East Asian Voices on Science and the Humanities

Editorial & Introduction

with Willem B. Drees, "Zygon Goes Global: East Asian Voices"; and Thomas John Hastings, "Extending the Global Academic Table: An Introduction."

Where Are We?

with CHEN Na, "Why Is Confucianism Not a Religion? The Impact of Orientalism"; KAMATA Toji, "Shinto Research and the Humanities in Japan"; KIM Seung Chul, "Religion and Science in Dialogue: An Asian Christian View"; and LEE Yu-Ting, "East Asia and Human Knowledge – A Personal Quest."

How Did We Get There?

with HSU Kuang-Tai, "Science and Confucianism in Retrospect and Prospect"; SI Jia Jane and DONG Shaoxin, "Humanistic Approach of the Early Protestant Medical Missionaries in Nineteenth-Century China"; and ZHAO Aidong, "American Missionaries Transmitting Science in Early Twentieth-Century Eastern Tibet."

East Asian Engagements with Science

with Thomas John Hastings, "Kagawa Toyohiko (1888–1960): Witness to the Cosmic Drama"; INAGAKI Hisakazu, "Kagawa's Cosmic Purpose and Modernization in Japan"; HYUN Woosik, "An East Asian Mathematical Conceptualization of the Transhuman"; KANG Shin Ik, "Jumping Together: A Way from Sociobiology to Bio-Socio-Humanities"; FUKUSHIMA Shintaro, "Multilayered Sociocultural Phenomena: Associations between Subjective Well-Being and Economic Status"; and SHIN Jaeshik, "Mapping One World: Religion and Science from an East Asian Perspective."

KAGAWA TOYOHIKO (1888–1960): WITNESS TO THE COSMIC DRAMA

by Thomas John Hastings

Abstract. At home and abroad, Kagawa Toyohiko was probably the best-known Japanese Christian evangelist, social reformer, writer, and public intellectual of the twentieth century, nominated for the Nobel Prize in Literature twice (1947, 1948) and the Nobel Peace Prize three times (1954, 1955, 1956). Appealing to the masses with little knowledge of Christian faith, Kagawa believed that a positive, religio-aesthetic interpretation of nature and science was a key missiological concern in Japan. He reasoned that a faith rooted in the kenotic

Thomas John Hastings is Consultant for the United Board for Christian Higher Education in Asia (New York City and Hong Kong) and Research Fellow, Institute for the Study of Christianity and Culture, International Christian University, Tokyo, Japan; e-mail tjhastingsbpp@gmail.com.

movement of incarnation and self-giving must strongly support the scientific quest. A voracious reader of science and especially biology, he argues for "directionality," or what he calls "initial purpose" in the long, painful, cosmic journey from matter to life to mind (or consciousness). Through an antireductionistic, *a posteriori* methodological pluralism that sought to "see all things whole," this "scientific mystic" employed Christian, Buddhist, Neo-Confucian, personalist, and vitalist ideas to envision complementary roles for science and religion in modern society.

Keywords: collective responsibility; cosmic evil; directionality; initial purpose; logic of finality; redemptive love; science as art; scientific mystic; seeing all things whole; slippage

By way of introducing this Japanese evangelist, social reformer, novelist, interdisciplinary thinker, two-time nominee for the Nobel Prize in Literature (1947, 1948), and three-time nominee for the Nobel Peace Prize (1954–56), I will begin with a quote from 1926 in which Kagawa describes himself as a "scientific mystic:"

I am opposed to setting bounds for the mysterious and seeking truth only through the senses. For me, reason, laws, and mechanical discoveries all belong to the realm of mystery. I believe that nothing has done so much to lay bare the world of mystery as modern science.

The reason science lost the sense of mystery is because it severed relations with life. If once it discovered that there is life at the heart of science and that mechanics, laws, and reason are all handmaidens of life, then it will be clear that these mechanical discoveries, laws, and reason are but windows opening into the world of mystery.

I am a scientific mystic. The more scientific I am, the more I feel that I am penetrating deeply into God's world. Especially in the domain of biology do I feel as though I am talking face to face with God. Through life, I discover purpose even in a mechanical world. Science is the mystery of mysteries. It is the heavenly revelation of heavenly revelations. (Kagawa 2015, 67)

For the past several years, my research has concentrated on Kagawa's approach to religion/spirituality, nature/science, and social ethics. I have been to trying to sort out the origins and development of Kagawa's thinking that ultimately gave birth to his highly anomalous final book, *Cosmic Purpose* (1958), a religio-aesthetic teleology that was misunderstood in Japan when it appeared and, until the recent English translation (Kagawa 2014), completely unknown elsewhere. To a contemporary ear, the book's title may sound excessively grandiose, but Kagawa's meditations on teleology are appropriately chastened though not intimidated by the current scientific evidence. Though a serious and lifelong student of science—especially biology, which he saw as the "integrative science"—Kagawa was at heart

a Christian evangelist and social reformer appealing to Japanese audiences with little knowledge of that foreign faith.

