# TRANSLATOR'S INTRODUCTION

The progress of science and technology in modern times shows for the destiny of the human species two faces, like the two-headed god Janus. One face revealed by science and technology is that of the God of Light brightly illuminating the future for humanity and guaranteeing an affluent and pleasant happiness. The other face is the God of Darkness, who betrays a power that could bring terrifying destruction to the world and humankind. Today we are confronting the God with these two faces.

—YUASA Yasuo, from the preface to New Age Science and the Science of Ki-Energy

#### I. INTRODUCTION

We are approaching the end of this century and preparing to welcome the dawn of a new century, which we hope will be mindful of a global perspective on everything human and yet will also acknowledge the traditional cultural differences that each nation and ethnic group has long cherished. In this transitional period we may expect the hitherto accepted intellectual paradigm to be questioned in an effort to erect a new one most appropriate for the coming generations, so that they can enjoy a maximum sense of eudaimonia while dwelling on this beautiful planet, Earth. A change in the paradigm of thinking is called for now especially, considering the adverse, shadow effects which science and technology, along with their shining marvels, have brought to us on a global scale ranging from environmental issues to dehumanization in every aspect of our life.<sup>2</sup>

When the rise of a new theory suggests a change of direction in scholarship, history attests to a common pattern of reaction among the established intellectual community. There is often flat dismissal or at best vehement attack in order to kill and bury the theory, especially if it signals an imminent as well as immanent possibility of shaking the secure and comfortable foundation upon which the existing paradigm of thinking rests. While such an attitude is understandable, since human beings including intellectuals are often chained to their habits<sup>3</sup> through their fragile, incarnate nature,<sup>4</sup> there is equally another tendency observed in history. If a theory accords with and reflects the *Zeitgeist* of a given period, the latter allows the theory to permeate it, though unknowingly, through the inner chamber of its intellectual life.

Although it is not the task of a translator to predict the future course of Yuasa's The Body, Self-Cultivation, and Ki-Energy in the English-speaking world, Yuasa does attempt a thoughtful and provocative project, addressing to the reader several broad and significant questions: (1) Is it not time now to articulate the essential philosophical reason for the current global situation? (2) Can we not trace it to views of human nature and the world espoused by the modern Western paradigm of scientific thinking?<sup>5</sup> (3) Can East Asia make any significant contribution to tackling this issue? In responding to these questions<sup>6</sup> Yuasa draws on his scholarship that covers, just to mention the relevant fields of Western and Eastern scholarship, philosophy, depth psychology, medical science, modern sports, and parapsychology; and, their approximate Eastern counterparts, Buddhism, Daoism, Eastern medicine, the martial arts, and qìgōng (Chin.; Jap. kikō). Yuasa is probably unique as a philosopher in his ability to bring these diverse fields into a unified thematic inquiry—a very rare interdisciplinary feast. Yuasa moves with admirable freedom through these diverse fields of scholarship, and his inquiry in The Body, Self-Cultivation, and Ki-Energy has an uncompromising lucidity that also makes it accessible to the non-specialist.

With these intellectual tools in full operation, Yuasa questions the philosophical assumptions of the scientific paradigm of thinking based on the Cartesian disjunctive mind-body dualism, and evaluates it from an Eastern (or East Asian) perspective of mind-body oneness achieved through the practice of self-cultivation. In so doing, he offers a corrective to the paradigm by examining a unique, psychophysical energy phenomenon, called ki, which cannot properly be accommodated by the ontological and methodological foundation of mind-body dualism. Yuasa invites the reader to a thought-experiment that calls for an epistemological critique of the existing scientific paradigm of thinking.

In this introduction to *The Body*, *Self-Cultivation*, and *Ki-Energy* I will (1) outline an overview of Yuasa's project, and (2) sketch a synoptic summary of each chapter.

## II. AN OVERVIEW OF YUASA'S PROJECT

I would like to sketch briefly the overall organization of *The Body, Self-Cultivation, and Ki-Energy* to show the strategy of Yuasa's bold and provocative project. In part I he examines the Eastern mind-body theory from an historical perspective, clarifying its ideal embodiment of achieved mind-body oneness (chapter 1), and he reinterprets and reevaluates the significance of this theory from a contemporary perspective, incorporating research especially from depth psychology, medical science, and physiological psychology (chapter 2). These chapters establish the relevance of the Eastern mind-body theory for the contemporary period while pointing out a direction whereby future scholarship may be guided, as Yuasa envisions, into the intermediary domain between science and religion.<sup>8</sup> Accordingly, these two chapters prepare Yuasa to pave the way beyond the contemporary period, although this larger task is deferred until part III.

