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## **Correspondence with John W. Campbell**

I present here some letters of an ongoing correspondence between John W. Campbell, Editor of *Smith and Streets Astounding Science Fiction Magazine* (later known as *Analog*) and me. These letters I include because they represent, on the part of Mr. Campbell, a viewpoint of a man who seemed wedded to an opinion common to many people, that of regarding the study of Eloptic Energy as something magical or supernatural. He ignored the long years of research and application of the power of Eloptic Energy for healing the human body, and dwelt on the conducting powers of India Ink to create a replica of the schematic of my Eloptic Energy Biometer (Analyzer).

This interest led me to sharing a grant of cash from my friend Elliott Pratt, with the Ukaco group, and some soul-shaking discoveries I made in researching the proper methods of destroying insect pests. Here also, I built instruments according to some other peoples' ideas, instead of using what I knew of the natural laws governing the uses of Eloptic Energy, and learned further what cannot be used in building my instruments. There are instruments being built today by an almost totally ignorant young technician over in Arkansas (and sold by an almost equally ignorant entrepreneur in Ohio) for use in Agriculture. One of the touted features of these instruments contains that same mistake I made in building the same type instrument I made for the group I worked with during the late 1950s.

I appreciated Mr. Campbell's interest in my work, but over the years since then, I have concluded he set back the acceptance of my work at least a hundred years by his continual emphasis on what he termed the supernatural or "magic" aspects of a mind-control device he built by drawing the schematic of my patented instrument

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with India ink. The energy flowed over the lines of this drawing, because India ink is conducting, but it wasn't worth a tinker's damn for serious research or actual treating.

The letters I wrote to John W. Campbell and include here express my research results and instruments in use in a way in which they would be a benefit to humanity.

Correspondence with John W. Campbell

JOHN W. CAMPBELL, JR.

1457 Orchard Road

June 4, 1956

Mountainside, New Jersey

Dear Mr. Hieronymus:-

I imagine Col. Gross will have communicated with you concerning the meeting between us in New York last Thursday. I suspect it may be helpful if I write you some of the basic propositions---hypotheses---that I've worked out, and discussed with Col. Gross and Mr. Benjamin..

First, there are two aspects of the problem that must be considered: It's clearly evident that reliable demonstration of effect is necessary to win public acceptance---but, by this time, it's equally, if sadly, evident that that's not sufficient.

The demonstration must, evidently, not only be reliable and repeatable---it must also be an acceptable type of demonstration.

Evidence of many, many years of trying strongly indicates that no demonstration which operates at the level of living forces is or can be made acceptable.

It is also apparant that no demonstration that negates the privacy-protection concepts will be tolerable. It makes no difference how valid it is, or how clearly demonstrated it is---the very idea is psychologically anathema. Unbearable. Rejected because it's true, not despite it's truth.

If you can kill insect pests by working on a photograph, and at a distance of thousands of miles---if I accept that---it implies that you can kill me with such a machine, despite all I might do to hide, without my having any chance whatever of protecting myself, without my knowledge or opportunity to defend against the attack. The more you prove that you can kill living entities at a huge distance, without any understandable linkage that can be defended---the more you prove that I am helpless to protect myself. The more you make a man know that such forces exist---the less he can feel that he lives in a world of reasonable security, wherein he can, at least, have warning of attack, and prepare to meet it.

True, you're attacking only insects; you're helping human beings. But---the inherent implications are there, and cannot be denied. You cannot tell me how to defend myself against such an attack; if I acknowledge the reality of those forces---I acknowledge that I am helpless, and know of no defense.

In the Astounding Science Fiction article, I selected your machine among the many possible psionic machines available, because (1) it was patented, (2) the patent specified simply a mineral-analyser, and the life-affecting characteristics mentioned could be ignored, (3) it looks like an electronic-physical machine---it appears to make some sort of almost-sense at the purely physical-science level.

A man can learn only at the boundary of the known; your machine appears to be right on the boundary between pure-electronics and psionics. Therefore it appears as though this were a learnable-understandable device that can, with a little study, be comprehended with just a little extension of already-understood concepts.

The therapeutic and diagnostic aspects of the machine---the lif-e-force aspects---could be totally ignored, and so physical scientists could attack the problem without stirring deep, and extremely powerful fears.

That machine of yours is almost pure Magic. In the old,

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real, and potent sense; it casts spells, imposes death-magic, and can be used for life-magic. It operates on the anciently known laws of Sympathetic Magic; it, like Voodoo dolls, applies the law that "The Symbol is the Object, and that which is done to the Symbol occurs also to the Object."

That's a law, too---a real one. The primitive human tribes all over the world, from Eskimos through Hawaiians, Africans, Incas, ancient Greeks and pre-history European tribes, all, independantly, developed and applied that same concept. If such completely independant, non-communicating peoples separately and independantly came to the same fundamental conclusions---it must be that the Laws of the Universe are, in fact, involved.

Magic is dangerous; it's a bred-in-the-bone fear that lies in every human being, because there have been generations, hundreds of generations, who lived with the threat of Magic hanging over them. Mankind finally combed the damned stuff out of the picture; now you and the other psionics investigators are bringing it back. But this time you're bringing it back with a new, and enormously more powerful technique; the scientific method of stabilizing and reinforcing ideas will be backing it, and making it so powerful that we'll never again be able to drive it out of our lives.

You're scaring hell out of the people who understand what you've got. You may be using it well---but release it, and what limits it? If a magician can destroy a man tracelessly---who is safe from threat, from ransom demand, from the vengeful hate of an unjust enemy?

You're scaring people---and they have reason for their fears, while you can name no limits to this powerful technique!

When I began working with the machine, I learned that it didn't need a power supply. Then I learned that it wouldn't work if a tube was missing or defective. I saw some of the other psionic machines, and saw that they worked, despite the fact that their wiring system made absolutely no logical sense. From that, I derived a new concept, a theory, and made a crucial experiment.

I have a model of your analytical machine, simplified and streamlined to the ultimate. It consists solely of the circuit diagram. I have a symbol of a prism, not a real prism, mounted on a National Velvet Vernier dial; that, and a small copper loop, alone appear on the front surface of the panel. Back of the panel, the circuit diagram is drawn in India ink on standard drafting paper; the prism-symbol rotates in its appropriate place in the circuit diagram. The spiral coil is drawn in India Ink on paper glued to the back of the panel; it is connected with the symbolized vacuum tube plate through a condenser-symbol by means of a nylon thread; the other end of the coil-drawing is connected to the symbolized vacuum tube cathode by a second nylon thread from my wife's sewing kit.

The machine works beautifully; the consistency of performance is excellent.

We're working with Magic---and Magic doesn't depend on matter, but on form---on pattern rather than substance.

Your electronic circuit represents a pattern of relationships; that is important. The electrical characteristics are utterly unimportant, and can be dropped out completely. The machine fails when a tube burns out because that alters the pattern; it works when there is no power, because the relationship of patterns is intact. My symbolic diagram works because the pattern is present.

Don't neglect the help that 10,000 years of history, and a million million experiments of Man can give us. The Magicians weren't the silly fools our culture says they were; they had something, but

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something inexpressible in terms of logic, with the result that our logic-oriented language can't handle the ideas, and can't transmit the understandings to us. It can only tell us of the actions, not of the understandings.

The Magicians placed immense value on symbols, and on Charms-- which, if you recall, were frequently symbols inscribed on something. They weren't kidding, my friend; my symbol-machine works just as well as my object-machine!

One of the major failures that the psionics researchers have run into is that they get turned down cold by scientists, every time. I can guarantee that you'll continue to be turned down that way....so long as you try to make a scientist believe your device is scientific. It isn't; it couldn't possibly do what you claim if it were. No vibration could have the cockeyed properties that are evidenced by the machines; it's plain anti-logical to pretend they do, and any honest scientist will, inevitably and perfectly properly, call you an out and out liar if you tell him that such vibrations exist. They don't, and they couldn't. It's as anti-logical as saying that you have a square-sided cylinder that has a round cross-section. Or that you've trisected the angle by the old Greek rules of geometrical construction. That's logically impossible; it absolutely, proveably can not be done by the Greek geometry rules.

Sure you can trisect an angle! But NOT within the rules of Greek geometrical construction. The method is incompetent to the task. No physical-science method can produce the results you produce.

Therefore claiming that you have a scientific device which does it simply tells the scientist that you're a liar, a nut, or haven't the foggiest notion of what science is. He'll decide you're a mixture of all three.

My approach in the ASF article was to say outright that this is not a scientific machine. Once I made that statement, the readers were immediately barred from telling me, "Look, that thing is completely unscientific!" because the answer was, of course, "Then you agree with me in full, don't you."

My claims were (1) that it was not a scientific device, (2) that the eloptic radiation theory was inadequate, mistaken, or seriously incomplete, and (3) the machine did something. Having denied all explanation, and denied that I knew of any explanation--- the reader was completely unable to argue with me. He was forced to argue with the machine itself---which, of course, can't be done.

The Scientist is then caught in a trap; he insists that science can explain any real phenomenon. If you demonstrate a real phenomenon---an action-level objective effect---and deny that it is scientific, he is now forced to prove you're a liar, to prove that it is so scientific! (He can't, of course, because it isn't--- but he'll be forced to study the damned thing, much to his own annoyance.)

If you can put a man in the spot of trying to make you accept his idea, instead of trying to make him accept yours, he'll have to think about the problem. So long as you're trying to make him accept your idea, he's busy thinking about ways of defending against your idea-attack, not about the problem.

My article was so cast that I didn't offer any ideas at all about the machine, and denied that any idea available was valid. I just offered the machine and a fact; it did something somehow. I denied my own ideas, your ideas, and Science's ideas.

The result, as far as I can make out so far, is that several hundred readers scattered around the world are starting out to build a copy, and prove that they're smarter than we are; they can explain it. A lot of people are going to learn a lot doing that,

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obviously---and a lot of people are going to be more nearly in a position to accept some of the subsequent data that I'll hand along.

People say they want to be given answers; this is 180° out of phase with the truth. They want to know the answers---and that means they want to have achieved the answers themselves. If you demand credit for having found the answer, they'll fight you tooth and nail, because that makes it impossible for them to have found the answer. They'll feel that you're imposing the answer on them, and resist like hell.

Through some 25 years of trying, and failing most of the time, I've had it knocked into me that trying to get someone to consider something he considers impossible is a tough racket. My business for a quarter century has been trying to make people consider ideas that they were sure were impossible. After you've butted your head against the stone-wall of traditional-mindedness that long, you get some idea of what the barrier is like. I've tried to stir interest in rocket engines, atomic energy, a lot of things---and had all my friends, neighbors, family and associates tell me I was nuts.

Gradually, I've learned some of the things you can and cannot do. First of all, you must convince them that you haven't got anything really new; that puts it on the border of the known, and you can get them to consider it. Then you explain it a little bit at a time, till, before they quite know how it happened, they've gone so far out into the pure unknown that they can't very well back out.

They've got to get some benefit at each little step; the fact of benefit then makes it very difficult for them to give up the little advance. Presently the accumulated benefits have mounted to a point where they're thoroughly stuck with going on in the new direction.

If they can see a great danger ahead, however, they will NOT consider the small benefit worth the danger.

In those terms, our problem with Magic (which we call psionics so the great dangers won't be so obvious at the start) is to devise something which fulfills the following requirements:-

1. It must be immediately useful in a way they want to use it.
2. It must not appear to be really new---not importantly different, and must not appear to imply any great changes.
3. It must be so simple that making it can be a routine, moron-operated action. No intellectual consideration required, no engineering talent needed.
4. It must be something a business man---who doesn't give a damn about why's so long as how can make money---can apply directly, personally, and without the help of a technician.
5. It must achieve something that is badly needed and can't be achieved scientifically, or can't be achieved economically.
6. It must not require any research whatever before it can be used commercially.
7. It must not hint at the violation of privacy-concepts or life-force problems so that it will not call up the old, deep fears.

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Your plant-freating techniques fulfill all but #7---but violation of that one blocks you cold. The violation of privacy-concepts is inherent in the proposition of action-~~which~~ which is not defeated by distance, or solid barriers. If you can do at a distance through barriers---it is implicit that you could observe at a distance through barriers. Clairvoyance means the end of personal privacy. The fact is implicit in the action-~~at-a~~-distance-without-mechanism-at-the-other-end. It's frightening.

I suggest that the ideal answer to the problem of the device that can introduce psionics is a communication unit. It should appear to be double-ended, like a radio transmitter-receiver system. If that appearance could be made extremely strong, it would be of enormous advantage---both psychologically, and in real fact.

Example of what I mean: Suppose we have a key-object built into unit A and a keyed-symbol part of Unit B. Then Unit B would react to unit A, but only to Unit A. This would give us an absolutely private communication channel unimpeded by distance or barriers. It would make the pocket telephone device possible, and would make a communication system absolutely unlimited by frequency-spectrum crowding that exists now. It would hyper-emphasize privacy---instead of raising the ancient fear of privacy-violation!

Such a communication device, set up as a "printed-circuit" communicator, could be put into production without requiring any scientist-technician's assistance. It would not interfere with any legal requirements, would not be practicing medicine without a license, wouldn't depend on any technician's acceptance---any business man could see its advantages!---etc.

When networks of communicators were wanted, an indefinite number of photographic prints of the key-object could be used as the key-symbols in the receivers---and destruction of the negative of the prints would always make possible cutting off of any network that was no longer wanted!

A semi-annual rental basis could be set up by using that fact, you can see.

Incidentally, my hypothesis on how these devices works involves the proposition that we are working with relationship as such---relationship as an entity in itself. A photographic negative is related to the object photographed; the print is related to the negative. Therefore the print is related to the object. But if the negative is destroyed, the print is no longer linked to the object, and becomes ineffective.

Logic---on which all scientific thinking is based---is a linear phenomenon; you develop a line of argument by going from point to point.

A television receiver is a typical logical device; at no moment is there ever a picture on the screen --there's only a point of argument following a complexly folded line of argument! It's the integrative power of the human system that sees a picture!

Scientific instruments are all point-determining devices; a meter is read by determining the intersection of two lines---the line of the needle's axis, and the arc of the meter-scale. An oscilloscope presents a point moving on a curved line.

The photographic film is the only area-device admitted by science---and they use that only by reading off coordinates, and reducing the area to line-expressions! A spectrum, for example, is a pattern phenomenon---but it is used in science only by reducing it to a sequence of numbers.

Einstein's relativity is not a description of the Universe-as-it-is, but a precise description of how the Universe will appear to

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and observer having only one eye, and afflicted with such acute tunnel vision he can see only one point at a time. Naturally, to such an observer, there can be no patterns; he sees the way a television set does---one point at a time, swept along a complexly folded line. Simultaneity cannot exist for such an observer---so Relativity denies simultaneity.

The result is that Relativity, and all of modern science, is what I call a view-reality. The Great Dipper is a constellation; it can be photographed, the angles between the stars measured, etc. That that pattern of stars exists in the heavens is certainly proveable....provided, and only provided, you look from the position of the Solar System. If you lived on a planet of Deneb, for example, you would not see the Great Dipper; the different angle of view would show an entirely different pattern.

Then...is the Great Dipper real?

Yes---as a view-reality. But the absolute, three-dimensional reality is something decidedly different!

Science represents a perfectly valid view-reality of the Universe; Relativity is a precise formulation of what can be seen from that viewpoint. But it is not a description of what-exists; it's a description of what-will-appear-to-exist! And that is, actually, exactly what Einstein said he was describing.

In psionics, we're using a different method of observing. Suppose you have a man using the old pre-WWII listening devices to follow a plane flying by overhead at night. If the plane flew past at twice the speed of sound, what the sound-listener would report would sound slightly insane; he'd be getting the sound-waves from two different directions simultaneously at one part of its trip!

What a radar observer reported would be totally different; his different method of observation would lead to a totally different picture of the pattern of movement of the plane.

Both reports would be perfectly accurate and perfectly factual---but different view-realities.

Psionics gives us a different view-reality of the absolute reality of the Universe. Naturally, its reports don't agree with the reports of science any better than you'd expect a sound-listener's report to jibe with a radar-observer's report of a supersonic plane!

We're observing patterns---using eyes that don't have that pin-point tunnel-vision---instead of points.

In psionics, where patterns are important, the object isn't important. A letter A is a letter A, whether it's ink on paper, or concrete and steel 60 feet tall. It's an A, even when it's scrawled by a 6-year-old. Even, it's an A when it's shaped that way, or when it's shaped like this: a. Psionics involves totally different realities and levels of reality; it works on analogical relationships far more than on logical relationships. But analogy isn't allowable as means of reasoning in logic---and therefore is not admissible in science! That means that psionics, based as it is on analogical relationships (the picture is analogous to the tree) is non-logical.

But there's a difference between something that is non-logical, and something that is anti-logical---and the difference isn't acknowledged in normal thinking. If a thing is not logical, then it is considered illogical. But this equates the non-logical nature of "2 and 2 are 5" with "a photograph is equivalent to the object". (The latter is accented only with reference to a purely symbolic-content object, such as a photograph of a document.) One is anti-logical; the other statement is analogically valid.

In developing a communication device, we need to achieve



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two things: a means of converting---transducing---imposing modulation ---physical-action such as pushing a transmitter key or vibrating a microphone diaphragm into a psionic variation, and a means of converting that psionic variation back into physical-action at the receiver end.

Psionics evidently do not involve energy; we work with meanings rather than with information. Therefore no energy---no power-supply---is needed for your machine. And no energy would be involved in the transmitter-receiver device at the psionic level. But energy will be needed to produce the physical-action of a vibrating loud-speaker cone, or the like.

The unsolved problem is how can psionic forces be made to modulate physical-action energies without the intervention of a living organism?

I have some half-backed, highly skeletonized theory on the subject. It's not resolved enough yet to allow me to put it into words, and I don't have anywhere near enough data on the subject of psionic effects.

Until Col. Gross told us of your discoveries, I didn't know that destruction of the negative blocked action from the print; I'd hypothesized a system that would account for that, but had no data to that effect.

I can't proceed from where I am without a damn sight more data on psionic machines.

I don't know the exact set-up of your diagnostic machine. I don't know the set-up of the plant-treatment machines.

I don't know the experiments you've made.

I don't need exact specifications of coil-shape, etc; I know damn well that the object isn't important---the India Ink machine shows that. But I do need to know the order of effects, the things that did and didn't work, etc. And the things that did NOT work are just as important as the things that DID in revealing the pattern; light short-circuits the effects in your machines because it establishes an all-over, every-which-way relationship by multiple reflection. It makes everything inside the machine related to everything else. Operation is possible only when channeled relationships---not merely yes but also no---exist.

I need to understand the pattern of developments. The pattern of the various machines.

And I'd like to suggest you try some of the India Ink-and paper machines; it's a hell-of-a-damn-sight easier and quicker to try a new pattern of relationships with pen and paper than it is to build a machine out of wood, plastic and metal! It's also possible to try "vacuum tube design" types that aren't possible because RCA doesn't make what you want. And you can try using devices that don't exist at the objective level, or that exist only in exceedingly rare and expensive units. You can "build" your unit all of silver, gold, platinum, and use diamond crystal pilot lights; India Ink on paper is always what you specify it is. The opaque non-conductor in which the slit is made is, in my symbolic machine, india ink on paper. So are the copper wires. So is the glass envelope of the tube, the electron-emitting cathode, the grids, and the inductance coil. In a symbolic system, it is what I say it is---by definition.

Don't blow your stack on that; try it. You can speed up, and immensely cheapen your research by drawing your proposed circuit system with soft pencil; erasing the line will annihilate the relationship, and you can draw a different one. Those 9008's are expensive little bastards; ink on paper works as well, and is a damn sight cheaper.

But it calls for neat workmanship, of course; a blot establishes

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a relationship, whether you want it or not.

On the other hand, some tolerances exist that are damned handy. And just think; a symbol-tube never burns out, ages, or gets broken! Dropping the symbol-circuit on the floor doesn't break a thing, and there's none of the damn-ruisance business of disassembling the failure to salvage the components.

Don't neglect the old tales of Magic; the boys were no dumber than we are, and they worked on the problem for thousands of years. I understand you've found that putting something in an iron or steel cabinet breaks the relationship. Interesting! The old magicians, ages ago, held that iron broke magic; the test for "fairv gold" was to drop it on an anvil---the iron broke the spell. The old boys were dolts, fools, and nuts, maybe? Hah!

I have a slight suspicion you may have some peculiar results with silver, too. That's reported, in all the magic tales, to have special characteristics.

