

KI OR PSI—ANOMALOUS REMOTE EFFECTS OF MIND-BODY SYSTEM: BIOPHYSICAL APPROACH TO UNKNOWN POWER by Hideyuki Kokubo. New York, NY: Nova Science Publishers, 2015. Pp. vii + 196. \$190 (Hardback). ISBN 978-1-63482-954-0.

The concept of bio-energy has existed in different cultures for centuries. In China, this force is called *chi* or *qi*. In India, it is called *prana*. In Japan, it is called *ki*. Despite the different names, each term describes an observable, active force that represents the difference between a living, active system and an inactive and stagnant system. Inanimate objects are “brought to life” by forces such as electricity, air flow, or any number of other activating factors, but *ki* is a force considered to interact with biological systems and animate flesh and biological materials that would otherwise be still and essentially dead.

In Eastern philosophies and modern Japan, *ki* not only is described as providing animation, but also is recognized as a force that can be manipulated, projected, and applied by a *ki* master or energy healing practitioner. Though there may be a tendency to relate *ki* to descriptions of the soul or spirit, typical definitions of soul or spirit do not describe a force that can be projected and consciously applied by a trained master. In contrast, *ki* is most often recognized in the directed application of force or energy by a master of specific disciplines or artistic practices.

Although the main title of this book, *Ki or Psi*, may give the impression that the author will present a comparison between the concepts of *ki* and *psi* activities, *ki* is actually described in this book as a form of *psi* energy, specifically a force that most parapsychologists would call bio-PK. So rather than posing a question, the title is actually proposing an equivalency between the terms *ki* and *psi* and presenting these forces as activating factors in the demonstration of nonlocal healing or remote effects on biological systems. The value of this equivalency will have to be determined by the reader as the concept of *ki* is described in detail based on the effects observed in the laboratory studies presented in this book.

Ki or Psi is a complex book that helps the reader to understand the basic concepts of ki from the perspective of Japanese culture, explores how ki may be used in energy healing activities, discusses specific research studies conducted by the author to attempt to detect ki, provides guidance for researchers who wish to perform similar studies, and, finally, briefly summarizes the history of research performed in Japan relating to ki, energy healing, and other psi effects.

The book was originally written in Japanese and translated by its author into English, and though the translation is awkward at times, overall, the presentation of the material is well represented in English. That is not to say that the topic is clear and easy to understand. This book is extremely technical, including explorations into the physics of electronic noise, the chemistry of measuring gas emissions, the biology and structure of plants (specifically cucumbers), the development of statistical analysis methods, parapsychological concepts, and a historical review of existing research. Due to the technical nature and the range of topics that are covered in this book, it can be difficult to follow. Though it is under 200 pages, each page is packed with information and concepts that require careful reading in order to progress to subsequent sections. Having said this, some of the sections are reasonably self-contained and can be used as independent guides if the reader has a basic understanding of the concepts of ki and experimental methodologies.

This book consists of five chapters, each filled with details and information concerning ki and research performed around ki and energy healing.

- ◆ Chapter 1: Concept of Ki and Bio-Sensors
- ◆ Chapter 2: Research on Ki Using Bio-Sensors
- ◆ Chapter 3: How to use Cucumber As a Bio-Sensor
- ◆ Chapter 4: Biophoton and Florescence Measurement Methods
- ◆ Chapter 5: Brief History of Japanese Studies

Chapter 1: Concept of Ki and Bio-Sensors

Ki is a topic that is seldom explained and rarely examined in detail. In this chapter the author takes the time to explore historical and cultural perspectives on ki and provide definitions in terms of the most modern research and common societal terms. He discusses the linguistic origin of the term and how it is traditionally perceived in medical treatments and demonstrations of physical effects that result from the application of ki.

Bio-sensors are also explored beginning with descriptions of physical sensors, physiological sensors, and the correlated activities between human intention and biological entities such as cells, animals, and plants. His descriptions also include how quantum processes are used as bio-sensors in the random event generators deployed with the Global Consciousness Project. Finally, the author introduces the cucumber as an instrument to measure bio-energy, including a detailed evaluation of the specific variety of cucumber that he considers most appropriate for use as bio-sensors.

This chapter includes detailed instructions for the preparation of the cucumbers for experimental purposes, including the appropriate width of cucumber slices, whether slices should come from the flower or vine side of the vegetable, and how samples should be arranged for optimal comparison. There are extensive references in this chapter related to the species of cucumbers and other references to the Global Consciousness Project, but certain topics regarding the preparation of cucumbers and their treatment appear to have originated in the author's personal experiments, since there are nearly no references to support these proposals.

