### ORGANIZATION ACTIVITY

# Kyoto University's Organizations for Kokoro Research

COMPARATIVE COGNITIVE SCIENCE

## Interdisciplinary Approach to Understanding the Human Mind

The WISH Project and the Unit at Kyoto University.





On December 12, 2010, Psychologists at Kyoto University formed the "Unit for Advanced Studies of the Human Mind" under the "Center for the Promotion of Interdisciplinary Education and Research". Unit serves as a national center for the promotion of the WISH Project (WISH stands for "Web for the Integrated Studies of the Human Mind"). The WISH Project was designated as a national project by the Science Council of Japan (SCJ) in March 2010. It is a collaborative undertaking between several distinguished Japanese research universities and institutions that aims to promote an interdisciplinary approach to understanding the human mind. I happened to play a key role in founding the WISH Project and the corresponding Unit at Kyoto University. At present, the Unit consists of sixty-six psychologists from eleven faculties of the university. Following the SCJ's recommendation, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) financed the purchasing of equipment for the WISH Project's research in two cutting-edge fields: comparative cognitive science (CCS) and cognitive neuroscience.

For the study of comparative cognitive science,

the equipment included four huge cages to house chimpanzees and bonobos. Two are located at the Primate Research Institute at Inuyama and two are at the Kumamoto Sanctuary. The cages have allowed us to study the minds of those evolutionary cousins. In total, Kyoto University keeps sixty-nine chimpanzees and six bonobos (the only bonobos to be held in Japan). The relationship between chimpanzees and bonobos is comparable to the relationship between *Homo sapiens* and *Homo neanderthalensis*. The study of these living hominids is essential to understanding the evolutionary basis of the human mind.

For the study of cognitive neuroscience, MEXT provided the WISH Project with three functional magnetic resonance imaging (fMRI) machines for brain imaging. The machines are located at Kyoto University, the University of Tokyo, and Hokkaido University. In this way, the Unit of Kyoto University has played a leading role in promoting the study of psychological sciences nationwide. In recognition of these collaborative efforts, Prof. Toshio Yamagishi of Hitotsubashi University and I were both honored with

the Japanese government's Person of Cultural Merit award in 2013.

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WEB www.kokoro-kyoto.org (In Japanese)



## The Kokoro Research Center of Kyoto University

Studying the Human Mind and Heart from Cognitive Neuroscience to Himalayan Buddhism.

Cognitive and Affective Psychologist Prof. Dr. Sakiko Yoshikawa has served as Director of the Kokoro Research Center since its establishment in April 2007. The Center promotes scientific research on mind and consciousness, from the disciplines of psychology, neuroscience, cognitive science, cultural and humanistic studies.

#### The Center's Foundational Principles

- Interdisciplinary Research: Coordinating holistic and multidisciplinary approaches, the Kokoro Research Center addresses the nature of consciousness and the ways that the human mind can conceive and confront the future.
- 2. Wide-Ranging Research: Kokoro Research Center spans three basic research areas: (1) Mind, Brain, and Body; (2) Emotion, Communication, and Interaction; (3) Consciousness, Values, and Life. In addition to specific research on each of these areas, it builds a framework for integrated research, to understand mind from multiple broad-ranging perspectives transcending traditional academic disciplinary boundaries.
- Solution-Oriented Research: The Center aims at solutions of problems concerning mind and consciousness, such as of stress, depression, burnout, miscommunication, and ethical decision-making.
- 4. International Research: The Center promotes fruitful interactions between researchers and specialists both nationally and internationally, providing an open forum for the larger academic community.
- 5. Community Outreach: Collaborating with local organizations and industry, the research and education of the Center address the concerns and expectations of the local community, while disseminating an understanding of scientific knowledge about the mind, brain, and consciousness.
- Interdepartmental Collaboration: The Center serves as a nucleus to strengthen interdepartmental cooperation and collaborative cross-campus research projects about mind and consciousness.

#### Research Areas

The Center features three major research areas:

1. Mind, Brain, and Body: Researchers in this area analyze brain functions in order to understand the neural mechanisms regulating attention and decision-making, growth of self-consciousness, display and control of emotion, and impediments to psychological development. We use our MRI (functional neuroimaging) facilities to study how humans make ethical judgments, and also research



developmental disorders using psychotherapeutic perspectives, to better understand relations of mind, brain, and body.

- 2. Emotion, Communication, and Interaction: Researchers in behavioral and cognitive sciences focus on nonverbal aspects of facial expression, gestures, and interpersonal behaviors, to better understand mental processes regulating the expression and control of higher-level social feelings such as altruism, morality, and cooperative interaction. This unit also supports multidisciplinary projects involving cultural psychology and clinical psychology, and fieldwork studying the happiness quotient of local communities in Japan and abroad.
- 3. Consciousness, Values, and Life: Researchers in this area analyze ethics and morality, world-views, life-and-death, self-and-other, primarily from cultural and historical perspectives, with an eye to the vision they may provide for contemporary society and the future of humankind. Specific research projects include studies of patients' and families' Sense of Coherence, coping styles, burnout, and of classroom influence on criminal and suicidal behaviors. In cooperation with the Royal Centre for Bhutan Studies, we also conduct the Bhutanese Buddhism Research Project, researching Tibetan/Bhutanese Buddhism and its socio-psychological effects.

The Center dedicates its work to serve a broader society. For this purpose, the Center aims to become a locus of academic creativity, fostering collaborative and cooperative research projects, building on international as well as national scholarly networks. To publicly disseminate the activities and results of its academic research, it conducts public symposia, workshops, seminars, and conferences.

WEB kokoro.kyoto-u.ac.jp/en/index.html