Like other forward-thinking religious thinkers in Japan at the time, Kagawa felt compelled to offer a positive and reasoned response to Darwin's theory that left space for the contributions of religion and philosophy. He called his approach the "art of life" or "science as art." Under the influence of Ruskin, Tolstoy, and others, the aesthetic or romantic impulse was strong in Kagawa, and he felt free to interrogate or disregard Christian doctrines when they no longer seemed plausible or relevant, at least in their traditional formulations. On the one hand, he preferred reading science to theology, yet on the other hand his daily spiritual practice of reading and studying scripture, silent meditation, and prayer decisively shaped his thinking about the need for rapprochement between science and spirituality and motivated his practical commitment to an ambitious grassroots movement for social reform. His "science as art" approach is evident as early as the following 1924 comparison of evolution and the doctrine of *creatio ex nihilo*:

The cosmos is love in the bud, one vast bud. Thus would I believe, and thus my science-as-art teaches me. The great drama is still in progress; the future yet is long. And love gives meaning to the forward thrust. Like passionate love the cosmos is a fragrant bud. From love to love, from passion to passion, the mysterious bud of life is borne from here to there like a juggling ball. Only that which is innermost in us may grasp this truth. This is the message of evolution, that the world is still in bud.

I do not know who first believed in the principle of evolution. It was probably not Darwin, or Wallace, or Mendel. Belief in the principle of evolution does not simply mean believing in the Darwinian theories of variation, selection, and the survival of the fittest. Belief in evolution is faith in the promise of a progressive entrance into an ever-expanding freedom—from seed to shoot, bud to flower, from anthropoid to human, from human to Son of Man. What a courageous faith! The belief that there is a direct line of evolution from amoeba to humankind is a more daring and romantic faith than the belief in the myth of a Creator making something out of nothing. (Kagawa 1924, 205)

As this passionate rhetoric indicates, Kagawa believed a positive interpretation of nature and contemporary science was a key missiological issue in modern Japan.

Touching briefly on his stated motivations for taking on the formidable challenge of teleology, in the Preface to *Cosmic Purpose* he reports,

I began to wrestle with the problem of cosmic evil at the age of nineteen. . . . Shortly before the outbreak of the Pacific War, I began to reconsider the problem of cosmic evil from the perspective of cosmic purpose, which brought me to a new, artistic interest in the structure of the universe. I had a deep sense that the mysterious unfolding of the structure of the cosmos was still in process. Without rushing to any conclusions, I felt the need

to focus on the grand production of the universe. But as it is not enough for these all too solitary thoughts of mine to reach beyond a small circle of acquaintances, I would like to make public portions of my view of the universe and appreciation of its artistry. (Kagawa 2014, 29)

The three key terms in this statement are "cosmic evil," "the grand production of the universe," and "appreciation of its artistry." "Cosmic evil" is Kagawa's term for the human perception of evil at work, for example, in the geological mechanisms behind the kinds of natural disasters (i.e., earthquakes, tsunamis, and volcanoes) that regularly visit the Japanese archipelago, often resulting in terrible suffering as well as disturbances in the natural environment. This emphasis on "cosmic evil" is not to say that Kagawa ignores or downplays anthropogenic expressions of evil, but, in harmony with a positive view of Christian faith and Neo-Confucian and Buddhist perspectives, he believed that broken, sinful, or misguided human beings may be repaired or healed by a fusion of sincere moral intention and the divine grace of Christ's "redemptive love," and, in turn, become repairers and healers of others and the world.

Before returning to Kagawa's approach to "cosmic evil" and "the grand production of the universe," it is important to mention that *Cosmic Purpose* is an argument for "directionality" within the micro cosmos and the macro cosmos. By examining findings in physics, mathematics, astronomy, astrophysics, chemistry, mineralogy, biochemistry, genetics, biology, physiology, and psychology, Kagawa hopes to show that *a directionality that suggests purpose* operates on every level of the natural world. As Kishi Hideshi says,

For Kagawa, evolution has a direction that moves toward a purpose. The complexity that occurs within selection, that is, the complexity of selection, generates a movement from matter to life and from life to consciousness. (Kishi 1987, 7)

Digging a little deeper, Kagawa finds directionality operating within what he calls a "logic of finality" that links "life" to "purpose" through the following five-movement process:

$$life \rightarrow energy \rightarrow change \rightarrow growth \rightarrow selection \rightarrow law \rightarrow purpose$$

In a chapter entitled "The Structure of Purpose," we find the clearest statement in *Cosmic Purpose* of how this "logic of finality" functions as an "internally related whole," which Kagawa calls purposive:

In order to realize a purpose, simple though it might be, five elements are necessary: energy, change, growth, selection, and law. These five are complementary, but it is energy that first sets the pursuit of purpose on its way. Energy accepts change, grows into purpose, eliminates all sorts of obstacles, selects the best path and method for the purpose, preserves adjustment to the surrounding conditions and environment, and protects

the various arrangements and conditions that allow it to ascend to its goal. These five factors together manifest the power of life within the living world. (Kagawa 2014, 192)

Although the "logic" may sound straightforward and even "scientific," it functions more as a heuristic device intended to capture the daunting complexity of factors behind the emergence, evolution, and persistence of life. To borrow a helpful insight from philosopher Thomas Kasulis, rather than analyzing energy, change, growth, selection, and law as separate "fields" that interact upon each other externally, Kagawa portrays each of these five factors as "holographic entry points" (Kasulis 2004) into the "internally related whole" of the "logic of finality."

