# **Controlled Healing Power and Ways of Non-contact Healing**

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**Abstract:** After 30-min treatment by non-contact healing on experimental sample pieces of cucumber (*cucumis sativus* "Shiro-ibo kyuuri"), the intensities of biophotons from experimental and control samples were measured for 18h. In Cucumber series No. 7 from June to December 2008, 24 volunteer healers (10 beginners and 14 veterans) were tested twice. As a result, the average of J values, an index of controlled healing power, was 0.084 (95% confidential interval was 0.026, n = 24). There was no significant difference between beginner (J = 0.081) and veteran healers (J = 0.086). Only their ages showed a negative correlation with J values (r = -0.487, p = 0.016, two tails). Analyses on the details showed a weak positive correlation between the bright factor of character traits and the difference of J values of 2 trials (r = 0.466, p = 0.022, two tails). It was considered that bright healers could adjust their healing ways to experiments. And there was a weak positive correlation between difference of the degree of the healing way "Loving intention (including prayer to gods, Buddha and spirits)" and the difference of J values of 2 trials (r = 0.417, p = 0.043, two tails). The correlation was obvious in veterans and it meant that they were more familiar with the ways of healing.

Keyword: non-contact healing, way of healing, factor analysis, healer, quantitative measurement, biophoton, *cucumis sativus* "Shiro-ibo kyuuri"

# 1. Introduction

Since 2006, the authors have made quantitative measurements for non-contact healing such as laying-on-of-hands <sup>1-12</sup>. In the method, a healer applies healing to pieces of cucumber (cucumis sativus "Shiro-ibo kyuuri") for 30 minutes. After treatment, intensities of biophotons of experimental and control samples of cucumber are measured for 18h, and any healing effects are detected as the difference of photon intensities. The authors reported that: non-contact healing was not caused by heat or shadow of hands <sup>1-3,5</sup>; effects of magnetic fields and weak electromagnetic waves were not similar to healing effects  $^{9-12)}$ ; abilities of healing were considered to have biological bases<sup>44)</sup>, and the detected photons were generated in the oxidation reaction process of ascorbic acid and the biosynthesis process of C9/C6 aldehyde and alcohol (so-called green order)  $^{7)}$ .

In the present study, the authors studied the details of relationships among healing effects, character traits of healers and ways of healing.

#### 2. Methods

#### 2.1 Measuring System of Biophotons

The making of cucumber samples and the measuring procedure of biophotons were done according to the standard evaluation method <sup>1-5)</sup>. Biophotons were measured with the I.I. camera (Model C2400-47; sensitivity, 60mA/W at 400nm; wave length, 280-650nm, Hamamatsu Photonics). Distance between samples and the camera lens unit was 250mm. Moreover, as a moisturizer, deodorizing agent in a jelly form which contained charcoal powder (New Kimco Giant, Kobayashi Pharmaceutical Co.) was put into a dark box. The dark box was kept at room temperature (24 C°).

#### 2.2 Date and Place

Experiments were done at the Bio-Emission Laboratory of the International Research Institute from June to December 2008. In the standard evaluation method, cucumber is used as a bio-sensor. Therefore generally experiments become difficult to carry out beginning around the middle of winter. Therefore, this study, Cucumber series No. 7, was finished in the middle of December. In all, 48 sets of data (2 trials per healer) were obtained from 24 healers.

#### 2.3 Healers

Healers were recruited from a list of volunteers known to the authors' laboratory, from an internet posting requesting healers and recommendations by previous participants and collaborators of the institute.

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Each healer registered him/herself into Group A or B. Group A healers had healing careers of less than 3 years or fewer than 100 clients and Group B healers had careers of 3 or more years or more than 100 clients. Group A had 10 beginners (4 males and 6 females) and Group B had 14 veterans (11 males and 3 females). The healers were from 27 to 70 years old, (average age, 49.1y; SD = 12.9). Among the healers 22 were Japanese, one was American and one was Israeli. They names of the schools they followed or the ways of healing they practiced were:

Hado-deni-koukan (Wave potential exchange, 4 healers); Okada Purifying Therapy (3 healers); Distant healing (3 healers); Ki-ryou (Ki therapy, 2 healers); Reconnection healing (2 healers); and others (10 healers).

