

The Positive and Negative Space-Time Frames  
as Conjugate Systems

by

William A. Tiller

Introduction

In the author's initial model of substance<sup>(1-4)</sup>, the universe was projected as a seven-fold dimensional construct consisting of four non-space/non-time dimensions, two space/time dimensions and one transitional dimension. The space/time dimensions interpenetrate each other and are embedded in the collective non-space/non-time frame with the interfacing occurring via the transitional frame. In the initial description, they were referred to as physical and etheric; now they are referred to as the positive and negative space/time frames. The potentials existing at the non-space/non-time levels are thought to act as force fields which directly influence event coincidence in space/time. Through human intention changes, the non-space/non-time potentials are altered which, in turn, alter the imposed boundary conditions on space/time, thus shifting the pattern of wave flow and the details or form of events in space/time; i.e., space/time is clearly a domain of appearance rather than reality<sup>(4)</sup>. In the author's model, the non-space/non-time frame is the "World of Reality" and the space/time frame is the "World of Appearances." The former, we do not perceive with our five physical senses; the latter, we do.

At the "World of Appearances" level, all we can meaningfully seek to find are consistency relationships that can be thought of as the set of natural laws connecting changing forms. These consistency relationships are not trivial. Our science of the last 400 years has been deeply committed to revealing such relationships and their utilization towards technological development has not only enhanced man's understanding of Nature and of himself but has also allowed him to control his environment and nourish his life. Thus far, this science has been largely directed at only one of the two space/time dimensions--that perceived by the five physical senses. The other interpenetrating space/time frame is largely unknown to present science.

The present paper is devoted to a qualitative description of a model for this companion space/time dimension and a description of the property relationships between the two space/time dimensions. The model allows rationalization of a number of ESP phenomena and some experimental support for the model will also be presented. The quantitative aspects of the model will be left to a later paper.

#### Positive Space/Time and Negative Space/Time Characteristics

The key points held in the mind during the invention of negative space/time substance were (1) its construction should be an analogue of physical or positive space/time matter, (2) it should have special symmetry relationships with positive space/time substance, (3) the negative space/time frame should counterbalance the positive space/time frame, (4) the negative space/time substance should be non-observable by the five physical senses and (5) if it can fill in some gaps in our present science, then so much the better.

Using these five points as guidelines, we start with #4 and postulate first that the particles at the negative space/time level are superluminal; i.e., they travel faster than the speed of light ( $v > c$ ). It is of interest

to note that, in the extreme relativistic limit, quantum mechanics predicts the possibility of a spectrum of negative energy states extending to  $-\infty$ . Thus, the electromagnetic interaction allows a particle in a positive energy state to make a transition to one of negative energy and to cascade downward to lower and lower negative energy states while radiating unlimited quantities of energy. These states also have negative mass and are non-observables. However, special defects or "holes" in this sea of negative energy states have positive mass and positive momentum and thus are observables. These "holes" are called antiparticles and the whole spectrum of such defect particles is called antimatter which <sup>our</sup> science has already observed. In fact, for every particle, we have discovered a corresponding antiparticle.

Let us now go further and postulate that the particles at the negative space/time level are not only superluminal but that they are primarily magnetic in character in contrast to the electrical character of particles at the positive space/time level. Now, we not only satisfy #4, but also #5. Science has searched unceasingly for the magnetic monopole because the symmetry of Maxwell's equations demanded that they exist. However, we have searched in almost all conceivable places at the physical level and have come up empty-handed. This would be understandable if these monopoles existed and were non-observables at the five physical senses level.

This proposal also satisfies #1, #2 and #3 of our list. The magnetic monopole is indeed analagous to the electric monopole and we could expect atoms, molecules and substance to be built up from magnetic charges at the negative space/time level in an analogous fashion to our electrical structures at the positive space/time level. We note a symmetry relationship of a mirror type in that positive mass and energy at the positive space/time level have their negative mass and energy at the negative space/time level. The counterbalance

