CHAPTER 7

Affective Enhancement and Spiritual Enhancement: Feeling Happier and More Spiritual

TECHNOLOGY OF AFFECTIVE ENHANCEMENT

When basic survival needs of food, clothing, and shelter are met, human beings expend much time and energy on being happy and experiencing other positive emotional states. The world of commerce is filled with companies whose mission and products are designed to appeal to people’s robust desire to feel good. Entire marketing campaigns are tailored accordingly. In the chapter, “Radical Human Enhancement and Ethics,” we even mentioned an ethical theory, hedonism, that is oriented around maximizing pleasure and minimizing pain.

People are not always smart in the ways they strive for happiness, sometimes resorting to unregulated drugs, risky sexual encounters, and a host of other dangerous practices. The persistent reach for happy states suggests a strong market demand exists for more happiness, more good feelings. Given this demand, we can anticipate that therapies and technologies promising to enhance good feelings will get much attention in research, development, and commercial delivery. People can jump quickly into potentially risky behaviors in order to feel good and may very well do that with technology that promises to bring happiness. In this chapter we encourage the careful assessment of radical affective enhancements.

Making ourselves emotionally better is a project loaded with religious and ethical issues. We encounter questions similar to those asked with other enhancement categories, such as who gets to decide what makes one better in the emotional department, why some emotions are valued more than others, and who benefits from these enhancements.

How We Make Ourselves Emotionally Better

If the local pharmacy had a proven over-the-counter happy pill, without nasty side effects, we would probably find a long line at the counter, whether the pill
is covered by insurance or not. In a thought-provoking piece, philosopher and ethicist Patrick D. Hopkins, an affiliate scholar with the transhumanist Institute for Ethics and Emerging Technologies, reflected on the meaning of salvation and the role of enhancements in the search for satisfaction. Based on historical evolutionary patterns, he does not think technology can deliver on promises to make us more satisfied in the long haul. \(^1\)

Despite such reservations, the demand is there and, in this section, we consider some therapeutic and technological delivery methods, all of which hold the potential to be radically more potent in the future. And, on the horizon are breakthrough possibilities, such as genetic engineering. Before addressing the therapies and technologies that hold potential for radical biohacking, we provide a context by considering more traditional affective enhancement methods.

**Traditional Affective Enhancement Methods**

The attempt to enhance oneself affectively is not new. Long ago, Aristotle said people sought wealth, health, and friendships as means to achieve happiness. The desire to feel better emotionally has always been part of the human quest, and emotional improvement techniques continue to evolve. In the modern world, the profession of psychotherapy, with many modalities, arose to address dysfunction and help people heal emotionally. Cognitive Behavioral Therapy addresses distress or dysfunction through changing our thinking and our behaviors. Emotionally Focused Therapy is based on the premise that emotions are key. Narrative Therapy works with life stories, understanding people as separate from and bigger than their problems.

Given this chapter’s topic of positive affect, “Positive Psychology” is an interesting approach, theorizing that boosting positive well-being pushes out negative emotion and gains the desired outcome of happiness or well-being. Martin Seligman’s PERMA well-being is one of the better-known examples of positive psychology. Well-being is positively correlated with pleasure, engagement, relationships, meaning, and accomplishment, hence the acronym PERMA. Since about the turn of the century, there has been a good bit of interest in happiness research.

Spiritual care therapeutic approaches are concerned with accompanying people in their personal deserts, their bleak inner places, and exploring spiritual meaning or struggle in that context. At the heart of spiritual health approaches to emotional well-being is a desire to assist the person in achieving well-being, contentment, and possibly happiness. Modalities change and emerge in response to new research findings and the experiences that psychotherapists have with their diverse clients.

\(^1\) Patrick Hopkins, “A Salvation Paradox for Transhumanism: Saving You Versus Saving You,” in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, eds. Calvin Mercer and Tracy J. Trothen (Westport, CT: Praeger, 2015), 71–82.
Pharmaceutical Agents

Mood altering drugs have been for some time an integral part of the life of people in modern, industrialized countries. One of your authors, Professor Mercer, worked as a therapist alongside psychiatrists who routinely drew upon a host of psychotropic medications, such as Prozac, Cymbalta, and Zoloft, to treat clients who wanted to be less anxious and less depressed. Mood can be managed by manipulating certain brain neurotransmitters, particularly serotonin, dopamine, and norepinephrine. Betablockers, such as Propranolol, can induce a non-anxious, calm, and focused state, which is why some archery and golf competitors use it. Testosterone is probably used by some athletes to feel more aggressive.

Neither the super happy pill nor “pick-the-emotion-of your-choice-pill” have yet to be developed. However, we are learning more about how the brain works, its role in emotional well-being, and how drugs can manipulate mood. Mood enhancement is a big industry now, and the demand is there for more radical measures. Current pharmaceutical mood interventions are likely to pale in comparison to what is coming.

Robots

Pills are not the only way enhanced affect is being packaged and sold. Consider these opening lines from a New York Times article, titled “Robots: Hot or Not? Love, Android Style, Sexy and Confusing”:

When Akihido Kondo, a 35-year-old school administrator in Tokyo, strolled down the aisle in a white tuxedo, his mother was not among the 40 well-wishers in attendance. “For mother,” he told The Japan Times, “it was not something to celebrate.” You can see why. The bride, a songstress with aquamarine twin tails named Hatsune Miku, is not only a world-famous recording artist who fills up arenas throughout Japan. She is also a hologram.

“Digisexuals” refers to human-android romantic relationships. Online pornography, “hookup applications,” sexting, and electronic sex toys constituted the first wave. A second digisexuality wave is opening up what practitioners testify to as deeper relationships through virtual reality, augmented reality, and artificially intelligent-equipped sex robots, programmed to be companions as well as sexual partners. Some observers are concerned we are headed for sex slaves, objectification, and fake relationships. Others welcome the new digital sexuality, expecting it to bring safety, enhance autonomy, and increase fulfillment. Whether technologically-enabled sexual and romantic relationships will enhance us affectively is a matter of debate and perspective. We will need to

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2 Alex Williams, “Robots: Hot or Not? Love, Android Style, Sexy and Confusing,” The New York Times, SundayStyles (January 23, 2019): 1, 8. https://www.techvshuman.com/2019/01/23/do-you-take-this-robot/.
study the implications empirically, by conducting research including interviews, after the second digisexuality wave occurs.³

Cambridge University Professor and Computer Scientist Peter Robinson, an expert on affect and robots, reports that “it is becoming possible for machines to sense, analyze and express emotions.”⁴ We introduced Pepper, touted as “Canada’s first emotionally sensitive robot for sick kids,” in the chapter, “Cognitive Enhancement and Moral Bioenhancement.” Pepper came to a Canadian hospital to help people feel better emotionally. As Pepper explains, “I was created by Softbank Robotics in Tokyo, Japan. I flew all the way to Toronto to work at Humber River Hospital—I love it here.”⁵ Equipped with sensors and cameras, Pepper has the ability to detect emotions and adapt its own behavior to support the patient. Another example of robot care are the robotic baby seals who were created to comfort the 2012 Japanese tsunami victims. Robot pet therapy has continued, especially in circumstances that prevent much physical contact or situations in which limited caregivers are available.

Robots have long been researched, developed, and used. Economic pressures will continue to spur development. As robots move from functional factory machines to homes, they will become increasingly integrated into our daily lives and, when desired and appropriate, they will be human-like. Robotics, combined with the coming AI explosion, will open up more possibilities for radical affective enhancement.

**Datifying Emotions**

The collection, manipulation, and use of data is increasingly important in a technological world. Social media companies are prominent among the entities, including government, that track and collect data related to our moods and other aspects of our lives. Usually unknowingly and unintentionally, we tell these companies about our moods through emojis, comments, likes, tags, photos, links, purchases, and social media recommendations. The collected data is then utilized to sell products and guide behavior.

