Health and Flourishing: An Interdisciplinary Synthesis

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Abstract Human flourishing is a complete state of well-being, comprised of essential elements that are universally valued across cultures as ends in themselves rather than as means to ends. Understanding the ontological interconnectedness of individual and communal flourishing has important implications for health. A narrow view of health has been framed in biomedical—and frequently physical—terms as the absence of disease or impairment. But broader and more holistic understandings derived from long-standing wisdom in the humanities are increasingly being used in tandem with the allopathic approach, thereby offering a relational understanding of health that transcends a focus on physical infirmity and locates the individual in social, ecological, and spiritual contexts. This wisdom has profound implications for the organization of healthcare, including a restoration of compassion as the heart of healthcare practice, as recent iterations of lifestyle medicine and integrative medicine have demonstrated. A synthesis of interdisciplinary knowledge affirms the goal of building a wellbeing ecosystem that transcends self-centeredness and reimagines health *as* flourishing.

Keywords Flourishing · Health · Ontological interconnectedness · Compassion · Religion · Spirituality

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1 Connecting the Flourishing of Individuals, Communities, and Ecosystems

This chapter offers a relational understanding of health that transcends a focus on physical infirmity and locates the person in social, ecological, and spiritual contexts. A synthesis of interdisciplinary knowledge affirms the goal of building a wellbeing ecosystem that reimagines health as flourishing (VanderWeele et al., 2019). Human flourishing is a state of *complete wellbeing*, comprised of essential elements that are universally valued across cultures as ends in themselves rather than primarily as means to ends (Lee et al., 2021b). At the individual level, this would entail at least five domains: happiness and life satisfaction, physical and mental health, meaning and purpose, character and virtue, and close social relationships (VanderWeele, 2017). But individual flourishing is always constituted and sustained by communal flourishing, requiring an understanding of such group-level factors as mutuality, belongingness, mission, justice, relational growth, effective leadership, and trust (VanderWeele, 2019). For most people, flourishing is also inseparable from spiritual well-being (Lee et al., 2021a).

Interrelationships among the domains of material and spiritual well-being of individuals, communities, and ecosystems might be termed *intersystemic flourishing*. This perspective foregrounds the integral relationship between the "contextual-social sphere" and the "psychological sphere," representing an "ontological interconnectedness" (Delle Fave et al., 2016, p. 1; Slife & Richardson, 2008) that is constitutive of both health and flourishing:

> [A]ll religious and philosophical traditions identify the highest stage of human development with the transcendence from the individual self, by acknowledging its interconnection with a broader and more complex reality.... [A]cross individualistic and collectivistic countries varying in their value orientation, harmony represents the core feature of happiness in its individual and social manifestations, as it presupposes connections or bonds at the intra and interpersonal levels (Delle Fave et al., 2016, p. 19).

A holistic, harmonious, interconnected viewpoint brings into clear focus relationships among individual and communal flourishing and their overlapping pathways.

For some purposes it makes good sense to treat empirical reality *analytically*, drawing distinctions between, for example, a flower and the soil. From this way of seeing, the flower is separate and has specific properties that distinguish it from soil. This perspective has obvious value because it helps us understand and categorize meaningful empirical distinctions. Understanding discrete parts helps us better see the functioning of larger systems. But used exclusively, an analytical way of viewing the world may deemphasize the importance of interconnections, in a manner that is both cognitively thin and fundamentally *unloving* (De Jaegher, 2019). From a more *holistic* or *living system* (Reed, 2007) perspective, the flower and the soil participate in *interbeing*.

In other words, the creation and sustenance of the flower requires the soil, just as the creation and sustenance of the soil requires living things such as flowers. They exist in a state of "interdependent origination" (Manga, 2008, p. 121), a perspective

that reflects awareness of the essential "complementarity" (Bateson, 1971, p. 16) found in systems theories such as cybernetics. The micro (flower) and macro (soil) are ontologically interconnected: the very being of each is irreducibly dependent on the other. Human flourishing requires the honoring of interbeing because the quality of the soil in which people have been planted reflects a larger social, political, and environmental *wellbeing ecosystem* that fundamentally determines their ability to grow, realize their potential, and live long, healthy lives, often approaching 100 years (Buettner, 2012; Jones, 2000).

Analytical and holistic perspectives are both valid ways of seeing the world, useful for different purposes. However, a de-emphasis on the holistic in our healthcare, economic, political, and other social systems has contributed to fundamental disconnects that simultaneously impede both human flourishing and a thriving ecosystem. This has led to proposals for more interconnected ways of seeing and redesigning the larger system to reflect principles of interbeing, using holistic frameworks such as Doughnut Economics (Raworth, 2017), Systems Integrity Building Economy or Interbeing Economy (Manga, 2008), Eco-System awareness (Scharmer & Kaufer, 2013), Compassionomics (Trzeciak & Mazzarelli, 2019), Regenerative Design (Reed, 2007), Whole Health (Gaudet & Kligler, 2019), and Ecosynomics (Ritchie-Dunham, 2014).

Such holistic conceptual platforms contrast sharply with narrow analytical paradigms such as conventional economics, rooted in scarcity and zero-sum structures (Ritchie-Dunham, 2014), organized for extraction and disconnection rather than wholeness (Laloux, 2014), and reflective of an ego system awareness characterized by the selfish mindset of "maximum me" (Scharmer & Kaufer, 2013). Our chapter highlights the holistic in order to advance the argument that we would be better off if we imagined health, not solely in terms of the functioning of the individual, physical body, but in a much more encompassing way: as flourishing (VanderWeele et al., 2019).

Philosophers have noted that the term "health" has had many different meanings (Woods & Edwards, 1989). We argue that the integration of individual and communal/contextual flourishing has important implications for understandings of health. A narrow view of health has been framed in biomedical—and frequently physical—terms as the "absence of any disease or impairment" (Sartorius, 2006). But broader and more holistic understandings derived from long-standing wisdom in the humanities are increasingly being used in tandem with the allopathic approach, thereby offering a relational understanding of health that transcends a focus on physical infirmity and locates the individual in a social context. In fact, the World Health Organization has defined health as "a state of complete physical, mental and *social* wellbeing" (emphasis added) for over 70 years (Sartorius, 2006, p. 662; VanderWeele et al., 2019). Yet the implications of this comprehensive definition of health, along with its relation to flourishing, have only recently been considered (VanderWeele et al., 2019; Delle Fave et al., 2016).