Table I

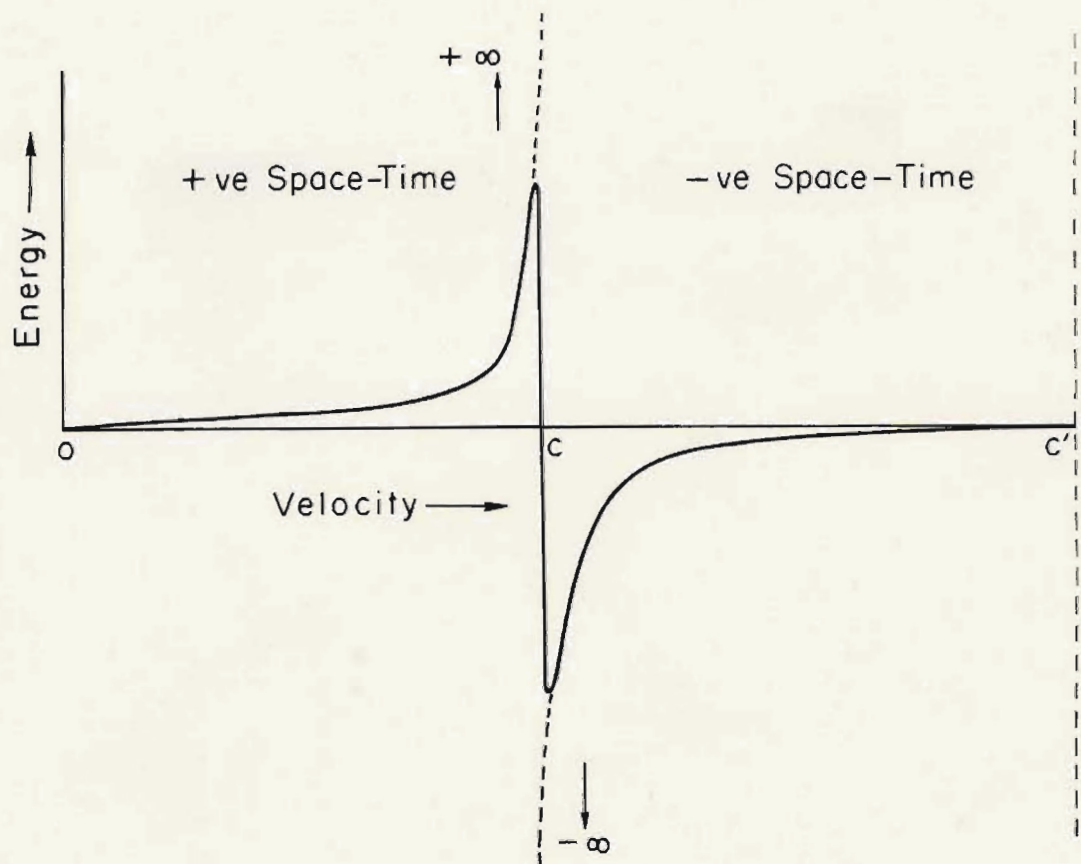
## SPACE-TIME SUBSTANCE MANIFESTATIONS

	$\chi$		$\chi^*$
1	Electric monopole	"MIRROR" RELATIONSHIP	Magnetic monopole
2	Forms atoms, molecules, etc.		Forms atoms, molecules, etc.
3	Coherence state I		Coherence state II
4	Positive mass		Negative mass
5	$v < c$		$v > c$
6	Electromagnetic radiation at $c$		Magnetoelectric radiation at $c^I \gg c$ ( $\sim 10^{10}c$ )
7	Positive energy states		Negative energy states
8	E increases as $v$ increases		E increases as $v$ increases
9	Positive time flow		Negative time flow
10	Gravitation		Levitation
11	Frequency $\nu_\chi$		Frequency $\nu_{\chi^*} \sim 10^{10} \nu_\chi$
12	Faraday cage screening		Non screening by Faraday cage
13			Magnetic cage screening
14	$I_e$ generates H		$I_M$ generates E
15	Space I		Space II

is noted by considering that, by a fluctuation process in the ground of the non-space/non-time frame, space/time polar substances of electrical ( $v < c$ ) and magnetic ( $v > c$ ) nature are formed whose collective energy is zero. Likewise, the collective momentum can be zero. In this case, the polar character is thought to relate to a norm level of coherence of the primary wave functions in the particles. The electrical polarity corresponds to a specific high level of coherence and the magnetic polarity corresponds to a specific low level of coherence; i.e., 1 and 0 for the electrical and magnetic monopole, respectively.

Following this tack, a broader range of correlations between these two classes of substance has been developed and the main results are presented in Table I where  $\chi$  and  $\chi^*$  represent positive and negative space/time substance, respectively. The first five items have already been discussed. Number 6 arises from a symmetry relationship. Obviously, if all parts of the magnetic atom or molecule are travelling faster than EM light,  $c$ , then, as their particles go through different energy states, a radiation will be emitted which must have a velocity greater than  $c$ ; otherwise, there would be no communications between the different parts of the atom or molecule. By symmetry, it is presumed that this magnetoelectric light velocity,  $c^*$ , will be  $\sim 10^{10} c$ ; i.e., the negative space/time sensing frame in the human will have a velocity as far beyond the velocity of electromagnetic light,  $c$ , as the positive space/time sensing frame is below it, and  $c^*$  will be as far above the negative space/time sensing frame velocity as  $c$  is above that of the positive space/time sensing frame. This leads to  $c^*$  being a very large number relative to  $c$  and the factor of  $10^{10}$  is intended to qualitatively express that aspect.

Both #7 and #8 in Table I are represented in Fig. 1 for the energy of a particle as a function of its velocity. Thus, if we take an electrical



Energy/velocity relationships between particles at the positive space/time and negative space/time levels.

FIGURE 1

particle and increase its velocity,  $v$ , its kinetic energy increases and thus its total energy increases and, as  $v$  approaches the velocity of electromagnetic light,  $c$ , the relativity factor causes the energy to increase sharply towards  $+\infty$ . When  $v$  is within about 0.1 percent of  $c$ , it is thought to be possible for the particle to change its state of coherence from I to II and become of magnetic character with a large negative rest mass, so that the electrical particle tunnels through the light barrier dematerializing in positive space/time and materializing as a magnetic particle in negative space/time--as viewed by our sensory apparatus. Further increasing the velocity of the particle increases its kinetic energy and thus its total energy becomes less negative. If we decrease the velocity of the particle, it retraces the path to more negative energies until we reach  $v \sim 1.001 c$ , and then the fluctuation of coherence may occur so that the magnetic particle dematerializes from the negative space/time frame and materializes in the positive space/time frame as an electrical particle of large positive energy. We see here the analogue of black hole and white hole phenomena in conventional cosmology. We see further that dematerialization and materialization phenomena are accounted for and note that matter does not actually disappear from space but it changes its character to become a non-observable relative to the physical sensory system and all apparatus based upon that logic. It only appears to be dematerialized, the object only appears to change its form!

