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SECURITY CLASSIFICATION OF THIS PAGE(Ishin Data Entered)
Block 19 (Continued). inception, infinity, intersecting frames, life, linked brains, Mach's principle, many-worlds interpretation of quantum mechanics, mass, màterialization, metaphysics, mind, mind/body problem., Moray device, nothing, orthogonal frames, orthorotation, particle, perception, perceptron, probability, pşychic, psychotronics, psi, quantum, quark, quiton, relativity, reality, spacetime curvature, spirit, time, tobiscope; tulpa, two-slit experiment; unified field theory, universe closure, wave, wavicle, zero.

Blóck 20 (Continued) Al metalogic èncompassing both physics and metaphysics. Everett's many-worlds interpretation (MWI) of quantum mechannics then provides the theoretical framework onto which four-law perception theory can ba fitted. The MWI is known to be consistent with the entire experimental basis of physics. Thus the new schema contains a correspondence principle: i.e., it reduces to ordinary physics of a single 4-space in the limit.

A cluster of an infinite number of orthogonal 3-dimensional spatial frames, all containing the same single fourth dimension or time axis, provides a framewor onto which mind, matter, fields, being, life, and both physical and metaphysical phenomena can be fitted and precisely modelled. Thus metaphysics can be precisely modelled by, and related to, physics: A theory of biofields is then apparent from the model. A solution to the ontological problem is presented.

Using the four-law perception approach, a fundamental particle becomes a closure of the universe, in the manner of Einstein's spherical model of the cosmos: The simultaneous existence of both ma croscopic and microscopic universes is due to multiple closure of the same universe at differing-rates (differing by a factor of $10^{42}$ ). The polarity of charged particle is due to the direction of closure taken by the fast-closure universe cusp. The world thus becomes a single giant hologram, and reality becomes holographic rather than Cartesian. 'Mass is a time differentiator, and in its differentiating of $L^{3} T$ Minkowskian spacetime, the time dimension is lost. Thus physical detection systems do not detect time directly, and the time dimension cannot be "seen" by a mass detection (sensory) system. The mind is objective, since mental phenomena. occupy the time dimension, and the time dimension is accepted as objective in physict. However, since the-mind does not share the spatial dimensions of the - ordinary 4-space, the mind itself is not perceived or observed or detected, since a mass perception system (the physical sensory apparatus) loses the time dimension, the only objedtive dimension shared in common by mind and matter prior to perception/detection/observation. Thus the act of physical sensory detection perception or observation itself . - |-a is responsible for Descartes' sharp separation of mind and body.
"A mind becomes a complete 3-dimensional physical world, three or more orthogonal spatial turns. (rotations) away from the ordinary 3-dimensional world, in an n-dimensional cluster of orthogonal three-spaces with a single fourth (or time) axis. Debroglie waves and photons are fitted into this model as reat: particles in the appropriate space frames, and the nature of a quark is simply that it is spatially unclosed, --hence it is not detected as a particle (which must be spatially closed) in physical experiments. From the model, constructs that model life, death, a biological system, psi, consciousness, inception, telepathy psychokinesis, UFO's, God, and the collective unconscious can be taken. Materialization, dematerialization, and mind linkage also exist, as does a specific mechanism for tulpas, - materialized and objectified thought forms.

Block 20 (Continued). The UFO phenomena may be explained as tulpa $s_{i}$ which are tuned in from the hyperspatial mindworld of the human species...Apchetypal forms are most easily evoked, but are imprinted or changed according to personal, social, and cultural conditioning. Several major UFO "flaps" are shown to precisely fit these criteria. Since in Everett's MWI all possibilities are concretely real and exist, then any kind of thought reality at all may be orthorotated in and emerge in the ordinary laboratory spatial frame, and emerge as concretely real objects, entities, vehicles, devices, etc. However, since a mind is normally quite urstäble, then tulpas which are materialized are unstable and usually go away in a short period of time.

The two-slit experiment and the Hieronymus device are shown to involve the fourth law of logic, as does the feisenberg uncertainty principle. A new definition of nothing 1 is advanced, which resolves the philosophical problem of nothing. Multiple presence and singular absence are identical (i.e., they are indistinguishable) to a monocular perception/detection process.

Feynman's: criterion for a unified field theory - that it must.explain why 1042 occurs in both the ratio of an electron's radius to the Einstein closed universe's radius; and the ratio of the electrical force and the gravitational force between two electrons -- is met by dual universe closure at rates differing by a factor of $10^{42}$. The dual closure universe model also is consistent with Santilli's proof that the classical assumption that electric field and gravitational field are differentit things is false, and that they are either totally or partially the same thing. In dual closure, an electrical field is essentially a gravitational field compressed by a factor of 1042 , but in a separate closure cusp than the gravitational field.

Fiubbard's manifold theory of physics also derives the four-law metalogic, and substantiates the four-law perception approach.


T.E. Bearden<br>System Development Corporation 4810 Bradford Blvd Huntsville, Alabama 35805

August 1, 1976
Mss. Alice Mealy
Defense Documentation Center.
ATTN: DDCTSR-I
Cameron Station
Alexandria, VA 22314
Dear Mss. Mealy:
Enclosed are two papers which I would like to have placed in the DD̈́s system, per our previous conversation. Completed DD Form 1473's are also enclosed. The material is copyrighted by me, but naturally this letter constitutes authority for you to put it in DDC.

Your assistance is deeply appreciated: These two papers represent something of absolutely fundamental importance, I believe, and their content should be available to all DOD users who are interested in parapsychology and psychotronics.

Sincerely,
Shower K. Burden
Thomas E. Bearden
LTC, U. S. Army (Retired)
Research Scientist
2 incl
"Writing the Observer back Into the Equation" ( 4 copies).
"An ,Approach to Understanding Psychotromics" (i copies) X $\because$


# AN APPROACH TO UNDERSTANDING PSYCHOTRONIGS 

Thomas E. Bearden

June 1976:
(C) 1976 T. E. Bearden


## ABSTRACT

 to the interaction of mind and matter, and so to union of physics and metaphysics. advances a fourth law of logicurs the age-old "identity orin opposites" whoseraparent. necessity has báffledulogiciansmphilosophers" and scientrstsfor centuries. - With' the author's perceptron approach to perception, one is at last enabled to Comprehend how the identity of opposites is accomplished, and when it is accomplished.
die fourth lain together with the first three Aristotlean laws of logic form a complete, closed metalogic encompassing both physics and metaphysics. Everette's many-worlds interpretation (MWI) of quantum mechanics then provides the theoretical framework onto which four-law perception theory can he fitted, The MWI is known to be consistent with the entire experimental basis of physics.' Thus the new schema contains a-correspondence principle: i.e., it reduces to ordinary physics in the limit, just-as Einstein's relativistic physics reduces to Newtonian physics in the limit.

