Experimental Paper

POSSIBLE PARAPSYCHOLOGICAL RELEVANCE OF HIROSHI MOTOYAMA'S AMI MACHINE:
A GESP Experiment with Physiological Measurements

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ABSTRACT

In a sample of 30 adult Japanese subjects, a "general extrasensory perception" (GESP) test was conducted using standard ESP cards. The subjects were divided into three categories, average, positive, and negative, according to the number of hits in their GESP runs. We hypothesized (1) to propose that either average or positive runs would show more Ki energy as measured by the AMI instrument, particularly in the gastric, spleen-pancreas, and triple heater meridian. When the data were analyzed using the Student t-test, none were found to have any statistical significance.

Hypothesis (2) proposed that all major meridians would show a positive correlation with GESP functioning. This hypothesis was only partially supported as only gastric and spleen-pancreas meridians showed significant values.

KEYWORDS: Meridians, Motoyama, Ki, acupuncture, AMI instrument, ESP

INTRODUCTION

The AMI feedback machine (apparatus for measuring functioning of meridians and their corresponding internal organs) has been under development since 1970 by Dr. Hiroshi Motoyama.[1] He holds patents on the device in Japan and the United States. This instrument is being used for research purposes by several physicians in the United States and abroad.[2] The AMI instrument is designed to measure electrical conductivity, resistance and polarization of membranes in the skin and tissue fluids therein. The measurement is for the purpose of evaluating the condition of these tissues and functioning of the acupuncture meridians and their corresponding internal organs.

> According to Chinese-Japanese acupuncture theory, the various functions of the human body are maintained and controlled by an invisible life energy called "Ki" (Chi in Chinese); this is essentially the same as the prana of Yogic (Hindu) tradition.
>
> The Ki energy is thought to circulate through an intricately interconnected system of channels or meridians 14 of which are considered major. When the flow of Ki through the meridians is smooth and balanced there is mental and physical health. But, if the Ki energy flow is blocked either by an excessive or deficient amount of Ki energy a functional disorder may result. A prolonged imbalance will bring about an organic (pathological) disorder.

The 12 traditional acupuncture meridians are bilaterally symmetrical, with the acupuncture points interspersed along the course of the meridians are the acupuncture points. The points where the Ki flows through the meridians which are most easily reached are also used for diagnosis and treatment in acupuncture.

Near the tips of the fingers and toes are the "Sei" (Well) points where the meridians either begin or end depending on the direction of their flow. These Sei points have traditionally been known to be extremely sensitive detectors of meridians and their condition.

If we consider Figure 1—the right foot and the right hand, and numbers are assigned to all fingers and toes from left to right, we have the following meridians:

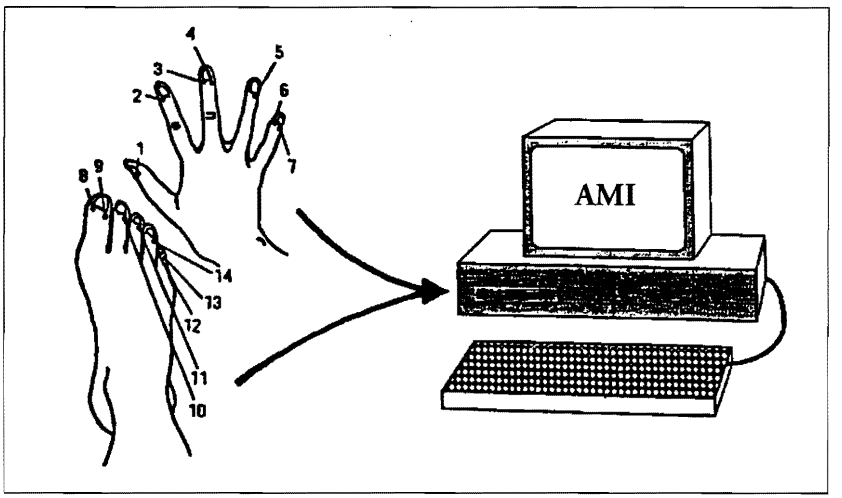


Figure 1. *The Sei points or acupuncture meridian points.*

Acupuncture Meridian Points as noted in Figure 1.