Smart watches, smart phones, and other health wearables monitor sleep, exercise, breathing, skin conductance, and heart rate, all related to how we react to stress-inducing situations. When stress responses are detected, devices measuring these human functions can guide us in the use of calming techniques,

³The popular science-fiction romantic film, *Her*, depicts a man having a romantic relationship with Samantha, an artificially intelligent computer. For an example of how complicated scenarios can get, it is revealed at the end of the film that Samantha is having simultaneous romantic relationships with hundreds of human lovers.
⁴Peter Robinson, “Fixed Points in a Changing World,” in *Spiritualities, Ethics, and Implications of Human Enhancement and Artificial Intelligence*, ed. Chris Hrynkow (Delaware: Vernon Press, 2019), 227.
⁵Aalia Adam, “Meet Pepper—Canada’s First Emotionally Sensitive Robot for Sick Kids,” Interview with *Global News* (May 7, 2018). https://globalnews.ca/news/4180025/pepper-canada-robot/.
such as listening to relaxing music, meditating, or practicing breathing exercises. The Internet of Things (IoT) and the Internet of Bodies (IoB) are changing how we understand, recognize, and make use of human emotions. AI programs that read and analyze facial expression, eye movements, body language, and voice pitch and patterns, can be added to IoT and IoB devices.

Increasingly, AI devices that monitor and interpret affect will be embedded into products. Home entertainment devices will present music, video, or gaming options that fit the consumer’s mood. Affectiva, an emotion measurement technology developed in the MIT Media Lab, offers software that analyzes speech, identifying emotional states associated with laughter, voice pitch, and arousal. These datified emotions are used to identify attractive video games, for example.

Refrigerators of the future might suggest food options suited for particular emotional states. A stressful Zoom meeting with colleagues may be identified by the smart refrigerator, which then suggests chocolate milk, or whipped cream and strawberries, or whatever your comfort food might be. Perhaps Siri, Alexa, or Google tells a joke or story to lift your spirits. Combine these personalized databases with humanoid robots, and the possibilities for affective enhancement become clearer.

**Brain Stimulation and Other Neuroscience**

As discussed in earlier chapters, deep brain stimulation (DBS) can be an effective treatment for intransigent clinical depression, including the depression associated with Parkinson’s Disease. By relieving clinical depression, DBS can improve one’s affective state to such a degree that it makes life worth living again for some people. It may be that transcranial stimulation (TCS) can also help overcome neurological blocks to feeling happy and content.

We now record and interpret brain wave patterns in support of techniques, such as biofeedback, to help people change brain patterns and, therefore, moods. As mentioned in the chapter, “Cognitive Enhancement and Moral Bioenhancement,” neuroscience research is pursued by some military organizations to address fear and traumatic memory formation.

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6 “Affectiva.” www.affectiva.com.
7 Ettore A. Accolla and Xiauda Pollo, “Mood Effects After Deep Brain Stimulation for Parkinson’s Disease: An Update,” *Frontiers in Neurology* (June 14, 2019). https://doi.org/10.3389/fneur.2019.00617.
8 M. N. Tennison and J. D. Moreno, “Neuroscience, Ethics, and National Security: The State of the Art,” *PLOS* (2012). http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1001289; and R. K. Pitman, et al., “Pilot Study of Secondary Prevention of Post-Traumatic Stress Disorder with Propranolol,” *Biological Psychiatry* 51, no. 2 (2002): 189–192.
**Technology of Spiritual Enhancement**

One of the ways we have sought to find deeper meaning and feel better is through spirituality. Spiritual practices and the benefit they provide are certainly a part of the devotional expressions of all religions. Our understanding of spirituality, however, is broad enough to include spirituality that can occur outside the context of traditional religions.

Psychologist Kenneth I. Pargament and his colleagues have used quantitative and qualitative research studies to identify three key (but not exhaustive) qualities that characterize spiritual experiences: transcendence, ultimacy, and boundlessness. Transcendence is the feeling of “mystery and ineffability.” Ultimacy has to do with a sense of meaning deeper than meets the eye. Boundlessness points to timelessness and spacelessness experienced when encountering what is perceived as sacred. Later, Pargament and his colleagues added the spiritual qualities of interconnectedness and spiritual emotions.

Spiritual emotions are emotions accompanying encounters with the sacred. Spiritual practices and experiences can generate spiritual emotions, such as awe, elevation, hope, joy, and gratitude. Sociologist Émile Durkheim’s notion of “collective effervescence” describes the affective arousal occasioned by communal religious gatherings. The experience of these emotions may be so intense to be disturbing to some, therefore not desirable. It should be obvious that affective enhancement and spiritual enhancement are not the same, but they do overlap in significant ways. It is not accidental that both are addressed in the same chapter of this textbook.

Pargament’s understanding of spiritual experience is similar to the experience reported by mystics in both monotheistic and karmic religions. Mysticism is here understood as a religious experience that is noetic (involves deep knowing), ineffable (cannot be articulated), holy, characterized by a positive affect, perceived as timeless and spaceless, and characterized by a perception of unity in all things. This understanding of mysticism is distinct from paranormal or psychic experiences, as in extrasensory perception and clairvoyance.

Since spirituality, according to Pargament, is basically a search for the sacred, he has found that people can discover the sacred in almost anything. Places where people discover the sacred and so experience spirituality include

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9 K. I. Pargament, D. Oman, J. Pomerleau, and A. Mahoney, “Some Contributions of a Psychological Approach to the Study of the Sacred,” *Religion* 47, no. 4 (2017): 723–724.

10 J. W. Lomax, J. J. Kripal, and K. I. Pargament, “Perspectives on Sacred Moments in Psychotherapy,” *The American Journal of Psychiatry* 168, no. 1 (2011): 12–18; and A. Mahoney, K. I. Pargament, B. Cole, T. Jewell, and R. Phillips, “A Higher Purpose: The Sanctification of Strivings in a Community Sample,” *The International Journal for the Psychology of Religion* 15, no. 3 (2005): 406.

11 Émile Durkheim, *The Elementary Forms of the Religious Life* (New York: Free Press, 1912/1965).

12 These marks of traditional mysticism were identified by philosopher W. T. Stace. See Calvin Mercer and Thomas Durham, “Religious Mysticism and Gender Orientation,” *Journal for the Scientific Study of Religion* 38, no. 1 (1999): 175–82.
relationships, objects, and activities, such as found in sport, music, art, family, romantic partners, writing, gardening, and walking. This may seem like an anything-goes type of spirituality, but that is not the case.

For the sacred to be authentically discovered, Pargament and his colleagues identified not only key qualities of spiritual experiences, but also six implications for everyday living that result from the discovery of the sacred. These implications include investment of resources, such as money and time, and the generation of spiritual emotions, as two of the six implications. Pargament has provided a framework that we think can assist in assessing traditional and radical enhancement methods that may help us achieve more, and possibly more dramatic, spiritual experiences.

To illustrate this broad understanding of what counts as spirituality, consider this quote from one of your authors, Professor Trothen, from her book about sports, enhancements, and spirituality.

Mainstream religions are commonly considered authentic, while the religious dimension of fandom has often been considered fake or dismissed as derivative. ... [religious studies scholar Jennifer] Porter makes a convincing case for the “authenticity” and validity of “pop-culture inspired spiritualities:” fan communities, she proposes, “are, or at least can be, a place that embodies a person’s and/or a community’s expression of the essence of all meaning: what it means to be human, to be in community, to be in space and time, to be moral or immoral, to be finite or eternal, to simply be....” The question of meaning need not be explicitly pursued, but can be lived or experienced. The implicit quality of spirituality inspired by pop culture, religions, or both, resists hard-and-fast definitions, just as they open up a multiplicity of ways of experiencing the sacred.