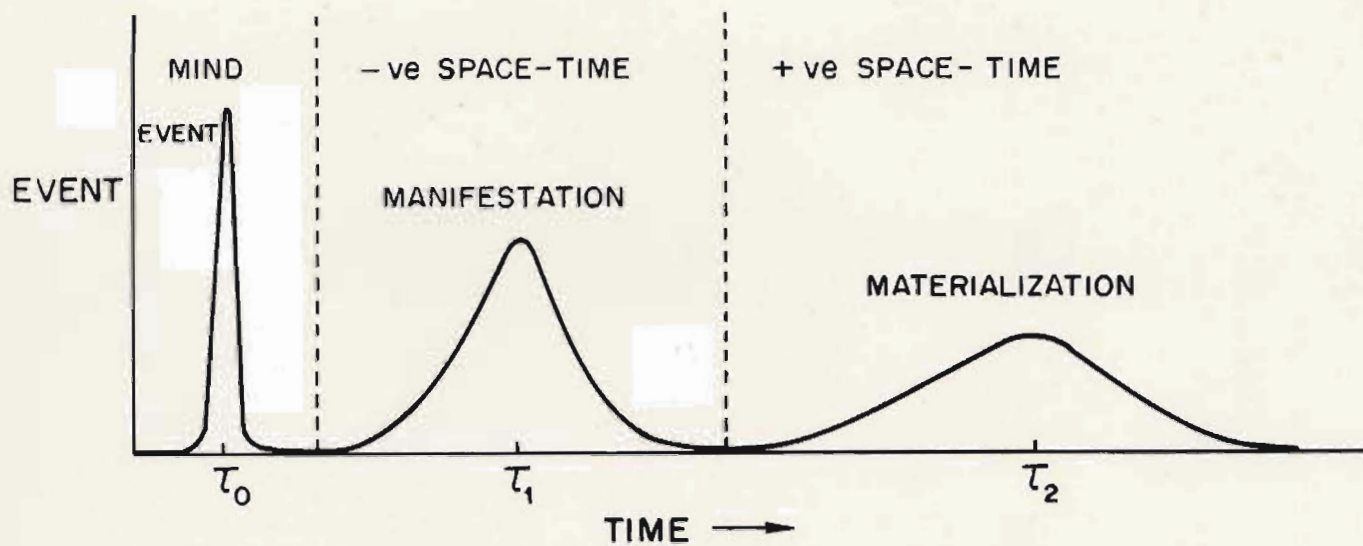
Jumping to #11, we recall that the energy of a wave is proportional to its frequency ( $E = h\nu$ ) and that a wave-particle duality exists so that, as the energy of a particle increases, its frequency,  $\nu$ , increases. Thus, in Fig. 1, as we increase  $v$  towards  $c$ , we are actually increasing the vibrational frequency of the particle up to a critical value  $\nu_c$  before it dematerializes to become a negative space/time particle. As a magnetic particle, its energy

will still be proportional to its frequency ( $E = h^* \nu^*$ ) so that  $h^*$  must be a negative constant and, depending upon its magnitude,  $\nu^*$  must be much much higher than  $\nu_c$  so that  $\nu_c^* - \nu_c$  represents a large jump in frequency; i.e., the negative space/time frame represents a higher frequency band of substance than our physical substance. In addition, if we compare magnetoelectric light (ME) with electromagnetic light (EM) then, since  $c^*/c \sim 10^{10}$ , for the same wavelength the ME light has a frequency ten orders of magnitude larger than EM light. This means that the energy content of ME light is vastly larger in magnitude than that of EM light and should provide an abundant future energy source if we can effectively transduce it into positive space/time energies.

Turning to #9, the negative time flow relates to what we think of as the normal direction of time flow between cause and effect at the physical level. As an example to illustrate the point, consider Fig. 2. Here, we represent an event occurring at the level of Mind as our origin of time. The wave patterns representative of that event (thought) impinge upon negative space/time and propagate complex waves in this medium at characteristic velocities between  $c$  and  $c^*$  producing the required wave coincidence at time  $\tau_1 - \tau_0$  later. This represents event manifestation at that level and is an effect derived from the initial cause. In addition, waves are propagating directly in positive space/time at much slower characteristic velocities between 0 and  $c$ . However, a much speedier and surer path for influencing positive space/time is via the event manifestation in negative space/time. This wave coincidence stimulates wave motion in the medium of positive space/time, which flows at a slower rate but produces an eventual coincidence at a later time  $\tau_2$  representing the event materialization as perceived by the five physical senses.

If we had well developed sensory apparatus at the negative space/time level, we would have had precognitive awareness of the event at a time  $\tau_2 - \tau_1$





Representation of an event at the cause level (Mind level), its manifestation at the negative space/time level  $\tau_1 - \tau_0$  later, and its materialization at the positive space/time level  $\tau_2 - \tau_1$  later.

FIGURE 2

before its materialization at the positive space/time level. Thus, the event at the negative space/time level would be noted to have occurred before the recognized cause at the positive space/time level and, relative to that identified cause (not the real cause which actually occurred at the Mind level), it would appear as if time flowed in a negative direction to produce the event at the negative space/time level and in a positive direction to produce the event at the positive space/time level. Then, what we call the future coexists with the present but at a different level of substance in the universe.