The Right Hand:

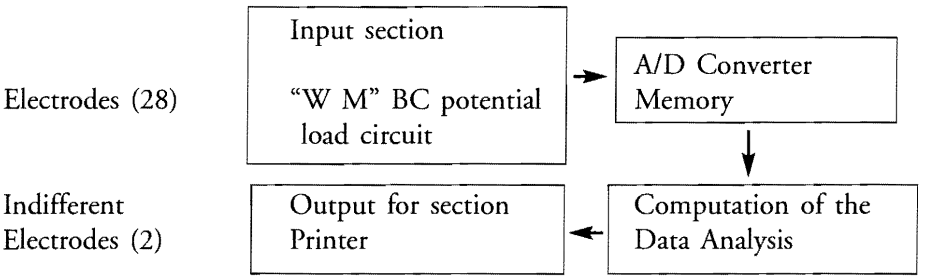
#1	= Lung meridian	(1)
#2	= Large intestine meridian\meridians	(1)
#3 & #4	= Diaphragm (Kakayu) and heart constrictor	(2)
#5	= Triple heater meridian	(1)
#6 & #8	= Small intestine and heart meridians	(2)

The Right Foot:

#8 & #9	= Liver, spleen, and pancreas meridians	(2)
#10	= Stomach meridian	(1)
#11	= Stomach branch "Hachiyu" meridian	(1)
#12	= Gall bladder meridian	(1)
#13 & #14	= Urinary bladder and kidney meridians	(2)

The numbers shown in parenthesis represent the numbers of electrodes attached. Obviously the same symmetrical meridians can be found on the left extremities.

Block diagram of the AMI Instrument



The AMI system we used was as follows:

1. AMI extended model HPD-60
2. NEC computer PC-8805 occasionally referred to as the PC-8851
3. Character display NEC PC-8050 K
4. Terminal printer EPSON Co. Ltd. RP-80 (Unit No. 019911)
5. Software EPSON Co. Ltd. TF-20 (Unit No. 145524)

Prior to measurement, plate electrodes (Ag/AgCl; diameter 4 mm) which were lubricated with a non-polarizing cream, were attached to the Sei points of each meridian. Indifferent electrodes (Ag/AgCl; 2 cm + 3 cm) were also attached to the extensor surface of each wrist about 15 cm below the elbows. Three (3.0) volts of 1 msec^2 waves were then sequentially applied between each active Sei electrode and the pair of indifferent electrodes (Figure 2).

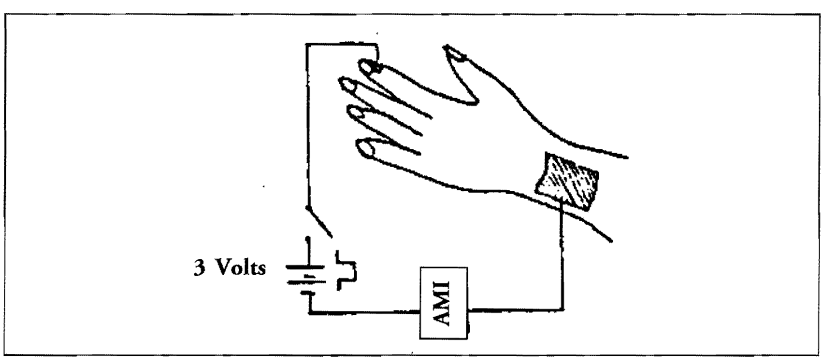
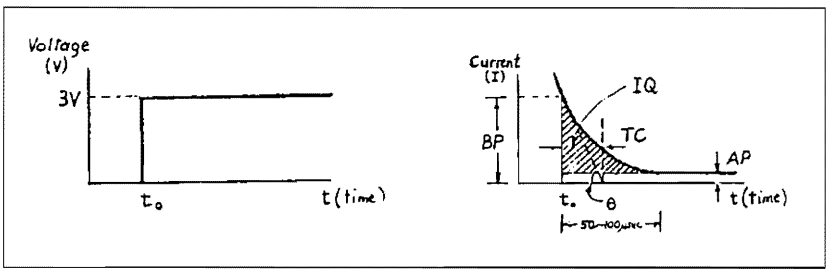


