

Introduction

When I arrived at the All World Gayatri Pariwar's ashram Shantikunj one afternoon in January 2012, it was taken as one indicator among many that the fulfillment of the movement's eschatological hopes for the revival of *satyug* was at hand. As far as I knew, I had selected the Gayatri Pariwar for my research on Hindu traditions and science because their mixture of Vedic revivalism, populism, and science seemed like an intriguing case. But upon arriving at Shantikunj, the movement's main ashram in Haridwar, community members were quick to offer a different perspective. I had been brought to Shantikunj by their guru, Shriram Sharma, who has guided the movement in incorporeal form since he voluntarily shed his body in 1991. Gurudev had brought me to Shantikunj, I learned, to utilize my scholarly authority to help the Gayatri Pariwar spread beyond India and its diaspora, ultimately bringing about a new *satyug*, a Hindi term (from the Sanskrit Satya Yuga) that the Gayatri Pariwar translates as "golden era."¹

There were a number of synchronicities that strengthened this sense of divine purpose among some Gayatri parijans.² For example, the timing of my arrival at Shantikunj seemed particularly auspicious: Republic Day, Basant Panchami, and the anniversary of Gurudev's first meeting with his incorporeal master all took place within my first three days in the ashram.³ The year leading up to my arrival had been a momentous one, full of signs that *satyug* was imminent. First and foremost, it has been the year of Gurudev's birth centenary. It had also been the year when Shantikunj hosted its first extended visit by a Westerner—a man named Simon. Simon had left Shantikunj by the time of my arrival, but I came to know him somewhat through a book he had published under the name "Brahmavarchas" called *Thought Revolution: A Western Introduction to the Work of Acharya Shriram Sharma*, which was released during the holiday

festivities that took place during my first few days in the ashram. In this book, Simon framed Gurudev's teachings as solutions to the emerging global ecological crisis. His writing took place against the background of the Arab Spring, the *Indignados*, and Occupy Wall Street, and the book reflects the revolutionary optimism that filled the air and the sense that humanity seemed to be on the brink of some eschatological change:

In recent months, social uprisings that began in Egypt, Syria, Libya, and India have migrated into Western countries as well. All over the world change seems to be spreading like wild fire. . . . According to Acharya Sharma, the changes that the human race will witness during the course of the 21st century will dwarf anything the world has witnessed in recent centuries.⁴

Gayatri parijans' confidence that their movement would go global, bringing about the return of *satyug* in the process, was based not solely in this series of auspiciously timed events. Rather, their eschatology is data-driven. The movement ties its hopes for the revival of *satyug* at least in part to scientific data about their practices generated through laboratory experiments. For example, picture a Brahmin male clad in a saffron *dhoti* sitting in front of a shallow pit in the floor near the banks of the Ganges. Chanting Sanskrit mantras, he kindles the firewood inside. He purifies himself and worships a number of ritual implements nearby. Upon completing all of the needed preliminary steps, he takes a pinch of herbs between his fingers, holding it ready, and begins to chant the Gayatri mantra:

*Om bhūr bhuvah svah tat saviturvareṇyam
bhargo devasya dhīmahi dhiyo yo nahḥ pracodayāt*

Completing the mantra, he tosses the herbs into the fire and begins to repeat the process. The fire crackles with each offering, its smoke rising upwards. Whither does it ascend? Not to Savitṛ or even Gayatri Mata; rather, it is collected by an exhaust hood and pumped into a small glass chamber labeled "Dhūmr Kakṣ," or "Smoke Chamber." Cultures of various pathogens sit in this chamber, awaiting exposure to the ritual's smoke. The officiant-scientist wants to see if the smoke from his ritual-experiment has had any medical benefits. If only he could produce scientific proof, rational people the world over would be persuaded as to the benefits of this practice and take it up themselves.



Figure I.1. The *Yajña* Laboratory, Brahmavarchas Shodh Sansthan.

I gathered many fascinating images and anecdotes during my study of the All World Gayatri Pariwar,⁵ but this vignette remains the most provocative. Perhaps this is because Vedic-style fire rituals have meant so many things throughout their long history. To name a few of the most obvious ones: a means to solicit boons from the gods, proof of a king's sovereignty, a metaphor for yogic practice, and a way of tying public spaces to Hindu identities of a particular kind. What, then, does it mean when such a ritual is performed in a laboratory, under an exhaust hood? How does it fit into the broader institutional framework in which it occurred? And what might it tell us about the broader cultural and historical context that has made such an image possible?