# 2.4 Instructions

Healing was started within 10 minutes after making samples and placing experimental samples in a Petri dish on a table. Healers did healing for 30 minutes without touching the Petri dish. One of the experimenters gave the following directions:

"These pieces of cucumber were just prepared. Fresh and vivid cucumber will emit more light. Please do your healing to let cucumber become vivid and emit light more.

Please don't touch the Petri dish directly to avoid heat transfer from your hands and to be sure the samples remain at the same position.

At 15 minutes after the start, I will inform you of the time. You can stop healing then if you want. However, I hope you will be able to continue healing for 30 minutes."

(At 15 minutes) "15 minutes have passed. Are you OK? .... Thank you. Please do healing to let cucumber become vivid and emit more light."

#### 2.5 Procedure

Each healer had received the official explanation of the experiments before the start, and he/she had signed agreement form agreeing to the terms. If the healer had some kinds of "power items", those items were taken away. Then, samples of cucumber were prepared, and the healer did healing, without touching the samples inside the Petri dish. The room had ordinary lighting. Control samples were set 3m from the experimental samples.

After treatment, covers were removed from both Petri dishes of controls and experimentals and the dishes were set in the dark box. Biophotons from samples were measured for 18h.

Next, the healers described how they carried out their healing treatments and they answered a questionnaire about this healing trial. Healers answered another questionnaire about themselves and their healing career. Due to time constraints, sometimes the healers took the questionnaires home and returned them later. These questionnaires were the same as in previous studies<sup>4,6</sup>.

The second trial was done the other day. Before the second trial, a short meeting about the results of the first trial was held. After the healing trial, the healer answered the questionnaire about this healing trial.

#### 3. Analyses

### 3.1 J value

Degree of healing power can be estimated from the degree of increase of photon intensity of an experimental sample. Because the photon intensity is not the same among individual cucumbers, the authors used J value, the natural logarithm of the ratio of photon intensities of experimental and control samples, as an index of controlled healing power.

$$J = \ln \left( I_{\rm E} / I_{\rm C} \right)$$

Each healer's ability was estimated by the J value of two trials (n = 8). In the discussion below, J(4) value, calculated for one trial, was also used.

### 3.2 Statistical Analyses

Factor analysis and ANOVA were executed using Excel Toukei (Social Survey Research Information Co., Ltd.).

#### 4. Results

#### 4.1 J value

 Table 1 shows J values of healers along with other data which are described later.

The average of J values was 0.084 (95% confidential intervals was 0.026, n = 24). There was no significant difference between beginners (J = 0.081) and veterans (J = 0.086) (t test, p = 0.414, one tail). Only the ages of healers correlated with J values directly (r = -0.487, p = 0.016, two tails).

Fig. 1 shows J values and 95% confidential intervals of each healer. The distribution was not symmetrical; there was a concentration around J = 0.10 to 0.15 and it had a tail toward zero. In the present experimental series, many beginners were powerful healers.

Fig. 2 shows J(4) values and up/down (difference between 1st and 2nd trials) of each healer. Two veterans showed large stable J(4) values (arrows in Fig. 2). They were considered as excellent healers who could replicate their high performance repeatedly.

