IDENTITY FIELD THEORY

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PREFACE

When, in 1975, normalcy-referenced testing was begun, the underlying conviction impelling this line of research was the certainty of the demonstrability of Christian healing over the entire range of human experience -- the experimental and scientific as well as the personal and pragmatic.

With greater insight, and the accumulation of experimental evidence, this conviction deepened into the realization that demonstrable elements of Christianity can be translated into the conceptual language of scientific theory as surely as into the various languages of the diverse cultures of the world.

Identity field theory, with its roots in normalcy-referenced and identity-referenced demonstrable Christianity in terms of the conceptual language and developed proof systems of our times.

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QUALITY AND QUANTITY

The central insight of identity field theory is the relationship between qualitative thought and identity, form and function. Our tests show that as the quality or quantity of qualitative thought increases, random deviation of a system decreases. Thus, the validity of causal sequences is in proportion to the degree of qualitative thought manifest in the interaction of qualitative and non-qualitative consciousness.

Dilemmas of Cause and Effect

The fundamental dilemma of all religions is a qualitative one -- the question of the origin of evil. Several centuries before Christ, Epciurus stated the qualitative dilemma as well as anyone in this way: “Is He willing to prevent evil, but not able? Then is He impotent. Is He able but not willing? Then is He malevolent. Is He both able and willing? Whence then is evil?

A fundamental dilemma of cause and effect also lies at the heart of modern science. The randomness and purposelessness which quantum mechanics tells us underlies our world presents, on a theoretical level, serious questions of cause and effect.

In Epicurean fashion, they can be expressed thus: “Does Cause seek to govern all, yet is unable? Then is it not all-controlling. Is Cause able, yet selective? Then is it not uniform of purpose? Is Cause all-controlling and uniform of purpose? Whence then is disorder?

Identity field theory sees these similar dilemmas as expressions of a common feature of existence: the relationship between qualitative and non-qualitative thought. Investigation of this relationship is through normalcy-referenced and identity-referenced testing.

A Theoretical Beginning

Identity field theory is a theory of the development of identity [form and function] based on the interaction of two modes of consciousness. The theory is experimentally supported by a very large and previously unknown class of tests and has extensive application to human experience.

Qualitative Thought and Norms

The existence and functioning of all living things depends on norms -- on specific conditions necessary to life and health. Even slight fluctuations of temperature, pressure, and a vast array of electrical and chemical interrelationships disrupts or destroys the health and continuance of organic life.

If one reads the literature arising from the study of the placebo, and the literature of parapsychology, the patterns of effect attributed to thought are found to have no relationship to the norms that make life and health possible.

Faith, will, suggestion, and expectancy all push results in the directions indicated by belief. Their action, like the action of a drug, has no reference to norms; they are not normalcy-referenced.

If one reads the testimonial literature of religious healing, a different pattern usually emerges. The effects of spiritual [qualitative] healing are normalcy-referenced. The action of spiritual healing is to return the body to those states necessary for normal functioning.

An Example

A specific body temperature characterizes the healthy state of a human being. It is one of the many norms or characteristics of state or function necessary for “perfect” health or natural, normal functioning.

The temperature norm for human beings can be determined by examination of a sufficient number of healthy people. In medical practice this is how it is determined. The actions of drugs are also cataloged. If body temperature is too high or too low, a drug can be selected which acts on the body to elevate or lower temperature. The drug is not normalcy-referenced. The direction of effect depends on the drug selected.

Since spiritual healing raises or lowers the body temperature of a human being [if it is not normal] according to the need, one could also find the temperature norm by determining the point toward which temperature is drawn by the action of spiritual

healing. Spiritual healing is normalcy-referenced. The greater the deviation from the norm, the larger the measurable effect.

Theory and Testing: A Beginning

This line of thought introduces both a conceptual approach and an experimental procedure. The conceptual approach identifies thought as qualitative or as non-qualitative, or qualitatively negative. Such an approach postulates that qualitative thought will relate to form and function in a normalcy-referenced way, whereas non-qualitative thought will not. The basic testable concept is the unique relationship between qualitative thought and identity.

The Normalcy-referenced Test

In a general way the normalcy-referenced test is simply a test set up to reflect the fact that a certain mode of thought -- goal-renouncing, associationally directed, qualitatively rich (in the Christian sense) -- impels experience toward normal states and actions. Thus, the normalcy-referenced test involves:

(1) The deviation of the state or function of a system from normal;
(2) The application of qualitative thought; and
(3) Measurement of the return of the system to normal.

Averages and Accuracy

Accurate tests of spiritual healing rest on averages. One-time tests are going to be missed from time to time. Furthermore, variations in quality of thought make results from individual tests not easily comparable to other test results from the same individual or from others. Averaged results from individual healers smooth out these differences and make comparisons meaningful.

Tests done simply to determine the presence or absence of qualitative thought and its effects do not usually require averages. Tests done to determine quantitative relationships almost always require them.

Simplicity of Discovery

The normalcy-referenced test was not discovered by a scientist working in his laboratory, but by a religious person working in his kitchen. Thus, the initial tests were simple, requiring only patience, time, careful measurements, and an understanding of the basic elements of Christian healing (healing based on qualitative thought rather than the belief/faith which produces such phenomena as the placebo effect).

Religion and Identity Field Theory

The fact that identity fields (related norms or points of zero measurable effect) underlie form and function is not only a basic scientific discovery but a basic religious discovery as well, for the existence of identity fields is due to qualitative thought. Qualitative definition is religious, just as quantitative definition is scientific.

However, identity field theory can tell us nothing about the qualitative development that makes spiritual healing possible. Spiritual development is a religious matter and can be cultivated, not in the laboratories, but in the churches of the world.

Identity field theory provides measurement oriented concepts and measurement oriented terminology which are useful in evaluating the equations and developing the models which make possible an understanding of the regularities (patterns) on which science is based and which make its proof systems possible.

The normalcy-referenced test reveals the inadequacy of the paradigms of modern science. The normalcy-referenced test tells us that fully adequate paradigms must be religious in much of their content. And the qualitative or religious aspects of such paradigms place an understanding of ourselves and our world beyond the interpretive powers of the measurement regularities on which today's science rests.

Identity field theory is not a paradigm or a religious concept, nor is it definitive of religious concepts. It is a conceptual measurement tool used in conjunction with the normalcy-referenced test.

Like identity field theory, the normalcy-referenced test does not "prove" religion or explain it.

It demonstrates that qualitative modes of thought produce measurable and predictable results.

Since qualitative modes of thought are religiously developed (whether within or outside of denominational frameworks) there is a clear link between religion and the normalcy-referenced test. However, this link is both indirect and limited.

The normalcy-referenced test can do four things, which have a bearing on religion and the churches.

1. It can change the materialistic paradigms, which dominate our culture.

2. It can validate spiritual healing and define its relationship with modern medicine in demonstrable terms.

3. It can evaluate the healing ability of individual healers.

4. It can tell us, through statistical evaluation of normalcy-referenced testing of various groups, the religious developmental/educational approaches which best produce the qualitative consciousness that makes normalcy-referenced testing possible.

A Theory of Identity

The qualitative consciousness which underlies cause and effect relationships (and spiritual healing) is express as form, or, more accurately, as the power of form to be and do. Thus, qualitative consciousness and identity are one; and any theory developed to explain the normalcy-referenced test must, from the Christian standpoint, define identity in terms of divine attributes, the nature and character of God. From a scientific standpoint any conceptual structure designed to explain the normalcy-referenced rest must be a theory of form and function.

Form as Field

A departure from mechanism in the natural sciences

was the concept of the field. The Field made it possible to include form and structure as real though non-material elements of physical reality.

Tests of spiritual healing open the possibility of defining identity in terms of norms, and defining norms, through the normalcy-referenced effect, in terms of zero measurable effect.

The non-physical structure of related norms which determines qualitative energy flow for each identity can be thought of as a field, since there are no physical components in this concept of structure.

Tests of spiritual healing show there is no measurement pattern without resistance (r). In the physical sciences, the strength of an electromagnetic field is measured by introducing a unit charge into the field, and then measuring the characteristics of the field in response to that charge.

Without the charge, there is no way to measure the field, and the equations which describe the field show no field without the charge. In this case too, there is no way to measure the field without introducing qualitative thought into the field, and there is no field without resistance.

Since the norms we find in these experiments represent maximum good -- normal health, as one example -- the ordered effect (the field) is related to the ethical effect, or good effect, and goodness and order, like space and time, are interwoven.

It is obvious that the power of the qualitative consciousness of the healer is channeled in the effect by the identity norms (the field) of the patient. Non-qualitative mental influence, by contrast, whether from the patient or from others, imposes its own will on the patient, affecting the field in non-qualitative terms.

Defining form and function in terms of identity norms (points of zero measurable effect), and defining these related norms (points of zero E) as a field, means defining identity in terms other than the observable physical and mental characteristics manifested at any given time by an individual; for the incredibly numerous norms involved in human functioning, both mental and physical, would seldom all be at the perfect points implied by zero measurable effect, and if the norms which define an individual are developing, this fact must be considered too.

Deviated Fields

The usual state of an individual then, as any system, is a deviated field and is referenced to something of an ideal, and an ideal sustained by energy of a type not included in present scientific theories.

From the standpoint of identity field theory spiritual power is an energy manifest as form, and as the function and development of form. Since forms depend on this energy for their existence, no theory of form can be developed without an understanding of the nature and operation of this energy.

Every successful test of spiritual healing seems to indicate an identity field exists -- that is, a structure of form (associated norms) which determines the effect of the qualitative influence.

In theoretical terms, we are saying that the physical state of the patient, as determined by the deviated field, is altered by qualitative thought, in that it is drawn toward the identity field, or structure of associated norms, each of which can be experimentally determined as a point of zero measurable effect.

Definition of Healing

The existence of an ideal structure of form enables us to give a stricter definition to the term “spiritual healing, “ for spiritual healing can be defined from the basis of the normalcy-referenced effect as an enhancement of the power of an identity field. This enhancement of an identity field can be measured as lessened deviation of a system from its norms.

Religions are personally validated, and their truths are accepted through conversion or some form of inward acceptance. Science is impersonally validated; its truths are accepted when they stand the universally accepted tests of reason and demonstration.

Thus, the scientific way has been to seek truth through means that are not personal, but collective -- through tests that give the same results to everyone, proofs that can publicly validated.

Individuals are concerned in their personal experience with qualitative aspects of life, and experimental science is concerned with quantitative (precisely measurable) aspects of life.

Reflecting this background of thought, we can define some of our terms in a general way as follows:

Proof (religious): Deeply felt personal experience. Revelation individually interpreted.

Proof (scientific): Correspondence of measurement and theory. Reason and demonstration, collectively interpreted.

Religion: A conceptual framework for spiritual (qualitative) development.

Science: A conceptual framework for establishing and validating quantitatively defined relationships.

Theory: A parable of science. To the devout religious thinker the theories of science answer only the secondary questions of the world: the how rather than the why. To the dedicated scientist the parables of religion are a world without landmarks: the certainties of proof systems are missing. The normalcy-referenced test, like spiritual healing, stands at the junction where these two approaches merge.

As a basis for considering the relationship between quality and quantity from the standpoint of identity field theory, we can generally define some further terms in the following way:

Identity: Form and function. Power to be and do.

Form: The interaction of qualitative and non-qualitative thought.

Function: The interaction of qualitative and non-qualitative thought. A quality of form.

Qualitative thought: A mode of consciousness defined theologically in terms of the attributes of God, and operatively in terms of the normalcy-referenced effect. In identity field theory qualitative thought is considered conceptually as the positive element of the two-valued pre-geometry of the universe.

Non-qualitative thought: Qualitative negative or null thought. Emotions, belief, suggestion, will. Non-qualitative thought is not normalcy-referenced and is inherently associationally random. Non-qualitative thought is referred to in our equations as resistance or r. In identity field theory non-qualitative thought is considered conceptually as the negative element of the two-valued pre-geometry of the universe.

The Measurement Approach

The study of spiritual healing by scientific means requires a conceptual statement of the general characteristics of spiritual healing. This conceptual statement must share the characteristics of a scientific theory in the sense that it be experimentally testable and its proof characteristics rest upon predictable mathematical regularities.

Qualitative healers maintain that the spiritual healing they practice has a healthful effect on the body (or any system, physical, social, mental, emotional, and so forth) and that this effect is different in character from those elements of thought which are known to influence the body (will, emotion, belief, suggestion, and so forth).

Noting that the health of any system requires adherence to the norms of that system, identity field theory translates the positions of spiritual healers into the general conceptual framework of a normalcy-referenced approach.

Health is defined as adherence to the norms of a system. Sickness is defined as deviation from these norms. Healing is defined as the movement of a system toward these norms.

This approach is made susceptible to measurement by using norms as zero reference points in a coordinate system which extends in the two directions of over and under-activity from the norm.

The approach is made pattern able (equation-expressible) by (1) averaging the qualitative and quantitative variables inherent in the application of qualitative thought to a system to stable levels (2) structuring the coordinate system in terms of specific stress levels and (3) maintaining uniform associational links between the healer and the system treated.

Using this approach we have concluded that (1) the effect of qualitative thought is uniform across all stress levels (2) the effect of qualitative thought is cumulative (3) the effect of non-qualitative thought is not normalcy-referenced as is qualitative thought (4) the flow of thought is associatively determined and (5) the effect of thought on a system is uniform over the components of a conceptual whole.

We have concluded that the uniformity of qualitative thought over varying stress levels is masked by (1) disproportionate responses of a system to increasing stress levels and (2) adaptation of a system to, or degradation of a system by, increasing stress levels.

Inasmuch as non-qualitative thought is random in norm-related terms and qualitative thought is not, qualitative thought can be considered identity-producing and identity-sustaining. Non-qualitative thought can be considered identity-distorting and identity-destructive.

Conscious thought enables us to enhance and diminish fields (the norms of a system) under controlled measurement conditions. The ability to influence the nature of fields directly, with thought, rather than indirectly, through the physical manipulation of field characteristics, suggests that fields are thought-constituted and, from the nature of our tests, that the qualitative calculus of ordered qualitative thought is responsible for identity, its nature and development. It also suggests, in like manner, that the qualitatively negative and norm-random elements of fields are thought, or thought-like in their nature.

On the basis of the norm-enhancing and norm-deviating (or, more properly, norm-indifferent) distinction, identity field theory postulates two opposite or dissimilar elements underlying the world we know. Both conceptual economy and the nature of the measurement approach used encourage this view.

Identity field theory thus considers the world to be basically mental, rather than material. It considers the physical characteristics of the world we know to be products of the interaction of qualitative and non-qualitative thought, an interaction in which the influence of qualitative thought is seen in the ordering of the primal energies of non-qualitative thought.

This ordering leads to space, time, matter, material energy, form and function, as pattern-enhanced expressions of non-qualitative thought. The normalcy-referenced test is seen as a demonstration of this ordering process under controlled conditions.

The Field Approach

Describing an identity field as the total of the zero reference points of a system provides a measurement oriented definition of the term. In like manner, we can describe a deviated field as a system whose measurement characteristics are not all at norm.

The existence of the normalcy-referenced test enables us to establish such a definition of terms, for it enables us to determine norms, and measure deviation from them.

We know that the norms of a system change as a system develops. Since the normalcy-referenced test shows that qualitative thought is responsible for norm characteristics, we can say that qualitative thought has two effects on a field. They are: (1) a corrective effect on the deviation of a field from its norms and (2) a developmental effect on the norms of a field.

Systems are composed of related parts. Since the nature of a part is determined by its norms, we can say that systems are composed of related or associated norms. The concept of relationship or association is far too profound to explore here, but we can make the basic statement that association of norms is characteristic of a system. Norms have meaning in terms of the “good” of a

system – a maximum of health, the fulfillment of purpose and so forth. These characteristics have meaning only in qualitative terms, and quality is a thing of thought, not of matter.

The normalcy-referenced test shows us that norms can be enhanced and developed by mental and spiritual means, with the associational channels also being mental in nature. Thus, systems have a mental, qualitative, non-physical dimension.

The fact that systems have a mental dimension and can be influenced by mental energy suggests that mental energy is not a late arrival in the universe. Just as the nature of our sensory equipment reveals the existence of matter and defines its characteristics to us, so the nature of our consciousness reveals the existence of thought and determines our perception of its characteristics.

We know from our tests that thought can be divided into two categories: (1) normalcy-referenced (qualitative) and (2) normalcy-indifferent and therefore normalcy-opposed (non-qualitative). The mental dimension of a field is therefore two-valued.

Since space and time, material energy and time, matter and material energy are mathematically related (associationally linked in precisely structured ways) they form a system and, like all systems, have a mental dimension. Because of their precisely structured associational relationships they cannot exist except as a system or field, and it would appear to follow that these seemingly basic elements of our world are really manifestations of the interaction of qualitative and non-qualitative thought – field characteristics of a two-valued pre-geometry of the universe.

The qualitative or non-qualitative influence of an associationally directed individual consciousness is small when compared to the total mental strength sustaining a field. For this reason the effects of thought and of normalcy-referenced testing are most clearly evident when fields are coming into being or developing, rather than when qualitative and non-qualitative thought have established a more-or-less stable balance of power.

The ability of a system to adapt to its surroundings is something of a measure of the qualitative richness of a system. The flexibility of a qualitatively rich system makes the system more sensitive to the influence of an individual consciousness, but also requires that measurement consider the adaptive responses of the system when evaluating data.

The term identity field is a term descriptive of measurement characteristics. Our efforts to bring various measurement characteristics into a conceptual unity of repeatable and thus predictable characteristics, leads from terminology to theory.

Since identity field theory must accommodate a test (the normalcy-referenced test) which incorporates both mental and material elements, the theory must do likewise. To do this with a minimum of departure from testable, measurable, characteristics has been our basic objective.

Combining the measurement with the field approach gives us the ability to further define some of the terms we have used and some of the terms we will be using.

Mental healing (non-qualitative):

Alleviation of symptoms through non-normalcy-referenced alteration of a field by non-qualitative thought. Belief, faith, suggestion, emotion, (all of which can be considered forms of will, or empowered by will) are goal-directed or belief-directed, in that they impel thought, and therefore fields, toward the object of emotion or faith. Such mental energy moves in the direction of the strongest conscious or unconscious visualizations and associations available, and proceeds along the clearest conscious or unconscious path available to it.

Mental Healing (qualitative):

In spiritual healing no pattern, intent, direction or goal is transferred from the healer's mind to the patient. In all other forms of mental healing this transference occurs, simply because non-qualitative healing is not affected by the identity field of the patient. In spiritual healing, effect is determined by the patient's identity field characteristics.

Spiritual Healing:

Qualitatively impelled movement of a deviated field toward an identity field. Identity field enhancement through associationally-directed qualitative thought.

Conceptual Whole:

The associationally defined field, fields, or portion of a field being treated. The size of a conceptual whole is a factor in healing only as loss of associational definition by the healer occurs.

Faith:

A general term varying from non-qualitative belief to qualitative consciousness. Measurements of religious faith are usually characterized by dual data patterns (the normalcy-referenced characteristics of qualitative thought and the non-normalcy-referenced characteristics of non-qualitative thought).

Geodesic:

The path of least resistance taken by qualitative thought in its development of a normative state. A pattern determined by the interaction of qualitative and non-qualitative thought. Geodesics initially appear as correlations and develop into fields which are themselves stages of development.

Interaction:

The action of the qualitative calculus or good/ordered system on the qualitatively opposite and random non-system. This interaction leads to semi-ordered states of matter, energy, and space-time.

Field:

A semi-structure of form and function. The interaction of qualitative and non-qualitative thought. A field develops associationally and in terms of greater qualitative richness.

Identity Field:

A system of related norms, which develops under the influence of qualitative thought.

Deviated Field:

A pattern of form and function, which approximates an identity field and is drawn toward it by qualitative enhancement.

Association:

In terms of qualitative thought, an ordered path. In terms of non-qualitative thought, a random path. If associations are not random they are elements of form. Thus, as geodesics, they are not space-time pathways followed by qualitative thought, but represent the appearance of form and function.

Normalcy-referenced test:

Measurement of a thought sensitive field to ascertain the presence and/or characteristics of associationally-directed qualitative thought.

Treatment:

Associationally-directed qualitative thought. Prayer. A mode of consciousness which is goal-renouncing, associationally linked (patient-referenced), and qualitatively developed. From its initial patient-referenced associational linkage onward, the effect of treatment is field-determined and normalcy-referenced.

Cause and effect:

A relationship characteristic of qualitative thought, appearing in the universe to the extent qualitative thought is manifest in the interaction of qualitative and non-qualitative thought.

Randomness:

The non-relationship characteristics of non-qualitative thought, appearing in the universe to the extent non-qualitative thought is manifest in the interaction of qualitative thought and non-qualitative thought. In a totally random non-system the cause and effect pattern, like any other relationship, does not exist. Thus, the random non-system is, in a certain conceptual sense, causeless.

Pre-geometry:

The dichotomy of qualitative and non-qualitative thought. The qualitative calculus and the fluctuating, evanescent non-pattern of non-qualitative will, the interactions of which determine fields.

Correlation:

The initial appearance of form in response to qualitative thought, appearing prior to specifically defined characteristics. The initial stage of associational field development.

Observer-defined reality:

The interaction of consciousness and resistance at the ultimate borderline of form and non-form in the world of elementary particles. This interaction, together with the characteristic of correlation (see definition), explains what is known as the Einstein-Podolsky-Rosen paradox.

Thought:

A positive or negative element in the two-valued pre-geometry of the universe, depending on its qualitative or non-qualitative character.

Order:

A characteristic of qualitative thought. The nature of a system or calculus in which cause and effect patterns and qualitative presence are absolute. Absolute cause and effect relationships imply a perfect science, just as absolute goodness, or qualitative presence, implies a perfect Christianity.

Identity:

In terms of fields the final stage of field development in which fields (interactive characteristics) disappear. A state of perfect order or qualitative presence.

Associations

Associations are characteristics of an ordered system. In a non-system, only random juxtapositions exist. Since the number of associated norms in a system appears to bear some relationship to the qualitative richness of a system, it can be said that fields develop quantitatively as they develop qualitatively.

In addition to determining the effect of qualitative thought we can, in normalcy-referenced testing, measure the increase or decrease of quality or quantity of qualitative thought in terms of diminishing or increasing r values. We can also measure associational strength in terms of levels of r value and, through appropriate experimental design, trace the associational patterns followed by thought.

The Nature of Field Characteristics

We know that identity fields possess characteristics of both good and evil, order and disorder, and that goodness and order, like evil and disorder, are related characteristics.

The effects of non-qualitative thought are not normalcy-referenced. They follow the shifting flow of emotion, suggestion, will, belief. This shifting (non-ordered) flow is dependent on random juxtapositions of associations for its effect, just as it is dependent on will (as a general category) for its power.

Just as thought can be categorized as good or evil, order or disorder, so it can be categorized as belief or understanding, truth or falsity.

