

# SCIENCE, KOKORO, AND RELIGION

## Thoughts on a New Project

Paul L. SWANSON

---

*This essay introduces the Institute's involvement in a new project to promote the science-and-religion dialogue and attempts to flesh out the potential of this dialogue in Japan. It discusses terminological problems with concepts such as "religion" and "spirituality," and plays with the Japanese idea of kokoro (translated here as "spirit"), and the Japanese penchant for focusing on conventional realities, as ways to link common aspects of science and religion. These ideas are also presented as a theoretical basis for the Nanzan Institute for Religion and Culture's proposal to promote a healthy and positive science-and-religion dialogue in Japan through a project supported by the Global Perspectives on Science and Spirituality (GPSS) program.*

The Nanzan Institute for Religion and Culture has sponsored numerous activities over the years promoting interreligious and intercultural dialogue, but until recently had no experience in the specific area of "Science and Religion." An opportunity to become involved in this important and lively area of dialogue presented itself when we received information on a new program called "Global Perspectives on Science & Spirituality," a large-scale program to support advanced research in the field of science and spirituality/religion in Central and Eastern Europe, Russia and the new independent states, and South and East Asia.<sup>1</sup> A consultation was held with Professor Pranab Das, Principal Investigator and Program Director for GPSS, on 23 July 2004, and as a result the Institute decided to prepare a proposal for a GPSS Fellowship Award.

In the fall of 2004 the Institute sponsored three colloquia on "science and religion" in preparation for the GPSS project:

1. The GPSS is funded by the John Templeton Foundation and jointly administered by the Interdisciplinary University of Paris [France] and Elon University [USA]; see [www.uip.edu/gpss/](http://www.uip.edu/gpss/).

1. September 17: Yamamoto Sukeyasu 山本祐靖, professor emeritus in physics at the University of Tokyo, on the theme “Science and Religion in Harmony: A Christian Perspective”
2. November 11: Ashina Sadamichi 芦名定道, associate professor in the Graduate School of Letters at Kyoto University, on the theme “The Dialogue Between Science and Religion [in Japan]: Current State and Issues”
3. December 14: Frank Budenholzer, professor of Chemistry and director of the Center for the Study of Science and Religion at Fu Jen University (Taiwan), on the theme “The Science and Religion Dialogue in Greater China: The Current Situation and Future Possibilities”

The proposal for the GPSS Award was submitted in the opening days of the new year of 2005, and confirmation of receipt of the award was received in February. Through this project we propose to accomplish the following goals.

Throughout 2005 and into the early months of 2006, the Institute will sponsor and organize a series of colloquia with selected scholars, climaxing in a symposium, on the theme “Science — Spirit— Religion: Reflections on Science and Spirituality in the Japanese Context” (Japanese title: 科学・こころ・宗教——いま科学と宗教は出会えるか [Science — Kokoro — Religion: Can there be a meeting of science and religion in our day?]). Our goal is to bring together scientists from diverse fields in the “hard sciences” and their accompanying technologies (physics, chemistry, biology, astronomy, robotics, brain science, neurology, nanotechnology, medicine), as well as scholars of the philosophy of science, to discuss issues brought to the fore by the advances of modern science, and to rethink the role of spirituality in contemporary Japan from that perspective. At the end of the year, the participants will be invited for a three-day symposium, to develop their contributions further and to allow time for detailed discussion among their colleagues. A web site has been created to share the results of these meetings ([www.nanzan-u.ac.jp/SHUBUNKEN/jp/Purojekuto/GPSS/GPSS.htm](http://www.nanzan-u.ac.jp/SHUBUNKEN/jp/Purojekuto/GPSS/GPSS.htm)).

The essay reproduced below was written as part of the GPSS proposal. As I pointed out in this essay, the “science and religion” dialogue is very limited in Japan, many people feel an aversion to discussing spirituality, and “dialogue” on “science and religion” is often viewed with suspicion, if not hostility. We have discovered, however, that there are a not insignificant number of scientists and scholars in Japan who are interested in pursuing the topic. So far their work has been isolated, and there is little communication among them. The development of a network of scientists and scholars of science, and the communication among them that such a network would provide, is crucial to establishing a broad and long-term science-and-religion dialogue in Japan. Again, both “science” and “religion” are too varied and multifaceted for us to cover all aspects of both areas. It is necessary to identify what issues should be focused on, in order

to avoid ending up with just a cacophony of voices from a broad and scattered spectrum of religious and scientific views.