Throughout his writings, Kagawa gives priority to synthesis over analysis, or viewing things as a whole rather than in parts. This point is important, especially when we consider that he loved reading science textbooks, which are so often focused on analysis of details or "parts." On the one hand, this preference for synthesis may be attributed to the fact that he was not a lab scientist, who must sustain the focus on detail. On the other hand, as we would expect, Kagawa's disposition also has discernable religious and philosophical influences, uniting the Shinto intuition that pure *kokoro* (*magokoro*) may perceive the whole in each part, Buddhist teaching on the interdependence and interpenetration of all things, Neo-Confucian *yin-yang* complementarity of cosmic *li* (principle) and *ch'i* (material force), and Pauline confession that "all things hold together" in Jesus Christ (Col. 1:17b).

As for his "answer" to the enigma of "cosmic evil," he carefully chooses the word "slippage" (zure) (Kagawa 2014, 216) to indicate imperfections or irregularities that occur in the mechanisms of nature, such as plate tectonics or genetics. For Kagawa, the mere fact that life survives these "slippages" is evidence enough to suggest that ultimately the "slippages" must be headed toward some purpose beyond human understanding. While acknowledging that we often perceive and experience these "slippages" as evil, Kagawa insists that evil in itself has no substance or reality in face of the unfolding of cosmic purpose in the vast evolutionary drama, which of course includes not only the astounding appearance of life but also consciousness that makes meaning and wonders about purpose. In the poetic preface to *The Religion of Life and Art of Life* (1922a), he proclaims,

Oh my, how incredibly great is God's drama! Come sickness, death, or even great famine, I will watch patiently while God moves the drama forth. I am a spectator and an actor in this drama. I must perform my role with the utmost of my power.

Those frightened in the face of evil see only evil and miss the power of life. Evil is not real. It accompanies the course of life as a weeding out preparation. Evil is not stronger than life. Life has power to overcome evil. (Kagawa 1922a, 47)

At first glance, Kagawa's choice of the term "slippage" may sound like a facile rationalization for the horrific history of suffering that has accompanied the genesis and development of life as we know it. But his view of "cosmic evil" comes not only from his observation of apparent mechanistic "slippages" in nature, but it was also forged in the crucible of incomprehensible personal trauma and suffering; beginning with the death of both parents when he was four, deep sense of shame as the child of his father's concubine, lonely childhood in the household of his father's legal wife, diagnosis of tuberculosis, and family bankruptcy. Though the brooding teen received Christian baptism at age 15 and reports "near death" mystical encounters with God, he continued to struggle with his health. He refers to these struggles in the preface of Cosmic Purpose when he says, "I began to wrestle with the problem of cosmic evil at the age of nineteen," a clear reference to a long period of recurring physical illness and accompanying depression that, by January 1909, had led him to the brink of suicide (Hastings 2015).

Then, Kagawa suddenly makes history when, on Christmas Eve the same year, the 21 year-old leaves his seminary dormitory to take up residence in a tiny, dingy room in Shinkawa, Kobe's worst slum, where, apart from two years of study at Princeton Theological Seminary and Princeton University (1914–1916), he remained for more than ten years with Haru, his wife and closest colleague. They devoted themselves to education, evangelism, social reform, and writing. With the 1920 publication of a best-selling semi-autobiographical novel Shisen o Koete (literally Across the Death Line, Before the Dawn in the 1924 English translation), the now 32-year-old Kagawa suddenly became a household name in Japan and celebrated abroad as the "saint of the slum." Bertrand Russell, Albert Einstein, and other international luminaries made a point of meeting Kagawa when they visited Japan. The Kagawas donated the substantial royalties from the novel to a number of social projects, quickly founding a medical clinic, a consumer cooperative, the *Pillar of Cloud* magazine, and a lay religious movement called the "Friends of Jesus Society." In 1923, Kagawa and his co-workers helped lead relief efforts in Tokyo following the Great Kanto Earthquake.

In short, as one who was well acquainted with evil and suffering in its psychological, social, and natural expressions, he strongly identified with "the least of these" in their suffering and marginalization, while simultaneously keeping his gaze on "the grand production of the universe" and its "artistry." Kagawa was especially concerned about the negative effects of Japan's rapid industrialization on the poor, children, women, farmers, and the delicate ecology of the natural world. In 1922, he published *Conquering the Skies*, a satirical novel decrying horrific air pollution in Osaka (Kagawa 1922b). The book bears a family resemblance to the "proto-ecological" writings of the English Romantics or the American Transcendentalists. While a prophetic social critic and practical reformer, Kagawa was also able

to maintain an exceptionally broad and optimistic view of things, expressing awe at the wonder and endurance of life and imagining his own life as part of a great, unfolding cosmic drama.

This bi-focal gaze on the plight of "the least of these" and the "grand production of the entire universe and its artistry" was of course influenced by Christian, Buddhist, and Neo-Confucian views of redemptive love, *kenosis* or self-emptying, collective responsibility, nothingness, and the interdependence of all things in heaven and earth, and it enabled Kagawa to suggest that even the sometimes excruciating "slippages" in the mechanisms of nature must serve some purpose that transcends human understanding. Thus, Kagawa is best understood as a gifted and sensitive religious thinker and activist who loved science and constantly stepped back to focus on the "grand production of the entire universe," seeking to "see all things whole," while simultaneously identifying with and devoting himself to "the least of these" in imitation of Jesus as he is portrayed in the gospels. Kagawa had a rare ability to give simultaneous and serious consideration to theoretical and empirical factors.