If we begin with the premise that the sacred can be discovered in many places, then the potential for enhancing spiritual experiences is expanded. Our discussion is deliberately wide-ranging. We will next present some possible ways to radically enhance spirituality. We have provided some evaluative comments about authentic spiritual experiences, and leave up to you a consideration of whether radical enhancements might help us to generate authentic spiritual experiences.

How We Make Ourselves Spiritually Better

With Pargament’s work as a foundation, we now consider the variety of ways to achieve experiences with spiritual qualities like transcendence, ultimacy,
boundlessness, interconnectedness, and spiritual emotions. Since we are understanding spirituality in a way that does not confine it to traditional religious structures, our discussion is potentially applicable to everyone, whether they identify with one of the traditional religions or not. As we did above in the affective enhancement section, we begin with traditional methods of spiritual formation and then consider some of the radical therapies and technologies.

While the spiritual enhancements discussed below may add much to spirituality, it is hard to imagine that these enhancements will be enough on their own to lead to greater spiritual well-being or meaningful experiences. But they may, and time will tell as the religions assess and utilize some of the increasing array of spiritual enhancement intervention options.

**Traditional Spiritual Disciples and Practices**

Professor Trothen has a Muslim neighbor who spiritually enhances themself by praying five times a day facing Mecca, a traditional Muslim practice. The neighbor’s prayer discipline has affective benefits as well, seeming to help them stay happy and content most of the time. While completing this textbook, Professor Trothen was in Kuujuaq, an Innuit village in Nunavik, Canada, on a beautiful edge of the tree line. Many Innuits find their spirituality enhanced by spending time on the land, appreciating the rivers, tundra, taiga, and rocks that shape the small mountains of the region. A blend of traditional Innuit spirituality and Christianity shapes the spiritual practices of many of these far north Indigenous communities.

These two examples come from traditional religion and are joined by a host of other long-standing spiritual practices that include spiritual direction, guidance, contemplative practice, and mindfulness meditation. While these practices do not require advanced technology, technological devices can be used to facilitate the practices, such as tablets with software that leads one through meditative practices.

Technology can also help us to understand the effects of traditional spiritual practices. For example, scanning technology correlates brain activity with traditional spiritual practices. Brain scans show that religiously based meditative practices produce effects also achieved in “flow states,” a term coined by psychologist Mihaly Csikszentmihalyi. Flow states are characterized by total absorption in the experience, the sense that all life is connected, a strong sense of self, and the loss of individual ego. Flow states are not restricted to formal religious practices or to self-described religious followers.17

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17 Csikszentmihalyi describes eight elements of flow states: clarity of goals and immediate feedback; a high level of concentration; a close match between one’s perceived skills and the challenge; a feeling of control; effortlessness; an altered perception of time; the melting together of action and consciousness; and the experience of the autotelic quality of the sport. For more explanation and analysis, see Susan Jackson and Mihaly Csikszentmihalyi, *Flow in Sports: The Keys to Optimal Experiences and Performance* (Champaign, IL: Human Kinetics, 1999). For a fan to experience
An athlete in flow is aware of working very hard but also experiences the sense of effortlessness or not working at all. Some athletes describe flow as being on automatic pilot or in the zone. Flow can be experienced with many activities, including art, writing, and listening to or playing music. Although flow requires total concentration and emotional centeredness, flow cannot be induced, at least thus far. But the induction of flow experiences could be a future spiritual enhancement. Technology allowing for the identification and study of flow states in traditional spiritual practices is a nice segue into using technology itself to generate spiritual experiences, apart from traditional religious practices.

**Hallucinogenic Agents**

An old Beatles’ song is “Lucy in the Sky with Diamonds,” a not so subtle reference to lysergic acid diethylamide (LSD), one of the hallucinogenic drugs of choice in the counter-culture hippie era of the 1960s. What does that have to do with human spiritual enhancement in our century? Christian theologian and ethicist Ron Cole-Turner, introduced in the chapter, “Transhumanism, the Posthuman, and the Religions,” distinguished the category of spiritual enhancement. Cole-Turner’s focus is on the use of hallucinogenic drugs to open-up an enhanced spiritual awareness and experience.

Hallucinogenic agents have long been used in a number of religious traditions. The ancient Hindu Vedic scriptures from India speak of *soma*, described as a plant with no roots, no leaves, no fruit, no seeds, but with a white stem, a red cap, and a juice that was golden. “We have drunk soma and become immortal; we have attained the light, the Gods discovered.” The Vedic and Aryan warrior God Indra liked his *soma*, and his strength increased under its intoxication.

Use, in a limited fashion, of ayahuasca and mescaline (derived from peyote, a cactus) is allowed in the United States under the First Amendment’s free exercise of religion clause. Ayahuasca is used in the syncretic Christian churches União do Vegetal and the Santo Daime. The Native American Church has an exemption for the sacramental use of peyote. Health Canada has granted exemptions to two Montreal religious groups that stem from the Brazilian religion Santo Daime, the Eclectic Centre for the Universal Flowing Light, also known as Céu do Montréal, and the Beneficient Spiritist Center União do Vegetal. The exemptions allowed for the import and serving of ayahuasca and chacruna, both of which have hallucinogenic properties, to its members.

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Robert Jesse, “Entheogens: A Brief History of Their Spiritual Use,” *Tricycle: The Buddhist Review* 6, no. 1 (Fall 1996).

*Rigveda* 8.48.3, in Ralph T. H. Griffith, trans, *The Hymns of the Rig Veda* (Benares, India: E. J. Lazarus and Company, 1896).
Followers of these religions believe the ingestion of these plants in tea can lead one to meet the divine.

“Entheogen,” from the Greek, literally means “full of god” (entheos) and “to come into being” (genesthai). The term is used to refer to the use of hallucinogenic agents in religious contexts. Academic research on entheogens goes back at least to the research of Harvard professors, Drs. Timothy Leary and Richard Alpert. Amid media fanfare, both were kicked out of Harvard for their ethically problematic research program.

Dr. Alpert found a guru in India who gave Alpert the name Ram Dass, the name by which he is most well-known. Following his return from India, Ram Dass became an important teacher, bringing Hinduism to the counterculture west. As Dr. Alpert, he helped conduct the famous—or infamous as the case may be—Marsh Chapel experiment, performed in the chapel at Boston University on Good Friday, 1962. Seminary students received either psilocybin, derived from certain mushroom species, or a placebo. It is generally agreed there was a positive correlation between the hallucinogenic agent and deeply spiritual, i.e., mystical, states. Many of the subjects reported having profound, and even life-changing, spiritual experiences, including a strong sense of connection with all life. That said, the experiment was not widely reproduced and contained ethics problems and design flaws. The research was very controversial and not supported by the university.

Research on hallucinogenic agents died out for several decades in the United States due in large part to laws intended to halt recreational use of these agents. With research exemptions, scholars have recently revived this line of research in Europe and the United States in controlled medical settings, with a focus on psilocybin. The research shows that psilocybin can be safely and reliably correlated with mystical experiences in healthy volunteers.

Researchers are careful to say psilocybin “occasions” the mystical experience but does not necessarily “cause” it. This means psilocybin at the least creates conditions for possible mystical experiences. And, based on a research project that surveyed thousands of people, it seems that experiences of personal encounters with God can occur for previously self-identified atheists (more than two-thirds of whom stopped calling themselves atheists after their encounter). Moreover, regardless of whether the spiritual experience was spontaneous or occurred while taking a psychedelic, a majority of respondents who reported such God encounters also reported lasting positive changes to their mental and emotional health.20 Research on the relationship between psychedelics and spirituality continues, at the time of the writing of this book, at the Johns Hopkins School of Medicine in the United States.