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	ID	Sex	Age	J	SD	95% confid- encial interval	Factor score of character trait			J(4)			Tech
Group							Factor 1	Factor 2	Factor 3	1st	2nd	Differ- ence	Up/do wn of Love
	I001	m	70	-0.037	0.112	0.094	0.36	0.09	-0.62	-0.053	-0.022	0.031	-1
	M004	m	31	0.108	0.150	0.126	-2.50	-2.84	1.90	0.127	0.090	-0.038	1
	Y004	m	31	0.174	0.125	0.104	-0.64	1.22	-1.52	0.202	0.146	-0.056	0
	S011	f	27	0.121	0.141	0.118	-0.35	-0.37	0.20	0.168	0.074	-0.095	0
^	K014	f	66	0.128	0.060	0.050	1.97	-0.31	1.14	0.061	0.186	0.125	0
A	M006	f	35	0.124	0.231	0.193	0.47	0.74	0.19	0.105	0.151	0.046	0
	K015	f	66	0.127	0.181	0.152	0.69	0.54	0.20	0.066	0.188	0.122	0
	S013	f	64	-0.052	0.134	0.112	0.67	0.06	2.27	-0.039	-0.064	-0.026	2
	M007	f	44	0.062	0.133	0.111	1.40	0.53	0.96	0.020	0.104	0.084	0
	L001	m	44	0.050	0.117	0.098	-1.59	1.67	0.78	0.079	0.021	-0.058	0
	K013	m	45	0.163	0.098	0.082	0.42	-0.35	-1.13	0.165	0.161	-0.004	-3
	U003	m	70	0.005	0.107	0.090	0.15	-0.77	-0.66	-0.020	0.031	0.051	0
	M003	m	44	0.089	0.103	0.086	-0.12	-0.90	-0.81	0.158	0.021	-0.137	-3
	K010	m	54	0.097	0.144	0.120	0.82	-0.48	0.48	0.039	0.155	0.116	1
	Т009	m	61	0.124	0.158	0.132	0.05	-0.47	-0.96	0.071	0.178	0.107	0
	O003	f	61	0.094	0.128	0.107	1.10	-0.13	-0.66	0.145	0.042	-0.103	-5
В	M005	m	39	0.174	0.168	0.141	-0.90	1.46	1.10	0.151	0.197	0.046	0
	S012	f	43	0.145	0.153	0.128	-0.49	0.87	0.55	0.180	0.111	-0.068	-3
	T010	m	38	0.108	0.106	0.088	0.52	-1.04	0.09	0.107	0.109	0.002	-2
	I002	m	43	0.047	0.198	0.165	0.52	-0.18	-0.58	-0.045	0.138	0.183	0
	N007	f	53	0.028	0.173	0.145	-1.02	0.20	-0.83	0.030	0.026	-0.005	-3
	F004	m	42	0.034	0.161	0.134	0.33	-1.38	-1.20	0.007	0.061	0.053	-2
	T011	m	55	0.092	0.212	0.177	-0.24	1.47	0.34	0.073	0.110	0.037	4
	P001	m	53	0.009	0.126	0.105	-1.64	0.38	-1.23	0.030	-0.012	-0.042	-2

J(4)

Table 1 Summary of Cucumber Series No. 7



Fig. 1 J Value and 95% Confidential Interval





J(4) of some healers changed significantly although standard deviations of up/down of both groups were nearly equal (A: 0.079, B: 0.087). Other than observational error, the reasons for the fluctuation were considered as follows. 1) It was difficult to repeat a healing with the same way or power. 2) There were various attitudes among the healers, especially the veterans, who tried to test different ways of healing, or who made an bigger effort in the second trial because they were very surprised that the results of the first trial were below their expectation.

# 4.2 Character Traits and Up/down of J(4)

To find factors relating to up/down of J(4), character traits of healers (Likert scale, 9-point, 18 items) were analyzed by factor analysis (**Table 2**). Three factors were extracted: Factor 1, bright factor; Factor 2, nervous factor; Factor 3, unyielding factor.

Character trait	Factor 1	Factor 2	Factor 3
Busy / Easy	0.79	0.31	0.10
Innovative / Conservative	0.73	-0.41	0.05
Authoritative / Submissive	0.73	0.15	-0.08
Communicative / Reserved	0.69	-0.17	0.17
Creative / Not creative	0.67	-0.26	-0.22
Analytic / Intuitive	0.62	0.35	-0.30
Distracted / Attentive	0.53	0.21	0.14
Nervous / Calm	-0.09	0.71	-0.07
Introverted / Extroverted	0.23	0.68	-0.02
Shy / Outgoing	0.08	0.67	0.12
Unstable / Stable	0.39	0.63	0.32
Conformist / Revolutionary	-0.37	0.51	-0.24
Rigid / Flexible	0.02	0.29	0.78
Emotional / Rational	0.03	0.09	0.75
Competitive / Cooperative	0.19	-0.28	0.69
Dreamer / Practical	-0.29	-0.02	0.59
Impulsive / Controlled	0.27	-0.43	0.53
Fast / Slow	0.40	-0.39	-0.42

 Table 2
 Factor Loading

 Initial value was 1. Normalized varimax method.