Turning to #10, because of the mirror relationship existing between the two space/time frames, we must anticipate that every force present at the positive space/time level has a conjugate or counterforce manifesting at the negative space/time level. Thus, the force of gravitation at the physical level is balanced by the force of levitation at the negative space/time level. This will have obvious manifestations for future technology. Although it is not listed in Table I, another characteristic that will have important implications for technology is that dealing with entropy. We obtain positive increases in entropy in positive space/time as the temperature is raised; however, we have a decrease in entropy in negative space/time as the temperature is raised.

We find that many clairvoyant and telepathic abilities are enhanced when a subject is placed in a Faraday cage which screens out electrostatic and electromagnetic waves in the long wavelength range (radio waves and longer). This seems to diminish the external noise level and they can "tune in" more completely to the negative space/time sensing system. In support of this, if the subject is then placed in a magnetic screen room, the subject generally loses these abilities. Some few subjects seem to be able to regroup, so to speak, and to tap another sensory network that allows them to perceive beyond this

magnetic screen (probably a mental level sensory system or a non-electromagnetic or non-magnetoelectric system). This again tends to support the postulate of magnetic substance at the negative space/time level.

From the conventional Maxwell's equations for electromagnetic energy we know that the flow of electric charge, i.e., a current  $I_e$  generates a magnetic field  $H$ . Likewise, at the negative space/time level, the flow of magnetic charge, i.e., a current  $I_m$  generates an electric field  $E$ . Thus, at the negative space/time level, a corresponding set of Maxwell's equations exist in terms of magnetic charge and magnetic current and involving the velocity,  $c^*$ , of magnetoelectric energy. Combining the EM and ME equations leads to a complete symmetry; however, using only one sensory system, the usual unsymmetrical set of equations is observed. Only when both sensory systems are utilized does the full symmetry appear.

The last item in Table I can only be touched upon here as a proper description of Space I and Space II is beyond the scope of this paper and will be dealt with more fully in a later paper. I merely wish to state that, although the positive and negative space/time frames are interpenetrating frames and occupy what is essentially the same space but at quite different frequency levels, the way in which they interact is via a type of spatial mapping transform. The consequences of this relationship is that there appears to be two types of spaces wherein the interior domain at the Space I level is interactive with the exterior domain at the Space II level, and vice versa. By connectivity relationships, this means that every point in positive and negative space/time is energy coupled, in agreement with the predictions of quantum mechanics. It is this type of interaction that generates the "remote viewing" capability presently being studied by many investigators <sup>(5,6)</sup> and is at the core of "non-local" forces <sup>(7)</sup>.

One piece of the overall picture that has been neglected thus far, because it makes it even more complex and difficult to deal with, is the requirement of and introduction of a third type of space/time substance of a non-EM and non-ME character. Its full description is also beyond the scope of this paper. The requirement for such a substance arises because it is not possible for substance travelling faster than EM light ( $v > c$ ) to interact directly with substance travelling slower than EM light ( $v < c$ ). No resonant vibrational modes are possible for the exchange of energy because there is no overlap of vibrational frequencies. A third substance must be present to serve as a connecting fluid for energy transfer and which does not suffer from the singularity phenomenon occurring at the velocity of EM light. Thus, its basic nature must be very different. In my modelling, this third energy is called "deltron" energy.

There are a few other interesting correspondences between the  $\chi$  and the  $\chi^*$  substances. Some of these will be introduced later and others will be presented in a later paper. Let us now turn to a listing of some of the predictions of the model and some tentative experimental support for the model.

#### Predictions and Support

Thus far an explanation has been given for (a) materialization-dematerialization, (b) precognition, and (c) remote viewing. In addition, it has been suggested that (d) magnetoelectric energy would be a good candidate for telepathic communication, (e) symmetry can be generated in Maxwell's equations and that (f) item (a) above may relate to black holes and white holes in cosmology.

Some tentative experimental support comes from the following:

- (1) For the last two centuries, psychics have talked repeatedly about

magnetic forces and magnetic substances as being the cornerstone of ESP phenomena. The enhancement of psychic abilities inside a Faraday cage and their diminution inside a magnetic screen room also lends support to the magnetic monopole postulate. It has been found that dowzers are sensitive to the gradient of a magnetic field for D.C. or A.C. fields and to the horizontally polarized magnetic vector of an electromagnetic wave<sup>(8)</sup>. This sensitivity can be lost when the adrenal glands or the pituitary gland is properly shielded with a magnetic screening material<sup>(9)</sup>. We note also the correlation between magnetism and healing. Careful studies of the enzyme Trypsin have shown that its activity can be altered by placing solutions of it between the poles of a strong magnetic field or between the palms of a healer<sup>(10)</sup>. The effect of the healer's hands was comparable to that found with fields in the range of  $10^4$  gauss. A more recent study<sup>(11)</sup> showed these two influences to have measurable and comparable effects on both the surface tension of water and upon the enhanced growth rate of plants<sup>(11)</sup>. A variety of other postulated magnetic effects on living systems have also been reported<sup>(12-15)</sup>.