Such laboratory rituals attempt to marshal scientific authority to solve certain modern problems for the Gayatri Pariwar. These problems often date back to the colonial period, but many are particularly urgent in the age of globalization. The Gayatri Pariwar wants their practices to seem legitimate not only in rural India and among the growing numbers of STEM-educated⁶ middle-class Hindus, but also globally, to those who do not share their cultural or religious sensibilities. A laboratory ritual like

the one I have described above generates a rhetoric about universal human health and well-being, rather than a rhetoric that is specific to religious, cultural, class, caste, or gender identities. Put in slightly broader terms, the apparently universal authority of science allows for the unsettling of context-specific ideologies and facilitates the circulation of those ideologies first through India, a postcolonial nation in search of an identity, and eventually, with the help of contemporary communication technology, through the entire world.

In this book, I am particularly interested in the post-IT boom STEM-educated middle-class Hindus who are prominent members of the Shantikunj community. Over the course of my conversations with these Shantikunj residents, it became clear that they have experienced a kind of moral crisis, in which they perceive the lifestyles of contemporary urban professionals in India as lacking in meaning and values. Shantikunj residents who are affected by this crisis are able to find a kind of resolution through involvement in the ritual life of the Gayatri Pariwar, which reconciles their commitments to scientific and technological pursuits with their desire to pursue a lifestyle they perceive as moral and meaningful.

Introducing the Gayatri Pariwar

In order to ground and provide context for this argument, I want to start by providing a brief overview of the Gayatri Pariwar's most fascinating features. While it may seem to share numerous characteristics with the plethora of other guru-centered "reform" or "neo-Hindu" movements on the scene today, the convergence of these particular features make the Gayatri Pariwar rather noteworthy, and so it offers a distinctive lens on Hindu modernity. Despite the analytical opportunities the movement presents and its apparent popularity in north India, it has received limited scholarly attention, most notably in highly polemical works by Lise McKean and Meera Nanda. McKean's brief account of the Gayatri Pariwar in *Divine Enterprise* treats the Gayatri Pariwar as a skill for capitalist and Hindu nationalist interests,⁷ while Nanda characterizes the movement's use of scientific rhetoric to appeal to middle-class Hindus as a kind of cynical "crafty genius."⁸

Nanda emphasizes the Gayatri Pariwar's middle-class associations, but once I took an interest in the organization it quickly became apparent to me that it was quite socioeconomically diverse. Hindu-based reform move-

ments are often most closely connected to educated, urban, middle-class networks, and the Gayatri Pariwar does enjoy some popularity with this segment of the population in India and among the Indian diaspora. But the movement has been particularly successful in rural India not only with upwardly mobile segments of the population but also among those with less formal education. A number of factors may be responsible for this popularity: a large network of centers in small towns and villages, a pragmatic, populist orientation, and an overwhelming tendency to favor Hindi over English in official materials.

Like many modern movements rooted in Hindu traditions, the Gayatri Pariwar was founded by a charismatic guru—in this case, Shriram Sharma (1911–1991). The gurus who found reform Hindu-based movements often advocate for delving into India's past to revive traditions they associate with a better time. In the case of Sharma, or as his followers call him, Gurudev,⁹ these practices are *yajña* and recitation of the Gayatri mantra.¹⁰ It is often the case that this revival comes with a twist: these old practices must be presented as fitting modern rationalist and universalist sensibilities in accordance with intellectual norms imposed by British colonialism. Accordingly, Gurudev presented Gayatri recitation and *yajña* as having a scientific basis and being open to all, not just Brahmin males. Like his counterparts in other reform movements, Gurudev opposed social ills like dowry, caste discrimination, and “superstitions.”

The roots of the Gayatri Pariwar lie in the late colonial period. During this period, Gurudev was quite involved with the Arya Samaj and also participated in Gandhi-inspired grassroots organizing in the independence movement. This aspect of Gurudev's history provides fascinating connections to major historical currents within India. Gurudev's Arya Samaj association does not just provide a clear link to earlier reform currents within Hindu traditions; it also has political ramifications, given the Arya Samaj's character as a proto-Hindu-nationalist organization.¹¹ Gurudev's Gandhian connections are perhaps even more fascinating because it provides a window on how the legacy of Gandhian nation-building plays out in the Gayatri Pariwar's own efforts to revitalize India as a healthy, moral, coherent nation.

Shantikunj, the ashram and global headquarters of the Gayatri Pariwar, illustrates what such a utopian nation might look like in microcosm. Located near the Ganges in Haridwar, Shantikunj is a massive ashram that accommodates thousands of visitors, especially when pilgrimage season is in full swing. Permanent residents, generally clad in saffron saris or

kurtā-pajamas, contribute a variety of skills to the community, making it surprisingly self-sufficient. They have even marshaled the resources needed to found their own school and more recently a university called Dev Sanskriti Vishwavidyalaya (Divine Culture University; DSVV hereafter) near Shantikunj to see to the education of the ashram's young people and any others who choose to avail themselves of these facilities. Children do in fact grow up in Shantikunj—some families come to live at Shantikunj already formed, while others marry and have children while living at the ashram (although Gayatri parijans are expected to abstain from non-procreative sex and keep their families small). Gurudev also practiced this form of partial celibacy, and was married to a woman named Bhagwati Devi, whom Gayatri parijans call “Mataji.”