The chapter ends with the description of a quantitative measurement of the magnitude of ki energy called J . J is calculated by taking the logarithm of the ratio between data collected from the experimental and control samples. It also includes a coefficient based on the sensitivity of the bio-sensor being used. As a result of numerous experiments with different healing participants, the author defines J values between 0.1 and 0.3+ as identifying beginner healers, mid-level healers, experienced healers, and psychic healers, respectively.

Chapter 2: Research on Ki Using Bio-Sensors

In studies of master healers and healers in training, the author and his colleagues examined the effects of various healing activities such as reiki, johrei, qigong, and others. Using cucumbers as bio-sensors, the studies focused on exploring how well the cucumbers could register human healing intentions and the nature of the effects.

To justify the use of cucumbers as bio-sensors, the author presents an explanation that I will attempt to summarize before we begin to explore the details of his studies. The explanation begins with a claim that cucumbers are biological matter that would respond to ki if it were to be applied during a period of biological distress. Of course, many other biological entities may also respond to the application of ki, but cucumbers have a much simpler structure than animals and no belief system to complicate the healing process. Also, the characteristics of cucumbers are well understood and documented by biologists and horticulturalists. By cutting the cucumbers, the researcher introduces an injury to the vegetable that activates the vegetable's attempt to recover from the injury. This attempted healing activity produces an excess of biophotons that increases as greater healing activity occurs. By measuring the amount of biophotons from a cut cucumber slice, the extent of healing activity can be measured, and by comparing cucumbers that are treated by energy healers with cucumbers that are in a control group, the extent of healing provided by the energy healers can be quantified.

Two basic claims are not clearly established in this description. First, why would a cucumber that has been removed from a living, growing plant continue to respond to an injury as if it were still connected to the plant? It is clear that plants attempt to recover from broken branches or torn leaves, but after the cucumber is removed from the growing plant, it is not clear why this healing should continue. Second, if the cucumber were to demonstrate a healing type reaction after it is cut, what evidence demonstrates that it would respond to ki as a healing factor or catalyst? Neither of these questions is clearly answered or demonstrated by referenced studies. Nonetheless, the experiments that follow are valuable in their demonstration that the effects of human healing intention provoke certain measurable factors in the cucumbers.

The first experiments were performed to see if heat or shadows from a participant's hands could have an effect on the cucumbers being used as bio-sensors. Next, magnetism was tested as an additional mediating factor. In each case, the cucumbers were prepared using a specific procedure (described in Chapter 1) and the experimental and control samples were each monitored for the emission of biophotons (light in the range of 280–650 nm) over a period of approximately 18 hours. Measurements were taken continuously through this period, and cumulated each hour. *J* values (see Chapter 1 summary) were calculated for each condition and no significant variance was reported for heat, shadow, or magnetism when no healers were involved in the process.

A number of healers in the studies did achieve significant results, which led to an investigation of character traits or behaviors that might affect the expression of ki in these specific experimental procedures. Neither specific character traits nor age of the healer seemed to have a direct correlation with the *J* values recorded in these studies, so further studies were conducted to differentiate the approach taken to healing by each healer. Their activities and beliefs were surveyed along with a number of other factors that might affect the healing effect. Though there were some relationships between differences in the techniques and apparent effectiveness in specific situations, there was no indication that any technique or approach was superior or should be a preferred method for research purposes.

One of the most intriguing reports in this chapter is a report of the shape and size of the healing fields generated by the most effective healers. The studies involved the creation of a pattern of cucumbers, as bio-sensors, in different locations and different distances from the healer. The healer attempted to produce healing effects on all of the cucumbers, and the cucumbers were measured to see which demonstrated the highest levels of biophotons. The resulting data indicated a wavelike pattern of healing effect that were high and low in alternating distances from the healer, as if peaks and valleys of a wave were being captured by the cucumbers, demonstrating an uneven pattern of healing effects (Kokubo, et. al., 2010). This pattern of effects is reminiscent of the wave-like patterns of activities described by Joines in his examination of poltergeist activity (Joines, 1975; Roll, 2003) which provides an interesting comparison between the effects

observed in the unintentional PK activity of poltergeists and the intentional healing activities demonstrated in these studies. I found myself wishing for a more detailed examination of this topic by the author.

Chapter 3: How to Use Cucumber as a Bio-Sensor

The third and fourth chapters describe original methods developed by the author as a means of detecting Ki using cucumbers as sensors. Chapter three goes into details about the selection of the cucumber species, the optimal time for harvest and storage, and the preparation of cucumber slices for inclusion in the experimental and control samples. Evaluation methods are described in detail, including specific examples of how to calculate and interpret the J values.

