

A man with glasses and a blue shirt sits on a wooden stool in a library. He is looking towards the camera. To his right, a human skeleton stands upright. The background is filled with bookshelves containing many books.

Doctor of Philosophy

by Katie Neith

Growing up in a bookstore that his parents owned in New York City, Gideon Manning was drawn to the books he thought were the most difficult: philosophy texts. And although he started college as a math major, he quickly found his way back to the writings that had caught his eye as a teenager. He went on to earn both a bachelor's degree and PhD in philosophy.

Manning, who has been on the Caltech faculty since 2007, typically studies the history and philosophy of science and medicine in the 17th and 18th centuries. He not only delves into the lives of important figures of those

times—learning the views and thought processes of French philosopher, mathematician, and scientist René Descartes, for instance—but also tries to understand the context in which certain problems were undertaken and ultimately solved.

“I work on the interaction among three major fields—science, medicine, and philosophy—and at their intersection. I consider myself a historian of all three, looking at the ways they influenced each other, the ways they pushed each other forward, and sometimes the ways in which they hampered each other,” he explains. “In the early

modern period we associate with the ‘scientific revolution,’ you had many physicians who were philosophers, philosophers who were scientists, and physicians who were scientists. Part of what I’m interested in understanding is how these interactions ultimately led to what we recognize today as three very distinct disciplines.”

In other words, how did these branches of knowledge evolve from a place where the Venn diagrams of many disciplines would have appeared much tighter than they do today, to such currently separate structures? And what implications do these now-separate

structures have for those who work and study in these spaces today?

By the time Manning had arrived at Caltech, shortly after defending his dissertation at the University of Chicago, his work had already started to push beyond the traditional boundaries that many philosophy departments set. He says that Caltech felt particularly suited to him because “it seemed to promote and be willing to encourage that kind of flexibility in my thinking and my work.”

Now, to build on his historical knowledge of medicine by steeping himself in present-day information, he’s setting out on a new journey beyond critical thinking to spend a year in medical school. With the help of a New Directions Fellowship from the Mellon Foundation, he is studying at the Keck School of Medicine of USC, where he started classes in August.

“One of the really great features of this fellowship is that, in the humanities, there are not that many opportunities to get support to learn something new, let alone funding to attend medical school,” says Manning. “The Mellon fellowship is unique in that it’s an investment in me as a scholar, and shows the Mellon Foundation’s understanding that my research will benefit from my learning more technical details about biomedical science than I otherwise would be able to do.”

To learn the skills needed to do research in medicine—and therefore better understand the challenges that physicians and scientists faced in the past—he has enrolled as a first-year medical student and will study everything from gross anatomy to genetics.

“You can read the old medical texts and they offer these magnificent descriptions, but the organ, or bone, or system may have had a different name at the time that doesn’t correlate to present day medical terminology,” Manning says. “You need to know what it is they’re describing; otherwise you can’t know what they’re talking about. Learning just gross anatomy will help me connect these dots.”

For example, he says that it’s easy

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for someone with zero anatomical knowledge to read medical literature from the 17th century that says something like “the knee bone is connected to the ankle bone” and just assume that it’s correct. So among his goals for the school year are to get a better sense of how the body looks to an anatomist, to learn the core concepts of health and disease in human beings, and to understand how medical practice navigates its competing interests in maintaining health and increasing longevity. Then he will turn his attention back to exploring how medicine, science, and philosophy interacted with one another in the early modern period with a better understanding of the specific challenges that contemporary physicians face when they interact with the body and try to achieve certain results.

“You can emphasize the value of history by realizing that it brings out contrasts with today’s way of doing things, and those contrasts may show you the good reasons for a practice being the way it is, or show that it doesn’t have to be that way,” says Manning. “It’s worth reflecting on—medicine has not always been this self-standing discipline. It was an achievement for medicine to become what it is today, just as it was for physics or biology. Coming to understand that achievement is a way of understanding where we are now.”

In addition to gathering information that will help him better understand the history of medicine, Manning sees the basic science underlying biology as one of the real routes to aiding medical practice—something

he hopes to study further after his time at the Keck School.

“If you think of medicine as securing and preserving health, or providing health to people when they lose it, one of the really exciting things to explore for the future is how basic science may help manipulate and intervene in living things to promote the goals of medicine,” he says.

To equip himself for medical school, Manning has spent some recent time relearning foundational disciplines that will be important for his studies: kinematics, physics, statistics.

“Caltech is a great place to do this kind of prep work because whenever I have a question there is always somebody I can call,” he says. “Not only do they really encourage thinking outside of the traditional confines of the discipline in which you are initially trained, but because we’re in such close proximity to one another, I’ve had the opportunity to interact with exceptionally gifted people who work in other fields and can help me answer my questions.”

When Manning isn’t prepping to make the jump from professor to medical school student, he’s also active in a group he helped found four years ago, the Early Modern Circle. With the support of the Division of the Humanities and Social Sciences, the group brings together graduate students and more established scholars throughout Southern California to discuss the history of philosophy and encourage each other’s work.

“Even as my research has progressed beyond the traditional confines of what many people think philosophers do, I’ve remained interested in the relationship between mind and body, how it is that we talk about consciousness, what’s distinctive about human beings, what’s in the world and how do we know it—those questions still interest me,” says Manning. “But it will be great fun to take some time to learn what it really is that connects the knee bone to the ankle bone.” [eSS](#)

Gideon Manning is an assistant professor of philosophy.