造A cluster of an infinite number of orthogonal 3 -dimensional spatial frames, all containing the same single fourth dimension, or time axis, provides a framework onto which mind, matter fields; being, life, and both physical and metaphysical phenomena can be fitted and precisely modelled. Thus metaphysics can be precisely modelled
 A solution to the ontorogieat muntin to presented:

Using the four-law perception approach, a fundamental particle becomes a closure of the universe, in the manner of Einstein's spherical model of the cosmos. The simultaneous existence of both macroscopic and microscopic universes is due to multiple closure of the same underset different rates (differing by a factor of $10^{42}$ ). The polarity of a charged particle is due to the direction of closure taken by the fast closure universe cusp. The world tine becomes a single giant hologram, and reality becomes holographic, rather than Cartesian. Mass is time differentiator, and in its differentiating of $\mathrm{L}^{3} \mathrm{~T}$ Mi kowskian spacetime, the time dimension is lost. Thus physical detection systems o not detect time directly, and the time dimension cannot be "seen." by a mass detgtion (sensory) system. The mind is objective, since mental phenomena occupy or spare the time dimension, and the time dimension is accepted as objective in physics. However, the mind itself is not perceived or observed or detected, since a mass perception system (the physical sensory apparatus) loses the time dimension, the only objective dimension shared in common by mind and matter prior to perception/detection/observation. Thus the act of physical sensgindetection -- perception itself -- is responsible for Descartes' sharp separation of mind and body.

A mind becomes a complete 3-dimensional physical world three or more $^{2}$ orthogonal spatial turns (rotations) away from the ordinary 3-dimensional world, in ) an n-dimensional cluster of orthogonal three-spaces with a single time axis:. DeBroglie waves and photons are fitted into this model as real particles in the appropriate space frames, and the nature of a quark is simply -that it-is-spattally unclosed --hence it is not deteaterencricle (Which must be spatially closed) in physical experiments. From the model, constructs that model lifo; death, a biological system, psi, consciousness, inception, telepathy, 'psychokinesis, UFO's, God, and the collective unconscious can be taken. Materialization, dematerializaticn, and mind linkage also exist, as does a specific mechanism for tulpas. ( materialized thought forms).

- The UFO phenòmena may be explaired ás tulpaṣ, which àre tuned in from the hyperspatial mindworlds of the human species. Archetypal forms are most easily evoked, but are imprinted or changed according to personal, social, and cultural conditioning. Several major UFÓ "flaps" are shown to precisely fit these criteria. Since in Everett!'s MWI all possibilities are concretely real and exist, then any kind of thought reality at all mady be orthorotated in and emerge in the ordinary laboratory spatial frame, and emerge as concretely real objects, entities, vehicles, devices, etc. However; since a mind is normally quite unstable, then tulpas which are matterialized are unstable and usually go away in a short periód of timè. SThe two-slit experiment and the Hieronymus device are shown to involve the fourth law of logic as does the Heisenberg uncertainty principle. A new definition of nothing is advanced. Multiple presence and singular absence are identical (i.e., they are indistinequishable) to a monocular perception/detection process.

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Hubbard's manifold theory of physics also derives the four-law metalogic, and substantiates the four-law perception approach.

## TO UNDERSTAND PSYCHOTRONICS

## VUGRAPH: QN

(vg̈l)

The prefix "psycho" referṣ to the mind.
The suffix "tronics" refers to physics and"physical devices.
Thus the concept of "psychotronics" refers to a union of physics and metaphysic̣s.

To solve the formidable problem presented by such an audacious concept requires a solution to every present problem in metaphysics, foundations of logic, foundations of physics, and foundations of mathematics.

It has been said that fools rush in where angels fear to tread.
To tackle the problem of psychotronics demands an audacity to go where even fools fear to tread.

VGGPAPH OPF

## SOME BASIC UNKNOWNS

(v g゙\#2)

## VUGRAPH ON

This slide lists a few of the things which no one really understands.
Psychotronics involves a new understanding of all these concepts.
One must literally evoke a new concept of reality.

## VUGRAPH ORE

## SUGGESTED APPROACH

## VUGRAPH ON

In 12 years of intensive work on this question, the present author has evolved a conceptual approäch which is consistent with present physics, but extends it, and one that appears to be capable of dealing. with the problem.

A new concept of reality is involved, however, and sévere demands are made on the individual to stretch his framework of comprehension.

The perceptron concept is an abstraction which enables the modeling of perception itself - either mental perception or physical detection.

The fourth law of logic involves the age-old "identity of opposites" whose apparent recessity has baffled logicians, philosophers, and scientists for centuries. With the perceptron concept, one is at last enabled to comprehend how the identity of oppọsites is accomplished, and when it is accomplished.
E.g., this immediately solves the age-old philosophical problem of change, once applied. The fourth law also closes logic into a complete, closed metalogic encompassing both physics and metaphysics.

Everett's many-worlds interpretation (MWI) of quantum mechanics then provides the theoretical framework onto which perception theory can be fitted. The MWI is known to be consistent with the entire experimental basis of physics. Thus the new schema contains a correspondence principle: i.e., it reduces to ordinary physics in the limit, just as Linstein physics reduces to Newtonian physics in the limit.

A clụster of an infinite number of orthogonal, 3-dimensional spatial frames containing a single common fourth dimension, or time axis, provides a framework onto which mind, matter, fields, being, life, and both physical and metaphysical phenomena can be fitted and precisely módelled.

Thus metaphysics can be precisely modelled by physics.
A theory of biofields is then apparent from the model.