Mental imagery which follows no patterns of cause and effect is, in a certain conceptual sense, without cause. In the same conceptual sense it is without understanding, for it is non-rational (unordered). In this same sense it can be characterized as a state of belief, for its associations and its images are both contradictory and without understanding.

Field characteristics are thus a mixture of cause and causelessness, belief and understanding, as well as good and evil, order and disorder. If we wish to equate belief with unreality and understanding with reality, this too can be done, for in a non-causal non-system there is no distinction between belief and believer, and these elements are one.

The general trend of field characteristics is, because of the dynamic of qualitative thought, toward associational and qualitative development.

Physical Laws: The Limiting Case

Identity field theory implies that physical laws are a limiting case, a limiting case that applies when systems are in a qualitative/non-qualitative balance.

Since non-systems have no ordering dynamic, this dynamic must come from the qualitative side. The operation of this dynamic can be seen in the ordering of the physical universe, in the inception and development of life, consciousness, civilization,

and all other systems.

When development is gradual, as in the formation of a life-friendly universe, only the odds are inexplicable in terms of physical law. Where there is what has been termed by some a “punctuated equilibrium,” in the evolutionary or developmental process, a specific development or developmental process, a specific development may be inexplicable in terms of natural law.

This inexplicability has been – after a fashion – repeated in the history of Christianity and of Christian healing. Until the discovery of the normalcy-referenced test it has not been possible, for lack of knowledge, to replicate these apparently inexplicable circumstances under controlled conditions.

Realizing now that these mysterious circumstances arise from qualitative shifts, which alter the characteristics of the field, modeling in the laboratory becomes possible.

Modification and development of fields (movement toward norms and development of norms) arises from the dynamic of the qualitative calculus, for there is no dynamic in a non-ordered non-system. The development of conscious thought in the world enables us, on a very small scale, to emulate this dynamic by the conscious direction of qualitative thought along known associational channels.

This emulation, active in Christian healing and understandable in a Christian context, can now be, through the conceptual approach of identity field theory and the measurement approach of the normalcy-referenced test, replicated wherever cooperation between qualitative healers and capable scientists exists.

Fields and Conscious Thought

In the light of the normalcy-referenced test, the identity field appears as the tangible expression of qualitative thought. The existence of identity fields prior to human life and consciousness implies the existence of the qualitative thought prior to human life. The development of conscious thought has simply given us the ability to enhance the power of identity fields in modest ways which enable measurements to be made.

Opposing Modes of Thought

Since will, emotion, belief, suggestion and so forth (non-qualitative thought) are not normalcy referenced – thus random in nature in a qualitative sense – they must, in the same sense in which they are random in nature, be opposed to qualitative thought. This non-qualitative randomness we term resistance (r).

We know from our tests that non-qualitative thought deviates a field in whatever direction belief may take. This random action is therefore a mental force opposed to (because not conforming to) the qualitative force constituting the identity field. As part of the randomness of the universe which opposes order and resists qualitative thought, these mental forces of belief are part of the resistance which is weakened or destroyed when the power of an identity field is enhanced.

The Development of Fields

Since fields increase in complexity as they develop, and since fields can be defined as groups of associated norms, the development of fields is, in part, a matter of developing associational characteristics.

By definition, the associational characteristics of a random non-system are random, while the associational characteristics of an ordered system must, likewise, be ordered. The development of a field is a development which, by its nature, partakes of both random and ordered elements.

The identity field of a human being is, at its inception, the zero measurable effect norms associated with a fertilized egg. The norms toward which qualitative thought impels deviated fields (an identity field by definition) change more rapidly in the early stages of such a field than at later stages in development. Thus, generally speaking, there are rapidly developing identity fields and relatively stable identity fields.

Presumably, fields (patterns) did not exist at all at the moment of the “big bang,” although they appeared very rapidly and – against incredible odds – were of such a nature as to

permit the development of fields associated with life and thought. Today the fields associated with inanimate things are, for the most part, relatively stable fields, while the fields associated with living things are, particularly at early stages of development, rapidly developing tields.

Sensitivity to Thought

It would appear that those fields which are rapidly developing or just coming into being are the most thought-sensitive, although qualitative richness of the field also appears to be a factor.

Associational pathways are affected by many unknown factors put in place by nature, nurture, and experience. These affect the course of emotion, will, belief and other elements of non-qualitative thought. In similar ways the embodiment of qualitative characteristics is distorted by conceptual and associational patterns that leave their imprint on the expression of the quality itself.

We learned from some of our earliest tests (belief-influenced tests) how easy it was for belief to influence random flow – in this instance the fall of dice. However, the tests also showed clearly that the same level of belief affected seed germination more powerfully than the random fall of dice. It follows, therefore, that the organic process of seed germination is more thought-sensitive than the fall of dice.

It would appear then, that if two routes to a goal were available, the organic route would be easier to follow and the impact of the applied power greater than the inorganic process would allow.

Our associational tests show that thought flows most easily along established mental pathways or associational channels. We also know from its nature that ethical power will always flow along the lines of greatest qualitative and quantitative goodness, the greatest good to the greatest number. It also seems likely that, if thought is qualitative. It will, as an intelligent power, follow the most economical path to its normalcy-referenced goal.

It has been noted by spiritual healers that similar healings will come about in different ways in different patients. A tumor, for example, will slowly dissolve in one person,

simply disappear in another, and break up and be expelled in yet another.

If this variation in patterns is due to variations in unconscious thought, with qualitative consciousness following the paths of least resistance, it follows that consistent predictive ability of patterns of healing and normative development requires some insight into the patterns of development of fields and their points of greatest responsiveness to qualitative thought.

General Characteristics

A general appraisal of the responsiveness of rapidly developing fields of qualitative richness to qualitative thought assumes no unique or specific (non-general) forms of resistance exist in the associationally defined area (conceptual field or patient) being treated.

In most tests thus far, we have worked on a level in which the only resistance is stress, a general stress (with soybeans, for example) on the whole organic system. There are no emotions, fears, or unconscious associations to produce individualized forms of resistance to qualitative thought or to produce specific symptoms unrelated to the general stress. Where consciousness is involved, resistance would be a much more complex thing.

We noted in associational tests with soybeans that the tests were ineffective unless measurements were based on germinating seeds rather than on more mature development. Tests with rye grass seeds (based on mature growth) were effective where no weakened associational links were involved. With weakened links, the tests ceased to show measurable effect.

It would appear that qualitative thought has greater effect in formative stages of system development than later when the deviated field is more developed. Thus, the resistance of a system, as well as the qualitative factors, can be said to develop.

In general, we can say that the measurable effect of treatment is dependent on the qualitative richness of a system, on its degree of formation or development, and on the clarity of the associational linkage with the healer.

In a relatively stable field, where the pattern of form is established, the pattern of effect of qualitative thought is most easily predictable in the form of its appearance. In every case, however, associational linkages play a part.

Associations and Field: A Test

We checked on this by obtaining some rice agar, mixing with tap water, and pouring it into Petri dishes. We did this until we had mold cultures ideal for our purpose – cultures that formed in concentric rings.

We then laid a piece of thread across the middle of some of the cultures and treated the mold on one side of the culture. There was no measurable effect.

The next step was more difficult and involved many attempts. A culture was alcohol rinsed and the test repeated. The difficulty lay in obtaining a culture that was damaged enough to respond to treatment, but not so much as to be dead.

In due course the test was successful. Growth ceased on the control side after the alcohol rinsing and continued on the treated side until the agar was so dry no growth could continue.

At the time of the alcohol rinsing, the mold had developed two full rings and parts of a third ring on each side of the center thread. After the rinsing there was no further growth on the control side. But, three months later, on the treated side, the third ring had been completely filled out, a fourth ring had been added, and a fifth ring was forming.

In the treatment given no goal was “outlined,” no visualization was made, no picture held in thought. The nature of the effect was determined by the identity field of the mold and the area of effect (on one side of the string) was determined by the association when treatment was given. This association (the mold on side of the string) can, of course, be thought of as a visualization.

The initial visualization (concept of the patient as the mold on one side of the string) was replaced by a qualitative concept and this qualitative thought produced the measurable effect. The area of measurable effect can thus be selected by the spiritual healer,

although the nature of the measurable effect cannot be.

The Trend of Development

It appears, both from normalcy-referenced testing and from observation of the world around us, that the direction of experience is toward the development of norms of greater qualitative meaning and a continually lessening scope of random action. It seems true too, that, during the approach to such absolute conditions, freedom of action – free moral agency from a religious standpoint – is an inescapable part of experience.

Tests of spiritual healing show a relationship between goodness and order and between evil and disorder. Until the identities that lie at the end of the process of normative development appear, and until random or qualitatively evil action disappears, some measure of selectivity of alternative futures seems implied in all tests of spiritual healing.

Every spiritual healer treating a case knows that the measure of resistance, or strength, in the norm-deviated pattern which defines the illness, and the measure of inspiration he or she brings to the case, determines the outcome.

As normalcy-referenced testing shows, the healing experience is physically defined as movement toward norms (enhancement of an identity field), a movement which, in spiritual healing, flows from consciously and purposefully directed characteristics of qualitative thought. The healing experience is also physically defined as the development of norms, a development which, since it is qualitatively determined, is also enhanced by qualitative thought or treatment.

Field Characteristics

An identity field is composed of a finite group of associationally related norms.

$$F = N_1 + N_2 + *** N_n$$

A deviated identity field is composed of a finite group of associationally related norms some of which or all of which are not at a point of zero measurable effect.

$$\underline{F} = \underline{N_1} + \underline{N_2} + *** \underline{n_n}$$

A conceptual field is composed of an associationally defined field, fields, or portions(s) of a field or fields. The conceptual field of 2,000 treated soybeans is composed of the identity fields of the individual soybeans.

$$C = F_1 + F_2 + *** F_{2,000}$$

Qualitative level of treatment and quantity of treatment are indistinguishable in absolute terms since doubling the qualitative level (amount of inspiration) has the same measurable effect as doubling the quantity of treatment.

(1) If $Q_u = E$ then $kQ_u = kE$

This is also true of non-qualitative thought.

(2) If $\underline{Q_u} = E$ then $k\underline{Q_u} = kE$

Statement (1) and statement (2) are dissimilar in that any expression involving Q includes or implies r (resistance of Q), whereas statements involving Q may not involve or imply Q. E must always be expressed in terms of r; this is not true of E.

$$K = E/r$$

The establishment of a qualitative unit is simply a matter of definition. If a given level of
Qualitative thought is defined as Q_u, then associational and quantitative assessments can be made.

In the initial soybean tests the associational level was a full strength (beans treated in presence of the healer and fully and clearly identified to the healer).

Later, the tests were repeated at a weakened associational level. With r expressed in common terms for both tests, measurable effect was reduced to almost half in the associationally weakened tests.

E, therefore, is not only a function of Q and r, but a A as well.

If $AQ = E$ then $(kA)Q = kE$

If, in the original soybean tests E is defined as unity (as is A at full strength)

$$AQ = 1$$

Then, in the weakened associational tests

$$A_1Q = 0.535$$

$$A_1 = 0.535$$

When we develop an easy standardized test suitable for the purpose we will use it to define a standard unit of Q, Q_u.

This was implicitly done by averaging in the soybean tests, both for quality and quantity of treatment. In this way variation in qualitative levels was separated from variation in quantitative levels. This enabled a quantitative relationship to be established.

$$k = E/q$$

Effect is stable throughout a conceptual field so long as the field is not so large or so diverse that loss of definition occurs.

$$E = m_1 + m_2 + *** m_n/n$$

Thus, if Q_u is known from definition in standardized tests, C can be defined as

(let us say) two identity fields in a single closed box and treated accordingly.

By the relationship of the effects, measurements can be related over a diversity of kinds and types of tests. This makes possible the evaluation of different healers under various circumstances (differences of C and A among different individuals) and makes possible the evaluation of the field variables in ways that would otherwise be impossible to us.

Measurements of non-qualitative thought do not depend on a relationship between r and Q.

$$E = m_r/m_c$$

Since the above equation was derived from diverse test conditions reflecting equivalent quantitative levels of belief it follows that the quantitative relationship for non-qualitative thought is identical to the relationship for qualitative thought.

$$K = E/q$$

In working with the mathematical relationships of the effect of qualitative thought on identity fields, there are three masking relationships which must be considered.

The response of the identity field to external stress masks the equations. The field's response to internal stress (degradation or forced enhancement of the field) also masks the relationships. Thus, the secondary measurement pattern of the field's response to stress must be evaluated prior to evaluation of the primary measurement pattern of the field's response to qualitative thought.

In addition, there are dual data patterns which must be considered. The qualitative thought of the treatment upon which the measurements depend may include elements of belief or other Q forms of will. Similarly, measurements of belief or other Q elements may be affected by the presence of qualitative thought in the consciousness producing the effects.

The Normalcy-Referenced Test

Normalcy-referenced testing unites the qualitative world of religion and the quantitative world of experimental science. It must be true to both worlds and this requires good experimental design.

Experimental Design

Tests of qualitative thought which have the ethical integrity of a sound religious approach and the measurement integrity of a good scientific one constitute acceptable experimental design for a normalcy-referenced test.

Experimental design which begins by making a spiritual truth dependent on a material observation is ethically improper. Like the temptations (Matthew 4) the line of thought is “if thou be the Son of God…” such and such results will follow the use of spiritual power.

The spiritual healer proceeds from the basis that spiritual truths are true regardless of what material measurement may show but that, in proportion as such truths (qualitative states) are embodied by the healer and associationally linked to the patient, results (normalcy-referenced effects) will follow.

Ethical normalcy-referenced testing will avoid measurement-orientation of the patient’s thought in the same way ethical laboratory testing can avoid harmful animal testing – by not doing it. Inasmuch as deviation from ethical standards degrades qualitative consciousness this is good experimental design, as well as morally right.

Ethical normalcy-referenced testing will avoid measurement-orientation of the healer’s thought through experimental design which assures test results (reports of patient progress or healing) coming to him or her in ways descriptive of the circumstances rather than reflective of materially based theories and opinion. Here the healer would apply the same ethical standards he or she would always use in accepting or rejecting a case.

Ethical normalcy-referenced testing will require

the thoughts of those involved in testing procedures to be mentally supportive of the healing work, just as, whenever possible, a spiritual healer will require a supportive environment for his patient. Since this is conducive to good results, such an approach constitutes good experimental design as well as ethical healing practice.

The Scope of the Normalcy-referenced Test

Qualitative healing has traditionally been more or less confined to those human beings who have sought it out. Thus, normalcy-referenced testing has not been a traditional feature of its application for, just as harm to thinking creatures should be avoided in all research, so also are measurement-oriented practices which act counter to the healing thrust of qualitative healing to be avoided in all sincere efforts to alleviate the problems of mankind.

Although our testing has been done primarily with such things as seeds and yeast, field testing of spiritual healing is possible.

A Field Test

Reliance on qualitative prayer for healing implies a renunciation of trust in material laws and conditions and a replacement of this trust with an abiding faith in and understanding of divine laws and spiritual power.

A reliance on material healing methods and a reliance on qualitative prayer represent, therefore, different directions of thought, directions which seem to many spiritual healers to be mutually exclusive. For this reason, and for others previously discussed, professional examination of the results of spiritual healing is uncommon in some religious circles.

As any spiritual healer knows, motivation is not always so noble among those who turn to qualitative prayer for healing. In practice, a willingness on the part of a patient to rely on only one healing method at a time is usually considered adequate for the acceptance of a case by a spiritual healer. Of course, the question of motivation of the patient does not arise when working with plants and animals and responsibility for choice of treatment

usually shifts to the owner.

Fundamentally, concern about physical examination rests on its implied acceptance of material means and methods rather than spiritual means and methods. There is always the danger that such examinations will increase fear, lead to evaluation of the efficacy of spiritual power in terms of the nature of material conditions, and to the evaluation of problems in terms of symptoms rather than causes, focusing attention on physical results rather than on spiritual power and its activity. All such states of mind render spiritual healing more difficult.

From a religious standpoint, a successful healing practice, and successful programs of normalcy-referenced testing as well, rest on purity of purpose, and freedom of thought from any attempt to hold Spirit in the grasp of matter or material conditions.

Present day farming practices, regardless of what individual convictions may be, rely heavily on the monitoring and testing of plants and animals. Such monitoring and testing is a legal and ethical necessity in a modern society.

Spiritual healing, while extremely useful in such areas must, of necessity, work within these constraints, a situation which requires evaluating every case on its individual merits. Often good healing work can be easily done because, although testing is involved, motivational factors are often at a very acceptable level, both from the standpoint of the owner's thought and the purposes of the spiritual healer.

We have had occasion to have a healer working with us to treat a cow, a member of a large milking herd about 100 miles from the healer. Feedback data was available. The occasion of treatment was a positive mastitus test taken at 5:00 PM. Treatment was given at 11:30 PM and a second test taken at 5:00 AM. The cow was identified as number 459, more familiarly known as "Hershey." The California Mastitus test, the improved version, was used to obtain data.

Since the four quarters of the udder act as separate milk-producing units, tests are taken from each quarter. Treatment was quite successful.

If drugs had been used six hand-milkings would have been required while the drug worked its way through the system and the milk from these milkings (about 130 pounds of milk in this case) would have to be thrown away. In addition to the collective good represented by the continued activity by the cow, the individual good to the cow represented by the healing is also a factor in the total picture.

Data is as follows:

	Somatic Cell Count		Loss of Milk	
Quarter	PM	AM	Production	
1	8,100,000	310,000	46%	6%
2	3,300,000	Normal	30%	Normal
3	Normal	Normal	Normal	Normal
4	500,000	Normal	6.5%	Normal

The field test of spiritual healing just described is date-producing under somewhat controlled conditions. Even so, such treatment for farm animals would be ethically acceptable to most spiritual healers. Perhaps because of historical tradition, acceptance of such cases to be treated involves only an individual judgment on the healer's part within a generally favorable context of ethical acceptance. Normalcy-referenced tests, however, have no historical background and the theological and scientific implications are largely unexplored.

It is unwise and unkind to push people or organizations before their convictions are established and their consciences at peace about new directions. Therefore, it is a matter of ethics to use in normalcy-referenced testing only those healers whose clarity of vision and peace of mind about these tests are well established.

It is possible – and we believe inevitable – that tests of Christian healing will lead to an awareness of and greater responsiveness to all that is good in human experience, thus proving to have a understanding of Christian healing will be obtained at a price far less than that paid for the developing knowledge of any other healing system known today.

When we pray what is perhaps that greatest of all prayers, "Thy will be done" are we not

asking that in any situation the greatest good possible under the circumstances be brought to pass? Ethical power will always flow along the lines of greatest qualitative and quantitative goodness, the greatest good to the greatest number.

It seems axiomatic that in a qualitative system one cannot obtain results unless one's actions are in harmony with the system. Thus, objections to tests of Christian healing on ethical grounds seem to rest on the new and little-understood nature of such tests. To the extent results are qualitatively obtained, the moral level of one's approach must be right. Thus, the measurable result is a more sure criterion of ethical integrity than opinions about it.

The recognition of the power of Christianity and the extension of this power to the entire range of human experience (the science room as well as the sick-room) is a natural development. It is equally natural that the present meagerness of theory and limitation of experimental approaches to the natural sciences will also be recognized in due course, and qualitative systems will find their place both in the scientific concepts and the laboratories of the world, and in collective as well as individual modes of practical usefulness.

Identity Fields and Measurement

Measurement of qualitative thought requires an associationally directed qualitative state of constant qualitative value measured in terms of the shift toward norm of an r value of known strength if such measurements are to be related to other qualitative measurements.

r values of known strength require the measurement of stable fields under stable conditions of stress, and stable fields are not the thought-sensitive measurement vehicles unstable fields are.

In deriving the equation K=E/r we circumvented this problem by averaging the variables of the germinating state, just as we averaged variations of the germinating state, just as we averaged variations in the qualitative state of the healer.

A germinating seed is an identity field of some qualitative richness. Thus, it is adaptive to its environment, and it can be enhanced or degraded by its environment.

We have seen in our tests that qualitative thought uses what it has to work with and blesses most (greatest E) the subject material (patient) most able to be helped.

For this reason, averaging is necessary in working with seeds, not only to even out differences in the qualitative and quantitative thought of the healer, but to even out variations in seeds and in imperfect control of the rapidity of their development.

Measurement of E

Measurements of qualitative and non-qualitative thought differ in their characteristics in that the former are normalcy-referenced and the latter are not. Because qualitative thought is normalcy-referenced its measurement characteristics are normalcy-dependent.

This means that when a system is at norm, qualitative thought has no measurable effect (E).When a system is deviated from norm, measurements can be made which reveal movement toward norm.

If a system is overactive, E will be negative (activity will be reduced by qualitative thought).

The farther the system is deviated from norm the greater E will be. Thus, the mathematical value of E (the measurable effect of qualitative thought, not the actual effect) is related to the mathematical value of the power which maintains the deviation of the system from norm (resistance, r).

Our initial calculations of the relationship between E and r were made by measuring weight increases of treated (qualitative thought, prayer, spiritual healing) and untreated germinating soybeans.

The mathematical approach involved two steps: (1) determining the soybean measurement pattern (an equation reflecting the pattern of increasing stress on the seeds, a secondary measurement pattern) and (2) determining the effect of qualitative thought independent of this particular stress pattern, the primary measurement pattern.

Some Terms Defined

E: Measurable effect. The measurable interaction of qualitative thought with non-qualitative thought.

Norm: Point of zero measurable effect. Point where measurable effect changes direction. The interaction of qualitative and non-qualitative thought. An element of a field.

r: Unit value. A single unit of resistance found in a given set of averaged (qualitatively uniform) measurements.

Resistance: r. Non-qualitative thought. A term found or implied in all equations of spiritual healing. A measurement term which reflects a norm-deviation characteristic of a system. In plants and seeds, resistance can be loosely defined as stress. A complete definition includes non-qualitative characteristics specific to the patient, system, conceptual whole, or field.

g: Quantity. Quantity of treatment can be measured directly, or indirectly by using time units as approximations of quantity. Since both quantity of treatment and qualitative strength of treatment show up in measurements as alteration of r values, quantity is only measurable when the strength of qualitative thought is uniform over a series of measurements.

Secondary Measurement Pattern

The form of the measurement pattern relating spiritual healing and resistance depends on the nature of the resistance (such as over action or under action) and the way resistance figures are measured. In the inverse square relationship or secondary measurement

pattern developed from the soybean tests the resistance figures reflect the accumulation of data in such a way that smaller numbers indicate greater resistance E=1/r 2 is a pattern which, in a median measurement range, approximately mirrors the effect of growth-retarding stress on soybean germination.

In order to produce the E=1/r2 curve, an associationally-directed qualitative state (specific prayer) of constant qualitative value must be measured over conditions of varying resistance to growth. These circumstances can be approximated by using one healer and averaging over a sufficiently large number of tests.

A simple test requires a small number of variables. Therefore we sprouted soybeans, placed sprouts in each of two containers, watered the sprouts equally and regularly, and ceased measuring when there was weight loss in either container. The soybeans in one of the containers were given treatment (qualitative prayer) on a daily basis. Weight increase each day was evaluated in terms of percent of increase over initial weight.