Our proposed series of colloquia and the symposium are intended as a preliminary step to encourage and “legitimize” the debate in the Japanese context, as well as provide the opportunity to identify concrete issues, people, and projects that would deserve specific, long-term attention. Our goal is thus threefold:

- ESTABLISH a network of scientists and scholars who seek to be involved in a science-religion dialogue
- PROMOTE the science-religion dialogue in Japan as a legitimate and respectable endeavor
- IDENTIFY ideas or issues important to the Japanese context, and that the Japanese discussion can contribute to the worldwide debate

The following remarks were written as part of the GPSS proposal to indicate our perspective and goals for this project. It is reproduced here to serve as a preliminary report of our intentions and, we hope, to stimulate further debate and discussion.

### Why Not “Science and Religion”?

One may ask, upon seeing the title of this essay, are not the terms “science and religion” sufficient? Why the added third element of “spirit” (a translation for the Japanese term *kokoro*)? Part of the answer is that whenever there are two elements, assumed to be related to each other in some way (whether in conflict, contradiction, or mutually related), it is necessary to introduce a third element to clarify the nature of the relationship between the two elements. What, then, unites or divides them?

In the Japanese context, the immediate problem with the contraposition of science and religion is that the concept of “religion” is limited and problematic, too one-sided and controversial, to serve as a counter or “partner” for dialogue with science. The word “religion” (*shūkyō*) was introduced into Japan along with other Western terminology about 130 years ago, and it has always remained an uneasy fit within the Japanese context.<sup>2</sup> To most Japanese, “religion” (as opposed to, say, “spirituality”) is a matter of institutional affiliation with an organized religious group, and surveys consistently show that while a large majority of up to 90% of Japanese identify themselves as “Buddhist”, an overlapping majority of about the same size identify themselves with “Shinto,” while at the same

2. This topic is hotly debated among religious scholars in Japan today. For the best summary of the issue, see SHIMAZONO Susumu 島崎進 and TSURUOKA Yoshio 鶴岡賀雄, ed., 『〈宗教〉再考』 [Rethinking “religion”], 2004.

time more than half of the Japanese claim to be atheists or agnostics, revealing a crucial difficulty for using the category “religion” to analyze Japanese society.<sup>3</sup> Nevertheless the term “religion” does retain positive implications of spiritual matters, traditional values, ethical issues, sensitivity, emotional healing, meaningful ritual, and so on, suggesting that the term “spirituality” might be more useful in the modern Japanese context.

“Spirituality,” however, is often perceived as shallow and faddish, an ephemeral aspect of “new age” movements, unconnected with organized religion but without profundity or the depth of traditional values, and yet, in a positive sense, a way of expressing “spiritual” yearnings without institutional entanglements. For these reasons, the simple formula “science-and-religion” is misleading and even fails to carry the same connotations it does in many Western languages.

This does not mean that there is no possibility of dialogue along the lines we have seen recently in the West, nor even that the terms need to be completely changed. Rather, there is a need to clarify the “and”: a “bridge” is needed to unite the two in dialogue, a concept familiar to both but belonging exclusively to neither. *Kokoro* is, I believe, such a bridge-concept that would work in the Japanese context, underscoring the ideal that the science-religion dialogue is not about institutional affiliation but a matter of the spirit.

What is this *kokoro*, which we have translated in the title as “spirit”? *Kokoro* 心 is a broad and multivalent Japanese concept that includes the rational workings of the “mind” and the emotional feelings of the “heart,” as well as the movings of the “spirit” and the impulses of the “will.” *Kokoro* is all of these, and their unity and inseparability is assumed, without insisting that “thoughts” and “feelings” are the same—a diversity within a unity, or a unity of diversities. Thus matters of the “spirit” can, in Japanese, be more easily assumed to consist of both rational thoughts and emotional feelings, without the sense of any contradiction. For example, when communicating in Japanese it is not difficult to accept the idea that a robot or computer has *kokoro*, whereas to argue in English that a robot or computer has “heart” or “mind” is much more tricky. It is easy to accept, for example, that the Sony dog-robot Aibo or the Honda humanoid robot Asimo have *kokoro*—they respond to outside stimuli, they move and speak on their own “volition,” they act in ways that provoke feelings of affection in humans, ... but would we say in English that the Aibo or Asimo in itself has a “mind” or “heart”? Perhaps it is meaningful to do so in Japanese because the concept of

3. On surveys concerning religion and values in Japan, see Robert KISALA, “Asian Values Studies,” *Bulletin of the Nanzan Institute for Religion and Culture* 23 (Spring 1999): 59–73. For an extreme example arguing for the total rejection of the word “religion” in the Japanese context, see Timothy Fitzgerald, *The Ideology of Religious Studies*, 2000, 159ff.