In part II Yuasa examines the concept of the body and its relationship with ki-energy as the latter bears on martial arts, meditation methods, and Eastern medicine. Since "ki-energy" is an unfamiliar concept to most Western readers, it may be helpful to offer a preliminary understanding. In the Japanese language, the phrase translated as "ki-energy" is simply "ki," without specifically suggesting that it is a type of energy. The translators have added the term "energy" to suggest that it can be approached as energy phenomena, and also because Yuasa maintains that it is detectable as energy phenomena. The scope which this concept covers is very comprehensive; it can include, for example, a climatic condition, an arising social condition, a psychological and pathological condition. It also extends to cover a power expressed in fine arts, martial arts, and literature. 10 To give some idea of how this term is used in Japanese, we may cite a few examples. In refering to the weather, when "heaven's ki is bad," it means bad weather. Or when two persons are congenial to each other, it is expressed as "ki ga au," literally meaning "ki accords with each other [in these persons]." Or when a person encounters a situation, person, or place which gives off a strange, eerie, and perhaps suspicious sensation, Japanese uses the expression "ki mi ga warui," that is, "the taste of ki is bad."

Yuasa, while confining his use of the term "ki" to human beings and their living environment, defines ki-energy as a third term with a psychophysical character that cannot be properly accommodated within the dualistic paradigm of thinking. The important point to keep in mind about this concept now is that it is not arrived at merely through intellectual abstraction, but is derived also from the observation of empirical phenomena detectable both experientially and experimentally in and around the human body (chapter 3).

Yuasa goes on to articulate the fundamental characteristics of Eastern medicine, particularly acupuncture medicine, while making comparisons with Western medical science. According to acupuncture medicine, an invisible psychophysical ki-energy circulates within the interior of the body, while at the same time intermingling with the ki-energy pervasively present in the environment including that of other persons. Through his analysis of ki-energy, Yuasa provides the empirical basis for the old wisdom that human being qua microcosm is correlative with the physical universe qua macrocosm (chapter 4).

In part III Yuasa introduces recent results of experimental research on ki-energy in China and Japan, and through its careful analysis he proposes the need for an epistemological critique of the existing scientific paradigm of thinking. To accomplish this bold and provocative task Yuasa introduces scientific measurements of the external emission and "transpersonal synchronization" of kienergy, and draws the conclusion that these phenomena admit of explanation by teleological synchronicity rather than causality. Behind Yuasa's discussion of the "science of ki" is his concern to articulate the view of human being characteristic of the East (chapter 5). Yuasa then examines the methodological problems of parapsychological research and attempts to overcome them from the standpoint of ki research. In so doing he contends that ki research offers an ontological and methodological perspective that will squarely question the scientific paradigm of thinking, particularly its principles of causality and the repeatability of experiments. In this manner Yuasa attempts to go "beyond causality"

(chapter 6). This issue leads him to examine the meaning of teleology, for he believes that teleology is at work in parapsychological phenomena which occur, according to Yuasa, due to the synchronistic principle. For this purpose he interprets Jung's hypothesis of synchronicity while relating it to the salient characteristics of paranormal phenomena, a new movement in physics toward the indistinguishability of mind and matter at the micro level, and the worldview espoused by the ancient Chinese text Yijīng. In so doing Yuasa criticizes the scientific attitude that excludes the investigation of meaning, value, and purpose, and affirms that science is not the final judge on everything. Behind his criticism is the Eastern worldview in which nature is a stage upon which its original activity expresses itself vis-à-vis ki-energy through a vessel that is the human being. The concluding chapter, designed as "an East-West Dialogue," brings out the importance of human being as a life phenomenon resonating with the invigorating activity of nature. Let us now examine a little more closely the content of each chapter.

### III. SYNOPSIS OF CHAPTERS 1 AND 2 (PART I)

In chapter 1, "Eastern Mind-Body Theory," Yuasa's main concern is to explicate, from an historical perspective, the Eastern mind-body theory uniquely inherited in the various Eastern religious-philosophical system such as Yoga, Buddhism, and Daoism. The focus of his analysis, however, is on the methods of self-cultivation  $(shugy\bar{o}h\bar{o})$  in the Japanese cultural and historical tradition. His analysis begins first with Buddhist meditation methods, since these have played an important role in Japanese cultural and intellectual history. For example, Japanese Buddhism is unthinkable without meditative self-cultivation, particularly the method of "meditation in motion," at its experiential foundation. Yuasa succinctly traces its influence through Nō theater, the theory of waka composition, the way of the samurai warrior, and the martial arts.

All forms of self-cultivation utilize in one way or another the body, or more precisely "one's own body," as a vehicle for cultivating one's self. Yuasa's philosophical quest begins here. How is the body understood within the tradition of self-cultivation methods? According to Yuasa's study, the philosophy of self-cultivation stipulates the goal of "enhancing the mind (or spirit) by training

the body." In order to correct the distortions of the mind, one must first correct the modality of the body such as in desire, emotion, and instinct, and suspend the theoretical question of what is the relationship between the mind and body. It is foremost a practical project of enhancing the spirit by training the body. Yuasa thinks that this understanding presupposes an inseparable oneness of mind and body. For if the modality of the mind can be corrected by correcting the modality of the body, it presupposes a correlative relationship between the functions of the mind and the body. Otherwise, the practical project of self-cultivation is a futile attempt. But Yuasa convincingly demonstrates that this presupposition is in fact verified by many Buddhists' accounts of their meditational experience. For instance, Myoe (1173–1232) characterizes his deep meditative experience as "crystallization of mind and body" and Dogen (1200-1253) as "casting off mind and body." Both of these examples describe, according to Yuasa, an experience in which the distinction between mind and body has disappeared.