Their daughter and son-in-law, Shailbala and Pranav Pandya, known to the Gayatri Pariwar as “Jiji” and “Doctor-sahib,” respectively, took up leadership of the movement in 1995, after both Sharmas had passed and while India's new liberal economy was opening the doors to the forces of globalization. While many guru-based movements have struggled after the death of their charismatic founders, the Gayatri Pariwar remains quite robust. Doctor-sahib may owe his success in these regards partly to his status as a medical doctor. Prior to becoming head of the movement, he had applied his medical knowledge to conducting experiments at the Gayatri Pariwar's research institute, Brahmavarchas Shodh Sansthan (Light of Brahma Research Institute). At this facility, Doctor-sahib worked intensively to prove that there are medical benefits to reciting the Gayatri mantra and performing *yajña*. Such experience clearly serves him well in appealing to the multitude of STEM-educated professionals flooding India's new economy. His background has also helped him to open up DSVV in 2002. It is not coincidental that the Pandyas' tenure as leaders has also seen expanded efforts toward expanding the Gayatri Pariwar's appeal among the Hindu diaspora and beyond. The movement sees its scientific activities as essential in bringing about these global aspirations, but it is not yet clear just how this will play out.

Methods and Scope

This project is based on seven months of field research at Shantikunj and critical readings of an archive of key Gayatri Pariwar texts in Hindi and

English that I curated with assistance from contacts in the Gayatri Pariwar. During this time, I lived in a private room on the premises of the ashram. The exact nature of my involvement in the community changed over the course of my stay there, but it involved participation in the daily ritual life of the community, working as a volunteer to help with cleaning, studying quietly with a group of students at DSVV, and eating at least one of my daily meals in public ashram spaces. I was able to conduct about fifty interviews during the period of my research. In general, these interviews were arranged by one of two men. At Shantikunj itself, Somnath assisted me with great patience and diligence as I met with a number of prominent members of the community. Somnath worked in Abroad Cell, an office that coordinated a number of aspects of the Gayatri Pariwar's international efforts, especially arranging visas. Generally speaking, Somnath was my main liaison to the community and helped a great deal with the Kafkaesque process of acquiring a residency permit. Somnath was what many ethnographers call a community gatekeeper. He worked tirelessly to help me get settled at Shantikunj and to arrange numerous meetings for me. I have no doubt that his assistance in this regard enriched my project greatly. At DSVV, an endlessly enthusiastic student in the Department of Scientific Spirituality named Gagan introduced me to a number of faculty and students in various departments. Earlier in my research, one of his senior colleagues, Piyush, provided me with similar assistance before becoming overburdened with teaching responsibilities.

In terms of the scope of this project, my focus is generally on the residents of Shantikunj and DSVV rather than on the Gayatri Pariwar writ large. I consider this to be an important distinction because the Gayatri Pariwar as a whole is much larger than the ashram community, and seems to have a different demographic profile. As I have already hinted, one of the noteworthy aspects of the Gayatri Pariwar is its popularity as a reform Hindu movement among less formally educated segments of the rural Indian population. This sense is imparted by the literature I have examined and was easily confirmed by my observations at Shantikunj. For most of the year, there are so many of these visitors at Shantikunj that they outnumber the residents significantly. This is especially true during pilgrimage season, when Shantikunj sees a substantial flow of visitors who are passing through Haridwar on their way to the Choṭā Cār Dhām in the Himalayas.¹²

This holds true of the movement as a whole and of visitors to Shantikunj, but not of the community's permanent and semi-permanent

residents. When considering the demographic makeup of ashram residents specifically, the community seems to be much more in line with other reform Hindu movements: mostly middle and especially upper middle class. According to Somnath, roughly 80 percent of ashram residents have a bachelor's or often a master's degree. While I hope that my future research will allow me to learn more about Shantikunj residents with less formal education as well as non-resident Gayatri parijans, I have found it analytically useful and logistically necessary to limit the scope of this study to middle-class permanent and long-term ashram and university residents and a handful of non-resident Gayatri parijans who are full-time volunteers for the movement. This has allowed me to think specifically about how the Gayatri Pariwar's scientific rhetoric relates to contemporary India's middle class.