2 Health as a Dynamic Equilibrium Constituted by Ontological Interconnectedness

Once we move beyond the overly individualistic and biological focus on the physical health of the individual's body, we are prepared to understand health more dynamically and holistically as "an equilibrium that an individual has established within [oneself] and between [oneself] and [one's] social and physical environment" (Sartorius, 2006, p. 662; see also Dodge et al., 2012) which includes "the resilience or capacity to cope and maintain and restore one's integrity, equilibrium, and sense of wellbeing" (Huber et al., quoted in Bircher & Kuruvilla, 2014, p. 365). This view aligns with ancient wisdom, such as the *Yellow Emperor's Inner Classic*, a roughly two-thousand-year-old text on Chinese medicine that emphasizes inner balance as well as harmony with the wider environment. It is perhaps inevitable that health framed in this way becomes the presence of "a state of wellbeing" rather than the absence of disease and that such a state is "emergent from conducive interactions between individuals' potentials, life's demands, and social and environmental determinants" (Bircher & Kuruvilla, 2014, p. 368). An individual person's flourishing is always a function of the quality of relationships and myriad other aspects of growth-enhancing systems (Delle Fave et al., 2016). The old saying that "person becomes a person through other persons" speaks to this interconnectedness.

Instead of piecemeal approaches, a synthesis of interdisciplinary knowledge affirms the goal of building a *wellbeing ecosystem* grounded in "interconnectivity" (Buettner, 2012, pp. 256–7; see also Gaudet & Kligler, 2019). These interconnections include holistic ways of relating with one's self, other people and living things, one's environment, and with the various domains of individual and communal flourishing. Much of our current biomedical epistemology has been grounded in propositional logics and technical rationality, driven by an analytical carving up of totalities into discrete components. A more holistic, dialogical way of knowing attends to the porous boundaries between individual and ecosystem (De Jaegher, 2019; Delle Fave et al., 2016; McNiff, 2000; Nisbett et al., 2001; Steger et al., 2008). This nonreductionist orientation reveals the inseparability of health and flourishing.

Consider the interconnections among an individual person's diet and health—a quite personal and micro-level issue—in the context of systems of food production and their impacts on a sustainable biosphere. A holistic view reveals that the health of individuals, communities, and the entire planet are inseparable. Building individual diets primarily on a foundation of high-quality plant-based foods would save an estimated 11 million lives per year globally due to a reduction in noncommunicable disease (a roughly 20% reduction in mortality), while also promoting sustainable food production processes that work within ecological limits (Willett et al., 2019). What is healthy for the individual is also healthy for the ecosystem and vice versa. A planetary health diet is designed at the intersection of individual and ecological health and is properly understood as a wellbeing ecosystem. An individual that contributes to the environmental destruction that results from unsustainable collective dietary choices incurs personal health risks (e.g., heart disease, diabetes) from

the diet itself and from the degraded global environment (e.g., heat waves traced to global warming causing increased mortality, Berardelli, 2019).

Appreciation of such connectedness has profound implications for the organization of healthcare, as recent iterations of lifestyle medicine, integrative medicine, and the *whole health* transformation of systems have demonstrated (Frates et al., 2019; Gaudet & Kligler, 2019). In such holistic systems, the doctor is not primarily an expert who "treats" a patient. Rather, the doctor is a coach, one node in a network, working within interdisciplinary relationships involving the family and community that help the patient find their own wholeness, balance, and ultimately flourishing (Frates et al., 2019). This approach tends to restore compassion (Trzeciak & Mazzarelli, 2019) as the heart of healthcare practice and privileges a relational "ethics of care" (Gilligan, 1993) over fidelity to abstract principles divorced from the context of specific relations. The compassion of healthcare workers by itself has been found to prolong the life of patients. But in addition, the false choice of compassion or quality clinical care has given way to strong empirical evidence that a clinician who chooses to express compassion is more likely to also be more clinically competent. One reason is that compassionate healthcare workers are more likely to listen to patients, and attentive listening might itself be experienced by patients as healing, but such listening also provides the worker with more clinically useful information about the patient which enables higher quality care (Trzeciak & Mazzarelli, 2019). Rather than treating patients primarily as biological *bodies* or *specimens* to be medicated, skillful practitioners combine emotional and cognitive care in the context of relationships with *persons* that are both warm and friendly, enabling them to be known more fully, which contributes to treatment effectiveness (DiBlasi et al., 2001; De Jaegher, 2019).

This kind of warm, caring culture—rooted in abundance rather than scarcity (Ritchie-Dunham, 2014)—can be assisted by a structural redesign of large systems currently rooted in transactional and extractive relations: those that diminish the flourishing of the many in order to materially enrich the few. For example, a nurse in the Netherlands founded Buurtzorg after years of dissatisfying experiences in a bureaucratized nursing context which harmed the health and wellbeing of both patients and nurses (Laloux, 2014). The goal of the new organization is to promote high-quality nursing practice grounded in warmth and intimacy. The nurse is partly a coach and plays an important role in expanding the patient's network of support, including family members and even neighbors. Holistic and compassionate health is situated in a web of supportive—even regenerative—social relationships that also impact the other domains of flourishing. The nurse attends to the same patients for many years, often for life, building strong and meaningful bonds. Although this is less efficient in a narrow economic sense than bureaucratized healthcare, Buurtzorg's nonhierarchical structure reduces costs by eliminating bosses and other forms of bloated administration. Everyone at Buurtzorg is a leader, enhancing a sense of purpose and life satisfaction.

3 Social Determinants of Health and Social Connectivity

To continue our exploration of interconnections between individual and communal health and flourishing, we turn to the subject of the social determinants of health: non-medical social conditions that adversely affect physical health and the harmful effects of poor healthcare. These conditions are inequitably distributed. In fact, there is evidence that "iatrogenic damage not associated with recognizable error. . . constitutes the third leading cause of death in the United States, after deaths from heart disease and cancer" (Starfield, 2000, pp. 483–484). Abundant research has demonstrated both the adverse effects of material deprivation (food, water, poverty) and the positive benefits of assets such as social capital that emerge from larger social and political systems on an individual's health, including important correlations with demographics such as race and ethnicity, gender, education, and occupation (Braverman et al., 2011; Braverman et al., 2010; Kim & Kawachi, 2006; Link & Phelan, 1995; Lucyk & McLaren, 2017; Marmot, 2018). Individual health and wellbeing are a function of social policy and the extent to which the healthcare system is able to effectively serve all groups of people (Stout, 2017). Policies that produce poor, rocky soil inhibit the flourishing of individuals planted in this soil (Jones, 2000); these individuals are then less empowered later in life to contribute to the health of the soil that will nurture the next generation.