Figure 2. *Placement of electrodes, AMI instrument.*

Figures 3 and 4 indicate the parameters monitored by AMI.



Figures 3 and 4. *Parameters measured by AMI.*

The actual calculated values of BP TC, IQ and AP are BP, TC_1, IQ and AP due to the particular relationship between the downward decay of skin response to stimuli and due to instrument limitations in the measurement of the TC (time of stimulus).

Definition of Parameters Monitored by the AMI

1. BP (Before Polarization Current) is the current value recorded before ionic polarization at the barrier of the epidermal membranes to the externally applied electrical potential. Since the value of this current is primarily determined by the physical-chemical characteristic of the dermal connective where the acupuncture meridian is located, it reflects the condition of both this tissue and of the meridian. Since the physical-chemical condition of the connective tissue is known to have a close relationship to metabolic level, BP value is an index of this parameter as well.[3,4]

2. IQ (Integrated Polarization charge) measures the total ionic electrical charge which accumulates on the outer and inner sides of the membrane's barrier at the conclusion of reverse polarization against the externally applied electric potential. This parameter reflects the homeostatic ability of the living organism. As with BP, IQ can also be considered as a measure of overall body metabolism. The integrated polarization charge works in

the AMI instrument according to the following mathematical equation

$$IQ = \int_{0}^{\infty} \{I(t) - I(\infty)\}\, dt. \qquad (1)$$

3. TC (Time Constant) is a measure of the time taken for the above-mentioned reverse polarization to be completed. This means it is a measurement of the rate at which ionic accumulation proceeds according to a mathematical parameter:

$$TC = BP/\tan\theta = I(t)/(-dI/dt)_{t=0}. \qquad (2)$$

4. AP (After Polarization) is the current value which still flows after completion of the reverse polarization in the skin. After the completion of the reverse polarization the current which is externally applied, cannot flow in the dermis because reverse polarization acts as an effective resistance against applied potential. After this time, therefore, the current can only flow in the epidermis. This is the "after" or reverse polarization current. During the reverse-polarization process, the boundary membrane discharges its minus potential enabling both anions and cations to freely penetrate this membrane. This current is called a diffusion current. Depending on the nature of this diffusion current, AP current can fluctuate in both plus and minus directions. In contrast to the BP current, AP current is a current flow in the epidermis and has a mutual relationship with the GSR and the sympathetic nerves.[3]

AMI Data Analysis

The extended AMI data chart (Figure 5) was generated using the built-in microcomputer according to the following sequence of calculations. First, the averages of BP, AP, IQ and TC over the total 28 Sei points of the 14 meridians

were calculated. Then, the raw values of EP, AP, IQ and TC of the Sei points were divided by their respective averages to produce the left and right percentage values. The different percentage D% values are calculated in a similar manner by dividing the left-right differences of each meridian by the average left-right difference.

In the left column of the data chart (Figure 5) computations are recorded in the following orders: the average values of BP, AP, IQ and TC from the 28 Sei points together with their standard deviations; the ratio of the average values from each of the 14 Sei points of the fingers to those of the 14 Sei points of the toes; and the ratio of the average values from the left 14 Sei points to those of the right 14 Sei points. These values are parameters reflecting the overall condition of the body.

The criteria used to judge whether the values thus derived are within the normal functional range have been established on the basis of a statistical analysis of accumulated data gathered from more than 5000 subjects. Those falling outside the nominal functional range, reflect a situation of either energy excess or energy deficiency and are indicated with an asterisk.[3]

The data shown in Figure 5 are used only as an illustration. The original data collected from our research are too extensive to be fully reproduced. Table I (Page 144) provides a summary of the results based on our data.