In *New Life Through God* (1929), he refers to the ancient story of the blind men and the elephant, suggesting a holistic epistemology that gives equal weight to humanity's scientific and spiritual quests:

After all, what point of view should we take? Should we consider human life from the broad perspective of the whole world or just take it in parts? Taken from the whole, we can get a pretty good grasp of things, but if we look at things narrowly, we are like the frog in the well who is at a total loss or the blind men in Aesop's fable trying to describe an elephant. One feels only the leg and calls it a post, another only the tail and calls it a whip, yet another only the ear and calls it a wooden plank, still another only the torso and calls it a wall, and one more only the tusk and calls it a sword. Each blows off steam from one's own limited point of view. Those who complain about the struggle for existence or sadness and suffering are like these blind men who don't see the big picture. When we open the eye of the *kokoro*, we see that the cosmos is not such a bad place. When this eye that sees all things whole turns only toward external realities, it does not see, but it does see when it turns simultaneously toward internal realities. That is, when the *kokoro* focuses on the whole cosmos, we understand. (Kagawa 1929, 91)

We have retained the Japanese term *kokoro*, usually translated as "heart," because it is a rich, multivalent, holistic concept encompassing affective, intellectual, volitional, and physical meanings (such as heart, mind, emotion, will, spirit, sense, vitality, etc.).

Returning to *Cosmic Purpose*, it is easier to get a sense of the overall sweep of Kagawa's argument when we look at the following three main sections:

Part One, "Directionality in Natural Selection": Kagawa goes on a "bottom-up" search of evidence for "directionality" from contemporary physics, chemistry, mathematics, astrophysics, biology, and geology.

Part Two, "Latent Purpose in the Structure of Life": Here Kagawa examines the structure and mechanism of cells, enzymes, proteins, genes, DNA, and the adaptation and survival of organisms.

Part Three, "The Essence of Cosmic Purpose": Drawing on the philosophy and psychology of religion, he offers a perspective that limits chance and mechanism as a way of undermining the conclusions of radical materialism and casualism, thus making space for the religious or spiritual impulse. He writes,

I cannot believe events in the natural world are all products of chance. Even if natural events are blind, ultimately they manifest a finality that developed into human consciousness and hence necessitate the examination of the points at which blindness and finality are connected. (Kagawa 2014, 50)

As his final word to his mostly non-Christian readership, Kagawa is confident that open-minded reflection on the scientific evidence alone will reveal the presence of "initial purpose" in the long cosmic journey from atoms, elements, and molecules to cells, neurons, animals, consciousness, and *Homo sapiens*. So confident is he that a serious look at the evidence will engender an overwhelming sense of awe or wonder, he only mentions the word "God" twice—and both times in a neutral context. Hence, *Cosmic Purpose* should not be mistaken for a traditional natural theology or as an early proposal for intelligent design, a theistic view that generally seeks to undermine Darwinian natural selection. Theologians may be disgruntled that Kagawa takes the *via negativa* on the question of "final purpose," surrendering with Dante to the "impenetrability of (final) cosmic purpose." (Kagawa 2014, 268)

Here is his concluding statement on "initial purpose," which sounds rather modest and even contemporary:

If we distinguish initial purpose from final purpose, we may yet be able to know something of its structure. On the basis of that judgment, we may make the following six statements:

- (1) There is purpose in the cosmos.
- (2) Cosmic purpose is directed towards life.
- (3) The purpose of life is directed towards mind (consciousness).
- (4) The individual mind is social and directed towards construction (or organization).
- (5) The social mind oriented to construction (or organization) is en route to a historical evolutionary development and an awakening to cosmic consciousness.
- (6) This orientation awaits the assistance of the spirit that made creative evolution possible." (Kagawa 2014, 268)

Not beholden to literalist readings of the biblical accounts of creation, Kagawa contemplates scientific evidence for directionality and reasons as follows: (Point 2) since we are beings who, through meditating on the findings of modern science, are now able to demonstrate that the basic elements of the cosmos are also the basic elements that emerge as life forms—albeit over unimaginable spans of time and through fits and starts ("slippages") and excruciating suffering—and (Point 3) since earlier life forms gradually achieved mind or consciousness—which (Point 4) is a social (relational), creative phenomenon and potentially self-transcending, self-reflecting, or spiritual—is it then not reasonable to suppose that consciousness is also a participant in ongoing evolution (Point 5)? And moving one step further, to imagine and indeed hope that, with "the assistance of the spirit that made creative evolution possible," we may awaken to full or "cosmic consciousness," (Point 6) which is another way of saying we may "see all things whole"—that is, acknowledge the interdependence of all things—or in Pauline terms, "have the mind of Christ" (1 Cor. 2:16) in whom "all things hold together" (Col. 1:17b).

In *Cosmic Purpose*, the "scientific mystic" contemplates the findings of science, discovering ample evidence for "initial purpose," offering an *a posteriori* view of purposeful and ongoing creation as an expression of the unfolding cosmic will (= divine will or God's Spirit) all the way down—even through natural selection and the "slippages" that we humans perceive or experience as evil—up to the present and, presumably, into the future. Kagawa's "proto-process" view in *Cosmic Purpose* not only transcends Enlightenment deism and literalist readings of scriptural origin myths, but also offers the possibility for a positive mutual engagement between spirituality/religion, philosophy, and science.