Health and happiness tend to covary and both are affected by the same social determinants. One study of 24,188 adults in 36 US communities revealed that individuals in households with the lowest incomes were roughly four times more likely to report being both unhappy and having poor health. Education was strongly related to these two outcomes as well. But the positive association between health and happiness among individuals was not fully explained by the social determinants. These two aspects of flourishing appear to be co-constitutive. Furthermore, the covariation between health and happiness was even stronger at the community level, suggesting further need to understand the relationship between individual and collective covariation (Subramanian et al., 2005). In sum, happy people tend to be healthy, partly due to the quality of the soil in which they have been planted, and happy places are even more likely to be healthy places. Consider also that average scores during the COVID-19 pandemic declined at roughly the same magnitude for happiness, emotional health, and physical health compared to the time period before the pandemic. Interestingly, the average score for the character and virtue domain of flourishing was largely unchanged across these same time points (VanderWeele et al., 2020). Social determinants therefore do not affect all domains of flourishing in the same manner: physical and emotional health (including happiness) are particularly sensitive to changing conditions of the soil. Domains such as character may be more resilient to short-term fluctuations in social circumstances, but perhaps only because they have much deeper roots in less variable soil.

3.1 Interrelationships Among Domains of Flourishing

But before we consider these deeper roots, which include spirituality, it is necessary to reflect on why the deprivations associated with the COVID-19 pandemic adversely affect health and happiness. One possible explanation is that these domains are strongly affected by other aspects of flourishing such as a sense of purpose, social connectedness, and the material stability necessary to sustain these domains over time, all of which have declined during the pandemic (VanderWeele et al., 2020; see also Trudel-Fitzgerald et al., 2019). If an individual has lost a job because of the pandemic, not only does their material stability suffer, along with increased worry about paying bills, but they also miss out on the sense of purpose formerly associated with a job. Life-affirming connections with valued co-workers might be lost as well.

The literature on these interconnections is voluminous. For example, it is well-known that those who are socially isolated, compared with people who have strong social ties, experience greater threats to physical health, including both morbidity and mortality. Disempowering relationships are "at the heart of poor health—physical, mental, and emotional" (Hari, 2018, p. 69). On the other hand, a meta-analysis based on more than 300,000 participants revealed that supportive relationships increased the likelihood of survival by 46%, a finding comparable to results for risk factors that are considered more "biomedical," such as smoking, exercise, and diet (Holt-Lunstad et al., 2010). Similarly, in another study senior citizens who scored lowest on a psychological life purpose inventory were found to be 2.66 times more likely to die from heart and circulatory-related conditions compared to those with the highest purpose scores (Alimujiang et al., 2019; see also Kim et al., 2020a; VanderWeele et al., 2019). Stress is also widely recognized as a major cause of death, but encouragingly the mortality inducing effects of stress can be eliminated if individuals engage in "unpaid helping activities directed toward friends, neighbors, or relatives" (Poulin et al., 2013, p. 1650). This is consistent with the *undoing hypothesis*: the experience of positive emotions is able to correct or undo the harmful effects of negative emotions, including cardiovascular functioning (Fredrickson et al., 2000). Given such regenerative findings, it is little wonder that doctors prescribe volunteering or benevolent service as medicine (Post, 2017). All of this suggests that stressful, purposeless, disconnection *is* poor health. Physical symptoms and even death are manifestations of this empirical fact. Warm, caring service to others—whether to family, friends, strangers—is medicine that positively affects physical health and other aspects of whole-person flourishing (Chen et al., 2019a; Chen et al., 2019b; Ironson et al., 2018; Johnson et al., 2018; Kim et al., 2020b; Poulin et al., 2013).

The opportunity to meaningfully engage in benevolent service to others is not simply an individual choice. Broader group dynamics are also important, such as living in a community where doctors routinely practice social prescribing and help connect their patients to viable opportunities to volunteer. More generally, all of the flourishing domains, including physical health, are the result of the *interaction* of the

individual (flower) and the collective (soil): "people are embedded in social networks and... the health and wellbeing of one person affects the health and wellbeing of others" (Fowler & Christakis, 2008, p. 8). We will explore this thesis by considering the evidence that happiness is not merely the "province of isolated individuals" or "a function of individual experience or individual choice" (Fowler & Christakis, 2008, p. 8)—it is a resource that thrives and grows with community engagement.

One study about the spread of happiness in social networks followed over ten thousand people for three decades, including the initial study participants, the next two generations of children, and their close contacts. Reinforcing our theme of ontological interconnectedness, findings indicated that an individual's happiness was connected with the happiness of people in a social network up to three degrees of separation, including "one's friends' friends' friends" (Fowler & Christakis, 2008, p. 8). This research shows that, geographically, happy people tend to be found within large groups of other happy people and the happiest are at the center of these social networks. Happiness is partly a "property of groups of people" (Fowler & Christakis, 2008, p. 7) and the future happiness of an individual can be predicted by network characteristics. Just as individuals are influenced by the network, changes in the happiness of individuals have ripple effects that "generate large scale structure in the network, giving rise to clusters of happy and unhappy individuals" (Fowler & Christakis, 2008, p. 7).

Happiness, like any emotional state, can be directly transferred from one individual to another through mimicry in physiological processes from our brain to our bodily actions, especially facial expressions. Experiencing happiness and associated facial expressions improves social relations by spreading pleasurable emotions in others, acknowledging and rewarding the efforts of others, and by prompting, facilitating, and encouraging continuing social contact. Positive emotions have a broadening effect as well: they expand cognitive and behavioral flexibility, which builds lasting resources in the form of social abilities, traits, and bonds (Fredrickson, 2016). The second author learned from one of Fredrickson's undergraduate courses about how experiencing awe for the natural world could influence views on spirituality, which is a resource that enhances meaning and connection. In this way, positive emotions not only spread to others in a given moment, but also years later, as they build resources and relationships that reinforce and recreate them. In other words, positive emotions are one set of durable nutrients that contribute to rich, fertile community soil.

Positive emotions therefore create an environment for people to experience and spread these emotions to others. For example, love-the-emotion is a type of positive emotion that is inherently shared between two or more individuals during positive social interaction that creates positivity resonance (Fredrickson, 2016). This is different from, but it contributes to, love as a larger, dynamic system. An accumulation over time of the momentary experience of love-the-emotion in a social network will strengthen the love system, with profound implications for physical health and other domains of flourishing. In fact, during the COVID-19 pandemic, the accumulation of such moments might be saving lives. Social interactions comprising

love-the-emotion are associated with behaviors like mask-wearing that can prevent viral spread, as well as with charitable acts to respond to community needs. In this way, moments of love-the-emotion experienced between two or more individuals not only lead to more of these moments with others with whom these individuals interact, but they also motivate prosocial tendencies that directly lead to better community health (West et al., 2020). In other words, love-the-emotion fosters physical health and broader wellbeing, including inspiring actions that protect community health. These moments between and among family, friends, acquaintances, and strangers create and strengthen bonds, meaning, and purpose on individual levels, and community well-being on a collective level.