Item: In nuclear physics, iron represents the absolute minimum in the curve of free binding energies; hydrogen fuses to release the energy of the H-bomb; uranium fissions---and each is headed for iron, the most stable of all configurations.

Next to iron in stability is---silver.

Iron is enormously magnetic; magnetic fields are the only non-material reality that science acknowledges today. (To be exact, magnetic, electric, and gravitic fields are.)

So the old magicians were nuts, huh?

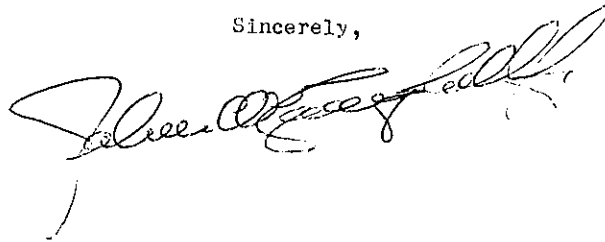
And there is no such thing as the Death Magic? Or cureing-at-a-distance?

There's no reason why we should try to do it all ourselves---when there are so many helpful, if poorly communicated, records around!

Ever notice that "Beauty and The Beast" is a beautiful clinical description of a homicidal paranoid, with prescription of treatment and prognosis of cure? The Beast killed anyone who came near him; he hated and feared everyone...until Beauty came along, by standing by him, accepting fully and lovingly, not questioning or denying him, But loving him exactly as he was for a year and a day, he turned into a prince of a fellow. A man who's been down to hell, and come back---who's been through the hell of fearing and hating everyone, and is brought back to sanity---is going to be a far more understanding, wise, and gentle man than one who's never been there.

Our ancestors weren't fools---but we have been, in denying their wisdom without investigation!

Sincerely,



*Correspondence with John W. Campbell*

June 14th, 1956  
1024 N. 31st Road.  
Hollywood, Florida

Dear Mr. Campbell:

Your most interesting (what an understatement) letter arrived and after reading it twice, I shall attempt to reply, without attempting to answer all the many ideas expressed. This would be impossible in one letter. You have opened up the door to so many aspects of the universe, people's behavior patterns, so called scientific approach etc., that it would take a book to cover the subjects involved.

First, when we wrote the patent specifications, my patent atty. who is one of the country's best, thought it would be a good idea to include some sort of explanation that would be accepted by the uninitiated. Also, that was written before the application was first made in 1944. Since then, we have learned a lot about the behavior of what I chose to call Eloptic Energy. Please do not hold me to those original explanations.

I was quite surprised to learn that you had written anything on the subject. When I was first told about it, the teller said, "You are not going to like what the article says about your device". On the contrary, I think the article was so well written that I am still amazed every time I re read it. I like the forceful way you put things. There is no quibbling with words.

The Ostrich is supposed to bury his head in the sand and thus insulate himself from the passing world and all the unpleasant things involved. If we could do that, then we could become scientific and say, "If it does not conform to our accepted rules and tests, it cannot be and we want nothing to do with it." This would put an end to the matter. This situation is not quite so simple to settle as that.

Lets face one fact right now. I don't like to even put this in writing, but you have already done so in part and I might as well finish the job. We can kill insects at a great distance. We have done it repeatedly. Some have been worms the size of your finger and several inches long. We have made mistakes in technique of operation or in handling situations or have had apparatus work backwards from what we expected with the result that we have been really scared by the results obtained. There is terrific power in the Eloptic Energy. It can be generated, it can be directed to a pinpointed objective halfway around the globe. What we can do, others can do.

If we allow ourselves to be shoved aside because some so called scientist says he doesn't believe it, and we do not do all we can to learn all we can about the behavior, what can be done, what can be done to prevent it etc., then we may some day awaken

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to find that another power on the globe where they are not tied down by so called scientific tradition, where scientists do what they are told to do whether they like it or not, another power may direct such unscientific forces against us and our scientists who said, "It can't be done," will be helpless to protect us or themselves.

I have tried to get our government to try the idea out but I got the same old run around. I have a letter from the Department of Defense signed by Donald Quarrels that you will appreciate. Will show it to you some day.

There is some way to meet the opposition to the actuality of the results we can obtain. I do not care whether we have the answer to how or why it works. I do not believe we need to please the scientific, down in the groove, in order to get this to the American people. I believe there is someone who has the public interest and in whom the public has confidence, who can be found who can get to the public who don't give a damn whether it is scientific or not.

I don't know who this person is or where he is, but I firmly believe he is somewhere in the offing, just waiting to learn about this and he will carry the ball from there.

It is all right for you to say that the world is afraid of Magic. I do not agree with your entire premise. People are afraid of the unknown or what they do not understand. The cave man was afraid of lightning. We have harnessed it and put it to work. The rank and file still know about as much about electricity as the cave man. What do we know about it? We know a lot about controlling it and using it. That is enough for most people. The evidence seems to indicate that it acts sometimes as a flow of tiny particles which we call electrons. What is it that goes from one place to another when we send a "radio signal"? Certainly the books give a fine explanation. We can manipulate the energy but what is it?

What is a thought? Are we to stop using the darned things (thoughts) just because we have no scientific provable, measurable yard stick with which to measure them? What is heat? Yes, I have read the text books and know most of the explanations by heart.

Explorers took movies into the jungles and had their entire audience run like mad into the dark woods to get away from the devil magic of the white man. Cousins, only a few times removed from those natives are quite respected citizens of the community here, today. They go to the movies. Why don't they run away like their native cousins? Education and familiarity, that is the answer.

Yes, fear of the unknown, is the only real fear we have to fear. The fact that a force or device or machine can kill, bothers most people. Everyone knows that the "A" bomb is lethal and very highly destructive if used against us. We also know that the

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submarine and the many power plants being built all use the same energy, but in a, shall we say, more peaceful manner.

Everything man has devised for warlike purposes has eventually been directed to peacetime uses that so far over shadow the war uses as to be hardly describable. Radar was invented by two Americans. Our VIP in Washington turned it down as an impractical dream and the inventors took it to England. There, someone like the person I am looking for, was able to see beyond the fact it had not been written up in a scientific journal, and he told someone else to "Get busy and develop this idea." The result was, we had to send officers to England to learn how to use the idea for wartime purposes. Now take a look at Radar. We even have Radar Permanents for the ladies, so the ad reads.

We must go deep into metaphysics for the real answer to how Eloptic Energy acts and works and is controlled. It is so closely woven into the fabric of all our everyday life and activities, it is a mystery to me why mankind has denied it for so long. I personally believe the fault lies with our spiritual advisors. If you would like to read something interesting, get "The Secret Science Behind the Miracles" by Max Freedom Long, printed by Ksomon Press, 2208 West 11th St. Los Angeles 6, Cal. I happen to have met Mr. Long and he is quite a nice person.

In his book, Long describes the Aka threads that connect such things as a photograph with the thing photographed. To quote a paragraph, pp 99. "Other experiments showed that the vital force could be stored for a time in various substances such as wood, paper and cloth. Water took and held charges. Glass did not."

We use cotton swabs to make specimens such as putting a little bit of saliva on the cotton. Tissue paper works just as well. We can store energy (Eloptic) in water and it can hold a very powerful charge. I use glass for all wells for specimens as it does not hold the charge, once the specimen is removed.

A couple of numbers can be fed into a computer and out comes the answer, whether you want the numbers added, subtracted, multiplied or divided. This operation is wholly mechanical (electronic if you insist), it is not dependent upon the presence of any specific person with some peculiar metaphysical ability. A Chinese can take an Abacus and do some very intricate mathematical problems with it. There, both the man and the device are necessary. There are a few people who have the ability to do very complicated problems mentally, without any device to assist them. In this case, it is wholly the personal equation that counts.

The same analogy holds good when it comes to doing things with apparatus for the diagnosis or treatment of disease. There has been a lot written lately about the

## *The Story of Eloptic Energy*

use of hypnosis of a non-medically minded person and have them describe very technically the trouble with some patient. There are two explanations for this. One is that it is the Superconscious or as the Kahunas call it, the Aumakua, that knows all that has been experienced through the various millions of embodiments. Another explanation is that some discarnate with former medical training and the ability to see everything about the patient, is telling the one asking the questions. The very clairvoyant will be able to 'hear' or 'sense' the answers from the discarnate. Others will use some means of getting yes or no answers, such as using a so called psionic machine. One without anything inside the box will do as well as the most complicated. All that is needed, is a reaction plate. The operator asks mental questions and the discarnate gives the answer, yes or no, by causing the plate to act accordingly.

The third category involves the person without the ability or desire to use such an ability, who prefers to use a device such as we have developed. It is capable of tuning in to the emanations that radiate from all material things in the universe. The operator of such a device, sets the dials for the frequency of emanation desired and measures the intensity of the radiation. The value of the intensity telling him that the 'thing' looked for is there or not, or of little importance.

These three categories are so mixed up in various people, that they seldom know when they are using one and when using another. The important point is to be able to know that all three do exist and not confuse them. A doctor can tell a patient that a vial of plain water from the tap, will cure a pain or other ailment. The patient takes the water and gets well fast. What has happened? First the doctor has the, perhaps unknown, ability to project metaphysically, an energy into the water. Many people have this developed to a great degree. Everybody has it latent within them. Second, the patient has faith in the doctor and he accepts the ability of the water to cure him. If he did not have that faith, the doctor's ability would have to be very well developed in order to be potent enough to break down the wall of resistance the patient unconsciously put up.

We can set the dials of one of our instruments to a specific frequency rate, put the leaf from a tree in the instrument (to form the connection with the specific tree) and even though the tree is hundreds of miles away and has no 'ideas' on the subject, we can produce definite results in the tree. Anyone can do this. Not just me or my wife, anyone who will take the time to learn the motions of operation of the device.

When you made the paper drawing of the circuit of that instrument of yours, you gave it a terrific shot of power to do what you wanted it to do. Someone else might or not get the same results. We have spent a third of a century trying to sort the wheat from the rest, the seed, the land, the farmer who planted it, the stock on which it

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grew. Believe me, it has been no easy task to be impersonal about such things with some of the people we have dealt with on the subject. When a man has an ability very well developed, it is difficult to convince him that he is the exception.

About the communication device you mentioned as a best approach to 'selling' the idea. You have undoubtedly heard about Nelson's attempt to get RCA interested. In anticipation of his being sent here to see the idea at work for communication, I built a transmitter and a receiver for the sending of dots, spaces and dashes. Until we get a mechanical detector, we must necessarily depend upon what we have for getting reactions.

Since I have already written up the idea and had it notarized for future patent coverage, I don't mind telling you about the details, however, I would rather you held all this as between us for the time.

I took a piece of gold that had been a filling from a tooth as the carrier frequency source. This had some very specific characteristics that would hardly be found elsewhere. I tried several pure form elements such as silver, antimony, selenium etc., and found those that had very distinct frequency patterns different from each other. The carrier was caused to radiate from the transmitter, continuously. In order to send a dash, I caused the energy from the dash element (e.g. selenium) to be superimposed on the carrier (gold) and thus so modulated. To send a dot, the same procedure, only the modulating frequency was from another element.

The receiver consisted of three complete prism units in the same case with separate quantity measuring devices for each, with a switch that would cut in first one then another of the preset prism units, each being tuned to a different frequency, one for the dot (antimony e.g.) one for the dash (selenium) and another for the space to be sent between characters to separate them.

Before putting the gold filling in the receiver, I photographed it. The photograph was placed in the receiver so it would respond only to the energy from the one source, the transmitter. The device does a very good job. If I were going to do this for an important demonstration, I would want to search very carefully to get some good elements for the dot, dash and space. I find that some elements work one way and some another. For instance, you measure the amount of gold coming through unmodulated. Then you cut in the modulator frequency. In some cases, the two neutralize and cut down the intensity of the carrier. Others augment the carrier. There is an affinity or the opposite between several of the elements. These are just details of peculiar behavior. The important thing is that the darn thing works.

Lets take another idea. A photograph of a secret agent is taken. He goes to a foreign area. Every night at 10:00 PM his time, the receiver is checked for possible

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reception on the modulation of his personal frequency with that of copper and silver, or the operator might be instructed to scan for one frequency at 10:00 PM and another at 10:30 etc., in order to find what he proposed to use. Then at e.g., 11:00 PM, he could start his message by touching first one, then another of the modulators—things he would be apt to have most anywhere he might be, even in prison. While the present system would be quite slow, it would work, and under the most trying circumstances.

I am only throwing these ideas at you at this time to try to get over (as if it were necessary in your case) the fact that this has been developed far beyond the interesting gadget stage. It has some very important aspects already usable, without the need to do much further development.

Some day, I will have an automatic detector that will respond instantly and actuate some type of electrical device so the responses can be recorded on tape, graphic meter, etc., or actuate such a device as a speaker. Then the modulation can be much faster such as the voice modulation of a radio carrier. Then, your idea of the pocket telephone will be an actuality. The interesting point is that it will have no limit as to distance. You can talk to China as easily as across the room.

I warned you at the outset that we need a book for this. Here we are at page 5 and have not really started.

As to the automatic detector. It will not work on any idea involving electricity or via any device that is electron operated. We are dealing with something different. In your letter, you said you believe the important item is form rather than substance. To a certain extent you are right. However, I believe if you go further, you will find that there is something more potent than mere form.

Here it is. I believe there is an all pervading something that the great creator started with and from which He created all the so called substance. He endowed us with "The ability to create," He made us in His image and likeness. I believe this means that He gave us those of His abilities (likenesses) that would enable us to create most anything we chose to create. In other words, He also gave us free will to create as we want to. This idea is not in conflict with most of the great religions.

There is much written on the subject. With our imaging, with our cold reason and mental picture, we form the pattern. With our emotional energy, we fill the form or pattern or mold and thus create. The mental form must be made of something. The emotional energy must come from somewhere. It comes from this sea of all pervading something. When something has been formed, it must be kept in form by some binding energy or it will revert to the original state. There is a constant interchange of some kind in which there is a constant disintegration, reverting back



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to the original state, and a constant replenishment, to hold the form created. It is this 'disintegration' part in which we are interested when we tune in to the energy emanating from a substance and find out what frequencies are emanating from it.

We can measure emotions and thoughts. That is really something. It is easily done. We do it by measuring the effect of a thought or emotion directed at some unsuspecting person. We do it with the same device as used in the detection of the emanations from solid substance. And what is solid substance? As you well know, there is more space (unfilled part) in a so called solid metal than there is filled. If enough of the metal aluminum equal to the weight of the great battleship Missouri, were compressed until the particles, electrons, neutrons and protons, of which it is made, were just touching like marbles in a box, the result would be about one inch cube. We do not know what the inside of a proton looks like. For all we know, it might be all 'open' too.

When we can find the resonant frequency of a pest like a corn ear worm and subject it to that frequency and the worm just goes from a lively worm to a moist spot in 24 hours, what have we done? Have we not probably offset the 'binding' energy or what have you, and allowed the component elements to revert to their original state?

This is a very big subject and we should not sell ourselves short by thinking of it in too limited terms. I do not think we should allow the shortsightedness of our scientific brethren who know all of the book by heart and can quote page and paragraph of the work done by someone else, and who have set up a list of rules for their own protection (protection of their own limited little sphere), to tell us we are nuts and that there is nothing to this idea just because they do not and cannot possibly understand it.

This is a good place to close this discourse. Hope I have not bored you with my own ideas of a few controversial subjects. Will look forward to hearing from you again. Let your hair down.

Sincerely,  
Galen Hieronymus  
cc Gross et al.

POST SCRIPT TO LETTER OF JUNE 14th, 1956 to John Campbell.

I believe this item in answer to one part of your original letter, should be covered. You mentioned the fact you could do without any electrical power to actuate the original copy of my device. This is true for diagnostic work, that is, just getting your reactions. When it comes to treating or producing such results as changing a disease

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condition in a person or in killing a pest, there is need for more power.

I recently built a device similar to but using certain slightly different parts. It made a vast difference in the results obtained in treating. It was too powerful. In reducing the plate voltage, I noted that the results seemed to drop in something like the inverse square of the reduction of voltage. That is reverse English. I mean the effect went up in a manner that seemed without actual measured values, to be of the order of many times the actual voltage increase.

There is another important item. I am still so much amazed that you got such excellent results on the first try at building an instrument for use with Eloptic energy. I find that the insulation used is so very important. The brown or reddish colored bakelite used in most switches and potentiometers is a very good conductor of Eloptic energy while black bakelite is a relatively good insulator for it.

If you try to use e.g. a switch with 5,000 ohm resistors per step for an attenuator, it will work fairly well. If you change these resistors to 20,000 each, you will note little if any difference. Take out all the resistors and it will probably work about the same as with the 5,000 ohm resistors. At first, this would look as the form is the item of importance, not the value of resistance. It really is the leakage factor in the brown bakelite that is involved. Next make a switch with regular, black Bakelite insulation and you will soon see the difference. Light on that will even cause it to act similarly to the other however. I have found it very important to keep all light out of these instruments if they are to work best.

Magnetic fields play a very important part in this work. Look out for them.

I understand from Col. Gross that you have an idea for an automatic detector. Hope so. I hope to work it out some day. Have been too busy developing a foolproof device for men to use in the field for killing pests, to spend much time on pure research for some time. You see, I have had some experience with the answers given by discarnates via the reaction plate with such things as your written (drawn) circuit to place too much credit in the results. I find it more sure and dependable to actually build each device complete. Yes it takes much time and costs much more but the results are much more dependable. Sorry I must disagree with you on this point.

I do not mean to throw cold water on any of your ideas. Lord knows we need some new ideas thrown to the pot. I just do not want you with your new enthusiasm to be lead off on a tangent as many have been, and find yourself at a dead end and give the idea up as a bunch of nonsense.

What brand of typewriter do you use? Mine just will not spell correctly. Maybe all I need is just a different typewriter. Some of our friends working with this idea use just that brand of logic. Sincerely, Galen Hieronymus.

Correspondence with John W. Campbell

Sent to Stone

(Postmarked Nantux June 27)

JOHN W. CAMPBELL, JR.  
1457 Orchard Road  
Mountainside, New Jersey

June 17, 1956

Dear Mr. Hieronymus:-

The great problem in working out new theoretical advances is that it's so darned much easier to think in already-familiar terms than it is to plow out a totally new pathway. That means you and me, too; we'll have just as much of the human tendency to try to explain what we see in already familiar terms as will any professional scientist. Sure, our terms are different from his---but they're terms, too, and just as easy to get stuck with as his are!

My education was in theoretical physics...fortunately in the period of 1926 through 1935, when nuclear physics was the grandest mess of theories that has ever come down the pike. They had a dozen different theories, all of which were good for explaining some aspects of the observed data, but none of which would explain all. The result was that physicists would use de Broglie's theory when working on one kind of problem, shift to Bohr's for another problem, go to Heisenberg for a third problem, and use Dirac's work for a fourth. It's easy to learn, in such an environment, that a theory is a tool, like a hammer or saw or screwdriver. You can't cut a board with a hammer, sink a nail with a saw, or get a bolt out with a saw or hammer. Each tool is good, but only within its own limits.

A theory, to me, is just a tool; keep it handy for use when the matching problem comes up, and heave it onto the shelf and take down another one when it isn't the useful tool a theory should be. A fundamental of my philosophy is "If your theory holds it is impossible to do what you must do, the theory is futile. Get a new one." The one, fundamental test of any theory, in other words, is Usefulness. Truth? What's that? When? In what terms? "Thou shalt not kill?" Try that with a homicidal maniac after you some time. "Thou shalt not bear false witness?" Who, other than God Almighty, knows the absolute truth, and is, thus, able to obey that commandment in full? Such commandments are futile as commandments; try a new theory that's appropriate and useful to human beings living in a human world...and have the humility to recognize that that is absolutely all you'll ever be able to do anyway. Not being God Himself, you can't ever tell "the truth, the whole truth, and nothing but the truth."

Then any theory is a human statement seeking to approximate as closely as possible the Reality of the Universe. It's a map of the Universe---and like any map, differs in some degree from Reality.

Since I wrote you, Howard Armstrong stopped by, and loaned me one of their three-transistor treatment machines. I learned from Ed Herman the circuit of the original vacuum tube unit. Both turn out to be standard, simple audio frequency amplifiers. I've built a comparable three-transistor unit, using three GE 2N107's; I'm going to have to get some life-form to test it out on, and make some experiments. White mice, hamsters, turtles, maybe fruit flies; I dunno yet. I'm also curious to see what happens if the three PNP transistors, which are positive-action types, are replaced, in exactly the same circuit, with three NPN transistors. All that I need do is pull the three 2N107's and the little 6-volt battery, plug in Sylvania 2N35's, their NPN transistors, and plug the battery back in with terminals

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2.  
reversed.