2. In a variety of psychic events, one notes a spatial transposition or mirror image effect. This has been especially apparent in (a) some of the telepathy results of Uri Geller<sup>(16)</sup>, (b) Soviet experiments<sup>(17)</sup> on communication between cells in adjacent hermetically sealed chambers separated by a quartz wall which showed that a pattern of sickness in the cells of the untreated chamber occurred and developed in a mirror reflection relationship compared to the pattern in the inoculated chamber (relative to the quartz separator) and (c) some of the Pavlita psychotronic generator experiments which exhibited reversal effects when the generators acted upon the object image as seen reflected in an actual mirror<sup>(18,19)</sup>.

3. If we consider the behavior of magnetoelectric light versus electromagnetic light on passing through lenses, an interesting prediction can be made. Because of the mirror relationship in Table I, ME light should speed up in passing from air to glass whereas EM light slows down. Thus, the index of refraction,  $n^*$ , for ME light should be less than unity in contrast to the case for EM light where the index of refraction,  $n$ , is greater than unity. A convex lens causes EM light to converge and should cause ME light to diverge. A concave lens causes EM light to diverge and should cause ME light to converge. This means that, if one takes a simple Galilean telescope, which contains a single concave and a convex lens, and observes an object via EM light, the experimenter will see (1) a magnified image and (2) an erect image (the eye inverts the actual image). This is our common experience with such viewing. If one next observes, at the same location, a negative space/time object via ME light, then the result is quite different--one sees (1) a demagnified and an inverted image. Such a result is not our common experience! However, some experiments have been carried out by Carlton<sup>(20)</sup> using young children who can see certain auric manifestations. Independent of the above predictions, he conducted such an experiment and his subjects observed (1) a demagnified image of value  $M_R$ , (2) an inverted image and (3) the value of  $M_R$  was different for different subjects. The first two observations exactly fit the predictions and the third is expected as well if we make the reasonable postulate that the different subjects have somewhat different spectral sensitivity to different wavelengths of ME light. Since the value of  $n^*$  will depend upon the wavelength  $\lambda$ , the effective value of  $n^*$  will differ for the different subjects. Thus, the effective focal length,  $f^*$ , will also differ for the different subjects and this requires that the demagnification ratio,  $M_R$ , differ for the different subjects. These observations are strong support for the present model. Further predictions

have been made and experimental studies with these children are under way and will be reported on in a later paper.

4. Studies carried out by Cook and the author<sup>(21)</sup> using a biomechanical transducer appear to indicate the presence of another energy than EM energy functioning in man. Whether or not it is the ME energy is not yet certain but it appears to have certain characteristics with some correspondence so that it is useful to discuss it in the following section.

#### Non-Local Forces Via Magnetic Capacitive Coupling

Let us begin by considering two high-tension lines about 200 feet in the air and about 50 feet apart. Let us apply a D.C. electrical voltage across these wires and note what happens as we increase the voltage. Because of the insulation on the wires and the electrical impedance of the air, the system is well behaved until one gets up into the 1000 kV range. At very high voltages one will begin to note electrical discharges occurring between the lines across the air gap and they become short-circuited. Now, let us do the same experiment with A.C. voltage at different frequencies. This time, we find that short-circuiting between the lines occurs at lower voltages and, the higher is the frequency of the applied voltage, the lower is the voltage at which lateral discharges occur between the lines. The reason for the foregoing behavior is that the air between the wires has an electrical capacitive impedance,  $Z_e$ , which varies inversely as the frequency,  $\nu_e$  ( $Z_e = 1/2\pi \nu_e c_e$  where  $c_e$  is the electrical capacitance of the air). Thus, as the frequency,  $\nu_e$ , is increased, the insulation characteristics of the air decrease and it becomes a reasonably good conductor so that the short-circuiting phenomenon is a very natural process.

Now, let us consider the situation at the negative space/time level with magnetoelectric energy. From what has been said earlier, we are dealing with frequencies  $\sim 10^{10}$  higher than EM energies of the same wavelength. Thus, the magnetic capacitive impedance,  $Z_m^* = 1/2\pi \nu_m^* c_m^*$ , between objects will be very small and we must anticipate microcurrents of magnetic charge flowing very readily between objects even at small magnetic voltage differences. In fact, unchanging environments should quickly come to magnetostatic equilibrium. Dynamic intrusions into such an environment would give rise to magnetic voltage differentials and magnetic charge redistribution via environmental magnetic current flow. In an ever-changing environment, magnetostatic equilibrium is never reached so that ME fields will be continuously fluctuating and magnetic charge distributions will be continuously changing. Humans, acting in part as generators of such fields at a certain magnitude level, will obviously influence their local charge distribution. Flowing underground streams will also generate such fields and perhaps it is this which activates the dowser's sensitive circuits.

We will extend this line of discussion later but at this point, let us first consider some experimental results obtained with the use of a particular biomechanical transducer<sup>(21,22)</sup>. In this case, the device is a type of wand held in the hand. It consists of a 1/16 inch diameter spring steel and about 26 inches long with a half-nut epoxied on one end and a 1/2-inch diameter, 5-inch long, thick-walled steel or aluminum tube epoxied to the other end. It is the type of device that some dowsers use for indicating the depth of an underground stream, its linear rate of flow, its volume rate of flow, and the direction of water flow. The motion of the wand tip is the output stage of the information conversion properties of the device. The proposed mechanism is that ME or another non-physical energy stream enters



the body as a carrier wave plus information ripples. Some organs or sensory networks of the body guide this information to that aspect of the brain or mind that registers and interprets the information. To reveal the information at a conscious level, the brain or mind sends the appropriate signal train down to the hand holding the wand, causing it to move in an information coding fashion. Our initial experiments<sup>(21)</sup> suggested that it is the small muscles of the wrist and hand that generate the specific mode of wand motion. For proper functioning, this muscle movement is to be carried out at an unconscious level with the conscious mind remaining totally neutral.

