Many important and tangible benefits have derived directly from the Malta Conferences. Here are some examples:

- Hasan Dweik, a Palestinian from Al-Quds University, spent a yearlong sabbatical at the Weizmann Institute of Science in Israel with Ron Naaman, whom he befriended in the Malta Conferences. Dweik participated in this sabbatical despite the war in Gaza in the summer of 2014.
- After Malta I, participants from the Weizmann Institute of Science in Israel and from Al-Quds University in Palestine met in both institutions and persuaded the authorities to sign an agreement where graduates from Al-Quds could pursue their graduate work at the Weizmann Institute. As a result, Palestinians are pursuing their PhD studies at the Weizmann Institute.
- A unified science curriculum is being developed in the Malta Conferences.
- Yuan T. Lee, a Nobel laureate from Taiwan, offered, in the Malta Conferences, six one-year fellowships to young scientists from the Middle East to do research on the synchrotron in Taiwan. All six scientists finished their studies.
- Al-Azhar University in Gaza and the Technion–Israel Institute of Technology are collaborating on testing the contaminated drinking water in Gaza and are developing strategies for purification.
- Bethlehem University in Palestine and the Weizmann Institute in Israel are working together on a water purification project.
- A trans-boundary partnership with Israel, Palestine, and Jordan was created to mitigate water scarcity in the Middle East.
- Jordan, Palestine, Israel, Egypt, and Kuwait formed a working group on Drinking Water Quality Assessment in the Middle East.

In addition to the scientific benefits, of course, the Malta Conferences have spurred friendships. One participant has said, "Personally, I felt this time that I was meeting again old friends and was making new significant friendships. We have created, thanks to all those who worked so hard to make the success of this initiative, a network of scientific communication that overcomes all other barriers. I am confident that this will bear fruit in the future, maybe well beyond what we expect and hope."

Importantly, many of these friendships probably would not have come to fruition without the Malta Conferences. The conferences allow researchers who are otherwise separated by cultural or political boundaries to come together. As another participant commented, "We have only one nationality here in the Malta Conferences—and that's science." SD