The circuit, however, is evidently relatively unimportant; I've had audio amplifiers around here for years, ranging in power from a 20 milliwatt headphones job to my 750 watt push-pull 810's modulator on the ham rig. WOR's main transmitter's about 5 miles away, and they've got about 75 kw of audio amplifier plate-modulating their RF stage. If AF amplifier circuits did the business...something strange would have been showing up before this!

I suspect it's something decidedly different. Frankly, I feel it's plain, old fashioned Death Magic---only since we've grown up in a culture of electronics and the like, we're using electronic circuitry devices, instead of eye of newt and wing of bat. Take a look at what the old alchemists worked with; the stuff anyone could collect in his own local society at the time. So it's easier for us to collect transistors and 6SJ7's than to collect bat-wings and carved ivory. Eye of newt is hard to come by, but a 100 uF mica condenser's easy to get.

But...the old magi achieved the same things we are talking about. Since their results were pretty similar, let's see if there isn't some somewhat more fundamental similarity between the eye of newt business and the 2N107's than we at first realize, shall we?

I think it's the abacus business---plus anything that serves to focus the attention of the human operator.

I believe that I have spotted the basic flaw in modern science, so far as this work is concerned.

First, I can tell you why you're not getting over with the professional scientists; having lived in the field, and worked with them a hell of a lot, I can (a) understand what you and your group are trying to say and (b) see what the words you use mean to a professional scientist.

In the highly precise, very specifically defined terms of physical science, your use of the term "frequency" and "vibration" makes it clear that you don't know what you're talking about---it's absolute nonsense. Remember that when you talk to anyone, the words mean what he says (or thinks) they mean, not what you think they mean. The English word "truth" is commonly translated into Russian as "pravda"---but what "pravda" means to a Russian is not what we mean by "truth". "Pravda" literally means "the official word on the subject". Therefore if the Russian Government decides that Lysenko's cockeyed theories of genetics are valid, they are "pravda" by definition. No argument about their being the "pravda" is possible; it is a demonstrable fact that they are the official word on the subject, as can be shown by documents. Therefore they are, beyond argument, "pravda". Now try telling a Russian "I know that what Lysenko says is the official word on the subject, but I want to know what the truth is." It comes out "I know that what Lysenko says is the pravda, but I want to know what the pravda is."

See? Obviously you're confused hopelessly, and don't know what you're talking about. The Russians have no word signifying fundamental, non-human truth. They have a word "istia" or something like that meaning "truth" in the sense of "the revealed religious gospel"---but again, no non-human, non-volitional truth term.

O.K.---when you talk to physical scientists, you're going to have to use terms they do not already have meanings for. They do have meanings for "frequency"; they've got it defined to a gnat's eyelash. It's precisely what they say it is, and absolutely nothing whatsoever else.

You're a radio man; O.K., take the term "impedance". That means resistance, capacitance or inductance, and absolutely no other possible thing whatsoever. If you find something else, something new,

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3.  
fine and dandy...but do not call it "impedance", because the term "impedance" has a fully-defined and delimited meaning.  
Example: thyrite, or similar silicon carbide mush substances, show a nonlinear characteristic that doesn't obey Ohm's laws; they obey an exponential voltage-current relationship law. What they show in a circuit then is not impedance; you'll have to call it something else, because it won't obey the mathematical laws relating to impedance. (I call it viscance; it acts like viscosity, rather than frictional losses, as ordinary resistances do.)

If you say you "tune in" something at a "certain frequency"--- any professional scientist will promptly demand that you name the frequency in cycles per second. You can't; it isn't a matter of cycles per second at all. Thereby you prove to him that, in his terms, you're a liar, or a muddle-headed nit-wit. Because frequency is his term! He invented it. He worked to define it. He devised techniques for expressing it, handling it, and measuring it. And you have no business misusing it, and expecting him to understand you.

We need new terms.

Trouble is, of course, that people always want to stick to familiar grounds and familiar terms.

That's tough; we're exploring new grounds, and we've got to acknowledge that. The professional physicist, however, is stuck with his theories, and with a specific mistaken concept; there are an infinite number of problems that can be solved by the present known techniques. (This is literally true; if we worked for a billion years we'd never run out of possible problems within present techniques!) The difficulty is that, because science-as-it-is can solve an infinite number of problems, the false assumption is made that it can solve all problems! It can't. Geometrically speaking, there are an infinite number of points within the circle of the letter o; that doesn't mean that all points are in it, though!

The problem has been to acknowledge the undeniable fact that science works, and is real, and has a sound, overall map of the territory of physical reality---and show that there's something of enormous size that they've completely missed! Understandably, they can't believe that they can, at one and the same time, have a fully working, fully defined science, and yet have missed something as huge as the psionic forces we're working with.

Well, try an analogy: Suppose that, at the 1920 annual meeting of the National Geographic Society, a man stood up and said, "The maps you have of the continental US are inadequate, grossly inadequate. There's a river more than a dozen times bigger than the Mississippi flowing through here, a river of immense economic importance to the nation, and it's not on any of your maps. And there are three or four canyons greater than the Grand Canyon of the Colorado that aren't shown."

"Nonsense! Fantastic! Impossible!" says the learned secretary. "We may have missed a few lakes and brooks, and some caves--- but a river bigger than the Mississippi? Impossible! There's been too much flying; any large feature would certainly be found. Where is this remarkable river? Show us!"

"I can't," says the critic, "because it's invisible. That's why your flyers haven't seen it either."

After the laughter died down, and the crackpot was ejected, the meeting would resume its orderly business---and not ten miles away, the stupendous river would roar on its way, dozens of times greater than the Mississippi, completely invisible---a river over 100 miles wide, two miles deep, and howling along at up to 300 miles an hour, the mighty Jet Stream, less than 10 miles overhead, and one of the few features of our planet clearly visible

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from Mars!

Its economic importance in controlling the weather of the nation is now perfectly obvious.

One of the canyons, incidentally, starts a couple of miles from Manhattan Island---the Canyon of the Hudson. Invisible, too, from the air---but it's about three miles deep, and over 100 long!

The geographers had complete maps of the US in 1920; they knew there could be no new big features to be discovered. Not on the surface of the continent; no. But above it...?

Physics has their territory too well mapped to allow the existence of any major features such as we've been working with. Insist that they have to fit it into their territory, and they'll know for a fact---and be perfectly correct---that you're a crackpot. It IS NOT SCIENCE AND CAN NOT BE EXPLAINED WITHIN SCIENCE.

The problem, then, is two-fold; explain that it is not science, and explain what it is.

Now there's a subtle sort of gimmick in science that most scientists have forgotten, never knew, and, many times, very much want to deny; Einstein, who was a philosopher, not a scientist, knew what he was talking about. His relativity theories are very specifically, and expressly, descriptions of the Universe as a certain defined type of observer would see it.

Relativity specifically does not describe the Universe. Einstein never said it did. He said it described what one specific, carefully defined, and sharply limited type of observer would appear to see.

That observer can properly be described as a one-eyed logician suffering from acute tunnel vision; he can see only one thing at a time, never two or more, and can only look along straight lines. He has memory, and can reason in a highly limited, formal-logic fashion. Because of this, he can't distinguish past from present or future. He can't see two things at once because of his unfortunate tunnel vision, so he denies that simultaneity exists.

In logic, you can't hold two different things to be true at the same time; that's called "inconsistency". That's why, for our logical observer, simultaneity---which involved recognizing two true things at the same time---is impossible. He couldn't admit it if he saw it, because he'd be "inconsistent".

Now suppose someone describes how the Universe would look to a two-eyed, rational being who had peripheral vision and could see two or more things at once?

Obviously, he won't come to the same conclusions Einstein's One Eyed Logician did!

The above material indicates where the physical scientist's present maps of the Universe must necessarily be deficient; the method of observation is inadequate!

Now is there an "invisible river" flowing past here that physical science has missed completely?

Yes; there is. The essential difference between inanimate, non-living matter and living entities is purpose. A rock doesn't give a damn whether you crush it to dust or not; living things do. Further, in inanimate nature, anything that can happen, must. Describe accurately what the situation is, and it becomes possible to state exactly what will happen, because whatever can, must.

But for a living entity, that which can happen...may. Will, purpose, desire, want---these are all characteristics of living, and only of living entities.

Physical science has no map whatever of the forces of purposive influences, no description whatever of want, or desire. But purpose is direction; a purposive organism can---unlike Einstein's One Eyed

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Logician!---tell Past from Future; any living organism has a sense of purpose, of direction-in-time.

O.K.; now let's consider what that psionic machine that controls insects, etc., is doing. Suppose for a moment that it somehow influences purposive force; it can influence want-energy.

Let's imagine a young, healthy, vigorous aphid resting on a nice, tender young rose shoot. It is in a perfect position to be able to eat; in that situation it can eat. If it were a purely inanimate system, then, it would eat. But it isn't inanimate; suppose what the machine does is to block the want-to-eat. The aphid sits there, not wanting to eat, and starving to death.

Most of the tales of enchantments in the old days can be explained in terms of an imposed want structure; a love philter would be something that imposed on A a want-of-B. Death Magic would impose on an entity a loss of want-to-live.

I have a hunch that the psionic machines, so far, have largely served as means of concentrating or focussing human attention on a specific target; the purpose-energy of a human being is stupendously greater than the purposive energy of any ordinary animal. The purposive energies a human being exerts in such ordinary jobs as driving in traffic must represent a purposive-power sufficient to blast out of existence hundreds of thousands of caterpillars or beetles!

Any method by which the enormous purposive energies of a human being could be focussed against such fragile purposive structures as jap beetles, for instance, should make it possible to kill tens of thousands without much noticeable effort on the part of the human being.

But...don't try it on another human being! There you'll be running into a purposive dynamo of your own magnitude! If, moreover, you tie into a violent neurosis in the patient's structure, he'll swing more and more of his total life-energies into defending it against the attack of the therapist, and you might find yourself darned near knocked out yourself.

Sure, human beings vary enormously in purposive power. A man like Galileo, who could take on the whole civilization of his time, and battle 'em to a standstill, would be able to blast any normal human being. The little guy who conforms placidly to whatever he's faced with and likes it, on the other hand, would be crushed by the opposition of an unusually high-power dog.

We're working, I think, with Purposive energies---and have no definitions, and no understandings.

The other side of the matter is Meaning.

In ordinary experience, there are two major factors: Logic and Action. Both are single-valued, purely sequential, points-on-a-line things. Logic, however, has no meaning, per se---any more than Action, per se, does. I can do perfectly valid logic on the propositions "The Moon is made of Green Cheese," and "There is a cheese shortage in Switzerland." Lewis Carroll had a lovely logical item: "Given: All Scotchmen are canny. All Dragons are uncanny. What conclusions can be drawn?" Answer: No Scotchman is a Dragon, and no Dragon is a Scotchman." This is Logic...but it remains logical, despite the lack of meaning!

I can stand up, dressed in fancy robes, and intone, in a solemn voice, a series of complex noises. This would be action... but also meaningless, and purposeless.

Efficiency could be defined as "maximizing the ratio of P/A"---maximizing of purposive result to action expended.

Your diagnostic-analytical machine is an effort to maximize a different ratio---the ratio of M/D. The maximum of Meaning obtained from Data used.

Meaning, I suspect, is the intellectual side of Purpose,

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while Logic is the intellectual side of Action. Just as many actions can yield the same purpose, so many logical structures can yield the same meaning. There are a dozen different logical proofs of the Pythagorean Theorem, for example, each equally valid---but only one Meaning.

"How much data is enough?" The answer to this question, in Logic, is absolutely definite; "All the data, and only all, is enough." That's why Logic, real, formal logic, works only in mathematics, where the Universe of Discourse can be fully defined.

Meaning is different; you do not need all the data to determine meaning. Simple example: A newspaper half-tone print visibly does not present all the picture; the half-tone dots visibly interrupt the pattern. But the meaning is complete!

Also, despite my typographical errors, misspellings, etc., you can read this fluently; a computer machine, being logical, couldn't. You read meanings.

As I see it---and I'm rejecting all previous theories in a completely arbitrary fashion, for reasons explained next---we have to assume a Universe with an Hierarchy structure, with level on level, stacked one above the other. Certainly the physical universe shows that characteristic, anyway! There are the subnuclear particles, organized to generate the level of nuclei, which form atoms, which are organized to form molecules, which organize to form crystals, which organize to form planets, and so on up to galaxies.

Each level shows laws of its own which are true for that level, and are not true for either the level above, or the level below. The binding energies of nuclei are not electrostatic; the binding energies of nuclei-to-electrons are electrostatic. And so on.

As I see it, Being is the Zero Level of the Hierarchy of Reality. (You can't do something until you exist.) Action ~~and~~ is the First Level, or because "level" suggests a dimensional stacking, let's invent a new term, nume, and say that Action is the First Nume. Logic is the Second Nume. Motive is the Third Nume. Meaning, or Understanding, is the Fourth Nume.

The higher-order nume determines the lower-order nume, but there is interaction, a sort of feedback. Motive directs logic and Action. Meaning or Understanding, determines Motive (purpose).

The Fifth Nume, I believe, is something we can't do such a hot job of defining; call it the Yang-Yin Nume, or Shiva-Kali, or God-Satan; it is Destruction and Creation.

The Sixth is even hazier---but I think it's Judgement. Judgement alone can control and direct Anihilation and Creation.

We're working, so far, at the beginning of the Third and Fourth Numes; we've got a long way to go yet!

Reason for throwing out, arbitrarily, all earlier theories: People have been hacking away at this problem for 6000 years of record. Wise, highly competent, persevering men have tried whole lifetimes to solve it. The state of the world indicates very forcefully that they did not. Then their theories, evidently, were not adequate tools for solving the problem within a single lifetime---and therefore are inadequate for my use. I can learn, by studying the general nature of their theories, what tools will not do the job within the time I must solve it, if it is to be solved at all.

I reject, for the above reasons, the theological approach.

I reject, for the same reasons, the reincarnation approach.

I reject the help of discarnate entities; the method's been tried, and didn't work adequately for those that tried hard and sincerely.



## Correspondence with John W. Campbell

7.

Agreed, that my method may not work either. So what? The problem's worth tackling, and there's no use tackling it by methods that have been tried consistently, many times, by men whose abilities, sincerity, and persistence I respect. If I considered them fools and lazy bums---there'd be good reason for tackling things their way. I don't; I think the Mystics of old were Men---real men, with high courage, great determination, high intelligence and ability. I don't figure I'm so darned much smarter, more competent, or more courages than they that I'll succeed where they failed. I'll try, therefore, where they did not.

The most successful method of attacking the problem of the Universe has been that of physical science; it yielded more Meanings per man-year than any other technique philosophers ever tried. Just because it has now reached approximately the limit of practical application is no reason to reject its main thesis; Revelation doesn't yield enough results alone. Structured concepts, plus revelation, is essential.

I want to work out an instrumental technique for detecting and measuring purposive energies. It can be done; if I can do that, I'll have a method by which I can almost instantaneously determine the effect of a change in a structure I'm studying.

I think your theory on the operation of the tactile plate detector leaves something unexplained. Notice this: the analytical machine, which I made up with purely symbolic systems, appears to work without energy input of any kind. That is not the case! On a nice crisp winter evening, try gently stroking a cat's fur. The cracklings of static electricity make plainly audible the fact that gentle stroking is a very definite energy input! The entire sound output of a violin is the result of gentle stroking, isn't it?

But there's something else worth noting here; suppose I expose a film in my camera, and then put it in the developer. Until I develop it, there are no images on the film; the light energy input wasn't enough to make a perceptible image. Oh, I could get an image; if you put plain film in a camera, and expose it in brilliant sunlight for ten hours or so, the light-energy alone will reduce some metallic silver, and by simply fixing the film in thiosulphate, you'll get a faint, but perceptible image. But it's a darned inefficient way to do the job.

The developer supplies chemical energy...but the intensity of that energy is not quite great enough to reduce silver halide. The light-struck silver grains, however, act as catalysts, and the strong, useful image is formed.

For ideal results, the developer must offer a uniformly distributed, perfectly random, supply of chemical energy, while the actual use of that energy is controlled by the exposed silver grains. If the developer swirls in patterned movement across the film throughout development, the picture comes out streaked; the film was not evenly exposed to developer-energy.

What's needed, then, is a key pattern, plus perfectly random available energy.

A precisely similar system exists in painting signs by using a stencil, and a paint-spray gun. The stencil determines where the paint shall go---but the spray-gun determines whether. The exposed silver grains determine where development shall take place, but the random spray of energy from the developer determines whether.

I suspect that what we need is a spray of energy of some form, which is influenced by a pattern of some psionic type. The effect must be developed; it won't happen.

## The Story of Eloptic Energy

8.

The things we're working with do not exist, and do not happen; they're potentials. They're "could be's". The essence of a third-number phenomenon is that it is not at the level of Being, nor at the level of Action, but at the level of Purpose---which implies Futurity rather than Now.

The methods required do involve electronic techniques, I betcha! Reason: The electron is, already, known to show the non-physical property of being able to go two ways at the same time, be in two places at once. And it's been indicated that the positron can be explained equally well as an electron with a positive charge, or a normal electron travelling backward through time!

There's another reason for seeking the instrumental device for displaying the phenomenon: if I make a black box with a button on one end, and a hole on the other, such that when I press the button a little white flag pops out of the hole half a second later, no one will be too worried about the innards of the box. If I press the button 25 times, and 25 times the flag pops out, on the 26th try, if the flag fails to show, the ordinary observer will say, "Tsk tsk! Something broke, I guess."

If, on the other hand, the flag pops out two weeks later, and does it 25 times, and fails on the 26th try...the usual observer will tend to say, "I knew it was just coincidence. See, it doesn't really work."

If we make a test that involves many hours or days between action and result, and involves a new and very sketchy theoretical concept...the long time lag allows for a lot of external factors to work in. Suppose you're trying to show that you can kill white mice, and it takes two weeks between turning on the device and having the mice die. Prove anything that way? Hell, no! "White mice are always getting colds, or fighting each other, or dying for no particular reason at all anyway. That test doesn't prove anything; probably they got some darned disease during the two weeks."

Feed the mice on strychnine, and use the machine therapeutically to keep 'em alive. "Hmm...strychnine must have been adulterated. Obviously they didn't get real strychnine, because mice always die if they get strychnine."

I'd never heard of the Aka Threads theory; mine is simply that relationship is itself a reality. That is, every object in the Universe is related to every other object in the universe---and relationship is just as real as gravity. It's just a different type of field-force. If a very close relationship between A and B can be established, then a force applied to B will, by reason of the close relationship to A, be applied to A. I can knock a man cold without touching him; if he's got a metal bar against the side of his head, and I slug the other end of the metal bar, I may not have touched him, but because of the close relationship between his noggin and the metal bar, he'll know he's been slugged.

The trouble we're going to run into in this field is that Will, Purpose, is effective in this area! You say glass doesn't hold a charge. O.K.---that's fine. Then your glass won't---because your purposive energies prevent it. But if I say it does, then my glass will!

You say light conducts the force; I say it doesn't. In my machine, as a consequence, it doesn't!

I built that symbolic machine, and installed a 6.3 volt transformer, power line, and switch, with a little pilot bulb. Reason: plugging it in, and turning on the pilot light helped convince people that "something inside this box is now ready to function".

The light from the pilot bulb, however, bathes the entire circuit diagram. The machine works just as well with the light on

Correspondence with John W. Campbell

9.  
as with the light off. So, in my machine, light does not conduct the force.

What we need is something that is an actual, genuine barrier to purposive energy...and I don't think we're going to get that for a long, long time. Matter, obviously, is not. I've got hunches, but no evidence as yet.

The damndest part of this research is just exactly that problem; purposive energies can saturate matter, as a magnetic field can saturate steel, and magnetize it. I very studiously saturated my symbolic drawing with a conviction that this would work, by reason of the laws of symbolic magic. I agree that that was important. I know I have very special talents along that line; hell, man, for 30 years I've been specializing in developing my talents in the line of presenting imaginative concepts with conviction that produces a sensation of reality! That's what a science-fiction writer-editor does for a living...and in that field, by God, I'm good. If I can find a new and more useful application for that talent I've trained into myself over the years---cheers! Let's go to it!