An interesting fact emerged from the figures. At a given point of control growth, figures from the treated seeds began to flow in reverse. That is, when control growth was above this point, the growth of the treated beans was pulled downward rather than upward.

Our interpretation is that a “hothouse effect” was entering into the picture. Forced growth represents the stress of circumstances, as well as too little growth. The prayer which moderates the retardation of normal growth also moderates forced growth, both processes representing a deviation from norm. The nature of the stress conditions (r) governs the direction of measurable effect, and this is reflected in the negative measurements obtained under over-active conditions.

In breaking down the negative figures, we did not have enough samples to determine the mathematical pattern on the over-active side of the norm, but we did have enough to indicate the rapidly increasing measurable effect as distance from the norm increased.

Primary Measurement Pattern

In our measurements of qualitative thought there was a median range of growth-retarding stress in which the $E=1/r^2$ equation approximated the pattern of measurable effect. In this equation E increases as r (stress) increases in actual terms.

Our stress measurements are not absolute values. They represent instead the response of the beans to stress. We cannot assume that fifty percent less growth means a fifty percent level of stress on the beans on an absolute scale.

Qualitative prayer increases the growth of some sprouts and retards the growth of others. Qualitative prayer, therefore, if its effect is directly on the sprouts, is not affecting all of them in the same way. In addition, if qualitative prayer is directly affecting the sprouts, it is doing so in proportion to the amount of stress and is not affecting them equally.

If prayer is affecting the sprouts directly, some kind of evaluation of need is going on; and prayer is playing favorites, giving help with increasing liberality according to worsening conditions, and according to carefully worked-out and unchanging measurements: In this case these measurements approximate E=1/r2 in the median growth-retarding range.

The problems posed by thinking in terms of variable effect on the sprouts disappear if we assume that qualitative prayer of given qualitative and quantitative strength moderates resistance at a constant level.

If the effect of stress on the beans increases disproportionately as stress increases in absolute terms, then a reduction of stress levels in simple proportion to strength of qualitative thought would produce the pattern our measurements reveal. With spiritual healing moderating stress (r) in constant terms the nature of the measurable effect measurements would reflect the nature of the stress measurements.

This relationship can be expressed as k=E/r, meaning there is a constant relationship between E and absolute values of r.

The Important Pattern

The most meaningful pattern to be found in normalcy-referenced tests is not the relationship of measurable effect to stress patterns or to a similar equation of cumulative effect. It is the fact that the great variety of physical conditions which are related to health and development are all responding to a mode of consciousness which has meaning only in terms of purpose and qualitative good.

The growth of the soybeans varies each day due to such things as temperature, humidity, water availability and so on. The consistency of the patterns of measurable and cumulative effect, regardless of the interplay of the various physical conditions, shows that the effect of qualitative prayer is not related specifically to the particular physical causes of the sprouts deviation from normal growth. Qualitative thought is related to a composite of these causes which has meaning, not in its component physical parts, but in a mental or conceptual ethical whole termed normal growth.

Factors Affecting E Values

A healer at a different level of spiritual development would produce results with a different r unit value. The r unit value can also be altered by modification of the strength of the associational link between healer and patient.

In order to make a determination of how much less the measurable effect of spiritual healing is with one unknown link between healer and patient, we repeated the soybean test that produced the $E=1/r^2$ equation, this time running figures under hidden target conditions. Two containers of seeds were differently marked, and an envelope with a piece of paper in it, marked to correspond to one of the two containers used in the test. It was not known which of the two markings was on the paper inside the envelope.

Treatment was given to the seeds in the container corresponding to the marking on the paper in the envelope.

This procedure was repeated until we had enough figures to produce the $E=1/r^2$ curve. We then compared the r unit values of the two curves and found that the weakening of the associational link to the soybeans reduced the effect of treatment to 53.5 % of its previous value. In other words, the effect of spiritual healing was cut almost in half when associations were not specifically known.

The reduction of the r unit value in the $E=1/r^2$ curve to 53.5 % of its earlier value by weakening the associational link in a constant amount means there was a known absolute reduction of the level of qualitative thought for the treated soybeans in the second test as compared to the first test. This equal percentage shift across all levels of r value, all levels of stress, resulted in the same $E=1/r^2$ curve as before, but with smaller E values, and, in absolute terms, smaller r values as well.

In our tests E (measurable effect) was measured as the percent of weight increase of treated over control. r was measured in terms of percent of control growth from the zero (no growth) point.

After grouping the control growth weights into different levels and averaging the individual measurements in each range, we divided the control figures into the treated figures in order to determine the percentage gain or loss of the treated sprouts in each range. We also divided the control and treated figures by the number of measurements in each range in order to determine the average measurement in each range.

Using the control figure which represented the largest number of well-distributed samples, we turned to the equation $E=1/r^2$.

At the given growth level the measured effect was substituted for E in the equation and, solving for r, a resistance value for this control level of growth was found. Dividing this value by the control figure a value for a single unit of resistance (r_u) was determined.

When this value was multiplied by the control value in each category, an r value for each group was put into the equation, and the equation was solved for E, theoretical E values for each group, in terms of the related control group, were determined.

One could then compare the measurements to the figures predicted by the equation.

If the growth of the treated seeds each day is figured from the basis of the previous day's weight, rather than from initial weight, the same pattern appears.

Averages and the Growth Cycle

Germinating soybeans have a growth cycle. This cycle begins with small percentage growth, develops into a strong spurt of growth, and then declines.

In order to get the $E=1/r^2$ curve, the growth cycle has to be randomized and averaged over many measurements. Otherwise the inverse square relationship would not appear and what would appear would be the pattern of effect of treatment on the growth cycle.

This growth pattern appears to be altered by anything that has a bearing on the beans. Temperature, humidity, length of soaking, salt in the water, periods of drying, -- everything that affects the beans alters the cycle, but does not eliminate it.

Thus, the uncontrolled temperature and humidity conditions and other disruptive factors of the test that produced the inverse square relationship were a necessity, if the relationship was to appear.

To produce the inverse square relationship under completely controlled conditions would require knowledge and control of the growth cycle of the beans so adjustment could be made for this pattern.

In our measurements of the growth cycle the first control and treated measurements are abnormally high, representing powerful growth after the sprouts have been without water as the test is set up. The influence of treatment then becomes apparent as a strong moderating effect, since the seeds, after their dry period grow rapidly. The seeds thrust toward their high point of growth is restrained by qualitative thought, just as their decline from this point is restrained (growth is enhanced).

After a certain point, as food supplies diminish, growth is again restrained (amount of growth is lessened by qualitative thought). Then a point of balance or near balance is reached and finally, a very large measurable effect (E) figure appears. The large final figure varies considerable, but it is always very high.

Measuring Stress Levels

In the soybean tests we know that in a given measurement range an approximating inverse square relationship exists. However, without knowledge of the stress pattern or measurements of stress and its effects in absolute terms quantitative patterns may not be determined, since r is a factor in every normalcy-referenced equation.

The inverse square relationship can be approximated with rye grass seeds if the growing conditions are somewhat controlled. By watering different groups of seeds with saline solutions of known strength and using salt levels as absolute stress measurements, we found the curve appeared as a relationship between treated and control figures.

Qualitative Thought: Cumulative Effect:

Qualitative thought has both qualitative and quantitative aspects. E can be increased both by increasing the quality and by increasing the quantity of the qualitative thought used in treatment.

The soybean figures from the initial test of spiritual healing can be used to examine how the effect of treatment increases day by day. If we evaluate the figures for cumulative effect, the equation that emerges is k=E/q, meaning that effect and quantity of treatment are in constant ratio if quality of treatment is constant and if resistance is constant.

This simply tells us that two treatments have twice the effect of one treatment. Three treatments have three times the effect on one treatment, and so on, all other things being equal.

In this equation term k represents a constant value; E is measurable effect and q represents quantity of treatment given.

It is important to remember that in evaluating data a time measurement is meaningful only as a representation of quantity of treatment. One can only be sure of this value by averaging.

The relationship can be determined by classifying growth figures according to number of days of treatment and comparing the r values for each group.

By putting each E value in the equation $E=1/r^2$ and solving for r, a corresponding r value can be obtained. When the r value is divided by its corresponding average control growth, an r value for one percent of growth in each category (r unit value, r) is obtained. This provides a common standard of comparison.

This approach measures cumulative effect by using time values as approximations of quantity of treatment. If treatment is given on a daily basis, then two days can be assumed as two quantitative units, three days as three quantitative units, and so on.

It is possible to set up a test for cumulative effect that does not depend on this approximation. However, the test is not as associationally well controlled as the earlier test from which the equation or cumulative effect was deduced.

Another Approach to Cumulative Effect

In this test one container of beans receives two treatments each day, and two other containers receive only one. Thought could drift to thinking about a specific batch of beans (two containers of beans are treated simultaneously), and in most cases would probably drift to the single container getting both treatments, since it is, in a way, the unique one.

Associational drift (effect not going where it is intended) can happen for various reasons, including interference or entrenched thought patterns, weakness of associational links, entry into thought of different associational patterns (mildly obsessive in the sense that the pattern is not readily dismissed), and the unintended resting of thought on objects, occurring often unconsciously.

Because this test is not set up to exclude associational drift, it is to be expected that the beans in the container getting the two treatments may very well do slightly better than the sum of the two batches of beans in the other two containers. It is also to be expected that the other two batches of beans will not show the same amount of growth even under ideal measurement conditions, because inspiration will very greatly and, in the measurements we took under these test conditions, there were not enough figures to average this out.

This particular testing procedure does have some advantages. Stress (r) is better controlled, being identical for the three contrasted groups. Differences in inspiration (degree of qualitative thought applied), measured as differences in E levels between the two one-treatment-a-day containers of beans, will stand out clearly and will not affect results. There will be no distortions resulting from relying on measurements of cumulative effect taken from figures scattered throughout averaged stress levels rather than from stress groupings known to be equal.

This test requires four containers of sprouted beans. As before, the beans should be weighed about the same time every day. This is necessary in order for each weighing to represent a standardized interval of growth.

Let us assume containers have been marked C (for control), X, Y, and Z. Every day during the period the tests run (until decline in weight in the sprouts in any one of the containers) the sprouts in the X and Y containers should be treated, then the sprouts in the Y and Z containers should be treated.

In the terminology of Christian healing you will have given two treatments every day, and the sprouts in the Y container were included in both of them, and the others were not.

Before any valid inferences can be drawn, there must be enough figures to average out random variations.

Since unequal stress levels also alter the figures, there must be enough figures in small enough stress ranges to work with. Stress ranges can be adjusted to a common level using the $E=1/r^2$ equation, but only after the averaging out of random variations has made them somewhat reliable. Otherwise, there would be distortions from applying the adjustment pattern to randomly skewed figures.

By the nature of the equation, the numerically smaller the r values are (the larger in actual terms), the less well the E values will average.

The principal sources of error in these tests are: (1) initial variation in the growth potential of the sprouts in the different containers (no sprouts are exactly matched to start with); (2) uneven water retention and drainage in the containers; (3) some variation in watering and measuring times from day to day and (4) the cycle of growth within the sprouts themselves.

The sprouts should be weighed, not only exactly twenty-four hours apart, but also exactly twelve hours after a watering, and the waterings should be at twelve-hour intervals.

Errors in category three can be averaged out with enough figures; errors in category two can be averaged out by random shifting of containers from run to run (no container drains exactly like any other); and errors in category one, like those in category three, can be averaged out with enough runs. Errors in category four randomize with variations of temperature and humidity.

In tests such as this one we are not concerned about the spread of the figures. Actually, it would be desirable to have them grouped in a single small range if this were possible.

Results of Test

In our calculations for this test we used only figures in a single median range. We found that for beans in the treated containers the sum of the percent of additional growth in the X containers and the percent of additional growth in the Z containers was very slightly less (0.3%) than the growth in the Y (double-treated) containers.

This measurement approach, like the earlier one, illustrates the relationship $k=E/q$.

Measuring Non-qualitative Thought

Measurements of spiritual healing can easily be made at almost any time, but in order to measure non-qualitative thought, a measurable element or belief, emotion, or will must be found.

One could also measure the effect of faith, but this presents more of a problem because faith, while often equivalent to belief, can also in a religious context include qualitative elements, and produce a corresponding normalcy-referenced effect in test measurements.

Our measurements of non-qualitative thought were made by measuring an aspect of the pattern of belief of the healer involved as it affected the various tests performed. In these tests of belief/faith the seeds and dice involved were never treated. When treatment was given, it was given to subjects correlated with seeds or dice.

The response of living systems to threat or to reward without known physical explanation is common in parapsychological testing. It also occurs frequently in the natural world.

To give but one example, it is known that some trees, when undergoing extensive insect defoliation, will produce chemicals normally not in their system. These chemicals, toxic to the insect, reach a very high concentration in the leaves of the tree.

Measurements show that this temporary phenomenon also appears in trees not yet touched by the insects. The same high chemical concentrations appear in their leaves in many cases. A physical explanation, although it may well exist, is not known.

We thought that perhaps living organisms could influence each other on an unconscious level, and perhaps the effect of spiritual healing on this influence could be measured. We wondered too if, when natural materials are made into useful objects, it was possible that the purpose, the will, or intention of the maker, might enter as an element into the finished product. Our faith in these ideas produced results we could have obtained in no other way.

Measurements of Belief/Faith

Measurements began in this way. We correlated (with matching labels) trays of rye grass seeds with jars of yogurt and with potted plants. The plants were promised light, and the yogurt was promised milk, if “their” seeds grew better than the controls. And their seeds did. If the plants and the yogurt were treated their seeds did better yet.

This showed the healers' faith in the idea (the measurement without treatment) and the healer's faith in his treatment (the measurement with treatment, minus the measurement without treatment). It is interesting to note that these effects were much greater than the effects of treatment measured earlier.

In making our tests with a dresser drawer we selected a hand-made dresser. A drawer was removed, and the intention was formed not to replace it unless a certain percentage of seed germination was achieved in the experimental areas of the seed trays as compared to the control areas.

Still believing that living things and perhaps constructed inanimate things could affect other things, we promised (formed the mental intention) to reward yogurt, yeast, and plants if the fall of dice was influenced and we found it was. This line of testing was carried out by throwing dice instead of germinating seeds. Over a million throws of dice were made and similar results appeared.

In due course, we reached the conclusion that the apparent effect of different living and non-living things on such thought-sensitive processes as seed germination and random flow was actually due to elements of belief/faith in the healer's own thought. It also appeared that seed germination was much more thoughts-sensitive than random flow.

Measurement Correlation

It usually took a week or so for the batches or seeds that went into the final totals to sprout and be counted. It usually took about the same amount of time for the runs that went into the random flow (dice) totals to be thrown. We usually worked on a run on a daily basis until it was complete, and then its companion run.

A companion run was so named because we reversed from off to even, or vise versa, the numbers to be influenced. This cancelled out any bias there might be in the dice. Treatment for the subjects which received it was given daily during this time.

This meant that the exposure of the subject material to the thought of the healer was approximately the same in each of the tests involved.

In reviewing the figures, there were three areas we could compare.

The effect of the healer's belief on the seeds was in each case to increase their growth. The effect of the healer's belief on the dice was to deviate them in one direction for living things, in the other direction for non-living things.

The effect of the healer's faith in his treatment increased the growth of the seeds and it pulled the deviation of the dice in each direction back toward the 50/50 norm for the fall of dice.

The healer's faith fell into two parts: (1) his faith in the ability of things to influence their environment, and (2) his faith in his treatment.

We had three different measurements of the healer's faith in the subject matter's ability and three different measurements of this faith plus his faith in his treatment. When we expressed the second group as a percentage of increase or decrease in relation to the first group, and found that the effect was approximately the same in each instance (65%, 66%, and 72%) it was apparent from these measurements of the healer's faith in his treatment that we were not dealing with a normalcy-referenced equation but with a direct measurement of power undisturbed by considerations of such things as ethical norms. For, given the variety of subject materials and test conditions, the observed measurements of 65%, 66%, and 72% would follow only if no variations due to differing levels of resistance (r) were involved (no normalcy-referencing).

From our figures we concluded that the effect of non-qualitative thought is proportional to the strength of the thought involved. The equation can be written $E=m_r/m_c$, with M_r standing for the non-qualitative measurement, and m_c representing the control measurement.

The fact that conscious or unconscious belief is not normalcy-referenced and produces results in direct proportion to the intensity of belief can be seen in phenomena produced by conditioned responses. An example of this is found in experiments reported in the journal Science in March of 1982 and in the May 1982 issue of the popular magazine Discover.

In these tests rats and mice were conditioned to reduce the activity of their immune systems.

The amount of conditioning determined the degree of suppression of the immune system. Obviously, there is no normalcy-referencing here, an observation reinforced by the fact that some of the rats died when dosage of the conditioning agent was increased.

The direction of belief was unconscious and determined by the conditioning. In the initial test, the observed effect was not even suspected by the experimenters, the effect being accidentally discovered.

The ebbing and flowing of faith, as compared to the consistency of spiritual healing, is vividly illustrated in our tests. We cannot now reproduce the preceding experiments whose success depended on a misplaced faith, but we can reproduce the others.

The Pattern of Non-qualitative Thought

Identity field theory states at the intersection of qualitative and non-qualitative thought produces norm-defined patterns, the nature of which determine identity.

Since norms, patterns and equations are interaction characteristics it seems initially incongruous to have an equation defining action of non-qualitative thought. However, it may be that this pattern or counterfeit norm is simply a restatement of the fact of randomness.

A simple illustration of this is gaseous diffusion, as evidenced by the air in a tire. The random molecular action of gas in a closed container produces a quality of heat and temperature.

In the belief-affected test constant ratios of the belief measurements to the control measurements were found in all three instances. In defining conceptual fields (our “closed containers”) the random (non-normalcy-referenced) action of thought may affect the field evenly simply because, assuming associational evenness of the field, there are no elements of pattern.

The Conceptual Whole

A characteristic of thought that can be picked out from the tests made so far is what we might call law of the conceptual whole. Comparing various tests, one notices there is no loss of effect as the number of parts increases, so long as one can conceive of the patient is a conceptual whole.

Actually, considering the beans as an example, the fact that the results are comparable, no matter how much the total number of beans is varied from experiment to experiment -- and this has held true through all the tests that have been made -- is ample evidence to support the conclusion. Thus we can say that, with qualitative and non-qualitative thought, effect is constant over all components as long as they constitute a conceptual whole. The equation can be written. $E=m_1 + m_2 + \ldots m/n$ with m referring to a specific measurement and n standing for the number of measurements made.

Dual Data Patterns

Because of the differing natures of qualitative and non-qualitative thought, two patterns of experimental data appear as we look for effects of consciousness through experimental evidence. One pattern is qualitative and ordered; the other is non-qualitative and follows the shifting flow of conscious and unconscious visualized in associational imagery.

Deal Data Patterns in Tests

In our measurements of faith on seeds and on dice, the faith effect was obviously there, extending evenly across the entire stress range.

We felt it was possible that some evidence of qualitative characteristics would be there too, for the faith which was affecting the Rye grass seeds and of the dice was not devoid of a consciousness of good. And in the case of the seeds, differing levels of r could be determined from the control figures.

Since the qualitative influence (if it was present in measurable degree) would act evenly across the entire range of figures, it was possible it would show up in a review of all 150,000 faith-influenced seeds, although it did not show up in any of the three individual groupings.

As it turned out, this was the case. When the three groupings were combined and examined by r values, a mild qualitative influence (an approximation of the $E=1/r^2$ curve) was down.

In practice no mental state is going to be entirely holy (qualitative), nor is any healing efforts undertaken for a good purpose going to be completely devoid of good qualities. Testing will reveal the dual data pattern and tell us whether or not the qualitative state prevails enough to produce measurable normalcy-referencing and whether the aspects of belief prevails sufficiently to produce either substantial direct effects or detectable norm-distorting effects.

Conflict of Patterns

A powerful case can be made, and has been made by some, that qualitative healing has a conceptual base which conflicts sharply with the conceptual base of the drugging system. An attempt to use both simultaneously results, in this view, and conscious and unconscious conflict, similar to that produced by simultaneously trying to believe that two times two was four, and two times two is five. Both healing practices suffer in the process.

In this view, similar conflicts come into play when an individual is examined before, during, or after treatment of the type used in these experiments. Circumstances are created which tend to divide the thought of the patient. To the extent the patient, or others, look to physical measurements to collaborate spiritual facts or qualitative modes of consciousness, thought is moving in a direction opposite to that needed to achieve healing.

This is why some Christian healers do not combine their prayers with the administration of drugs. In addition to the faith or expectations of the patient being divided between non-synchronous conceptual systems, one can also find the patterns of effect of the material healing method being used not to be fully synchronous with the pattern of effect of qualitative treatment. In terms of our experiments, the effects of drugs are not normalcy-referenced.

We know from our tests that spiritual healing and belief/faith will modify the actions of each other if the patterns of faith do not coincide with the norms supported by spiritual healing.

Thus, sensitive tests of mental and spiritual healing will usually show dual data patterns. If both qualitative and non-qualitative thought are strong, both elements will be easily discernible.

Faith in good is knowingly or unknowingly (consciously or unconsciously) directed toward the good it discerns, believes in, or accepts. Thus, it outlines or determines its own effect through its own conscious or unconscious conception of good. This conception may or may not, in an individual case, be co-extensive with the normalcy-referencing of spiritual healing.

When a faith-healer's conception of good is not co-extensive with the value orientation of spiritual healing, a difference in effect between the two methods will occur, and dual data patterns will appear, even in cases where the faith healer's deepest conviction is that he or she can do only good.

In practical terms, we have, in both faith healing and spiritual healing, a mixture of these two modes of thought which can fall at any given point in a range between the two extremes. Measurements reveal this dual data pattern.

Testing Healing Ability

Historically, tests with yeast were the first tests to be used in testing individuals, other than the discover of the normalcy-referenced test, for spiritual healing ability from a normalcy-referenced standpoint.

A simple test was developed on the premise that the amount of carbon dioxide given off by yeast might be an indicator of the amount of health the yeast was expressing under stress, and would, thus, vary with qualitatively based prayer.

In developing these tests, we measured gas production both by volume and by weight. The simplest approach, requiring two balances (one for the control, one for the treated), is by weight.

Since there is no measurable response to qualitative thought when an organism is not under stress, spiritual healing can be used to determine the presence and level of stress and the life experience of an organism.

The yeast tests we have done show that the activation of yeast, the feeding of yeast, and the heating of yeast, constitute points of stress in the life of yeast, and are points at which measurable effect can be obtained.

In order to produce measurable effect from the activation of yeast, the yeast must be activated rapidly. Stirring it into lukewarm water is a good way to accomplish this.

The stress caused by activation of yeast is of a different sort than the stress caused by feeding of yeast, for the response pattern is different.

In the activation of yeast the response of the treated yeast to spiritual healing is initially to produce less gas than the control, then to produce more.

