

Jeff's View

Letting go

Five years ago I retired. I saw to it that my coworkers got jobs elsewhere, cleaned out my labs and my office, and walked into a new world. I was a little scared, because I had done research all through my adult life, had done it with great passion, and did not know whether I was strong enough to go Cold Turkey.

My friends thought I had gone bonkers, because I could have stayed on for seven more years. Why give up research, the greatest game in town? Why not stay on as long as possible? After all, there were time-honored ways for pushing back that Long Vacation. Early retirement was shameful – a cop-out.

My decision to retire early had not come overnight, but had been building up over the years. What could possibly beat being a university professor? I did not know – that was the point. I had to find out. What about giving more of me to my family and friends, or to music, books, writing, the “small” things in life? The list was endless. There was so much left to do and the hour was getting late.

Also, I was no longer willing to tolerate the constant rush of my profession. Between those deadlines to meet, those papers to publish, or those planes to catch, there was no longer time to think about what I was doing, why I was doing it, and what it all meant. Our crowded scientific meetings have always made me feel ill at ease, even when I gave the Opening Lecture or received an award. As a young assistant professor, I had often told my wife about my work, but there never seemed time for this anymore and she had stopped asking me about it long ago. Science should be a quiet conversation with Nature, but I could no longer hear what Nature tried to tell me. There was too much noise.

We are rarely sure why we do things, particularly if our motives are beyond logic and not easily put into words. Perhaps, it was not only the noise. Perhaps, I felt that there was something in me that my life in science had suppressed and wanted out. Was it my emotional self? I had always tried to keep it under wraps because our scientific profession considers it suspect, if not embarrassing. Perhaps, the bright glare of science had made me miss the shade. Light helps us see things, but we think better in the shade.

If this is bunk to you, I am not offended. Giving up a job is a very personal matter, particularly if that job is as exciting and creative as that of an academic researcher. There is no general solution. I believe that most of us should have to retire at a fixed age and make room for the next generation. But the university leadership should be free to make exceptions. Professors who have gone stale should be coaxed into early retirement – out of mercy for science and the students. And those rare individuals who keep going from strength to strength despite their age should be allowed, or even persuaded, to continue on a rolling contract.

But let us return to earth. As things stand now, we professors use every trick in the book to stay on longer. We *cannot abandon our PhD students*, even though we accepted them shortly before we were supposed to retire. The *students-as-hostage* trick. We pull in large research grants and then use the overhead to soften our Dean's resolve: the *bribing-by-overhead*

trick. We come up with grandiose plans for a new lecture course that only we can teach: the *teaching-as-leverage* trick. Some of us torpedo the recruitment of a successor so that we can squeeze out a few extra years by replacing ourselves: the *I-am-indispensable* trick. Our colleagues in the US have persuaded the courts to declare mandatory retirement illegal and those in France have marched in the streets to protest against a government plan to make them retire earlier: the *discrimination-based-on-age* trick. The list goes on, but you get the picture.

The *discrimination-based-on-age* trick disturbs me the most. It is selfish and scoffs at the unspoken covenant between generations. It is liberal democracy spun out of control. There is also the danger that countries other than the USA will fall for this trick. Refusal to retire flies in the face of what we know about scientific creativity. Most scientists have their best ideas and make their most original discoveries while still young. And I am not even talking of mathematicians, whose golden age usually ends before they turn thirty. Young talent is our universities' life-blood and if this blood no longer circulates freely, our universities are risking intellectual anemia. In the long term, refusal to retire will make academic tenure untenable. Tenure was meant to protect professors from arbitrary dismissal, not from mandatory retirement. Many outside the academic community already look at tenure with a jaundiced eye, because it has become a highly unusual privilege. At a time when top managers in the private sector must step down at an ever younger age, professors who refuse to retire at all are bizarre. They tie up precious faculty positions and expensive infrastructure and make our ivory tower even more ivory. They endanger us all. There are good reasons why the airlines retire their pilots, and there are equally good ones why universities should do the same with their professors.

Retirement need not be the end of a research career. Retired professors can join another laboratory as a guest, living off their retirement income, becoming long-term sabbatical visitors, as it were. Sabbatical visitors are nearly always a blessing to the host lab. I have hosted some twenty of them and one day I will try to sing their praise. They made my life less lonely, because with them I could let down my hair when I had difficulties with members of my research group. The members of my lab, in turn, valued these visitors as benevolent aunts and uncles who could defuse touchy situations and advise them when it was time to look for another job, or write a manuscript. All sides profited. In today's management parlance, it was a win-win-win situation.