20 Roland R. Griffiths, Ethan S. Hurwitz, Alan K. Davis, Matthew W. Johnson, Robert Jesse, “Survey of Subjective ‘God Encounter Experiences’: Comparisons Among Naturally Occurring Experiences and Those Occasioned by the Classic Psychedelics Psilocybin, LSD, Ayahuasca, or DMT,” *PLOS ONE* (April 23, 2019). https://doi.org/10.1371/journal.pone.0214377.
Your authors know people who have participated in recent research studies on the use of psilocybin with regard to spiritual experiences. The experiences occasioned by psilocybin are indeed profound and, apparently, the evidence thus far is that the effects are lasting, at least for several years and possibly for one’s lifetime. Here are some first-hand descriptions of these psilocybin experiences:

 Feeling of a non-self, of self held/suspended in an almost tactile field of light.

 The utter joy and freedom of letting go—without anxiety—without direction—beyond ego self.

 The sense that all is One, that I experienced the essence of the Universe and the knowing that God asks nothing of us except to receive love.

 The experience of death, which initially was very uncomfortable, followed by absolute peace and being in the presence of God. It was so awesome to be with God that words can’t describe the experience.\(^{21}\)

 This research raises questions about what, if any, appropriate role there might be for the use of such pharmacological agents in religious or spiritual practice and ritual. Some people find this suggestion troubling and see psilocybin as nothing more than illicit drug use or a form of spiritual cheating, raising the question of what constitutes authentic spirituality. Others, following a proactionary stance toward spiritual enhancement, are open to the possible beneficial consequences of psilocybin induced experiences and want more research. This debate is sure to continue and perhaps intensify.

**Brain “Spirit Tech”**

In this section, we present a host of developing technological innovations, sometimes called “spirit tech,” that allegedly provide authentic spiritual experiences. These technologically-assisted spirituality biohacking tools may have some of the same properties as hallucinogenic agents, but with a more precise focus on relevant brain centers and, therefore, possibly with more control of the outcomes.

Neurofeedback, a type of biofeedback, may have benefits in treating Attention Deficit Hyperactivity Disorder (ADHD) and other medical conditions. With sensors on the scalp, the patient obtains real-time feedback as they learn to self-regulate brain activity. Neurofeedback is now being examined as a way to enhance meditation and prayer practices. As mentioned earlier, transcranial magnetic stimulation (TMS) is a relatively safe, non-invasive procedure sometimes used to treat major depression. Via an electromagnetic coil near the forehead, the part of the brain associated with mood and depression is stimulated. TMS may hold possibilities for activating the so-called “God

\(^{21}\)Ronald Cole-Turner, “Spiritual Enhancement,” in *Religion and Transhumanism: The Unknown Future of Human Enhancement*, eds. Calvin Mercer and Tracy J. Trothen (Westport, CT: Praeger, 2015), 369–84.
spots” of the brain, which are the areas of the brain thought to be responsible for spiritual experiences.

The connection between neuroscience and spirituality has intrigued researchers for years. Functional Magnetic Resonance Imaging scans (fMRIs) have shown the effects spiritual practices, including centering prayer, mindfulness practices, meditation, guided imagery, and music, have on the brain. Digital technology companies are capitalizing, for example, on the knowledge that music can make one run faster by stimulating the brain. Spotify uses phone sensors to measure a runner’s tempo and chooses music to help the runner keep or improve their pace.

A good bit of publicity has surrounded the controversial “God Helmet,” which you can order online for several hundred Canadian dollars. Created by a neuroscientist, Stanley Koren, and based on research by the late professor of psychology, Michael Persinger, the helmet is a device with electrodes used to study creativity, religious experiences, and the effects of stimulation of the amygdala and the hippocampus. While the efficacy of this particular item is unproven, the world of Spirit Tech has arrived.

Experimentation is underway with small groups of meditators/worshippers, all of whom are using the same brain activation method in an effort to foster brain-to-brain interaction and collective experience. The serious caveat to all this potential, as we discussed earlier, is that many of these brain stimulation technologies may cause seizures or headaches and may change thought patterns, affecting personal identity in unforeseen ways.

### Pixel Spirituality

Other innovations are afoot that have been changing, and may radically enhance, spirituality. Professor Mercer glimpsed these technological possibilities when he discovered that a Christian friend of his was “going to church” on Sunday mornings by going on-line. What made this news striking is that Mercer’s friend is 68 years old and all her life has advocated a conservative version of Christianity practiced in a very traditional Baptist church. This friend’s willingness to engage in this method of worship, even before the COVID-19 pandemic, indicates a trend toward openness to “pixel spirituality.”

We have seen much more virtual worship since the COVID-19 pandemic began. When large gatherings were prohibited and physical distancing measures implemented, people who otherwise may have never explored platforms, such as Zoom, Facebook, Skype, or Microsoft Teams, found themselves conducting worship or participating in worship digitally. Virtual worship has not replaced

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22S. E. Kobar, et al., “Ability to Gain Control Over One’s Own Brain Activity and its Relation to Spiritual Practice: A Multimodal Imaging Study in Frontiers,” *Human Neuroscience* (2017). https://doi.org/10.3389/fnhum.2017.00271; and A. M. Schultz and P. E. Carron, “Socratic Meditation and Emotional Self-Regulation: Human Dignity in a Technological Age,” *Journal of Interdisciplinary Studies* 25, nos. 1–2 (2013): 137–160.
face-to-face as the preferable option for everyone, and not all were able to join due to internet and technology accessibility, but the virus made this digital avenue a viable option for many. Current virtual worship platforms can be viewed as an interesting technological update to the plethora of TV preachers that flooded the television airways in the 1980s. Virtual worship trends raise questions about community in the religions, a concern we address later in the chapter.

The ability to worship on the internet with like-minded friends is a primitive version of the technological spirituality that is alive and well in virtual worlds. “Second Life” is a popular example of virtual reality that has been around for years. For those largely unfamiliar with virtual worlds, Second Life has been an industry leader in creating a world that exists in cyberspace and is usually accessed through a computer keyboard and the internet. Robert M. Geraci is the author of *Virtually Sacred: Myth and Meaning in “World of Warcraft” and “Second Life”* (we will leave aside “World of Warcraft” in our discussion). Geraci explores how virtual worlds, like Second Life, are “rearranging or replacing religious practice.”

Although not a regular visitor, in order to understand this platform for spiritual enhancement, Professor Mercer spent about 15 hours in the fascinating virtual world of Second Life. Here is how it works. You, the “player,” sit down at your computer and log into Second Life. In your first visit, you get to pick an avatar, an image that you want to “be” you in the virtual world. Your avatar can be male or female, or androgynous—whatever you like. You can pick any kind of body, any clothing, anything at all. Many people experiment with “being” someone quite different from who they are in real life. Using keyboard strokes, you move your “self” (i.e., avatar) around and communicate. To make a long story short, you design your avatar, buy clothes purchased with currency utilized by Second Life “citizens,” visit virtual cities, dance in clubs, have a beer with a friend at a local pub, and, yes, join a church or other faith community.

For better or worse, players in the virtual reality can negotiate their faith identity, worship with their chosen community, engage in spiritual practice, and have religious experiences. As Geraci puts it: “logging in is, for many users, a sacred opportunity to experience what they see as a tiny fraction of the heavenly world to come.”

We have the strong sense something is aborning here that is altering our religious landscape and may affect the transhumanist agenda for human enhancement in unforeseen ways. The impact is going to increase in the coming years and in ways that we can only vaguely anticipate. People who are not very mobile, or who are living in the midst of a pandemic, can “get out” into another world and live a whole different life. Virtual world adventurers can join faith communities without necessarily connecting with anyone encountered in

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23 Robert M. Geraci, *Virtually Sacred: Myth and Meaning in “World of Warcraft” and “Second Life”* (Oxford and New York: Oxford University Press, 2014), 200.
their real world. Perhaps virtual worlds will enhance faith and spirituality. Maybe it will not. More likely, digital spiritually will have pluses and minuses.