In the feeding of yeast the response of the treated yeast to spiritual healing is initially to produce more gas than the control, then to produce less.

Since we did not have electronic balances, we could not monitor the cycle as the pattern of measurable effect swung between extremes and then leveled off. However, we could easily monitor points along the way, and thus determine what was going on.

The response of the yeast reflects the stress the yeast is under. This, in turn, depends on such things as the kind of yeast used, the strength of the solution, the amount of the solution, the temperature of the solution, and the temperature of the room at the time the test is made. Cycles of increase or decrease in gas production by the treated yeast over control are shortened or stretched out by temperature variations.

Treatment (spiritual healing, qualitative prayer) is given to the yeast in one of the containers while the test is going on, with the yeast in the other container serving as a control.

It is to be expected that results from these tests will vary widely, the two largest factors being (1) the point in the cycle where the measurement is made and (2) the temperature variables affecting the test. For this reason the tests offer no characteristics by which one test can be compared with another.

We did ten tests with our initial researcher under standardized conditions (except for room temperature and high precision in timing in taking measurements)

The tests were based on stress from the activation of yeast. The qualitative response was found in all but one of the tests.

As performance of yeast varies with temperature, so performance of the healer varies with mental states. The healer, in this case, felt the lack of effect was due to his involvement in a book he was reading and which he had reluctantly put down, in an absorbing part, to do with this test. After finishing the book and preparing his thought, the next test was successful as usual. (Test data is given at the end of this chapter.)

The troubling aspect, to the healer involved, was not the failure of the treatment but the fact that he was unaware that the treatment was any different than usual.

We have often seen that subjective judgments of a healer cannot be taken as a guide to test results. Appraising a treatment is extremely difficult, because we tend to judge the power of thought by the power and flow of ideas, the sweep and clarity of our concepts. This, however, is far from the heart of prayer and, for the qualitative healer, illustrates the biblically based Christian distinction between the letter and the spirit. It is easier to be impressed with our ideas than to be sensitive to the quality of our thought.

In doing tests it should be remembered that all tests should be associationally isolated as much as possible from the thoughts of every individual other than the one responsible for the qualitative prayer involved. Since there is no shielding against thought, this contributes to the integrity of testing procedures.

The Testing Approach

Tests can be based on the stress associated with the feeding or heating of yeast rather than on the activation of yeast. Our yeast test is based on the activation of yeast because the usual expectation of an individual taking the test is that mental influence or prayer will increase the gas production of the yeast. We had this experience ourselves; in our first yeast test gas production was reduced by qualitative thought, and this reduction was influenced in the opposite direction by our faith.

By basing our test on yeast activation, any influence of this belief will not be confused with test results and will stand out clearly as a non-qualitative influence if there is no normalcy-referenced effect.

Because of the small number of people tested at this time our present conclusions are very basic: (1) some people can get results and some can't and (2) the test does not measure qualitative development, but measures qualitative development in conjunction with the knowledge of how to use such development to produce a result.

The ideal way to do this test would be to use electronic balances and run the output through a computer so the pattern of thought could be watched on a monitor as the effect occurs. If three or more balances were used, associational (hidden target) tests could be run with immediate results. Work is going on to further develop the yeast test.

Test Results

Of the individuals, other than the discoverer of the normalcy-referenced test, who have taken this test thus far, some have produced the qualitative effect and some have not. This statement is qualified in the following way: the test is set up in such a manner that qualitative results are contrary to the usual expectations of most people (less, rather than more gas is produced) and, thus, faith and qualitative thought will usually work against each other. If a result is produced this result simply tells us which state of thought predominates.

The denominational background from which the participants came from reflected, in each group, a theological viewpoint which discriminates strongly between faith healing and qualitative healing, and theological viewpoints which do not.

Without the capacity to monitor continuous gas production of both control and treated yeast samples, dual data patterns cannot be seen and the interaction of qualitative and non-qualitative elements (belief/faith and qualitative thought) cannot be fully determined. We know the measurement characteristics of the two different patterns, but until enough of the

Combinations possible are graphed and a familiarity with the figures established, truly definitive results are not possible.

At present our figures can show the predominance of belief/faith over qualitative thought, or the predominance of qualitative thought over belief/faith.

Since our tests are being given (for the most part) to people interested enough in the results to be motivated to take the tests, the nature of the results has generated a certain amount of theological searching and questioning.

Christianity in general has not distinguished conceptually or theologically the elements of thought that produce faith healing on the one hand and spiritual (qualitative) healing on the other. Let us call this general group, Group A. Let us call the small minority of committed Christian healers who do make this conceptual and theological distinction Group B.

Group A embraces both approaches by virtue of not distinguishing between them. Group B embraces both approaches by virtue of recognizing that faith is a range, an upward path to be walked daily by the sincere Christian, a path that begins with faith in good, but which ripens increasingly into the qualitative consciousness which redefines faith in its conscious unity with, or understanding of, God.

One might expect then that Group B – since it makes a particular issue of (1) Christian healing and (2) the qualitative distinction – would produce, in random samplings of Christians, (1) a larger proportion of individuals producing positive or negative (faith or qualitative) test results and (2) a larger proportion of qualitative measurements in the mix of results achieved.

Although such testing could easily be done we lack not only the equipment, the participants, and the statistical knowledge, but also the motivation to proceed along these lines. Such tests could easily be improperly motivated, divisely used, and skewed by differing religious priorities among the groups involved.

Normalcy-referenced tests show that faith, as an instrument of healing, ceases to be reliable when the healer’s concept of good is not co-extensive with the norms which represent maximum good to the system.

The yeast test, as we are using it, is set up in such a way as to deliberately make this point.

If it is true that an increasingly qualitative consciousness proportionately transforms the characteristics of faith from belief to spiritual understanding, continuously graphed results of yeast normalcy-referenced pattern by the non-qualitative element should be less in evidence as the qualitative influence increases.

Our tests of others have been administered by an individual other than the healer originally involved. If the figures gathered are to throw light on the mental or spiritual characteristics which make the figures possible, they must be statistically correlated with the characteristics of spiritual development of the participants involved.

Developing a background questionnaire, or, more ideally, a related series of tests, giving us a profile of characteristics of spiritual development, requires sophistication presently beyond us. However, present results, coupled with the sometimes long discussions these brought forth from the participants, the questions they raised and the information they provided, help to suggest lines along which to proceed.

Within each Christian denominational framework there is room for individual development and emphasis. Emphasis may change as the individual develops spiritually, and what is best at one period may not be best at another. Faith, like human experience itself, may need transformation until it becomes the image of goodness – in an essential strength and guiding light to all who seek Him.

This line of thought says that faith is transformed as spiritual development progresses – a line of thought that is amenable to experimental verification. It also suggests that statistical correlations of measurement data to patterns of spiritual development may be more meaningful than correlations to particular conceptualizations of these patterns, at least at the present time, when we are so new in our exploration of the measurement of thought.

From what we have seen so far there does seem to be an emphasis, -- an emphasis in the spiritual life of the individual, -- which is broader than denominational outlines and which appears to have some connection with test results. This conclusion is tentative and is offered, along with other possibilities as they appear, as a conceivable direction of future research.

In the lives of some individuals, faith is paramount. Understanding exists to feed faith and from faith flows the fruitage of a Christian life. This viewpoint is usually rationally correlated with emphasis on the power and purpose of God to bless mankind. The relation of the human to the divine is theologically stressed and sickness, lack and other ills are seen as related to a lack of faith in, and awareness of, God's power and purpose to bless.

In the lives of other individuals, their Christian experience is dominated by a desire for closeness to God in a deeply qualitative sense. The meaning of the cross is theologically stressed and sickness, lack and other ills are viewed as chastening experiences, enhancing our worthiness to draw closer to Him. The ennobling of the present is of less importance than footsteps toward the goal.

These categorizations are no more absolute and meaningful than the terms introvert and extrovert. We are simply pointing out that faith, like self-renunciation, is a matter of outlook, seeking its support in typical conceptual structures and expressed in typical life patterns.

If conceptual structures and life patterns are prominent enough to be identified in individual religious experience and can be correlated, in statistically meaningful ways and quantities, to graphs of dual data patterns, insight into fundamental aspects of religious experience can be gained. For only when we understand the patterns that we seek can we reasonably and fairly extend measurement-based statistical appraisals to the educational/developmental systems used to foster spiritual development.

Test Data

Weightings were taken in initial (negative) phase of cycle.

Control	Treated	% Increase
0.9	0.6	-33.3
0.9	0.9	0.0
1.0	0.6	-40.0
0.4	0.3	-25.0
1.6	0.9	-43.8
6.2	1.0	-83.9
1.3	1.0	-23.1
1.0	0.4	-60.0
5.7	1.1	-80.7
1.6	1.0	-37.5
20.6	7.8	

Average Decrease: 62.1 %

Second measurements may be taken in these tests if desired. Here is how more complete measurements look for the last two tests.

These measurements are for the ninth test.

Minutes	Control	Treated	% Increase
10	5.7	1.1	-80.7
20	0.5	1.1	120.0

In the tenth test the yeast was not quite out of the down phase of the cycle at 20 minutes so we took a measurement at 25 minutes to pick up a reading in the up phase of the cycle.

Minutes	Control	Treated	% Increase
10	1.6	1.0	-37.5
20	1.6	1.4	-12.5
25	0.3	0.8	166.7

Test can be based on the stress associated with the feeding of yeast. We did six tests in this way, standardized except for room temperature and high precision in timing of weightings.

Minutes	*Control	*Treated	% Increase
15	5.9	7.5	27.1
30	3.0	2.4	-20.0
15	7.9	9.6	21.5
30	2.9	2.4	-17.2
15	6.4	8.4	31.3
30	3.0	2.5	-16.7
15	7.0	7.7	10.0
30	2.1	1.7	-19.0
15	6.6	8.3	25.8
30	3.8	2.9	-23.7
15	9.0	8.4	-6.7
30	3.4	2.8	-17.6

*grams of gas produced

In the sixth test we came in too late in the cycle to get the positive measurement, and thus got instead two negative measurements.

The more measurements that are taken, the more we can see of the cycle. Another test, expressed as before, looked like this:

Minutes	*Control	*Treated	% Increase
15	7.0	9.1	30.0
30	3.3	2.7	-18.2

Broken down further it looked like this:

Minutes	*Control	*Treated	% Increase
7.5	4.4	6.9	56.8
15.7	2.6	2.2	-15.4
22.5	1.8	1.2	-33.3
30.0	1.5	1.5	0.0

Summary of Equations

Law of Measurable Effect
Qualitative Thought

$$K = E/r$$

Meaning that in a given set of averaged measurements (a constant level of qualitative thought). E and r will be in a constant relationship.

Law of Cumulative Effect
Qualitative Thought

$$K = E/q$$

Meaning that effect and quantity of treatment are in constant ratio if resistance is constant.

This simply tells us that two treatments have twice the effect of one treatment. Three treatments have three times the effect of one treatment, and so on, all other things being equal.

In this equation the term k represents a constant value. E is measurable effect and q represents a quantitative measurement of treatment given.

Law of Measurable Effect
Non-qualitative Thought

$$E = m_r/m_c$$

Effect is proportional to the strength of the non--qualitative thought. No r values are involved.

In this equation m_r stands for the measurement of non=qualitative thought and m_c represents the control measurement.

Law of the Conceptual Whole

With both spiritual healing and the effects of non-qualitative mental power, the effect is constant over all components as long as they constitute a conceptual whole. Theoretically, the measurements will always be equal if measurement conditions are constant.

$$E = m_1 + m_2 \; *** \; m_n /n$$

In this equation m refers to a specific measurement and n stands for the number of measurements made.

SIMPLE TESTS OF NORMS

It is possible, using seeds, to test for norms in many simple ways, for normalcy-referenced responses are easily obtainable under the right conditions.

Soybeans and Humidity

In the soybean tests done thus far, water supply and drying times have been held constant. A composite of variable and external stresses was the measurement grid against which measurable effect was plotted.

We know that when the beans are watered they absorb moisture rapidly and weight gain can be measured. Following this gain they lose weight as the water evaporates, and this loss is also measurable. In soil, this process would be much more balanced; in these tests the gain and loss are more extreme than in natural conditions.

If soybean sprouts are put inside plastic mesh bags, so that evaporation from the sprouts is virtually uninhibited, and also so there is little measurement inaccuracy due to uneven moisture accumulations (as in the containers previously used), testing can be done in a different way.

Instead of plotting the beans reaction to external stress from a stable cycle of moisture availability, the response of beans to moisture availability, and the lack of it, can be plotted against otherwise stable conditions.

In working with sprouts in plastic mesh bags, the number of sprouts in the bags is important. If too many sprouts are in the bags they will retain moisture unevenly, and resulting figures will be meaningless.

In our tests 200 soybean sprouts were put in each of eight plastic mesh bags. Half of the bags were marked with blue labels, half with red ones. Initial weights of the sprouts were ascertained and the bean sprouts in the red-labeled bags were given qualitative prayer on a daily basis.

We put water in the bottom of a plastic garbage can and immersed the type of heater used to maintain water

temperature in tropical fish aquariums in the water. A rack was placed above the water level and the bags of sprouts placed on it. The container was kept covered.

These conditions are more extreme than the hothouse conditions of the previous tests in which forced growth was retarded by qualitative prayer. Here there is no direct watering of the sprouts and an extremely high level of humidity is maintained. Too long a period in this environment will quickly kill the sprouts.

With weight measurements evaluated in percent of gain or loss over initial weight the pattern can be easily followed.

In our tests the sprouts were put into the bags and kept in the humidity box for 24 hours, then weighted. Before being put in the box they were without water for 24 hours, so they were quite dry. So, for the first day in the box, conditions were good for them. Measurable effect was positive.

Occasionally this positive measurable effect will carry over into the next 24 hours. After the humidity begins to adversely effect the beans measurable effect will be negative.

One precaution must be strictly observed in a test of this sort. If the beans are taken out when they are treated, as well as for weighting, this can throw off the pattern of measurable effect, for the time outside the box lessens the moisture content of the moisture-laden beans.

If the beans are not taken out for treatment (both treated and control beans, of course, to treat them equally) the treated beans must be will identified to the healer so the conceptual field is clearly distinguished.

If, after the beans have been in the humidity box (and before they die), they are taken out and the sprouts are simply allowed to dry, they will all lose weight. But, if they are dipped in water and let dry the normal growth process will resume. If this is done and 4 hours later they are weighted, measurable effect will be very strongly positive.

Soybeans and Water Retention

We are explaining the data from normalcy-referenced testing in terms of identity field theory -- in terms of qualitative meaning. This qualitative characteristic of identity field theory enables us to set up tests using the general idea of what is “best for identity,” or “supportive of identity.” Or “productive of identity,”

We know, for example, that soybeans absorb water when soaked, more than doubling their weight when thoroughly soaked, and then release some of this moisture after being taken out of the water.

If soybeans were over soaked, treatment should help them release water. If soybeans were under soaked, treatment should help them retain water. If both situations were treated simultaneously, the same treatment should produce opposite results according to the need.

Tofu makers say that soybeans soak through completely in 10 to 12 hours, depending on room temperature. If tiny bubbles form on the surface of the water, beans are over soaked. If, when the beans are split open the center is concave instead of flat, and the bean is a darker yellow in the center instead of a creamy color all the way through, the bean is under soaked.

We put 200 soybeans in each of 24 plastic mesh bags. Eight of the bags with the beans were soaked 9 hours, eight 12 hours, and eight 18 hours.

Soaking was scheduled so that all bags and beans would come out of the water at the same time. They were let drain for an hour on racks in covered plastic 20 gallon garbage cans. There was unheated water in the bottom of the cans to provide humidity.

Weight increase of the 18 – hour control beans was 127.4%. For the 12 – hour control beans it was 125.0 % and for the 9 – hour control beans it was 120.7 %. Variation of weight increase of untreated experimental beans from control was 0.1 %, 0.2 %, and 0.2 %.

After weighting, the experimental beans were treated, and all beans were returned to the cans.

Weighing 12 hours later showed the 18 – hour and

12 – hour treated beans had lost 7.5 % and 10.3 % more water, respectively, than their control beans. The 9 – hour treated beans, however, had retained 13.0 % more water than their control beans.

After weighing, the beans were dipped in water and returned to the cans.

In another 12 hours, weights were taken again and the beans were returned to the can. In this 12 hour period there was weight gain instead of weight loss.

For the 18 – hour beans, treated weight gain was 11.3 % less than control for the for the 12 – hour beans treated weight gain was 1.8 % more than control; for the 9 – hour beans treated weight gain was 7.0 % more than control.

In the over soaked condition, treated beans released more water than control. In the under soaked condition, treated beans released less water than control.

In the 12 hour growth period following weight loss from soaking, control figures were 10.6% weight increase for the 18 – hour beans, 11.0 % weight increase for the 12 hour beans, and 12.8 % weight increase for the 9 hour beans.

These figures do not necessarily tell us that germination is greater in the 9 hour beans than in the other beans. Figures of measurable effect from earlier tests indicate the opposite is true. Thus, it would appear that both germination and adjustment of moisture content are going on.

In their period of weight loss and then weight gain, the 18 hour beans showed treated beans first losing more, and then gaining less, than control. The 9 hour beans, exactly opposite to the 18 hour beans, first lost less and then gained more than control. However, the 12 hour beans, at the second measured internal after treatment, had already become moisture stable enough, after losing in measurable effect in the first interval, to move into the positive measurable effect range.

Weighing at the end of the second period showed the 18 hour beans were at 134.1 % of original weight, the 12 hour beans were at 132.1 % of original weight, the 9 hour beans were at 128.3 % of original weight (control weight in each case).

From the standpoint of qualitative (identity-oriented) values, the beans are presumably making an adjustment to over soaking and under soaking.

From the standpoint of identity field theory, treatment is helping them do this.

We know the 12 hour beans are not at the norm of water absorption or seed development. However, they are closer to it than the 18 hour or 9 hour beans. We know this from the initial soaking intervals and the measurements of measurable effect of the 12 hour beans.

If we use the 12 hour beans weight as a standard for a crude dispersion index, we can look at both the control and treated beans and see how the adjustment is coming along both for the control and treated beans.

Control				Treated			
18	12	9	T	18	12	9	T
2.5	0.0	5.5	8.0	2.7	0.0	4.2	6.9
2.0	0.0	3.8	5.8	1.0	0.0	1.6	2.6

In the T (total) column our dispersion index figure for the control beans is 8.0 at the end of the first period, and 5.0 at the end of the second period. This improvement represents the adjustment of the untreated beans to their conditions.

The dispersion index figure is better for the treated beans than the control beans for each of the two measurement periods (6.9 as compared to 8.0 for the first period, and 2.6 as compared to 5.8 for the second period). The treated figures also show a considerably greater improvement for the two periods than the control figures do (from 6.9 to 2.6).

It is not possible to carry these comparisons into further weightings because of the growth cycle of the beans, a cycle which quickly begins to distort other patterns.

The 18 hour, 12 hour and 9 hour beans are under equal conditions in the boxes, and, as the germination process gets under way, the growth cycle will alter the measurable effect of each group, making comparisons of measurable effect meaningless without more detailed knowledge than we possess.

Nevertheless, we took two further weightings of the beans at 12 hour intervals, the first time without dipping, and the second time with dipping.

The beans were not dipped after the second interval, and there was weight loss in all groups. We know from other tests, that beans can adapt to one dipping a day under the same box conditions. These beans have adapted to two dipping a day and weight loss occurs when otherwise it would not.

At the end of the third weighing interval, with weight loss in all groups, treated beans showed a 7.7 % less weight loss in the 18 hour beans. This suggests that water content is adequate to support normal germination, and treatment is reinforcing this activity.

The 12 hour beans showed 8.8 % more weight loss than control and the 9 hour beans 4.9 % more weight loss than control. The apparently greater restraint on the beans with greater water reserves (12 hour beans) is something which shows up much more strongly in further testing. It seems to spring from the adjustment the beans are making.

Weighing at the end of the fourth 12 hour period showed approximately equal growth for the controls of all three groups: 19.1 %, 19.2 %, 19.3 %. This is a high growth rate for a 12 hour period and reflects excellent growing conditions.

Treated growth for the 18 hour and 12 hour beans was 18.9 % in both cases, suggesting a mild restraint on the surge of growth. Treated growth for the 9 hour beans was 17.6 %, suggesting that the beans are overtaxing their water reserves and greater restraint is best for the beans.

Graph Showing Adjustment of Beans

(Length of graph is deviation from norm)

Untreated Beans

1st period XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2ND period XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Treated Beans

1st period XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2ND period XXXXXXXXXXXXXXXXX

A second Approach

We know from our hidden target test with the soybeans that the effect of the weakening of the associational link between healer and patient used in the test (which alters uniformly the felt stress level on all the beans in the test) had the effect of changing the r unit measurement to 53.5 % of its original value.

Structuring absolute stress differentials into a test situation, other than through weakening of associational links or using healers at different levels of ability, will not necessarily result in the maintenance of the integrity of the original differentials, because of the adaptability of the organic system.

Our next test was structured so as to include known stress levels and their effects. However, the initial stress levels produced by variations in soaking time only briefly remain a dominant factor, due to the adaptability of the seeds to environmental conditions.

We put 200 soybeans in each of 24 plastic mesh bags. Eight of the bags with the beans were soaked 3 hours, eight 6 hours, and eight 9 hours.

Soaking was scheduled so that all bags and beans world come out of the water at the same time. Then they were placed on racks in four covered plastic

20 gallon garbage cans. There was unheated water in the bottom of the cans to provide humidity.

After 12 hours the beans were dipped and returned to the cans. After another 12 hours they were removed from the cans and weighed. After this preliminary 24 hour period in the cans to let the sprouts get started, the cycles used in our testing were begun. The beans were treated, let dry in the cans for 12 hours and weighed. Then they were dipped in water, placed in the cans for an hour, weighed and let dry in the cans until 12 hours from the last watering. This cycle was repeated as long as the beans were viable.

Here are the figures for each cycle. In each group the 9 hour beans are listed first, the 6 hour beans are listed second, and the 3 hour beans are listed last. Weight losses and gains are in percent of initial weight. Only three cycles (with two sets of measurements in each) were taken, because the beans did not appear in good enough condition to reliably continue further after the third cycle.

After Drying			After Dipping		
Control Loss	Treated Loss	Percent Difference	Control Loss	Treated Loss	Percent Difference
10.13	16.38	-61.70	22.64	25.26	+11.57
11.74	12.05	-2.64	20.11	21.19	+5.37
11.37	11.61	-2.11	17.12	17.76	+3.74
24.46	25.82	-5.56	23.20	30.33	+30.73
24.02	19.94	+16.99	24.91	28.25	+13.41
19.44	13.92	+28.40	19.44	20.42	+5.04
13.77	18.04	-31.01	21.87	21.58	-1.33
15.65	17.38	-11.05	21.14	19.11	-9.60
14.74	13.64	+7.46	14.81	15.17	+2.43

We know the figures of weight gain and weight loss are being influenced by the growth cycle of the beans, drying conditions, and measurement variables. We know that the figures of weight gain and weight loss of the treated beans are also being influenced by cumulative effect, variations of strength of treatment, and

variations of measurable effect due to varying r levels.