Key Terms

Religion-*Dharm* and Spirituality-*Adhyātmavād*

In choosing to characterize the Gayatri Pariwar as a *religious* movement, I am somewhat at odds with Gayatri parijans, who tend to think of what they do as a kind of spirituality or *adhyātmavād*. In conversation, Gayatri parijans acknowledge there is some overlap between the two concepts. They sometimes take spirituality as the “essence” of religion, or what is left when religion is stripped of superficial cultural accretions. But according to them, spirituality is not simply inherited like religion; rather, it is chosen for personal reasons. Perhaps more importantly, they understand spirituality as something that is homogenous, universal, and shared by all of humanity because it deals with invariant aspects of the human experience. Religions have such spiritual elements embedded within them, but also have extra elements that are not universal. Some of these non-universal elements may have context-specific relevance: they are valuable for some people but not all. Other such elements are corruptions and empty superstitions that may do more harm than good. Either way, religions, unlike spirituality, are tied to specific identities.

In some cases, when Gayatri parijans talk about religion, it is clear that they are using the term in a different sense than Westerners might in either academic or everyday contexts because they are relying on indigenous con-

cepts. A conversation I had with a Shantikunj resident named Dina illustrates this well. A woman of about fifty, Dina grew up in Ahmedabad but had been a resident of Shantikunj for at least ten years. She had inquired with Somnath about my presence in the ashram, and arranged to meet with me out of curiosity. Dina had opted to speak with me in English, and when I asked her to talk about what *religion* and *spirituality* meant, it became clear that she understood *religion* through the concept of *dharm*, following a common translational practice between Indian languages and English:

Religion is one type of virtue. It is a duty, religion is. . . . Suppose you are coming from outside. What is my religion? What is my duty? That I should give all the comforts and whatever you want, what is your need, we should fulfill all those things. That is original ritual, means, we say, “*dharm*.” Means what is my duty? What is our duty? That is *dharm*. And spirituality is different. Spirituality means we have to improve our inner things. That we have, what to say, *karuṇā* [compassion], *dayā* [mercy], *prem* [love], *udārtā* [generosity], *ātmiyatā* [closeness, intimacy], and all the real qualities of insight, that is spirituality. . . . That is spirituality, and spirituality develops all these things.

As Dina illustrates, when Gayatri parijans distinguish between religion and spirituality there is an implicit sense that religion-*dharm* has to do with behaviors that are obligatory for persons with particular identities. The claim of being “spiritual but not religious,” so common in the American context that it has become almost laughably trite, does not seem to hold here. Embedded in the Gayatri Pariwar’s use of these terms is the notion, common in South Asia, that one’s religious identity and community is fixed at birth. Whether or not one upholds the religion of one’s parents in practice does not generally change the sense that one identifies as, say, a Muslim. Spirituality could be found within Islam for such a person, but, since spirituality is ultimately disconnected from religious identities for Gayatri parijans, Muslims could also look for spirituality elsewhere without changing their religious identity at all. This is crucial for understanding how the Gayatri Pariwar sees itself: since it is a spiritual movement, its practices may be taken up by everyone, alongside extant religious obligations, without any need to change their religious identity.

Moving from the emic to the etic, I rarely use *spirituality* as an analytical term. While it is an important component of my project to interrogate what Gayatri parijans mean when they talk about spirituality, I tend to utilize the term *religion* in my analysis. When I talk about religion, I am doing so in a different, much broader sense than most Gayatri parijans. Like many contemporary religious studies scholars, when I talk about religion, I do so in the tradition of Jonathan Z. Smith, who characterized religion as a “second-order, generic concept” that we may deploy for particular scholarly ends.¹³ Accordingly, when I deploy it, I am pointing to a vast array of social phenomena that occasionally bear certain resemblances to one another and to a vast array of scholarly theories that have attempted to offer insight into these phenomena. Given the breadth of this category, what the Gayatri Pariwar calls *spirituality* falls well within the scope of what Smith and many others in the field would call *religion*.

Science-*Vijñān*

Science is a central concern of this project, and developing a rigorous understanding of the term has been essential to the development of my argument from an early stage. Like religion, science does not have a stable meaning between historical and cultural contexts—it is clear enough that when Gayatri parijans talk about spiritual science, Evangelical Christians talk about creation science, and New Atheists talk about science, they are not talking about quite the same thing. My goal is not to take a side in any such debate, but rather to understand how the concept of science affects the lives to the people I am studying, and so I find myself wanting a way to understand the concept that is rigorous but non-essentialist. If this were the only issue, I might easily take a similar approach to the one Smith takes with *religion* as I have described above, treating it as an intellectual category, but I have found that this still falls somewhat short.¹⁴

It has fascinated and at times frustrated me to note the wide variety of meanings scholars intend when they talk about science. Some of this is clearly disciplinary. Many in the scientific community seem to think of science as a method. Meera Nanda, in her effort to differentiate “real science” from “Vedic science,” quotes at length from a brief that she boasts was prepared by “72 Nobel Laureates and scientific organizations”:

Science is devoted to formulating and testing naturalistic explanations for natural phenomena. It is a process for systematically collecting and recording data about the physical world, then categorizing and studying the collected data in an effort to infer the principles of nature that best explain the observed phenomena.¹⁵

The influential philosopher of science Karl Popper similarly focused on method when he argued that the essence of science was in its never-ending refinement of propositions by means of critique and refutation.¹⁶

A different approach, quite common in the field of science studies, is to treat science as a social institution. In *Sciences from Below*, Sandra Harding illustrates this view of science when she says, “The new sociologies, histories, and ethnographies of science have revealed how scientific inquiry has been a social institution with many features of other social institutions.”¹⁷ We can trace this approach, as Harding does, all the way back to Thomas Kuhn, who illustrated how scientific institutions undergo paradigm shifts as old theories crumble under the weight of new evidence. While Kuhn’s focus tended toward the institutional side, he understood this institution to be very much tied to a particular and changing canon of scientific knowledge.¹⁸ At other times, science studies scholars see science as functioning primarily as a form of authority. Such a conception often takes center stage in Gyan Prakash’s *Another Reason*, which exposes the role of scientific authority in consolidating British control over India by signifying its supposed civilizational superiority.¹⁹

I have found no particular need to side with any of these ways of understanding science: as method, institution, body of knowledge, or form of authority. This arises in part from my frustration with a certain tendency—most commonly in popular conversations and a handful of conference papers I have sat through—to drag the term “science” through two or more of these significations over the course of a single argument, without clarification. In my work, I too need to refer to these multiple facets of science, but I wish to be clearer. I thus tend to prefer to speak of *scientific methods* utilized by *scientific institutions* to generate forms of *scientific knowledge* projected to the populace by *scientific authority*. These four facets are not necessarily intended as exhaustive, but they are among those that I use most commonly, and are enough to provide a sense of how I use the terms.²⁰

I have found that this multifaceted way of thinking about science has mitigated some of the essentialisms that troubled my earlier efforts to think about science across multiple cultural and historical contexts. Rather than having to say that the British brought science to India, for example, I can speak of how Western scientific institutions wielded more scientific authority in a colonial context, forcing Indian scientific institutions to adopt a hybrid approach, integrating Western scientific knowledge with their own and adapting Western scientific methods to indigenous purposes. This is not to say that I only ever use the adjectival form, *scientific*. Sometimes I do use the nominal *science* as well, but only in emic situations or when I am speaking of science in more of a phenomenological way. It is to this latter usage that I now turn.

How Religion and Science Feel

When religious communities grapple with science, the convention has been to understand it as a kind of discursive work. This discursive work could be considered theology, and the religious figures that do the grappling could be considered theologians. Jonathan Edelman, for example, has advocated that scholars of Hindu traditions adopt these terms as we strive to understand the work of Hindu intellectuals in their engagements with scientific discourses. Edelman understands *theology* to be a useful term because it reflects the fact that Hindu intellectuals are engaged in the act of interpreting “scripture and tradition” and treat these sources of knowledge as foundational in their arguments.²¹ There is certainly a kind of theological work going on in the Gayatri Pariwar’s engagement with science as well. But conducting this research has made it abundantly clear that what happens when religion and science interact spills over beyond the tidy bounds of rational theological discourse and into the messily embodied realms of feeling, performance, and identity construction. Accordingly, while I will be describing the theological or discursive aspects of the Gayatri Pariwar’s engagements with science, my analysis requires tools that will allow me to account for the non-discursive spillover of these engagements.

Affect theory—a field of theory that offers an alternative to the discursive obsessions of the humanities in the postmodern era—offers just the right set of tools for thinking about religion and science in non-discursive

ways.²² Affect theory draws our attention away from discourse and back to the body and the way it feels, offering a sort of critical phenomenology. This offers an intriguing opportunity for a study of how power—for example, in the form of scientific or religious authority—can flow in ways that are not exclusively tied to language and cognition.²³ It makes it possible to think about how these forms of authority might function on a non-discursive level—how it might make Gayatri parijans feel. And as if to wrap the whole package up with a bow, it provides a wonderful counterpoint to scientific rationalism and instrumentalism.