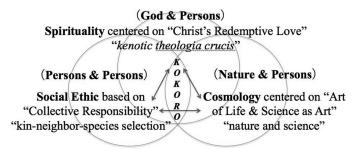
Besides his argument for "initial purpose," Kagawa makes a further, contemporary-sounding claim about the basic compatibility of Indian emptiness, Western theism, and modern science as regards their respective views of "cosmic evil." He says,

From ancient times people have set out to explain salvation from cosmic evil in one of three ways. First is India's religious way, the idea of emptiness. Second is the theistic approach to salvation that developed in Western European thought. Third is the modern scientific attempt to banish cosmic evil

I do not find these three to be incompatible. Each of them was bred in human consciousness. Nishida Kitarō recognized the conscious efficacy of the idea of "nothingness." In the middle ages, Nicholas of Cusa acknowledged "zero" algebraically. The modern quantum mechanics physicist Hermann Weyl has followed the same line of thought. We are right to eliminate the idea of a meaningless void, but I am speaking of opting for "zero" as a way to think of removing cosmic evil. Moreover, the third path of science's banishment of evil, in its modern meaning, also requires our utmost efforts.

"Seeing All Things Whole"

"Redemptive Love," "Art of Life/Science as Art," "Collective Responsibility" 「贖罪愛」、「生命芸術」/「芸術としての科学」、「連帯責任」



Spirituality, Cosmology, and Social Ethics as an "Internally Related Whole" Accessed through the "Holographic Entry Point" of <u>Kokoro</u> (心)

Figure 1. Seeing All Things Whole—The Theology of Kagawa Toyohiko.

There are, however, limits to human strength that leave us no other solution than to recognize the dependence of everything on an absolute cosmic will that has prepared, a priori, the strength for human beings to survive and for evolution to develop. (Kagawa 2014, 269)

Although I began this exploration of Kagawa's work with his last book, *Cosmic Purpose*, I will now turn to a brief overview of Kagawa's views of religion/spirituality, nature/science, and ethical action.

A HOLISTIC SPIRITUALITY, COSMOLOGY, AND SOCIAL ETHICS

I will begin with an image (Figure 1). Here I want to focus on the "three core relations" of God and Persons, Nature and Persons, and Persons and Persons as a way of getting a feel for how Kagawa's spirituality, cosmology, and social ethics hang together. Not surprisingly, Kagawa understands these "three core relations" as an "internally related whole," not as separate spheres of thought or action. For example, he cannot imagine a spirituality grounded in "redemptive love" that does not take Christ's ethical call seriously, nor, as we have seen with *Cosmic Purpose*, can he imagine a scientist who contemplates the frightful beauty of nature and emergence of life in the vast cosmos without wondering about ultimate questions of meaning and purpose. As we will see, Kagawa is a thoroughgoing personalist, seeing *kokoro* as the epistemological center and each of the "three core relations" as "holographic entry points" into the whole.

As for the "God and Persons" relation, even though he was trained at Kobe Theological School and Princeton Theological Seminary (class of 1916) in the older, "pre-Barthian" Reformed theology, Kagawa's theology is

best characterized as a Japanese *theologia crucis*. Given the Buddhist cultural milieu and his personal struggle with incomprehensible suffering, it is not surprising that he is attracted to Christ's self-emptying and cruciform "redemptive love" as the divine means of voiding the voids or negating the negations of life. For Kagawa, the cross is central as the opening to the new, resurrected life "beyond the death line." He sees deep resonances between Christian *kenosis* (Phil 2:7) and Buddhist Śūnyatā (emptiness), for example, in the following passage from *A Few Words in the Dark* (1926):

Truly, the mystery of eternal life is the way of gain through loss. Saint Paul expresses this in the Letter to the Philippians. I have no problem thinking of religion as learning that gain always follows loss, which is one provision of life's economics. The Buddha preached Nirvana and powerfully taught us about loss. Jesus demonstrated it for us by means of the cross. The way of negation taught by the Buddha opened the complete affirmation of the path to enlightenment, and the cross of Jesus was the preamble to the resurrection. (Kagawa 2015, 105)

Notice here also the odd-sounding term, "life's economics" (*seimei keizai*), which is an example of the kinds of moves Kagawa regularly makes between ideas in religion, biology, economics, and other fields, all of which he views as facets of an internally related, albeit complex, whole.

Moving on to his cosmology, the "Nature and Person" relation, or what he calls "the art of life" or "science as art," we should not fail to mention that, during his lonely childhood, Kagawa had spent many hours in solitude by the banks of the Yoshino River and in the nearby fields of Tokushima. As a boy he created a kind of backyard zoo, raising small animals of all kinds in the garden of the family home. He reports receiving much comfort in the river basin environs and by caring for these living things and says that this sense of intimacy with other living things enabled him to grasp the notion of a Creator after hearing these words of Jesus: "Consider the lilies, how they grow: they neither toil nor spin; yet I tell you, even Solomon in all his glory was not clothed like one of these" (Luke 12:27). In his writings and speeches, he often refers to the cosmos as "the garment of the living God," borrowing from Thomas Carlyle's Sartor Resartus a metaphor with a rich lineage that includes the Hebrew Psalms. "Bless the LORD, O my soul. LORD my God, you are very great. You are clothed with honor and majesty, wrapped in light as with a garment" (Psalm 104:1-2a).