**RELIGIOUS ISSUES**

**The Problem of Suffering**

Perhaps it seems obvious that we should work to relieve pain and suffering, whether it is emotional, cognitive, physical, spiritual, or other. We now place the conversation about affective and spiritual enhancements in the context of what has been called the “problem of evil and suffering.” In summary, the problem is that in the monotheistic religions God is understood to be all-knowing, all-powerful, and all-loving. Omniscient, omnipotent, and omnibenevolent are the technical theological terms referring to these divine attributes.

In the face of a divine being with these attributes, how can evil, pain, and suffering exist? In other words, why would a good and loving God, who can do anything, allow pain and suffering? If God is all-good, then God would not want people to suffer. If God is all-wise, God can figure a plan to eliminate suffering. If God is all-powerful, God can implement any plan that is conceived.

Theological reflection on this topic has been so extensive through the centuries that the term, theodicy, literally Greek for “God justice,” was coined. How can one justify the existence of a supremely wise, powerful, and good deity in the face of such suffering and evil? Many books have been written about suffering and religious belief including one of the most well-known modern ones, *Why Bad Things Happen to Good People*, by Rabbi Harold Kushner.24

Process theologians propose that God is in relationship with human beings. Relationships are dynamic and both parties, God and humans, change as a result of being in relationship. God, in this view is not all-powerful, at least not in the way that all-powerful is usually understood. God does not exert power to rescue us but does exert power to love and support us, in this view. Liberation theologians understand God to be in solidarity with those experiencing injustice and understand that the work of justice is inspired and supported by God. These are very quick and simplistic summaries of some complex theological interpretations. Suffice it to say there are diverse views on suffering and God’s role in suffering.25

The problem of evil and suffering has a very different frame in the karmic religions. Since these religions have no all-knowing, all-powerful, all-loving deity, evil and suffering present no challenge to god as they do in monotheistic

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24 Harold Kushner, *Why Bad Things Happen to Good People* (New York: Anchor Books, 1981).
25 See, for example, Douglas John Hall, *God and Human Suffering* (Minneapolis: Augsburg Publishing House, 1986) and Traci C. West, *Solidarity and Defiant Spirituality: Africana Lessons on Religion, Racism, and Ending Gender Violence* (New York: New York University Press, 2019).
frames of reference. In general, suffering in the karmic religions is understood as a result of bad karma in previous incarnations.

Christian pro-enhancement advocates propose that God does want to alleviate suffering, and technological advance is a primary means of doing that. Much energy and many resources go into alleviating suffering individually and as a society. Perhaps a pill that radically reduces suffering would be desirable. Maybe, but this is a problematic proposition.

Polio and smallpox vaccines save millions of lives a year, and Prozac reduces the mental anguish endured by depressed patients. It is a good thing that smallpox has been eradicated. And we certainly want to eliminate all emotional and mental pain and disturbance that we can. Not so fast. Here we bump again into the notion of unintended consequences.

Consider a specific example, a case where a seemingly obvious response turns out to be problematic. In this example, a pharmaceutical eliminating aggressive behavior is developed. By decreasing impulsive aggressive behavior in people convicted of violent crimes, perhaps that would increase community safety. But, should aggressive behavior always be avoided? At times, controlled aggression might be appropriate in the workplace and, unless you are a pacifist, in defending one’s country. Consider acts of heroism in which people save someone by violently pushing them away from an oncoming subway train. Some really aggressive behavior results in good outcomes and can be judged virtuous.

Pain and suffering serve beneficial purposes, at least sometimes. At a very basic level, pain in my chest alerts me to inquire about the need for medical attention. Maybe we need to exercise more so that mild chest discomfort is addressed by better cardiac health. Earlier we introduced the DREAM gene that is linked to the perception of pain. Mice who do not have this gene have greatly reduced sensitivity to pain. It is hoped that more research will yield interventions that block physical pain, while maintaining a level of sensitivity necessary for good health.

Suffering is about more than physical pain. Suffering has a clear downside but also can have an upside. Suffering, such as existential angst, may lead us to connect more with other people in the journey of life. Pain and suffering can prompt wise reflection on life options. While it does not solve the problem of theodicy for the monotheistic religions, we should note that many, and perhaps most, people agree they have learned much from suffering. Although unfortunately not always redemptive, suffering sometimes can be a powerful teacher and build character.

Of all the religions, Buddhism has placed suffering at the center of its theological program. Suffering is the fundamental predicament of life, the basic problem, in this religion. It is typical to use a medical model here. The presenting problem or symptom is suffering, the diagnosis is craving or desire causing the suffering, and the prescription or cure is to eliminate desire, thereby eliminating the suffering. If, and this is a very big if, radical therapies and technologies were to one day eliminate pain and suffering, Buddhism would
need to engage fundamental theological work to reframe how it understands human suffering. Even now, and in the foreseeable future, technology that greatly reduces certain types of suffering merits Buddhist theological reflection. Of course, it is highly unlikely that technology will solve the problems of desire and attachment, but the reduction of suffering may generate questions in Buddhism about the nature of human suffering and our responses to this suffering.

Finally, the psychological argument has been made that “contrast experiences” are necessary. Humans have to experience some measure of unhappiness, or suffering, to know and value happiness. Mountains do not come without valleys is an old saying that holds some psychological and spiritual truth.

**The Quick Fix or Effort and Discipline?**

Perhaps it is impossible to be truly happy, content, and at peace without the hard inner work of processing experiences, building relationships, addressing our wrongs, and in a healthy way confronting those who have wronged us. Spiritual enhancement through biohacking is not likely to be sufficient in itself, but perhaps the religions will find that it can play a role in the spiritual path.

Taking a pill and logging onto a computer to have a spiritual experience takes effort, but certainly not the kind and amount of effort typically required for that experience. About once a year, Professor Mercer devotes the time and effort required for a weeklong spiritual retreat, often at a Roman Catholic Trappist or a Hindu monastery. Making this happen entails enormous scheduling considerations, packing, hours of driving, financial costs, time and effort in prayer and meditation, and a good bit of talking to people.

With all the current and looming technologies for enhancing both affect and spirituality, the role of effort and discipline becomes a central issue. Conceivably, effort and discipline are essential ingredients in the formation of a spiritual life and a happy life. However, if so, it is not at all clear how much effort and how much discipline are required. The same question can be raised about knowledge required to make spiritual experiences meaningful. The concern is that these technologies are a quick fix that cheats the spiritual seeker from authentic growth and the person who seeks emotional well-being from a greater wholeness.

It would certainly be much quicker and easier to swallow a pill, if that could provide the same emotional and spiritual benefits. On the one hand, it could be that the end-result experience is what matters most or, on the other hand, it could be that the process of getting to that experience is the essential component. Professor Trothen deliberately spends time in nature as part of her spiritual discipline. She finds that the process of being present in nature and being still in the moment is not only calming but helps to increase her attentiveness to ecojustice and the grave importance of figuring out how to make sacrifices, develop policies, and save our planet. It may be that radically enhanced spiritual
experiences may help us to deepen our awareness of the interconnection of life more quickly and spur us to address climate change more radically.

At one level, the question of effort is an empirical one—is the nature and extent of spiritual experience or mood produced by biohacking the same as, or of the same value as, that produced by traditional methods of spiritual practice or the hard work of developing emotional health? Measurements for emotional well-being are more advanced than are measurements for spirituality. We have tools for measuring spiritual distress and some for making spiritual assessments. Theoretically, we will also eventually be able to measure spiritual or mystical experiences, but we are certainly a long way from doing that reliably.