This potential of affect theory is particularly apparent in Donovan Schaefer's recent work *Religious Affects*, which argues that affect theory's rejection of the notion that language is the exclusive medium of power makes it a crucial resource for understanding religion as a material, embodied phenomenon rather than as a bundle of propositions and beliefs. Kathleen Stewart and Ann Cvetkovich illustrate how affect theory provides a framework for exploring a politics of everyday experience—not personal, but public—that is helpful in understanding Gayatri parijans' efforts to carve out a place for themselves amidst the moral crisis they see in their postcolonial, globalizing society.²⁴ Finally, Sara Ahmed offers great insight how affect helps to form communities and identities and how affect, which operates on a non-linguistic, non-cognitive level can nonetheless stick to signs and symbols.²⁵

Written over twenty years ago, when the current wave of affect theory was in its nascent stage,²⁶ Ruth Behar's *The Vulnerable Observer: Anthropology that Breaks Your Heart* is also noteworthy for championing the importance of the emotions. Behar exhorts her readers to make themselves vulnerable, empathizing with the people they encounter in the field and later laying bare their hearts to their readers when they write up their ethnographies.²⁷ Well before I was exposed to affect theory, I had accepted this basic methodological imperative, and so the two have become deeply entangled in my understanding. In this project, I seek not only to understand how Gayatri parijans feel, but also to lay my own feelings bare. I seek to forge empathic connections between these sets of feelings, but without losing track of the radical disparities in power and privilege and how they give different shapes to the experience of living in Shantikunj. My hope is that the personal experiences I relay in this book, coupled with ample self-critique, provide deeper insight into the Gayatri Pariwar because of and not despite their lack of objectivity.

While affect theory does provide crucial framework for my argument in this book, it is by no means my only concern. As is the case with many ethnographers, I feel a certain obligation to relay the many fascinating anecdotes I gathered in the field. Given the dearth of literature on the Gayatri Pariwar, I also feel a certain need to provide as thorough an account of the community as possible. In accordance with the breadth of my field experiences and my interdisciplinary background, I deploy something akin to what Wendy Doniger called a “toolbox approach,”²⁸ adopting a variety of thematic and theoretical concerns so as to examine the Gayatri Pariwar from as many perspectives as necessary. Sometimes this involves threading my interest in affect through fields such as the anthropology of charisma (chapter 3), ritual studies (chapter 4), and spatial theory (chapter 6). At other times, it involves looking at how scientific authority helps to discipline the bodies needed for the project of building a postcolonial nation (chapters 1 and 6). Given the number of tools I have to work with, I will introduce each one in its own chapter as I prepare to use it rather than going into greater depth on all of them in this introduction.

Historical Contexts

Gayatri as Mantra and Goddess

As I consider what it means to recite the Gayatri mantra under a laboratory exhaust hood throughout this book, my focus is primarily on the modern period. But this question has a longer, far more complex answer if we consider the full sweep of Gayatri’s history.²⁹ A detailed account of this history would be a massive undertaking in its own right, but a succinct overview will be helpful for framing my discussion of the Gayatri Pariwar.

The Gayatri mantra first appears in *R̥g Veda* 3.62.10. Its name derives from the eight-syllable Gayatri meter in which it is composed, but it is also sometimes referred to as the Sāvitrī mantra for the deity it addresses: “Let us contemplate the great radiance of the deity Savitṛ; may it inspire our thoughts.” The Gayatri mantra has been an important part of a ritual called *sandhyā*, which some high-caste Hindu men have considered obligatory to perform at dawn, dusk, and noon since at least the fourth century CE. These times in part reflect Savitṛ’s sovereignty over the rising

and setting of the sun in particular. The Gayatri mantra is recited during this ritual while offering handfuls of water in the direction of the sun. Vedic, epic, and Purāṇic literature provides a narrative rationale for the importance of this ritual in preserving the cosmic cycle. In short, the droplets of offered water that have been imbued with the power of the Gayatri mantra become *vajra*, or thunderbolts that help drive away the immortal demons that would otherwise destroy the sun during its transit between dusk and dawn.³⁰

Another important ritual practice in which the Gayatri mantra has featured prominently is the *upanayana* ceremony, which has served as the life-cycle rite initiating high-caste Hindu boys into the study and practice of Vedic texts and rituals. The Gayatri mantra's association with this ritual appears to date back to the *Śatapatha Brāhmaṇa* (seventh to sixth centuries BCE). The role of the Gayatri mantra in this initiation is most closely associated with the Brāhmaṇa caste, with other mantras being preferred for members of the Kṣatriya and Vaiśya castes.³¹ This ritualization of the Gayatri mantra reinforced its close association with Vedic orthodoxy and Brahminhood and helped it become a powerful symbol for Vedic and Brahminical tradition and authority.