## VUGRAPH OFF

## A. SUGGESTED APPROACH TO PSYCHOTRONICS

## ( vg \# $\#$ )

## VUGRAPH ON

From perception theory, using the perceptron concept, the author has succeeded in deriving a great deal of the present basis of physics, as shown on this slide.

Einstein's postulates of relativity have been derived for the special. relativity case, and it appears that the equivalence principle, necessary for general relativity, also follows. "The derivation of the first two postulates has been published.

Newton's laws of motion - relativistic form -- have been derived and published.

A solution to the ontological problem has been derived.
In addition, a new nature of the photon has been revealed. A photon is simply an ordinary 3-dimensional particle existing in a 3-space that is orthogonal to the laboratory 3-space frame. Thus the photonic, particle has a 2-dimensional intersection with the laboratory observer's spatial frame, and it appears às a wave or 2 -dimensional entity to him. A stationary particle in the laboratory frame appears as a photon to the orthogonal spatial frame.

This can readily be scen as a necessity if one restates Einstein's second postulate. The second postulate is usually, stated as "The speed of light is the same for every observer."

Restated, the postulate becomes "Every photon in an inertial frame is moving at the speed of light, $c$, with respect to every particle in that inertial frame."

The corollary then follows immediately: Every particle in that inertial frame is also moving at the speed of light, $c$, with respect to every photon in that inertial frame.

In a single 3-space', this is incomprehensible: Taking two orthogonal: 3 -spaces, it is perfectily comprehensible.

Aristotle's three laws of logic are incomplete; and it is necesssary to develop a fourth law to close logicinto a metalogic encompassing physics and metaphysics. The fourth law has the characteristics shown on the viewgraph.

We will develop the fourth law shortly.

## VUGRAPH OFF

## ASUGGESTED APPROACH TO PSYCHOTRONICS

(ivg\#4)

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VUGRAPH OFF

## A SUGGESTED APPROACH TO PSYCHOTRONICS (CONTTD)

## VUGRAPH ON

Everett's many-worlds interpretation of quantum mechanics, with which very few physicists are familar, in fact provides a needed correction to the conventional interpretation of relativity, and it allows a theoretically sound basis to be constructed for psychotronics.

The conventional interpretation of relativity considers only a single observer at a time.

But if you can convince yourself of as simple a thing as that both you and I exist simultaneously, regardless of how we move with respect to each other, then I assure you that physics is startlingly different from what you studied in the ordinary university physics book.

Everett, originally a student of the world-renowned physicist, Dr. John Wheeler at Princeton, for his RhD thesis considered the problem of multiple simultaneous observers and worked out what this did to physics. His highly innovative thesis provided a totally new interpretation of quantum physics, and it defined a startling new kind of reality in which all possibilities are physical real and exist. This new physics is indeed very strange, but it is totally consistent with the entire experimental basis of physics today.

The present author discovered that all his perception theory could be fitted precisely onto Everett's many-worlds interpretation. On that basis', a theory or schema of biofields was derived which provides an approach toward a unified field theory. In fact, it predicts that any kind of field can be turned into any other kind of field, merely by correct and precise time synchronization. It also offers a physical and exact model of mind and mental phenomena.

On this basis, a framework can be provided for psychotronics which is consistent with what we know of ordinary physics, but which does not contain many of the limitations of conventional physics:

VUGRAPH OFF

Let us now make a fundamental correction to Aristotle's three laws of logic.
First, one does not häve a thought per se; one has a "perceived thought;" There is a perception operation involved when one things.

There is no independent existence to physical phenomena either; there is a perception operation involved when one perceives or obsërves physical phenomena.

Further, it takes a finite piece of time for the perception process to occur. So let us impose this criterion upon logic itself; i.e., so as to constitute "logical perception" or the "logic of perception" or the "perception of logic." We begin with Aristotle's third law of logic, A or not-A, the law of the excluded middle.

We will insist that there is no such thing as A per se, but that rather there is:a perceived A where $A$ is the output of the perception process. Similarly, there is no such thing as not-A, but rather there is a perceived not-A where not-A is the output of the perception process.

We will use a little square box symbol as an abbreviation for the fact that perception has occurred, and anything written inside the box represents the output of that perception operation. One can speak of the little box either as mental perception and describe thought, or one can speak of it as physical detection and describe an instrumentation system that does detection and measurement.

Also, since each Iittle box requires a finite time to occur, one must carefully keep up with the individual little pieces of time, the delta $t$ 's. Sometimes one will get tired of writing little delta t 's, and in that case one will just write the number of each one as a subscript and the delta $t$ will be understood.

So applying this to Aristotle's third law, we have A perceived or outputted in time one, and not $-\dot{A}$ outputted in time 2. Note that to ascertajn that $A_{1}$ and not- $A_{2}$ actually differ requires a third operation, in time 3, that is assumed by the exclusive or symbol.

Looked at in this way, Aristotle's third law actually is the law of monocularity; i.e., it states that only one thing at a time is perceived. Actually we had assumed this when we assumed that perception was a finite process, so it is nice to find that Aristotle's third law justifies our assumption, once we understand the third law.

The exclusive or symbol assumes a third operation, in time three (not shown), whereby it is determined that perception output one and output two actually differ. But such an operation itself requires multiocular perception-i.e., the colle "ing d
of two outputs at once -- and that in itself is a violation of Aristotle's third law. The law as written contains its own contradiction, as indeed does each of the other two laws when one examines them meticulously. It can only be established as true by invoking or involving an operation wherein it is not true.

## A FUNDAMENTAL CORRECTION TO CLASSICAL GOGIC

(continued).
So now let us write what we did in time three to establish the third law.
We gathered up what had been perception output in time one $-A_{1}-$ and what had been perception output in time two - $A_{2}$, which just yet we do not know is different from $A_{1}$ or not - and shoved them both through the perception process, getting only one output -- let us call it B - in time three; By the nature of Bin time three, we say that the outputs in times one and two differ or hot. In either, time one or time two, there is no indication whatsoever of difference or sameness existing between output one and output two.

Now note that, in time three, if $A_{1}$ and not $A_{2}$ are precisely opposite $-\frac{1 .,}{}$ e, if one operational is simply the negative of the other - then $B_{3}$ will be zero. If $A_{2}$ and not $-A_{2}$ are not precisely opposites, then $B_{3}$, will have a finite value.