DIAGNOSIS OF MERIDIAN CONDITION

The Energy Deficient or Energy Excessive State is determined by the BP value. This value is the most important parameter for indicating the function and condition of a meridian. From a clinical standpoint, when a meridian is in a state of deficient Ki energy the BP value tends to be low, and when a meridian is in a state of excessive energy the BP value tends to be high. Therefore, with these trends in mind, recently a program was incorporated into the AMI computer system which assigns a number to the BP value from each meridian according to its relative magnitude. This is what we actually call the normalized BP value. According to this scheme, small numbers 1-3 indicate that the concerned meridian has a relative surplus of Ki energy whereas the higher numbers 12-14 indicate that the meridian has a relative deficiency of Ki energy.[3]

Ave	AP	10.1
Ave	TC	8.4
Ave	BP	1.958
Ave	IQ	0.960

Standard Deviation

AP	0.550
TC	0.100
BP	0.155
IQ	0.192

Fingers/Toes

AP	0.825
TC	1.047
BP	1.023
IQ	0.907

Left/Right

AP	1.105
TC	0.904
BP	0.973
IQ	1.030

AMI Data Sheet

		D%		L%		R%
Lung	AP	1.103	14	0.511	6	1.012
	TC	0.533	14	0.825	13	0.873
	BP	1.143	2	1.289	3	1.121
	IQ	1.406	14	0.744	5	1.011
Large Intestine	AP	1.103	6	0.923	1	1.425
	TC	1.200	5	1.014	3	1.120
	BP	0.282	5	1.078	4	1.119
	IQ	1.308	12	0.804	4	1.067
Stomach	AP	5.323	1	3.547	3	1.130
	TC	1.208	5	1.014	3	1.120
	BP	1.338	6	1.073	12	0.877
	IQ	0.601	2	1.415	1	1.301
Spleen	AP	0.562	8	0.815	14	0.560
	TC	0.266	9	0.979	8	0.955
	BP	0.240	1	1.307	1	1.272
	IQ	0.478	7	1.007	10	0.916
Heart	AP	0.302	11	0.697	10	0.835
	TC	0.800	7	1.002	5	1.073
	BP	0.819	11	0.840	9	0.960
	IQ	1.274	5	1.044	12	0.803
Small Intestine	AP	0.540	3	0.992	2	1.238
	TC	0.933	3	1.061	7	0.979
	BP	0.233	10	0.832	13	0.848
	IQ	0.462	8	0.991	11	0.904
Urinary Bladder	AP	0.367	10	0.776	9	0.943
	TC	1.200	4	1.038	2	1.144
	BP	0.348	9	0.900	10	0.951
	IQ	0.235	10	0.873	9	0.918
Kidney	AP	1.255	2	1.562	7	0.992
	TC	2.400	13	0.849	6	1.061
	BP	0.944	7	0.924	6	1.063
	IQ	2.879	1	1.491	7	0.946
Heart Const.	AP	0.605	7	0.894	12	0.619
	TC	2.266	2	1.132	9	0.932
	BP	1.213	8	0.918	5	1.095
	IQ	0.042	9	0.937	8	0.945
Triple Heater	AP	0.735	9	0.786	4	1.120
	TC	0.000	9	1.002	9	0.932
	BP	0.826	11	0.840	8	0.961
	IQ	1.102	13	0.786	6	0.994
Gall Bladder	AP	0.000	3	0.992	7	0.992
	TC	0.400	10	0.955	11	0.920
	BP	1.035	10	0.747	11	0.898
	IQ	2.040	3	1.157	13	0.770
Liver	AP	1.168	13	0.589	4	1.120
	TC	0.133	11	0.932	11	0.928
	BP	2.126	4	1.141	14	0.821
	IQ	1.363	6	1.021	2	1.279

Figure 5. *AMI Data Sheet*

Individual Meridians

The energy state of each individual meridian is either in a state of deficient or excessive energy.