Trouble is...how the blazes do you do research to find what is and is not inherently best? When the experimenter's own powerful purpose can impose the quality of excellence on one material, which may be inherently poor, actually, and deny effect in a material that may, inherently, be excellent?!

That's another reason why I want mechanical detectors of purposive energies! The very best experimenters will be the ones with great purpose and understanding. They'll also be the ones that can impose magnificent results on an inherent dud, that won't do a damn thing in the hands of an ordinary human being!

Sure, you're a Grade A magician: you can plant a Charm on a bone, some mud dug from a graveyard at midnight, and a three-stage broad-band impedance coupled amplifier, after which the darned thing will work for ordinary people.

But ordinary people can't; therefore, for them, the things are no good, and your theory obviously is nonsense.

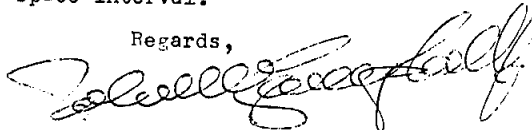
Ed Herman's no doubt told you about the trouble the Delawarr people have with their photographic machine? It works just fine, for anybody...provided Mr. Corte loads the plates! Unless Corte puts the Charm on the plates---saturates them with purposive energy, so to speak---the plates can't be used!

Until we can get instrumentation of a mechanical order.... we're stuck.

Herman told me about your communicator gadget. It's still several orders of magnitude too slow to serve the needed purpose. We've got to cook up one that works in milliseconds, not seconds. Unless I'm way off base, we can, actually, achieve one that works with zero---and I mean zero---time-lag. The moment we do, we'll knock the rug out from under modern physics, and Einsetin's One-Eyed Logician; if we can signal from Australia to New York in 0.0001 second, or less---we make a liar out of Relativity! We will have transmitted information at a speed much higher than the speed of light, and that'll put the permanent kibosh on physical-science objections.

My hunch is this order of phenomonon pays a s little attention to time-interval as it does to space-interval!

Regards,



## The Story of Eloptic Energy

JOHN W. CAMPBELL, JR.  
1457 Orchard Road  
Mountainside, New Jersey

June 19, 1956

Dear Mr. Hieronymus:-

I've just returned from having lunch with Col. Gross and Arthur Gray, who is President of Street & Smith Pub. Co., and associated with me in the psionics research I've been doing. I think it may be helpful if I state what I had in mind in making the suggestions I did concerning the business arrangements about this research.

First off, the patent system at the present time will not offer us any protection whatever; it's completely useless, because it was not set up to handle the type of problem we're running into.

I've built that purely symbolic machine, which works real pretty; it's your basic machine, and you know it and I know it. The only thing is that you know as well as I do that no court in the land would hold that it is in any respect what you patented! I don't use any vacuum tubes; therefore it obviously isn't what you patented.

Moreover, unless I'm greatly mistaken, I could use a different set of symbols, and get just as good results. That is, the symbols have the characteristics I arbitrarily assign them. If I want to use a pentagon as a symbol for a pentode amplifier---it'll work.

Keeping in mind the type of thinking that dominates the courts today, you can readily see that getting effective patent protection on a psionic device is completely out of the question.

You can't patent a law of nature; what we're doing, however, is discovering laws of Nature. No patent protection possible.

You can spend a lot of money hiring patent lawyers, however, and getting patents on one, specific, special unit. But inasmuch as Mr. Upton can use a handy table top, and a pencil drawing on a paper doiley and get the results of the diagnostic machine....let's see you get a patent that s worth two hoots in hell!

The patent laws were originated a few centuries back, when technology first got started. They came into being when individuals got bright ideas, and kept said ideas secret---"trade secrets". The idea was that the Government would repay the inventor by giving him a guaranteed, protected monopoly on his idea for a limited time, in return for making the idea patent---literally, making it clearly understandable.

The proposition worked, so long as both sides felt they were benefiting. Trouble is, if you have very good analytical techniques, a man doesn't have to tell you his secret; you can get hold of his product and analyse it to determine what his secret was. Why pay a man for something you can get for yourself?

Additional trouble arose because, with the increasingly rapid advance of technology, 17 years became a long, long time. Darned few inventions are of any value after the first ten years anyway; the actual life of an invention normally is less than that period, so the original idea, that of making it free to all after a short time of earning return, no longer works. By the time the patent runs out, nobody wants it anyway, usually.

Consider electronic circuit patents as of 1939. Those patents would just be running out. Since a good patent lawyer can argue with the patent office for three or four years while under "patent pending" protection, inventions made in 1935 are just running out.

## Correspondence with John W. Campbell

2.

Who wants a 1935 radio set today?

The result is that the original purpose of the patent laws has vanished, and the laws themselves are, in consequence, breaking down completely.

The original purposes were based on (1) the existence of trade secrets that were secrets, and (2) the inability of analytical techniques available to crack those secrets. If a man wouldn't tell you how he did it, you couldn't find out.

The system is breaking down because you can find out, nowadays, whether a man tells you or not.

Further, the patent office people are cook-book scientists; they have to know what the books say. If it's in the books, it isn't new, so you can't patent it. If it can be derived logically from what's in the books, it's just "routineering by anyone skilled in the art" and isn't patentable.

But if it's not in the books, and can't be logically derived from what is in the books, it's impossible, so the patent office terms it nonsense, and refuses a patent. If the books say specifically it's impossible, naturally the patent office turns it down.

If, despite this, you get a patent, you now have a license to sue people---sort of a license to commit barratry.

A big corporation can afford to maintain a staff of lawyers; they don't mind a legal fist-fight---they have them going on all the time anyway.

An individual ordinarily can't afford it.

But that's all right; if a big corporation gets patents, since a patent is a monopoly system, the anti-trust department gets after the corporation as a monopoly in restraint of trade, and takes the patents away from them. See what happened to Bell Labs, which certainly earned the transistor patents, and to IBM and their computer patents.

So let's not play their game; the only people who come out ahead are the patent lawyers---and they get so many headaches they lose too.

It seems to me that the answer is to go back to the Trade Secret system. The lovely thing about these psionic devices is that no technique of scientific analysis can find out why they work! Result: if we have a device which works, we don't give a damn how many high-priced laboratories sweat blood trying to analyse what we have. They can use everything from mass spectrographs to microanalysis, and never find a damn thing!

Consider the spot the Delawarr people are in; they have a machine that takes pictures of diseased organs. This is fine; any operator can be trained to use it.

Provided Mr. Corte loads the plates.

Suppose we develop a communicator that consists of a standard microphone, audio amplifier, and speaker, with a psionic gimmick linking it to the other communicator. Anybody can supply the audio-electronics parts. But unless one of our trained hexers puts the right charm on the psionic gimmick...nothing happens. I'd love to see RCA labs or Bell Labs trying to run a psi-magnetized strip of plastic through its analytical routines to find out why a chemically identical strip they made up wouldn't do the same thing.

And just to make 'em go nuts a little faster, we could use scraps of orange crate lumber, high-purity polystyrene, pieces of old shoe leather, and plastic-impregnated glass-fiber fabric with equally good results. After all, what does the nature of the material matter to a symbol?

## The Story of Eloptic Energy

3.

You, Armstrong, Upton---a lot of others---have been in this work for a number of years, pleading, begging, striving to make someone pay some attention to the ideas. It's hell on wheels to try to sell a man an idea that conflicts with his orientations, and that he doesn't want.

But just try telling him it's your Trade Secret, and he can't have it, and see what happens! He'll sweat blood trying to pry it out of you.

As I see it, what we need is a transducer that will convert psionic forces to electromagnetic, or mechanical forces. (I suspect it may turn out to be easier to go direct from psi to mechanical, but we'll make out better if we can go from psi to electronic. Electronics is more publicly acceptable these days. After all, who wants an automatic supermarket door opener that is so old-fashioned it uses a mere mechanical pressure-plate switch? No, siree; it's gotta be a photoelectronic relay that does it---no perfectly reliable, cheap and simple pressure-plate actuated switches for us, by Gad! We're modern, we are!)

The transducer would accept a psi input, and modulate an electrical or mechanical force on one end, and at the other, accept a modulated electrical or mechanical input and yield a psi output. The transducer could, quite readily, be a chemical system; if we could, by means of a psi force, change the probability of a particular reaction system in favor of substance A instead of B, in a perfectly balanced reaction system, it'd be reasonably simple to detect it. Let's say that A is strongly colored, and B is colorless; then we could detect a change of color photoelectronically. The rate of change should be fairly high, however, at least 4000 cps, which makes the chemical system seem somewhat unsatisfactory as a guess.

But that's what we need. And I suspect that it'll turn out to require an imposed purposive field-force---a psi field. That, without it, the gimmick is just a useless and meaningless hunk of matter---as useless as an unmagnetized chunk of alnico. (Wouldn't you love to see a chemist trying to analyze an alnico magnet to separate out the substance that produces that attraction effect....if he didn't know about magnetic fields?)

Another possible approach to consider is the dear old Marconi coherer detector. What if we could make some kind of dust or colloidal particles line up and fall out of line? Darned little mechanical force would be required---a mere change in the distribution of Brownian movement forces already present would do it! Then we'd have something that would get us a start toward the goal, anyhow!

As I see it, if you want to work with me, and try to crack this job as a team, we can each offer the other something; you've got work-with-the-hands experience I haven't, and can't get without working with my hands for a quart century or so.

On the other hand, through the quarter century I've put in working with ideas and hypotheses, and watching some high-powered creative thinkers here and there around the country, I've learned some practical techniques for tinkering with ideas. You've got experience I haven't got; I've got a totally different kind that you haven't had a chance to collect, not having edited a science-fiction magazine.

Could be that, between us, we could work like the two jaws of a nutcracker to crack this problem, where neither jaw alone could swing the deal.

A theory is no damn good, unless it can lead you to a piece of hardware that works.

## Correspondence with John W. Campbell

4.

Furthermore, man's a lovely and valid theory has gone down the drain because the guy that had it didn't have the hardware skill necessary to build a workmanlike unit. (Babbage, who invented the first computing machine, had to quite. He couldn't carve a decent gear to save him; the theories he had were fine, but his workmanship stunk.)

A good theory may give a good blueprint for a good machine... but if a man has that much, and no skill with hardware, it's still no cigars.

On the other hand, a good theory can save a hardware expert, the man who can translate ideas into something that works, a lot of effort and trouble. The old boys made some wonderful steel in Damascus, centuries ago. But having absolutely no understanding of what steel was, or why, or what to do about it, they couldn't make different varieties of steel. The Japs had some wonderful steel, too---a fine molybdenum steel. Being totally ignorant of chemistry, how could they know that one of their iron mines was contaminated with molybdenum ore?

Teaming up may save us both a hell of a lot of time, trouble, and expense.

If the team effort produces results, moreover, nobody will have any need to worry about who gets how much. We'll both be trying to figure some way to stay out of the 99% income tax bracket.

I know one of your major concerns is getting something useful done about therapy. The dear old AMA is slightly thick in the head; that would be an excellent place to start therapy, I think. So they have a lovely cure for cancer. I know of a woman who came down to the New York Memorial cancer hospital from an upstate farm town for diagnosis. She spent the ~~sum~~ entire savings of her family for the last five years making the trip. The diagnosis was cancer of the cervix; 90% probability of cure with two months radiation therapy.

So then she want back to her upstate farm to die, having been magnificently diagnosed, and told how her life could have been saved if she had had money enough to keep from starving during the two months she had to stay in New York. Oh, they were willing to give her free radiation treatment...but after all, you couldn't expect them to feed and house her for two months, could you?

Sure the AMA has some wonderful gadgets. Wonder how many diagnostic EEG's and electrocardiographs and trained Roentgenologists you'll find in Shoo Fly, North Carolina? Or Mambayoo, Miss.? Or some of the backwoods towns in Montana, Colorado, etc.?

You can't buck the situation by arguments. Practical people will be found at the farmer-worker level, and at the top-executive level. But inbetween there's a powerful group of trained theoretical technicians. The executive can't get his ideas carried out if the technician's gum up the works for him; the worker can't get his ideas through to management, for the same reason.

You can lead a horse to water, but you can't make him drink... unless you can make him thirsty. You can lead a scientist to facts, but you can't make him swallow---unless you can make him curious.

Nothing will make a scientist more annoyed than the idea that someone's holding out on him.

The Trade Secret approach is not only economically the most practical---it's a sure-fire, guaranteed technique to make the scientist-technicians start demanding that you explain.

The one thing we need is a device that reacts so quickly and on so seemingly pure-mechanical a level that they can't deny

## The Story of Eloptic Energy

5.  
it happens.

Incidentally, the Armed Forces would just love a means of transmitting a message to a guided missile that was absolutely proof against any kind of interference whatsoever. They would most happily throw the whole science of electronics into the drink if they could get a guided missile controls system that was proof against jamming, or over-controlling, immune to static, and wasn't affected by distance.

Another one of the absolutely unsolved, and absolutely critical problems is this:

In an atomic war, there won't be enough H-bombs to send a dozen or more bombers to attack a given target, all loaded with bombs. They'll have to send a dozen bombers, however, to protect each other against fighter attacks. Only one of them, however, will carry the business.

Problem: "Which twin has the Tony?" The Air Force boys are asking exactly that, in those words. How can you tell which bomber is the one that has to be knocked out? The other eleven, we can ignore---if we can be sure of getting the one.

Regards,

A handwritten signature in cursive script, appearing to read "J. W. ...". The signature is written in dark ink and is positioned below the typed text.



*Correspondence with John W. Campbell*

20 June 1956

Dear John:

We might as well get acquainted right away and sidetrack formalities, so you are John. My friends call me Galen.

I have just re read your letter of June 17th and will comment on some items in it. I just received a letter from Ed Korman with a lot of questions about the transistor unit that Howard Armstrong loaned you and that you and Ed copied. I can either try to be very diplomatic or try to be honest. I cannot seem to be both and at the same time, put out the facts as I see them. You said in your letter that you had built the transistor unit and planned to try it out on some kind of life form.

This work divides into two major divisions. Analysis, diagnosis or what have you, and treating, or trying to alter the condition found. The amount of energy needed to alter a condition varies all over the lot. The amount of energy needed to analyze is extremely small. The energy radiated from a substance is enough for any good analyzer without any amplification. No power is required. I worked for years without any amplification. Then I used chemical amplifiers in order to relieve the strain on the operator when the energy was weak and he was tired.

When I went into the subject of treating or altering things, I found that it took a long time to get a result when no power from local source (chemical or electric power) was used but that the time element could be greatly reduced with the use of amplification. Just as it takes more energy, more electron volts to move an electron in an inner orbit than it does to move an electron in an orbit several 'shells' farther out, just so does it take more energy to do some treating than it does to do other treating. There seems to be a minimum value of energy needed to produce a result regardless of the time of treatment.

The subject is so vast that it is difficult to keep from rambling from one phase to another related phase. We started on Armstrong's transistor unit. I do not know which one he loaned you. I saw the one that was built for Eliot Pratt last year, by, I believe, the same man who built Howard's unit. It used a masonite panel, 1 mf coupling condensers and an RC coupling system, a typical but crude low frequency audio amplifier. The man who made it told me that "there is nothing but audio frequency signals involved," so he built it with only that idea to control the design and construction.

It seems to be necessary to keep pounding away at the idea of trying to get over the important fact that we are dealing with a force or energy that is as different from electricity and radio as electricity differs from heat. In fact, there is more difference

## *The Story of Eloptic Energy*

since we are in a different medium than that involved in the electro-magnetic.

Electricity flowing through a wire will produce heat. This does not mean that electricity is heat, any more than saying that since a flow of electrons, up and down an antenna will produce something that radiates out away from the antenna, the two phenomena are one and the same. By the way, what does take place when electrons flow in an antenna? I too, have read the books, but they do not give an explanation that will stand up. What is a wave motion in the ether? What is the ether? Send us about a quart.

Fran Farrall just came in with the August issue of A.S.F. You did a fine job on the very short article. Might just as well take off on the subject of why a burned out or missing tube works as it does. I have been able to make a device without any kind of electricity involved, that generated much more energy than the best radio amplifier. It was all mechanical, no chemicals or batteries. Form or configuration was most important. We are using the amplifier tubes for other than their typical radio characteristics. The arrangement of the various grids etc., even the heater, is important in the operation.

Some of my most time taking, heart breaking experiences resulted from not knowing enough about conductors and insulators of this energy. I am going to use my term, Eloptic. After building many devices over a period of time and finding they would not work, they were discarded and I went on to other experiments. Later I would find that some of the material used in earlier experiments was not the insulator I thought it should, but a fair conductor of Eloptic energy.

An example is with bakelite. This is used rather extensively today in radio and TV as insulation. All switches of the rotary type are punched from brown, yellow brown or red brown colored material. This colored bakelite is not a very good insulator of Eloptic energy. There is plenty of leakage through it. Black bakelite, on the other hand, is a very good insulator. I can get away with using brown bakelite switches in the input circuits where I only lose energy or waste it to ground. In other places where feedback is involved or in the output end where I want all the Eloptic energy to be radiated and not grounded, I never use brown bakelite.

If you want to try a simple little experiment, try this. Get two pieces of regular 300 ohm transmission line like Amphenol's translucent whitish insulation and the brown dense kind. Then get some regular 30% black rubber flexible instrument wire as used for water probe leads. Twist the latter into a pair of wires to be comparable to the other pairs. Cut the length to about five feet and put terminals on for quick changing of the three types. Use one of these pairs of wires to go between the output of your original amplifier and the coil in the reaction plate. Naturally you will have

*Correspondence with John W. Campbell*

the coil some foot or so away from the rest of the device to avoid reaction. I would use the black 30% rubber first and set the instrument where you get a reaction, showing that it is working. Now remove the 30% rubber lead and put in its place, one of the Amphenol leads. I think you will get no reaction at all through the 300 ohm line because all the Eloptic energy has been shunted through the insulation to short out the reaction coil.

To test insulations, build a pick up coil not over two inches in diameter with leads of at least a foot in length, preferably longer. Take a very small piece of any metal of which there is no more around, e.g., silver, gold. A gold ring is fine. Tune in gold on the analyzer so that you lose all reaction when the gold is removed from the input coil, in other words, you are sure you are set for gold. Be sure you do not have a gold ring or watch too close.

Next take some wax paper and place two or three thickness over the pick up coil, large enough in size to extend well over the coil. Now place the ring in the center of the coil but separated so radiations must pass through the wax paper. You may not get any reaction at all. Recheck by carefully removing the wax paper without disturbing the dial setting. The reaction should be as strong as it was at first.

When I say as strong, I mean that you should measure the amount or rather the intensity of the radiation by inserting resistance until the reaction is lost. The decade resistance or potentiometer is for that purpose. In this way, you can get a quantitative measure of the degree of insulation offered by the wax paper.

One of the best insulations of Eloptic energy is ordinary black friction or tire tape. It unfortunately has something that radiates from it that is very bad for humans, so I do not use it around medical instruments.

From this, you must gather that I do not think much of masonite as insulation, or of the design ability of anyone who would use it in any kind of instrument.

What I have given you about insulations is the reason I was surprised that you were able to build an instrument and have it work the first time. I shudder to think what some who read your article and build a device may think when their's won't work. Such language.

Which reminds me that I received an inquiry from two men in Oak Ridge, Tenn., who got a copy of my patent and built an analyzer. They are having trouble and sent me a long list of questions to be answered. I wrote back for information on them and what their interest was. This can lead to a lot of timetaking correspondence and expense. That is why I asked why they are interested. They did not write on any letterhead or on typewriter. The letter was in ink but very difficult to decipher.

As of the present, I am of the opinion that Eloptic energy travels on the surface

## *The Story of Eloptic Energy*

much as very high electrical frequencies do. It could be that it travels on 'holes' in the ether, if we can imagine that the ether or something is displaced by material things. Of one thing I am convinced, Eloptic energy is of a different order than the ether, finer probably. I believe Eloptic energy travels spirally rather than by the bunching action that characterizes the action of a high frequency current through an electrical conductor. This would make it possible for Eloptic energy to exhibit what is definitely a frequency characteristic and, at the same time, not work with any of the electrical devices.

Electricity energy can be converted to Eloptic energy because electricity can be used to augment or amplify Eloptic energy. Someday, I hope to convert Eloptic energy into an electrical current. Magnetic fields play a most important part in this work. Eloptic energy can be dispersed much as static charges can be dispersed by the action of X ray or Gamma rays, by the action of magnetic fields. Whoa! My tongue got twisted. Magnetic fields work on Eloptic energy much as Gamma rays do on a static charged ball. Now it's there, then it's gone. Dissipated. Discharged.

