

SCIENCE AND YOGA

Q: Is Yoga a science . . . ?

A: Where there is a “technique,” there is science. Yoga has its own technique of physiological, psychological and supramental well-being of man. So it is a science. . . . Yoga is a science of character-building or right conduct.

~from “An Hour with Sri B.K.S. Iyengar,” an interview in *Iyengar: His Life and Work*, 189.

Is yoga a science? You’ll get several responses to this oft-debated question, depending on who you ask. Most mainstream scientists, whether they have spiritual inclinations or not, will answer “No,” that science is, well, scientific, and yoga is . . . not. But not everybody agrees with this assessment. Middle-of-the-roaders propose there’s really no contradiction between science and yoga, because each functions in a different world, science the material, yoga the spiritual. Together they provide us with complementary perspectives of the same landscape. Then there are the optimists who affirm, in numerous popular magazines and books, that the more modern science advances the more it aligns itself with the ancient teachings of yoga. So who’s right? Is yoga a science? Or maybe, is science a yoga?

Before we can make up our own minds on these questions, we have to ask: what is science really? The root of our word “science” is the Latin *scire*, which means both “to know” and “to cut or split” (and which also gives us the word “conscious”). This tells us two things about science. First, and most obviously, scientists are concerned primarily with acquiring knowledge, particularly about a world they see as wholly material. In such a world human consciousness is relegated to a peripheral role, dismissed (if acknowledged at all) as merely a by-product or appurtenance of matter.

Second, scientists customarily acquire this knowledge by cutting or splitting. This they do figuratively by cutting themselves and their world in two, by stepping back and studying things objectively, ideally minimizing any subjective involvement. The classical scientific assumption is that it’s possible to separate the universe “out there” entirely from the one that’s “in here.”

With the advent of the so-called “new physics,” however, this dualistic stance is made less tenable. About 75 years ago, physicist Werner Heisenberg (the 1932 Nobel laureate) posited that the supposedly objective observer unavoidably influences, at least on a microscopic level, whatever’s being observed. This means that, in the end, there’s no such thing as outright objectivity, and that we just can’t help being participants in any dealings we have with the world.

Scientists will also literally cut whatever it is they’re studying into smaller and smaller pieces for a closer look; physicists, for example, do this with matter in their particle accelerators by smashing atoms into each other. This is part and parcel of the scientific method, in which scientists first gather data based on observation, use this data to draft a hypothesis, run and re-run experiments that either prove or disprove the hypothesis, and

finally, if the experiments confirm the hypothesis, draw conclusions and devise grand theories or natural laws (which they can always, in the future, if new information surfaces, modify or scrap entirely).

So how does yoga stack up as a science? Again let's start with an etymological inquiry, this time into the Sanskrit word "yoga." Most everybody knows the word is rendered into English variously as "yoking, joining, attaching," and most famously as "union" (though Patanjali defines yoga not as union, but instead as the "harnessing" or restriction of the fluctuations of consciousness). Yogis certainly value knowledge as much as the scientists, although the knowledge they value most points to the immaterial self, not the material world. For them knowledge is never an end in itself, but always a means to an end, which is union, the realization of the self-identity of the embodied self (*jiva-atman*) and the supreme Self (*parama-atman*).

At the same time, despite their reputation as ascetic world-renouncers, the yogis have accumulated an encyclopedic knowledge about the material world. In fact they've developed a very sophisticated evolutionary model of nature, though scientists would doubtless either be amused or shocked by their efforts, for a couple of reasons we'll go into shortly. Anyway, and this may come as a surprise, in their quest for the transcendent haven of being, the yogis traveled through all the turbulent realms of embodied becoming, leaving no stone unturned.

What's often overlooked is that yoga is also translated as "employment, use, application, performance . . . expedient, device, way, manner, method." Accordingly, the word signifies both a goal, union, and a method used to attain that goal, just as science suggests both a certain kind of activity and the outcome of that activity. Every school of yoga, whether classical, hatha, bhakti, or karma, has its own unique "yoga-tific method," which in its formal structure and approach to practice is every bit as systematic and rational as its scientific counterpart's approach to the world.