Some spiritual assessment scales have been developed that have been assessed as reliable and valid tools, in social scientific terms. But, as some critics have noted, it can be very difficult and unhelpful to reduce spiritual health to a set of Likert scale indicators. At the same time, these assessment tools provide spiritual health professionals with a way to begin building a spiritual diagnosis and treatment plan. The downside is in turning to a social scientific tool as reflective of a person’s Gestalt spiritual health.

For example, the Spiritual Distress Assessment Tool (SDAT) includes five items assessing unmet spiritual needs, associated with poorer health outcomes, in elderly hospitalized patients. The SDAT is helpful in identifying people who would benefit from spiritual care. However, the SDAT itself will not tell us the wider, often complex, narrative that gave rise to the unmet spiritual needs. The complexity of individual narratives unfolds only over time. To illustrate, for a cancer patient refusing chemotherapy, the SDAT could indicate unmet spiritual needs and what a spiritual effective treatment plan could look like. But the tool itself will not indicate the exact causes of the spiritual distress. To figure out the causes, one must be a skilled expert and listen to the person’s story, responding in ways that illicit more and preserve safety. Professor Trothen is certified as a spiritual health practitioner and supervisor by the Canadian Association of Spiritual Care. That certification required a process involving years of intense training and practice under the supervision of trained professionals. In other words, human touch, effort, and discipline are still very much needed in the practice of spiritual health.

The question of effort can be framed theologically. It might be that long term discipline, education, and mentoring are potentially salvific, but it may also be that pills and virtual reality are potential means of grace, that is, fresh new ways that God is making available alternative spiritual paths. Such enhancements, in other words, could be more extreme versions of microphones used in worship and Kindle tablets to read the Bible, or other low-tech devices

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26 Emily K. Trancik, “Lost in Translation: Spiritual Assessment and the Religious Tradition,” *Christian Bioethics* 19, no. 3 (2013): 282–298.

27 Stefanie Monod, Estelle Martin, Brenda Spencer, Etienne Rochat, and Christophe Büla, “Validation of the Spiritual Distress Assessment Tool in Older Hospitalized Patients,” *BMC Geriatrics* 12, no. 13 (2012). http://www.biomedcentral.com/1471-2318/12/13.
no one is questioning. Recalling the earlier discussion of suffering, it seems that if there is a quick path to a deeper spiritual experience that is life-giving and profoundly inspiring, then it would be good to take that short path if suffering is relieved and overall well-being improved.

Finally, the answer to whether effort is required for spiritual and emotional health may be yes and no, depending on the affective or spiritual enhancement at hand and the particular individual’s needs. One might conclude virtual reality is an appropriate technological support for spiritual formation and happiness but ingesting illegal hallucinogenic agents is not. If so, then we need to be clear about the criteria for drawing these different conclusions. Also, using Second Life for spiritual enhancement and emotional support may be acceptable if it is used in certain ways, perhaps as an adjunct to more traditional forms of spiritual formation and psychotherapy.

We do not presume to have the answers, but these kinds of questions will confront the religions in the brave new technological world increasingly a part of our lives. Commentators are already beginning to weigh in on the advisability of spirit tech. Just to give an example from the conservative side of the Christian theological spectrum, the marketing for one book states that the author “is a Christian who loves God and is attached to his iPhone.”28 The author grants that technology can be a tool to know God, but argues that caution is in order.

The Importance of Community for Spiritual Growth

All religions, some more than others, require and foster community. In Christianity, koinonia (Greek, communion or fellowship) is the word often used to describe the early church community with its members, at least ideally, thoroughly committed to each other and having “all things in common.”29 Similar expressions of the importance of community are found in other religions.

As religions embrace, to one degree or another, spiritual enhancement, the faithful will likely insist that the technology be used in such a way that it does not shortchange genuine community. This insistence may well be based in the human need for social interaction, as well as in theology. Ideally, technology supports and enhances the development of community that empowers individual believers in the faith community.

If Second Life is used in spiritual practice, it should not be commandeered to substitute for engagement in healthy social interaction. If entheogens are to be used, they certainly should be used legally, with proper guidance, and in contexts conducive for spiritual attainment. In fact, the research on such agents

28 Craig Detweiler, iGods: How Technology Shapes Our Spiritual and Social Lives and Selfies: Searching for the Image of God in a Digital Age (Ada, MI: Brazos Press, 2013). See also his book, Selfies: Searching for the Image of God in a Digital Age (Grand Rapids: Baker, 2018).
29 In the New Testament, e.g., see Acts 2:42–47 and 4:32–37.
is clear that set and setting are critical to the experience. That is why recreational use of LSD yields a very different experiential outcome than ingesting such an agent in the context of a spiritual community, long-standing ritual, commitment to spiritual growth, and competent spiritual guides.

Similarly, affective well-being cannot be understood outside of community and relationships. Research has shown that happiness is associated with altruistic behavior, under the condition that one does not self-sacrifice to the extent that one loses or damages oneself. Religions have known this for centuries. Feminist theologians and religious studies scholars have also recognized the dangers of the excessive tendency to self-sacrifice that has been encouraged within marginalized groups. Charitable acts are an important expression and command in Islam. Judaism upholds the preservation of life, and not just the preservation of our own lives but the lives of others, as the highest mitzvah. Daoism and the other karmic religions see altruistic acts as creating good karma. Religions do not mandate good acts just to make followers feel better, but they do so as a faith conviction that enhances one’s individual well-being, as well as that of the community, world, and one’s relationship with the transcendent.

Beyond the implications of spiritual enhancement for existing religions, we have seen at least one spiritual community emerge that is explicitly organized around superlongevity. We introduce the “Church of Perpetual Life” as an example of a possible new religious movement. The founder of the church is Bill Faloon, director and co-founder of Life Extension Foundation, a consumer advocacy, research, magazine, and supplement store group that is favorable to transhumanism. The Church of Perpetual Life website proclaims that

Our Mission is to assist all people in the radical extension of healthy human life, and to provide fellowship for longevity enthusiasts through regular, holiday and memorial services.

The website goes on to provide eight purposes of the church, which align the church with the transhumanist agenda in general. The “Welcome” message on the website reads:

Perpetual Life is the only science/faith based church in the world. We are not a bible based church & although we are not a Christian Church, many of our members are Christian & Jewish. We also have members that are Buddhist,

30 Stephen G. Post, “Altruism, Happiness, and Health: It’s Good to Be Good,” *International Journal of Behavioral Medicine* 12, no. 2 (2005): 66–77. https://doi.org/10.1207/s15327558ijbm1202_4.
31 www.lifeextension.com.
32 https://www.churchofperpetuallife.org/. Here is a somewhat critical documentary of the Church and one which addresses the relationship between the Church and the Life Extension Foundation. “Worshipping Immortality at the Church of Perpetual Life” (April 11, 2016). https://www.youtube.com/watch?v=EvaC67CeBDA.
Humanist, Atheist, and Hindu. What brings us together as a Family is our Faith in Physical Immortality. Humanity is constantly overcoming obstacles that at first appear impossible, and once overcome, a new era dawns and humanity is elevated. And so it is with our belief in living Unlimited Life Spans. Humanity is on the brink of a new Era where your physical health becomes Optimal and death becomes Optional.

Appropriation of Spiritual Disciplines for Personal Growth

Mindfulness meditation has been appropriated and removed from the context of Buddhism and used as a way to enhance relaxation, reduce stress, and focus attention. The removal of mindfulness from the Buddhist context into an individualistic, secular context, has been criticized as misrepresenting Buddhist mindfulness and losing the greater spiritual and socially transformative meaning of the practice.\(^3\) The Western focus on individual mindfulness practices turns these practices into something disconnected from the traditions in which they originated. While mindfulness practices can contribute to affective and spiritual enhancement, significant aspects of spiritual wellness, at least, might be lost through appropriation into a secular context. Such appropriation can also be seen as contributing to the marginalization and misunderstanding of the originating religious groups.