*kokoro* includes not just an individual object, but also the responses to it or its relation with its environment? When you say that something has *kokoro*, you are saying as much about your own response to the object as about what the object is in itself.<sup>4</sup>

Chih-i, the founder of T'ien-t'ai Buddhism and whose influence on East Asian Buddhism and culture is akin to that of St. Thomas Aquinas in the West, spoke of how the “mundane” (everyday, conventional experiences) and “real” (the way things really are) are “neither one nor two,” “neither [completely] different nor [totally] the same,” “non-dual yet not distinct,” “neither merged nor scattered.”<sup>5</sup> This idea of non-monolithic non-dualism, in which things retain their distinctiveness while maintaining identity with others or with the whole, is an important aspect of the Japanese worldview. “Non-duality,” of course, is not a uniquely Asian or Buddhist concept — Jacob Needleman, for example, speaks of science and spirituality as an “organic unity,” a “reciprocal relationship among separate but interdependent entities”<sup>6</sup>—but it is nonetheless a key perspective for the Japanese context. It is a tendency to perceive the relationships between varied phenomena rather than focus on their individual, independent essences. Perhaps the same can be said of science and religion, “heart” and “mind,” and this non-dualistic or interrelational Japanese perspective can shed new light on the science-religion dialogue?

## Science and Religion in the Japanese Context

The science-and-religion dialogue, in the sense and scope in which it has been carried out in the West, is still very limited in Japan. In addition to the different expectations created by the terms discussed above, it must be added that not only scientists but ordinary Japanese often have an aversion to discussing religion and spirituality, and “dialogue” on the topic is often viewed with suspicion, if not hostility.<sup>7</sup> The pairing of science and religion in Japan conjures up images of television programs that attempt to find the “scientific” basis for paranormal powers (or, on the other hand, a representative scientist on TV debunking such

4. One caveat: I am not making the ethnocentric claim that concepts such as *kokoro* are “uniquely Japanese” and cannot be understood by non-Japanese. Terminology and concepts in any language carry their own nuances and application so that no word has its exact equivalent in another language. Nevertheless terms such as *kokoro* can be explained and understood in other language contexts, just as originally Western terms such as “religion” can be meaningfully applied in Japan.

5. See, for example, the *Mo-ho chih-kuan* 摩訶止觀, one of the most influential East Asian treatises on Buddhist practice and theory, Taishō Buddhist canon, vol. 46.34c16ff.

6. Jacob NEEDLEMAN, *A Sense of the Cosmos: The Encounter of Modern Science and Ancient Truth*, 1988, p. xiv.

7. The Japanese subtitle to our GPSS project proposal reflects this concern by asking the question, “Can there be a meeting of science and religion in our day?” いま科学と宗教は出会えるか。

paranormal powers), or the claims of some religious leaders that their religious path and/or world view is the most “scientific” of all and thus the most appropriate for the modern world. There is still little debate on this subject in Japan that can compare to the sophistication of the dialogue in the West.<sup>8</sup> But if such a debate were to take place in Japan, what form would it take, what would be the central issues, and would it take a different direction and offer any new insights?