The general mode of wand tip motion is elliptical with different aspect ratios and with either clockwise or counterwise steady rotation or oscillatory rotation. In the extremes, this leads to five distinctive periodic modes of motion--clockwise circular rotation, counterclockwise circular rotation, oscillatory circular rotation, vertical linear oscillation and horizontal linear oscillation<sup>(21)</sup>. It has been observed that different chemical substances produce different modes of motion of the wand. Likewise, different regions of the human body yield different modes of wand motion. However, although an individual investigator, who is sufficiently sensitive to obtain wand motion, may observe definite and specific motions of a reproducible nature for a specific set of materials, a different investigator may find some of his wand motions to be different for the same set of materials. From this we conclude that one sensitive human has slightly different internal circuitry or different spectral sensitivity from another so that the wand motions will be different for some materials. Thus, the particular motion is meaningful only once the individual's code is known. However, when an experiment is performed and a before-and-after change occurs in the wand

motion, then we can say that a definite energy change has occurred, no matter what the specific code of a given investigator.

The foregoing has been largely background to understand what is to follow. However, one further piece of data must be given first. Our early experiments<sup>(21)</sup> indicated that, for this energy-causing wand motion, three energy circuits exist in the body. For a right-handed energy structure, (wand held in right hand), energy enters the body via (a) the sole of the left foot, (b) the left palm and (c) the left eye, and exits the body via (d) the sole of the right foot, (e) the right palm and (f) the right eye. Although it can enter via either (a), (b) or (c), and exit via either of (d), (e) or (f), strong circuits seem to be (1) a to d via the legs and pelvic area, (2) b to e via the arms and trunk area and (3) c to f via the skull and base of brain area. Certain experiments can be performed which temporarily (about 4-5 minutes) block the energy flow in circuits (1), (2) or (3) (as determined by absence of wand motion at sole of foot, palm or eye), and other experiments have been performed to reinstate the energy flow. These will be discussed in a later paper. It is relevant here only to realize that this can be used as a technique for investigating energy changes at a subtle level. Now, let us describe a few of these experiments that seem to bear on the proposed model of magnetoelectric energy.

A. The first of these relate to the healing of oneself or another and involves either the two-handed technique or the one-hand plus wand and discharge jar technique<sup>(21)</sup>. Suppose we have a lower back stiffness that is troubling us sufficiently that we are contemplating a visit to the chiropractor. By placing our two hands on either side of the spine, we cause ME energy to circulate through our arms, the trunk of our body and the area of the back. The better a conductor of this energy we have become, then the greater will be

the ME current flow through this region of the back. This ME current seems to stimulate the flow of other currents at the physical level such that nourishment goes to that region of the back and the muscles relax. By starting as high up on the back as can be reached, holding for 5 to 10 minutes, etc., on down to the tail-bone, this region of the back relaxes and seems to receive nourishment so that the severity of the problem diminishes and eventually disappears. In this author's case, a yearly sequence of visits to the chiropractor of about one to two months' duration was the norm but, having used the above technique every morning for the past three to four years, (about five to ten minutes total time), there has been no need to seek outside assistance. In this technique, the hands are placed on the clothes and the energy passes through the clothing. Of course, some people are better conductors than others and will note a greater benefit in a shorter time.

Using the wand and discharge jar technique, one places the left hand (for those whose circuitry is such that the energy enters the left side) on the sore region of the back (on the clothing) and the wand, held in the right hand, is placed close to the discharge jar which contains a combination of oscillating polarity materials<sup>(21)</sup>. The amplitude of wand motion indicates the severity of the condition and the wand is held there until the amplitude drops to zero. This indicates that the incompatible energy causing the sore back has been temporarily drained from that region and the back generally feels better after one has treated all the affected regions<sup>(21)</sup>. Once again, the energy travels through clothing and the rate of discharge of the condition depends on how good a conductor one is of this energy. In addition, the rate of discharge is greater if one touches the acupuncture

points of the local area, especially those that are sore. In this case, the key point to be made is that energy changes, as detected by changes in wand motion, occur in a systematic way that are not consistent with EM energy and the subject feels physically better after the treatment. Of course, any person can develop himself to do this, both for his own body or another's body.

B. As an extension of A, suppose we take an apple that has been sprayed with insecticide. If we check its polarity with the wand, we will find it to be oscillating which means that it is incompatible with and not beneficial for our body<sup>(21)</sup>. Next, if we hold this apple in our left hand and the wand in our right hand close to the discharge jar, we will observe oscillating motion of the wand tip which, from the experience of A, we have come to feel denotes a withdrawal of incompatible energies from the apple and passage through our bodies to finally reside in the discharge jar. This procedure is continued until no further wand motion occurs no matter what portion of the apple is touched. At this stage, if one checks the polarity of the apple, he will find that it has been altered. Now it will exhibit a bipolar character or perhaps even a unipolar character<sup>(21)</sup>. Here, the important point is that a before and after change in the type of wand motion occurred, which is tentative support for the proposal that there is another level of chemistry or energy than the normal operating in materials and that its content and character can be altered by certain specific practices.