When the number next to the left percentage and right percentage is 1-3, these meridians are in the state of excessive Ki energy. When the number next to the left percentage and right percentage value is 12-14, then these meridians are in a state of deficient Ki energy. The energy state of each individual meridian can be expressed by the "Yin-Yang Relationship" and "The Three Yang Relationship" of traditional acupuncture.

For example, the Lung and Large Intestine meridians have a Yin-Yang relationship. Therefore, in general, when the Lung meridian has an excess of energy, the Large Intestine meridian is likely to be deficient in energy. Since the lung and spleen meridians are related by the "Three Yin-Three Yang relationship" we also need to check the relative energy relationship between these two meridians to know which is deficient in Ki energy and which is excessive in Ki energy.

In the left-right energy balance of D% NS (normalized difference between the left and right sides) is larger than the normal standard, then that meridian has a left-right imbalance.

In a so-called reverse condition of normal meridian function the EP value of a Yin meridian is larger than the BP value of its Yang meridian counterpart: this is the "Yin-Yang relationship." However, when a disturbance occurs, the BP value of the Yin meridian becomes lower than that of its Yang partner. This situation is termed a "reversed" condition indicated beside the Yin meridian in Figure 6.[3]

PROCEDURE

Thirty adult subjects, 26 Japanese females and 4 males, were given (in Japanese) the following instructions before the experimental session:

> This is a preliminary experiment in telepathy or ESP in which we are relating this kind of phenomena with Dr. Motoyama's instrument for meridian measurements and somatic organic function.

Please try to guess the symbols of these 25 cards. Spell the symbol you are guessing as soon as you hear the starting knock from the pencil in Dr. Onetto's hand. He shall tell you when to stop. Do not forget to remember and guess each of the five symbols: Hoshi (Star), Shikaku (Square), Hyuyi (Cross or Plus), Maru (circle), and Nam (Wavy Lines)

We shall make a first run of 25 cards before the AMI instrument starts functioning. You have to lie down (decubitus dorsalis) so that we can attach a series of small electrodes to your hands and feet. Now please guess an additional 5 runs of 25 cards. This will be done 5 times more and the experiment will be finished.

DOUBLE WORKING HYPOTHESIS

Hypothesis 1. Subjects with normal or excessive values of Ki energy will perform better in their GESP tests.

Hypothesis 2. We shall find a high correlation between the "positive" or better series (with a number of hits equal to 6 or more) and the AMI measurements in the meridians corresponding to gastric, spleen-pancreas, and triple heater functions. This possibility was already advanced by Motoyama with his statement.

> It has been found as a result of repeated AMI testing that those subjects whose psi abilities are predominantly of the ESP type tend to show apparent functional disorders—overactivity, excess or deficient energy in the stomach, spleen-pancreas, triple heater, kidney, and the urinary bladder meridians. Most specifically, energy deficiency in the spleen-pancreas meridian is often noted. Theoretically these meridians are those that supply Ki energy to the internal organs indicated by their names which are mentioned earlier and are related to the lower chakras.[5]

Following the instructions of Dr. Motoyama, for this experiment we did not take into account the value of kidney and urinary bladder meridians, because they are of little importance for ESP research.[6] Of course, the protocols at the Institute for Religious Psychology in Tokyo do contain the overall complete values of the 14 meridians.

STATISTICS

In order to verify the theoretical correlations of hypotheses 1 and 2 above we used two types of statistical analysis:

1. For comparison of the different types of series according to the number of hits, we used Student's t-test for estimating the significance of the difference between two distributions.

   We surveyed the overall total of 150 series of runs made with the 30 subjects classifying them as follows: 35 "positive" series (with values of 6 or more hits), 25 standard or "average" series (with the expected mathematical value of 5 hits), and 92 "negative" series (values of 4 or less hits). We did a double comparison: a positive and negative series against chance expectancy and their corresponding overall AMI values.