Accordingly, self-cultivation methods have the following philosophical scheme: they presuppose an initial correlative or provisional dualism between mind and body. This characterizes our everyday "natural attitude." But once the project is completed, it holds the position of inseparable mind-body oneness, which culminates in Buddhism as *satori* and in Daoism as Dao. In short, the philosophy of self-cultivation within the Japanese intellectual tradition recognizes an existential transformation from provisional dualism to non-dualism.<sup>12</sup>

In meditational self-cultivation, then, the meditator learns to correct the various distortions of his or her psyche and balances the competing forces of consciousness and the unconscious. Yuasa describes this experiential process of meditation while relating it to the structure of various kinds of altered states of consciousness (ASC) including dream experience and sensory deprivation.

Yuasa's study shows that the goal of self-cultivation parallels in a certain respect that of the depth-psychological method, especially its idea of synthesizing unconscious complexes within consciousness as, for example, in Jung's transcendent function. Yuasa points out, however, that the Eastern concept of meditative self-cultivation differs from depth psychology in that the latter aims at bringing the subnormal to the normal, while the former focuses on elevating the normal to the supernormal. Furthermore, he demon-

strates that the goal of modern sports also differs from Eastern self-cultivation because it aims only at enhancing the motor capacities of the muscles in the limbs without attempting to enhance the spirit or personality. This shortcoming also applies to the methodological assumption accepted by medical science, which mainly investigates the anatomical organization of the body and its physiological function, ignoring the problem of mind. In short, Yuasa contends that both modern sports and medical science have inherited the Christian spirit-flesh dualism via its secularization in the Cartesian mind-body dualism, which goes back still further to the Greek distinction between eidos and hylé. Guided by the Aristotelian either-or logic, they have emphasized only one aspect of the whole person. Can we be satisfied with becoming only half of a person?

The practical consequence of Eastern self-cultivation, as for example embodied in the martial arts, is perfection of one's personality vis-à-vis achieving mind-body oneness, or alternatively the state of "no-mind." According to Yuasa this is the ethical as well as spiritual significance of self-cultivation. Through the achieved ideal of self-cultivation he implies that humans can relate to each other through accommodation while harmonizing the ki-energy shared between "I" and "the other." This consequence differs radically from the Western concept of the individual wherein one feels from within a split between rationality and irrationality, as well as the anxiety of an ex-istence facing alienation; these are the unfortunate and unnecessary consequences of accepting the dualism.

Chapter 2 is entitled "Beyond the Contemporary Period," which signals Yuasa's implicit agenda for the whole book: to go beyond the existential situation of ethical and spiritual crisis for the contemporary person, by offering an Eastern view of human nature. Explicitly, however, Yuasa analyzes in this chapter contemporary mind-body theories as developed in depth psychology (starting with Freud), in Selyé's stress theory, and in neurophysiology, and shows that these fields are moving toward a correlative dualism which recognizes the intimate functional interrelationship between mind and body—a change gradually taking place within the Western world. This correlative dualism differs from the Cartesian disjunctive dualism accepted, for example, in modern organ-oriented medicine. Yuasa explains that the above fields do not accept a reductionism of the mind, either by reducing it to

the mechanism of matter or by reducing the whole to its parts. Nor do they presuppose a one-to-one causal relationship between the mind and the body (e.g., stress theory), which is a rejection of one of the cardinal pillars of science.

Given this new development of correlative mind-body theory, Yuasa wonders if he might not be able to articulate the meaning and mechanism of meditational self-cultivation from the standpoint of contemporary physiological psychology. Behind this question the reader may sense Yuasa's efforts to resurrect the value of the traditional wisdom nurtured in the East. In responding to this question, he devises his innovative and comprehensive concept of the body-scheme, taking the lived body as an information system. <sup>13</sup> He conceives the body-scheme as consisting of three layered circuits. <sup>14</sup> This is a further conceptual refinement of the dual structure Yuasa proposed in his earlier book, *Body: Toward an Eastern Mind-Body Theory*. <sup>15</sup> A brief explanation of these three circuits may be in order here.

Yuasa calls the first circuit the "external sensory-motor circuit," following the models of Bergson, Merleau-Ponty, and Penfield. It designates the activity of sensory nerves passively receiving stimulus from the external world and the activity of motor nerves actively responding to it. The second circuit concerns an information apparatus which enables us to become aware of internal conditions in the body. It is termed the "circuit of coenesthesis" and is comprised of two further circuits, "kinesthesis" and "somesthesis."