C. Insights relating to non-local forces have come from a number of experiments. The first came early in my experience with Wayne Cook, the dowser who initiated my introduction into this work. On many occasions, Wayne would be at one side of the room performing an experiment while I was on the other writing notes, and the particular experiment would knock out one or more

of his energy circuits. Often, I would subjectively note a feeling of something having changed in me. Next, Wayne would notice his condition and utilize a technique for correcting it. He would then walk over and check my circuits with the wand and generally find that the same circuits were also knocked out in me. My circuit balance would be restored and we would then proceed with the experiment. We later found that the condition of my circuits had an influence on the detailed results that he would find in an experiment with the wand from across the room.

A more specific experiment occurred when my son Jeff and a friend turned up at the University during one of my days with Wayne. We decided to test the energy linkage idea by sending Jeff and his friend down the hall about 50 feet away. Then, we knocked out my eye circuit (by my looking at the end of my nose for about 20 seconds) and quickly brought Jeff and his friend back into the room. Checking the eye circuit of the friend showed no change but, checking Jeff's eye circuit showed that his was knocked out. Next, while Wayne continued to check Jeff, I followed the technique needed to restore my eye circuit and Jeff's was immediately restored--as was mine. Here, we not only noted a non-local force interaction but that it was sensitized by a family linkage. Our general experience has been that either an emotional or mental linkage between people enhances the non-local energy interactiveness of their circuits.

D. Another stage in the study of non-local forces occurred when we noted that (a) looking up at normal fluorescent lights knocked out the eye circuit and (b) holding the left-hand palm up to these fluorescent lights knocked out the hand circuit. In searching to rectify this serious influence in our

research environment, we found that the placement of a specific substance within about eighteen inches of the middle of the light fixture eliminated the effect. This substance was a positive polarity substance consisting of some beneficial herbs and other materials<sup>(21)</sup>. The important point to note here is that, by merely placing a suitable material in the field environment rather than in the actual electrical circuit, an energy change was noted. After this change, it was subjectively noted that less eye fatigue seemed to occur while working in the treated room.

A similar effect was noted with television sets. When they are off, the screen exhibits a bipolar type of wand response. However, when they are on, the screen exhibits an oscillating polarity which can knock out the eye, hand, or leg circuit if one either looks towards, holds the left palm towards or holds the left foot-sole towards the screen. Hanging a package of the neutralizing substance from the back of the TV chassis or just setting it on top of the set alters the screen polarity back to a bipolar character and those circuits are no longer knocked out. Once again, the subjective feeling is a reduction in eyestrain while watching TV with the set in the neutralized condition. Some similar effects have been noted with other electrical equipment in the laboratory but a detailed study has not yet been made.

A few experiments have been run using a Faraday cage and the most pertinent one for us here is the following. With a material just inside the wall of the Faraday cage and the wand-holder outside the closed cage, the same type of wand motion was found as when the material was also outside the cage. The reverse experiment of the material being located just outside the wall of the cage and the wand-holder inside the closed cage gave

identical results. The conclusion drawn from the experiment is that we are not dealing with electromagnetic energies in these wand responses.

#### E. Disclaimer

The reader should be aware of the fact that the wand-holder can influence the type and degree of wand motion with his conscious mind. Thus, if he strongly thinks that a certain result should be obtained, he can unintentionally create that result and delude himself. Whether or not such errors have crept into the experiments reported above is not known. It will take an order of magnitude more tests by other investigators before we can be certain of the correctness or flaw in these reported observations. Thus, for the time being, we should accept these conclusions as only tentative albeit interesting and go on from there. We will continue to be faced with this dilemma so long as humans are part of the measuring circuit.

At this point, I wish to accept a good fraction of the general conclusions that can be drawn from A through D above and return to our earlier discussion at the beginning of the last section concerning the long-range interaction of ME energy. One main deduction is that we live in a type of integrated energy circuit with some very interesting consequences.

#### The Human Integrated Circuit

In the area of semiconductor technology, a major development of the past decade has been the integrated electrical circuit. This consists of a total electronic system being constructed in and on a wafer of silicon with a total size smaller than a U.S. twenty-five-cent piece. This advance has shrunk the size of equipment over the past three decades from several cubic feet to less than the volume of a quarter. This has been achieved by recognizing that the proper spatial distribution and sizes of different types of conductors, having

specifically tailored levels of conductivity, yields an electrically interactive kind of device having predictable and reliable properties. Some of these properties relate to frequency dependent filtering of electrical signals, frequency dependent amplification of electrical signals, frequency dependent delay lines for electrical signals, etc. They are devices for transforming the character of electrical information. Importantly, it is found that if the spatial location of these conductive regions is shifted slightly (by as little as 0.001 centimeter) or their conductivity shifted by only a fraction of two, the properties of the output information from the devices can be grossly altered. This is because the active elements of the circuits are so closely spaced relative to the range of the important electrical forces involved that a slight shift produces a synergistic perturbation of the entire electrical field structure of the device. At that level, everything is electrically interactive with everything else in the circuit. This is why it is called an integrated circuit--only the integral effect is relevant.