2. For hypothesis 2 we used a statistical correlation method of analysis. We wished in this way to make a "variability measurement of the two different functions, AMI meridians and GESP abilities, to illustrate the goal of our research. In effect, we wanted to determine whether, if one function changed, the second function would also change. If so, this would indicate a connection between the two.

   Each experimental session was assigned random numbers by the computer. These assigned numbers are equal to 4,500 random trials. Every trial corresponded to an ESP card that was used in the calls of every subject. The conditions and rules which are enforced and used by every research parapsychologist were followed in the strictest detail. Therefore, it was impossible in any way for the research subjects to have contact with the cards before the experiment started.

As we already stated at the beginning of our statistical analysis, a total of 30 subjects (Ss) participated in this experiment. From the results of the ESP scores for each of them (expressed as follows), in absolute number of hits: 27, 21, 23, 30, 29, 19, 24, 29, 26, 16, 23, 21, 31, 31, 26, 30, 29, 24, 20, 32, 16, 31, 23, 28, 19, 30, 24, 25, 25, and 33, these Ss were divided into three main groups:

(1) chance or more (up to 30) hits: 12 "average";

(2) very high scores: 5 "positive" Ss;

(3) a "psi missing" effect of 24 or less hits: 13 "negative" Ss

Table I
GESP Test Results

Total number of subjects (Ss)	30 adults (26 females + 4 males)
Number of "average" Ss	12 (0 ~ 5)
Number of "negative" Ss	13 (dev. ≤ -1)
Number of "positive" Ss	5 (dev. > 6)
Total number of trials	3750*
MCE	750
Hits	765
Dev	+ 15 (without s.s.)

* Seven hundred and fifty additional runs were not taken into account in the table because they were considered only "trial" runs. These before-measurement runs were intended strictly to familiarize the research subjects with the proper way to identify the cards and the way the experiment was to be conducted. Due to the high proportion of subjects with negative deviations, the overall number of hits was only slightly positive. Therefore, they lack statistical significance with the ordinary critical ratio (CR) test for normal distribution.

Since the aim of this experiment was different from the usual one, we omitted CR values for our three groups. Nor, in advance, did we decide to do any other kind of post hoc analysis of special effects, e.g., quarter distributions of hits, analysis of "salience" effects, U curve. We can not completely disregard, therefore, the possibility that other types of variables were of influence in the results using cards, such as a possible psi-missing effect due to language differences. Also due to the time commitment of each session which lasted approximately two hours one must take into account the fatigue factor involved.

Of the data taken by the AMI instrument, we analyzed only the BP value as we found this to be the only value of significance in these experiments. The other three parameters AP, TC, and IQ were omitted because in previous measurements their values were not significant for GESP performance.

Due to space limitations, it is impossible to include all the data generated. Therefore, the numbers in Table II are based on the average value of each group.

Table II
Changes in the values measured by the AMI Instrument

Measurements in 12 "average" subjects (Dev. 0 - 5)			
(1)	Gastric Meridian	10 no change 1 decrease 1 increase	(= 84.6%)
(2)	Spleen-Pancreas Meridian	10 no change 0 decrease 3 increase	(= 77%)
(3)	Triple Heater Meridian	10 no change 2 decrease 1 increase	(= 77%)
Measurements in 13 "negative" Ss (Dev. ≤ -1)			
(1)	Gastric Meridian	8 no change 2 decrease 3 increase	
(2)	Spleen-Pancreas Meridian	10 no change 2 decrease 1 increase	
(3)	Triple Heater Meridian	9 no change 1 decrease 3 increase	
Measurements in 5 "positive" subjects (Dev. ≥ 6)			
(1)	Gastric Meridian	5 no change	(100%)
(2)	Spleen-Pancreas Meridian	3 no change 1 decrease 1 increase	(50%) (25%) (25%)
(3)	Triple Heater Meridian	4 no change 1 increase	(75%) (25%)

As can be seen in Table II, the triple heater values are not statistically significant.