We also know from checks of variations in weight loss over different drying times outside the garbage cans, from other checks, and from observation of the beans, that the kind of treatment we are subjecting them to in this test are very hard on them. Their life span is short as compared to good germination conditions.

In this test we can see treatment having an effect that appears to be less in proportion to resistance rather than greater. This shows up measurably in the ability of the treated 9 hour seeds to exceed the treated 6 hour seeds, and the ability of the treated 6 hour seeds to exceed the 3 hour seeds in germination weight gain.

Actually, what has happened, as we conclude from the different tests, is that the seeds have adjusted to their conditions; however, the seeds with the longer soaking times have more capacity with which to work and treatment apparently makes use of this increased potential.

In this test we can also see the effect of treatment on the growth cycle of the beans, a growth cycle which is speeded up, due to the harsh treatment given the beans. Under these altered conditions the pattern is not the same as the general pattern seen in other tests of the effect of treatment on the growth cycle. Here the pattern positive measurable effect in the early part of the growth cycle, and negative measurable effect in the latter part of the growth cycle.

Another feature that appears in this test is the correlation of weight loss of the treated beans during the drying periods to the weight gain of treated beans during the growth periods. Weight loss diminishes as the growth cycle peaks, and weight loss then increases again.

It can also be seen that after adjustment to conditions during a drying period, weight loss will be greatest or weight gain the least in the treated seeds for the seeds that initially soaked the longer period, and weight loss will the least or weight gain the greatest in the treated seeds for the seeds that initially soaked the least.

Graph of Water Release or Retention and Seed Growth

Percent treated over or under control. Seed growth (or loss) is to half-scale, water release or retention is to quarter-scale.

Three Drying and Growing Cycles

Nine Hour Soaked Beans

Water Release XXXXXXXXXXXXXXX !
Seed Growth ! XXXXXX

Water Release X!
Seed Growth !

Water Release XXXXXXX!
Seed Loss X!

Qualitative thought is helping the beans get rid of their excess water (when this is the need) and is helping the beans grow. As the need of the beans changes, the effect of qualitative thought changes.

The pattern we have found is: (1) In the drying period weight loss will be greatest or weight gain the least in the treated seeds for the seeds that initially soaked the longer period (soaked up the most water) and (2) in the growing period weight loss will be least or weight gain the greatest in the treated seeds for the seeds that initially soaked the least (soaked up the least water). The pattern of weight gain or loss depends on the point in the growth cycle of the seed the seed is in.

Six Hour Soaked Beans

Water Release X!
Seed Growth !XXX

Water Retention !XXXX
Seed Growth !XXXXXXX

Water Release XXX!
Seed Loss XXXXX!

Three Hour Soaked Beans

Water Release X!
Weight Gain !XX

Water Retention !XXXXXXX
Weight Gain !XXX

Water Retention !XX
Weight Gain !X

It can be seen from the table, and from the graph, that water retention and release, and speeding and slowing of growth, are affected by qualitative thought according to the needs of the bean (here the effect is related to the growth cycle) and according to the conditions. The pattern of water release and retention is different when the conditions of water availability change (when temperature and humidity are different).

If we look at the effect of soaking on the control seeds from the two tests done with variable soaking times, the measurements from the first two 12 hour periods spent in the cans look like this (the weight loss column represents the first twelve hours, the weight gain represents the second twelve hours):

Hours Soaking Time	% Wt. Inc. From Soaking	Percent Weight Loss	Percent Weight Gain
18	127.4	-4.0	10.6
12	125.0	-3.9	11.0
9	120.7	-5.4	12.8
9	119.0	-4.8	14.8
6	104.0	-4.0	14.1
3	79.0	-3.3	12.4

The weight loss pattern in the first 12 hour period suggests that the 9 hour beans are actively ridding themselves of excess moisture, whereas the over soaked and the under soaked beans are just drying out.

The weight gain pattern in the second 12 hour period also shows the over soaked beans to be adversely affected by the excess soaking, for even the

under soaked beans are doing better. Actually, the under soaked beans are doing almost as well as the 9 hour beans, although as the other figures that have been presented show, the under soaked beans, particularly the 3 hour beans, show their lack of initial moisture in the long run.

This suggests the possibility that the under soaked beans, needing moisture, are losing water at the regular rate; the over soaked beans, although possessing extra water, are not in good enough condition at the moment to actively rid themselves of water; and the 9 hour beans have both the need and the capacity to rid themselves of excess water.

We gather from these figures that the beans work to get rid of excess water when they can, and we know from the other figures in these tests that treatment helps them do it.

Graph of Water Retention and Weight Gain
(First 24 hours of both tests)

In the first 12 hours of drying time the treated beans all discharged more water than the control beans.

(Percent of treated beans under control beans)

Hours
Soaking
Time

18 XXXXXXXXXXXXXXXXXXX
12 XXXXXXXXXXXXXXXXXXX
9 XXXXXXXXXXXXXXXXXXXXXXXXX
9 XXXXXXXXXXXXXXXXXXXXXX
6 XXXXXXXXXXXXXXXXXXX
3 XXXXXXXXXXXXXXXXX

The middle range beans were the most viable, responding more to treatment than either the over soaked or under soaked beans.

In the second 12 hours (after dipping) the treated beans all grew more than the control beans.

(Percent of treated beans over control beans.)

Hours
Soaking
Time

18	XXXXXXXXXXXXXXXXXXXX
12	XXXXXXXXXXXXXXXXXXXXX
9	XXXXXXXXXXXXXXXXXXXXXXXX
9	XXXXXXXXXXXXXXXXXXXXXXXXXXX
6	XXXXXXXXXXXXXXXXXXXXXXXXXX
3	XXXXXXXXXXXXXXXXXXXXXXXX

This graph shows the middle soaking range beans doing best with the under soaked beans profiting more from treatment (at least at this stage) than the over soaked beans.

A third Approach

We felt it was possible that, if the soaking water contained something harmful to the beans, a kind of conflict of interest would arise. Absorption of the agent dissolved in the water would arise. Absorption of water would be vital to the beans; absorption of the agent dissolved in the water would be bad for them. The pattern of measurable effect might possibly show this conflict. A different pattern might appear if the agent added to the soaking water was useful to the beans. It seemed possible that the pattern could be seen if two different concentrations of the additive were used in the soaking water.

Adding something to the soaking water, in some cases, can increase the viscosity of the water, making it harder to absorb. In that case, if there was no significant help or damage to the beans to distort the pattern, the pattern we found earlier (the measurable effect pattern related to water absorption) should show up if the beans were allowed to dry. In other words, weight loss will be greatest or weight gain the least in the treated seeds, for the seeds that initially soaked the longer period (or soaked up the most water),

and weight loss will be least or weight gains the greatest in the treated seeds, for the seeds that initially soaked the least (or soaked up the least water).

In our next test we put 800 grams of soybeans in each of 24 plastic mesh bags. Eight of the bags were soaked in water and an additive was chosen for the soaking water for the other bags. The additive was one of the enzyme preparations used for removing stains when washing clothes (Axion).

For eight of the bags 1 tablespoon to each 2 cups of water was used, for the other eight bags 1 tablespoon to each cup of water was used. In each group four bags were controls and four bags were experimental. After the soaking was begun, the beans in the experimental groups were treated. After soaking, all the beans were weighted. After weighing, the beans were put in the plastic cans for 24 hours and weighed again. There were no visible signs of damage from the additive.

The first row shows the figures from the beans in the clean water (control water absorption 84.14 %). The second row shows the figures from the beans with the least additive (control water absorption 79.15%), and the last row shows the figures from the beans with the most additive (control water absorption 75.83%).

Control Loss	Treated Loss	Percent Difference
1.85	1.53	+17.57
0.85	0.73	+14.71
0.49	0.48	+2.56

Graph of Water Release during 24 hour Drying Period
Soybeans Soaked in Viscous Solution
(Percent treated over control)

Clear Water	XXXXXXXXXXXXXXXXX
Viscious	XXXXXXXXXXXXXX
Most Viscious	XXX

After 24 hours in the cans the figures show (in the percent difference column and in the graph) only the usual effects of treatment on drying soybeans with

different soaking levels. The treated seeds have given up less water than the control seeds because the drying period was 24 hours instead of 12.

We did part of the test two more times, putting 600 grams of soybeans into each of six plastic containers, three control and three experimental. Soaking water, prepared as before, was added to the containers. The beans in three of the containers were treated after the soaking began, and the soaking was discontinued, as before, well before water supply was ample in the beans. Then, weights were taken. Rows in the following table are in the same order as in the table above.

Test One		Test Two		Test Three	
Control	Treated	Control	Treated	Control	Treated
84.14	83.83	86.48	87.20	82.70	81.98
79.15	77.99	67.72	67.37	68.43	69.85
75.83	75.00	65.57	65.65	63.00	63.32

Percentages of increase or decrease between treated and control for each of the three groups, averaged for the three tests, were as follows: -0.04, -0.01, -0.07. Taking all three groups together, control weight was 6730.2 grams, treated weight was 6721.9 grams, a difference of –o.12%. Thus, measurable effect, if it is present, is very small. One concludes the beans are quite well able to handle all the water they can get when they are in an under soaked condition, although the next test confirms the small negative effect.

Different additives can be introduced into the soaking water. Other than Axion, we tried only one, ammonia of the household type available at the supermarket. The bottle was not descriptive of strength of contents. The ammonia increased the absorptive power of the beans or, probably more accurately, made the solution easier to absorb.

100 grams of soybeans were placed in each of 24 plastic mesh bags. Eight were soaked in clear water, 8 in a solution of 1 cup ammonia to 16 cups water, and 8 in a solution of 1 cup ammonia to 8 cups of water.

After soaking for 8 hours (during which time the beans in half of the bags in each group were treated), the beans were placed in the garbage cans to drain for

an hour and then weighed.

Control weight gains were 109.73 and 124.65 in the clear water, light additive and heavy additive categories respectively. Measurable effect in each group, as in the previous check of this kind, was slightly negative in each case. Figures were -1.14, -0.41, and -0.70.

Twelve hours later the beans in each bag (kept in the garbage cans) showed a weight loss of a few grams or so. E (measurable effect) was -5.06, -30.23, and -13.51.

A weighing 12 hours later showed E in the clear water group about the same as the weighing before (-6.98), E in the least ammonia group to be +16.07 (moisture content has been balanced and treatment is now helping to conserve water) and E in the greatest ammonia group to be -3.41 (moisture content moving toward stability but more slowly than in the less ammonia exposed group).

Drying was carried no further, because, with this many beans in each bag and without dipping to keep the beans very moist, drying would be uneven.

Although the ammonia solution was absorbed more easily than the water, the beans in the heavy ammonia took in slightly less solution than the beans in the light ammonia.

Graph of Water Release
Initial 12 Hour Drying Period

Soybeans Soaked in Ammonia Solution

(Percent treated beans under control beans.)

Clear Water XXXXX
Light Ammonia XXXXXXXXXXXXXXXXXXXXXXXXXXX
Heavy Ammonia XXXXXXXXXXXXX

In the drying period the treated beans all released more solution than the control beans. The treated ammonia soaked beans were obviously getting rid of more solution than the treated water soaked ones, and the treated beans less exposed to the ammonia were doing this more effectively than the more heavily exposed treat beans.

This pattern confirms the pattern of the beans during the soaking period. Although the ammonia solution was easier to absorb than the clear water, the ammonia laden water was absorbed less by the control beans in the heavy dosage category than by the control beans in the light dosage category and less yet by the treated bans in the heavy dosage category than in the light dosage category.

One of the lessons that comes clear from our tests is that qualitative thought is always working to sustain and develop identity; it is blessing whatever it associationally touches. Another general conclusion is that measurements of E or r can be validly compared with other such measurements only when adaptation of the system to r or degradation of the system by r is not strong enough to skew test results.

Tests with Water Soaking

Our final soybean tests in this series were done with 200 grams of soybeans in each of 2 plastic mesh bags for each test. The beans were soaked for 9 hours, dried in our plastic garbage cans for 12 hours, dipped in water and returned to the cans for 12 hours.

The beans were then weighed and the beans in one of the bags were treated. The beans were returned to the can for 12 hours and weighed again. They were then returned to the can for another 12 hours and weighed. Then they were dried on a rack in the open air in a draft free place and give a final weighing.

There was a small amount of unheated water in the bottom of the cans and the weather was cool for these tests.

Graph of Water Release during 12 hour Drying Periods

(Treated under Control – Average of Seven Tests)

First 12 Hours XXXXXXXXXXXXXXXX
Second 12 Hours XXX
Third 12 Hours XXXXXX

In the initial 12 hour drying period inside the closed container the treated beans would have (if room temperature was higher) released more water than the control beans. Our checks confirm this. This water release (rather than retention) also characterized our earlier tests when the water in the bottom of the cans was heated and humidity consequently greater.

Under the conditions of this test, when water is needed by the beans almost from the inception of the initial drying period, the initial drying period shows the treated beans retaining 16.6 % more water than the control beans.

During the second drying period water retention by the treated beans is still greater than control (2.6%), but not as much so, for the beans are beginning to adjust to conditions in the closed container.

In the final drying period water retention continues to be greater by the treated beans than by the control beans (6.0%), and more so than in the second drying period, for in this final drying period the beans were taken out of the closed container and dried in the open air.

Response to Treatment

The soybean tests provide some examples of the fact that qualitative thought blesses most the patient most able to be helped. Qualitative thought uses to the fullest what it has to work with. This is clearest in our figures if we take the earliest measurements (before adaptation) that we can.

In the first drying and growing cycle of the 9, 6, and 3 hour soaked beans, we see qualitative thought producing the greatest effect in the beans most able to use it. What we are seeing, of course, is measurable effect, not actual effect.

Graph of Water Release or Retention and Seed Growth

Percent treated over or under control. Seed growth (or loss) is to half scale, water release or retention is to quarter scale.

First Drying and Growing cycle

9, 6, & 3 Hour Soaked Beans

Water Release XXXXXXXXXXXXXXX!
Weight Gain !XXXXXX

Water Release X!
Weight Gain !XXX

Water Release X!
Weight Gain !XX

Another example is the water retention (or discharge) of soybeans in their first measured 12 hours of drying time. The treated 9 hour soaked beans did better than the over soaked or under soaked treated beans.

Graph of Water Release
(First 12 hours of both tests.)

In the first 12 hours of drying time the treated beans all discharged more water than the control beans.

(Percent of treated beans under control beans.)

Hours
Soaking
Time

18 XXXXXXXXXXXXXXXXXXX
12 XXXXXXXXXXXXXXXXXXX
9 XXXXXXXXXXXXXXXXXXXXXXXXXX
9 XXXXXXXXXXXXXXXXXXXXXXX
6 XXXXXXXXXXXXXXXXXXX
3 XXXXXXXXXXXXXXXX

A concluding example is the water release of the beans in the ammonia solution. The treated beans that took in less ammonia did much better than the beans that took in more ammonia, although there was only a 1% difference between the two in the amount of liquid absorbed.

Graph of Water Release
(Initial 12 hour Drying Period)

Soybeans Soaked in Ammonia Solution

(Percent treated beans in Ammonia Solution)

Clear Water XXXXX
Light Ammonia XXXXXXXXXXXXXXXXXXXXXXX
Heavy Ammonia XXXXXXXXXXXXX

When we say treatment helps most the patient most able to be helped, we are misusing words in the same way we are when we say treatment helps most the patient most in need of help. We found the apparent pattern ($E=1/r^2$ in the case of soybeans and rye grass) reflected the r pattern, and the actual pattern (k=E/r) showed treatment inherently impartial, or uniform, in its effect.

The over soaked and under soaked beans did not produce as large an E as the 9 hour beans. This is in apparent contradiction to the finding that E is in proportion to r, a contradiction that disappears when we remember that because of degradation of the system (the over soaked beans not able to function as well as the median soaking range beans) and adaptation (the greater retention of water by the under soaked beans) we are not comparing under equivalent conditions.

Just as the bean's response to external stress masks the k=E/r relationship, so the bean's response to degradation or deprivation (other forms of r) masks the equation k=E/r.

Thus it is that the identity fields which respond most easily to qualitative or non-qualitative throught also, through their response to stress (variable response without internal change and variable response because of internal change) distort the fundamental relationship involved.

Generally speaking, we have no choice but to use qualitatively developed identity fields for measurement of qualitative thought, because we need the ability to deviate from norm in our experimental situations.

The random flow deviations used in parapsychology to measure non-qualitative thought are not very useful in normalcy-referenced testing even though a thought sensitive identity field is involved, simply because norm deviation cannot easily be established.

Simple and repeatable tests of norms are easy to set up if qualitative thought is the mode of consciousness involved. Tests of the effect of belief on norms are more difficult, for patterns of belief must be found or established and these patterns must be linked to test conditions.

Measurement and Test Conditions

Christianity, at its best, maintains a strong distinction between the power of the human mind and the power and love of God. The normalcy-referenced test makes this distinction clear, and identity field theory reflects this in the two valued pre-geometry on which its conceptual structure rests.

Bringing the conceptual order of this distinction to the measurement approaches of modern science opens the door to adapting for normalcy-referenced testing purposes, in the area of thought, established measurement practices. It also has the disadvantage of adding to the conceptual difficulties many devout Christian healers have with the concept of measurement. The additional emotional shock of being associated with measurement methods which have, in the study of thought, traditionally been used to study the emotional, psychic, and occult rather than the holy aspects of consciousness.

Measurement, like all things human, can be used for good or evil. Applied to thought, it can be used to limit good (something the spiritual healer rightly shuns), or it can be used to increase our awareness and understanding of good (an approach the spiritual healer often does not understand and therefore wrongly avoids).

Bringing the conceptual order of the distinction

Between qualitative and non-qualitative thought to the measurement practices of science involves in many instances much of the same re-evaluation of non-quantitatively oriented conceptual structures as was occasioned by the original discovery that measurement under controlled conditions was possible.

For example, one of the measurement methods of parapsychology involves the use of an ESP deck. This is a deck of 25 cards in which a symbol appears on each card. Five symbols are used and each symbol appears on five cards.

An ESP deck is used to investigate the phenomena of clairvoyance or mind reading. A participant in a test with these cards is asked to call the card before it is turned over and then, after a run of 25 cards, the number of correct calls is recorded. Chance expectancy is 5 correct calls in each run of 25 cards. If enough runs are made it can be statistically determined to what extent the correct card is mentally correctly perceived (if at all).

Of the exceptional participants who have taken test, and stayed with it long enough to develop meaningful figures, one of J.B. Rhine's participants (Pearce) had an average score of 9 or 10 correct calls per run (instead of the expected 5) and two other participants (Linzmayer and Stuart) averaged 6.7 and 6.0 respectively. Shackelton and Stewart (two of Soal's participants) averaged 7.3 and 6.8 correct calls per run respectively.

The ability to mentally discern the nature of the problem to be healed (the error to be cast out) is considered a desirable goal to be obtained by a spiritual healer. This ability is, by many such healers, sharply distinguished from psi phenomena (clairvoyance or mind reading in the case).

The acceptance of spiritually developed paranormal abilities on the part of spiritual healers, and the rejection of humanly developed paranormal abilities (indeed, the eradication of such abilities if they are possessed) by such healers, presents practical and conceptual measurement problems never recognized or addressed by parapsychology.

Although the distinction between psi abilities and divine revelation is rudimentally understood by many spiritual healers, it is a conceptual problem not often

addressed beyond the basic level of acknowledging the fundamental distinction. There are two practical reasons for this.

The first is: occasion for the exercise of greater insight (and thus the seeking of it) does not often arise. The second is: some things must be experienced to be fully understood. For example, a theoretical explanation of color in terms of varying wave lengths of light is simply not meaningful to a color blind person.

This wide spread ignorance on the part of spiritual healers and the religious community that supports them is unfortunate, for both parapsychology and depth psychology show us that psi activity is usually unconscious and we therefore, no matter what our conceptual positions may be, need to consider it as an element of human experience to be reckoned with.

The measurement of thought requires, as does all measurement, conceptual clarity. Conceptual clarity has benefits reaching far beyond science, for the exposure and monitoring of modes of thought, both good and evil, that ethical measurement leads to, constitutes both a religious and a general good.

If it is true that psi abilities flow from the belief/faith or the emotional states of an individual, whereas spiritually developed paranormal abilities do not, the ebbing and flowing of psi abilities should contrast with the stability of spiritually developed abilities, just as the fluctuations of psi phenomena contrast with the stability and order of the normalcy referenced test.

The power of non-qualitative thought is referenced (when it is referenced) to those goals which are determined by the individual using this mode of thought.

Healing and the Conceptual Field

Location of qualitative effect is determined by the conceptual field which, in the case of the treatment used in spiritual healing, is consciously selected by the spiritual healer. The conceptual field determines where the healing effect takes place, and the norms of the field conceptually selected (associationally related to) determine the nature of the effect.

The location and nature of non-qualitative effect are both determined by the goal selected. Thus, while the associational relationship of consciously directed qualitative thought is with the identity of the patient (identity related), the focus of thought of the faith healer is on the result to be obtained (goal related).

This difference is very clearly seen in the mental states of qualitative healers and faith healers during treatment.

During treatment, the qualitative healer devotes his or her thought to perception of the patient in terms of divine attributes and contemplates the relationship of those attributes to their source, God.

During treatment, the non-qualitative healer devotes his or her thought to building up the belief, faith or emotion necessary to produce an effect. When done from a religious conceptual framework this may range from thinking in terms of God's willingness and power to heal the specific difficulty to building up a state of religiously oriented emotional ecstasy.

Qualitative healing is identity oriented and the concept of identity involved in treatment is religiously, and not personally or materially, defined. Non-qualitative treatment, including faith healing, is goal oriented and the concept of identity involved is personally and materially defined.

In spiritual healing, the human or material identity of the patient is linked to the healer's non material concept of the patient's identity by the conceptual field. The conceptual field then plays no further definitive role since the qualitative effect is norm determined.

In faith healing the goal is a specific change in the human or material identity of the patient. Thus, the conceptual field is involved in the healing (the change in circumstances) in two definitive ways. The goal to be achieved is defined by the healer in terms of a consciously visualized alternation in material circumstances. Thus, both the location and nature of the healing or change are determined by the conceptual field of the healer.

Since the healing is goal determined rather than norm determined, the way goal is achieved depends wholly on the conceptual field of the healer and/or the patient (the conscious and/or unconscious associational structures involved.

In both qualitative and non-qualitative healing the conscious and unconscious associational structure of the patient is the terrain which affects the course of healing but, in the case of faith healing, if the goal is not consonant with identity field norms, the attainment of the goal usually involves the warping of other norms and the conceptual field determines the nature of this warping.