But if ${ }_{3}$ is zero, that is the same as saying that perception does not occur. Hence perception of difference between $A_{1}$ and nott- $A_{2}$ ajes not ocur in time 3 if $A_{1}$ ard A2 are precise opposites.

So here we have arrived at the identity of opposites. If no perception occurs ( in time three, then there is no perception of difference between $A_{1}$ and not $-A_{2}$ in time three.

And this constitutes a fourth law of logic: the law of the boundary, or the boundary identity of exact opposites. All that is necessary to identify opposites is to lose all perceptual distinction between them. And that is accomplished "by multiocular perception, of perceiving the presence of both at once, hence the absence of either exclusively present. To a monocular process, multiple presence of paired opposites is not perceivable; hence no single one is perceived, which means that nothing is perceived!

## FOUR LAWS OF LOGICAL THOUGHT

(vg\#7)

## VUGRAPH ON

The first three laws of logic, after Aristotle, are shown on this vugraph; along with the proposed fourth law.

The first three laws involve perceptual output entities which are monocular. I.e., one-at-a-time has been perceived.

The fourth law involves perceptual output entities which are multiocular. I.e., two -at-a-time have been perceived or outputted.

If one would completely describe perception, it is not possible to do so with monocular laws only. For in that case, the multiocular case is not covered by a logic that is monocular only:

The first three laws, being monocular, are incomplete, and a multiocular law is required if a complete logic is to be formed.

The fourth law as written is the required multiocular law, and it completes formal logic.

We wrill also see that the first three laws have been inappropriately named. VUGRAPH OFE

THE LOGICIAN'S DREAM: A CLOSED METALOGIC
(vg\#8)

## VUGRAPH ON

The new system of logic is shown here.
The system is closed.
All present paradoxes -- contradictions of one or more of the first three laws -- are resolved by the fourth law; which contains the negation of each of the first three laws.

Note also that the hidden time three operation -- which has actually been the application of the fourth law all along -- is implied by the connecting symbol in each of the first three laws. Identity or non-identity between time one and time two outputs can only be established in a time three operation. The fact that A or not-A exclusively exists can only be established by a separate operation which establishes that nothing else is there.

Since these laws refer to perceptual operations, one can think of them operationally; or vectorially.

To close the vectorial system prescribed by the first three laws, the opposite or negation of each of the three vectorial statements must be present. I.e., this follows simply from the definition of what constitutes a closed system.

Since the fourth law contains the negation of each of the first three laws, then the four law system is indeed closed, and the logician's dream of a closed metalogic is realized. Further, anything which contradicts any combination of the first three laws automatically is covered by the fourth law.

We thus should be able to resolve all paradoxes.
VUGRAPH OFF

## A PHY゙SI EAL EXAMPLE

(vg\#9)

## VUGRAPH ON

For a physical example:
Take the surface of a cube in deep space. Call the cube thing, a $3-\mathrm{D}$ concept. Call the empty space around the cube nonthing, meaning $a \log$ neinthing or absencéof thing.

If one is standing inside the cube and looks at the boundary surface of the cube, one cannot find a single piece of that boundary surfact that does not belong toatily to the cube. So one can very rea sonably proclaim that by the first three laws of logic each piece of the boundary belongs totally to the cube, to thing.

But if in a different operation one is standing outside the cube, one cannot find a single piece of that boundary surface that does not belong entirely to the space surrounding the cube. So in this case, one can claim by the first three laws of logic that the boundary surface belongs totally to nonthing.

Then in a third operation one can state that, by the first law of logic, each and every piece of the boundary surface is identical to itself, and of course one has just identified what was thing with what was nonthing.

Specifically, what was thing in perception time one and what was nonthing in perception time two have been identified, by all distinction and separation between them being removed, in time three.

And all one has really done is apply the fourth law of logic, the law of the boundary.

Every single perceived thing has a boundary, where it both begins and ends its exclusive presence in perception output. Andat that boundary, the fourth law applies. Thus the law is universal.

The fourth law defines a boundary.

## VUGRAPH OFF

## THREE EXAMPLES OF FOURTH LAW

## VUGGRAPH ON:

(vg\#10)

Here are three more examples that have baffled mathematicians and logicians.

All of these are simply boundary statements --i.e., statements involving: the fourth law of logic.

Since logicians used only the first three laws, none of these statements is acceptable or understandable. By the fourth law, there is no problem with these statements.

The first merely refers to the operational boundary between the operation used to establish "truth" and the operation used to establish "falsity." There is another class of operation where neither truth nor falsity exclusively applies.
E.g., take the proposition "It is räning or it is not raining."

To state the proposition is to imply that you yourself can see or understand both conditions at once, but that you will extract one or the other separately.

The other two examples have comparable meanings.
VUGRAPH OFF

# NEW DEFINITION OE ZERO 

## VUGRAPH ON

To a mönocular perception process, multiple presence constitutes absence of "the exclusive presence of any particular one."

Therefore such a multiple presence is monocularly unperceivable, and hence becomes à zero to a monocular detection process .

This allows new definitions of zero, and a solution to the problem of nothing.

## VUGRAPH OFF

Note to the briefer:
I.e., consider that a monocular detection process asks the question, "Is there a single exclusive thing present in my input? is

If the answer is yes, an output is generated and a perception occurs.
If the answer is no, no output is generated and perception does not occur.
Tha answer "No:" occurs in two fashions: total absence, or presence of two or more simultaneously. For either of these cases, monocular perception gives no output, and perception does not occur. I.e., the "absence of perception" occurs.

Now note that the moncular perceptron cannot tell any difference in the two input conditions. To it, there is no difference between the two conditions.

The lack of difference at all constitutes identity. Thus to a monocular perception process, condition onesis identical to condition two.

That in fact derives the fourth law of logic. Total absence and total presence are identical insofar as a monocular detection process is concerned.

## SYNCHRONICITY OF CONCEPTS

## (vg\#12)

## VUGRAPH ON

As is so often the case, two persons appear to have derived the new logic simultaneously:

Bearden from perceptron theory.
Hubbard from manifold theory.

VUGRAPH OFF

## HUBBARD'S MANIFOLD

## VUGRAPH:ON

Hubbard's profound work fully substantiates the new logic and the new reälity paràdigm.