3.2 Neurological and Physiological Pathways

The neurological and physiological pathways through which close social relationships, as well as emotions like love or compassion, influence physical health are becoming better understood (Uchino & Way, 2017). For example, when researchers induce feelings of anger, physical symptoms such as increased heart rate, headache, muscle pains, and dry mouth persist from 3 to 6 h. Conversely, inducing feelings of compassion even for 5 minutes increased the level of salivary immunoglobulin A (S-IgA), an important measure of immune function and parasympathetic nervous system activity, while also providing recipients with "a general state of wellbeing, feelings of relaxation, and increased energy which often lasted throughout the day" (Rein et al., 1995, p. 102). With such findings in mind, it is easy to imagine how being immersed over time in a social network comprised primarily of compassionate people (or, conversely, angry people), would nurture (or harm) one's physical body through positive (or negative) experiences with others and through positive (or negative) habits related to our own ability to relax (or feel stress). We therefore are profoundly affected by the extent to which our networks model a virtuous "cycle of renewal" (Boyatzis & McKee, 2005, p. 212) which trains us to skillfully "turn off" our sympathetic nervous system (i.e., the "fight, flight, or freeze" stress-response) and engage the parasympathetic ("tend and befriend" or "calm and connect"). Such practices "give you the ability to gradually rewire your own brain—from the inside out—for greater well-being, fulfillment in your relationships, and inner peace" (Hanson, 2009, p. 6).

This whole-person view integrates a physiological and psychological understanding of the person. Attention to the connection between "mind" and "heart" is not just a metaphor, as research on a physiological measure of cardiac vagal tone demonstrates the inseparable interconnectedness between biophysical health and social connections particularly well. Cardiac vagal tone refers to the functioning of the vagus nerve, which connects the brain and the heart, and is a proximate measure of physical health due to its relationship to physiological functioning, including inflammatory processes and blood glucose levels. The vagus nerve is implicated in the body's "calm and connect" response, which is especially important in responding

skillfully to stressful, changing circumstances. Cardiac vagal tone is also associated with the regulation of attention and emotion, and consequently, social skills (Fredrickson, 2018).

Research has demonstrated the ways that social connectivity and cardiac vagal tone strengthen each other. One study showed that people's positive perceptions of their social connections helped account for the positive relationship between positive emotions and physical health. When people's experiences of self-generating positive emotions as a result of a lab intervention culminated in feeling close or in tune with others, they experienced improvements in cardiac vagal tone (Fredrickson, 2016). Another study in the same lab observed that higher levels of cardiac vagal tone were associated with more frequently being in the presence of others and with greater intensities of positive emotions experienced during social activities. This suggests that cardiac vagal tone "amplifies the positive emotions experienced during moments of social connection" (Fredrickson, 2018, p. 165) and is therefore a biological vantage resource—a resource built by experiences of positive emotions over time that increases people's sensitivity to subsequent positive emotions. Positive feelings of social connectivity and cardiac vagal tone are mutually reinforcing aspects of a single biopsychosocial process. The health of one's social relations and one's physical health are therefore not fully distinct aspects of our lives. Benevolent service that increases positivity resonance and strengthens social bonds is medicine (Post, 2017)

3.3 Individuals as Embodied Context

All of this suggests that, in an ontological sense, there is no escape from participation in interbeing (Manga, 2008). Every individual person can be at least partly understood as the literal embodiment of culture and group dynamics, although some level of agency is always possible within the constraints imposed by social context. Thus, the health of the individual depends on the health of the collective. Our cardiac vagal tone and ability to self-regulate our sympathetic and parasympathetic systems are shaped by the social networks in which we are immersed and their level of positivity resonance (Fowler & Christakis, 2008; Fredrickson, 2018), the "collective intentionality" (Barrett, 2017, p. 135) that comprises the knowledge base we use to socially construct both our understandings of reality and our emotional experiences, and the ways we use language to make meaning. This ongoing process of social construction "literally gets under your skin" (Barrett, 2017, p. 139): our language-based shared understandings feed an emotion that affects our physiology and neurochemistry. This has obvious effects on our physical health, but these effects are also bound up with our emotional health. For example, the emotional experience of anger causes additional cortisol to be released, which affects our nervous system, blood pressure, and ability to use our muscles.

But our individual experience also affects others in our network, whose minds and bodies respond to our furrowed brow, shallow breathing, and tense posture. In

this way, social realities "wire the brain," or put differently, "your brain wired itself to its physical and social surroundings" (Barrett, 2017, pp. 279–280). This perspective spotlights the individual from the vantage point of the collective. From the other direction, we might also say that "our mind extends beyond our physical selves" (Goldhill, 2016); it is not confined only to the brain in our head, it also exists in our interactions with others. Such understandings support "a reframing of emotional development as a process of *embodying* context from which the feeling self emerges" (Erickson & Cottingham, 2022, emphasis added).

4 The Social Meaning of Health: Spirituality and the Whole Person

Spirituality provides another example of how conceptual frameworks and collective intentionality shape experiences of health—and, crucially, link individual experience to the experiences of others. The essential difference between a spiritual and a biomedical understanding of health is that, for the former, health is wholeness, not physical cure. This perspective is found in:

> . . .the Vedas and Buddhist traditions, where 'all human suffering is a result of the hallucination of the separate self. . . . The moment you identify yourself as separate from other beings, or other people, or separate from life in general then you will suffer. And it all begins with initial anxiety because when you're disconnected from people and life, you feel fear, and that creates the beginning of suffering' (Chopra, quoted in Karlis, 2017).

If disconnection is the most basic cause of suffering, then a unifying principle such as love might be understood as "the fundamental power needed to mitigate suffering" (Wärnå-Furu et al., 2008, p. 18). The work of overcoming disconnection follows from a holistic conception of health not as an end-state to be contrasted dualistically with its opposite, but rather as a dynamic "process of creation in the dimensions of doing, being, becoming" that involves the virtuous restraint of self-centered passions (Wärnå-Furu et al., 2008, p. 22). A unifying virtue such as love emphasizes the process of becoming more deeply connected to a rightly ordered self, to others, and to life as the path to an experience of greater wholeness.

Further illustration of this ontological interconnectedness can be provided by drawing on theology from the Christian tradition, which views "illness" as "the sickness of both body and soul" (Breck, quoted in Larchet, 2002, p. 7) in the context of a primary relationship with God, against which all other relations are deemed secondary. Understood from the perspective that life is fundamentally about appreciating and strengthening a relationship with God, illness can be seen as a good, perhaps even a blessing, to the extent that it helps to wake up a person to their disordered emphasis on material well-being (e.g., narrow, biomedical health and financial wellbeing; see Lee et al., 2021b) and their complacency about spiritual matters, including knowing and doing God's will. An analogous case is found in the spiritual awakening that arises from an addiction and that prompts the development

of virtue and spiritual growth (Lee et al., 2017; see also Brooks, 2020). More generally:

> [S]ickness and its attendant sufferings, with other tribulations, appear to be a condition for acquiring the virtues and the virtuous life in general. St. Isaac the Syrian writes in this regard: 'If we love virtue, then it is impossible that the body not suffer from illness' (Larchet, 2002, p. 66).