Take a few items like carbon, hydrogen, oxygen, nitrogen and a few others, add them together and infuse another item called a life spark and you have a nice juicy worm about 1/4 inch D x 1 1/2 inch L. Put him in an ear of corn and he will have a swell time. Remove the life spark and he will take several days to dry up and disintegrate.

Take a similar combination eating away on said ear of corn. Find by use of an Eloptic analyzer, some substance (we call it a reagent) that will reduce his vitality value to near zero. Take a bit of the shuck from the ear of corn, place this and the reagent in an Eloptic transmitter, removed many feet (e.g. 20) from said ear and worm and start the transmitter going. Then leave town. House vacant. The only one who knows what is going on is 250 or more miles away, having a good time with a lot of people and not thinking at all about the worm. Two and a half days later, the knowing ones return to find three out of four of the worms are just spots of moisture. The fourth worm when tested, shows one twentieth the vitality he did three days before. Keep him on the ear of corn while the treatment continues over night and next day, he too is a moist spot. What happened there? He did not dry up and become dust. The components were disassociated. The binder was removed or nullified. Instead of a worm, intact, he became carbon, oxygen, nitrogen etc., again. That would make a swell Astounding Science Fiction Story. It is astounding but not fiction.

It seems to me that we are manipulating the so called, binding energy that holds the electrons together in a molecule. The funny and interesting part is, the apparent

*Correspondence with John W. Campbell*

amount of energy required is so little compared with that required when so called, atomic energy is used, that there is no comparison. The reason for this is easy to explain. The brute force method used in atomic fission is very inefficient. When you find the resonant frequency of a molecular combination and feed this frequency into it, the amount of energy necessary to neutralize the binding effect is relatively small.

Another point of interest. So many instruments and their method of operation require that the operator be in the room with the instrument while it is operating, apparently to furnish the energy necessary. When we treated the corn ear worms while we were 250 or more miles away and they were completely dissolved, we certainly did not need to fulfill that requirement of having to supply energy to make the instrument work.

There is a lot of difference in the way different instruments operate. We are quite sure we are dealing with a form of energy that is not a flow of electrons (electricity), or a wave motion in the ether (radio like propagation), or magnetic, or heat, or light. We know that there is a great similarity between Eloptic energy and the energy involved in thoughts and emotions, and in the nerve impulses (not the electrical part set up by the chemical action). We know that Eloptic energy exhibits several different states. We can store it like a static charge; we can generate it in a manner similar to the generation of electricity; we can manipulate it by thoughts and emotions. It can be transmitted over great distances without attenuation. It can be made to disassociate the atoms in a molecule. It can and does manifest something akin to frequency, as we use the term in connection with audio or radio etc., whether pulsing or alternating.

I would refer you to a statement in my other letter in which I stated that I divide operators and their instruments into a least three general groups: those who are able to operate psychically and only use something like a reaction plate to get yes or no answers to mental questions, either consciously or unconsciously asked; those who have some psychic ability and are very sensitive operators, who require some type of instrument that will tune to different frequencies; and last, those who have little developed psychic ability, who would deny it, and who require a good instrument to do most all of their work. Most often, the one in class one never knows whether it is the instrument or himself that does the work. His work and findings are most often unrepeatable by others. The second type operator is generally the most reliable when he has a good instrument to work with and who knows that he must guard against too much interference. The last operator is lost without a really good, well built and well calibrated instrument. In your first article last October, you dwelt at length on the subject of the cost and elaborateness of some of the instruments on the

### *The Story of Eloptic Energy*

market, how they grew and often became very elaborate. Naturally, some of those were made to sell at a very high price for the sole purpose of making a lot of money for the builder. I was not referring to this last class. I have seen some doozies, one that was built on contract for \$5,000 and the builder lost his shirt on it.

As a case in point, I have two instruments of the prism type. One refracts the entire spectrum of 90 odd elements in a pick up arc of about 30 degrees. The various isotopes are so crowded that you can only pick up one energy peak, get a reaction, at one place on the dial for each element. The other instrument is so constructed that the same band of elements are spread out over 60 degrees and we can pick up each isotope of an element without trouble.

There is a lot of difference in cost between a crystal detector, head phones radio receiver and my communications receiver with a lot of tubes in it. One cost a few dollars, the other cost a few hundred dollars. The results obtained justify the added cost, in fact, I would not be bothered with one like the cheap one.

What I am trying to say is, Please do not try to put all instruments in one bin and classify them as "Psonic Devices." As a radio man, I am sure if someone came to you for advice on buying a radio receiver, you would not tell him not to squander his money on an expensive device made by RCA or National, to save his money and buy a piece of Galena a single head phone and wind some wire on a Quaker Oats Box, unless he happened to be a Cub Scout with a project to build. That reminds me, my first license was '9 CU' issued in 1913. I went from a Ford spark coil to 1 KW on 20 Meters.

It has been nice talking to you again. Wish you would get on your horse and come to the land of bathing beauties, sand and sunshine (per the C. of C.) We could have a swell time fighting the war.

Sincerely,

Galen Hieronymus.

cc to Gross et al.

Correspondence with John W. Campbell

JOHN W. CAMPBELL, JR.  
1457 Orchard Road  
Mountainside, New Jersey

July 11, 1956

Dear Mr. Hieronymus:-

I've mentioned before the importance of negative evidence-- of learning from what won't work, as well as from what will.

I've got some negative evidence, and a theory that may, I think, be helpful.

I've had a lot of people test the devices here at my house. I've gotten a lot of interest among highly trained technical people, because of my magazine. And I've observed the results. Also, I've had friends of my daughters' try it. The results work out this way:-

1. The blasted thing won't work for me except on a highly erratic, unpredictable basis. I can predict, however, that the frustrating contraption will not work any time I am trying to make a test of something new!

2. Every one of the dozen or more professional scientists I've had out here has scored a flat zero. Not one of them has succeeded! This includes men from Bell Labs, Esso Research, Sperry Electronics, and several other outfits. They are real, Grade A research men, too, and have approached the problem with genuine good faith and open mindedness.

2. Kids of high school age and under have about 99% success.

3. Housewives, lawyers, doctors, insurance agents, business executives---score about 85% success.

4. It won't work for my wife, except erratically and uncertainly.

5. It works for both of my younger daughters, but best for my 11-year-old.

The remarkable fact that stands out is that it won't work for scientists! I've heard from a number of the gang that tried building it from the magazine. All of them complained it didn't work. Not one success reported to date!

Now this uniformity of observation is a predictable thing by this time; it calls for some thinking, in order to explain why precisely the type of person we're most interested in convincing shows an absolute flat, 100% no-dice reaction.

They're not resisting the idea. A man doesn't take the trouble to build the thing without some willingness to see whether it works. People don't drive down from Connecticut, through that horrible New York traffic just to refuse to try it.

They're giving it a sincere, honest test, to the best of their ability---and showing a 100% flat failure.

And that is important data.

I think I've got a clue as to why.

Some years back, Claude Shannon, over at Bell Labs, set up a computer-gadget that he called a "mechanical mouse". The top of the thing is a sort of table, on which aluminum panels can be set up to form a maze. A gadget that looks something like a

## The Story of Eloptic Energy

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mouse---and is, of course, the exploring device controlled by and signalling back to the built-in computer---is put in the maze, and it seeks to find the "cheese"---which is an electrode that shuts off the computer by signalling "task accomplished".

Claude was studying problems of problem-solving. The maze is the psychologist's classic problem for testing animals; he set up a "mouse" and a maze to show that a computer could do as well.

The other men at Bell Labs were, of course, amused and interested, and gathered round to experiment with Claude's "mouse" problem-solver.

One of the gang watched the performance, listened to Claude's discussion of how it worked, and said, "Say, Claude...I think I can stop your beastie here. Let me set up a maze, hmmm?"

"Go ahead---but it has to have a solution, it must be possible to get to the cheese."

"Um-hmm. Let's see....."

In about five minutes he'd switched the maze wall-panels around, and Claude started the mouse again.

Twenty minutes later, the "mouse" was still going around and around, and getting nowhere. Each time around, it went right past the opening that lead to the "cheese", but never found it.

Reason: The guy had set up a maze that was exactly matched to the search-pattern of the "mouse". The "mouse" always tried to get out of a new square first by turning left to see if there was a door that way. If there was, it went to the next square. If there wasn't, it would try straight ahead, and if still blocked, would try right. If there was no opening, it would go back the way it had come. But it always tried (1) left, then (2) straight, then (3) right, and finally (4) back where it came.

By setting up a maze in which the mouse could always find a way out of the square before it tried right, Claude's friend had arranged a maze wherein the mouse could never find the way to the goal---because it involved trying right instead of left.

You can trap the searcher if you design the problem to match exactly the characteristics of his method of searching---and arrange to lead him around in a circle.

Claude solved the problem for his "mouse". He built in a "discouragement circuit". After trying 25 squares (the table is five squares each way, so there are only 25 squares) if the "mouse" hasn't reached the "cheese", a relay throws, and, thenceforth the "mouse" always tries right first instead of left. In such a simple maze-problem, no maze can be immune to solution by both right and left-searching techniques.

Note this; philosophically Claude's "discouragement circuit" is damned significant. Discouragement does not mean "You can't do it; give up." It means "You can't ever do it this way; search for the solution in a different manner."

Our problem is this: Children, housewives, almost anybody but a trained scientist, can get results. What, then, does scientific training do to a man---or, possibly, what different kind of man becomes a scientist---that a scientist can't do what most people can?

Science has achieved enormously; it has solved problems with magnificent success, and to the tremendous advantage of Man. It's unarguable that they have a problem-solving technique of immense power and importance.

O.K.---but what type of problem so matches the search-pattern of the Scientific Method that the Scientific Method is inherently incapable of solving it? What type of maze will make this "mouse" go round and round and never get the answer?



## Correspondence with John W. Campbell

3. What kind of problem does true, scientific training prevent a man from solving?

If we analyse the basic characteristics of the Scientific Method, we should be able to spot the characteristic of that method that would prevent detection of the way to the "cheese". Then we might be able to specify the appropriate "discouragement circuit" that would convert the scientist to a man capable of solving the problem.

The answer, I think, lies in this: A scientist is rigorously trained---and trains himself to a strong self-discipline---to avoid injecting his own wishes, hopes, desires, or feelings into his experiment. He must determine what is there, and must not seek to "prove his point". He must conduct his experiments with absolute objectivity; if the experiment is going to disprove the theory he spent half a life-time building---why, he must conduct it with the same honest, detached, and purely-factual attitude he would if, instead, it were proving his life work.

It was the introduction of, and development, of that completely objective, honest approach that made Science what it is. It's the foundation of scientific ethics, and every scientist worth his salt accepts it deeply, and with a degree of self-discipline that few laymen appreciate.

Now what happens if such a sincerely dedicated and honest scientist tries to use something that works only if he enters into it and drives it with his own desires and wants?

Nothing, of course.

If these psionic devices are dependant, as I suspect, on the application of human purposive energies, then the scientific method gives 100% absolute assurance that they won't work. The scientist must not inject his own purpose. He must be purely objective. Which means he won't do a thing to help it! He has trained himself to a state of completely withdrawn, perfectly neutral observation-without-participation. Which is precisely what will not work in a psionic experiment!

I've had the training. I couldn't make that blasted thing work worth a damn any time I was trying to find out whether it would work. It works only when I accept-without-question that it works, and ask about something else!

These are tools, but not yet machines. A tool is a device by which a man can do something, or do something more easily, that would normally be impossible or very difficult without the tool. The tool is, however, essentially a passive device, like paper-and pencil, or a typewriter that works only when I push on it.

A machine, on the other hand, is a dynamic device; it can work itself. An oil burner is a machine. A power shovel is a machine, where a shovel is a tool.

The scientists are looking for psionic machines; devices that do-it-to-them, rather than psionic tools, with which they-do-it. The scientist makes "objective" and "passive" mean the same thing.

Suppose someone with this attitude were reporting on the first bicycle.

"I try," he says, "to have an open mind---but the inventor's claims are clearly preposterous. This device is inherently unstable; the idea that it can stand upright with a load on top is nonsense. And it has no power source; the statement that it can carry a man farther and faster than he can walk is patently foolish. Why,

## The Story of Eloptic Energy

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it would violate the law of conservation of energy!

"However, I got on, in the way the inventor stated was correct, and made an honest test. As could easily be predicted, it was unstable, and the whole contraption promptly fell over. And it didn't show the slightest signs of moving.

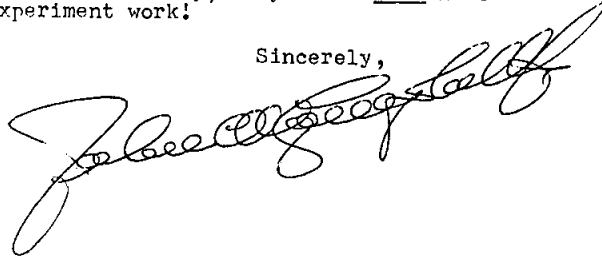
"What sort of hoax the inventor is attempting, I do not understand. He did 'demonstrate' it for us, and we were unable at that time to detect the mechanism he used for supporting and propelling it, but it is self-evident that such a structure could not remain vertical without some hidden support."

If the would-be tester of the bicycle holds it unethical for the tester to do anything himself, he'd sure have a hell of a time discovering a bicycle works!

Unfortunately, the professional scientist is in precisely such a position with respect to psionic devices. The best, most dedicated and ethical, honest scientists are precisely the ones that, you can guarantee, will not get results!

In trying to put this thing across, then, we must recognize the difficulty this introduces. The scientist holds he must not impose a motive on his experimental set-up; only if he does have a motive, will his psionic experiment work!

Sincerely,



## The Story of Eloptic Energy

2. Mathematics tries to do that---but it is strictly a limited approach. Because mathematicians don't understand that relationship itself is a real-world entity---a "thing" that isn't material, but is real.

What I'm trying to do in ASF is to introduce little bits and pieces of new ideas---each one so small and so vague that none of them startles the reader too much. Mostly amuses and vaguely mystifies him. By the time I've been at it for six months more, there'll be a group of them that have accepted those bits and pieces without really considering them too hard one way or another. And at that point I can begin tightening up the ideas into more and more solid structures.

Now see if you can check this point: Call it psionic, call it eloptic, or call it frahmstahl-moisenbur---names make no nevermind. But there definitely is attenuation over intervals. Many of the scientists have blown their stacks over the idea that distance has no effect. Believe me, an increasing interval does have effect---only the proper measure of interval is not distance. The parameter for measurement is relevance. Relationship-separation, not space-separation.

You found, I understand, that if you were working with a photo print, and the negative was destroyed, the print didn't work any more.

Betcha: It does respond, still! BUT...it responds far more weakly. Reason: There is no longer as close a relationship between print and object as there was.

Consider the relationship "mine". I have a car; it is "mine". Does the degree of mine-ness change if I take a plane and fly to San Francisco? Distance is the wrong measure of interval for this phenomenon, isn't it? Suppose I do fly to San Francisco; the car remains just as "mine" as it was. But suppose, while there, I arrange a sale of the car with a friend, and then fly back to New Jersey. I'm now only 10 feet from the car---but it isn't "mine" anymore. However, part of the deal was that I would drive "his" car down to the local railroad for shipment to him. It is "mine-to-drive" on that trip---but the relationship of me-to-the-car now entails a link that goes "his-car"-to-him-to-his-authorization-to-drive-it-to-me.

Distance is the wrong parameter...but that doesn't mean that there isn't any interval-measure that is relevant! I can attenuate the effect of this force, whatever it is, by various introductions of irrelevancy. I suspect most of the ancient magic Charm-breaking techniques actually involved introduction of irrelevancy---the various possible ways of making the curse not-relevant-to-the-victim. I suspect, for example, that you could "sell" a curse to someone else, so that it wasn't "yours" any more. Suppose someone puts a curse on a nice, but rather weak-personality friend of mine. I get annoyed at the damned fool that's spiteful enough to do this to him, and "buy" the curse from him. Now it is "mine"---and I'm not weak. I now have a direct link to the bastard that pulled that stupid business, and can send back along that direct relationship link a charge of whatever-it-is that'll pin his ears back in a bow-knot.

Just as, if some bully starts pushing my small daughter around, he's apt to chase her around the corner of the house and run smack into me. (I have an intense antipathy to bullies; since I'm over 6' tall, and weigh over 210#, I can make the antipathy stick.)

I can properly put all the instruments in one bin, Galen. I can properly classify them all as "Psionic devices"---just as I can classify radio receivers, transmitters, Geiger-Muller tubes, scaling counters, computers, servo-mechanisms, oscilloscopes, radars, sonars, vacuum tube voltmeters, etc., etc., as "electronic devices".

## Correspondence with John W. Campbell

3.  
Just because they do different things doesn't deny they have a fundamental commonality; they all function at the same level of reality. None of them is a mechanical-energy device, primarily, and none of them is a nuclear-energy device primarily. The Geiger-Muller gimmick is triggered by nuclear phenomena--but it's a nuclear-to-electronic transducer. The servo gadget will wind up with a mechanical-energy output--but it's an electronic-to-mechanical contraption.

What we're looking for is a psionic-to-electronic transducer, dammit! I'm all too sadly and acutely aware that we don't have an electronic phenomenon involved in this thing.

Item, by the way: Take a 3-inch scope tube. (Cost about \$3 in war-surplus these days.) Set up in an appropriate mount. Use a variable-adjustable power supply for the tube that will allow you to apply voltages from about 25 to 350 or so.

Rig so that the spot is completely de-focussed---just makes a big blur on the end of the tube. No deflection plate connections; ground 'em, except for arrangement to bias one side enough to center the spot reasonably. (The guns are never perfectly aligned.)

Apply about 40 volts to the tube, and slowly raise that voltage, very gradually, in total darkness---or a damn good equivalent---until you begin to be able to see a glow.

The results may surprise you considerably! It's fascinating anyway.

Wha' Hoppens:- The screen end of the scope tube is glass coated with minute crystals of fluorescent material, bound on by a sort of a kind of a plastic glue. It's in a vacuum; it's dry. It is an exceedingly lousey conductor. It's such a lousey conductor, in fact, that any electron drifting up to it will get stuck, and unable to get away.

Now when you run the contraption with 2000 volts on the gun, the way you're supposed to, the electrons arrive at the screen with vim, vigor, and violence. They hit so hard they blast secondary electrons loose---which secondaries are attracted from the screen toward the graphite lining of the tube's sides, caught there, and conducted back to ground.

But at low voltages, 40-50 or so, secondaries are not emitted; the electrons arrive, and get stuck there like flies in fly-paper. Presently there's a large quantity of trapped electrons---and that means a good, healthy negative charge. New electrons can't reach the screen any more; they get bounced away by the charge already accumulated. Even at 200 volts or so, which would originally have caused secondary emission, the electrons don't arrive---because there's now about 190 volts of negative charge to slow them down on their approach. The result is that the charge sticks there, and where the very-low-voltage spot hit at the beginning, is a big, sprawling dark spot.

Try the experiment. That pattern that results is two-dimensional and is, because of the relatively low voltages involved, exceedingly sensitive to interferences of all kinds. Magnets affect it, a charged rod held near it affects it violently.

My hunch is that the approach to a psi-electronic transducer may be through this sort of phenomenon. I think we have to work with patterns, not with quantities. You see, the total number of electrons arriving at the screen need not be changed at all; no energy change is required. We simply shift the place of arrival, and get a clearly visible difference. We shift the relationship, without shifting the objects.

By the way, the reason for dwelling on cost and elaborateness of some of the gimmicks in my "Science of Psionics" editorial was somewhat tricky. Tell a man "You can't afford to do this," and he'll resent it. Warn a man that getting started on a thing is dangerous

## The Story of Eloptic Energy

4.  
because he'll get addicted, and he'll deny that he's so weak-willed.  
He's very apt to set about doing it to prove to himself and to you that (a) he can afford it, and (b) he can stop when he wants to.

Look, my friend...what do we want 'em to do, huh?

Besides which...if you think I'm a liar, aks yourself this: How much has this work cost you? And why haven't you quit, huh? Remember, I didn't say it wasn't worth the cost and the addiction; I simply stated that cost and addiction to the research were highly probable.

There's an old saying, "He was warned agin the woman, She was warned agin the man, And if that don't make a weddin', Why, there's nothin' else that can!"