The above analysis of mindfulness can also be applied to hatha yoga, which has a rich spiritual context in Hinduism and is often placed in a physical health and exercise context in the west. Indigenous spiritual practices have been appropriated in the same way. Sweat lodges and spirit walks are sometimes used with good intentions to enhance wellness but without careful respect for the originating people and spirituality. Connection and meaning are subverted by thoughtless appropriation. As a result, the full meaning of the spiritual practice is compromised, as well as the relationship with Indigenous people or, in the case of mindfulness practices, Buddhists.

These religious and ethical implications need to be carefully considered when we use spiritual practices in a quest to improve our spiritual and emotional health. Part of that health is, indeed, our relationships to the followers of these traditions and to the integrity of religious practices that, when practiced respectfully, enhance the well-being of not just the individual but of all people, creatures, and the earth.

Can Robots Do the Jobs?

We may see an increasing turn to robots to help provide, or to actually provide, spiritual direction and emotional support. At present, in health care facilities

\(^3\) Maria Ishikawa, “Mindfulness in Western Contexts Perpetuates Oppressive Realities for Minority Cultures: The Consequences of Cultural Appropriation,” *Simon Fraser University Educational Review* 11, no. 1 (2018). https://doi.org/10.21810/sfuer.v11i1.757.
for example, while robots serve primarily to fill healthcare “staffing gaps,”\textsuperscript{34} they are not capable of providing in-depth or complex emotional support and addressing ontological issues associated with spiritual and existential distress. When we grapple with a sense of our value and meaning as we experience physical losses, or when we struggle to accept our mortality, a robot that uses stock phrases is not going to be sufficient.

We do not minimize the value of robots doing physical labor. Today’s clunky robot will evolve dramatically in the coming years with increasing cooperation between the field of robotics and rapidly advancing AI capability. It is theoretical now, but conceivably artificially intelligent robots of the future could perform better than today’s trained psychotherapist. The AI robot would have immediately available all the theories and techniques of psychotherapy, every case study available, facial and body movement recognition, and, in addition, would never fall asleep during the therapy session.

With the catchy main title, “Your Robot Therapist Will See You Now,” this summary paragraph captures some of the possibilities:

Research in embodied artificial intelligence (AI) has increasing clinical relevance for therapeutic applications in mental health services. With innovations ranging from “virtual psychotherapists” to social robots in dementia care and autism disorder, to robots for sexual disorders, artificially intelligent virtual and robotic agents are increasingly taking on high-level therapeutic interventions that used to be offered exclusively by highly trained, skilled health professionals.

The article goes on to qualify the hopes for AI therapists, noting that “In order to enable responsible clinical implementation, ethical and social implications of the increasing use of embodied AI in mental health need to be identified and addressed.”\textsuperscript{35}

The exact same kind of conversation can be applied to religious leaders and the services they deliver. We seem to be in the beginning stages of a time when the conversation about many professional jobs has to do with how to effectively integrate AI and robots into the job description, along with the human professional. The time may very well come, however, when full expendability is the question. Perhaps the day will come, for example, when the Roman Catholic Church has a technological way to address its shortage of priests. Or, it may be that AI does not provide the same sense of connection, depth, and competence that a trained, real person can offer. We are seeing rapid changes in AI. The future may bring much promise and, possibly, some limits.

\textsuperscript{34} Corinne Purtill, “The Robot Will Help You Now: How They Could Fill the Staffing Gaps in the Eldercare Industry,” \textit{TIME Magazine} (November 4, 2019).
\textsuperscript{35} Amelia Fiske, Peter Henningsen, and Alena Buyx, “Your Therapist Will See You Now: Ethical Implications of Embodied Artificial Intelligence in Psychiatry, Psychology, and Psychotherapy,” \textit{Journal of Medical Internet Research} 21, no. 5 (May 2019). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6532335/. https://doi.org/10.2196/13216.
Ethical Issues

Affect and Spirituality: What Exactly Are We Trying to Enhance?

Regarding emotional well-being, complicating the discussion about happiness are findings regarding what really contributes to our happiness. Engaging in challenges to overcome barriers perceived as a bit tougher than our skill level yields happy moments. If philosophers like Hubert Dreyfuss and Sean Dorrance Kelly are correct about our need for these everyday challenges and “shining moments” filled with spiritual emotions, then the more we create technology that solves these challenges, the harder it will be to be happy.36 For example, many of us have dishwashers. The argument is that without these dishwashers, it was easier to engage in an everyday challenge—getting all our dishes done—and succeed, thus giving us an opportunity for happiness.

Others argue that altruistic acts towards strangers is the surest way to happiness and generally feeling good emotionally. As we mentioned earlier, in some research, spirituality has been associated with increased compassion and prosocial—including altruistic—behavior toward strangers.37 Maybe, if we want to feel better emotionally, it is more effective to work on enhancing spirituality or morality, including kindness.

As with moral enhancement and cognitive enhancement, what it means to feel better emotionally and spiritually is contextual. From a virtue ethics perspective, different emotions and spiritual experiences may be more or less desirable, depending on what situation we are in, who we are, what we want to do, and who we want to become. These desires are influenced by the sources of authority that shape our values and our identities.

Being different and having varying views on what makes us better do not mean we should act as though we are disconnected from everyone else. Different emotions, for example, are more or less desirable depending on what social messages we receive, our values, and who we want to be and become. It is important that we take a careful look at differences, asking what informs the differences. We learn from diverse perspectives and, as we have emphasized, a religiously informed lens recognizes the interconnectedness of all life.

The Therapy—Enhancement Continuum: What It Means to Make Us Better

The therapy or enhancement debate continues to be relevant in this chapter. What it means to be human prompts questions about how we are human and how we change ourselves in acceptable and good ways. For both affect and spirituality, although it is not fully clear where the line is crossed between an

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36 Herbert Dreyfuss and Sean Dorrance Kelly, *All Things Shining—Reading the Western Classics to Find Meaning in a Secular Age* (New York: Free Press, 2011).

37 Laura Rose Saslow, et al., “The Social Significance of Spirituality: New Perspectives on the Compassion–Altruism Relationship,” *Psychology of Religion and Spirituality* 5 (2013): 201–18.
acceptable and unacceptable intervention, we have identified the interconnection of life as one touchstone dividing point applicable to all religions. An enhancement helping us honor the relatedness of all life and make better (almost?) everyone’s lives and the earth is likely to be embraced by most religions. But we still have the challenge of figuring out what counts as appropriately better.

Consider drugs that enhance mood. The legalization of marijuana has been a hot topic in many countries. The trend, although with plenty of starts and stops and debate along the way, in Asia and the West has been in the direction of greater use and a loosening of restrictions. Medical pot is therapeutic when it relieves pain in a cancer patient undergoing chemotherapy or radiation treatments. The THC in marijuana creates the high and not all marijuana derivatives contain THC. CBD (cannabis oil) for pain relief does not produce a high, but the pot brownie edible kind and other forms do. Is getting high enhancing, or not? Possibly, there are certain conditions in which mood elevation from marijuana can be considered enhancing, and other conditions in which such a mood alteration is not so considered. The conversation needs to get complicated again. What it means to make our moods better, and who gets to decide what it means to feel truly better, are critical questions.