If possible, we wanted to document the rather obvious fact that the manner in which a thought induced change occurs depends on the associations involved. We thought of a way this might be done using the influencing of random flow as a means to the end, but found that the amount of work involved lay outside our limits of time and motivation. However, the concept involved can be used as an illustration of the relationship of the conceptual field to non-qualitative change.

A Hypothetical Example

J.B. Rhine pointed out in 1952 that, with an ESP deck, psi deviations were noted to be roughly equal in terms of psi-missing (low deviation) or psi-hitting (high deviation) in spite of the fact that a difference should (presumably) exist. He pointed out that by chance a card would be called incorrectly 4/5 of the time. Therefore, a correct positive call involves increasing an 0.2 chance to 1, whereas a corresponding negative call increases an 0.8 chance to 1.0.

A formula used for determining the critical ratio or z score for statistical analysis of ESP deck scoring is as follows: standard deviation is equal to the square root of (number of trials X probability of success per trial X probability of failure per trial) or (in this case) 0.16 X number of trials; z score = deviation of scoring from expectation divided by standard deviation. A table for converting z scores to probability values can then be consulted.

In our earlier tests of belief/faith we found that the fall of dice was deviated from its norm by the belief of the healer. If such a state of belief could be reproduced in other gullible individuals and linked to the stroking in of numbers randomly on a computer rather than to the fall of dice, the text could be structured so as to produce results more quickly and to involve more than one norm.

The pseudo random function of any microcomputer could be used for this purpose so long as a combination of uneven distribution of numbers in categories and uneven finger stroking is avoided since uneven finger stroking coupled with any unevenness in categories caused by the pseudo random algorithm of the computer would distort and thus invalidate any results obtained.

We set up a program in which the numbers 1, 2, or 3 were stroked in randomly with our participants using only one finger when making tests. The program initially stored 24 1's, 2's, and 3's in a "random" sequence within the computer. The key strokes of the participants were, when 24 numbers had been keyed in, matched to the stored sequence and the number of "hits" recorded.

In this case the average number of "hits" per run, or norm, is 8, and the mathematical pattern $C_x p^x q^{n-x}$ where C=n!/x!(n-x)! tells us this norm is achieved, in individual runs of 24 trials, on average, 17.07 % of the time.

The tendency towards the distributive norm falls 1 unit short of the norm 16.06 % of the time and 1 unit over the norm 15.17 % of the time. The tendency toward norm falls 2 units short of the norm 12.49 % of the time and 2 units over the norm 11.38 % of the time. There are norms for the 25 possibilities (0 to 25) that exist.

Non-qualitative thought is not norm related but its power (barring specific associational distortion) acts evenly over a conceptual field according to the strength of the belief involved.

If, for example, the distribution of hits was acted upon in such a way that each category of hits was shifted 10 % in the direction of belief (in a "positive," that is "more hits" direction) then the pattern of hits would become (for the 5,6,7,8,9,10,11 groups of hits) 7.50, 12.03, 15.70, 16.97, 15.36, 11.76, 7.65, instead of 7.89, 12.49, 16.06, 17.07, 15.17, 11.38, 7.24.

The pattern of hits is predictable from identity field theory (if the conceptual field is the entire range of 25 possibilities) and is dependent on the strength of the belief involved ($E=m_r/m_c$). A 10 % shift of this sort would result in an average number of hits per run of 24 trials of 8.10 instead of 8.00.

However, in a test such as this, the conceptual field, as it relates to the distributive norms, is unconsciously defined. Its topography is not known because it is not selected by conscious volition.

What this means is that the goal directed mechanism involved in increasing the average score of 8 hits in each 24 tests may involve a conceptual field centered around the distributive norm of 8, or perhaps associational connections between the participant and specific numbers.

To achieve the goal of increasing the average number of hits per run, distribution percents larger than 8 must be increased and distribution percents smaller than 8 must be decreased. How this occurs would have to depend on the associational characteristics of the conceptual field of the participant, and it could vary in different participants. To verify the preceding statement would be a goal of a test such as this.

This test is hypothetical simply because the amount of work involved is out of the question for participants, even if the right participants could be found. The computation of the z score could tell us whether or not the number of hits achieved, if such a test were done, indicated a norm deviating influence, but we were not mathematically sophisticated enough to have any idea how many tests must be run to achieve

reliability in terms of the distributive norms.

We had volunteers run tests, and combined the totals to get an idea. We found that after 44 runs (1,056,000 trials) the norm of 8 was well approximated (8.00041, 352,018 hits). However, the distributive norms were still well away from good approximations.

Evaluation of Mental Modes

Many of the spontaneous psi experiences cataloged by Louisa Rhine and others would be classified by religious people as revelation on the grounds of goodness, purpose, manner of appearing, or result. Other such experiences would be rejected as the dark side of mental power, and, of course, many would be endlessly debatable.

It is the nature of personal experience to be debatable. It is hard to evaluate the quality of anyone's life or thinking until enough evidence has accumulated to make a reasonably sure judgement. And too, what is best in one context or one experience may not be best in another. This is why the controlled test has a useful place in making evaluations, wherever it can be properly applied.

Application of the normalcy-referenced test to psi modalities to determine their qualitative or non-qualitative nature is possible. It can be done by normalcy-referenced means and by applying qualitative thought to the mode being tested and seeing if the mode lessens or disappears.

There are other approaches too, such as evaluating the results of the mode and, also, by altering directions of belief and seeing if the mode changes accordingly in its ability to produce results.

Counterfeit Patterns

In our earlier measurements of non-qualitative thought we found two non-qualitative elements of thought at work: (1) the healer's faith in thought associated with organic and inorganic systems to produce a certain result and (2) the healer's faith in his treatment.

We know that non-qualitative thought was not normalcy-referenced because the norms associated with

the rye grass seeds did not appear. In addition, effect was constant (not normalcy-referenced) relative to the different circumstances and subject materials used in the tests associationally related with the dice and with other inorganic materials from which test figures were obtained.

We also knew that the pattern which appeared was (with the rye grass) the pattern which corresponded to the belief pattern of the healer. If the healer's belief pattern had corresponded to the actual norms involved (it did with the dice but not with the rye grass) the pattern that would have appeared would have counterfeited the definitive normalcy-referenced pattern and been misleading (as it was with the dice).

Patterns of non-qualitative thought counterfeit patterns of qualitative thought whenever our conscious or unconscious beliefs about what constitutes good are governing the direction of thought. Since, if the real norms are unknown, we cannot tell the difference, a more definitive test of non-qualitative thought than simply the trend of results is whether or not an increase in the power of non-qualitative thought as compared to previous measurements (across different r's) produces results in constant ratio.

Another definitive test is nature of results flowing from alteration of belief patterns (or, more accurately, non-patterns, since they shift randomly with belief).

No matter what we believe norms may be, qualitative thought will produce them and they will differ from our belief patterns if our beliefs are not correct.

Effects of non-qualitative thought will change or disappear as belief changes. Our measurements of non-qualitative thought (on the rye grass and the dice) came to an end when the pattern of belief changed. The effect correspondingly disappeared.

Since the effects of belief can be altered by stronger, differently oriented beliefs, the application of qualitative thought to non-qualitative thought to see if non-qualitative thought lessens or disappears is a test for non-qualitative thought which is subject to counterfeit patterns. We may have only subjective evidence that qualitative thought is actually being applied and we may have no way of knowing if strong beliefs are acting at the same time that qualitative

modes may be operating.

Dangers of Faith Healing

The normalcy-referenced test shows us that the concept termed “good” in religious theory (theology) is defined in human experience as the norms revealed in normalcy-referenced testing.

As long as the concept of “good” held in the conscious and unconscious thought of the faith healer is coextensive with these norms, faith healing simulates spiritual healing.

In practical terms, the danger of faith healing lies in the fact that a faith healer’s concept of good will sometimes deviate from these norms.

In religious or theological terms, the danger of faith healing lies not only in the fact that faith can be misplaced and that faith can be shaken, but also in the fact that faith – and faith healing – strengthen an individual’s concept of good without diminishing non-qualitative elements of consciousness. Thus, a consciousness embodying a non-qualitative sense of good is a house divided against itself which, at some point, must fall.

Associations

To a physicist, the structure of spacetime is defined and probed by comparison of the geodesics or paths of freely falling particles. In a similar way, the associational structure of the world can be defined and probed by measurement of the effects of associationally directed elements of qualitative consciousness or prayer (normalcy-referenced testing). This is because mental energy flows in associational patterns.

In a religious framework the overriding concern is with quality of thought. An intellectual analysis of dynamics and structure does not often enter into qualitative treatment. The replacement of non-qualitative elements with elements of the moral or spiritual is the central occurrence in every healing. To the extent this drama emerges into conscious thought, it appears as repentance, a qualitative, moral and spiritual, shift in outlook. The results, however, are associationally guided in terms of patient identification and often include associational restructuring in normalcy-referenced ways.

Associational Tests

Specific associational tests were begun in this way. Mung beans were placed in three cups: control, heads, and tails. A penny was placed in a closed box and the box shaken. Then the mung beans in the cup indicated by the upturned and unknown face of the penny were treated. There were twice as many sprouts in the heads cup; and when the box was opened, the penny was heads. The initial soaking of the beans was with salt solution to increase the effect.

Tests were then made using a die and seven cups of mung beans, and we found we could tell by counting the sprouts which face of the die was thrown in the closed box. Playing cards and bills of differing denominations were used in further tests, and the same results were obtained.

After this we did tests in which playing cards were

correlated to beans in cups, treating those beans corresponding to the red cards, as opposed to the black ones. The cups were numbered and individual playing cards were put, sight unseen, into numbered envelopes.

We found that unconscious correlations were stronger in the mind of the healer, in this case, than conscious ones. The beans, instead of corresponding to the red cards, corresponded to the numbers on the cards. Beans in cups corresponding to the numbers on the playing cards sprouted above average, and beans in cups associated with picture cards did not.

We then did a more involved associational test and found that the more extended the associations, the weaker the healing effect. We also found that, in a test with a die, if a number came into the healer's mind as he was praying, this correlation was stronger than the unknown correlation with the face of the die.

It is interesting to note that in these tests the associational connections contain a link completely removed from the minds of all concerned and unknown to anyone. But the associational-intentional paths are still following.

In our next experiment, treatment was given directly to clearly marked groups of beans.

Two hundred mung beans were placed in each of 72 plastic cups. The cups were separated into two groups of 36 cups each. Half of the cups in one group were marked with a red pen, and one third of the cups in the other group were marked with a blue pen.

One fourth cup of saline solution (one tablespoon salt for each cup of water) was poured in each cup. After 24 hours the beans were drained and rinsed with fresh water. They were rinsed twice a day thereafter, and the number of sprouts counted after nine days. Treatment was given to the beans in the red marked cups and the blue marked cups during this time.

The results, in terms of number of sprouts per cup, fell into two ranges: a lower range of 20 – 38 and a higher range of 45 – 71. All untreated cups fell into the lower range; all treated cups, red or blue, fell into the higher range. Average number sprouts in the lower range was 28.4, average in the higher range was 52.6, average increase was 85.2 %.

Associational Test of Belief

Looking back on the faith healing experiments, we were not able, with small amounts of mung beans, to duplicate the “hidden target” experiments which had been so successful when the beans were directly treated. This was attempted using yogurt, plants, the dresser drawer, and different levels of salinity. Our conclusion was that the mental energy was not strong enough, and that success depended on a larger statistical base and more accuracy.

This is interesting because it was so easy for faith to push the rye grass into greater growth (beyond the spiritual healing norm), but yet, in this test of strength, the same level of faith showed itself to be very weak in comparison with the level of spiritual healing compared earlier.

This is, however, not a wholly valid comparison, for the faith was unconscious, and the treatment was consciously directed, with the effect of the treatment varying, depending on the clarity of the healer in his own relationship to the hidden target.

Using the dresser drawer, we did two faith healing tests with larger numbers of beans, and both were successful. We were able to measure the healer’s belief that the thought which went into the making of the dresser drawer was influencing the seeds.

In the first experiment three containers of mung bens were used, with 200 grams of mung beans placed in each container.

The initial soaking used a solution of ten teaspoons salt for each eight cups water, a weak (for mung beans) solution used to give a little larger spread between the very high germination rate and one hundred percent.

Three bills (a one dollar bill, a ten dollar bill, and a twenty dollar bill) and two envelopes were taken into a dark room, shuffled, and two bills placed in one envelope and one bill in the other envelope.

The dresser drawer was taken out with an intention to replace it if the mung beans in the container corresponding to the single bill in the envelope had a germination rate above the average of the other two.

The envelopes were not to be opened until after the experiment was over.

We proposed to sort the non-sprouts from the sprouted beans, and then, for the sake of time and convenience, count the non-sprouts. Our specific intention was to reward the dresser drawer by replacement, if the mung beans in the container corresponding to the single bill in the envelope had a proportion of non-germinating beans at least eight percent less than the average of the other two.

We also proposed to remove the tiny hard beans after germination before counting the non-sprouts. This is easy to do because they are tiny, are round instead of oblong, and neither swell nor soften in the soaking-rinsing process.

In addition, we proposed to take all the genuine apparently non-sprouting beans, skin them and examine them as closely as possible to be sure they were not sprouting, counting only the actual non-germinating beans. We felt that success probably depended on this level of size and carefulness.

The data from the first experiment indicated that the envelope with the single bill contained the one dollar bill. When the envelopes were opened this was the fact.

The cup marked “$1” had 360 non-sprouts, a rewarding system percent level of -7.5. The cup marked “$10” had 402 non-sprouts, a rewarding system percent level of +3.3. The cup marked “$20” had 376 non-sprouts, a rewarding system percent level of -3.3.

We thought that with more accuracy better results could be achieved, so in the next experiment we went back to counting the mung beans initially. This is not only a matter of counting beans instead of averaging them by weight, but as one counts, the broken and dried beans can be discarded, as well as some of the tiny ones that will not germinate.

In this test, we used three containers with 4,000 mung beans in each container. Three cards were taken from a deck, the ten of diamonds, the queen of hearts, and the seven of spades. Two were placed in one envelope, one in another. Which cards were in which envelope was unknown.

The dresser drawer was taken out with intention of replacement under the following condition: the mung beans in the container corresponding to the card in the envelope with only one card in it germinating at least eight percent less than the average of the other two,

figured the same way as before.

Again, the apparently impotent little beans were removed and set aside, and the "genuine" non-sprouts were skinned and examined as they were counted.

The cup marked "ten of diamonds" had 194 non-sprouts, a rewarding system percent level of -4.0. The cup marked "Queen of hearts" had 148 non-sprouts, a rewarding system percent level of -26.7. The cup marked "seven of spades" had 210 non-sprouts, a rewarding system percent level of +4.0

We couldn't miss the fact that the Queen of hearts was the card in the envelope with only one card in it, and when the envelopes were opened this was the fact. Again, the healer's faith that a certain result would happen had produced the result. Just as faith in a placebo can produce a healthier body, here faith in a dress drawer had produced healthier beans.

Associations and the Conceptual Field

It is possible with mental effort to strengthen associational links. Using normalcy-referenced testing, the effects of this can be observed.

We took trays and put vermiculite in them, then divided the trays into quarters with pieces of string. Soybeans were soaked in salt water (one tablespoon salt for each cup of water) and then planted in the vermiculite. We put 90 beans in each quadrant of the tray and poured more vermiculite over the beans. We watered them by pouring water into a funnel which could be placed in the middle of the tray when needed.

We took a deck of cards and divided it into thirteen groups of four cards each. Each quadrant of a tray was marked to correspond to a different card in one of the thirteen groups of four. These four cards were then shuffled and one card drawn from the group. This card was put aside, not to be looked at until the experiment was over. The other three cards were also set aside without looking at them.

With each additional tray we prepared, the single card selected from the group of four was placed beneath the previous single card selected. In due course, we had a deck of thirteen cards. After that we used 3X5 file cards with a word typed on one side, following the same procedure as with the playing cards. Thus, we built up an even larger deck of cards.

As more trays were set up, more cards were added to the bottom of this deck. After a tray was counted, a card would be removed from the top of this deck and looked at. Each day the soybeans in the tray quadrants corresponding to the cards in this deck were treated.

The first six trays were started at the same time, and the rest, as we could get to them, usually two every day. The experiment worked well enough to pick the right card 18 times out of 26.

The fact that the card used to identify the beans (a selection of one card out of four) could be correctly picked 18 out of 26 times is a good result. But the sequence of events in the experiment is even more important.

When we were ready to count the soybeans, we found ourselves staring at a tray with three sprouts coming up in one quadrant, six in each of two others, and nine in the last one. Then we remembered how, in previous tests, we had to individually examine the mung beans (check each one for germination, skinning them if there was any doubt, in order to make the experiment work). Therefore, we went back to doing this, picking the soybeans out of the vermiculite, rinsing them, and examining them.

The sequence of events in this experiment reinforced some lessons learned earlier. The first eight cards were called correctly. When the three control quadrants were averaged and their average compared to the experimental (treated) quadrant, and these figures were averaged for the first eight trays, the average increase in the experimental (treated) quadrant was 38 %.

In the next seven trays the right card was called only four times out of seven, and the increase was only 14 %.

In the next six trays the right card was called only once, and the average of the experimental (treated) quadrants was down 5% from the controls.

In the last five trays (counted several days after we had reviewed the figures just given and the healer had taken corrective action), the right card was called

every time, and the average increase in the experimental (treated) quadrants was 44 %.

After the good start of the first eight trays, we were disappointed when the experiment began to go downhill. Up to that point the healer felt the treatments given daily had been fairly consistent.

Then we remembered the first eight trays had been started in two days, and after that we had usually continued with just two a day. In the first two days of treatment the healer had taken time to establish as well as he could in his own thought the associational pattern with which he had to work. From our earlier tests we had come to the conclusion that associations are acquired and developed, not arrive at intellectually, and that workable experimental situations must reflect this condition.

We remembered how easy it was to “hit” known targets and how relatively difficult to “hit” unknown targets.

After giving quite a bit of time to the associational problem the first two days, the healer had assumed the associations were an established fact – feeling that they existed in his thought.

When he realized what was happening with the seeds, he knew he must do better with his associations. Actually, the final figures were better than the first (44% to 38%).

This shows that associational patterns can be developed and established in one’s thought, and must be; for healing to be effective the patient must be there and must be identified by the healer in terms the healer can understand.

Usually in an experiment, thought is present only as an observer. In these experiments the force being measured is mental, and the direction of flow of power is determined by the laws of thought (associational in this case). Putting a card in the pact included a quadrant of seeds. Deleting a card from the pact deleted a quadrant of seeds.

In the experiment just described, we began by thinking we would do it by growing soybeans, but we finished by sprouting them. Therefore, in setting up a similar kind of experiment, we went back to actual sprouting.

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In working with soybeans, as with mung beans, length of soaking with or without salt is important. With soybeans, the longer the beans are soaked, the more the skins dissolve and the easier it is for the seeds to germinate. Any detrimental effect of salt in the water is more than offset by the positive effect of additional soaking on the germinating process.

One would expect then, that (using a saline solution) the observable effect of treatment, with soybeans, would be opposite to mung beans. That is, measurable effect would be greater at the lower soaking levels instead of the higher. With the soybeans we were using we found measurable effect to be related to soaking time as follows: at the 12 hour level E=53%, at the 15 hour level E=50%, and at the 18 hour level E=25%.

We knew that at some point the effect of the salt would offset the beneficial effect of the soaking. For this reason, we went to 24 hour soaking in our next test.

We used clear plastic glasses with holes in the bottom of each. We fastened four glasses at the top, until we had thirteen groups of four. Two hundred soybeans went into each glass.

These groups of soybeans in glasses were soaked in trays of salt water (one tablespoon per cup for 24 hours), with the soybeans well covered. After this, they were rinsed with clear water, then rinsed two or three times a day by pouring two cups of water into each glass of beans and letting the water run through.

Throughout this process the beans in the cups corresponding to cards in the associational target deck of thirteen cards were treated. The glasses (instead of quadrants) were marked, and the cards set up as before.

When we counted the beans in the glasses, we found that the farther down in the glass we went, the higher the germination rate was in every case. We could not miss this in counting the beans because it was so pronounced. It was apparent that the measuring system was looser than we had thought it would be; nevertheless, we found the right card was called ten out of thirteen times.

Associational Strength Not Fixed

One lesson taught by the last two tests is that associational strength is never permanently fixed. It will not only vary from healer to healer but can fluctuate within the thought of a healer according to the extent to which a consciousness of the relationship is developed.

Associations: Patterns, not Power

Since mental energies are directed by associational patterns, and since associational patterns can be put in place by visualization, the theoretical question arises as to whether or not visualizations and associations have any significant level of mental power in and of themselves, or if they are only the patterns which determine the direction and flow of mental energy.

To check on this, we decided to make some tests using random flow, something we knew could be easily affected by thought. We found that the need for true randomness in computer modeling and the advent of semi-conductors (the thermal noise of at least some of them is random) has led to rather easy ways to produce true randomness (compared to such things as radioactive decay, gas diffusion and so forth).

We had two random circuits built. The design of one was taken from pages 46 and 47 of the April 1979 issue of Microcomputing, and the other was from page 82 of the March 1980 issue of Popular Electronics.

Construction, as well as design, may have entered into the performance of the circuits. For our tests we used the circuit from Microcomputing magazine. The circuits were on a card we could plug into an Apple

computer.

The computer was set to show each sample figure above a selected point in an inverse mode on the monitor. We had the healer visualize each sample as it was being taken, in terms of this rectangle of light, and our tests showed no effect at all.

In our first tests on random flow (which we learned later measured only the healer's own faith), we used dice as a random events generator, counting, for example, the odd numbers as "pluses" and even numbers as "minuses." We used a rewarding system, mentioned earlier, rewarding according to the amount of pluses or minuses achieved above average.

When throwing dice we found there was a limit to the complexity of the instructions that could be followed. For example, if one threw dice 10,000 times and rewarded according to odd numbers, the odd numbers would be affected. If another 10,000 throws were made and rewarded according to even numbers, even numbers would be affected. Making "double runs" like this in the course of an experiment permitted automatic correction for imperfection in the dice, and subject material, (meaning, as it turned out, the healer's own unconscious thought), could follow the shifts back and forth with no difficulty.

Using an electronic die – when a button on a box is punched, a number from 0 to 9 appears randomly on a display – the subject material would appear to influence any number, and odd or even numbers, selected according to intention to reward. This is based on a small sampling, but the same patterns appeared as with the dice.

However, when rewarding was promised according to the influence on alternate throws of dice in a run, the associational patterns could not be followed. Here again, we did not run a great many numbers (we made several runs of 20,000 each) because the information was easier to verify in other ways, and later tests have done this, but these early indications proved to be in line with later findings.

Host runs were done without conscious knowledge on the healer's part of which direction the dice were to be influenced.

Later, when his faith disappeared, the effect

disappeared both on the dice and on electronic circuits.

The disappearance of effect with the disappearance of faith, rather than with the disappearance of the guiding mental mechanism, which presumably was still in place, shows that energizing and directing elements of thought are not necessarily one and the same.

