

Grade Point

A Harvard Medical School professor makes the case for the liberal arts and philosophy

By David Silbersweig December 24, 2015

In this commentary, David Silbersweig, Chairman of the Department of Psychiatry and Co-Director of the Institute for the Neurosciences at Brigham and Women's Hospital, and Stanley Cobb Professor of psychiatry and Academic Dean (Partners HealthCare) at Harvard Medical School, makes the case for the value of a liberal arts education — and a philosophy education in particular — in today's multidisciplinary world.

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Recently, when philosophy and America's higher education system were devalued by Sen. Marco Rubio during the Republican presidential debate and in subsequent statements, my thoughts returned to my sophomore year at Dartmouth, when I went back to my childhood dentist during a school break.

In the chit-chat of the checkup, as I lay back in the chair with the suction tube in my mouth, he asked: "What are you majoring in at college?" When I replied that I was majoring in philosophy, he said: "What are you going to do with that?"

"Think," I replied.

And what a continuously giving gift philosophy has been. While it seemed impractical to my dentist, it has informed and provided a methodology for everything I have done since. If you can get through a one-sentence paragraph of Kant, holding all of its ideas and clauses in juxtaposition in your mind, you can think through most anything. If you can extract, and abstract, underlying assumptions or superordinate principles, or reason through to the implications of arguments, you can identify and address issues in a myriad of fields.

It has helped me in immeasurable ways along my trajectory from philosophy to an academic medical career, which suggest that Rubio and my old dentist share a number of serious misconceptions about education.

My father, uncles, and grandfathers were all physicians. As I studied existentialism in college, I thought that becoming a doctor would constitute a pre-determined lack of free will. Then I took a course, Philosophy in Medicine, and I discovered that a philosophical stance and approach could identify and inform core issues associated with everything from scientific advances to healing and biomedical ethics. My honors thesis was in philosophy of mind. I

was captivated by the relationship between the mind and the brain, just as that nexus, both scientifically and philosophically, was taking off. In that context, I critiqued arguments for the irreducibility of psychology to neurobiology.

Wanting to be of my time and to contribute something new, I recognized I needed to study the brain to understand the mind. Wanting to help people who suffer when the organ of the mind fails, I realized that I needed to do this through medicine. I had found my own route to the profession.

During medical school, my interest in Eastern philosophy, with its focus on the development of the mind to achieve well-being, and my interest in mechanisms of therapeutic change (now viewed in the context of neural plasticity and epigenetics) led to behavioral neuroscience research. After medical school, seeing that I couldn't fully understand the interface of mind and brain through the lens of either psychiatry or neurology, I trained in both.

At the time, there was no combined residency training program at Cornell Medical College, so I had to talk the neurology and psychiatry training directors into allowing me to do this. Thankfully, they saw the value in this approach, and in subsequent years, I was able to create such a program for those who came after me. As I was finishing my clinical training, functional brain imaging was emerging as a discipline, and it presented the ideal tool for identifying neural substrates of mental illness, which had not previously been amenable to direct study.

As a post-doctoral research fellow in functional neuroimaging, I had the opportunity to train in England. There I experienced a different educational system and culture, and was able to work and think with people from many countries. I discovered that those without a liberal arts foundation, while often brilliant, generally had a narrower perspective. Their path to and through outstanding universities was more vocational.

This was offset somewhat by the interaction of people in many disciplines. But the ability for a single person to have access to a broad array of disciplines within his/her own brain-mind is different, allowing for certain insights and nimbleness of thought. Collaboration among such multidisciplinary individuals can take ideas and methods to the next level, resulting in new, unforeseen possibilities.

I have been fortunate to have such collaboration, working closely with Dr. Emily Stern, a radiologist who had studied biology in a liberal arts setting at Amherst before medicine, and with Dr. Hong Pan, an electrical engineer, mathematician and statistician. Our team bridges the biological, psychological and physical sciences to develop unified models of neuropsychiatric disease (hopefully contributing to possible, eventual clinical application) aided by novel imaging methods development. A combined philosophical and scientific perspective has fueled and informed the types of questions we ask, as well as the types of approaches we take in areas that transcend any given field, where existing models and tools are not adequate.

By combining clinical insights with scholarship, and synthesizing strengths of medical and non-medical education, I

have had the privilege of being able to contribute to an evolving field. I also have been able to participate in the development of educational programs at Cornell and Harvard, across multiple schools and levels of training so that the next generation of leaders might develop without traditional academic silos or boundaries, while preserving important aspects of department-based inquiry, identity and advancement.