Tell a man, "You can't!" and watch him start trying.

Item: You'd be surprised how many psionic devices have started coming out from behind the weeds. Friend of mine at White Sands Proving Grounds has suddenly started discovering that dozens of the boys there have psionic devices they've been working on privately---and secretly, so they wouldn't be jeered at. Now that ASF has revealed there is such work going on, and that there are patents....the boys have started talking to each other.

One of the best is an omija board. The rocketeers have, for years, been trying to predict the point where the rocket will land when it falls back. Their best aerodynamic, physical, and what-not theories, worked over on huge electronic computers, scored about a 10% correlation. One of the boys, as a gag, brought in an omija board. From the start, they scored 80% correlations---including an accurate prediction of the failure of their nice, new \$50,000 Aerobee.

Need I mention that the engineers are loseing hair by the handful?

Incidentally, my definition of that "life spark" you mention is "purposeive force". Inorganic matter doesn't give a damn; living entities do.

Suggestion: You know some chemistry, that's for sure, but I dunno how much. The chemists have 100% effective, reliable, and mechanically-sure wayse of analyzing for the elements. The mineral analyzer, therefore, doesn't mean much to em.

But analyzing organic compounds drives them nuts.

Now it just happens that I can't get reliable results on the analyzer myself; I have to get my small daughter to make reliable tests for me. Child labor laws being what they are, Esso Refinery Research isn't going to get children to run their analyzers...unless they have an extremely good reason.

Now one extremely good reason would be a device that could take a sample, and analyze it for organic structure. How many double bonds, how many ketone linkages, how many hydroxyls? Does it contain glynine? Aalanine? Is there a cystine linkage between chains? Is the hydroxyl in the meta or the ortho position?

I have a hell of a strong hunch that one of the step-switch type jobs could be adapted to do magnificent complex-organic analysis. And that, believe me, would make the most hard-bitten protien chemist turn eagerly to the intensive study of ouija boards, pendulums, aeromancy, ailuromancy, necromancy, or any other -mancy that he thought might, once in 10,000 trials, work. It takes great laboratory staffs, working in teams, years and years to analyze even simple protiens.

*Correspondence with John W. Campbell*

5.

You see, I'm an exceedingly lazy cuss; I hate having to compete with anybody. I invented this job of science-fiction editing as it is now because I didn't have to compete with anybody in this work.

I don't believe in competition. Don't like trying to do what the other guy can already do pretty well. I believe the way to live is to do what the other guy knows for sure is impossible. Then he won't compete with you.

Your diagnostic machine got into a lot of trouble; you were competing with the boys who thought they already had an answer that was good. (It is, too---if you have enough fancy equipment and laboratories.)

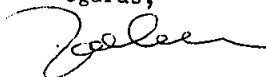
Your mineral analyzer is competing with gadgets that do the same job, and are all worked out and perfected, and don't require any new kind of learning.

But there is no device that can analyse an organic compound, even in a half-ass way, without years and years of laborious work. They don't know the actual structure of haemoglobin, for instance. There's no one who'll resent your pushing him out of business. There's nobody in that business, except some chemists who wish to God they could escape the damned labor and futility and dissapointment.

Everybody's always willing to let somebody do a job they want done, and can't do, or loathe doing, themselves. Even if you got success only once in 20 tries, they'd love you dearly.

And if you can alter things with your treatment machine.... betcha you could alter things in organic chemical molecules.

Regards,



p.s. Reminds me of a fellow out in Henry County, Ohio, I used to know. He owned a couple dozen of the finest farms around, made a lot of money, and had no competition. He was the only man around who cleaned out cess pools; the farmers who were pretty hard up would hire him to do the job they didn't want to do. And nobody was trying to take his job away from him, or to stop him.



*The Story of Eloptic Energy*

October 6th, 1956.

Dear John:

Your manuscript, "UNPROVABLE SPECULATIONS" was sent to me by Col. Gross this week, and I would like to make a few observations regarding some of your statements.

I have labored long to try to separate the chaff from the grain in this great field of the unusual. Like you, I have tried several devices such as the Drown, in fact, we have experimented with dozens of such devices over the years. Some had real merit. Others were plain fakes. Some were truly psi devices. Others were more "down to earth." You classify ALL devices as psi. I divide into classes.

Not too long ago, a person with rubber soled shoes, a wool suit, in a dry atmosphere could walk around, generate enough static electricity to produce a spark when touching another person and they were SUPERHUMAN, out of this world people. Now, today, when we have learned some of the (then unknown) laws of static electricity we understand a little more and do not consider the individual as being other than normal, who does such things.

The same applies to these devices which you have dumped all together and labeled psi machines. I have worked with some of the most amazing machines in the thirty-five years I have been interested in this phenomena. Please do not get me wrong. I do not set myself up as an authority on the subject. There is no such thing. At the same time, I do not think the title Amateur is correct. Let's just say that some have had more experience in the study of the subject than others. Of those who have had lots of experience, many are not good observers. A person who has operated a device for many years, doing the same thing over and over, day in and day out, not changing a thing, just doing a job—that person in my book would not be "experienced," but just an operator.

In an earlier letter to you, I tried to get over the idea that there are at least three different classes of people operating these devices. Some have the ability to take a reaction plate, such as we use to get tactile reactions, ask questions verbally or unconsciously, and successfully analyze a material or diagnose a case of physical trouble in a sick person. Others, in a hypnotic or semi-hypnotic state, can do it without the reaction plate. See "EDGAR CAYSE" by Joseph Millard, a gold medal book just out, \$.35 in the drug store. I have personally seen some of these operators in action. They can take a box such as your contraption, "with nothing in it," and do miracles with it. There are others who can take a "properly" built instrument and do "miracles" with it, but cannot do a thing with devices like the "empty" box.

*Correspondence with John W. Campbell*

I agree with you on the subject of Symbols and Magic. I have seen too much in my lifetime to say otherwise. Take the case of some very "sensitive" people, who can say, "Write your name on a piece of paper, let me hold it in my hand and I will answer the question in your mind." Then they proceed to do just that. I come into the picture and say, "You do not need a signature on the paper, all you need is for the other person to make a few marks, just scratches, on the paper," The mind reader says, "I don't know. I never tried that." When it is tried, it works just as well as the signature. Why? When the subject scratched a few marks on the paper, he left a "specimen" of himself on the paper. The operator could then take that piece of paper, hold it in his hand, and he was in "contact" with the person and could successfully read the mind of that person. This could be done, even if the two people, the one who wrote the marks on the paper, and the operator who read his mind, were thousands of miles apart.

Now I enter the picture again. After successfully reading the mind of the subject, the operator hands me the paper. I also write scratches on the paper. Now the operator cannot separate us but gets the thoughts of both the subject and myself. Again a new piece of paper is used, the subject again puts marks on the paper and again the operator is able to read the mind of the subject. I take the paper, subject it to a strong magnetic field, expose it to strong ultraviolet light or X-rays and hand it back to the operator who finds the paper "blank," that is, he no longer can read the mind of the one who put the marks on the paper.

What happened to the potency of the "symbols" (marks on the paper), and the Magic, (ability to read the mind)? Just this. The contact has been broken. The operator is no longer in "contact" with his subject. Another piece of paper and a few marks put on it by the subject and the operator is back in business again and can read the subject's mind as before.

Now, let's try another experiment. Have the subject take two pieces of paper. He puts his mark on one piece and marks it No 1. He does a similar piece and marks it No. 2, being sure to do the No. 1 piece first and the No. 2 piece LATER. We put the No. 2 piece in the hands of the operator and he can easily read the mind of the subject. We then put the No.1 in his hand and again, he reads the other's mind OK. Now we put the No. 2 paper in an empty coffee can or other metal container. Now the operator finds he cannot read the subject's mind. They are isolated again. Just as soon as the lid is removed from the can, contact is again made and the mind can be read. What have we done?

We have uncovered a law of behavior of the energy that we have been manipulating. Make no mistake. This is no more Magic than was the generator of static



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electricity a few years ago, a SUPERMAN. May I quote from a book by one of my favorite writers of, what is popularly known as fiction, Talbot Mundi's "Full Moon."

"Ye who are proudly intellectual declare with scorn that there is no such thing as sorcery. Like bell-weather, that again and again unharmed have smelt the shambles, ye mislead multitudes. On your heads be it, ye who know so much, yet know not how, for instance, courteous and kindly men are maddened to make war on one another; or how panic is imposed upon the bold and generous. Ye admit ye know not. Chemistry and electricity were sorcery aforetime. Was sorcery then in those days nothing, until a few enquired into the secrets, and then many learned and it became not sorcery? Is whatever ye know not, therefore nothing? Superstition is fear of unknown forces. Sorcery is the use of unknown forces. Unknown forces are the means by which a few deceive a multitude; and ye proud mockers of the ignorant, who say that sorcery is nothing, ye were better busied seeking what it is, instead of lazily neglecting to destroy that veil of ignorance behind which sorcerers, I tell you, labor vigilantly." From the second of nine books of Noor Ali.

Instead of talking about mind readers, lets get back to Eloptic energy. You can do what I have just outlined, using your device and someone who can operate it, to take the place of the mind reader. Be careful of one thing in handling specimens. If someone places marks on a piece of paper to make a specimen and another person handles that paper, the later will get perspiration on the paper which means that the paper has the specimens of both people, and the slight moisture might be a stronger specimen than the obvious marks, which are not too good.

Let's take another example. A friend, Newt, has his wife in the hospital, having had surgery. Irene is in considerable pain. The pain dope appears to cause more harm than good. The doctor suggests he could "try" two other drugs. Newt is quite sold on our approach to such things so he brings Irene's specimen and the three drugs for test. We find that the one they had been giving (we didn't know which one it was) was very bad for her. So was one of the others. However, the third drug tested OK. The doctor at the request of Newt, changed to the one we found to be best and Irene snapped out of her distress but quickly.

Another case. My daughter called from Kansas City, about 2000 miles away. She has one of our treating instruments but had not used it for quite a while. We wanted to check it to see whether she could use it as the granddaughter was sick. We took a specimen (several years old) of the daughter and tested for certain things. While still talking on the phone, we had her start treating herself on her instrument and a recheck here, showed changing conditions, indicating that the treating instrument 2000 miles away was functioning correctly. What happened?

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If I subject the daughter's specimen to a magnetic field, there is no longer any value to the specimen. It acts as if it were never a specimen. Why?

All this adds up to the drawing of some conclusions. When a person makes a specimen, by writing on a piece of paper, by being photographed, by putting a little saliva or blood or perspiration on a piece of sterile paper etc., he has taken a little bit of himself and separated it away from himself so far as appearances but actually, it acts as if there were a telephone line running between him and his specimen. If we take a photograph of a person, then make a print from the film, we find that either will act as a good specimen. If we put the film in a metal box, then the print loses its contact with the person and is not a useful specimen of that person. When we remove the film from the metal box, instantly, the contact is restored and the print is a representative specimen of the person again.

Now, I would like to discuss the item of RADIATION with you. From the foregoing, there is no question of radiation, it is simple conduction, along what has been named, Aka threads, by the Kahunas. The amount of energy necessary to send an impulse via Trans-Atlantic cable is as nothing compared with the amount of energy used to radiate a signal that distance, especially over static and QRM and QRN.

If you will take that piece of type metal you wrote about, tune in 45 and get a reaction on your device, then take the type metal out of the pickup well and move away from the instrument, you should lose the reaction at the plate. Then, with the operator still feeling for the reaction, start moving the metal closer and closer to the pickup coil, you will reach a point where the reaction is again felt. Try this several times and you will find that it comes in at about the same distance away each time. This indicates the distance the energy radiates from the specimen of type metal. If this is tried for several different metals, you will notice a difference in the radiation distance for the various metals. I have an instrument so built that it is selective enough to be able to pick out the various isotopes of each element. Some of these isotopes have a radiation distance of up to two or more feet, while others have a radiation distance of not over a few inches. This is RADIATION.

Take a piece of black Bakelite, just a strip half an inch wide of eighth inch panel stock and a couple of feet long. Place one end against the pick up coil and place the metal specimen at the other end. You should find that the black Bakelite does not seem to conduct the Eloptic energy. Now the black Bakelite is to be removed and a piece of brown Bakelite such as is used to punch out decks for rotary switches, put in place. The brown will show conduction of the energy.

If brown Bakelite is not available, try one of those nice varnished yard sticks your

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wife probably has around. Stick a short length of wire a few inches long, into each end of a two foot long piece of plastic tubing used as insulation around your lab. Try this the same way as a conductor, by placing one wire (end terminal) at the pickup coil and the other out away from the pickup coil. Some plastic is good insulation and some is a conductor.

Take a roll of ordinary friction tape, the black rubberized cotton tape kind such as used in earlier days by house wiring electricians on joints over rubber tape. Pull a length of it out from the roll, fold it back and forth sticking it to itself at an angle so as to make it into a sheet about two inches bigger each way than your pickup coil box, all tight pressed together so, when placed over the pickup coil and a gold ring as a specimen, energy from the ring will have to pass through the tape, or go several inches around. Note that the cheap black rubber friction tape is an excellent insulator of Eloptic energy. Try two or three thicknesses of wax paper the same way. A few tests like this will convince you that there are conductors and insulators of Eloptic energy and that symbols are not at all involved.

Take a small metal can such as 35 mm film comes in, with a screw top. Place a piece of metal such as gold (anything you have a test rate for, and other than aluminum such as the can is made of), in the can and place near but not on the pickup coil. You should be able to pick up the radiation of the gold through the can, the latter acting as a conductor of the radiated gold energy. After finding that the energy of the gold is easily picked up, then with the can in the same place, run a ground wire from the can to the chassis ground. All gold energy will have gone so far as picking it up with the pickup coil. It is shielded and conducted away.

I believe you use a 45 degree prism and an eighth inch diam. pickup electrode at the emergence side of the prism. Note the angular difference between where you pickup two elements that are wide apart in the atomic scale such as Chromium, No. 24 and Bismuth, No. 83. Change to a 20 degree prism instead of the 45 degree and again try it. You will find that the angular difference is greatly expanded, that is the angle between where you get a reaction from the different elements.

After you have done a few experiments such as outlined, you will have uncovered some of the laws governing the behavior of Eloptic energy. I almost overlooked telling you the fact that I use half mill thick electrodes, not eighth inch, and a slit the same width. If you like, I will send you two electrodes. They are half mill foil blocked in between Black Bakelite blocks for support. My prisms are 20 degree and the input electrode is at 19 degrees angle of incidence. This makes for the very wide angle through which the various elements radiate from the prism, nearly 60 degrees. You probably get a band width of only 30 degrees or less.

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Now about the use of power. I built dozens of instruments without any power of any kind and they work well. The reactions are harder to get. I used chemical amplifiers. They help a lot. The Drown instrument uses no power. I built instruments for sale to doctors for several years. I had too many doctors who had spent \$2000.00 for Drown equipment, put it aside and spend a like amount for my equipment because they could demonstrate that they could get in fifteen minutes treatment with my equipment, what it took eight hours to do with the Drown equipment. I didn't kid anyone. I required a week schooling at my laboratory for doctors who wanted to buy one of my analyzer-treating units. They paid \$1945.00 for the instrument and never questioned the price. They knew what they could do with it. I did no advertising. A doctor would get one of my instruments and go to work on his patients. His doctor friends would note the results and he then wanted one. They were not kidding themselves. They wanted results. They got it.

Another little experiment in connection with radiation. Take a small piece of wood, a couple of inches square and half an inch thick, it is not critical, with no nail holes or other metal around. Set the analyzer at your 45 rate, check to get the right place to pick up your type metal. Remove the type metal but leave the instrument set as it was. The reaction should quickly disappear, with the metal gone. Now try the piece of wood on the pickup coil. You should not be able to get any reaction from the wood with the instrument tuned for lead, or whatever it is set for. Again put the type metal back on the pickup coil, and again you will get a reaction. Now, place the block of wood somewhere away from the pickup coil and place the type metal on the block of wood. Leave it there for a few moments. With the operator trying and getting no reaction from the plate, quickly dump the type metal off the wood and place the wood block on the pickup coil. Your operator should get a reaction for a few moments and then the reaction will die out. The wood picked up and held for a while the radiations from the metal.

Try this a different way. With the type metal on the pickup coil, adjust the analyzer so your operator gets the usual reaction. Leave the instrument set at that prism setting and place the wood on the reaction plate where the fingers were. Leave it there a few moments. Then remove the type metal and put the charged wood block on the pickup coil and you should find a strong reaction of the metal rate in the wood block.

Take a test tube of water, distilled preferred. Check the test tube and water at the type metal rate and you should get no reaction. Duplicate the last experiment using the instrument set at the place where you get a reaction when the metal is on the pickup coil, have the metal on the pickup coil and the test tube of water on the

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reaction plate. Leave it a few moments and the water should show the same reaction as the metal when the water is on the pickup coil. The water should hold this effect for a long time, indefinitely.

After this experiment has been successfully done, pass a magnet over the test tube of "charged" water and see if the "radiations" that had been implanted in the water have been "blown out." We have done hundreds of thousands of experiments during the thirty-five years we have been exploring the possibilities of Eloptic energy. I used to jump at conclusions too quickly, but hard knocks and the boomeranging of some of my statements, have made me more cautious.

There is one of my prism type analyzers in New York. Arthur Young has one. I believe you have met his operator, Frances Farralley. She is a friend of Ed Herman. She might allow you to see it. You might contact her if interested. The address is 35 East 75th Street, New York 21, N.Y.

Just read the first page of your article again. I have a 19 degree plexiglass prism, black plexiglass, that works well. I built a number of instruments with clear plexiglass prisms. They work well except that temperature will change the characteristics and the exact dial setting for a particular element will change from time to time, just what should be expected from such a material. Also, a friend of mine in Los Angeles has a French analyzer that uses silk cords to run from the patient to the analyzer. They conduct the Eloptic energy very well. Better look over your instrument that "has nothing in it" again. There might be something in it after all.

We have analyzed some symbols and found them very potent. We have analyzed some symbols before and after they had been "blessed" by an Episcopal minister friend. The difference was very marked. Symbols CAN have power.

Sincerely,

T. Galen Hieronymus.

Correspondence with John W. Campbell

JOHN W. CAMPBELL, JR.  
1457 Orchard Road  
Mountainside, New Jersey

October 16, 1956

Dear Galen:-

I am not, and never will be, the experimental investigator you are; I'm largely a theoretician. When I do experiment, it's generally on a basis of "If this theory of mine is valid, then X should happen when I do Y under conditions A, B, and C, but not under condition D." My work is largely confined to figuring out theories, and then making experimental cross-checks, plus seeking out specific data for theoretical analysis.

I need your data; I'm not a good experimenter, and I know it. Two heads are no better than one....when they're both the same kind of heads. "Two minds with but a single thought" is the result of two heads that think the same way. Two heads are better than one when they think in different ways.

I can give you an exact term for your status; nobody can be a true "professional" in a field that's still as indefinite as psionics now is; neither is it proper to make no distinction between a man who has just started diddling in the field, and someone who's spent many years working at it. There's a perfectly good term, however, and it applies; you're neither a professional, nor an amateur---you're an artist. An artist is a professional, highly skilled worker in a field that has not yet been reduced to a formulateable, defineable system. Such work is known as an Art.

My friend, this field has long been known as an Art, anyway; the one trouble is the slight left-over semantic hitch that it was known as the Black Art.

The reason people don't like Arts these days is quite understandable; throughout history it has been held that the Artist works for the love of his Art, and shouldn't be paid for it. This stems from the fact that noone who doesn't have a built-in, practically inescapable compulsion toward doing the darned job would undertake such tough, unrewarding work. Since such a man is going to do it anyway, by reason of his built-in compulsion, why....why pay him? You can get him to do it for nothing, because the poor slob has to do it anyway.

You're quite right that you're not in the business to make money; believe me, you won't....so long as it's an art.

My own field of Art, writing, took centuries to get into the class of Business. I'm an Artist; like you, I've spent years learning by experiment. It's a psionics field in itself, you know; the Art of making someone want to understand something he hasn't the slightest desire to understand. The Art of making someone want to stop and think about something, when he doesn't have to, to make a living.

My specialty is making people interested in something they "know" is "imaginative nonsense". You think I haven't had years of practice at that? Hah! We were working out the problems of nuclear energy in 1935; the problems of space flight in the '30's and '40's to such an extent that's all old hat stuff for the magazine now.