 
 Table 3
 Coefficient of Correlation between Factor Scores and Other Parameters

	Factor 1	Factor 2	Factor 3	
J value	-0.014	0.128	-0.014	
1st J(4)	-0.269	0.105	-0.054	
2nd J(4)	0.244	0.114	0.026	
Up/down of J(4)	0.466 *	0.006	0.073	
AB point	-0.042	-0.112	-0.466 *	
Age	0.429 *	0.054	-0.036	
Up/Down of Love	-0.044	0.174	0.520 **	

\* 5% significant, two tails. \*\* 1% significant, two tails.

Bright factor had a weak positive correlation with up/down of J(4) (r = 0.466, p = 0.022, two tails). Also, it had a weak positive correlation with age (r = 0.429, p = 0.036, two tails). Nervous factor did not show significant correlation with other parameters. Unyielding factor had a weak negative correlation with AB point (r = -0.466, p=0.022, two tails): Group A, 1 point and Group B, 2 points. Also, it had a positive correlation with up/down of degree of use of healing way "Loving Intention" (r = 0.520, p=0.009, two tails).



Fig. 3 Bright Factor Score and Up/down of J(4)

#### 4.3 Up/down of Degree of Healing Way and J(4)

Healing ways/techniques were recorded by description and 8-item questionnaires (Likert scale, 7-point); Willpower/desire, Visualization/imagination, Memories and associations, Concentration of attention, Loving Intention (including prayer to gods, Buddha and spirits), Alteration of consciousness, Looseness and delivery to the experience, and Others.

Degrees of use of all healing ways did not correlate to J values. However, up/down in the degree of use of "Loving intention" correlated weakly positively with up/down of J(4) (r = 0.417, p = 0.043, two tails). However, this correlation was obvious in



Fig. 4 Up/down of "Loving Intention" and J(4)

only Group B (veterans) (r = 0.659, p =0.010, two tails), and not observed in Group A (beginners) (r = -0.261, p = 0.466, two tails).

Moreover, factor score of bright factor did not correlate with up/down in the degree of use of "Loving Intention" (r = -0.044).

# 5. Discussion

### 5.1 Beginners

In the present series No.7, many beginners were good and powerful healers. It seemed they should be able to show large J values the same as veterans in their daily practices. Examining the biological hypothesis of healing ability<sup>4)</sup> is difficult because it is not easy to recruit pure beginners by open recruiting. If this hypothesis is to be tested, researchers should select completely untrained persons by random extraction and measure their abilities before and after training.

# 5.2 Controlled Healing Power

In the present study, the distances between experimental and control samples were 3 to 5m during healing trials. And healers could not see control samples directly. Previous results have been presented at academic conferences and are available on web sites, and also the purpose, method and procedure are explained to healers before experiments. Therefore, all healers had already known there would be control samples. A few healers claimed that their healing power would spread around targets widely and influence the control samples too, and then the difference between targets and control would disappear. Indeed, it is difficult to detect healing effects if healers can not concentrate their power into about a 1m area around the targets. In other words, it is impossible to detect healing effects if healers can not control their abilities. The authors have measured more than 40 healers until the present day, and 3m distance has been found empirically as enough distance to separate experimental and control samples.

However, there are uncontrollable psi phenomena such as recurrent spontaneous psychokinesis (RSPK) in poltergeist cases. RSPK is powerful but the focus person can not control it usually. In other words, there is a possibility that a certain kind of healers (RSPK type), whose abilities are given suddenly, can not control their power by their own will. It is not easy to judge whether they can not control their power actually or they merely think so (they do not make any effort to control their power but they can do it if they want to do and train themselves). In this case, their power should be measured at the 3m distance condition in the first trial, and then distance should be changed at the next.