And now things come full circle. Through studies, writings, and symposia, I have been able to bring the knowledge and perspective of my fields to timeless and timely problems in philosophy of mind, including free will, consciousness, meaning, religious experience and self.

Last year, I taught in an advanced philosophy of mind seminar at Harvard, addressing the normal and disordered neural substrates of belief. The students were fascinated and inspired by what medical science could contribute. They realized that some of the philosophically posed questions and debates they were wrestling with, while sophisticated and instructive thought experiments, were unknowingly misguided by virtue of being under-informed by data.

This coming Spring semester, I will teach an advanced seminar at Harvard on the implications of neuropsychiatry for models of the mind. Students have a great interest in these questions and need to know what we now know, and don't yet know, about them. They need to be able to integrate the different terms and methods of diverse fields that touch upon core issues. And they need to be able to see the forest for the trees amidst an explosion of knowledge, big data and informatics.

A higher education that unites liberal arts and STEM fields is what provides these crucial abilities and enables new career trajectories.

If we are to remain at the forefront of knowledge creation in this changing, globalizing world, then our students must be the next generation of explorers. We have a sacred obligation as educators, role models and mentors to ensure a system that promotes the attributes conducive to their success. A broad yet rigorous education will best equip them to go forth into uncharted territory to address issues of import to humanity in a creative fashion.

This has been explicated in commentaries, such as those by Dartmouth Professor Cecilia Gaposchkin, who charts the history and value of a liberal arts education, and in addresses such as the one I recall at my Dartmouth Convocation by then-president John Kemeny, emphasizing the need for citizens to inform policy with (and therefore develop literacy in) science in an increasingly complex world. It also has been reflected in the surge of combined majors and interdisciplinary programs — where much intellectual excitement and innovation lie — at universities. At Harvard, this is embodied by the Mind, Brain Behavior Interfaculty Initiative, crossing all schools, and providing a home for students and faculty to cross-fertilize and catalyze new projects, courses (like mine), and careers.

Such careers are exciting and fulfilling. At Harvard Medical School, I have had the good fortune to be involved in the

development of cross-cutting programs examining issues related to brain-mind disorders, spirituality and ethics. Medical students gravitate towards such topics. At Brigham and Women's Hospital, I have driven the development of the Center for Brain Mind Medicine, which brings together neuropsychiatrists, cognitive behavioral neurologists and neuropsychologists. Just as crucial, the Center brings together trainees in all of those fields in order to interact and learn in that mixed setting. Everyone benefits — most importantly the patients and their families.

The types of interdisciplinary undergraduate, graduate, and post-graduate programs mentioned here are not inimical to deep work within a department or a field. Nor are they necessarily elitist or mutually exclusive with more practical, affordable, vocationally oriented programs, or online offerings, all of which are extremely important as well.

But make no mistake — they are critical if our society is to address the most complex and desperate problems facing our world, develop the next generation of leaders who can bring novel solutions, and advance our capacities as a learned, diverse and peaceful civilization. One example can be found at Dartmouth, which is jointly recruiting faculty for interdisciplinary faculty clusters having to do with themes such as globalization and human well-being in societies. As such initiatives develop, we need to make sure they are win-win for both the individuals and programs involved, and be attentive to issues related to academic culture, culture change, identity, autonomy, promotion, and mentorship. We need to incorporate novel methods of pedagogy and curriculum development, of integrating qualitative and quantitative approaches. To support this, we need to ensure adequate infrastructure and funding.

When evaluating applicants for student or faculty positions and evaluating candidates for tenure and promotion, I find that those with the broader set of academic experiences are generally the most able to deliver innovative and impactful solutions. In my various institutional administrative roles, and in my interactions with many non-academic industries, I see that those with a broader intellectual background are often best able to frame questions, and contribute at high levels in our organizations, which face ever-changing landscapes and challenges.

We need to foster and protect academic environments in which a broad, integrated, yet still deep education can flourish. They are our national treasure and a strategic asset, whether some politicians would recognize that, or not — and philosophy is foundational, whether my old dentist would appreciate it or not.

David Silbersweig is Chairman of the Department of Psychiatry and Co-Director of the Institute for the Neurosciences at Brigham and Women's Hospital in Boston. He also is the Stanley Cobb Professor of Psychiatry and Academic Dean (Partners HealthCare) at Harvard Medical School.