This authority proved desirable for the authors of texts like the *Devī Bhāgavata Purāṇa* (circa eleventh to twelfth century CE), who were laying the groundwork for bringing goddess devotion into the mainstream. To this end, the twelfth *skandha* (book) of this text provides an extended discussion on the Gayatri mantra and its personification as a goddess, detailing the benefits of recitation, the esoteric significance of each syllable and the mantra as a whole, and the ritual norms surrounding its practice. Of particular note is an exchange in which the King Janamejaya asks the Vedic sage Vyasa about the proliferation of sects and deities in their time. The text describes the worship of the gods Vishnu and Shiva as non-Vedic, as opposed to the worship of the goddess Gayatri through her mantra as being clearly compulsory in the Vedic literature. In fact, we learn that sects such as those devoted to Vishnu and Shiva have strayed from goddess-worshipping traditions due to a horrific curse that caused them to incarnate in the Kali Yuga, having forgotten their Vedic obligations and preferring traditions that lacked Vedic sanction.³² Once goddesses held such a Vedic pedigree, they could be freely identified with other goddesses who were external to the Vedic tradition.³³ One result of

this process was that while Gayatri now functioned as a bridge linking Vedic orthodoxy and popular Purāṇic devotion.

But for all of its broad appeal, recitation of the Gayatri mantra was only sanctioned for high-caste men. This privilege eroded in the nineteenth century, with the Arya Samaj playing a particularly important role. Dayanand Saraswati (1824–1883), founder of the Arya Samaj, felt that gender and caste should not restrict one's ability to undergo *upanayana* and thereby be initiated into Gayatri recitation.³⁴ This fits with a larger project in which Dayanand Saraswati and other prominent Hindu intellectuals of his time engaged: universalizing and nationalizing high-caste Hindu traditions. This typically involved looking to classical sources practices and ideas that could function as the core of an authentic, standardized, and monolithic pan-Hindu identity. Women's and low-caste traditions were rarely if ever sources for inspiration for these formulations. Nevertheless, these revived and universalized traditions operated in tandem with the development of an Indian national identity and were part of an effort to find a thread that could bind together India's diverse quilt of traditions into a unified coherence. The Gayatri mantra was only one of a constellation of practices the Arya Samaj advocated in this context. But given its ability to span Vedic orthodoxy and popular devotional piety, one can appreciate why the Gayatri mantra in particular became the core of a movement like the Gayatri Pariwar.

Indian Scientific Institutions

One afternoon while I stayed in Delhi to jump through one bureaucratic hoop or another, I found myself in the neighborhood of Jantar Mantar³⁵ and decided to pay it a visit. It was nearly closing time, but I had just long enough to marvel at this collection of massive astronomical instruments and read the Archeological Survey of India's helpful informational plaques. This facility was a perfect place to meditate on my research. Some contemporary critics of "alternative science" like Meera Nanda, whose book I was reading at the time, have suggested that precolonial India was marked by rigid adherence to traditional authority and an absence of empirical observation, rational thought, and intellectual innovation.³⁶ If that is the case, I could not help but wonder why Jai Singh II built this elaborate astronomical observatory in 1723.



Figure I.2. Replica of Jantar Mantar's Samrāt Yantra at DSVV.

As Sheldon Pollock has noted, much of the discourse on the changes India underwent during the colonial period has been haunted by a lack of familiarity with the historical period immediately before colonization.³⁷ This is perhaps the legacy of Orientalist scholars, who viewed India as having declined from a bygone glorious age, ultimately becoming static. If India had not done much noteworthy in centuries, why study its recent history? At least in theory, scholarship has been disabused of such foolish questions for decades, but our knowledge especially of the period immediately before colonization has yet to catch up. Pollock and his collaborators on the Sanskrit Knowledge Systems on the Eve of Colonialism project have been working to fill this gap, and the picture that has emerged of early modern India is in fact one of great intellectual dynamism. In *jyotiṣ* (astronomy), there was a new emphasis on empiricism and significant in-

tellectual exchange with Persian and Arabic astronomers. In *alankārasāstra* (poetics and literary criticism), new discursive styles emerged. The Nyāya school of thought developed new terminology for describing the world and this terminology spread into other intellectual domains.³⁸ In the field of medicine, too, new treatments had emerged and there is evidence of intellectual exchange with Perso-Arabic and English medical systems.³⁹ And all of this happened as Sanskrit intellectuals in numerous fields had begun identifying themselves as “new” (*navya*) in contradistinction to the “old” (*prācīna*, *jīrṇa*) intellectuals who had come before them.⁴⁰ It is clear enough from all of this that Sanskrit intellectual traditions were moving forward even as they were exchanging ideas with other Eurasian intellectual cultures. It does not seem terribly provocative to read into all of this that something that might be called an Indian modernity had already begun to emerge well before colonization.