Illness, addiction, and related forms of suffering can become part a "divine pedagogy" that purifies "spiritual intelligence" and frees a person from an "egotistical love of self" (Larchet, 2002, pp. 60–61, 73), a proposition that makes sense only if the individual is understood to be intimately connected to a higher power as a matter of ontology (*Galatians* 2:20: "It is no longer I who live, but Christ lives in me"). Again, health is less about physical cure and more about wholeness and connection.

This whole-person integration of the physical and spiritual points to a lively debate within the literature on flourishing (Lee et al., 2021a): whether there is a hierarchy, or right ordering, within the domains of flourishing, and if so, whether some ends of human concern might be considered *penultimate* (happy emotions, physical health of the body?) or *ultimate* (salvation of the soul, virtue rooted in the Supreme Good?). Research on adolescents and young adults (15–39 years old) with cancer provides some possible answers. Despite the experience of intense suffering and loss, these young people "find meaning in their cancer experience, perceive the world positively, and use adversity as an opportunity to improve relationships with others and to aid others" who are suffering (Cho & Docherty, 2020). Illness provides a spiritual awakening similar to "hitting rock bottom" with a drug addiction; such experiences unleash the twin "spiritual virtues" of love and service (Lee et al., 2017). Other traumas, including serious victimization and experiences of warfare or natural disasters, also have had this effect when they are held in a social container that allows for understanding the deeper significance of life, developing a richer sense of purpose, and forging more meaningful relationships (Baugher, 2019a, b; Harris, 2017; Solnit, 2009). The Japanese word for such relationships, *kizuna*, signifies such relationships that are "formed when people go through difficult times and overcome hardships together" (Inoue, 2015, p. 112).

Personal transformation can result from a serious illness if positive preconditions shape the progression as "an ongoing evolutionary process" involving "awareness, readiness, and learning" in a way that fosters "a sense of authenticity, spirituality, peace, satisfaction, and personal fulfillment" (Mulkins & Verhoef, 2004, pp. 232, 234; see also Middleton, 2016). In a study of adults, Mulkins and Verhoef (2004, p. 234) state:

> As [cancer patients] came to be more self-aware and to know themselves on a deeper level, they... started to engage in life in different ways. They were able to define their core values and now had a different sense of who they were.... [B]ecause of this, they were able to make more conscious decisions, understanding themselves and their reactions to the world around them.

Such a broadening of awareness encourages the development of "seeing the world through new eyes" (Mulkins & Verhoef, 2004, p. 234). During such experiences, people learn that their initial aims are too small, their conception of self too narrow, their connections to community too few and tenuous. Conventionally "bad" outcomes may be reappraised according to a higher (spiritual) standard, often in the context of a "calling," benevolent service to others, and enhanced spiritual—if not material—well-being (Lee et al., 2013).

For some, the threat of violence also provides clarification about the right ordering of flourishing ends. For example, working with both religious and non-religious peacebuilders in a war zone, one observer noted that the impulse to respond in kind to violence, which in some cases could involve protecting the physical security of the physical body, was resisted in order to follow a spiritual path, or "still small voice":

> . . .they realized a profound truth: the worst evil is not death; the worst evil is betraying the soul by ignoring the inner voice. As a consequence, they discovered they had lost their fear of death and experienced a significant sense of connection 'with the source of spiritual power.' We soar as human beings, they concluded, by 'acting well in spite of threat' (Batcharova, quoted in Yoder, 2005, p. 50).

To provide further insight into such dynamics, we turn to the reflections of the poet David Whyte (2015) on friendship and heartbreak:

> But no matter the medicinal virtues of being a true friend or sustaining a long close relationship with another, the ultimate touchstone of friendship is not improvement, neither of the other nor of the self, the ultimate touchstone is witness. . . . [H]eartbreak may be the very essence of being human, of being on the journey from here to there, and of coming to care deeply for what we find along the way. . . . Realizing its inescapable nature, we can see heartbreak not as the end of the road or the cessation of hope but as the close embrace of the essence of what we have wanted or are about to lose.

Whereas the biomedical approach treats physical illness as a problem to be solved, the collective intentionality, right ordering of flourishing domains, and ontological interconnectedness associated with many spiritual perspectives offer a broader understanding in the context of the ultimate aims of a flourishing life, exemplified by Whyte's insights on heartbreak as embrace and friendship as witnessing rather than improvement—the paradigm case in the Christian tradition is Jesus asking his disciples to "keep watch with me" during his agony in Gethsemane. This does not imply passivity in the face of illness, but rather it offers a perspective that is open to the possibility that physical cure is not always possible, or even desirable if it requires unacceptable trade-offs in terms of meaning, purpose, character, or close social relationships. People do prioritize different aspects of well-being and quite often sacrifice one domain to enhance another (Adler et al., 2017).

5 Conclusion: Health as Flourishing

We have considered a number of interconnections that support the argument that health ought to be reimagined as flourishing (VanderWeele et al., 2019). Physical health and other domains of flourishing are deeply linked. Individual health involves the embodiment of context (a wellbeing ecosystem), including social determinants such as the wellbeing of a person's friends' friends' friends. The meaning of "health" itself is a product of collective relationships, which for many people include spiritual relations. More than "disease-oriented," this holistic vision of *whole health* is focused on "health creation" for the whole person, recognizing the deep interconnections with "family, community, and social determinants of health" (Gaudet & Kligler, 2019, p. S7). Reflecting on the World Health Organization's well-established multidimensional definition of health that clearly extends beyond the biomedical domain, as discussed at the beginning of this chapter (see also Sartorius, 2006), it is plausible that many, and perhaps a majority of people, would be willing to trade some level preservation of the physical body in order to achieve a higher level of other flourishing ends. Such decisions can only be made "in the full context of what matters in a person's life" (VanderWeele et al., 2019, p. 1667; Gaudet & Kligler, 2019, p. S9). This points to flourishing as "wholeness... of living with integrity even in challenging circumstances" (Su, 2020, p. 10).

Such determinations include, at the very least, an implicit consideration of ontological interconnectedness as constitutive of harmony "in its individual and social manifestations" (Delle Fave et al., 2016, p. 19; Kjell et al., 2016). In other words, the self is involved, but so is a self-transcendence that minimally includes the broader community, and, for the religious, God or the divine. The decision about whether to accept a medical treatment that would "maximize life expectancy" but "severely hamper quality of life and happiness" (VanderWeele et al., 2019, p. 1667) might involve a calculation of "flourishing years" (FLRYs, see VanderWeele, 2020) using scores on a measure of the five domains of flourishing. This is similar to, but much more holistic than, the concept of "quality-adjusted life years" (QALYs). Meaningless longevity is not health. The pursuit of harmonious passions in life are preferable to the pursuit of obsessive passions (Vallerand, 2008).