At the risk of oversimplification, a cursory acquaintance with the science-religion dialogue in the West reveals that much of the debate concerns, or is somehow connected with, the idea of a creator God, whether it be the attempt to show that belief in a creator God is not incompatible with modern science, or the attempt to debunk religion as incompatible with science because a creator God is unacceptable. Perhaps this is unavoidable, given the situation that the debate and dialogue has developed for the most part in a Christian (or anti-Christian) context. The Japanese context, however, does not require the affirmation or denial of a creator God; rather, to force the issue in these terms would mitigate against a truly indigenous debate.<sup>9</sup>

If the concept of a creator God is not the central issue in Japan, as has been in the West, then what are or should be the central issues? This is a question that can only be answered by actually carrying out a long-term discussion and dialogue, but there are indications that questions of the mind and consciousness will play a central role, as shown in recent dialogues between Buddhism and the sciences.<sup>10</sup> The Japanese context also indicates that issues of daily practices, family rituals, the interrelationships of conventional phenomena, and traditional values (with regard to ethical issues raised by scientific advances) will be given greater weight than abstract issues of cosmological origins, ontological principles, or the working (or not) of a creator God. Whether a dialogue focused on mind and consciousness, or a focus on daily conventional experiences, *kokoro* is a key concept.

8. One exception is the informal Study Group on “Religion and Science” 「宗教と科学」研究会 that has been meeting in Kyoto for over ten years, and whose fruits have been published recently in their book on “Living Religion in an Age of Science,” edited by ASHINA Sadamichi 芦名定道, et al., 2004. See also their homepage at [www.bun.kyoto-u.ac.jp/christ/science/index.html](http://www.bun.kyoto-u.ac.jp/christ/science/index.html).

9. Still, it must be admitted that much of the science-religion dialogue even in Japan has been carried out by Christians or in a Christian context, including the Kyoto study group mentioned above, whose leader, Ashina Sadamichi, is a professor in the graduate school of Christian Studies at Kyoto University. This raises the question as to whether the science-religion dialogue is intrinsically and necessarily a Christian (or at least monotheistic) endeavor, or if this connection is an historical accident. The development of science-religion dialogue in East Asia should provide an answer to this question.

10. See, for example, the work of the Mind & Life Institute and their gatherings of scientists with the Dalai Lama and other prominent Buddhist figures (see [www.mindandlife.org](http://www.mindandlife.org)).

## Closing Comments

One thing that one learns from participating in interreligious dialogue is that it is not, for example, “Buddhism” and “Christianity” that are in dialogue, but rather that human beings—each informed or influenced by one or the other religious traditions, or a combination of many—are in dialogue. So it seems also with science and religion. It is not that “science” and “religion” are to be in dialogue, but that human beings informed and influenced by both science and religion are struggling to gain, if possible, insights from both, in what Jacob Needleman calls “a reciprocal relationship among separate but interdependent entities.”<sup>11</sup> The great variety of religious traditions in Japan makes the situation even more complicated, and yet also promising for a creative dialogue.

Finally, although the popular perception or stereotype of both science and religion is that they deal in certainties (science as a way to determine hard facts and certainty with regard to our experience of phenomena, and religion as a way of certainties founded on faith in dogmas that cannot be tested experientially), the “spirit” of both science and religion is to live with doubt and wonder with regard to the world, while always seeking what is true.<sup>12</sup> This, I believe, is no different in any context, whether in Japan or the West.

## References Cited

- Taishō Buddhist canon: 『大正新脩大藏經』, 100 vols. TAKAKUSU Junjirō 高楠順次郎, et al., eds. Tokyo: Taishō Issaikyō Kankōkai, 1924–1935.
- ASHINA Sadamichi 芦名定道, et al., ed. 『科学時代を生きる宗教——過去と現在、そして未来』 [Living religion in an age of science: The past and present, and then the future], Tokyo: Hokuju Shuppan, 2004.
- FITZGERALD, Timothy, *The Ideology of Religious Studies*, Oxford and New York: Oxford University Press, 2000.
- JASPERS, Karl, *Way to Wisdom*, New Haven and London: Yale University Press, 1954.
- KISALA, Robert, “Asian Values Studies,” *Bulletin of the Nanzan Institute for Religion and Culture* 23 (Spring 1999): 59–73.
- NEEDLEMAN, Jacob, *A Sense of the Cosmos: The Encounter of Modern Science and Ancient Truth*, New York and London: Arkana, 1988.
- SHIMAZONO Susumu 島蘭進 and TSURUOKA Yoshio 鶴岡賀雄, ed., 『〈宗教〉再考』 [Rethinking “Religion”], Tokyo: Pelican, 2004.

11. NEEDLEMAN, op.cit.

12. On the importance of wonder and doubt as a foundation for reflection, see Karl JASPERS, *Way to Wisdom*, 1954, esp. 17–27.