## VUGRAPH OFF

Note to briefer:
Per private correspondence with Dr. J. Hubbard, Director, Association for Distinguished American Scientisṭs, P.O. Box 805, Säratöga, CA 95070.

## TWO-SLIT EXPERIMENT

(vg\#14).

## VUGRAPH ON

This experiment is fundamental to all of modern physics.
Feynmañ, Nobel prize winner in physiç; hàs stated thät nö physicist understands this experiment.

The reason is that it cannot be monocularly comprehended. T.e., the first three laws of logic cannot explainit.

The fourth là wan and does
In the experiment, electrons are emitted from a source and travel past a doubly-slit wall region. on their way to a screen. The apparatus is shielded against light. If one believes that the emitted electron is a little 3-d particle, much lijke a little baseball, then it should go through one of the slits and not the other. It would then hit the screen at one of the two spots indicated as the expected distribution, with a little scatter from those that chip the edge of the slit a bit. Electrons which do not hit the holes but strike the wall are absorbed.

The expected pattern is not at all what one gets.
Instead, the actual pattern is essentially the same as what one would get if each electron were a wavefront, and that wavefront passed through both slits at once. However, each electron still strikes the screen in only one point; the distribution of these points fits the actual distribution pattern shown.

And that blew their minds in physics. They didn't believe it at first, so they set up a photon gun and hit each änd every electron with a photon as it left the emitter source and started over toward the two-slit region. 'That is, they determined precisely when a little electron was on the way, and the fact that it was like a little baseball and in just one place. And this time the electron only went through a single slit, and it gave the expected pattern after all. And when the experiment was repeated and only a fraction of the electrons were hit with photons, then a mixture of the two patterns emerged.

It is simple to mathematically describe the results, but no one has understood why things happened as they did in this experiment.

The principle of complementarity evades the issue. That principle is simply a monocular statement that deals with one aspect of the problem at a time -- i.e., . with the determined, exclusive, monocular past only. It does not apply to the presept nor to the future.

If one thinks in terms of the present, then the third law of logic is violated and: the fourth law applies. The two states $-2-\mathrm{D}$ wave and $3-\mathrm{D}$ corpuscular - - both exist simulaneously in the present, but nonexclusively. That requires two simultaneous states, and that automatically means that determination or perception has not occurred

## TWOO-SLITEXPERIMENT

(continued)
Thus in physics terms that becomes probabilistic and undetermined, and that is automatically a wave concept. I.e.u waves are not stuck in one place and determined or localized, so they exist in the present and not the past.

On the other hand, when a selection or determination is made on the electron, that is a differentiating or separating perception operation, hence it is in the past. And that is automatically a 3-D corpuscle concept -a localizing or fixing concept. So when the electron has not been separated into single state out remains in dual-state, it can act ás a wave. In that case it easily passees through both slits at once. But when it has been forced into a selection or separating perception, that makes it single-state, and in that case it passes through only one slit or the other. When the electron strikes the screen, regardless of whether it is dual-state or single-state, the screen forces a selection upon it, and so the electron becomes single-state and thus hits in only one spot on the screen at once.

And that is the explanation of the two-slit experiment, that no one understands. The reason it has not been understood is that the answer was not present in the firsit three laws of logic. It requires the addition of the fourth law to complete the explanation of the experiment.

And photons do the same thing, as indeed do all neutrons, protons, and other fundámental particles.

So things, nothings if you will, can be processed in the two-states -identified-as-one-so-none-observed state. They can be amplified, recorded, put on tape, etc.

The two-slit éxperimental apparatus is a real gadget, and it works. It is a device: So one can build devices that process entities which are in two-nonexclusive-states-at-once. To our monocular detection gadgets and monocular theory, such entities are unobserved and hence are zero. They are pure vacuum. Pure space. Pure nothing. But very real indeed, and they do physically exist, but multiocularly rather than monocularly.

## VUGRAPH OTF

## PSYCHOTRONIC DEVICE: SPACE (QUITTON) AMPLIFIER

(vg ${ }^{(15)}$

## VUGRAPH ON

It is now possible to speak of a "piece of nothing, "1 that we will call a quiton. A quiton will be defined as "the smallest piece of nothing;, that still doees not moriocularly appear as a perceived thing."

Collection of a sufficient number of quitons results in breaching a threshold, so that a thing results.
I.e., collecting all of one type of thing - quitons - reaches the boundary whère it turns into its own opposite, by the fọurth law of logic.

Thus in any situation involving a particularized nothing, collecting enough pieces of that nothing eventually exhausts the nothing set and reaches its boundary, whereupon it is a thing.

That is really little different from collecting all nondimensional points in a particular sequence and finding you now have a one-dimensional line segment, or collecting all the pieces of spacetime warp in a particular region and discovering that you hàve now a mass.

A device can easily be constructed to process dual-natured or binöcular entitiès (quitons), which are mónocularly zeroes, while excluding monocular entities. Thus one can build a space amplifier or quiton amplifier or vacuum amplifier.

The vugraph shows a scherne for doing that. Two single-state excluders in series feed or input to an ordinary single-state amplifier or processor in a shielded container. The output is fed into a device which will rotate the dual-state entity or field so that an ordinary field can result. I.e., one side or the other of the dual-state output will be exclusively presented in 3-space.

## VUGRAPH OFF

## Note to briefer

Consider "nothing" in the multiocular sense; i.e., as multiple presence.
Collecting all the multiple present things into one reaches the boundary.
But one thing is perceivable by monocular perception. Therefore the one-thing just collected now can be outputted by perception, and it is.

That is how the unperceivable turns into the perceivable when one reaches the boundary.

## PSYCHOTRONIC DEVICE: SPACE (QUITON) AMPLIFIER



## VUGRAPH ON

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Cóllection of a sufficient number of quitons results in breaching a threshold, so that a thing results.
I.e., collecting all of one type of thing - quitons -- reaches the boundary where it turns into its own opposite, by the fourth law of logic.

Thus in any situation involving a particularized nothing, collecting enough pieces of that nothing eventually exhausts the nothing set and reaches its boundary, whereupon it is a thing.