I have often wondered why so few of us opt for this route. Perhaps, it has to do with prestige and power. Both are acutely habit-forming and many older professors have become power junkies. Join another lab without calling the shots? No way! Much better to stop doing research and cling to the old office, the last vestige of past glory, and *finally write up those experiments we did years ago*. Immensely important experiments, no doubt. I also remember a grant application from someone who *had just retired and now was finally ready to do research*. Still others devote their newly gained time, their experience, and

their personal contacts to give long-winded speeches at faculty meetings, foist unsolicited advice upon colleagues, deans and university presidents, or engage in intrigues and back-door politics. Homer's Nestor stuck to his speeches, but these *Ersatz Nestors* also want to go into battle, armed with the phone and the department letter head. Older professors are, of course, not the only ones playing academic power games, but are more likely to use them for preserving the *status quo* – be it in university politics or in science. But science needs the free competition of ideas and when power distorts this competition, things go awry. The history of science tells many sad stories of how powerful older scientists blocked scientific progress. Think of what Rudolf Virchow did to Robert Koch's ideas on the bacterial cause of tuberculosis or how Richard Willstätter delayed general acceptance of James Sumner's discovery that enzymes are proteins.

Retired professors have still other options. Their life-long experience in teaching, research, and the inner workings of higher education makes them a valuable natural resource. They have a world-wide network of acquaintances, colleagues and friends. And they have time. Who would be better qualified to run scientific organizations, professional journals, think tanks, university boards, or governmental advisory bodies? Everywhere I look, science is under siege. Politicians want it to focus on trendy subjects and turn a quick profit. The public wants it to avoid any risk. And administrators manipulate it in a top-down fashion even though they have little idea of what science is, what it needs, and what it can or cannot do. If you do not believe me, visit Brussels and get a first-hand look at the schemes of our EU science administrators there. Or ask our US colleagues about what they have to put up with these days. In Europe, things got the way they are because Europe's best scientists either did not want to get involved in science politics, or because they were actively excluded from it. Perhaps, top scientists should not do science politics at the peak of their research career, but what about those who have just retired? Their experience and prestige could help them deal with political and administrative decision makers and improve conditions for the next scientific generation. And retired professors can speak their mind freely, because they have nothing to fear. Tenured professors are well protected, but retired professors are unassailable – unless they want to publish old experiments.

But there is a big if: if one goes into science politics, the hands should still be warm from research. They usually cool quickly and then there is danger ahead. Someone who has been out of research for many years usually has lost touch with it and tends to make bad decisions. Here, too, it is important to know when to step down.

How to end is as important as how to begin, and at least as difficult. We biochemists have learned that the termination of a complex pathway is usually as intricate and as precisely controlled as the initial steps. This even holds for the life of an entire cell. When it is time for a cell to go, it quietly cuts itself to pieces, wraps these into little membrane bags, and disappears without a fuss. This *apoptosis* appears to be as complex as the processes that govern growth. And when apoptosis fails, the results are malformed limbs, dementia, or cancer. Our own cells show us how to exit gracefully – why not learn from them?

In the final scene of Léos Janáček's enchanted opera *The Little Vixen*, an aging hunter returns to his forest after a long absence and asks the animals about their parents whom he used to know. When the young creatures tell him that they are already the grandchildren, he falls on his knees, overwhelmed by life's immutable flow. I am sometimes reminded of this finale when I pay a rare visit to my old institute and come across pieces of equipment or bottles labeled in my handwriting. The young people who use them do not know me, nor do I know them, and most of them take me for a seminar visitor. When I chat with them about their background and their experiments, their optimism and enthusiasm always touch me. Retired professors, unlike hunters, do not easily fall on their knees, yet these visits always encourage me to continue on my present course. It has led me into uncharted waters where the noise has subsided and I am learning unexpected things. Now I know that life gives its riches to those who fight, but reserves its sweetness for those who can also let go.

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Gottfried Schatz
Biozentrum, University of Basel
Reinach, Switzerland
E-mail address: gottfried.schatz@unibas.ch

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