According to Yuasa, the circuit of "kinesthesis" designates the activity of sensory motor nerves attached to the motor organs. We become aware of this circuit through motor sensation. He points out that this motor sensation is found in the *periphery* of the Cartesian *ego cogito* represented by such mental activities as thinking, willing, feeling, emotion, and imagination. The second circuit within the circuit of coenesthesis is called the "circuit of somesthesis" which is comprised, among other things, of splanchnic nerves that inform our brain of the condition of the visceral organs, though our awareness of it may be dim due to the small area on the neoencephalon receptive to this condition. It is a dark and vague (protopathic) sensation found further back at the periphery of motor sensation. This circuit is compared to a biofeedback mechanism, although Yuasa admits that we do not have sufficient

understanding of this mechanism, since there is insufficient knowledge connecting the psychological function of memory with its corresponding physiological function. At any rate, the circuit of coenesthesis consists of these two circuits of kinesthesis and somesthesis, and experientially, as Yuasa informs us, it is felt as an awareness of one's body.

Yuasa calls the third information circuit the "emotion-instinct circuit," which is governed by the autonomic nerves. Noting its close ties to emotion and instinct, he considers this circuit essential for maintaining the life of a body, for without its functioning life ceases. A main characteristic of this information system is that it does not reach the neoencephalon. In other words, the activity of the visceral organs are not, under normal circumstances, brought to our awareness. This circuit converts the stimulus received through a sensory organ into an emotional response (pleasure or pain) or information about stress, which affect the activity of the visceral organs. Because of this conversion, Yuasa points out that this circuit holistically affects the whole person.

A major characteristic of Yuasa's foregoing concept of the body scheme is that, epistemologically speaking, one's awareness decreases as one moves from the first to the third circuit, but this increases the chance of being controlled by them. In incorporating the second and third circuits within his inquiry, Yuasa has broadened the scope of the concept of the body-scheme, and thus brought out a deeper dimension of our experience. The majority of Western philosophers interested in mind-body theory have been concerned solely with the first external sensory motor circuit and rarely with the circuit of kinesthesis. As Yuasa makes clear, it was through depth psychologists and psychiatrists interested in Eastern self-cultivation methods that the importance of the second and third circuits became evident for the health of an individual.

In examining the Eastern meditational self-cultivation method in light of the foregoing psychophysiological standpoint, Yuasa makes the important observation that meditational training has the effect of correcting distortions in the emotion-instinct circuit, that is, of dissolving unconscious emotional complexes which cannot otherwise be fully controlled by conscious will. In other words, meditation has a practical goal of enhancing the intimate correlativity between the psychological functions of the mind and the physiological functions of the body. Philosophically inter-

preted this means that meditational self-cultivation is to achieve an intimate oneness of mind and body. Here the reader will find a further refinement as well as confirmation of the thesis developed in chapter 1.

In this connection, Yuasa analyzes the meaning of controlling the emotion-instinct circuit, that is, of controlling the autonomic nerves in the contemporary theory of conditioned reflex, to substantiate his earlier claim that meditation corrects distortions in the emotion-instinct circuit. Pavlov's theory of conditioned reflex established that a connection can be made between a stimulus to the sensory organ and the autonomic nerves through the function of emotion rooted in instinct. (This is seen in Pavlov's experiment where a dog's salivation is aroused via its appetite and the ringing of a bell.) The emotion-instinct in this case is responsible for creating a temporary connection between the otherwise uncontrollable function of the autonomic nerves and sensory stimulus. Together with this analysis, Yuasa shows that the working of conditioned reflex parallels the theory of depth psychology in that the emotional complex suppressed beneath consciousness distorts the balance kept in the autonomic nervous system, creating a dysfunction in the visceral organ.

Applying this knowledge to the Eastern meditational selfcultivation method, Yuasa advances an interpretation that meditation is a practical way of developing the functions of both the autonomic nervous system and the emotions to a higher degree of correlativity. His interpretation is based on the mechanism evident in breathing exercises, which all forms of self-cultivation methods emphasize as an integral part of training. Neurophysiologically speaking, breathing has an ambiguous function: it is most of the time unconsciously performed, because it is controlled by the muscles attached to the autonomic nerves, and yet it can also be consciously controlled. Taking advantage of the latter fact, breathing exercise in meditational self-cultivation consciously works on the autonomic nerves so as to correct or eliminate the emotional distortion in the unconscious. Through this Yuasa demonstrates that the theory of conditioned reflex supports the significance of meditative self-cultivation from a neurophysiological standpoint.