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Now if one believe's he cannot sense the anenergy fields, then he can't. One can turn the entire anenergy detection system in his body off with his unconscious mind: The negative psi effect is a well-documented effect in parapśychology. There are goats as well as sheep. SOome persons do worse on psi tests than chance would possibly allow. They are the goats. They exhibit the negative psi effect, for unconsciously they want to show you that psi doees not work, so bạdly that they use psi effects to do-worse than is possible by chance.

At any rate, the human sensory system can get a tingle from the anenergy field generated by the flat coil of wire in the Hieronymus machine's output. What type of tingle one gets depends upon one's own type of body sensory tuning. It mäy feel as if the fingers on the plastic plate are in thick syrup. Or as if the plastic plate were vibrating. Or it măy feel greasy in a peculiar way. And the negative person does not get.a tingle at all.

The Hieronymus machine has been built by many persons, and it works for those who are not negative. It processes entities that exist in the dual-state ${ }_{i}$ or that obey the fourth law of logic. And one can do some almost magical things with these dual-state nonthings, these nothings, if one sets his mind to it. As all of you realize, that is what psychotronics is all about.

VUGRAPH OF̈F

## PROBABILITY: THROW OF A DIE

(vg\#17)

## VÜGRAPH ON

The fourth latw of logic is absolutely indispensable in physics. One uses it every day and does not realize it'.
E.g., in probability. One doesn't have much physics left without probability.

But what after all is probability? The foundations of mathematics fellows have never succeeded in answering that question to their satisfaction. If you read the definitions presently advanced, you will find they essentially say, "Probability is probability, every fool knows that!"

Let us use a very simple example to get at the answer to that question. Iet us use the face of a die turned up. How can I model that, before the die is thrown?

Now one can only think by operationalism. To operate and output something is to automatically putit in the past. It's happened, it's gone, the moment you do it. To. perceive an object is to put it in the past. To determine it is to put it in the past. To observe it is to put it in the past. There is no observed ${ }^{\text {p }}$ perceived, detected, measured, or determined present. That is, there is no separated, exclusive, determined present such as is specified by the first three laws of logic the fourth law is the present, by the way -- but in observational physics which deals with determined, observed past phenomena, there exists no present. The future has not yet been observed, so it also is the unobserved. Only the past therefore is the observed. How then can one ever hope to model the unobserved present or the unobserved future?

If I look at this little problem I'm discussing -- the future observed die with one face up -- that is in the past. When I see it, it is in the past. When Ithink it, it is in the past. So if all I can observe, think, or perceive is the die in the past, how can I ever model it in the future?

## It's very simple!

If I drive any problem set to its absolute boundary limit, it turns into its own opposite by the fourth law of logic, by the law of the boundary. So how do I do that with this problem of the die?

The problem set is specified by the condition "the perceived die with one face up"; that is the most recent past. Now simply find all the most immediate pasts you can get to meet the condition specified, and gather them all up wgether, . and they ther must turn into and comprise precisely the opposite, the most immediate future. In this problem set, I can construct and collect six such pasts, each consisting of the perceived die with one face up. So by the fourth law of logic, those six "faces up" collected together as an ensemble represent the future and in fact are identical to the future. The "present," which is simply the boundary

## PROBABILITY: THROWOFA DIE

## (continued)

betwern the most immediate past and the most immediate future, was specified: by applying the fourth law of logic in the first place: identity of most immediate past and most immediate future, being binocular, is unperceived, but it is the present nonetheless. So that is what probability is -- an application of the fourth latv of logic, so the most immediate future can be represented in terms of the most immediate past -- and physicists and mathematicians have been doing that ever since they have been doing physics and mathematics.

Without the fourth law of logic, there exists no rigorous logical basis for pröbability!

So the fourth law is a very useful law indeed. We have just failed to realize that we have been applying it all along.

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## SOLUTION TO ONTOLOGICAL PROBLEM

## VUGRAPH ON

 (vg\#18)The ontological problem can also be solved as shown on this chart.

## VUGRAPH OFF

## VUGRAPH ON

This slide shows the basic perceptron approach.
It gives a new definition of a fundamental particle.
It is also an application of the fourth law of logic.
Since it contains all four laws, the concept is capable of modelling everything which can be perceptually thought.

By the fourth law, since it can model everything which can be perceived, it can also model everything which cannot be perceived as well.

Thus the concept enables one to model everythıng, perceived or unperceived. (PAUSE WHILE VUGRAPH IS READ) VUGRAPH OFE
(vg\#20)

## VUGRAPH ON

Einstein's spherical model of the cosmos is a primary example of a holographic universe.

In such a closed spacetime, each point inside the universe is also at the extreme end of the universe in any direction.

Thus the entire "physical universe" is totally outside any of its internal points, and totally inside each internal point as well, in this model.

That is an application of the fourth law of logic. The total internal is identical to the total external.

The adjective "total" merely moves one to the common boundary between the operational concepts of "internal" and "eytornal." At that boundary, there is no operational distinction between one and the other.

## VUGRAPH OFF

## Note to briefer:

The universe closure is not limited to just one occurrence or one rate of closure. Ir fact the universe can then proceed to close again within the same local 3-space. E.g., a gradual macroscopic closure due to gravity field (or causing it!) constitutes the "external universe," and a second extremely sharp microscopic closure due to electric field (or causing it!) constitutes "electric charge." The two together constitute a fundamental charged particle of mass. The polarity of charge is determined merely by which of two directions the second closure was made in. Considering an electron as such a dually closed entity, it is readily seen that the closure ratios are all that is being referred to by Feynman's condition. In this model, the same parameter between gravitational force and electrical force will obviously exist as is between the radius of the electron and the radius of the closed macroscopic universe, only in inverse fashion. This meets Feynman's condition. The model is also consistent with Santilli's proof that the electric field and the gravitational field are either the same thing or partially the same thing. In our model, an electric field is in fact a highly compressed gravitational field. Proper time synchronization shculd allow fantastic antigravity effects to be realized, and thus electrogravitics has a basis in this model.

## VUGRAPH ON

Feynman pointed out that unified field theory must explain the appearance of the same parameter $10^{42}$ in the respective force ratios and radiuses of the electron and the macroscopic universe.

The dual closure hypothesis does this.
It also is consistent with Santilli's proof.