Thinkers as disparate as Calvin and Goethe make use of this garment metaphor, but one important influence on Kagawa's cosmology that has gone unnoticed is Benjamin Warfield, his teacher at Princeton Theological Seminary. In 1915, Kagawa took a tutorial with Warfield on "Evolution and Its Theological Applications and Effects" (Hastings 2015). Undermining the received historical narrative, while Warfield was a notable defender of biblical inerrancy, he also accepted Darwin's theory of natural selection.

To pull this off, Warfield drew on the doctrine of *concursus*, which correlates Aristotle's "Prime Mover" with an understanding of providence as a continuing creation, meaning continuing divine support for the operation of all secondary causes, whether free, contingent, or necessary (Livingstone and Noll 2000). As we have seen, unlike Warfield, Kagawa was by no means a biblical inerrantist but, especially when coupled with his discovery of the *elan vital* in his reading of the English translation of Bergson's *Creative Evolution* (1911) around the same time, it is easy to understand how Warfield helped Kagawa see the divine will at work all the way down through the emergence, evolution, and endurance of life as we know it.

Inasmuch as he saw the natural world as a kind of divine revelation, he is very much in the old Reformed tradition of the "two books of nature and scripture." Not surprisingly, certain Japanese theologians, who were devotees of the hugely popular crisis theology of Karl Barth, accused Kagawa of being a pantheist. He defends his position in the following passage:

Someone may ask this question: Are God and the universe one? And are God and human beings one? Pantheism takes that stand. But I am not a pantheist. I am an advocate of the Holy Spirit. No, beyond that I am one who rejoices in the Spirit-filled life.

Is the child living in the womb identical to the mother? Although conceived in the mother, the child is a different person from the mother. The mother transcends the child. Still, the child is living in the mother. And the child comes from the mother. In like manner, the absolute God transcends human beings while embracing human beings, and human beings are created by God.

We can think of the relation of God and the universe in the same way. The material world is not itself God. But God transcends it, dwells in it, and through it manifests himself. I wonder if it is not most appropriate to think of the material world as the garment of God. (Kagawa 1934a, 345)

The "above, in, and through" theological position described here is perhaps more accurately defined as "panentheism," a view of course with roots and resonances in Eastern Orthodoxy, mysticism, and process thought, and one that gained much more attention and traction after Kagawa's death in 1960. Given what we may call his "sanctification of nature," it is little wonder Kagawa had such a high view of science and saw its aesthetic and axiological potential for enriching spiritual life. He says,

Science emerges through value. It is a kind of art. Usually, art flourishes in the objective world, but the art of science is something etched deeply into the brain. Science rearranges the cosmos. This is also the creation of a new world. When seen in this way, new science transforms the content of life, thereby becoming a motivation to religious faith and indeed to worship. (Kagawa 1922a, 60)

At times, his close identification with the cosmos sometimes takes on ecstatic, mystical forms of expression, as in the following passage from *A Few Words in the Dark*, a collection of meditations dictated during a time of temporary blindness from the trachoma he had contracted years earlier while living in the Kobe slum:

All creation is mine. I live by penetrating every created thing. In the kitchen I am one with the spirit of the fire, one with the spirit of the water, one with the spirit of the blazing range. All things charm me, and I am fused with everything. I can dwell in the soot in the chimney or find a peaceful place with the flea under the tatami mat. Set free, I can fly upward to the Great Bear Constellation, frolic from star to star, or hide myself under the mirror on my lover's dresser. As long as I love the whole creation I can travel about it with the utmost freedom. Mount Fuji and the Japan Alps are wrinkles on my brow, the Atlantic and Pacific Oceans are my robes. All creation is mine, the earth is one part of my body, and I hold the solar system in the palm of my hand and scatter millions of stars across the heavens. When God gave me Christ, all creation was thrown in as a gift. (Kagawa 2015)

Next we come to Kagawa's social ethic or the relation of "Persons and Persons," which embodies his "proto-liberationist" concern for "the least of these." Kagawa used the term "collective responsibility" to describe the concrete, self-giving, sacrificial social ethic that reflects Christ's "redemptive love." Had Kagawa's "scientific mysticism" not been accompanied by such an impressive record of practical reforms in the spheres of education, cooperative economics, social welfare, medicine, finance, labor, and agriculture, we might easily pass over it as a case of romantic or utopian piety. But long before the Nobel Prize nominations that came late in life, evidence abounds for Kagawa's determination to take up the daunting task of "collective responsibility," by pressing the mystical vision and the insights of modern science into concrete social reforms on behalf of those who suffered most from the side effects of industrialization; children, women, consumers, and farmers. As in the following passage, Kagawa often quotes Colossians 1: 24, a key verse that indicates his robust sense of participation in Christ's ongoing mission of "redemptive love" in the world:

Christ, who died for sinners, summons us to become the concrete expression of this redeeming love to the so-called scum of society. In Colossians 1:24 Paul calls us to carry redemptive love on to its God given goal: "I am now rejoicing in my sufferings for your sake, and in my flesh I am completing what is lacking in Christ's afflictions for the sake of his body, that is, the church." (Kagawa 1934b, 95–96)