The problem is of a totally different order from the area of problem you're working on; You're working on "How to make it work," and doing nicely. The problem I'm making my principle effort on is "How to make people believe it works."

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You have, long since, learned that being able to do it isn't enough---it won't get you anywhere. The problem is to make someone believe you can do it. In solving that problem, actually being able to do it helps, but isn't necessary.

That last statement is perfectly correct as it stands; actually possessing the claimed ability helps to make people believe you have it, but is not necessary. That fact has been demonstrated a million times in history; that's why it is, now, so damn difficult to make someone believe you have it when you really have. The old business of the boy crying "Wolf! Wolf!" The confidence man operates entirely on the proposition that belief is essential, but reality isn't, when it comes to making a sale.

Now part of the problem with getting psionics over is that it's almost impossible to reach the minds of the top men in any field. One part of that difficulty is that it's damned hard to find out who the top men are; they hide like crazy. Dr. Thomas Q. Jones may be known as The Authority on Whatchamacalology ---but Dr. Jones is a Grade A stuffed shirt, and knows he is, but very carefully watches Dr. Dick Smith, one of the practically unknown boys in the backroom who's been calling all the right turns for the last dozen years. Dick's real happy that way, too; he loathes wearing boiled shirts at fancy banquets, and wasting time on committees when he could be in a good bull-session with the gang, working on the problem.

Col. Gross flopperoo with Dr. Vannevar Bush is an example; Bush is one of the most finely stuffed shirts in science. The way such a man stays in business is to be very careful to watch what the back-room gang who do the real thinking are doing, and not making any original statements of his own.

The admittedly second-line men in any field don't make original statements; that's why they're second-liners, of course, but it's their uncanny ability to quote the right authority at the right time that got 'em up from third-line.

Neither the Front Man, nor the second-liners are going to do psionics any appreciable good; we need the real, genuine, backroom-front-line men, who don't attend the banquets, but tell the Front men what the score is.

Claude Shannon, who is, now, at M.I.T., is the real, genuine, front-line man in the field of Information Theory---which is the fundamental theoretical work on which 90% of all modern automation, cybernetics, computer design, and communication equipment design is based. In practical, effective work, his formulation of Information Theory has been far more important than all Einstein's work. But you'd have a hell of a time finding Claude; he's a backroom boy who avoids the banquets like crazy. My friend John Pierce had to practically trap him into attending an IRE dinner under false pretenses so they could award him the annual prize.

Claude's interested in psionics now. (He's an ASF reader, and has been for years.) He wants demonstration of repeatable effect. And he isn't kidding.

He is, as I say, one of the backroom gang who are the real formulators of science. (He's currently engaged in work headed toward building a computer that can recognize patterns, by use of non-logical analysis! He needs, he figures, at least 1000 sub-systems, each having a minimum of 1,000,000 relay-switch units. He isn't kidding on that, either; he's got the cryotron now, to work with. They expect to be able to produce them by a modified printed-circuit technique, getting about 1,000,000

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working relay-switch units per square inch of surface. Since each unit is made of moderately pure tantalum and good grade niobium, each metal being tough, strong, and malleable and extremely corrosion resistant, and the entire system works in an environment of liquid helium, the service life of each relay-switch unit is in the order of trillions of years. Even multi-million unit systems will be reliable with that sort of system!)

Shannon wants experimental data, and wants to see things work. His gang won't give you the "pish-tush" treatment; they're the ones who everybody else watches to see which way science is going to jump next---and they don't have to watch what anybody else thinks of what they're doing. Therefore they're completely free to evaluate, without fear of being considered out of line. Hell, they make the line!

When, and only when, you reach people at that level will your communication be unhampered. Let the news get out that Claude Shannon and his group are interested in the Hieronymus machine, and every major technical school in the country, plus half the major scientific research industrial labs will start looking frantically into the subject.

That's a Grade A communication channel.

Nelson of RCA has the required free-investigating mind... but he has orthodox bosses who report to David Sarnoff.

Shannon doesn't have bosses.

Your letter was wonderful stuff; it's damned good, and needs to be published. When I was up at MIT a couple weeks back, I talked to the science-fiction club up there. The Psychic Society group at MIT was meeting a week later; I was told that three members of the Psychic Society of MIT had built one form or another of the Hieronymus machine, ASF version, and that all three would be on display.

Now: To date, I've gotten damn few reports from the field. I haven't heard from readers who built one.

I want some data on experiments.

How about doing us an article, about 5000 words or so, describing simply the sort of experiments you discussed in your letter to me? We pay up to 4¢ a word, which may not be a critical inducement by any means, but is useful.

It's not advantageous, at this stage, to assure the readers that you know what's going on; it tells them that there's no room for originality---it's all cut and dried, and only clerical work of filling in the details remains. That's disadvantageous for two reasons: 1. It ain't true. 2. It encourages the type we need--the true, original thinkers---to go elsewhere.

Let 'em know that there are experiments, that can be repeated according to specific instructions, and that the whole field is a Unknown Area, wide open for explorers with new and original concepts. That's the bait the true experimenter needs; a place to start from, a direction in which to go, and absolutely nothing in the way of maps of the area"out that away."

The approach I used in my psionics editorial, and in the subsequent articles, was based on that idea; the degree of response they've evoked indicates they've worked fairly well, so till that method stops working effectively, let's use it.

At the Science Fiction Convention, last Labor Day weekend, I gave a talk on the psionics machines, and had the original and the symbolic machines on display. A lot of people tried



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them, and a lot had success. One of the most important of all the discoveries made, so far as I was concerned, was one that may be new to you, too.

Randy Garrett, one of the authors, and a professional chemist, was the first professionally trained scientist to get good, solid results. Tom Scortia, another professional chemist, and another of the writers, also tried the machine, but got no results. Tom and Randy have been friends for some years; Randy suggested trying it together. So Randy tuned, and stroked the plate, with Tom's fingers interlaced with his. This time Tom felt the tacky effect with his own fingers!

Apperantly, when a successful operator interlocks fingers with an unsuccessful one, the non-operator can feel the effect too.

Thereafter, Tom could tune the machine quite accurately.... but in a completely cockeyed manner! Still no tacky feeling--- but he could tune to 45 on the nose, tuning entirely blindfolded, and did so five times running---by tuning to the point at which he felt absolutely sure the whole thing was impossible nonsense, that simply couldn't happen! The intensity of his doubt-feeling reached a sharp peak at precisely the correct setting!

One of the girls who tried it, incidentally, tuned very accurately and consistently by turning to the point at which her fear reached a maximum. Each effort left her shaking and quite undefineably terrified.

When I gave my talk on psionics at the Convention, dozens of people kept pushing forward with questions of the "Have you tried...." type. Everybody had experiments they felt should be run.

The reason why I'd like you to practically duplicate your last letter, but in article form, is that it lists a series of specific experiments, with specific predictions of results.

If you add the one about interlocked fingers making it possible for A, who doesn't get results to feel results when B, who does, strokes the thing, I think even more experimenting will result.

Just today, I worked out one additional reason why there is such violent resistance to psionics in our culture. (And note that it is unique to our culture, and ours alone!)

Evidently, these psi phenomena are natural powers of the human entity---with the usual variation of magnitude expectable in human characteristics. (Plus a somewhat greater ratio variation; the ratio between 0 and 1 is infinity; the ratio between 1 and 2 is only 2---yet the absolute quantity difference is equal. Some human beings, I suspect have just about zero psi power; it's a matter of evolution. Our race, like all others, is still evolving, you know.)

Now the use of any natural ability is very easy, satisfying, and automatic, while the process of learning a non-instinctive ability is damned hard work, and since it frequently involves the inhibition of a natural ability, not at all satisfying.

Intuition is a natural, instinctive ability; it's the ability to abstract a general law from a collection of data. We have no describeable way of doing that, incidentally---yet it's evident that even small children do it, and do it well. How else could they learn to talk?

Logical thinking, however, is not an instinctive ability; it's something the individual has to learn---and it imposes severe limitations on his intuitive thinking. A lot of times, logical analysis says to intuition, "Oh...yeah? You were so darned sure, were you! Phhoey to you, friend!"

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Take a look at India, however; they've been using psi and the psi abilities for ages. Yup---and dying like flies from filth, abysmal ignorance, and lack of self-discipline. They've got some wonderful thinkers over there; no doubt about it. But they've done the human race as a whole remarkably little good. Sure, Buddah contemplating his navel may have done great things toward saving his soul....but the Holy Man contemplating his navel isn't doing a hell of a lot for anyone else, is he? Selfish son of a bitch, ain't he? What's so darned great about possessing your own soul in peace, huh? "God", at the local nuthouse, has achieved that, hasn't he?

They may well have achieved something of immense value; so what? They couldn't communicate it worth a damn.

Why are you, and Armstrong, and the rest of the psionics people here in the West so frustrated? You're able to get results, aren't you? Possess your soul in Hindu style peace, contemplate the wonderfulness of being you, and sit on your tail in the public square the way they do, why don't you?

Go on...try it!

But you can't do it, can you? You've been tricked; you can't do what the Hindu Holy Man can---because you're the result of some 2000-odd years of selective breeding to produce a type of thinker who can't crawl off in a hole and say "To hell with the rest of the race!"

Just about 250,000 Englishmen licked the bejazyus out of 250,000,000 Hindus, when England took over India. How come?

The 250,000 Englishmen were the result of a selective breeding system that selected for a deep, driving urge to act as a team. It started with the Greeks and Romans; the Roman Legionaire fought "for the glory of the XII th Legion", and not as an individual warrior; the barbarians who died before the Legions died because each barbarian fought for his own personal glory.

If you're fighting for your own glory, you can't let three other guys help you defeat this big bruiser; you have to do it all alone. If you're fighting for the Legion, however, all other Legionaires are welcome.

For 2000 years, every barbarian, fighting-for-himself type in Europe was a sucker for a team---and there were teams running all over the European area.

After millenia of that sort of selective breeding (the Legionaires naturally raped the barbarian women, after the barbarian warriors had been killed off; the winners always breed, while the losers don't) Europe produced the Spanish Conquistadores. In Mexico, the Aztecs were still using the old, old barbarian tactics, and the old, old, "I'm for me!" philosophy. So 300 Spaniards licked the bejazyus out of 20,000 Aztec warriors in one battle.

How many pounds of beef does it take to defeat 10 pounds of meat-grinder? The atoms of the steel are locked close and tight, and act as a single, tightly-coupled teamed-up unit; the loose molecules of the beef don't.

The Spaniards did not win because of horses, or armor, or guns, either; the Aztec armor was better, as a matter of fact---the Spaniards adopted it later on! Horses aren't much good in battle; only for scouting. And they didn't have enough powder and ball to make their guns mean much. They won because they were the hard, rigid, driving, tough product of over 2000 years of selective breeding; only the toughest individuals, capable of the closest teaming up in the face of the enemy---whatever they may have felt toward each other otherwise!---had survived those millenia.

## The Story of Eloptic Energy

6. They weren't team-men simply by logical-intellectual choice, by that time; it was bred so deep in their blood that they had to team up.

Now you, descendant of that same long, harsh, and implacable selective breeding process, go try doing like a Hindu Holy Man. You can't! The team-up type won, and won and won; it's a way that worked. It defeated India at the physical-action level centuries ago; Ghandi, in his desperate effort to reject westernization was trying to defeat the British at the deeper level...and he lost. The team concept is winning in India now; the Holy Man and his ineffable selfish egocentrism is losing again, as the individualist-barbarian lost, centuries ago.

It's a damned rugged system of improving the breed---but it works. There's the old comment, "I suggest you learn to enjoy the inevitable."

O.K.---our culture, a few centuries back, went off on another experiment. The team suppressed the individual's natural-instinctive egocentrism---and made of him a greater, more powerful, more effective individual who was a member of a greater self-system; The Team. (It's the essence of the "brotherly love" concept, actually; it isn't to be forgotten that brothers will fight for each other against a common enemy.) The new experiment was the suppression of the right to use psi powers.

By suppressing the right to use psi, only those individuals who could use logic would be able to achieve effective thinking.

Once, Europe bred for a team type of human being; recently Europe has been breeding for a logical type human being---and that required the rigid suppression of psi-type thinking.

Reason: Logic is, by its nature, communicable. I can teach you logically; I can't intuit for you, or show you how to intuit. Difference of intuitive process tends to break up teams; logical communication allows them to hold together, and to work together.

For the good of the race, psi powers had to be suppressed until they could be made communicable.

The difficulty is, that the reason why they had to be suppressed has now been forgotten (and was never consciously known) and that constitutes a block to the development of communicable psi.

So long as psi is a purely-individual thing, psi is an anarchic force, a culture-destroyer. When science was secret-science, it led to wars of conquest. (It would again, if the politicians could ever achieve secrecy; fortunately they haven't got a prayer.)

The long history of anti-psi is founded on a longer history of psi forces being used to break up cultures. The group can't punish the magician, but he can punish them. You've got a death-magic machine; suppose you use it to murder a man in New York. Who can prove it? How can you be punished? How can an organized group exist, when there are individuals who can't be organized and controlled by the group?

(Yeah, I know there's an answer to that question---but no logical answer! And most human beings---the normal human being---simply hasn't achieved even an adequate level of logical development and evolution. To him, it is true that the reason people don't steal or murder is because they will be punished. To such a mind, the idea of being made immune to all external punishment means absolute freedom to do anything he wants, and naturally he would, and naturally, he knows, anyone else would. Ethics as a real power in the Universe doesn't exist to him; he can't see that it exists for anyone else. Therefore, if his power to punish some other individual is rendered zero, he must be in deadly

## Correspondence with John W. Campbell

7.  
fear of that individual....and he is!'

Psi is safe for therace only when psi powers are strongly coupled with ethical restraints. History indicates that they weren't ---particularly during the Dark Ages. You don't get a tough, hard, driving race of people like the European tribes of the Dark Ages that scared, for that long, without something most bodaciously potent to be scared of. There were magicians, and they were unethical, and the raised as fine a demonstration of Hell on Earth as you could ask for.

In the primitive tribes, the magician is controlled by Ritual and Taboo---which apply as strongly to him as to any other. But in the non-tribal culture, ritual and taboo are banished; then the magician is free to do anything he can.

The shape of the history of Europe suggests that he did. There's a difference between being smart, and being wise; I suspect there were a bunch of smart, but unwise, magicians having themselves a hell of a time.

How would you like a bunch of juvenile delinquents with psi powers loose on the scene? Halloween....with the McCoy at work!

There's plenty of good reason for the deep suspicion of psi, and the powerful injunction "Thou shalt not suffer a witch to live!"

We're bucking that. We're also bucking the foggy-headed mystic who goes around in the happy, rosey delusion that the possession of these powers automatically assures that they will be used only for good. They wouldn't be; they'd be used for carrying out someone's pet idea---to the futile horror of the victims thereof. "Arsenic & Old Lace"---with psionics, let's say. If you haven't read the play, it's worth it.

My mother always knew she was a sweet, kind, generous, gentle woman, who was constantly resisted by selfish and mean-tempered people. My mother was a brass-tailed hellion on wheels, as a matter of fact. I have the greatest suspicion of rosey-minded mystics who know that only good can come of it; my mother would have agreed so warmly, and so happily swung to the task of making her ideas go over via psionics. She was the type who wouldn't think of killing someone who she considered un-nice to her; she'd afflict him with assorted plagues until he admitted she had been right in the first place, and thanked her for making him see the error of his ways.

The race has every reason to suspect that psionics is dangerous. It is. Torquemada tortured people only for the best of reasons; to save their souls for them.

That, in essence, is why I have most carefully stayed away from discussion of any of the psi machines that have action effects; the therapeutic machines fall in that class. The detection machines are not action devices, but sensing devices---eyes and ears, not hands and feet.

This culture accepts the need to know, to learn, to find out; hence there is no great opposition to any sensory device. Particularly, any device for sensing physical-inorganic phenomena is acceptable; that's in line with microscopes, telescopes, radio receivers, etc.

In the article, stay away from personal-sensing points; telepathy means invading the individual's privacy. Stay away from personal-affective systems; no therapeutic devices, and the like. You can do anything you want to to inorganic matter; you can probe its secrets, disrupt its privacy without limit.

## The Story of Eloptic Energy

8.

But, remember, the slightest hint that what you have can affect me-as-a-person and you raise the back-hair of every individual of normal mentality. He'll fight you instinctively.

Never attack an entrenched viewpoint frontally. I tried that once, with dianetics. It doesn't matter whether you're right or wrong; what matters is that you dared attack the entrenched orthodoxy. If that entrenched orthodoxy is of personal moment to the majority of the population---and doctors and psychiatrists are--- you'll get slapped down.

Attack from the undefended side. I'm still out to sabotage psychiatrists---only I'm now attacking from the undefended side of psionics. Once establish psionics, and their orthodoxy of "We know how the mind works" will be tumbled into rubbish without attacking it at all; you just remove the entire foundation.

One reason Claude Shannon is so important: his Information Theory represents the first time in human history that a completely structured, logical demonstration of the existence of a non-physical reality has been achieved. Information is not physical, and Claude achieved a full, mathematically exact definition of it!

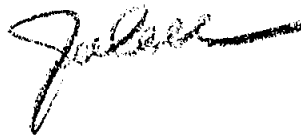
As an old-time radio man, you might be interested in my present line of attack on the instrumentation of psionics.

It requires, I feel, an area-type detector, a quadratic, rather than a linear, detector.

I've started examining some clear, simple, direct metering problems, where I can study the factors, with plenty of useful and easily available tools. What's voltage, for instance? Take a 1 microsecond pulse, recurring 100 times per second, each pulse being 10,000 volts. The average voltage is 1.0 volt. If it is developed across 1 ohm, the average power would appear to be 1 mmmmm watt. But I'm suspicious as hell; dammit,  $2 \times 3$  may be numerically equal to 3 plus 3---but power is a quadratic, not a linear function. They always thought that  $I \times E = W$  was a simple, straightforward function...until they hit alternating current machinery. Power is not a linear function; it's a quadratic; to handle AC circuits you have to acknowledge that! The proper formula turns out to be  $I \times E = w^2$  ---watts is a squared function---a true planar, not a linear, function.

If I can build a meter that measures power instead of volts-plus-amperes, I may have a clue to a psi meter.

Regards,



*Correspondence with John W. Campbell*

November 6th, 1956.

Dear John:

Here is your article. I hope it is what you wanted. It may be a little longer than you wanted, but I feel that the data on building an analyzer that should be expected to work is most important.

If it is too long, try cutting it down to what you want. The curve and the data about the relationship to atomic weight can be left out. Also the photograph and its description, if you think the written data explains enough about the makeup of the prism unit.

I am quite interested in your friend Claude Shannon. He sounds like the type of physicist I have been looking for all the time I have been trying to find someone with guts enough to stand back of his convictions if shown something, not in the book. I can see now that I have contacted only stuffed shirts.

It would be very worthwhile to be able to spend some time with him so we could run a series of experiments that would convince him beyond question, that there is an energy that we claim to be working with, that is not mentioned in the books.

My approach would be to have him pick out several of his associates whom he would trust and train one or more to operate an analyzer so the results obtained would be by those in whom he has confidence. He just might be able to learn to operate himself, but I would not count on it.

If facilities permit, we could do lots of other experiments other than just analyzing things. We could do our egg-flu experiment where fertile eggs are inoculated with flu virus and we keep the virus from developing. This would require the assistance of a micro-biology laboratory. What do you think?

Sincerely,  
T.G.H.

cc Henry Gross  
Eliot Pratt

## The Story of Eloptic Energy

STREET & SMITH PUBLICATIONS, INC.

304 EAST FORTY-FIFTH STREET, NEW YORK 17, N. Y.

JOHN W. CAMPBELL, JR.  
EDITOR . ASTOUNDING SCIENCE-FICTION

February 4, 1957

Mr. T. Galen Hieronymus,  
Radiation Research Laboratory  
1024 North 31st Road  
Hollywood, Florida

Dear Galen:

I've been very slow in replying on your article, because of some long, deep, and serious thinking about the problem of optimum presentation.

I've been checking the reactions to the articles I have run, and doing it most carefully, and in many ways. The problem is one of presentation of the facts. Facts alone are of little use, as you, over these many years, have learned. Facts don't help a bit, if you don't succeed, somehow, in making the other guy believe they're facts.

I'm skittish as all get out; I don't know which way to jump next, and I'm trying to find out---because, in this last year or so, we have, through Astounding, made more progress in getting the story over than all the hard work with facts that went before.

Look at the results so far.