It is nonetheless painfully clear that the intellectual continuity of these traditions was disrupted as the British expanded their control over India.⁴¹ Intellectual activity in and related to India during this period is well documented and has been subject to an incredibly robust postcolonial critique over the last few decades. Of particular importance is a discourse that focuses on the role that scientific institutions played in signifying British colonial authority through education, museums, medicine, transportation networks, and communication technology.⁴² Beyond the symbolic power of such displays of the supposed superiority of Western scientific knowledge, the colonial government called upon scientific knowledge to help make sense of the populace in the hopes of better governing them by arranging them into manageable categories with definitive essences.⁴³ Other work raises important questions about who influenced whom in the intellectual exchange between the British and India; a great deal of what the British passed off as their own scientific knowledge they had in fact drawn from Indian sources.⁴⁴

A decisive moment in the colonial displacement of Indian intellectual traditions (both Sanskritic and Perso-Arabic) by European intellectual traditions came with the English Education Act of 1835, which introduced English-medium schooling as the gateway to a middle-class life. This was not just linguistic training, but also training in the literatures and intellectual traditions embedded in the English language. Thomas Macaulay famously offered the rationale for this legislation in his “Minute on Indian Education.” The Sanskritic and Perso-Arabic canons had previously been

the basis of education in India, but Macaulay derided these literatures at length in relation to “the intrinsic superiority of the Western literature”; for example:

The question now before us is simply whether, when it is in our power to teach this language, we shall teach languages in which, by universal confession, there are no books on any subject which deserve to be compared to our own, whether, when we can teach European science, we shall teach systems which, by universal confession, wherever they differ from those of Europe differ for the worse, and whether, when we can patronize sound philosophy and true history, we shall countenance, at the public expense, medical doctrines which would disgrace an English farrier, astronomy which would move laughter in girls at an English boarding school, history abounding with kings thirty feet high and reigns thirty thousand years long, and geography made of seas of treacle and seas of butter.

They should not merely reinforce the “monstrous superstitions” of Arabic and Sanskrit literature, but rather seek to shape Indian culture through this new system of education:

We must at present do our best to form a class who may be interpreters between us and the millions whom we govern, a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect. To that class we may leave it to refine the vernacular dialects of the country, to enrich those dialects with terms of science borrowed from the Western nomenclature, and to render them by degrees fit vehicles for conveying knowledge to the great mass of the population.

For better or worse, Macaulay’s plan worked just as he had hoped. Within decades, English became the prestige language in India and its intellectual categories had rapidly changed the discursive landscape. For the new educated class of Indians, the Western canon provided the touchstones that would determine the worth of their extant traditions. This in turn led to the rise of “hybrid sciences” or “alternative sciences,” which synthesize Western scientific knowledge and methods with extant Indian intellectual

systems and an intensification and popularization of religious reform, with Hindu traditions newly reconfigured to suit English intellectual categories.⁴⁵

Scholarship on postcolonial Hindus' use of scientific authority is comparatively less abundant and follows less clear trajectories. Meera Nanda's *Prophets Facing Backward* emphasizes Hindu nationalists' synthesis of Hindu thought with scientific authority. She attributes the sorry state of affairs to postmodern science studies scholars' insistence that science is no better than any other way of knowing.⁴⁶ Lola Williamson briefly describes the kinds of scientific claims Transcendental Meditation makes, although about a third of this description is reserved for criticisms of the movement's research practices and she does not consider the significance of their discourse beyond an attempt to integrate the material and the spiritual.⁴⁷ While focused primarily on language, Srinivas Aravamudan reserves the postcolonial "New Age" gurus for his final chapter, where he argues they utilize scientific rhetoric as a means to circulate their teachings globally rather than a means to bolster their nationalist pride like their colonial precursors.⁴⁸ C. Mackenzie Brown, after a much longer examination of the reception of Darwin in the colonial period, finds continuities in the postcolonial period, with evolutionary theory being integrated with and subordinated to Hindu ideas along established patterns.⁴⁹ Corrine Dempsey notes the important role scientific discourse can play for modern Hindu communities, especially those born in diaspora for whom traditional explanations for miraculous occurrences and ritual activity are less appealing.⁵⁰ Joseph Alter observes how the scientific rhetoric of colonial- and postcolonial-era yoga practitioners highlights the materiality of their tradition, becoming an epistemology that is tied to an extant ontology, but in a subordinate fashion. Science as an authoritative way of knowing is thus tied to extant yogic knowledges about the body and health.⁵¹

These works offer great insight on scientific authority in postcolonial India and have had a marked influence on my project. But with rare exceptions, I have found that they have not deviated much from the large and established literature on scientific institutions in colonial India. Many of them span both the colonial and postcolonial periods, treating scientific authority in postcolonial Hindu traditions as a continuation, perhaps with small variations, of an earlier colonial trend. It is important to highlight such continuities. I am glad that this work is being done, and it has been helpful in situating my project in larger historical patterns. My hope is that my project will contribute to this literature by noting