At the end of chapter 2 is a brief methodological reflection that is helpful for understanding the Eastern pattern of thinking, particularly Yuasa's foregoing analysis of meditational self-

cultivation. Yuasa emphasizes that the Eastern standard for analysis is those who have achieved, after long training, a high degree of mind-body capacity, and this standard remains simply an ideal possibility for the average person. In contrast, the West has focused on the average, ordinary person for analysis in formulating hypotheses. Empirical laws thus formulated have a general validity. Yuasa's analysis shows, however, that this methodological procedure tends to ignore exceptional cases. A case in point is the concept of being "normal" and "healthy." According to this model, anyone who falls outside of the average mean is labeled either "abnormal" or "unhealthy." Yet, Yuasa asks, shouldn't we recognize that there are two kinds of "abnormality"? One is subnormal and the other supernormal. Eastern mind-body theory, focusing on the supernormal, has attempted to understand a deeper, potential mechanism which remains opaque and incomprehensible when one studies only the average person's mind-body capacity. This is, for example, evident in Yuasa's own schematization of the second and third information circuits within his concept of body-scheme.

## IV. SYNOPSIS OF CHAPTERS 3 AND 4 (PART II)

Yuasa's general plan for part II is to delve into the concept of the lived body as it is understood in the martial arts, Daoist meditation methods, and Eastern (acupuncture) medicine, while using the concept and phenomenon of ki-energy as a key, pivotal concept. He does this with a view to articulating Eastern views of human nature and the world.

In chapter 3, "Ki and the Body in the Martial Arts and Meditation Methods," Yuasa begins with the analysis of an ultimate technical secret sought in Japanese martial arts, that of "unifying mind with ki-energy." This secret lies in developing the area a couple of inches below the navel, called seika tanden, which is believed to store an abundance of ki-energy. The martial artist learns to control this energy center within one's own body as well as in that of an opponent, that is, one learns to detect the flow of ki-energy in oneself and in others. In doing this one faces one's surrounding external environment, the world of matter. In this situation, Yuasa interprets "unifying the mind with ki-energy" to mean that "the mind comes to feel the flow of ki" between the

inner world (mind) and the outer world (matter) by using the intermediary being of "one's own body," which is distinguished from the world of matter by virtue of its feeling of being "alive." Here, the concept of "one's own body" functions as an indispensable mediator. Yuasa contends that the Eastern mind-body theory has attempted to understand "one's own body" qua life phenomenon, which would remain incomprehensible within the Cartesian dichotomy.

Ki in this context is understood more specifically as "a function intuitively apprehended as a sensation of power arising from the base of coenesthesis." By the phrase, "the base of coenesthesis," Yuasa means that this function belongs to the unconscious, indicating that its access is denied to everyday consciousness. However, through mind-body training in meditation and breathing exercises, Yuasa states that the mind gradually becomes capable of detecting its flow. He illustrates this process through experiences recounted in Eugen Herrigel's Zen and the Art of Archery in which ki is explained as "a spiritual power" flowing throughout the body.

In order to conceptually refine the process whereby the mind comes to detect the flow of ki-energy, Yuasa turns to an analysis of the meditational process that brings about the transformation of ki-energy. His task here is to conceptually differentiate ki-energy into its materially based energy and its subtle spiritual energy. Following a Daoist interpretation, Yuasa shows that meditation transforms the materially based ki-energy (or sexual libido) into a subtle spiritual energy, which Yuasa interprets to be an awakening and activation of original human nature, or Dao, a fount of creativity. In the Daoist meditational method, this process of transformation is understood as reversing the predominance of yīn over yáng ki-energy that characterizes our everyday mode of existence. Yuasa also supplements his explanation by approximating this Daoist scheme to Freudian and Jungian psychoanalysis.

Yuasa next examines the meaning of reversing the predominance of yīn over yáng ki-energy in more concrete detail, focusing on a Daoist text, The Secret of the Golden Flower. This text claims that original human nature, or Dao, lies dormant between the eyes and is symbolically expressed as "heavenly light." However, this "heavenly light" is inactive in our everyday existence because conscious activity suppresses it, or in other words because

 $y\bar{i}n$  predominates over  $y\acute{a}ng$ . To awaken this dormant original light, the text states that the meditator must "circulate the light" in a reverse direction by adjusting the breath so as to enter the state of true or pure  $y\acute{a}ng$ . Reversing is understood as a way to restore original human nature or Dao, and to change the relative dominance of  $y\bar{i}n$  over  $y\acute{a}ng$ . Specifically, the meditator must learn to concentrate on a thought-image while synchronizing it with the rhythm of breathing. This is required for establishing a correlative relationship between the movement of the mind and the rhythm of breathing. This point confirms Yuasa's earlier discussion of breathing in connection with conditioning the autonomic nerves. Yuasa's textual interpretation explains the relationship between the mind and ki as follows: "ki is originally a transformation of the activities of the original nature of mind."