In the aftermath of WWII, he prophetically proclaims a conjunction of cruciform spirituality and ethics in the preface to *The Creation of the Universe and the Recreation of Human Life* (1947):

The principle of cosmic repair is nothing other than the expression of boundless love in sacrifice. . . . Without the social consciousness of collective responsibility and without the tragic, boundless love that repairs and restores sinners, there is no way to recreate humanity. The great love that created the universe and the consciousness that recreates human life is at work in Jesus. . . . There has never been a more confusing and dangerous time for Japan and the Japanese people than the present. If we do not see that the way to Japan's renewal is in the cross, Japan will degenerate further and further until it is no more than an island in the Pacific Ocean inhabited by barbarians. Only the cross can unify our people and sustain a renewal of culture and scholarship. Yes! The day when the Japanese people discover that the way to the recreation of life is in the cross, Japan will be regenerated and resurrected. (Kagawa 1947, 1–5)

"Collective responsibility" motivated by "redemptive love" moves him beyond "kin selection" into action for and with the neighbor, and taking one step further, for and with the stranger, or what we might call "species selection."

Although clearly motivated by Christian faith, a certain school of Neo-Confucianism also enriches Kagawa's social ethic. The following passage from "An Inquiry on the Great Learning" by Wang Yangming (1472–1529), a Ming Dynasty Neo-Confucian introduced in Japan by Nakae Tōju (1608–1648)—two figures Kagawa praises in his writings—helps illuminate Kagawa's sense of identification with all sentient beings in the cosmos (Hastings 2015):

The great man regards Heaven, Earth, and the myriad of things as one body. He regards the world as one family and the country as one person. . . . Forming one body with Heaven, Earth, and the myriad things is not only true of the great man. Even the mind of the small man is no different. . . . Therefore when he sees a child about to fall into a well, he cannot help a feeling of alarm and commiseration. This shows that his humanity forms one body with the child. It may be objected that the child belongs to the same species. Again, when he observes the pitiful cries and frightened appearance of birds and animals about to be slaughtered, he cannot help feeling an "inability to bear" their suffering. This shows that his humanity forms one body with birds and animals. It may be objected that birds and animals are sentient beings as he is. But when he sees plants broken and destroyed, he cannot help a feeling of pity. This shows that his humanity forms one body with the plants. It may be said that plants are living things as he is. Yet, even when he sees tiles and stones shattered and crushed, he cannot help a feeling of regret. This shows that his humanity forms one body with tiles and stones. This means that even the mind of the small man necessarily has the humanity that forms one body with all. Such a mind is rooted in his Heaven-endowed nature, and is naturally intelligent, clear, and not beclouded. (Wang 1963, 272)

Finally, Kagawa's spirituality, cosmology, and ethics is centered on *kokoro*, the personalist—not individualistic—epistemological center of all "three core relations." As a student, Kagawa was attracted to the writings of

American philosopher Borden Parker Bowne, the relatively unknown but hugely influential founder of "Boston Personalism." Bowne was the major American interpreter of German philosopher Hermann Lotze, with whom he had studied at Göttingen University. Gary Dorrien describes the "synthetic alternative" of Bowne's "Boston Personalism" in relation to the various schools of liberal theology in Germany:

Having agreed that credible religious claims cannot be based on external authority, the founders of liberal theology argued variously for ethical conviction, religious experience, and metaphysical reason as the basis for theology. The Kantian school argued that religion has its home in the moral concerns of practical reason; Schleiermacher and his followers urged that precognitive religious experience or intuition is the wellspring of religion; the Hegelian school developed a theology from Hegel's metaphysical philosophy of Absolute Spirit. For over a century liberal theology was either Kantian or Schleiermacherian or Hegelian, or a blend of Schleiermacher and Hegel (as in German mediating theology), or a blend of Kant, Schleiermacher and modern historicism (as in the Ritschilian school). For most of the nineteenth century American liberal theology typically appealed to experience or piety, if not to Schleiermacher. In the social gospel era most American progressives took the Ritschilian option, excluding metaphysical reason, or moved through and beyond Ritschilian theology, as in the Chicago school. . . . The school of personalist idealism centered at Boston University was a synthetic alternative. It affirmed moral intuition and religious experience and the social gospel and metaphysical reason. Hegel was half right, as were Kant, Schleiermacher, Ritschl and the social gospelers. (Dorrien 2001, 286–287)

Given his own preference for a holistic synthesis that strives to "see all things whole," it is not surprising that the young Kagawa was drawn to Bowne's "synthetic alternative." Kagawa recalls this seminal influence later in life:

Two books that especially influenced me were the English translation of Hegel's *Philosophy of History* and Dr. Bowne's *Metaphysics: A Study in First Principles*. While I sensed that Hegel's philosophy was too optimistic, I came to clearly understand why after reading Schopenhauer. The personalist religious philosophy of Bowne was a gift of the Meiji Gakuin Library for which I gave thanks. I think it is because I encountered this good book at a young age that I have not wavered in my own pursuit of a personalist philosophy of religion from the time I read Bowne's religious philosophy as a seventeen year-old up to the present. (Kagawa 1955, 105)

In the course of my research, I discovered another leading evangelist and social reformer of the twentieth century who reports being similarly influenced by Bowne's personalist philosophy. Edgar S. Brightman, Bowne's successor at Boston University, was the doctoral advisor of Martin Luther King, Jr. In the following passage, King speaks to the personalist influence on his own thought and work as a civil rights leader:

This personal idealism remains today my basic philosophical position. Personalism's insistence that only personality—finite and infinite—is ultimately real strengthened me in two convictions: It gave me a metaphysical and philosophical grounding for the idea of a personal God, and it gave me a metaphysical basis for the dignity and worth of all human personality. (King quoted in Steinkraus 1973, 100)

It is remarkable that two of the greatest Christian social reformers of the twentieth century, one in Japan and one in the United States, were similarly inspired by the same religious philosophy. This personalist link between Kagawa and King awaits further research and consideration.