## UUGRAPH OFF

Note to briefer:
The implications of such a model are potent. A totally new interpretation of electromagnetic fields is conceivable. Electrogravitics, Kozyrev's time oscillations, T. Townsend Brown's rock transducers, and Curtis's oceanic electrical fields are some fruitful aspects for analysis and exploitation.

## VUGRAPH ON

From every nook and cranny it is shouted out that reality is holographic rather than a Cartesian cube.

## VUGRAPH OFF

## MASS IS A TTME-DIFFERENTIATOR

(vg\#23)
VUGRAPH ON
The most fundamental aspect of the concept of mass is that it occupies space--i.e., that it is three-dimensional.

Mass thus is a time differentiation of Minkowskian spacetime $L^{3}$ T.
Applying the fourth law of logic, a thing does that which it is, and is that which it does.

Thus mass is a time-differentiator. VUGRAPH OFF

## MJ.ND IS OBJEGTIVE

(vg\#24)
VUGRAPH ON
But in time differentiating, mass loses the time dimension.
Therefore one cannot see "time" with a mass perceiver, but can see $L^{3}$ (spatial extension).

Therefore one also cannot perceive mind, because the plate (time) on which it was sitting is lost in the perception process.

## VUGRAPH OFF

Note to briefer:
Thus Descartes was both right and wrong. He was right in that mind is not present in physical detection output, but wrong in believing mind and physical phenomena were therefore totally separate. E.g., time does not exist except with respect to between one $L^{3}$ perception and another, if $L^{3}$ is all that is outputted. I.e., "physical" time is totally relative, totally mental, and exists only in memory. Mind is thus present in $L^{3} T$ 4-dimensional physical phenomena and is discretized along with time discreteness in the Heisenberg uncertainty relation $\Delta \mathrm{E} \Delta \mathrm{t} \xlongequal{\geqslant} \mathrm{h} / 2 \uparrow$.

In fact, one can even take the extreme view that time is mind, with some justification. Because to establish a delta $t$, a "former" $L^{3}$ must be established and compared to a more recent $L^{3}$. The only place the former $L^{3}$ can rigorously be found is in memory. An event, once occurred, is in the past and is forever "gone" to the observer. Only in his memory can it be said to exist. But then so is the observation also of the "most recent $L^{3}$." Thus rigorously ${ }_{3}$ observed phenomena may be said to exist only in memory, and there is only a past, never a present. Thus a full 4-D mind is inseparable from perceived physical phenomena, and mind is quantized along with quantum change in the "physical world."

## BIORIELD CONCEPTS

(vg\#25)
VUGRAPH ON
To understand the hyperframe approach to fields, one must understand dimensionelity of intersections in n-dimensional space.

## VUGRAPH OFF

Note to briefer:
Hubbard's manifold theory also derives these principles shown on the slide.

## VU GRAPH ON

(vg\#26)
It is well known that a moying mass can be considered as existing in a 3-D space which is bent away from the line of motion of the mass as seen in the laboratory frame.

As the velocity of the object approaches $C$, the angle of bending approaches $90^{\circ}$.

From the bottom left figire it can be seen that a force in the laboratory frame, applied to the moving mass aiong its direction of motion in the laboratory frame, only affects the mass iii the mass's bent frame with a projected portion.

To the laboratory observer, the mass's resistance to the disturbing force applied seems to have increased; thus to him the inertial mass of the object seems to have increased. I.e., if it's harder to push, its resistance to pushing must have increased.

But in the bent frame, the object's mass has not increased.
The bent frame effect is why the mass of an object increases to one observer but not to the other.

When the bent frame can be rotated a full $90^{\circ}$, no force applied by the laboratory observer can accelerate it further, because the applied force has zero resultant in the bent frame where the mass actually is. Thus the mass (resistance to pushing) appears infinite to the laboratory observer, while to the bent observer it is still exactly the same as it always was.

However, the mass's intersection in the lab frame is now 2-dimensional. Since only 3-d objects can have mass, the object is "massless" to the laboratory observer.

So here we have a paradox; Zero mass is identical to infinite mass.
This is perfectly in consonance with the fourth law of logic.
The absence of any single finite mass actually permits two indistinguishable solutions: The absence of any 3-d mass at all, and the presence of more than any finite mass at ali. The two opposites are identical on the boundary case.

Thus a photon has zero mass because it is a two-dimensional object and only 3-dimensional objects have mass. A photon also has infinite mass because it cannot be accelerated along its direction of travel.

Further, a photon is a perfectly ordinary 3-D particle existing in a 3-space that is one orthogonal turn away from the laboratory 3-space.

## VU GRAPH OFF

## PI - BENDING OF 3-D FRAMES

## VUGRAPH ON

Two consecutive orthogonal bends can be accomplished in such a manner that spatial closure back upon the starting point is accomplished.

If a 2-D wave is travelling through such a dimensional closure and closes back exactly in phase, it can travel forever in such a closed-in space. That closure, called a formon, constitutes a stable particle.

It also represents two $c$ velocities multiplied together to give $c^{2}$. A particle mass, which from its mass content refers to this closure of $2-D$ into a 3rd dimension, thus contains a $c^{2}$ term. When the particle is separatea into its constituent $2-D$ photon waves, the $c^{2}$ term is recovered.

That is why $E=m_{o} C^{2}$ constants of proportionality disregarded.

## VUGRAPH OFF

Note to briefer:
If a $2-D$ wave in a double orthogonal bend closure closes on itself slightly out of phase, that constitutes a formal, a form that is unstable, i.e., an unstable particle.

If the closure is greatly out of phase, the formal is so unstable that it constitutes a resonance in particle physics.
(vg\#28)

## VUGRAPH ON

It is proposed that a quark is an unclosed two orthogonal bends, as shown in the left figure.

Three quarks, however, can make a complete universe closure, as shown in the right figure. And that is a fundamental particle.

Thus single quarks do not independently appear as particles in experiments because they are neither particles nor waves in the classical sense.

Their indirect effects, however, should be detectable in a properly designed experiment.

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Note to briefer:
Thus quarks have not been independently detected to date because the experiments have been designed to detect particles or waves.

Under the proper conditions, a quark as postulated herein should be able to seemingly annihilate a photon in the proper type of collision.