In learning to restore the original light by adjusting the breath, the text warns of the danger of falling into two unfavorable states, a "depressed twilight state" and a "dispersed, distracted state." However, when the meditator succeeds in overcoming these unfavorable states, he or she will start "experiencing something that is not a being in the midst of all that exists." At this stage, the spiritually subtle energy becomes active and yet the meditator does not clearly understand its experiential meaning. However, if the meditator continues, he or she will start "experiencing something which should not be existing when there is nothing." This is a definite sign revealing to the meditator that the reversal of predominance of yīn over yáng is clearly advanced. Yuasa's foregoing analysis is suggestive of how a cultivator comes to detect the flow of ki-energy.

What becomes of interest at this point then is to understand "inner image experiences accompanying the transformation of ki" to which Yuasa now turns. Yuasa's textual interpretation informs us that deepening meditation brings about the experience of "a subtle spiritual fire" within which, after a further deepening, the meditator recognizes the development of "one point of true yáng," accompanied by a sudden realization that "the seed of yellow pearl" is generated in the lower abdomen. This is compared to the blossoming of the golden flower.

The process leading to the blossoming of the golden flower is not always smooth, and in fact the meditator often encounters "mistakes in the circulation of light." "Mistakes" specifically refer to pathological and hallucinatory states, or what Zen Buddhism calls "Zen sickness" and Tendai Buddhism calls "demonic states." Yuasa's explanation also draws on Jung's concepts of compensatory image and shadow, which may aid readers unfamiliar with meditative experience. The images accompanying hallucinatory states may be those of buddhas and bodhisattvas, luring the meditator into captive fascination, while at the same time preventing him or her from making further progress.

After dealing with the warning of the projective character of images appearing in the deepening process of meditation, Yuasa goes into a textual interpretation of the "subtle signs in the circulation of light" in which he examines, and correlates with depth psychology, three confirmatory experiences that verify the blossoming of the golden flower. This is followed by the discussion of an ideal way of everyday life, in which the model of the Daoist sage is described as manifesting a hidden power to help people without their realizing it.

At the end of chapter 3 is another brief methodological reflection, which may be especially valuable and appropriate after having gone through Yuasa's textual interpretation of *The Secret of the Golden Flower*. To those readers who expect from Eastern texts on self-cultivation an intellectual knowledge or proof, Yuasa warns that the philosophical-religious knowledge in the Eastern tradition is *practical* in nature. On this point Yuasa echoes Jung's observation that the East has sought "religious cognition" or "cognitive religion," in contrast to religious faith.

In chapter 4 Yuasa approaches ki from the perspective of acupuncture medicine to articulate its characteristics as they pertain to the concept of the human body, while providing, where appropriate, comparisons with Western medicine. The result is a radically new concept of the human body. Yuasa sees that the fundamental characteristic of acupuncture medicine is its holographic view of the internal organs. Unlike organ-oriented medicine, which focuses on the localized function of each viscus, acupuncture medicine takes each viscus to be functionally connected with other viscera through the physiologically invisible network of "meridians" through which ki-energy flows. The second noteworthy point Yuasa observes as essential to acupuncture medicine is its contention that ki-energy, while circulating within the interior of the body, intermingles with that of the external

world. This idea presupposes that the body is an open system, again differing from organ-oriented medicine which takes the human body as a closed system. A third characteristic point which Yuasa singles out is that acupuncture medicine is a medicine of the somatic surface. That is, the skin is understood as a boundary wall, as it were, between interior and exterior where there is an interfusion of ki-energy. This idea reinstantiates the macrocosmic-microcosmic correlativity between the human body and the physical universe as also found in some thinkers of the Western philosophical tradition, such as in the early Greeks and Leibniz.

With these characteristics in mind Yuasa makes a comparison with modern science. Yuasa writes critically:

[T]he logic of modern science started with a methodology disregarding the fact of mind-body union that common sense recognizes in our everyday experience. This suggests that the logic of science is divorced from our human life, and proceeds independent of us.<sup>19</sup>

Science, walking independent of human life, according to Yuasa, situates the contemporary person ethically and spiritually in a desolate field of dehumanization. Here Yuasa sees the need for a theory which unifies the logic of modern science with common sense operating in our daily life. Methodologically, Yuasa finds the concept and phenomenon of ki to be a supreme candidate for envisioning such a possibility, because ki is psychophysiological in nature. More concretely, the meditation process verifies the activation of ki-energy in the psychological function vis-à-vis the experience of images while acupuncture medicine attests to the activation of ki-energy in the physiological function vis-à-vis its therapeutic effect.

In this connection, Yuasa discusses the "relationship between ki and emotion" in acupuncture medicine as this was also important in meditation. Noting that acupuncture medicine considers emotion a major etiological factor, Yuasa offers the interpretation that acupuncture medicine is psychosomatic in character. Since psychosomatic medicine regards disease as correlative with the distortion of emotion, to cure is to correct this distortion. Acupuncture medicine accomplishes this by inserting an acu-needle into the surface of the skin to restore the balance and harmony of ki flowing in the body. If a disease is correlated with the distortion

of emotion, the method of acupuncture cure suggests that it understands emotion as a flow of ki-energy since the insertion of an acu-needle activates its flow at the physiological level.