# 5.3 Factors of Character Traits

Factor scores did not correlate with J values. However, this was expected before the experiment because the source of healing power is considered to be based on a person's physical body, not the consciousness. Bright factor score correlated positively with up/down of J(4). It is considered that bright healers succeeded in adjusting their healing ways/techniques to the experiment. In other words, they became familiar with the procedures and could do healing for cucumber samples (not humans). The authors have analyzed the details of the change of practice, but have not succeeded in identifying what kinds of parameters were changed. The reason is probably that questionnaire items were not suitable. Revising questionnaire items and further studies are needed.

# 5.4 "Loving Intention"

The degree in the use of the healing way/technique "Loving intention (including prayer to gods, Buddha and spirits) did not correlate with J value. However, up/down of degree in the use of "loving intention" was obvious in veteran healers. It is considered that veterans were familiar with doing healing by the "Loving intention".

The present survey items on ways/techniques of healing did not succeed in measuring what healers did actually. Questionnaire items should be revised.

### 5.5 Change of Healing Way

In the present study, one of the experimenters showed results of the first trial to many healers in a short meeting before the second trial, and discussed with them how and what they should do when healing in the second trial. For example, a healer was very surprised that his J value of the first trial was nearly equal to zero even though he had done healing in the same way of as he usually did. However, he adjusted his way of healing through the meeting and succeeded in getting a large J value in the second trial. So-called strong healers are possibly healers who have strong power actually and who are well skilled in controlling their power (therefore they can obtain large effects with just a small power). Later healers could not show large J values if they do healing in the same way as usual because power was only measured by the standard evaluation method.

Empirically, the following suggestions are considered as useful if J value of the first trial is small.

- 1. This method can measure power only. Please actually emit power.
- 2. The purpose is to increase photon intensity. Please don't forget this.
- 3. Healing never means the increase of photon

intensity. Light will become stronger only if you try to increase light. If you try to decrease light, light may be reduced (such experiments have not been done yet.)

In the above suggestions, explanation of the first suggestion is not easy.

"Emit power" never means that you use force. For example, we never move our hands after willing "Move my hands". Even if you take effort to make images of moving hands in your mind, if you don't move your hands actually, your hands never move. Healing power is the same. You can emit power therefore you emit power. "Emit power" is not equal to formulating visual images of power flow nor to praying merely "Emit power".

In this explanation, healing ability was explained as a kind of motor functions of the body. This explanation often helped healers to improve J value of the second trial. However, it was not useful for the shaman type healer, who claimed Gods falls on her, and other healers who were familiar with thinking other than "power".

In addition, the authors have examined whether healers could control on/off of their power through



Fig. 5 Power Control of F003 (Breathing Method) Kokubo & Yamamoto, 2007 <sup>6)</sup>

previous experiments. **Fig. 5** shows an example of power control <sup>6)</sup>. Healer F003 was a veteran with his own original breathing method. J value was large when F003 used the breathing method in front of the samples. But, J value was zero when he imitated "laying-on-of-hands" without the breathing method (if he uses the breathing method, he can emit power). Indeed, healers can control their power.

# 5.6 Stability and Controlled Healing Power

**Fig. 1** suggests a possibility to change criteria for classifying healers. Presently, the authors classify healers by their controller healing power as J<0.1 Beginner, 0.1<J<0.2 Middle, and 0.2<J Expert. Probably, it is better to change criteria, for example, J<0.75 Beginner and 0.75<J Practical Healer.

Moreover, stability is also useful as an index for categorization of healer's ability. However, it is difficult to measure stability of power accurately at present. The interval between trials is now a few days or weeks because the authors have one set of equipment only. To introduce the index of stability, another set of equipment or development of new methods, by which tests are possible several times a day, are needed.