EVERETT"S MANY-WORLDS INTERPRETATION OF QUANTUM MECHANICS
(vg\#29)

## VUGRAPH ON

Both mind and matter -- metaphysics and physics -- can be precisely modelled in Everett's many-worlds interpretation of quantum mechanics.

Specifically, if one selects an infinite number of orthogonal 3-spaces ( $L^{3} s$ ) which all share the same 4 th dimension in their 4 -spaces, then being, mind, matter, life, and psi are all modellable in a precise and exact fashion by physics.

VUGRAPH OFF

## VUGRAPH ON

But bent spaces give strange results .
A thing in one frame can be something quite different in a nother frame.

Just as the mass of a moving object does not increase with respect to its own inertial frame.

What a thing is, is relative to the perceiver and his perceiving frame. Entirely. It can even be nothing in a great many frames.

Now do you see how "nothing" can contain "everything?"

## VUGRAPH OFF

## CLUSTERED ORTHOGONAJ WORLDS

(vg\#31)

## VUGRAPH ON

A sample of this is shown here.
A nental object is quite physical in its own bioframe.

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## VUGRAPH ON

On this slide is a convenient list of how objects a ppear in different frames.

This schema, selected from Everett's MWI, allows modelling of life, death, mind, matter, and psi. It also allows one type of "field" to be orthorotated and turned into another kind.

Such orthorotation demands correct time synchronization, rather than brute force energy application. In fact, orthorotation is energyconservative for a single orthogonal turn.

## VUGRAPH OPF

Note to briefer:
E.g., photon emission and photon absorption are orthorotational processes, $3-D$ to $2-D$ and vice versa respectively. These processes are energy-conservative, but require precise time synchronization, hence precise energy synchronization.

## LIFE AND DEATH

## VUGRAPH ON

Here, e.g., is shown the schema for life and death.
Note that all possibilities -- everything that happened or could have happened, and everything that will happen or could ever happen, are real and exist concretely. The same is true for all thoughts and thought worlds, and all possible thoughts and possible thought worlds.

The totality is simply all-being -- or call it God if you wish.
Yes, Virginia, all possibilities and all formats of single 3-D reality exist.

Demons, UFO's, fairies, Sasquatches, spirits, gods, realities, conceptions, speculations -- each is real in its own main. Our own "physical reality" is simply a single format -- but of vourse it happens to be the one to which we find ourselves attached. Therefore "physical reality" has a certain type of fundamental reality which is not normally shared by the other formats, unless a piece of one of them is orthorotated into our own world.

Reality cannot be comprehended in terms of a single format.
Instead one must look at the format of all formats, which is formatless by definition.

The void is devoid of void, and that is very full indeed.
Everett's many-worlds interpretation of quanturn mechanics contains the structure for the format-ol-all-formats.

It contains the structure for life and death as well, if we understand how to look, and if we understand that all orthogonal worlds crosstalk.

## VUGRAPH OFF

Note to briefer:
In fact what we call our own "physical reality" can be shown to be nothing but the sum total of all the crosstalk from all the other worlds, that passes through this particular differential zone.

## MAVERICK WORLDS

(vg\#34)

## VUGRAPH ON

Even the strangest conceptions and most fantastic possibilities have their own assigned realm of concrete reality.

These weirdos are referred to as maverick worlds.
One example is shown here, where the effect (i.e., the effect in the laboraiviy frame) always precedes the cause (i.e., the cause in the laboratory frame). This world would appear to run backwards to us.

By proper coherent tuning, an object in one of these orthoframes can be orthorotated into our own frame and objectified -- and that is what the Tibetian monks called a tulpa -- an objective materialization of a thought form. The tulpa will hardly ever be closed entirely in phase, however, and so it will almost always be unstable. UFO's, angels, imps, etc go away. But the appearance of one of these can be entirely objective and perfectly objective traces can be left, such as photographs, broken limbs, scorched asphalt, indentations, depressions in grassy fields, etc. Any thought object can be so orthorotated, and objectified. Beings, religious figures, angels, fairies, imps, UFO's, monsters, etc can all result.

VUGRAPH OFF

## (vg\#35)

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When tulpas emerge, they emerge as cultural modulations of archetypal forms.
I.e., an infinite number of reality channels exist. The total instrumentation characteristics, both genetic, psychological, and physiological, of the observer or observers who tune in the channel determine the noise content and the actual channel selected.

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## VUGRAPH ON

Here are some examples of major UFO waves which show the imprint of stress upon the collective unconscious and the noise and tuning of the groups unconsciously tuning in the phenomena.

The psychological interpretation of the tulpa materialization is thus quite significant and revealing.

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In summary, we have suggested an approach which can lead to the understanding of psychotronics. Further, it captures both the mind and the material universe within the same model. It is the only model proposed to date which does this.

Using the perceptron approach, the fourth law of logic, and Everett's many-worlds interpretation of quantum mechanics, a theory of biofields can be constructed to uni:' field theory and provide a framework for some of the strange effects of psychotronics.

All of these parts are required, if one is to explain psychotronics.
Literally, one has to create a totally new physics paradigm -- one which contains the old physics, and yet contains the mind, life, hyperspaces, and a great deal more.

Only in terms of such a new paradigm can psychotronics be comprehended.
As best I can, I have tried to put together the schema for that new paradigm, and that is what I have presented to you today.

Thank you for your kind attention.

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& \text { THE WORLD IS A SINGLE GIANT UNIVERSAL WAVE FUNCTION, } \\
& \text { COLLAPSE OF THE STATE VECTOR HAS MEANING ONLY TO A SI }
\end{aligned}
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AND SECOND
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73.
Vugraph \#33



[^2]


CUBAN MISSILE CRISIS 1962
SPUTNIK. 1959


GERMAN ROCKETS IN WWII
SOVIET THREAT IN $1946-47$
$\overline{(S) y 0 s y n J \exists y d}$

1962 WAVE UFO'S
1959/60 WAVE UFO'S
1952 WRVE UFO'S
1950 WAVE UFO'S

> 1947-FLYING SAUCERS


## SINGIIJNI/(S) JA $\forall M$

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SnOIJSHOJMn 3NILJJ7703
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 SCIENTIFIC DRESS CIRCLE/DISC MANDALA IN

S70dWAS
$\forall d 7 \cap 1$ 3I77UHd


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