Having established that acupuncture medicine understands emotion to be a flow of ki-energy, Yuasa's next concern is to verify both experientially and experimentally that there is indeed ki flowing in the body. To do this, Yuasa introduces the case of the "meridian sensitive person" who can feel, upon the insertion of an acu-needle, the direction and speed of "vibration," that is, a dermal sensation of something dispersing in specific directions with a speed considerably slower than the nerve impulse. Yuasa reports an experiment in which this felt sensation coincides with the chart of meridians recorded since ancient times. Together with this experiential correlate, Yuasa presents various electrophysiological experiments which measured and verified the existence of meridians and energy running through them. In this regard, he deems MOTOYAMA Hiroshi's experiment to be decisive. Motoyama conducted an experiment by applying the principle of galvanic skin response (i.e., viscero-cutaneous reflex) on the circuited surface of the skin along a traditionally recognized meridian path, and obtained a result which would not be obtained if it were only the usual viscero-cutaneous reflex. This suggested to Motoyama that a circuit of energy response exists which is different from the galvanic skin response. Motoyama identified it as ki-energy flowing in the meridians.

Bringing the foregoing analyses together, Yuasa summarizes the concept and phenomenon of *ki*-energy as follows:

[T]he substance of the unknown energy, ki, is not yet known. It is the flow of a certain energy circulating in the living body, unique to living organisms.... [T]he flow of ki, when it is seen psychologically, is perceived in the circuit of coenesthesis as an abnormal sensation, as a self-apprehending sensation of one's own body under special circumstances.... When it is viewed physiologically, it is detected on the skin.... Therefore, the ki-energy is both psychological and physiological.... [I]ts substance lies in the region of the psychologically unconscious and the physiologically invisible.<sup>20</sup>

According to Yuasa, the system of meridians has an effect on both mind and body; it is, in fact, a middle system that mediates them.

From this observation Yuasa concludes that it is a *third* term which cannot be understood in terms of the Cartesian mindmatter dichotomy. This conclusion convinces Yausa that the study of *ki*-energy serves as a "breakthrough" point capable of transforming the existing scientific paradigm of thinking based on the Cartesian mind-body dualism.

Yuasa now incorporates his findings about the meridian system into his concept of body-scheme, which in the previous chapter he conceived as a three-layered information system. He calls the meridian system the "circuit of unconscious quasi-body" and characterizes it as a pathway of emotional energy flowing in the unconscious which activates physiological functions. It is a potential circuit in the unconscious and is anatomically invisible. The circuit of the unconscious quasi-body forms the fourth circuit in Yuasa's body-scheme.

In view of the fact that ki-energy is said to intermingle with that of the external world, Yausa's investigation turns to the question of how the unconscious quasi-body's function is directed toward the external world, that is, how ki interacts between the lived body and external world. In this instance, Yuasa examines the hypotheses of the body-scheme proposed by both Bergson and Merleau-Ponty. They both speculated that there is an invisible system of the body, distinct from the object-body, that prepares in advance one's own body (i.e., the first external sensory-motor circuit) for action. Merleau-Ponty in particular thought that this invisible body-scheme, while directing and preparing the object-body to act, casts an intentional arc toward the goal of action. His hypothesis, Yuasa thinks, is commensurate with the idea of ki-energy intermingling with the external world.

Yuasa sees that Merleau-Ponty's hypothesis of the invisible body-scheme is related to the habitualization of the body (i.e., the circuit of coenesthesis). The habitualization of the body presupposes memory. But since Merleau-Ponty ignored this issue, Yuasa turns to the analysis of Bergson's "motor-scheme," particularly in connection with the function of "automatic memory." Bergson's "motor-scheme," like that of Merleau-Ponty, prepares and directs the body in advance for action. Yuasa demonstrates that Bergson's motor-scheme is designed to explain the unconscious capacity to "store" the learned memory, and in the habitualized body,

when perception takes place, the meaning of such a perception is automatically re-cognized from this memory bank in the unconscious. Yuasa interprets this to mean that:

Bergson's "motor-scheme" of the body is an integrative system which unconsciously directs the mind-body whole to an external action, while connecting and mediating the *mind's function* of recollecting memory (psychological function) with the *body's function* which receives information from the thing-events of the external world through the sensory organs (perceptual function *qua* the physiological function).<sup>21</sup>

This characterization of Bergson's motor-scheme parallels the characteristics enumerated for the function of ki-energy accepted in acupuncture medicine, particularly the fact that it is a middle system mediating between the mind and body. Nevertheless, Yuasa points out that neither Merleau-Ponty's hypothesis nor Bergson's hypothesis can be positivistically verified on its own. If, however, we examine these two hypotheses in light of Yuasa's concept of body-scheme, particularly in reference to the fourth circuit of the unconscious quasi-body, they can receive empirical support.