From the different tests we have made, including those which show the specificity of treatment, we conclude that as large as their role is in directing more powerful elements of thought, visualizations and associations in and of themselves are negligible in terms of their inherent power.

Misdirection of Mental Energy

The healer's unconscious thought could not follow the more complex pattern of alternate throws of dice in a run. Putting the associations more firmly in place through conscious visualizations is possible, but the more complex the patterns become, the harder this is to do.

The weakening of associational links through increasing the complexity of the pattern to be followed can be easily demonstrated with the use of coins in a box. In calling "heads" or "tails" there is no difficulty using a single coin as our earlier tests with pennies made clear. However, if more than one coin is used in a test, the circumstances become more difficult for the mental energy to follow.

For example, we did a test using eight cups of 500 mung beans each. We placed a dime in each of eight boxes labeled one through eight and shook each of the boxes. The boxes were not opened to see if the dimes were heads or tails until the experiment was completed and the sprouted beans were counted.

The eight cups were labeled 1H-2H-4H, 1H-2H-4T, 1H-2T-6H, 1H-2T-6T, 1T-3H-5H, 1T-3H-5T, 1T-3T-7H, 1T-3T-7T. Treatment was given to the beans in the cup selected by the fall of the coins. As can be seen from the correlating system, the cup selected will identify the heads or tails position of three separate coins.

When the beans were counted, the heads or tails positions of coins 1,3,5 were indicated.

Cup 1H-2H-4H had 42 sprouts, cup 1H-2H-4T had 44 sprouts, cup 1H-2T-6H had 47 sprouts, cup 1H-2T-6Thad 48 sprouts, cup 1T-3h-5H had 95 sprouts, cup 1T-3H-5t had 48 sprouts, cup 1T-3T-7H had 41 sprouts, and cup 1T-3T-7T had 48 sprouts.

When the boxes were opened, coin one was tails, and coin three was heads. Coin five was not called correctly: it was tails and not heads as indicated.

The strong showing of cup 1T-3H-5H indicates, as do similar tests, that involved correlations can misdirect effect. It is interesting to see that the effect is not lost, but misdirected.

Our present method of associational testing involves skinning beans and counting the germinating ones. This is not desirable because it involves some subjectivity in evaluating germination and involves a great deal of work for each test. We have done what we have in this direction simply because of the importance of obtaining information in this area.

In healing individuals, the nature and extent of specific types of resistance are of primary concern and associational factors are seldom considered. In applying qualitative prayer to test situations, or to aspects of collective human experience, associations become a primary concern. The conceptual whole must be clearly established, ideally with good provision for monitoring of results on an ongoing basis.

Even without involved associations, uncertain associational links can misdirect effect. This shows that the randomness of elements of unconscious thought can interfere with purposeful directions of conscious thought. Some of our associational tests with mung beans gave a good illustration of this.

In one such test (with salt used in the initial soaking water to increase the measurable effect), 500 mung beans were placed in each eight plastic cups. Four pieces of plain cardboard and four pieces of cardboard with a shiny red side were selected and, after each piece of cardboard had been wrapped in heavy paper and the wrapped pieces thoroughly shuffled, one piece was taped to the bottom of each of the cups. Then the bean in the cups with the red marked cardboard taped to them were treated.

Four of the glasses fell into the 38 to 42 sprout

range and four of the glasses fell into the 64 to 67 sprout range. It was known beforehand that four cups were involved and four cups were affected. However, the cups corresponded with the red cardboard in only three out of the four instances.

Cups with plain cardboard had sprout counts of 42, 38, 39, and 64. Cups with red cardboard had sprout counts of 67, 64, 65, and 40.

This kind of test requires a week or so to produce results. Using a system that would give immediate feedback would produce a much more effective associational testing program.

An Unsuccessful Associational Test

A hidden target test with rye grass seeds was not successful. We made the test by putting vermiculite in a tray and marking the tray into six sectors, with string laid on the surface of the vermiculite. Small paper cups with a hole in the bottom were placed in the tray, so that the seeds could be watered and the water table checked.

Six 3X5 cards with words written or typed on them were correlated to words taped to the tray; on three other cards another word. Thus, half of the sectors on the tray were not correlated to the cards. The other three sectors were represented by one, two, and three cards, respectively.

Treatment was given to the seeds in the sectors of the tray indicated by the words written or typed on the 3X5 cards. These cards were stapled together and not viewed by the healer until the test was over and the seeds counted.

We repeated this procedure eight times. There were 12,000 seeds in each group, and thus 96,000 seeds were involved. At the end of the tests 26,345 control seeds had sprouted, and 26,352 treated seeds had sprouted.

At the end of 60,000 seeds the two groups were off only one and three quarters percent. At the end of the test (96,000 seeds) the two groups were off only three one hundredths of a percent.

Why hidden target associational tests were effective with soybeans and not rye grass, and for

soybeans only at a point of early germination, is explained by identity field theory in terms of thought sensitive fields. It is hypothesized that shifts in the field are more readily thought produced as the field is being formed than when qualitative and non-qualitative thought have established a more-or-less stable balance of power.

The qualitative power which causes fields to develop is ultimate causation, so far as we can know it, for the cause and effect relationships familiar to us appear as field characteristics and are not the more fundamental power which determines these characteristics and causes them to develop.

Cause and effect have been approached in both measurement and qualitative terms and can be considered from both standpoints.

Cause and Effect: The Scientific Approach

In the physical world all four know forces are expressed mathematically in equations predicting the future behavior of particles. Our technology depends on these predictable characteristics, and the equations involved give us the most rigidly defined understanding of cause and effect thus far available to us.

Cause and Effect: The Religious Approach

All religious conceptual systems view cause and effect in qualitative terms. The most succinct expression of this view is perhaps found in the Biblical statement (Galatians 6:7) “Whatsoever a man soweth, that shall he also reap.”

The consistency of this approach in all religious systems of thought seems to flow from thoughtful observation, personal experience of many individuals with various life styles and mind sets, and the use of various conceptual systems to explain apparent failures of the concept.

Typical of such conceptual systems are: (1) the postulation of rewards (or punishments) in an after-life, (2) conceptual inconsistencies concerning the place of evil in the development of good and (3) ambiguities in terms of practical definitions of good and evil.

Fields and Purpose

The laws of identity field theory are laws of state, not of motion. The identity field is a state of

associated norms, definable as the zero reference points to which deviated fields are drawn under the influence of qualitative thought.

It is assumed that the development of fields can be experimentally examined under more sophisticated measurement conditions than have been used in the rudimental tests so far conducted. Characteristics determined by such testing would be characteristics associated with change of state, alteration of field characteristics, as are the equations now known relating to the movement of deviated fields toward known norms.

Religion has always sought to understand experience in a qualitative framework and such a perspective requires postulation of continuity of identity, a continuity which is independent of physical structure. Identity field theory supports this perspective, for it views identity as existing outside of human experience, and manifest in human experience as field characteristics, characteristics measurable in normalcy-referenced testing.

The correlation of state (form and function) with qualitative intensity (quality and quantity of qualitative thought) and qualitative focus (clarity or strength of associational linkage) constitutes a cause and effect relationship between elements which transcend human experience, and human experience itself.

The cause and effect relationships known to our present science are considered to be, by identity field theory, limiting cases of a larger conceptual perspective, a perspective which regards physical laws as valid under conditions of qualitative consistency in the field conditions.

The identity field is not pure form or pure identity. It is the interaction of pure identity, or form, with non-qualitative characteristics. The resulting pseudo-forms, pseudo-identities, or fields, express qualitative thought only in limited measure.

Earlier in this book it was noted that the most meaningful pattern to be found in normalcy-referenced tests is not the relationship of measurable effect to stress patterns, or to norms, or to the equation of cumulative effect. Rather, it is the fact that the great variety of physical conditions which are related to health and development are all responding to a mode of consciousness which has meaning only in terms of purpose and qualitative good.

Deviated fields stray from this “greatest good” or “fulfillment of purpose” not only in various random ways associated with the zero reference points we have considered thus far in our normalcy-referenced testing, but in another significant manner as well, for fields can be used for good or evil purposes.

Science and Purpose

A universe “friendly” to life, developing against such tremendous odds as we now know to exist and have existed, has added to the questions posed by evolution a deeper significance. The questions of purpose – so difficult for science to address because so unmeasurable – cast their shadow over an increasingly wide area of scientific thought.

The “friendliness” of cosmological development, the nature of evolution, the place of the observing consciousness in quantum mechanics, all place an ill-defined consciousness of “purpose” amid the apparently non-purposeful, indifferent to life, and ultimately fatal to life, characteristics of the physical universe recognized by science today. The questions with which biologists have long wrestled now permeate many areas of science.

Definition of “Purpose”

Movement toward, or attainment of, a meaningful end, or purpose, is an activity that passes into the scientific conceptual framework only when it can be measured in terms capable of consistent definition and experimental test.

From the standpoint of identity field theory, the use of a field for an “evil” purpose is a deviation from norm in whatever random direction is involved in such a “non-purpose.”

The development of conscious thought in the world makes normalcy-referenced testing possible. It also, in a similar way, makes possible the enhancing of “purpose” or the diminishing of it, by conscious mental and consciously directed physical action.

The assumptions of identity field theory define “purpose” as the development of identity fields toward identity (a wholly qualitative state). Thoughts and actions in consonance with qualitative development are

thus, by definition, purposeful. Thoughts and actions not in consonance with, or opposed by, qualitative states or qualitative development are, by definition, opposed to purpose or non-purposeful.

The purpose of qualitative thought to maintain and develop norms is a field characteristic of the interaction of non-qualitative thought with qualitative thought, which is dynamic (capable of development) by nature.

The nature of qualitative consciousness is to develop individual and collective good and, in doing this, it seeks the best available paths. The best available paths, or geodesics, are the paths of least resistance in qualitative and associational terms.

In the considerable literature of spiritual healing one finds patterns of healing, some of which take place within the framework of natural law (the mechanisms of such healings are explicable in terms of physical laws as understood by natural science) and those which are not (the mechanisms of such healings are inexplicable in terms of physical laws).

Patterns of healing are simply the associated geodesics characterizing the movement of a field toward its norms, or the development of a field. In the largest conceptual sense both lessened deviation and development of fields are identical processes, for both are movement toward the ultimate characteristics of pure (completely qualitative) identity.

Every normalcy-referenced test illustrates the cause and effect relationship existing between qualitative consciousness and field characteristics. Since qualitative consciousness possesses a dynamic which moves events in a definable (increasingly qualitative) direction, and since this direction is experimentally detectable under some conditions, definitions of “purpose” expressed as relations of measurement data are possible.

In a looser conceptual sense “purpose” can be defined more generally.

Purpose: A field characteristic. The characteristic of a geodesic which specifies that a geodesic represents increasing qualitative and associational development. Qualitatively impelled movement toward pure identity.

By analogy with mathematics “purpose” can be

considered to be a sort of vector quality of a geodesic.

In exploring causation in connection with identity field theory we are dealing with cause and effect sequences as field characteristics, not in the absolute meanings which cause and effect may have as characteristics of pure identity.

We are extending the definition of cause and effect to include the concept of cause and effect as the mathematically expressible relationship which exists when an increase in intensity of qualitative thought is associationally linked to a field. This relationship is measurable under normalcy-referenced testing conditions.

In order to carry our theoretical discussion further it is necessary to identity the phrase “normalcy-referenced testing” as descriptive of the limiting case where “identity-referenced testing” (the larger term) is confined to the movement of a deviated field toward its zero reference points.

In normalcy-reference testing the vector characteristic of the geodesic is straight-forwardly defined. The direction and specific end point of the qualitative movement is known.

There are, however, geodesics in which the end point is not known. Also, in human experience and in the natural universe, purposes exist as “shades of grey.” Some purposes are better than others.

The ability of conscious thought to pursue courses of varying qualitative content, and by varying means, presents to the dynamic of qualitative consciousness a variety of possible geodesics. The geodesics used by qualitative consciousness to fulfill its qualitative goals in given instances will be those of least qualitative resistance (highest qualitative and clearest associational content).

These considerations necessitate expanded definitions of some terms we have been using.

Spiritual Healing: The identity-referenced response of fields to qualitative thought.

Identity-referenced test: A test designed to measure a geodesic.

Normalcy-referenced test: A test designed to measure a geodesic under conditions in which measurement of the geodesic ceases at a certain and known end point (point of zero measurable effect).

Points of zero measurable effect give us a specific definition of "good." Identity-referenced testing involves variable definitions of "good," the "shades of grey" of human experience, and here the vector analogy is a useful concept. Another analogy is with the flow of water over uneven terrain. Water will run downhill, but the path to the goal may not be direct in terms of equal unit drop per unit of terrain covered. In terms of vectors, there will always be, in a similar way, positive vector direction, but the degree of directness will only be as great as qualitative and associational conditions will allow.

Normalcy-referenced testing involves not only known geodesics, but also known reference points to which measurement can be related. Identity-referenced testing (other than normalcy-referenced testing) involves locating the geodesic and determining the reference points to be used for measurement.

Just as normalcy-referenced testing is well adapted to reveal information about the norms of systems, and equation-expressible characteristics of qualitative thought, so other forms of identity-referenced testing are well adapted to throw light on the moral and spiritual characteristics of the world we know. Properly designed identity-referenced tests can answer many of the ethical and religious questions of today in terms commensurate with the collective proof systems available to us.

Qualitative thought is causative in terms of field characteristics, meaning that it produces both order and development. Non-qualitative thought is non-causative in the sense that its effects are normatively and associationally random and possess no development dynamic or purpose.

Identity field theory concludes that order is maintained in the universe through the mechanism know as "cause and effect." This is true not only in the limiting case of the qualitatively stable world studied by material science, but in the larger context to which

identity-referenced testing applies.

The causative influence of qualitative consciousness appears as states and stages of field development. The measurable effect of qualitative thought appears in identity-referenced testing as geodesics, and these geodesics, being consistent (ordered) patterns, embody relationships which are mathematically predictive in nature, and thus experimentally testable.

The Conservation of Form

Experience appears to teach us that form is impermanent, whereas energy and mass are conserved. Yet, as in so many other instances, the testimony of our senses can be misleading.

Identity field theory implies that energy and mass exist as a consequence of form and would cease to exist with the disappearance of form. For all ordered characteristics of mass and energy, including conservation laws, are elements of form.

The conservation of form is, therefore, the most fundamental quantitative characteristic that we know. Even the nature of the law of conservation of mass and energy is governed by the equation-expressible form of their relationship.

The Development of Form

All the forms with which we are familiar have come into existence between the present moment and the “big bang” which preceeded or originated initial forms. Some forms have proved to be quite stable and many more have not.

Identity field theory implies a resistance to form, a resistance which decreases with qualitative or quantitative increase in qualitative thought and its associational linkages.

Every new form requires associational linkages not previously in existence. These linkages, faint pathways at first, seem to become easier to follow with use, developing through qualitative contact with the thought which associationally touches them. Our associational tests strongly support this view.

Since fields are associated norms, the strength of

a field is reflected in its associations, which are related to the field's qualitative strength, it's "goodness," its "health," its "purpose," and so on.

From the standpoint of identity field theory, fields are patterns of qualitative/non-qualitative interaction. They are not independent realities, but are linked to the qualitative thought which produces them.

Normative patterns are strengthened by the qualitative thought that is associationally linked to them. In like manner, deviated patterns are strengthened by the power of will (emotion, belief) associationally linked with them.

The conservation of form is linked to the associational strength of fields, and this strength is linked in turn to the qualitative strength which produced the fields in the developmental process flowing from the dynamic (power to develop) of the qualitative calculus.

We mentioned earlier the observation of qualitative healers that the pattern of healing is determined by unconscious thought processes of the patient, mental and emotional characteristics which determine the associational patterns involved.

Thus far, our associational tests have been specific in terms of known or unknown existing targets – targets existing in space and time or, more precisely, appearing with space and time characteristics. When, in particle physics, a particle is defined by the terms of an experiment (a specific visualization, defined as such by experimental structure, is applied to an entity not specific in space and time), an entity specific in space and time (or rather, specific in a mathematical combination of space and time as is true of all particles) comes into being.

In our tests of associational selectivity, using a mold culture, measurable effect (E) was found to follow the associational pattern determined by the portion of the mold culture visualized by the healer.

For the healer, the conceptual whole – or conceptual field being treated – was the half of the mold culture on one side of a piece of thread. Within this conceptual field the normalcy-referenced pattern was followed as the mold grew.

In spiritual healing (which includes normalcy-referenced testing) normative, associational, and developmental patterns are followed, but this enhancement and development of normative patterns occurs only within the field, or portions of a field associationally linked to the conceptual field encompassed by the healer's thought at the time. Our various associational tests all bear this out.

Geodesics

The identity field is a concept of development. Similar concepts exist in religion in terms of salvation, regeneration, atonement, and spiritualization of conscious. Similar concepts exist in science as well in terms of evolution and some teleological theories of order. The type of development the identity field represents is both qualitative and orderly.

We know that the nature of qualitative consciousness is to develop individual and collective good and that, in doing this, it seeks the best available paths. The best available paths, or geodesics, are the paths least resistance in qualitative and associational terms.

Our test results show, for example, that treatment enhances the power of more viable beans to perform a useful process more than it does the power of less viable beans to perform the same useful process, a case of, as Christ Jesus put it, "for he that hath, to him shall be given."

Our test results also show that responsiveness to qualitative thought is in proportion to qualitative richness of the field and to the developmental state of the field.

Because the universe is an interaction of random and ordered states, no field conditions are "set," which means that the future exists, and can be predicted, insofar as it can be, only in probabilistic terms.

In our investigation of the patterns of flow of qualitative thought we set up a test of geodesics.

We had several plants growing under the type of artificial lighting often used for growing plants. We connected this light source to Apple computer in such a way as to give adequate light to the plants only if the random flow of electronic impulses was deviated in a given direction by a given amount.

The random source depended on the thermal noise of an electronic circuit for its generation of randomness. Over more than sixty runs of 114 numbers each (every number being a composite of 65,536 samplings), it was found that a normal curve was approximately described. Like an imperfectly balanced die, the circuitry produced a less than perfect 50% mean. In the 65 groups of 114 figures each, the average was 49.820. The high was 49.901 and the low was 49.751.

The average standard deviation of the groups was 0.0373. The low was 0.028 and the high was 0.045. Treatment did not affect either the mean or the standard deviation.

No matter how little or how much, or in what direction of deviation for which the computer directed variations from the random pattern were set, no variation in the pattern appeared when the plants under the light were treated. Thus, if treatment was having any effect (and earlier associational tests showed the effect was going somewhere) it was not the random flow that was being affected.

A similar test, using the fall of dice with intent to reward with more light if the fall of the dice was affected (after the pattern described in our belief referenced tests, which worked for us earlier through the healer's faith in them), did not work for us now in the healer's unbelieving state. There was also no response to qualitative prayer for the plants in terms of deviation from norm in the fall of the dice.

We assumed that treatment was affecting the plants since it was not affecting the circuitry controlling the light source (or the fall of dice in the similar test), even though (through random flow) we had made that circuitry as easy to affect as we knew how to. Yet, this was an assumption we could not check since we could not monitor possible changes taking place within the plants.

Yeast is a more simple organism to work with than plants, so we adapted our test to effect yeast rather than plants.

We mounted a 25 watt soldering iron on a stand, mixed a package of yeast in ¼ cup of lukewarm water and lowered the soldering iron into it. The soldering iron was connected to a computer controlled switch. The computer was set at the midpoint of the normal curve and the apparatus was turned on. This caused the iron to be

on approximately one-half of the time.

The yeast solution got hot and foamed as the tests ran their approximately fifteen minute course (the yeast was being treated during this period). The soldering iron was off or on according to the random number which appeared on the monitor. It was on about half the time, with 114 numbers (ons or offs) in each run.

Ten tests were done in this fashion and in none of them was the random flow noticeably affected.

In the tenth test, as the healer was listening to the yeast sizzle in its contact with the soldering iron as he was treating it, the ugliness of the mental image became extreme and, by his evaluation, the qualitative level of his treatment exceeded his earlier efforts.

When the test ended, contrary to earlier tests, the yeast solution had not foamed up. The soldering iron was checked and it was hot, much too hot to touch as usual.

We checked the yeast solution and it was not hot, just the same lukewarm temperature as when first mixed. This phenomenon was checked by the two people available at the time.

Checking the monitor showed the mean was the highest of the ten tests and so was the number of ons (66 ons, 48 offs). It was clear the random flow had not been affected.

We knew then where the effect of the treatment was going, even if we only hit it in measurable terms once out of ten times. However, working at the extreme edge of one's ability to render treatment can be an exercise in frustration. Further, every new research area needs to be built up, at least in its early stages, by the most reliable means available. Thus, we have at this time done no further work on these tests.

Tests of this kind make it clear that the setting up of identity-referenced tests requires either a monitoring of all areas wherein the identity-referenced effect may appear, or a knowledge of the geodesics of qualitative thought.

Relationships and Field

The problems of form have never lent themselves easily to mathematical analysis simple because equations are statements of equalities and forms are not subject to conservation laws that make equality statements

possible.

The normalcy-referenced test, with its Christian characteristics, includes the testable possibility that the identity field may be not only a pattern of statistical norms (the action of order on disorder or randomness), but a pattern of ethical norms as well (the action of good on evil).

Since it is possible to experimentally confirm the existence of two forms of thought by their interaction with organic and inorganic systems, we must either accept the apparent implications of this dichotomy, or else devise an all-of-one-piece theory of mind-matter interaction which accommodates the observed facts.

Since qualitative mental characteristics can be represented in operational terms as a normalcy-referenced equation, and goal directed mental characteristics (will, as a general category including belief, emotion, suggestion) on a simple intensity scale, and since associational characteristics appear constant over a conceptual whole, it might be possible to devise some elements of a mathematical model for the field hypothesis and for the development of form based on these considerations.

It is obvious that the power of the qualitative consciousness of the healer is channeled in its effect by the identity norms of the patient. It seems obvious too that the qualitative consciousness of the healer is part of the identity of the healer, and thus it can be concluded from the associational tests that identity fields affect each other through associational linkages.

From the normalcy-referenced test we know that form is enhanced by a certain type of thought. If form is thought enhanced it is quite conceivably thought induced. This implies that thought, or something akin to it, has, like the universe, existed from the spacetime singularity or “big bang” as evidenced by the appearance and development of form. It can be concluded that thought (qualitative thought or spiritual power) has increasingly shaped the universe according to its own nature.

The nature of this shaping has been of such a character as to permit ever more developed identities to emerge, including now, if only very weakly, the ability to enhance this process through understood and directed effort – spiritual healing.

We know from our associational tests that thought

follows associational channels. However, it does not necessarily follow that these channels are independently existing paths of mental power, for form can be defined in terms of association, or relationship, of elements of form.

Since associations cannot be considered apart from form, for associational structures constitute form, qualitative thought cannot be said, in a strict sense, to travel along associational pathways any more than gravity can be said to be “action at a distance” in modern terms.