If we take Chi Square values at the $p < .001$ probability level, we find statistically significant values of 13.8 for the stomach and spleen-pancreas meridians. This would partially confirm our second hypothesis, but unfortunately the

results were not completely as we expected. In four other cases, different measurements in other meridians were also significant in their Chi Square values, such as the large intestine, the small intestine, heart and heart constrictor meridians. When the data from the left lung meridian and the right liver meridian were analyzed with the Chi Square value of 13.8 that was also used for the stomach and spleen meridians, we found again a statistical significance. Therefore the correlation analysis of all meridians is the basis of our hypothesis 2.

In a Chi Square done with the 15 successive measurements taken by the AMI instrument on the 12 main meridians using only the EP parameter values we find a probability level of .001 only for Chi Square values of 13.8. For this type of testing we took only the D% value of the different left and right meridians which show the overall balance of the Ki energy only in the following organs: the stomach meridian value is 13.8. The same value was found in the pancreas-spleen meridian. The triple heater meridian which was also hypothetically expected to be consistently changing in a similar way, had a Chi square value of 7.32, with a probability level of < .025, indicating borderline significance.

Four additional meridians produced data that obtained statistical significance of .001 when calculated using a Chi Square value of 13.8 as was used in the other calculations. In these four meridians, two pairs were of more interest, the large and small intestine (Yang) and the heart and heart constrictor (Yin) meridians. It is difficult to interpret only the data obtained with these two pairs of meridians, although, in part, it was postulated within hypothesis 2 at the beginning of this paper. These two pairs of meridians make a yin-yang pair. In the upper extremity, an "arm sunlight yang" and an "arm greater yang," with a "lesser yin" and an "absolute yin" respectively. As is also known, the stomach meridian (a leg sunlight yang) and the spleen meridian (a leg greater yin) are located at the lower extremities and both are related to the element Earth. Here we use the Chinese terminology taken from Dr. Chi Xwong Lo.[7] This author shows in a diagram (Figure 6) that the flow of Ki energy moves from one meridian to another.

The stomach meridian (sunlight yang) sends its energy directly to the spleen (greater yin meridian). But, first the stomach meridian obtains its energy from the lung arm meridian. As already mentioned before, the spleen meridian

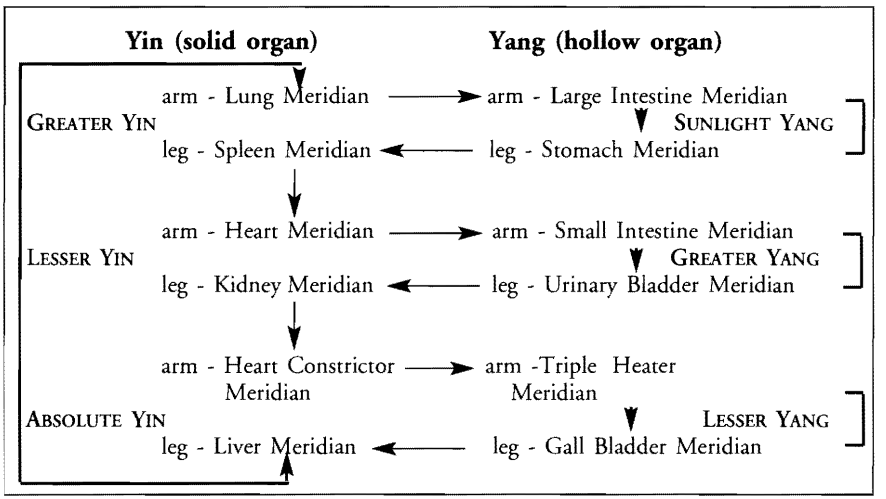


Figure 6. *Meridian Flow, Yin-Yang Relationship, Three Yin—Three Yang Relationship.*

throws its energy to the heart and also to the small intestine meridian. In this way, all four meridians are probably connected according to their energy flow. In the same context, correlations between GESP performance, triple heater and heart constrictor arm meridians, correspond to a "minor fire" element. They do not seem therefore to be important measurements in the above results.