Switching now from the EM level of materials to the ME level of materials, we have postulated, and found some support for, the idea of non-local forces operating at the ME level. We may thus conclude that, at this level, man lives in an integrated circuit all the time. Via a magnetic capacitive coupling, he is in interactive communication with the walls, the furniture, the books, the other people, etc., of the room he is in. Albeit a subtle force, influenceable by his mind, his energy circuits at the ME level are being supported or perturbed by everything around him--leading to exhilaration, neutrality, or exhaustion as the range of possible effects. Thus, the results of a group meeting in a particular room is to produce an integrated circuit effect at the ME level which, in turn, influences our personal energy structure at the EM level and thus our observable behavior as detected by positive space/time instruments. We



have all noted such a synergistic coupling between a group of actors performing a play and an audience viewing the play. Likewise, we have all heard about the individuals who can perform certain psychic feats in private or in the company of an emotionally supportive group but who, in the presence of an overly critical audience, fall flat on their face. I would propose that it is the ME integrated circuit effect in operation that is responsible. The energy structure of the several critics so alters the frequency response of the total local environment that the psychic is no longer in an allowable frequency spectrum for a successful performance. Recognizing this integrated circuit effect, investigators who wish to have psychics perform before severe critics should take the precaution of developing a group of energy supportive people who would be present during such demonstrations. Their presence and spatial distribution would be used to maintain the needed spectral distribution of ME energy in spite of the energy field loading by the severe critics.

Investigators need to be aware of the fact that they are part of the system being studied at the ME level. Thus, their particular temporal properties of emotion, mind, etc., can tune the system under study into a slightly different region of the relevant frequency spectra. This makes it extremely difficult to achieve the kinds of reproducible results that are found in conventional physical science; i.e., the act of performing an experiment sufficiently perturbs the environment that it is almost impossible to return to the initial state for a repeat test. Within this framework we can note the importance of personal attitude on the outcome of a study or event. Positive versus negative attitudes seem to alter our state of ME charge generation which charges the ME field distribution and frequency spectrum of the local environment, thus shifting the domain of possible results.

The foregoing has only scratched the surface of this topic which will be dealt with more fully in later papers. There we will deal with the structural elements of our bodies that are a necessary linkage between the external energy fields of our environment and the internal energy fields of the body. There, we will also deal with the mechanism whereby very subtle and weak units of force can superpose to give rise to very large magnitude and very long-range spatial and temporal effects.

## References

1. W. A. Tiller, "Radionics, Radiesthesia and Physics;" Academy of Parapsychology and Medicine, The Varieties of Healing Experience Symposium Proceedings, Los Altos, California, 1972.
2. W. A. Tiller, "Consciousness, Radiation and the Developing Sensory System," Academy of Parapsychology and Medicine, Dimensions of Healing Symposium Proceedings, Los Gatos, California, 1973.
3. W. A. Tiller, "Disease as a Biofeedback Device for the Transformation of Man," Proceedings of A.R.E. Medical Symposium, Phoenix, Arizona, 1973.
4. W. A. Tiller, "Three Relationships of Man," Proceedings of A.R.E. Medical Symposium, Phoenix, Arizona, 1975.
5. H. Puthoff and R. Targ, "Psychic Research and Modern Physics," in Psychic Exploration, eds., E. D. Mitchell and J. White (G. P. Putnam Sons, New York, 1974).
6. R. Targ and H. Puthoff, "Information Transmission under Conditions of Sensory Shielding," Nature 252, 602 (1974).
7. D. J. Bohm and B. J. Hiley, "On the Intuitive Understanding of Nonlocality as Implied by Quantum Theory," Foundations of Physics 5, No. 1, 93 (1975).
8. Z. V. Harvalik, The American Dowser 13, 85 (1973).
9. Z. V. Harvalik, The American Dowser 14, 4 (1974).
10. Sister Justa-Smith, "The Influence of Enzyme Growth by the 'Laying-On-of-Hands'," Academy of Parapsychology and Medicine, Dimensions of Healing Symposium Proceedings, Los Altos, California, 1972.

11. R. N. Miller, Science of Mind Symposium, Los Angeles, February 1975.
12. G. W. de la Warr and D. Baker, Biomagnetism (Delaware Laboratories, Oxford, 1967).
13. A. S. Presman, Electromagnetic Fields and Life (Plenum Press, New York, 1970).
14. A. R. Davis and W. C. Rawls, Jr., Magnetism, and Its Effect on the Living System (Exposition Press, Hicksville, N. Y., 1974).
15. F. Nixon, Born To Be Magnetic, Vols. 1 and 2 (Magnetic Publishers, Chemainus, British Columbia, 1971).
16. J. Taylor, Superminds (Macmillan, London, 1975).
17. V. Kaznacheyev, S. Schwin and L. Mikhailova, "Communication Between Cells," J. of Paraphysics 7, 67 (1973).
18. S. Ostrander and L. Schroeder, Psychic Discoveries behind the Iron Curtain (Prentice Hall, New York, 1970).
19. W. A. Tiller, personal observation in Prague, June 1973.
20. J. Carlton, "Experimental Techniques in Human Aura Analysis," Proceedings of A.R.E. Medical Symposium, Phoenix, Arizona, 1974.
21. W. A. Tiller and W. Cook, "Psychoenergetic Field Studies Using a Biomechanical Transducer, Part I," Proceedings of A.R.E. Medical Symposium, Phoenix, Arizona, 1974.
22. W. A. Tiller, "Devices for Monitoring Non-Physical Energies," in Psychic Exploration, eds. E. D. Mitchell and J. White (Putnam Press, New York, 1974).