In the fragmented and incomplete way yoga is ordinarily taught in the West, students tend to miss or misunderstand the method behind the seeming yoga madness. We can surmise that before the *Yoga-Sutra*, the classical textbook of the eight-limb (*ashta-anga*) method, was compiled by Patanjali circa 200 C.E., the yogis of his lineage had engaged in hundreds of years of self-observation and experimentation, hypothesis-building and testing, and fine-tuning theories about the world, consciousness and the self, and the Lord (*ishvara*). All of this was worked out in the research laboratory of the yogi's own body-mind, and then the vast store of information was rigorously scrutinized and evaluated by disciples not only of the same school, but of rival, even hostile, schools as well. If a practice was found to be efficacious, if its initially reported results could be repeated by others following the same procedure, then it was adopted and integrated into the general method; but if it was found wanting, then it was revised for further review or discarded.

It's no exaggeration then to say that, in many ways, our "mystical" yogis are down-to-

earth realists too. Remember that while there's pure or theoretical (as opposed to applied) science, there's no such thing as purely theoretical yoga. In yoga, *speculation* about the practice always follows from the day-to-day mule work of *doing* the practice. Svātmanā, author of hatha yoga's classical instructional manual, the *Hatha-Yoga-Pradīpikā*, writes that as long as your practice hasn't reached its fullest expression in "spontaneous meditation," then merely talking about spiritual knowledge is only "indulging in boastful and false tales" (4.114).

Of course the scientists make their observations *on* the world *in* the world and, as I mentioned above, reduce as much as possible—or so they hope—the subjective element. They put their trust in the evidence of their five senses (which are frequently extended or amplified by one or another scientific gadgets), so that if they can't see it or touch it or taste it, and get an accurate measurement of it, it simply doesn't exist for them. The yogis, conversely, feel that the senses are inherently limited, no matter how refined or amplified they are by training or technology. You can discover lots of useful stuff about the world through your senses, no quarrel there, but you can't know what's most important—union—by relying on them only.

As a preliminary stage in their pilgrimage to the immeasurable self, the yogis also survey the material world. But they bypass their senses completely (through *pratyahara*) and the world directly into their consciousness through various meditative techniques, including the eighth classical limb, the penultimate stage in the process of liberation, called *samādhi*, literally "putting together, combining or joining with."

They can do this because somewhere along the line, they realized, remarkably, that human consciousness (*citta*) is the exact correlative of nature (*prakṛiti*), no less a material process than the interaction of atoms. All the multifarious contents or fluctuations (*vṛitti*) of our consciousness—perceptions, thoughts, feelings, memories, fantasies, and the like—have substance, though far more ethereal than even air or sunlight. By comprehending the *vṛittis*, which are illuminated by the intelligence (*cit*) of the self or "seer" (*drish*), they can also comprehend the world.

With their "consciousness-scope" the yogis first access the scientists' sensible "gross" (*sthūla*) plane and essentially "become" what they're studying. Then, through a technique called *viveka* or "discernment," they split themselves off from the assimilated material in order to dig even deeper into the strata of the world. Interestingly, here again we run across the idea that "knowing" involves splitting the knower from the known. By repeating this operation over and over, the yogis enter the "subtle" (*sūkṣma*) plane, which is impenetrable to the senses, and so non-existent for the scientists. We might imagine that the subtle is somehow less real than the gross; actually, the yogis say, since it's closer on the evolutionary scale to the foundational matrix of nature (*pradhāna*), we could argue that it's "realer" than what we typically assume to be our everyday reality. Eventually of course, if they're persistent enough and blessed by the grace (*prasāda*) of the Lord, the yogis break through and leave behind the subtle world and reach their spiritual goal in union with the self.

So one more time: is yoga a science? We've seen there are obvious points of contact between the scientists' and the yogis' methods, and both, in their own way, are searching for the truth at the heart of the world. But science truth is not the same as yoga truth. The scientists want knowledge that reveals and transforms the world, though it's possible that they too will be profoundly affected by their work. The yogis, on the other hand, while not indifferent to the world, only want knowledge that reveals and transforms the self.

The answer to our question then is, "It all depends." If you interpret *scire*, "to know," in a strictly Western sense, then no, yoga isn't truly a science. But if we allow ourselves to expand the territorial limits of this "knowing" to include the subtle and spiritual provinces—as the yogis do—then in this sense yoga is the supreme science, the science of all sciences.