Some medical groups have already adopted this broader understanding of health, even beyond traditions associated with lifestyle and integrative medicine (Frates et al., 2019). In 2014, the National League for Nursing proposed human flourishing as an outcome of nursing practice and argued that it "encompasses the uniqueness, dignity, diversity, freedom, happiness, and holistic well-being of the individual within the larger family, community, and population. Achieving human flourishing is a life-long existential journey of hopes, achievements, regrets, losses, illness, suffering, and coping" (cited in Cho & Docherty, 2020). It is significant that flourishing is framed holistically as a *journey* that encompasses losses and other forms of suffering, not the absence of suffering, as well as communal connections. This resonates with the spiritual viewpoint we have discussed; it also opens space for a restoration of compassion as the heart of healthcare (Trzeciak & Mazzarelli, 2019).

The contemporary ideal of a wellbeing ecosystem resonates with the long-standing notion of "ontological interconnectedness" (Delle Fave et al., 2016), as well as the "healthy" city described millennia ago by Socrates. Such a city contrasts with what Socrates called a city "in the grip of a fever," where simplicity has given way to endless craving and striving that produces injustice and inter-group conflict (i.e., "ill-health" at both the personal and social level, see Plato, 2012/375BCE; or obsessive passions, Vallerand, 2008). In a parallel but certainly not identical line of reasoning, Augustine (1950/413–426) explains that such a fevered city is not "rightly ordered" in such a way that leads to tranquility. In such disordered contexts, happiness—conventionally understood as a domain of flourishing—can manifest as the "sickness" that Kierkegaard (1980/1849) labeled "despair": for despair, "the most cherished and desirable place to live is in the heart of happiness." Medical metaphors like fever and sickness abound in such classic discussions precisely because they point to a broader understanding of the meaning of health, a view that was at one time more prominent and when health referred to the whole person rather than just the physical body. We have suggested moving beyond the fixation on the physical body and the "narrow wellbeing of the individual self," in order to "encompass the thriving of the whole," which represents a paradigm shift from "self-centeredness to interconnectedness" (Lee, 2019, p. 236). This entails systems-level thinking, which in organizational contexts has created a deeper awareness of interconnection "according to a primacy of the whole" (Scharmer & Kaufer, 2013, p. 122), giving rise to the notion of a "healing organization" with its "unwavering commitment to the value and well-being of people" (Sisodia & Gelb, 2019, p. 65). Such shifts in thinking help us reimagine health *as* intersystemic flourishing.

Key Implications

Topic Area	Key Implications
Conceptualization of and Research on Flourishing	Many studies of flourishing offer only a partial understanding of the interrelationships across domains and levels of analysis. Some conceptual frameworks are primarily subjective and focused on the individual, thereby neglecting objective markers of flourishing, as well as more communal elements. Spirituality is often overlooked, although it is often at the heart of flourishing for many people throughout the world who focus on *ultimate* rather than *penultimate* concerns. The construct of *intersystemic flourishing* explores interrelationships among the domains of material and spiritual well-being of individuals, communities, and ecosystems.
Expanded View of "Health"	A narrow view of health framed in biomedical—and largely physical—terms (e.g., absence of disease) constrains awareness of the broader and more holistic understandings derived from long-standing wisdom in the humanities. This relational understanding of health transcends a focus on physical infirmity and locates the individual in a social context. A broader view of health is less about physical cure and more about wholeness and connection. This shift in thinking helps us reimagine health *as* intersystemic flourishing.

(continued)

Topic Area	Key Implications
Understanding of Suffering and Sickness	*Health as intersystemic flourishing* is not an end-state to be contrasted dualistically with its opposite (ill-health, sickness, suffering). Instead, suffering is present within the flourishing life and serves a pedagogical function on the path towards personal character growth and healthy connections with others. The health of one's social relations and one's physical health are therefore not fully distinct aspects of our lives. Experiences of ontological interconnectedness signal a dynamic equilibrium that allows human beings to thrive despite adversity.
Social Organization of Healthcare	Adopting the promotion of intersystemic flourishing as a goal has implications for the organization of healthcare, including a restoration of compassion as the heart of healthcare practice and the necessity of building a wellbeing ecosystem that transcends the treatment of individuals. This requires a *whole health* transformation of systems.

References

Adler, M. D., Dolanb, P., & Kavetsos, G. (2017). Would you choose to be happy? Tradeoffs between happiness and the other dimensions of life in a large population survey. *Journal of Economic Behavior and Organization, 139*, 60–73.

Alimujiang, A., Wiensch, A., Boss, J., Fleischer, N. L., Mondul, A. M., McLean, K., et al. (2019). Association between life purpose and mortality among US adults older than 50 years. *JAMA Network Open, 2*(5), 1–13.

Augustine (1950/413–426). *The city of God*. : Modern Library.

Barrett, L. F. (2017). *How emotions are made: The secret life of the brain*. Houghton Mifflin Harcourt.

Bateson, G. (1971). The cybernetics of 'self': A theory of alcoholism. *Psychiatry, 34*, 1–18.

Baugher, J. (2019a). *Contemplative caregiving: Finding healing, compassion & spiritual growth through end-of-life care*. Shambhala.

Baugher, J. (2019b). How to inhabit a way of being that heals. *Episode 65 of the Think, Act, Be Podcast* (November 13). Retrieved from http://sethgillihan.com/ep-65-dr-john-eric-baugher-how-to-inhabit-a-way-of-being-that-heals/

Berardelli, J. (2019). Heat waves and climate change: Is there a connection? Yale Climate Connections (June 25). Retrieved from https://yaleclimateconnections.org/2019/06/heat-waves-and-climate-change-is-there-a-connection/

Bircher, J., & Kuruvilla, S. (2014). Defining health by addressing individual, social, and environmental determinants: new opportunities for health care and public health. *Journal of Public Health Policy, 35*(3), 363–386.

Boyatzis, R., & McKee, A. (2005). *Resonant leadership: Renewing yourself and connecting with others through mindfulness, hope, and compassion*. Harvard Business School Press.

Braverman, P. A., Cubbin, C., Egerter, S., Williams, D. R., & Pamuk, E. (2010). Socioeconomic status in health in the United States: What patterns tell us. *American Journal of Public Health, 14*, 20–35.

Braverman, P. A., Egerter, S., & Williams, D. (2011). Social determinants of health: Coming of age. *Annual Review of Public Health, 32*, 381–398.

