



Science As Spiritual Practice, by Adam Frank

Spiritual endeavor often begins when a direct experience of suffering (or rapture) drives a person out of the confines of self. From there a commitment is established to explore for oneself matters of birth and death, the true and the real. Experience is the seed of aspiration, the deeply rooted commitment to know. That aspiration then drives one into the difficult and transformative realm of spiritual pursuit, into the realm of practice. Science, in its essence, is no different. We begin with experience, experience seeds aspiration, aspiration drives effort, and effort matures into understanding. Go to any graduate department in physics or biology and ask the aspiring students why they are there. You will hear a range of reasons, but without fail you will always find those who speak of a passion to know the world on its own terms. Often these students describe vivid experiences: their first view through a microscope of the vast ecologies contained in a water drop, or the awesome sight of rapid lightning strikes illuminating the face of a mountain. Such experiences fire a sense of the world's great beauty and the students' own heartfelt desire to understand that beauty on a deeper level. Of course, such aspiration is only a beginning. It is the depth of one's aspiration that then fuels the student's effort. In scientific and spiritual endeavor alike, that effort must be exhaustive. Training to become a scientist, not unlike the training of a monk, requires a commitment that stretches across decades. What makes this training different from, say, getting an M.B.A., is that damnable quality about science that drives so many people crazy. In science there is a right answer. A more accurate description would be that in science there is an answer that conforms to the way the world is constructed. If you are to become a scientist, first you must forge your will into a resolve strong enough to persevere in the long search for those answers. Then, most important, you must develop the discernment to know what the answers look like. No one can do this for you. It must be won on your own. Past a certain point, there are no answers in the back of the book. In fact, there is no book. Even knowing how to ask the question requires an intuition, a gut feeling that comes from paying close attention to the world as it presents itself. Scientists will talk about "taste" in choosing a problem and knowing how to pursue it. In short, students must learn for themselves when they are on the right path. As the ninth-century Zen master Rinzai taught, "Place no head above your own." The great innovators in science, from Newton to Einstein, were people who steadfastly trusted their own vision of the world's truth. Ultimately, what brings science and authentic spiritual endeavor into an active parallel is not the nature of the truth each claims to find, but the ethic and practice of inquiry itself. --Adam Frank