In Closing

In the face of the heightening international tensions of the Cold War, Kagawa participated in international efforts to ban atomic weapons, a threat unleashed by scientific inquiry that still hangs like a sword of Damocles over the entire planet. Toward the end of *Cosmic Purpose*, he stresses how important it is for humanity to awaken spiritually to an awareness of purposiveness in the cosmic history.

If all of humanity were able to bring purposiveness to full consciousness, they would be able to work together towards world peace, to divert the energy spent on war to organized movements for global cooperation, and then turn their remaining strength to discovery and invention.

In the age of the Internet, globalization, climate change, and religious fundamentalism, the ubiquity and speed of digital "links" between people and information has not necessarily deepened or strengthened the "bonds" between human beings, human beings and the earth, or human beings and ultimacy. Like his contemporary Teilhard de Chardin, whom he did not know (Kishi 1970), Kagawa sought to "see all things whole," countering the increasing specialization and competition between fields of knowledge and mounting tensions between the world's great religions and cultures. Kagawa is a modern witness to the sacred drama of the cosmos.

Inspired but not intimidated by the insights of modern science, he saw that all people—and indeed all forms of life—belong to the history of the cosmos, and imagined that we who are gifted with consciousness must bear a special moral responsibility to examine and alleviate the causes of suffering, bear one another's burdens, and thereby contribute to the repair of the world. He employed Christian, Buddhist, Neo-Confucian, personalist, and vitalist ideas to envision complementary roles for spirituality, cosmology, and ethics in modern society. Kagawa's anti-reductionist, *a posteriori*, methodological pluralism contributes a distinctive Asian voice to the science and religion conversation that may be worthy of consideration today.

REFERENCES

- Dorrien, Gary. 2001. The Making of American Liberal Theology: Idealism, Realism, and Modernity, 1900–1950. Louisville, KY: Westminster John Knox Press.
- Hastings, Thomas John. 2015. Seeing All Things Whole: The Scientific Mysticism and Art of Kagawa Toyohiko (1888–1960). Eugene, OR: Pickwick.
- Kagawa Toyohiko. 1922a. Seimeishūkyō to seimeigeijutsu [The religion of life and art of life]. Collected Works of Kagawa Toyohiko, 4: 3–157.
- ——. 1922b. Kūchū seifuku [Conquering the Skies]. Collected Works of Kagawa Toyohiko, 15: 3–110.
- 1924. Ai no kagaku [The science of love]. Collected Works of Kagawa Toyohiko, 7: 85–212.
 1929. Kami ni yoru shinsei [New life through God]. Collected Works of Kagawa Toyohiko, 5: 87–173.
- . 1934a. Seirei ni tsuite no meisō [Meditations on the Holy Spirit]. Collected Works of Kagawa Toyohiko, 3: 293–347.
 - —. 1934b. Christ and Japan. Translated by William Axling. New York: Friendship.
- . 1947. Uchūsōzō to ningensaisōzō [The creation of the universe and the recreation of human life]. Tokyo: Kamiizumi Shoten.
- . 1955. "Waga mura wo saru" [Leaving my village]. In *Wakaki hi no shōzō [Portraits of younger days]*, ed. Mainichi Shinbun, 91–108. Tokyo: Mainichi Shinbunsha.
- 2014. Cosmic Purpose. Translated by James W. Heisig, ed. Thomas John Hastings. Eugene, OR: Cascade Veritas Series.
- . 2015. A Few Words in the Dark: Selected Meditations. Translated and annotated by Thomas John Hastings. Princeton, NJ: Bridges to Peace.
- Kasulis, Thomas. 2004. Shinto: The Way Home. Honolulu: University of Hawai'i Press.
- Kishi Hideshi. 1970. "The Religious Aspects of Cosmic Consciousness: A Comparison of Pierre Teilhard de Chardin and Toyohiko Kagawa." *The Christian Century December:* 1533–36.
- . 1987. "Uchū no mokuteki: rikai no tame ni" [Understanding *Cosmic Purpose*]. In *Kagawa Toyohiko kenkyū [Kagawa Toyohiko Research]*. Toyko: Honjo Kagawa Kinenkan.
- Livingstone, David N., and Mark A. Noll. 2000. "B. B. Warfield (1851–1921): A Biblical Inerrantist as Evolutionist." *Isis* 91(2): 283–304.
- Steinkraus, Warren E. 1973. "Martin Luther King's Personalism and Non-Violence." Journal of the History of Ideas 34: 97–111.
- Wang Yangming. 1963. "An Inquiry on the Great Learning." In A Source Book in Chinese Philosophy. Translated and compiled by Wing-Tsit Chan, 271–80. Princeton, NJ: Princeton University Press.