Brooks, A. C. (2020). Are we trading our happiness for modern comforts? As society gets richer, people chase the wrong things. The Atlantic (October 22). Retrieved from https://www.theatlantic.com/family/archive/2020/10/why-life-has-gotten-more-comfortable-less-happy/616807/

Buettner, D. (2012). *The blue zones: 9 lessons for living longer from the people who've lived the longest*. National Geographic Books.
Chen, Y., Kubzansky, L. D., & VanderWeele, T. J. (2019a). Parental warmth and flourishing in mid-life. *Social Science & Medicine, 220*, 65–72.
Chen, Y., Haines, J., Charlton, B. M., & VanderWeele, T. J. (2019b). Positive parenting improves multiple aspects of health and well-being in young adulthood. *Nature Human Behaviour, 3*(7), 684–691.
Cho, E., & Docherty, S. L. (2020). Beyond resilience: A concept analysis of human flourishing in adolescents and young adults with cancer. *Advances in Nursing Science, 43*(2), 172–189.
De Jaegher, H. (2019). Loving and knowing: Reflections for an engaged epistemology. *Phenomenology and the Cognitive Sciences*, 1–24.
Delle Fave, A., Brdar, I., Wissing, M. P., Araujo, U., Castro Solano, A., Freire, T., et al. (2016). Lay definitions of happiness across nations: The primacy of inner harmony and relational connectedness. *Frontiers in psychology, 7*(30), 1–23.
DiBlasi, Z., Harness, E., Ernst, E., et al. (2001). Influence of context effects on health outcomes: A systematic review. *Lancet, 357*, 757–762.
Dodge, R., Daly, A. P., Huyton, J., & Sanders, L. D. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing, 2*, 222–235.
Erickson, R. J., & Cottingham, M. (2022). Emotion development in context. In *The Oxford handbook of emotion development*. Oxford University.
Fowler, J. H., & Christakis, N. A. (2008). Dynamic spread of happiness in a large social network: Longitudinal analysis over 20 years in the Framingham Heart Study. *British Medical Journal., 337*, a2338.
Frates, B., Bonnet, J. P., Joseph, R., & Peterson, J. A. (2019). *Lifestyle medicine handbook: An introduction to the power of healthy habits*. Healthy Learning.
Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion, 24*(4), 237–258.
Fredrickson, B. L. (2016). Love: Positivity resonance as a fresh, evidence-based perspective on an age-old topic. In L. F. Barrett, M. Lewis, & J. M. Haviland-Jones (Eds.), *Handbook of Emotions* (4th ed., pp. 847–858). Guilford Press.
Fredrickson, B. L. (2018). The biological underpinnings of positive emotions and purpose. In R. Baumeister & J. Forgas (Eds.), *The Social Psychology of Living Well*. Routledge.
Gaudet, T., & Kligler, B. (2019). Whole health in the whole system of the Veterans Administration: How will we know we have reached this future state? *The Journal of Alternative and Complementary Medicine, 25*(S1), S7–S11.
Gilligan, C. (1993). *In a different voice: Psychological theory and women's development*. Harvard University.
Goldhill, O. (2016). Scientists say your "mind" isn't confined to your brain, or even your body: Exploring how the mind extends beyond the physical self. *Quartz* (December 24). Retrieved from https://qz.com/866352/scientists-say-your-mind-isnt-confined-to-your-brain-or-even-your-body/
Hanson, R. (2009). *Buddha's brain: The practical neuroscience of happiness, love, and wisdom*. New Harbinger.
Harris, M. (2017). *Solitude: A singular life in a crowded world*. Doubleday.
Hari, J. (2018). *Lost connections: Uncovering the real causes of depression—And the unexpected solutions*. Bloomsbury.
Holt-Lunstad, J. L., Smith, T. B., & Layton, B. (2010). Social relationships and mortality: A meta-analysis. *PLoS Medicine, 7*, 1–20.
Inoue, N. (2015). *Beyond actions: Psychology of action research for mindful educational improvement*. Peter Lang.
Ironson, G., Kremer, H., & Lucette, A. (2018). Compassionate love predicts long-term survival among people living with HIV followed for up to 17 years. *The Journal of Positive Psychology, 13*(6), 553–562.

Jones, C. P. (2000). Levels of racism: a theoretic framework and a gardener's tale. *American Journal of Public Health, 90*(8), 1212–1215.

Johnson, B. R., Pagano, M. E., Lee, M. T., & Post, S. G. (2018). Alone on the inside: The impact of social isolation and helping others on AOD use and criminal activity. *Youth & Society, 50*(4), 529–550.

Karlis, N. (2017). Why doing good is good for the do-gooder. *New York Times* (October 26). https://www.nytimes.com/2017/10/26/well/mind/why-doing-good-is-good-for-the-do-gooder.html?

Kierkegaard, S. (1980/1849). *The sickness unto death*. Princeton, NJ: Princeton University.

Kim, D., & Kawachi, I. (2006). A multilevel analysis of key forms of community- and individual-level social capital as predictors of self-rated health in the United States. *Journal of Urban Health: Bulletin of the New York Academy of Medicine, 83*(5), 813–826.

Kim, E. S., Shiba, K., Boehm, J. K., & Kubzansky, L. D. (2020a). Sense of purpose in life and five health behaviors in older adults. *Preventive Medicine, 139*, 106172.

Kim, E. S., Whillans, A. V., Lee, M. T., Chen, Y., & VanderWeele, T. J. (2020b). Volunteering and subsequent health and well-being in older adults: an outcome-wide longitudinal approach. *American Journal of Preventive Medicine.* https://doi.org/10.1016/j.amepre.2020.03.004

Kjell, O. N. E., Daukantaite, D., Hefferon, K., & Sikström, S. (2016). The harmony in life scale complements the satisfaction with life scale: Expanding the conceptualization of the cognitive component of subjective well-being. *Social Indicators Research, 126*(2), 893–919.

Laloux, F. (2014). *Reinventing organizations: A guide to creating organizations inspired by the next stage of human consciousness*. Nelson Parker.

Larchet, J. (2002). *The theology of illness*. St. Vladimir's Seminary.

Lee, M. T. (2019). Promoting human flourishing beyond foundational concerns. *Humanistic Management Journal, 4*, 235–237.

Lee, M. T., Kubzansky, L. D., & VanderWeele, T. J. (Eds.). (2021a). *Measuring well-being: interdisciplinary perspectives from the social sciences and the humanities*. Oxford University Press.

Lee, M. T., Pagano, M. E., Johnson, B. R., Post, S. G., Leibowitz, G. S., & Dudash, M. (2017). From defiance to reliance: Spiritual virtue as a pathway towards desistence, humility, and recovery among juvenile offenders. *Spirituality in Clinical Practice, 4*, 161–175.

Lee, M. T., Poloma, M. M., & Post, S. G. (2013). *The heart of religion: Spiritual empowerment, benevolence, and the experience of God's love*. Oxford University Press.