## V. SYNOPSIS OF CHAPTERS 5, 6, AND 7 (PART III)

Had Yuasa's The Body, Self-Cultivation, and Ki-Energy stopped at part II, its general merit would be confined to the significance Yuasa brings out for the Eastern mind-body theory. This would have had a limited, regional relevance to areas such as philosophy, religion, East Asian Studies, and perhaps depth psychology, medicine, and physical education. However, from these regional confines of his study, Yuasa brings out issues that have a global relevance. Although already anticipated in the previous chapters, in part III he questions the very foundation upon which modern Western science, along with its view of human nature and the world, is erected. Yuasa approaches this task by examining "the present and future of the science of ki."

In chapter 5, "The Science of Ki and its View of Human Being," Yuasa introduces the research findings on  $qig\bar{o}ng$  (Chin.; Jap.  $kik\bar{o}$ ), or ki training, which is based on recently conducted scientific investigation by Chinese researchers who examined the relationship between the unconscious quasi-body and the environ-

ment. The point to keep in mind regarding ki research is that its scientific detection and measurement of energy activities is focused on externally emitted energy from the human body. Noting that this kind of research had previously been confined to the interior of the human body, such as EEG, electric activity, and biofeedback, Yuasa remarks that the Chinese researchers' project is an important step forward in extending the scope of investigation on the phenomena of ki by opening up the possibility of studying in positivistic terms the relationship between the human body and its surrounding environment. This translates into the study of the three fields of psychology, physiology, and physics (or mind, life, and matter), that is, the study of a psychological and physiological condition along with its physical effect when the emission of energy activity is detected.

Various energy activities such as infrared rays and magnetic fields are reported to be detected from trained ki-therapists who demonstrate a *curative* effect on patients. Yuasa interprets this to mean that what is traditionally conceived to be the activity of ki has in some form a correlative relationship with the activity of physical energies, although ki itself may not be reducible to the latter. The significance of the emission and detection of energy activities lies, as Yuasa points out, in the fact that the generation of these energy activities is most strongly found in the meridians (acu-points) and in the fact that it is closely correlated with a function of human awareness capable of detecting the flow of ki in the unconscious (quasi-body). This leads Yuasa to postulate that there also exists a correlative relationship between the function of awareness and physical energy, that is, between psychological phenomena and physical phenomena, wherein ki-energy is understood to flow in the unconscious quasi-body, and is emitted outside the body as physically detectable energy activities with a definite effect on the environment. Based on this finding. Yuasa refines the definition of the concept of ki-energy as "an energy unique to the living human body that becomes manifest, while being transformed, at psychological, physiological, and physical levels."

Having established a definition of ki-energy, Yuasa moves on to discuss "transpersonal synchronization of ki and the problem of teleology." He reports the phenomenon of "transpersonal synchronization" of ki which emerged when Japanese researchers conducted an experiment to measure the electroencephalograph

(EEG) of ki-therapists emitting ki-energy to their recipients. "Transpersonal synchronization" may be understood as the occurrence of the same phenomenon between individuals in disregard of spatial distance. When measurements were taken on kitherapists at the time ki was emitted, researchers detected a brain wave similar to the "flat" wave that is associated with brain death as well as the spike wave observed in the paroxysms of epileptics. These findings are surprising for they defy contemporary medical standards, but equally surprising was the finding that a transpersonal synchronization of a and B brain waves occurred between sender and recipient. This is, for example, suggestive of verifying empirically the ethical and spiritual goal of meditational self-cultivation studied in chapter 1. Rejecting the explanation of this phenomenon vis-à-vis causality, Yuasa interprets this fact to be an instance of Jung's concept of synchronicity, which is a "meaningful coincidence" between psychological and physiological (or physical) phenomena. He identifies this meaningful coincidence as philosophically rooted in teleology, claiming that the human body qua life phenomena is latently endowed with a teleological order.

Since these findings were obtained from master ki-therapists, ordinary people's consciousness and perception are incapable of generating transpersonal synchronization, or at least they are not aware of it. The teleological order, in other words, remains for most people concealed in the unconscious quasi-body. Nevertheless, Yuasa believes, following the methodological standpoint of taking the exceptional as the standard in the Eastern method of scholarship, that the above findings will open up a new perspective on the relationship between teleology and science. He defers his provocative analysis and discussion of this point to the concluding chapter.

In chapter 6, Yuasa discusses "Ki and the Problem of Paranormal Phenomena," which is a natural development from the previous chapter's concern for the external emission of ki-energy. Yuasa introduces a summary of a symposium held in Shanghai in 1979 which explored "the mystery of life science." The impetus for this symposium came from the discovery of a boy who demonstrated an ability to "read with his ears" which in parapsychological terminology translates into psi-ability, particularly clairvoyance. Yuasa points out three salient features concerning