What appears as action along associational pathways can actually be defined more economically as alteration of form. New associational linkages mean that the geometry of the field has changed and the new associational structure can be understood in terms of the geometry, the qualitative level and the associational structure, of the field.

In religious terms, the significant point is that qualitative consciousness is responsible for shaping the paths along which it travels. Thus, qualitative prayer results, in some cases (identity referenced rather than normalcy referenced), alteration of associational structure of the identity field to which the conceptual field relates.

A Research Direction

The extreme sensitivity of identity fields (as shown by our associational and other tests) to any form of mental influence during the early period of their development indicates a research direction.

Presumably the same sensitivity should appear at moments of unconscious choice (reflexes, instincts, habits, learning, intuitions) when new motor fields are being formed, and some of these circumstances could be rather easily subjected to experimental test.

In addition, the implications of these findings as they relate to the presence of mental, moral, and spiritual modes of consciousness during the period of human conception and pre-natal development are considerable.

There is substantial existing evidence of the effect of qualitative consciousness on learning and development for it is known, from the experience of those familiar with spiritual healing and from the testimonial literature, that qualitative prayer can heighten the performance of individuals doing various tasks, and increase intuitive perception and learning ability.

Here the secondary pattern of spiritual healing would have nothing to do with $E=1/r^2$. The secondary healing pattern, in such a case, would be seen in such patterns as the modification of the standard deviation or a normal curve or a form of modification of a learning curve.

Influencing Fields

We noted earlier that, in the soybean tests, the effect of qualitative prayer was not related specifically to the particular physical causes of the seed's deviation from normal growth. Qualitative prayer is related to a composite of these causes which has meaning, not is its component physical parts, but, in a mental or conceptual ethical whole, termed normal growth.

This balanced juggling of many aspects of energetic causation, or matter related cause and effect chains, in terms of a configuration that has meaning only in mental and ethical terms, is of basic significance.

Because of this aspect of the normalcy-referenced test the "geometry" or nature of the field is hypothesized as flowing from the interaction of a pre-geometry or opposing qualitative characteristics: a qualitatively "positive" calculus and a qualitatively "negative" disorder or random energy.

In the past, science has never considered force in qualitative terms, for, until the normalcy-referenced test, there was no experimental evidence of such a characteristic. To think of power as intelligent, good, or loving was unique to religion.

In any fully ordered system or calculus, cause and effect patterns are absolute and are characteristics of the system. In a totally random non-system the cause and effect pattern, like any other relationship, does

not exist. Thus, the random non-system is, in a certain conceptual sense, causeless.

An identity field is neither fully ordered nor fully random since it is, by hypothesis, a mixture of the opposing system and non-system.

Since shifts in the field are more readily thought produced as the field is being formed, tests at this point are especially sensitive. The hidden target faith measurements as well as the hidden target qualitative measurements are an indication of this, for the weaker tests require more sensitive measurement procedures.

Shifts in field characteristics, due to the power of belief being associationally linked with elements of a field, constitute thrusts out of the conscious or unconscious thought of a thinking creature. Thus, the appearance of thought in the world signifies the ability to influence existing and developing fields in both positive and negative directions (both toward and away from norms and toward and away from associational order and purpose).

Qualitative and Non-qualitative Thought: Differences in Effect

In the exploration of the characteristics of fields a prime testing area is the difference in effect of the two different strains of thought that can affect the field.

If further tests verify that qualitative thought affects r levels and goal directed thought (belief, emotion, suggestion, will) affect patient response to r levels, a significant field characteristic emerges.

A theoretical (theological by nature) implication of this view is that even a mild acceptance of, or identification with, evil for whatever reason, an acceptance not noticeable under the stress of usual experience, is an acceptance which, under shifting circumstances (changing stress (r) patterns), would pose considerable problems for an individual.

Another theoretical (theological) implication of this approach is that spiritual healing does not give the patient additional power to resist evil, but instead reduces the power of evil itself to affect the individual. In this model it is the felt reality of

evil in the patient's experience that is reduced.

Faith pushed rye grass seeds beyond their norm and pushed the fall of dice to a performance that was in no way normalcy related. Here we see that faith (and thus faith healing) act on the object of faith whereas spiritual healing acts not on the patient, but acts instead on what is evil (lessening of r level) in the patient's experience, reducing or removing the consciousness of evil, the felt or experienced reality of evil, in the patient's experience.

Spiritual Healing and Diagnosis

Regardless of the physical causes of the deviation from normal growth in the soybean tests, qualitative prayer was effective, relating not to the individual and diverse physical causes, but to a composite of these causes which have meaning, not in their component physical parts, but, in a mental or conceptual ethical whole termed normal growth.

Spiritual healing often produces a number of diverse effects on the body, many of which are unknown to, and not contemplated by, the healer or the patient, who may be unaware of the details of internal functioning. These affects relate to a mental framework, a "goodness" for the patient that is meaningless in terms of physical process, but wholly meaningful in the mental realm of the purpose of these processes.

For reasons thus indicated in our tests, diagnosis in Christian healing is seldom a physically related concept. Neither is it always, even in terms of mental or emotional conditions or processes, a prerequisite to successful treatment. An understanding of the norms to which healing relates, and an understanding in conceptual terms of the mental and emotional forces which obstruct healing, are more frequently revealed by, than they are necessary to, successful healing.

Stress (r) patterns

Since the qualitative and ordered nature of the thought which produces norms, identity, and healing, processes structure, and a disordered state or system does not, the form of the resistance pattern (also the

corresponding secondary pattern of spiritual healing), like the nature of the orderly patterns called norms, is formed from the nature of the ordered system. The existence of norms and the perturbations they cause in non-ordered experience are characteristics caused by the presence of the qualitative calculus or ordered system. And it is these characteristics which are enhanced by qualitative prayer.

The appearance of norms and the developing nature of their characteristics are, in theological terms, evidence of the presence of good, God, not evil. A theologian might speak in terms of Immanuel, the incarnation, spiritual healing, the Holy Ghost.

In measurement terms the point follows from the fact that the normative trend of the power being measured follows the qualitative shift in consciousness. The nature of the measurement pattern flows in a very basic sense from the nature of the ordered side, not the disordered one, since the response of disorder to order is a characteristic which is a sort of inversion or counterfeit of the ordered pattern.

In spiritual healing it is the nature of the counterfeit or inversion that is being modified, and, with each successive qualitative shift, a modified (normalcy-referenced shift toward identity field norms or identity-referenced toward greater qualitative or associational good) pattern is seen.

The development of identity fields, by the qualitative nature of the process, alters all associated r characteristics, thus revealing their dependence on qualitative characteristics.

Quality and Identity

The possibility that the conditions which make life and thought possible are not an incredible series of unique random accidents and mutations, but a process of progressive interaction between systems of order and disorder (systems possessing characteristics of qualitative dissimilarity), is an issue raised by normalcy-referenced and identity-referenced testing. This is a question which can be experimentally investigated.

There is an incredible array of normative conditions which are required for the existence and

functioning of a human body. These are matched by the incredible array of normative conditions which are requirements for the structure and functioning of a universe in which life can exist at all. A great theoretical difference is that there is no mechanism equivalent to natural selection operating on a cosmic scale by which to perhaps account for the vast array of coincidences necessary to permit and sustain life.

That these normative states are “good” from the standpoint of life and thought, and states of deviation from these norms are “bad,” is a qualitative assessment. The discovery that qualitative mental states – those states associated with Christian experience and considered as attributes of God – impel a system which is deviated from a norm toward that norm is discovery which relates quality with the quantitative assessments of measurable tests. It is also a discovery which reveals identity in all its forms to be qualitatively based.

The structure of the universe is thus revealed by identity field theory and identity-referenced testing to flow from Love, and rest upon Love’s attributes for its existence and development.

The values of religion and the laws science are things of thought and are not available for material observation, being known only by their effects. Thus, science and religion are alike in that they both seek to understand through comparisons, analogies, or parables.

The parables of religion are vividly pictorial, being adapted to teaching and to the deeply felt problems of human life.

The parables of science are internally consistent mathematical formalisms, which lend themselves as readily to the quantitative aspects of experience as the heartfelt words of great spiritual teachers do to the qualitative aspects.

The parables of science and religion are the closest we have come to absolutes in a world of ambiguities. Attempts to reconcile the nature of the world about us with the concept of absolute cause and effect relationships have proved to be as unrealistic and unworkable as similar attempts to reconcile the nature of the world about us with an absolute and perfect God, who is good. The disturbing qualitative inconsistencies of human life are matched by equally disturbing quantitative inconsistencies. The dilemma of the religionist has now become, in its own way, the dilemma of the scientist as well.

The search for certainty, for the final nature of authority and proof, in both religion and science, has proved – like the search for meaning – to be far more difficult than expected. Yet, through the discovery of the identity-referenced test and the identity field, meaning and measurement have been united.

Identity Field Theory and Quantum Mechanics

Of all the theories of modern science perhaps the most powerful is quantum mechanics. At the same time, quantum mechanics is the theory of modern science most difficult of interpretation.

It is quantum mechanics which tells us that what we perceive as sequences of cause and effect are really just the most probable paths of all paths available. It is quantum mechanics that introduces us to a world in which space and time and objective reality have no meaning as we know them.

Most modern physicists work with the practical applications of quantum mechanics, rather than enter the mind bending world of its interpretation in terms of the world of experience with which we are familiar, the world physicists sometimes refer to as “objective reality.”

Among the most mind bending aspects of quantum mechanics is its concept of an observer created reality. Quantum mechanics tells us that sub-atomic particles exist as probability patterns until they are measured.

It is the act of measurement which then gives them either – but not both – a precise momentum or a precise location. Which particular reality comes into being depends on one’s measurement. In this sense the particular reality which emerges is observer created.

Although he could never overthrow it, the strongest critic of quantum mechanics was Albert Einstein. His most telling blow, among the criticisms he offered, was (in conjunction with two others) what has been called the EPR paradox.

The gist of the Einstein-Podolsky-Rosen paper was the proof that quantum mechanics violated either objective reality or local causality. Either the universe, at the quantum level, did not exist in a fixed and definite state or some kind of telepathy between quantum particles, instantaneous information transfer, existed.

Things remained in the theoretical state until the mid 1960’s when John Bell, a theoretical physicist at CERN, derived a mathematical inequality which could be checked experimentally. This made it possible to put the EPR conclusions to the experimental test, and the EPR conclusions were confirmed.

Some physicists have tried to preserve both objective reality and local causation by pointing out that the results of tests of Bell’s inequality rest on the meaningful conjunction of two random sequences, and thus a faster than light signal has not truly been transmitted, for the nonlocality involved is, in a sense, after the fact.

It seems, however, that most would agree with Einstein and his coworkers that the conclusion is inescapable, for if interpretation is after the fact,

the signal is not.

The identity-referenced test shows that local causation is indeed violated for mental energies. Mental energies are nonlocal – not bounded by space. However, this does not set aside the indeterminate universe of quantum mechanics and restore the determinism of classical physics.

Because Planck's constant is so small, the equations of relativity theory reduce, in most cases, to Newton's laws. In terms of the conceptual structure of modern science, more comprehensive theories must always reduce to valid existing theories as limiting cases.

It seems axiomatic that theories comprehensive enough to include the characteristics of thought – if such theories are ever devised – must reduce, for physical phenomena, to the local causality characteristics of known physical systems.

Although the evidence for an observer created reality seems much more compelling than for nonlocal causality it raises interpretative problems. However, the advent of the identity-referenced test creates the need for an even deeper look at the concept of observer created reality, for the physical state of a system can now be seen to fluctuate with fluctuating states of thought. The term "observer created reality" thus enters an area of widely expanded definition.

Identity-referenced tests, together with tests of belief/faith, show us that association of the observing consciousness with a physical system exposes the physical system to either goal directed or identity-referenced effects. It is unlikely that this is a circumstance which would overthrow the random nature of quantum mechanical phenomena, therefore the quantum mechanical interpretation of an observer created reality is strengthened.

The identity-referenced tests we have made thus far have indicated that the inception and early developmental stages of a field are more thought sensitive than later more settled stages. Perhaps the most thought sensitive area one could work in, in observing the relationship of qualitative thought and form, would be that of elementary particles, for here the most qualitatively rich kind of identity fields we know (human beings) would come into associational contact with the most rudimental forms we

know (elementary particles), which have very few norms and pass readily across the line between existence and non-existence.

From what we have learned through identity-referenced testing one might expect that even the associational contact between the two opposite states might readily define normative states of elementary particles under experimentally structured conditions. Actually, this is just what happens, and (without the insights provided by identity-referenced tests) why it does is one of the central mysteries of modern physics.

Another mystery of modern physics also seems a natural occurrence in the light of identity field theory. It is known from the EPR paradox, and from tests of Bell's theorem, that correlations can occur prior to a more definite appearance of form and that the defining of one of the correlated characteristics of two particles by an observing consciousness immediately defines the correlated characteristic of the other particle, even though the particle with the correlated characteristic is millions of light years away.

The many correlated changes of state which occur in identity-referenced testing appear to suggest (as a possible explanation) that spacetime is an identity field characteristic and that qualitative shifts in the pre-geometry of the identity field would cause such correlated changes of elementary particles, changes occurring outside the realm in which local causality (the type of cause and effect sequences we are familiar with) exist.

From the point of view of identity field theory this is what happens in psi phenomena and in spiritual healing, although the mechanisms are different. Spiritual healing represents a shift in terms of the qualitative calculus, psi phenomena represent shifts in terms of the non-qualitative or qualitatively negative non-system.

Using the identity-referenced test this is easy to demonstrate. We did it by doing some of our tests when the healer giving treatment was on vacation and found the results came through as readily from a thousand miles away as when he was in the same room.

Identity field theory postulates a two-valued pre-geometry simply for reasons of conceptual economy.

We know that qualitative thought is always identity-referenced and we know that other states of thought (will, emotion, belief, suggestion and so on) influence experience in whatever direction they move in. In practical terms such thought forms are random in terms of normalcy-referencing.

It has been a question in modern physics why the world of every day experience is not observer defined, as is the world of elementary particles. Identity field theory sees in this situation the same kind of mechanism that makes the random paths of elementary particles tend to the path of least possible energy and thus approximate Newtonian motion.

A rock is not as thought sensitive as an elementary particle. For the same reason, it is not as unpredictable in its behavior as an elementary particle. Its field state is not developing, neither is it qualitatively rich, and its norms are well established.

Just as elementary particles are drawn to their (in most cases) identity norms of Newtonian motion, so the structures constituting the rock are drawn to their identity norms of form and state. The stability of matter rests on identity field characteristics which govern state as surely as they govern motion.

Identity field theory defines healing as the movement of a deviated field toward an identity field and development as the movement of an identity field toward identity, whatever that qualitative absolute may be.

The concept of development is basic to identity field theory, for fields may be regarded as developmental stages of varying stability. An identity field is more stable than a deviated field, for it is not subject to return to norms (healing), although it is subject to associational and qualitative modification (development).

Since orderly states can be understood, eventually self-understood as qualitative development produces conscious thought, the qualitative calculus is a state of understanding, whereas non-qualitative thought, as a random state, can be characterized as a belief non-system.

Modern science tells us that even a vacuum is filled with energy and this energy is manifest as semi-forms – virtual particles, as they are called –

coming into a sort of half existence, then disappearing again for lack of ability to become wholly real.

These particles never come into full existence – unless energy is added to them as is done in the laboratories of particle physicists – but the extent of their presence can be measured.

The fact that virtual particles can be brought into existence by the addition of energy, rather than by the addition of qualitative thought, leads us to believe that qualitative thought is an ordering influence on the primal, mental, random energy that constitutes the belief non-system and that matter and the material energy we know (the E and the m in $E=mc^2$) are not, in an ultimate sense, hybrid products of qualitative and non-qualitative consciousness.

If adding energy to a virtual particle brings it into full existence and adding qualitative thought (the observing consciousness) defines particle characteristics, then it can be said that, in a certain conceptual sense, qualitative and non-qualitative thought never mingle (produce no truly hybrid states), but the material energy (or will if we wish to apply a less material term) of non-qualitative thought and the matter into which it translates ($E=mc^2$) are simply ordered and shaped into normative states of form and function (identity fields) by the qualitative calculus.

Just as there is a position momentum uncertainty relationship governing elementary particles, so there is an energy-time uncertainty relationship. The spectral lines from very short lifetime energy states are fuzzy, rather than sharp, reflecting the lack of determinacy in the energy states.

Time is not only mathematically linked with energy in an uncertainty relationship, but linked mathematically with space as well in the conceptual structure of relativity theory. Possessing order (mathematical relationship) space, time, material energy, and matter must be identity field characteristics.

The increasingly ordered states forced on the nature of non-qualitative thought by the qualitative calculus can thus be hypothesized (as identity field theory does) to produce the field characteristics termed space, time, energy and matter. This, in turn, makes qualitative experience possible in the world we know, although the field characteristics themselves

seem to never enter into such qualitative (mental or spiritual) experience.

Over a half-century ago Born, Heisenberg, and Jordan showed that the energy of every mode of oscillation of an electromagnetic field is quantized, thus opening the way for the merger of relativity and quantum mechanics into the quantum field theory.

This highly successful theory conceptually solves the wave particle duality of matter by viewing particles as instantaneous and local field interactions. In this theoretical view, all that appears to us as structure and as form, and its activity – the physical bone and sinew and operation of the universe – is composed of the nature and interaction of fields, acting within the constraints of the laws of special relativity and quantum mechanics.

The fields of quantum field theory are not the fields of identity field theory, but they do, in a similar way, interpret norms (conditions of state and function) in terms of immaterial structure and mathematical relationships.

We know there is a relationship between the deviated field and the identity field, and that this relationship can be expressed mathematically in terms of equations embodying r unit values which vary with the power of qualitative thought.

In developing thought conceptually along these lines we are saying that since both deviated and non-deviated identity fields can be mathematically defined, and since qualitative thought is related to these mathematical definitions, it is perhaps possible to view all activity and identity, mental and physical, in terms of mathematically definable identity field characteristics.

The identity-referenced test thus gives us an open door which just possibly may lead to both mathematical and interpretative meaning at some point down a long, long road – meaning expressible in the scientific parables so important in our times, and interpretable as well in the qualities which underlie our life, our thought, and our experience. And it is from these parables that the conceptual structures arise which – linked with their associated proof systems – increasingly determine the paradigms of scientific and religious experience.

World Views

The paradigms, or world views, of primitive peoples were mythologic in nature. Religions, developed along qualitative lines, developed their conceptual systems in terms of the nature and attributes of God.

The sciences, bound to measurement and quantitative considerations, developed their conceptual systems in measurement oriented terms. This has led to sophisticated logical and mathematical development, but qualitative barrenness.

For example, in physics (our “hardest” science), the fundamental element is not form but function, a dynamic on which our mathematics in this area is based. Thus, the form of the final concepts that are being sought are equations of motion with the mathematical forms representing matter appearing as the solutions of laws of motion for matter.

In this paradigm, identity, or form, is little more than the changing material patterns of equations of motion which, unlike the forms they present, hold under all conditions.

Although the negative feature of modern science has been a qualitative barrenness, its great positive powerful proof systems, systems which, because of their explanatory power and their logic, increasingly mold the paradigms of today.

The Copernican revolution marked a major shift in the paradigms of thought. In a like manner, the Darwinian triumph of the scientific naturalists of the past century did much to move world views in rational directions.

In the last half of our own century, the development of microbiology and of mathematics has led to the view (based on the ability to calculate the probabilities of organic development) that the development of life and thought requires not only favorable natural conditions, but also an information content which is beyond the scope of natural processes to provide.

Some thinkers have speculated that such information sources or intelligence may lie in our world but beyond our earth, although freely admitting that (even if this be true) the ultimate source of such intelligence is still unknown.

The calculations and the facts emerging in this area

of discovery indicate powerfully, to those who understand their implications, the need for the emergence of a paradigm which accommodates this data and its meaning.

Discoveries such as these support the intellectual climate which, together with religious convictions and the practical considerations of the developing proof systems of modern science, led to the identity-referenced test and identity field theory.

The increasingly powerful case made by microbiology and mathematics for the inter-relation of intelligence and random action is supportive of identity field theory. From the standpoint of identity field theory, however, it is not hierarchies of intelligence which are implied, but a pre-geometry of the universe, a pre-geometry which can be demonstrated by a very large class of tests – the norm-related qualitatively dependent identity-referenced testing on which identity field theory depends.

It is not microbiology and mathematics alone which raise some of the larger scientific questions of today. Mathematics and cosmology do likewise, for the ability to calculate the probabilities of the occurrences which make the structure of our world possible have made further assessment in this direction necessary.

As the ability to calculate the incredible odds against our “friendly universe” has developed, mathematicians and physicists have, in some instances, proposed a “many worlds” or “parallel worlds” theory to explain the existence of the universe we know.

The questions raised present the same difficulties as those associated with the origin and development of life and, rather than seek shelter in various and often unprovable explanations, it seems wise to look for a unified solution to problems with a common denominator.

A long standing weakness of evolutionary theory also falls in this category for, although natural selection is not in doubt, evidence for the power of chance mutations to alter species has never existed, and the new ability to calculate probabilities for such occurrences (or rather, the climate of thought to do it) now shows us why.

Inexplicable breakthroughs do not exist in the natural sciences alone. The historian Arnold Toynbee once commented that the sudden appearance of civilization in the Middle East was as much a miracle as the supposed creation of man 6,000 years ago assumed by

literal Biblical scholars, and there are many other examples.

The development of the universe, of life forms of human history, and the history of thought with its patterns of discovery and development – all reveal a larger pattern with a common denominator. As each scientific discipline seeks a specific answer to meet its own specific needs, a patchwork or explanation develops, whereas a larger view seeks explanation in the nature of "geometry" of the world itself.

Identity Field Theory: a Viewpoint

Identity field theory, being both experimentally based and conceptually rooted in a point of view which equates order with qualitative thought, is not emotionally or intellectually allied with the point of view which sees the universe as the clay of an ordering intelligence. Rather, it sees the universe as the interaction of order and disorder, an interaction which is also the interaction of qualitative and non-qualitative thought.

It is this postulated interaction which constitutes the basic tenet of identity field theory. The equations and conclusions of identity field theory flow from a blend of this conceptual position and the observed data of a previously unknown category of experiment – identity-referenced tests.

It is because the existence of identity-referenced tests is now known to us that the paradigms of the future can be based on more than speculation about the relationship of unmeasurable qualitative influences with measurable data. Identity-referenced testing gives us a means to measure the interaction and to probe its characteristics. Such testing also brings (together with the concept of the identity field) a unified answer to many of the questions of modern science and human experience.

At present, identity field theory is little more than the knowledge of the existence of identity fields, blended with the viewpoint that such fields determine the nature of the universe. Added to the mix are the obvious relationships of qualitative and non-qualitative thought which identity-referenced testing reveals. However, from such a basis, a basis amenable to experimental test, a paradigm uniting characteristics of qualitative and quantitative experience is being forged.