Consider drugs that enhance spirituality. Using entheogens could be considered spiritual doping. Conceivably, a difference can be identified between using entheogens (if legal for religious use) and using meditation to deepen spirituality. Likewise, maybe a distinction can be drawn between using something like Buddhist mindfulness meditation and using pharmaceuticals, both of which can decrease stress, anxiety, and fear. Some people contend emphatically there are significant differences, and it is important to be clear and precise about what those differences are. Those differences may be related to the effort and discipline required by spiritual practices and deep intrapersonal reflection, as discussed earlier in this chapter. For some, the reason for rejecting pharmaceuticals is the negative image of street drug use and doping, which is perhaps a more questionable argument.

Some critics have labeled listening to music in sport a form of emotional doping, since fMRIs show neural activity that can improve performance. Many athletes run faster when they listen to certain music. Similarly, the controversial super polyurethane swimsuits, already discussed and dubbed “doping on a hanger,” made swimming easier, resulting in many broken records. The use of illegal anabolic steroids is also called doping. The term has strong negative connotations and tends to be interpreted as moving into an unacceptable enhancement side of the continuum. What if we change the term “doping” to “enhancing”? Interestingly, that might alter some people’s outlook on the acceptability of using entheogens to evoke spiritual experiences or better moods. Language matters.

E.g., Grace Shao, “Medical Cannabis is Gaining Momentum in Asia,” CNBC (July 14, 2019). https://www.cnbc.com/2019/07/15/medical-cannabis-is-gaining-momentum-in-asia.html.
Much has to do with the values and beliefs embraced by a religion and how these values and beliefs may be understood in terms of what it means to make us truly better. Modalities such as virtual pixel spirituality and digital worship that allow people to connect with others when they otherwise may not be able to connect, potentially enhance spirituality and in so doing allow us to become more deeply human. For our purposes, the dividing point of what counts as an acceptable or unacceptable enhancement on this continuum rests not on a secular notion of “normal,” but rather on a religious understanding of what makes us better, keeping in mind that each religion can define what makes us better in varying ways.

Choice

As with other enhancement categories, many transhumanists frame radical human enhancement as mainly a matter of individual choice. Opting for an affective or spiritual enhancement should be at one’s personal discretion. However, as we know and as the religions emphasize, decisions are not only about the decision maker, although it can be difficult to see how choices affect others and why the person choosing should care.

A burgeoning boost to spirituality, with affective enhancement implications, are pixel spiritualities such as virtual worship and avatar programs. Pixel spiritual practices are found in various religious traditions. Buddhism, for example, is alive and well in Second Life, and a recent study by Gregory Price Grieve provides an analysis and critique that can apply to virtual reality in any religion. Grieve contends that online religious practice can be trivial and even harmful if these online experiences distract from real-life experiences. Virtual reality has even been critiqued as a haven for people who cannot cope in real life. Grieve’s research supported his theory that personal relationships were the main deficits in people’s lives leading them to Second Life.

That said, pixels on a screen can also open the door to a fascinating, sophisticated, and, according to Grieve, authentic spirituality that can clearly be meaningful to participants. There is always the question of what “real” and “authentic” mean. We have to decide if physicality and face-to-face interaction are essential components of religion. If so, then Second Life and other virtual world spiritualities fail the test.

When religious followers choose pixel spirituality experiences over face-to-face spiritual encounters, they affect not only themselves but the flesh and blood people with whom they worship, study holy text, and share food. During the COVID-19 pandemic, many religious communities figured out creative, online ways to be together. Some members found these methods unsatisfying largely because of the physical limitations on interactions. Others were very

39 Gregory Price Grieve, *Cyber Zen: Imagining Authentic Buddhist Identity, Community, and Practices in the Virtual World of Second Life* (London: Routledge, 2016).
grateful for a virtual option and enjoyed it. Virtual options may enhance relationships and fill gaps, providing new ways of relating and connecting.

In his study, Grieve argues that a cybersocial being emerges from the feedback between the user and their avatar. So, players (“residents” is the term used in Second Life) are cyborgs, that is, flesh and blood people on the computer keyboard and avatars in the virtual world. The Second Life religious groups meet in a place, built by residents, that serves as a liminal (a space between worlds) alternative to real-life work and home.

Choice raises the issue of consent. Consent is problematic, for example, with clinically depressed or anxious people, especially when some affective enhancements are commercially available to anyone, without professional supervision. Making decisions well when we are not thinking as we would without depression or anxiety (and these are only two possible examples) is complicated. Possible risks of the therapy or technology only adds to the complexity of consent.

It is complicated to make an informed and healthy choice for anything we have not yet experienced, even if the effects are not permanent, if it is not passed to progeny, and if the enhancement is safe. These are big “ifs,” which point to the value of standard testing of the intervention, the functioning of regulatory bodies, and the delivery of the intervention under professional supervision. Assuming an enhancement meets the criteria of all three “ifs,” still the consumer cannot know what a new induced emotional or spiritual state will feel like for sure, until they are in it. Hallucinogenic agents are excellent examples of what we are talking about. Proper testing, certification by reputable agencies, and professional delivery certainly help us make good choices about powerful enhancements but will not tell us everything.

**Justice**

Choices about enhancements, by individuals and society, if ethically grounded, will work to promote justice or, at the very least, will not amplify injustice. The danger of amplifying existing systemic power imbalances is one example of a serious potential injustice that runs as a theme through these chapters and is a major consideration of a precautionary approach.

Amplification of unjust power structures, on the front end, comes when enhancements are researched, designed, and funded largely by people with enough social power and access to university education and jobs at well-funded pharmaceutical and technological labs. On the back end, the interventions are usually available primarily, or only, to the wealthy and politically connected with easy access.

Consider the example of pixel spirituality access during the COVID-19 pandemic. A very good friend of Professor Trothen’s is a religious leader in a rural Christian pastoral charge that includes two churches. She recorded and posted worship services on social media for her congregations, but she was aware that not all of her parishioners had the technology, internet access, and/or technological know-how and confidence to access these worship services.
Other area religious leaders, of different faith traditions, did not have the resources and/or ability to record and post worship services. Rural communities and poor communities may not have access to sufficiently high band-width internet to utilize the newest technology, and they may not have the education and knowledge base to utilize it even if they have access. Plenty of families cannot afford a computer. These access issues are justice issues, and socio-economic status tends to align with racial bias and privilege. All of these justice issues related to pixel spirituality can be applied to the difficulty of lower socio-economic classes receiving services that contribute to emotional and spiritual well-being.

The religions have a strong commitment to justice. Earlier in this chapter, we addressed the appropriation of traditional spiritual techniques (e.g., mindfulness meditation, sweat lodges, hatha yoga) for modern, secular use. There are additional ethical issues not discussed in these pages, such as profit-making from technologies that utilize personal data of consumers, arguably not always with their explicit and well-informed consent. All of these issues are justice concerns. The costs and benefits must always be weighed, hopefully with the aim of achieving a just outcome.

**Questions for Discussion**

1. What does it mean to enhance happiness? Does your answer change at all if you deliberately engage a religious perspective?
2. Is more happiness a mood (affective) enhancement? Can you think of any contexts in which happiness would not be an enhancement?
3. How might different religions define happiness?
4. What other emotions, beyond happiness, might be good to change? From a religious perspective, do you think there should be any limits on enhancing these emotions? Why or why not?
5. Can you imagine affective enhancement scenarios that would be very positive? Very frightening?
6. Do you think sex robots have any legitimate role to play in making us better?
7. How do you see the relationship between radical affective enhancement and radical spiritual enhancement? What is the difference between the two?
8. What do you think about using entheogens for spiritual enhancement? How do your values relate to your response to this question?
9. How do you think using Second Life to attend a Bible teaching session in virtual reality might differ from attending Sunday School taught with PowerPoint?
10. How do you see social justice relating to the use of affective and spiritual enhancements? Can you think of any ways such enhancements might help to address social injustice? Reflect on how social justice issues may be exacerbated by particular enhancement technologies discussed in this chapter.