Lee, M. T., Weziak-Bialowolska, D., Mooney, K. D., Lerner, P. J., McNeely, E., & VanderWeele, T. J. (2021b). Self-assessed importance of domains of flourishing: demographics and correlations with well-being. *Journal of Positive Psychology*. https://doi.org/10.1080/17439760.2020.1716050

Link, B., & Phelan, J. (1995). Social conditions as fundamental causes of disease. *Journal of Health and Social Behavior*, (Extra Issue), 80–94.

Lucyk, K., & McLaren, L. (2017). Taking stock of the social determinants of health: A scoping review. *PLOS ONE, 12*(5), e0177306.

Manga, G. (2008). Interbeing autonomy and economy: Toward enduring social and ecological justice. *Human Architecture: Journal of the Sociology of Self-Knowledge, 6*(3), 113–127.

Marmot, M. G. (2018). Medical care, social determinants of health equity. *World Medical Health Policy, 10*, 195–197.

McNiff, J. (2000). Action research in organizations. In *Action research in organizations* (pp. 221–241). Routledge.

Middleton, H. (2016). Flourishing and posttraumatic growth: An empirical take on ancient wisdoms. *Health Care Analysis, 24*, 133–147.

Mulkins, A., & Verhoef, M. J. (2004). Supporting the transformative process: Experiences of cancer patients receiving integrative care. *Integrative Cancer Therapies, 3*, 230–237.

Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review, 108*, 291–310.

Plato (2012/375BCE) *The Republic*. London: Penguin.

Poulin, M. J., Brown, S. L., Dillard, A. J., & Smith, D. M. (2013). Giving to others and the association between stress and mortality. *American Journal of Public Health, 103*, 1649–1655.

Post, S. G. (2017). Rx It's good to be good (B2BG) 2017 commentary: prescribing volunteerism for health, happiness, resilience, and longevity. *American Journal of Health Promotion, 31*(2), 164–172.

Raworth, K. (2017). *Doughnut economics: Seven ways to think like a 21st-century economist*. Chelsea Green.

Reed, B. (2007). Shifting from 'sustainability' to regeneration. *Building Research & Information, 35*(6), 674–680.

Rein, G., Atkinson, M., & McCraty, R. (1995). The physiological and psychological effects of compassion and anger. *Journal of Advancement in Medicine, 8*(2), 87–105.

Ritchie-Dunham, J. (2014). *Ecosynomics: The science of abundance*. Vibrancy.

Sartorius, N. (2006). The meanings of health and its promotion. *Croatian Medical Journal, 47*(4), 662.

Scharmer, O., & Kaufer, K. (2013). *Leading from the emerging future: From ego-system to eco-system economies*. Berrett-Koehler.

Sisodia, R., & Gelb, M. J. (2019). *The healing organization: awakening the conscience of business to help save the world*. HarperCollins Leadership.

Slife, B. D., & Richardson, F. C. (2008). Problematic ontological underpinnings of positive psychology: a strong relational alternative. *Theory and Psychology, 18*, 699–723.

Solnit, R. (2009). *A paradise built in hell: The extraordinary communities that arise in disaster*. Penguin.

Starfield, B. (2000). Is US health really the best in the world? *Journal of the American Medical Association, 284*(4), 483–485.

Steger, M. F., Kawabata, Y., Shimai, S., & Otake, K. (2008). The meaningful life in Japan and the United States: Levels and correlates of meaning in life. *Journal of Research in Personality, 42*, 660–678.

Stout, S. (2017). *Overview of SCALE & a community of solutions: SCALE 1.0 synthesis report*. Institute for Healthcare Improvement.

Su, F. (2020). *Mathematics for human flourishing*. Yale University Press.

Subramanian, S. V., Kim, D., & Kawachi, I. (2005). Covariation in the socioeconomic determinants of self-rated health and happiness: A multivariate multilevel analysis of individuals and communities in the USA. *Journal of Epidemiology & Community Health, 59*, 664–669. https://doi.org/10.1136/jech.2004.025742

Trudel-Fitzgerald, C., Millstein, R. A., von Hippel, C., Howe, C. J., Tomasso, L. P., Wagner, G. R., & VanderWeele, T. J. (2019). Psychological well-being as part of the public health debate? Insight into dimensions, interventions, and policy. *BMC Public Health, 19*(1), 1–11.

Trzeciak, S., & Mazzarelli, A. (2019). *Compassionomics: The revolutionary scientific evidence that caring makes a difference*. Studer.

Uchino, B. N., & Way, B. M. (2017). Integrative pathways linking close family ties to health: A neurochemical perspective. *American Psychologist, 72*(6), 590–600.

Vallerand, R. J. (2008). On the psychology of passion: In search of what makes people's lives most worth living. *Canadian Psychology/Psychologie Canadienne, 49*(1), 1–13.

VanderWeele, T. J. (2017). On the promotion of human flourishing. *Proceedings of the National Academy of Sciences of the United States of America, 114*(31), 8148–8156.

VanderWeele, T. J. (2019). Measures of community well-being: a template. *International Journal of Community Well-Being*, Published Online: 26 August 2019; https://doi.org/10.1007/s42413-019-00036-8.

VanderWeele, T. J. (2020). Well-being and the calculus of lives under COVID-19. Retrieved from https://www.psychologytoday.com/gb/blog/human-flourishing/202007/well-being-and-the-calculus-lives-under-covid-19

VanderWeele, T. J., Fulks, J., Plake, J. F., & Lee, M. T. (2020). National well-being measures before and during the COVID-19 pandemic in online samples. *Journal of General Internal Medicine*, 1–3. https://doi.org/10.1007/s11606-020-06274-3

VanderWeele, T. J., McNeely, E., & Koh, H. K. (2019). Reimagining health—flourishing. *Journal of the American Medical Association, 321*(17), 1667–1668.

Wärnå-Furu, C., Lindholm, L., & Eriksson, K. (2008). Virtue and health–Describing virtue as a path to the inner domain of health. *International Journal of Human Caring, 12*(1), 17–24.

West, T. N., Le Nguyen, K. D., Zhou, J., Prinzing, M., Wells, J. L., & Fredrickson, B. (2020). How the affective quality of day-to-day social connections may contribute to public health: Prosocial tendencies account for the links between positivity resonance and behaviors that reduce the spread of COVID-19. *PsyARXiv Preprints.* https://doi.org/10.31234/osf.io/x5rfz

Whyte, D. (2015). *Consolations: The solace, nourishment and underlying meaning of everyday words*. Many Rivers.

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., et al. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet, 393*, 447–492.

Woods, S., & Edwards, S. (1989). Philosophy and health. *Journal of Advanced Nursing, 14*, 661–664.

Yoder, C. (2005). *The little book of trauma healing: When violence strikes and community security is threatened*. Good Books.