Important considerations mentioned by the author include the proper approach to inform participants of the purpose of the study, methods to protect research measurements from electrical noise and interference, and a method to evaluate specifically when “power” is being generated by a healer versus the healer imagining they are creating healing energy. As is the case in other sections of this book, the readers must determine whether they accept the word of the author based on the stated experimental findings because most of these factors are not referenced to published articles. Though such articles may exist, the references are absent.

Specific research methodology is outlined, including timing for each session and the isolation of control samples. The methods described would be valuable for researchers who wish to replicate these studies or design their own studies based on the use of cucumbers as bio-sensors.

The final portion of the chapter is an explanation of the gas discharge method that is focused on the detection of hexanol and measurement of the differences between the emissions of the experimental and control samples. The equipment, methods, timing, preparation, and cleanup are all described, to enable a researcher to create a similar setup. There is no clear explanation that describes why hexanol is representative of healing activities in the cucumbers, but an increased presence of hexanol was recognized when the healers were intentionally attempting to apply ki to the cucumbers.

Chapter 4: Biophoton and Fluorescence Measurement Methods

This is a short chapter explaining the methods used to measure biophotons as well as explaining how measurements of fluorescent light may determine if healing is occurring in cucumbers. Biophotons are described as ultraviolet light in the range of 280–650 nm and higher levels of biophotons are identified as an indication of increased healing activity, presumably as the result of ki or intentional healing activity. Biophotons are measured using an image intensifier system mounted on a dark box that is climate controlled and designed to contain the cucumber slices during post-healing measurements.

Florescent light measurements had been used in previous studies in which an increase of green-yellow light was an indication of ki activity (Kokubo & Yamamoto, 2012). Kokubo stated that the current studies were determined to be insufficient to recommend using florescent light emissions to measure cucumbers as bio-sensors for ki.

Chapter 5: Brief History of Japanese Studies

As the chapter title indicates, this is an inventory of Japanese and some Chinese studies on psi phenomena including studies of ki and ki masters. The chapter begins with studies from 1946–1973, progresses through studies examining Uri Geller in the 1970s, and continues up to current-day activities. The extensive bibliography in this chapter is very useful for researchers interested in learning more about psi research in Japan and China.

Final Thoughts

This publication is densely constructed with detailed technical information on numerous scientific and cultural topics. In the descriptions of his experimental approach and justification for his research, I

found that I was finally able to understand why Kokubo chose cucumbers as bio-sensors and how he justified his interpretation of biophoton emissions as representative of healing activity (See summary of Chapter 2). If only for this information, this publication provides significant insight to help justify the extensive line of research this author initiated to explore the nature of ki. Though the bio-sensor measurements are essentially measurements of correlation between biological matter and human intention, these studies provide insight into the activities of self-identified energy healers and how biological matter responds to their efforts. As the author mentioned in his final remarks, “If researchers want to reveal the mechanisms of ki or psi, they need several laws which are described by equations. The laws should be induced from experimental data” (p. 183).

This book attempts to formalize the experimental processes necessary to generate equations that can be used to create laws that describe the behavior of ki. Kokubo presents excellent research methods designed to reveal the inner nature of ki, but additional questions arise from these studies. Will this method work with other, more traditional sensors? Why are these effects interpreted as healing in these sensors, and how has this effect been associated with ki?

If these studies continue to be refined and repeated with more traditional bio-sensing technology and if a larger sample of healers is surveyed for the studies, eventually the laws that govern ki or psi may be more clearly defined.

References

- Joines, W. (1975). A wave theory of psi energy [Abstract]. In J. D. Morris, W. G. Roll, & R. L. Morris (Eds.) *Research in parapsychology 1974* (pp. 147–149). Metuchen, NJ: Scarecrow Press
- Kokubo, H., Takagi, O., Koyama, S., & Yamamoto, M. (2010). Spatial distribution of potential of controlled healing power—Exploratory measurement using cucumber as a bio-sensor. *Journal of International Society of Life Information Science*, 28, 236–249.
- Kokubo, H., & Yamamoto, M. (2012). Fluorescence measurement method for non-contact healing power. *Journal of International Society of Life Information Science*, 30, 41–48.
- Roll, W. G. (2003). Poltergeists, electromagnetism, and consciousness. *Journal of Scientific Exploration*, 17, 75 – 86.

John G. Kruth

*Rhine Research Center
2741 Campus Walk Avenue
Building 500
Durham, NC 27705, USA
john.kruth@rhine.org*