We have shown already that the four yin-yang meridians cited above correspond to the upper extremities by using both ventral and dorsal sides. If we take the six meridians of the lower extremities, four of which are the gall bladder, liver, urinary bladder, and kidney, they show no significance. But the other two meridians, the stomach and spleen-pancreas show a significant value as will be shown in the coefficient analysis which follows.

We defined "alpha" (α) as the coefficient correlation value for measuring the consistency of correlation between ESP and AMI data for each of our 30 subjects. After dividing subjects into the three groups, normal, positive, and negative subjects, we calculated the coefficient for each of the three main meridians discussed previously.

When analyzing the stomach, spleen and triple heater meridians, we found that at $p < .001$ level the α value will be 0.95; at the $p < .01$ probability level the α correlation value is 0.87, and at the $p < .05$ probability level the α value is 0.75. The first has a high correlation, is very rare and did not appear in any of our measurements. The statistically significant value of 0.87 was found in the gastric meridian of one of the positive subjects, and in another subject at the $\alpha = 0.75$ level of correlation. Significant correlations were found in two normal subjects. This is the point where we found two significant α values. The stomach α value was 0.75 with a probability level of $p < .05$. The triple heater meridian α value was 0.87 with a probability level of $p < .01$. The former value resulted from another subject who made 26 hits with a special nine hit run. This could speak in favor of a subject who possesses a higher level than normal of ESP ability, and also indicates the need for more research in this area. Until more research is conducted we may not know the full ESP abilities of many subjects. In the case of the five meridians with statistically positive correlations, taking into account the imbalance of the left and right values, the stomach meridian appears to be the only one of statistical importance.

CONCLUSION

When this research was begun it was impossible to determine from available data whether there was a correlation between ESP ability and AMI variables. For this purpose we tested 30 subjects with 4,500 trials. We found that hypothesis 1, as presented, was not supported. That is to say that subjects with excessive Ki energy values did not perform better in the GESP tests than subjects with lower Ki energy values.

The question addressed in Hypothesis 2 was: did a correlation exist between activity in the upper and lower meridians and positive ESP subject performances? Our data showed only a partial correlation between activity in specific meridians and positive ESP subject performance. The only meridian that showed a high statistical correlation was the gastric. A moderate correlation was also found between the spleen-pancreas meridian and GESP.

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ACKNOWLEDGEMENT: Brenio Onetto Bachler (1924-1998) was a psychiatrist and parapsychologist who headed the Rhine Center for Parapsychological Investigation in Santiago, Chile. He was very cosmopolitan in outlook, speaking German, English, French, and Italian, as well as Spanish, and was a connoisseur of classical music. He completed work in psychology and philosophy as well as medicine, and won a travel grant from the Organization of American States in 1960 that allowed him to visit J. B. Rhine's parapsychological laboratory in North Carolina. For many years, Dr. Onetto held a chair in parapsychology at the University of Chile School of Medicine, and conducted several experiments in this field. In 1975, he organized a research laboratory in the School of Human Sciences at the University of Chile, and began to publish his results in various parapsychological journals around the world. He participated in several parapsychological meetings in various international locations, cultivating relationships with Professor Hans Bender of Germany, Dr. Hiroshi Motoyama of Japan, and J. B. and Louisa Rhine of the United States. His publications appear in the *Journal of Parapsychology, Zeitschrift fur Parapsychologie, Revista Argentina de Psicologia Paranormal,* and other journals, covering such topics as precognitive dreams, Hindu philosophy, Jungian analysis, experimental parapsychology, the effect of ritalin on ESP, "Psychotronics," and "bioenergetic healing." He was an inspiration to his colleagues and his students, and brought an appreciation of subtle energy and energy medicine to his country that has laid the groundwork for future explorations and applications.

REFERENCES AND NOTES

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