# 5.7 Does Another Type Healer Exist?

Are veteran healers who showed small J values another type of healers who cannot be measured by biophotons? In other words, is there a possibility that different kinds of healing power exist? Indeed, a certain measuring system can measure a certain value only; weight can be measured by a scale but the time to run 100m cannot be measured by that device. Therefore, if healers are identified whose power can be measured by counting emissions of biophotons of cucumber as Type Q, there is a possibility that Type X healers exist whose power cannot be measured this way.

However, it is not easy to judge whether a certain healer is a beginner or uncontrollable healer or Type X healer. To extract Type X, new methods are needed. The authors are now developing a new quantitative measuring method, and expect to examine whether the different type healer (Type G) exists or not in future.

# 5.8 Fundamental Mechanisms of Healing

Bio-sensors are the most sensitive way to detect healing effects. Other sensors are not enough to detect healing effects at least now. How does healing act on living systems?

Previously, infrared rays have been discussed as a fundamental mechanism of transmission of healing effects. However, infrared rays, especially heat, can not explain the increase of photon intensity of cucumber<sup>1-3,5)</sup>. Moreover, Radin et al<sup>13)</sup> reported that the ratio of colony formulation of cultured human astrocytes cells was increased by non-contact healing "Johrei" even when healers did healing from outside of a sealed box which contained cells. Those results suggested infrared rays are not a carrier of healing information.

Magnetic fields or electromagnetic waves are not easy to test because many frequencies, shapes of wave, intensities etc. should be discussed. The authors' previous studies<sup>9-12)</sup> suggested healing possibilities of magnetic and electromagnetic fields are low, although there are some reports in which magnetic fields or vector potential seemed to relate to healing effects <sup>14-19)</sup>. Further studies are needed.

Is an electric field the mechanism of healing? There is a report that electric fields influence the recovery process of living tissue. This suggests a possibility that an electric connection is made between the healer's body and cucumber samples, and information is transmitted through the connection. However, for example, Kataoka et al<sup>20)</sup> reported that a healer input his power into a water solution. When they gave the solution to human neutrophils, calcium ion channels on the cell membrane were opened and then the neutrophils were activated. The authors suppose that an electric field is not a fundamental mechanism.

Can healing effects be explained by actions of consciousness? Consciousness phenomena are difficult to explain even by modern sciences at present. Therefore the authors cannot deny a possibility that consciousness has a special function. However, further discussions are very difficult because many problems are not resolved, for example, how does consciousness act on a certain object outside of the human body? What kinds of physical mechanisms are used? Through the authors' previous studies, it seemed that healing is based on a body function rather than functions of consciousness.

Although the authors have dealt with healing phenomenon as a common physical phenomenon, there is no serious problem. Healing phenomenon is always observed in a material level finally even if "consciousness" is important at a certain stage of the whole process. Healing always appears as a physical phenomenon at a certain stage. As Kataoka et al.'s experiments<sup>20)</sup> suggest, materials are considered to have a property to absorb, keep and emit healing power. Among well known forces of the universe, organisms use electromagnetic force and gravity. However, organisms can control electromagnetic force only. Organisms may act on unknown physical existences by electromagnetic force. For example, two things are unknown still in modern physics although they exist. One of them is dark matter which interacts with normal matters by gravity. The other is dark energy which is one of the properties of space, and it is needed to explain universe expansion. Densities of components of the universe are normal matter 5%, dark matter 23% and dark energy 72%. From viewpoint of postponing dealing with problems, dark mater or dark energy as mechanisms of healing is the same as consciousness. However, if a spoon is bent by psychokinesis, materials of the spoon should have properties to catch and react to the psychokinesis. If healing phenomenon is considered as an aspect of basic properties of materials or time-space, new studies can be developed in future.

# 6. Conclusions

24 Healers, whose schools and ways were various, were measured twice. Average J value, an index of controlled healing power, was 0.084 and healing phenomenon was examined. Ages of healers correlated with J values. Analyses on the details showed that up/down of J value was dependent on ways of healing and whether healers could adapt to experiments or not.

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