1. Claude Shannon of M. I. T. is interested; that's a real lead in.
2. I got a call from a captain at the Sandia Base; that's the Special Weapons research base. (The atomic bombers have that as home-base.)  
The captain was calling to check with me whether the Army should set up a Psionics Research project at this time. He felt that it wasn't quite time---but that the Army should keep a very close eye on what the amateurs were doing.
3. The Rand Corporation---one of the top pure-research outfits in the country---sent a man to see me, and get what information I could give him on psionics. They want in.
4. I was visited by the Director of Research for Bell Aircraft; he wanted to find out more about psionics. They want to keep track of it.
5. The American Weekly, the Hearst papers Sunday magazine, sent a couple of men around; they were planning an "Out of This World" issue, with some clean fun spoofing the psionics business. Their science editor, and a reporter came around to see me. Their science editor got his ears pinned back, because I could show him wide-open holes in science that he had never noticed---and then Ed Hermann swamped the pair of 'em with sheer data and facts. Their attitude was mighty different when they left. The fact that Sandia, Rand Copr., and Bell Aircraft were interested was not without effect.
6. There are various modified versions of that mineral detector of yours

## Correspondence with John W. Campbell

--Mr. Hieronymus

being tested all over the world now. And there are positive reports coming in slowly. A man over in England, Eric Jones, built one working from the Astounding diagram and a copy of your patent. It worked fine.

7. A group of top executives of the Esso Research Labs was out at the house; three of them were research department heads. All three of them got 100% solid results on the symbolic machine. And, being professional researchers, they really gave it the works.

8. I've been asked out to the Texaco Research Labs, in Beacon, New York, to give a talk and demonstration out there next month.

In other words, this thing is, right now, growing like a snowball rolling down hill.

That's never happened before---not at the level of professional, corporation-and-university scientists. Every earlier effort to put it over, from Sir William Crooks and D. D. Home, through Edgar Cayce, and Dr. Abrams, has been smashed, with severe damage to the men who tried to put it over.

We, sir, now have a snowball rolling---and we'd better not make any false steps that get us crushed under that ball.

I'm beginning to get reactions to the "Unprovable Speculation" piece. So far, they've all been of the "Give me more data so I can build it better," type. One false move at this point, and the nicely rolling system is apt to collapse---and collapse us with it. And the danger all centers around one problem: presentation. Not fact; Cayce had facts. Abrams had facts. Sir William Crooks had facts. Furthermore, this isn't the only field that's had tough going; Galileo had facts, and for all that he was damn near destroyed.

Facts, actually, seem to be the most dangerous possible thing, at this point. Our success, so far, seems to me to be due to our insisting that we don't have facts!

The ones that got smashed all had facts, and insisted they did.

I've insisted, from the start, that we didn't have facts, that we didn't know what was going on, that we were bewildered, confused, uncertain, and had no understanding of the thing whatever. I've insisted we didn't know what it was, and couldn't figure out. I've done nothing but deny knowledge of causes. I've said it wasn't radiation of any kind, that it wasn't science as we know it, that it wasn't logical, that it wasn't this and wasn't that, and I didn't know what it was.

SO...everybody jumps in to help me out of my bewildered quandry. Nobody loves the guy who's already got all the answers...but just try asking for advice and wisdom, and watch 'em gather around to help you with their brilliant analysis and explanation of the problem!

Do not have answers; that turns 'em against you, with determination to prove they know better than you. Have problems you can't solve; you know how



## The Story of Eloptic Energy

-3-Mr. Hieronymus

ready people are to give advice!

And each time they have advice all worked out, you have an additional problem, that that advice somehow doesn't quite seem to fit. By this time, the guy is determined to solve the problem; he's already gotten to work on it, in starting to give you advice in your poor befuddlement.

Hooked; one sucker who was never going to believe in that stuff!

Don't tell them how it works; let them tell you. You can always say, "Oh... I see what you mean. Uh-hu...but you know, I did this and thus, and that happened, and that doesn't seem to fit. Wonder what..." and he'll be off trying to explain that, too.

The trouble with this article, as I've finally figure out after long and hard thinking, is that you're telling them answers; why it works, and what the theory is.

That is what has NOT worked, and that's been tried repeatedly over the last century and a half. Sure people want answers; they always do. But they want to originate those answers; they want them to be their answers!

Only an amateur can appreciate the work of a professional; the complete layman thinks that he could do that in fifteen minutes—it's really easy for someone of intelligence, but those professionals make such a dramatic show of it!

Until you get a group of amateurs who've tried the thing themselves, and found out it isn't so darned easy, you aren't going to get any respect as a professional. At the present time, there aren't enough amateurs. Therefore, we have to make pretend we're all bumbling nitwits, and any moderately intelligent man could straighten out the whole thing in a few hours.

That's the only way you can get the intelligent man to start trying. Once he does, of course...he's an amateur, and he'll suddenly start respecting the professional.

What's needed, as I see it—what I think has worked during this last year—is the presentation of "I did this, and thus, and...well, I dunno why, but for some reason this happened."

Ask for advice and wisdom in your bewilderment, and they come rushing with, "Here, I'll show you..." Tell them "This works this way, because..." and they'll snort, turn away, and say, "Ahhh...he's nuts. Doesn't make sense anyway."

If you disagree...take a look at what's happened to the efforts to put psionics over, these last fifteen decades!

What this article needs, then, is good, solid facts on what you did, and what happened—and lots of "for some reason..." and "I couldn't figure out why..." and "No explanation seems to cover all the facts, but..."

We've got to arouse in the reader the feeling, "Hmmm...I bet I can explain

## Correspondence with John W. Campbell

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that!" and not the feeling, "Ahhh... this stuff's nuts. Doesn't make any sense at all."

Look at the pieces I did, not because they're masterpieces, but because they worked. They all say "I did this, and this happened, and I don't understand it at all. It's crazy. It shouldn't happen. But it did."

Tell them the theories you did have, and why you had to give them up. But don't tell them the theory you do have; they want the honor of originating The Answer.

The atomic explosions interfere with the thing...for some unknown reason. That's fine business! They'll love that! "It works because electrostatic energy has thus and such characteristics." "Oh, yeah...? Sounds like nonsense to me. This whole bunch of stuff is nuts anyway. Everybody knows that."

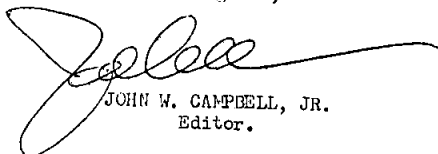
The long delay in answering on the article was the need to think out the problem to a point where I could state in words what I felt, but couldn't nail down. There was no point returning the piece until I could state what I needed.

I did not know that you were no longer with the Radiologic group; your information probably explains why Colonel Gross has not arranged the trip up to M.I.T. I discussed with him, suggesting that you, he, and I should go up. Looks like we need to make some new arrangement; Claude Shannon was interested in seeing what the mineral detector would do.

I wish you would have Mr. Pratt get in touch with us, when he's in New York. I imagine he comes this way fairly frequently; New Milford's not far.

Your dollar is returned herewith; we handle postage on solicited manuscripts.

Regards,



JOHN W. CAMPBELL, JR.  
Editor.

## The Story of Eloptic Energy

STREET & SMITH PUBLICATIONS, INC.  
304 EAST FORTY-FIFTH STREET, NEW YORK 17, N. Y.

JOHN W. CAMPBELL, JR.  
EDITOR . ASTOUNDING SCIENCE-FICTION

May 15, 1957

Mr. T. Galen Hieronymus  
1024 No. 31st Street,  
Hollywood, Florida

Dear Galen:

Mr. Arthur Gray and I went up to see Mr. Ludlow Fowler on Monday, to discuss several items concerning your work.

First, Mr. Fowler has asked me to tell you what happened on the effort to interest the doctors at Memorial Hospital. As you expected, the answer is very decidedly no. I had expected that, of course; I've told you before this that I have a strong conviction that the opposition to psionic devices affecting life energies will, at this stage in the development of our civilization, meet the most vigorous, active opposition. It is not simply ignored; it's positively and actively suppressed.

Mr. Fowler was decidedly annoyed at the attitude he ran into; having run into it and become accustomed to it long since, whether we like it or not, we have, I think, become more or less resigned to it.

It is my feeling that the effort to put over the facts of therapeutic forces medicine hasn't acknowledged is, as of now, impossible—at least from the approach of proof that the effects exist.

Let's put it this way: if all the very great power of the Catholic Church has not, in many decades of trying, and with hundreds of solidly documented case histories, attested to by highly qualified physicians, been able to induce the medical profession to acknowledge that miracle cures do happen at Lourdes...it seems sort of foolish for us to try to do what the Catholic Church can't accomplish!

It's not that you can't do it, or I can't do it—but, rather, that it can not be done at all...that way.

The objection we are encountering is that the supernatural absolutely will not be accepted. Magic, which is, after all, what we're working with, was for many centuries accepted as a natural phenomenon. During the Middle Ages it was accepted as natural; during the Renaissance, it was accepted as natural, but evil. Today, the culture holds that it is unnatural, and therefore nonexistent.

The limits of "natural" today are defined by orthodox science---particularly by mathematics.

To achieve the ends we want, simple demonstration of phenomena that happen is not enough. The Lourdes miracles are rejected because they are specifi-

## Correspondence with John W. Campbell

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cally supernatural; your results are rejected because they cannot be shown to be natural. That it works isn't enough; how it works must be accepted.

Curiously, any phenomenon that is accepted as actually happening in physical science, is immediately acceptable to medicine. (Without thanks, however.) Thus, when Roentgen first discovered X rays, the new phenomenon was put to use in a Vienna hospital almost immediately. When a biochemist discovers a new biochemical principle, medicine immediately adopts it--without thanks to the biochemist usually. If, for instance, Dr. Isaac Asimov, Ph.D. in biochemistry, discovered an enzyme that would destroy lung cancer, it would be reported in the medical journals that Dr. John J. Jones, assisted by Mr. Asimov, had discovered a cure for lung cancer.

The probability that you can get any honest credits from the medical profession is close to zero; that has to be recognized beforehand. The MD's will, of course, be somewhat embarrassed by the quantities of data that has already appeared, and will subsequently appear, under your name, but they're used to that.

However, I believe that the only way to get the therapeutic possibilities of psionic devices into public use--the only way people who need their help can hope to get that help--is through pure, inorganic, physical science.

Three weeks ago, I was up in Cambridge, Massachusetts, talking with Dr. Claude Shannon, the discoverer of Information Theory, and Dr. Wayne Batteau, a close friend of Shannon's, and several other people, I'd brought along my symbolic version of your mineral analyzer; it happened that none of the group then present was able to get results repeatably. But I had, also, a letter from Dr. Harry Stine, of White Sands Proving Grounds research staff, who had built the symbolic mineral analyzer from the published description. He had gotten very solid, repeatable, and useful results. So had Dr. Clyde Tombaugh, the astronomer best known for his discovery of the planet Pluto.

Dr. Shannon is very decidedly interested in exploring these phenomena. I've known Claude for some ten years, off and on. He's been an Astounding reader for many years. He's a man whose reputation is, in his field, as great as Einstein's was in his own field; Information Theory, Shannon's discovery, is at least as important to human progress as Einstein's relativity. (And even harder to explain!)

Claude is not a formal-orthodox type of scientist; he's more of a Natural Philosopher. He's too big a man, and too competent, to be ruled by orthodoxy; orthodoxy is, instead, powerfully swayed by him. He is acutely interested in communication--any and all means of perceiving and conveying information.

He genuinely wants a demonstration of your mineral analyzer. His statement was that if the real workability of the device can be demonstrated on a repeatable experiment basis, under sound test conditions, it represents an extremely important discovery, one which must be developed vigorously. He means that, and means it in full honesty.

The exact tests Claude would want to set up I do not know; I can guarantee that they would be genuinely, but rigorously, honest. He is not the kind of person who wants to deceive himself, nor will he tolerate deception in

## The Story of Eloptic Energy

-3-Mr. Hieronymus

others. Convince him that there is a real phenomenon present, and he will turn his very great talents to the task of making that phenomenon understandable in terms of modern science. Once science has been shown how to understand the phenomena of psionics--medicine will, as usual, tag along behind, proclaiming their wise leadership.

Do you want to make a trip up to Boston, and work with Claude Shannon at M.I.T., demonstrating the mineral analyzer? Precisely how long it would take, I do not know; it might, if the tests were entirely successful, stretch out to many months of research, of course. That, however, would be a separate arrangement. What I have in mind is a test-visit, arranged by agreement and discussion with Dr. Shannon, of a week or less.

It is my plan that, if such a test is made, Astounding would publish a detailed report on the matter, describing in detail test conditions, and test results--naming the people who set up and carry out the test, the observers and operators, et cetera. We would publish beforehand that the test was to be made; the next issue would carry the results obtained, whatever those results might be.

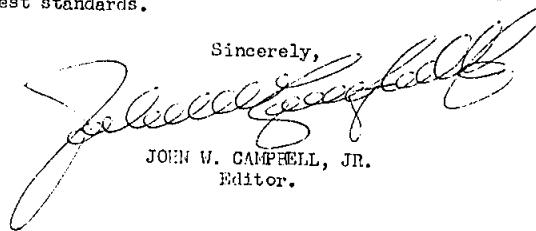
I believe that the work would be genuinely important and effective. Mr. Fowler and Mr. Gray both agree on that point. The magazine can, in return for the data report made available to us, help finance the trip to the extent of \$300. I believe that possibly Mr. Gray and Mr. Fowler may be able to help finance the experiment to some extent in addition.

If you are willing to undertake this experiment, let me know, and we can start working out arrangements with Dr. Shannon at M.I.T.

If you decide in favor of making the experiment, I will be glad to help in any way I can--including stepping out of the picture entirely, save for the one factor of receiving the data report for publication, if you prefer that.

Dr. Batteau is at Harvard's School of Applied Science, and is not a member of Shannon's M.I.T. group; he is a personal friend of Shannon, and of myself. He, too, is a rigorously honest man, and, like Shannon, not hide-bound by orthodoxy. I am sure he will be acutely interested, and helpful in working out proper test standards.

Sincerely,



JOHN W. CAMPBELL, JR.  
Editor.

*Correspondence with John W. Campbell*

May 19, 1957.

Dear John:

It was a pleasure to receive your letter of the 15th and to know that you are so interested in trying to develop the acceptance of Eloptic energies.

I just finished writing a letter to Eliot Pratt of New Milford, Conn., who is interested in the application of Eloptic energy to destroy insect pests. I have a commitment to finish some research started for Mr. Pratt. I expect to receive his O.K. to set it aside and take the trip to Boston.

As you probably know, we have put on demonstrations several times with the same results. Even with complete 100% perfect results of the operation of the equipment, we have been pushed aside with the comment similar to that of the farmer who visited the city zoo and saw a giraffe for the first time. "There ain't no such animal," says the farmer.

We have discussed the problem numerous times as to what we would do if the opportunity comes our way again, and we were called on to put on another demonstration. We have arrived at some conclusions and, while waiting to hear from Eliot, I shall give them to you to be thought over.

First, we would want to have at least three different instruments or analyzers so the question of repeatability as to instruments can be set aside. We have them available and with a little work they can be ready by the time we are ready to make the trip.

Next, we will not run tests on so called Unknown samples. We do not propose to be tricked anymore than we want to trick anyone else. Of more importance, so called "PURE" metals are seldom found alone. We can pick up traces of other elements that are not to be found with chemical analysis. Even Spectrographic analysis is not absolutely dependable as often elements are masked by the lines of other elements.

To avoid the generally given opposition statement that our work is not to be repeated by others, we propose to train two or more people of the staff of the investigator. We would want Dr. Shannon to make three or four people available for us to train. We would prefer stenographers or others from his office in whom he has full confidence. Some people are natural operators, just as some girls can become fast accurate stenographers and others can never approach them. Just as not everyone can become a good pianist, even though most anyone can "plunk the keys" and hit the wrong note more often than the right one, just so, operators of our equipment may be able to get their reactions often, but when it comes to accuracy and

## *The Story of Eloptic Energy*

dependability they are just as dependable as the "piano plunkers."

Dr. Shannon would not think of setting up a set of tests in the field of medicine without first consulting with qualified (I said "QUALIFIED") medical authorities, in order to set up tests that were in accordance with accepted theories on the action of drugs, etc.

Dr. Shannon would be well qualified to set up tests in the field of Physics, because he is as well versed in the laws of physics as anyone else. The only way he can set up acceptable tests in the field of Eloptics, is to first get an indoctrination in what we know of the laws governing the behavior of Eloptic energy.

I would expect him to give me an opportunity to explain as much as possible of what we have discovered of the apparent laws underlying the behavior of Eloptic energy. We know that certain materials seem to be good insulators of Eloptic energy. Other materials are good conductors. Other materials will "store" or hold Eloptic energy much as a well insulated condenser will store or hold an electric charge for a time.

For example, we can take a vial of distilled water, test for an element such as iodine. It will be found to be completely free from iodine. We then can subject that vial to the treatment, and then the vial of water's Eloptic energy will actually change in the isotopes or reactions to the iodine. Some materials will take up the radiations from other materials, just by being close by for a while.

We have been able to direct the Eloptic energy from a drug into a human being before any tests were set up.

There is another important item to be considered. Tests will not be run in public, with a number of people looking on, who are just skeptical and not actually involved or necessary to the work in hand.

You will agree with me that a thought and an emotion are not the same thing. I have found that they are activities that employ the same energy but in a different way just as a beam of visible light is not the same as a radio wave to the average observer, even though a physicist might classify them both as "the same thing." Where you and I differ on one thing is that you lump all as "Psionic," regardless, and I separate into groups, depending upon the special characteristics displayed.

The Eloptic energy that radiates from a pure element, such as silver, is not to be effected as easily as the Eloptic energy involved in the nervous reactions of a human being, even though they are both related. You can direct a "beam" of Eloptic energy to a human being and cause a change in their actions or reactions. With many people, this effect can be felt immediately, while with others, it is not felt at all.

We have been able to direct the Eloptic energy from a drug into a human being

*Correspondence with John W. Campbell*

and produce the same results as if we had administered the drug. You cannot direct such a radiation to a pure metal and cause a change in the structure of that metal.

There are many things we have discovered about the behavior of Eloptic energy. We are firmly convinced that thoughts and emotions are using Eloptic energy. We know that every element that makes up our material world radiates Eloptic energy. What binds two elements in a chemical compound? We have untied the binding in many cases by manipulation of Eloptic energy. Might they be similar?

Just as soon as I hear from Eliot Pratt, I will be able to tell you what we can do. The answer is YES, we definitely want to go to Boston and work with Dr. Shannon. Only the question of finances stands in the way.

Sincerely,  
T.G.H.



*The Story of Eloptic Energy*

1325 Orange Isle.  
Ft. Lauderdale, Fla.  
Last of June '57

Dear John:

It has been six weeks since I wrote you and I am at a loss to figure out what gives. I rather expected to have you send a copy of my letter to Claud Shannon for his preliminary study as to a plan of procedure in connection with working out some of the tests.

If you were waiting for further word from me, I am sorry I did not understand. I have completed the time I was to spend on some research for Eliot Pratt and have moved into my new home in Ft. Lauderdale. My new address is 1325 Orange Isle and the phone number is Jackson 4 4247. That means that at last, we are free to go to Boston at any time convenient for Dr. Shannon.

The situation is not clear as to whether I will go on with more research with Eliot Pratt. The time was up June 30. In any event, I consider it to be more important to do the tests with Dr. Shannon than anything else and I will not make any commitments as to time until I hear from you or before at least two more weeks.

If this letter seems to be somewhat disjointed, please overlook it as I have been working long hours getting things straightened up, curtain rods installed, mail box put up, shelving in my lab, new sod watered, plants set in the ground. My lab is 14' X 19' with shelving and work bench around most of the walls. Had to set up my lathe, level it and bolt it down to the concrete floor. It is a Logan 11.5" with quick change gears, my pride and joy.

A group who are interested in research that will develop other uses for farm grain products than food (industrial uses) and in anything that will improve the lot of the farmer, have been interested in our work and we may find ourselves doing research especially in the destruction of farm pests and increasing the yield of plants by increasing the natural functions.

I would like to get this proposed Boston trip out of the way before they want to start active work. There is nothing definite except that their representative has been here three times to discuss the idea and he seems to be quite sold on the idea.

Please let me hear from you as to the status of Claud Shannon's interest at this time. Or have you any new ideas?

Sincerely,  
T.G.H.

*Correspondence with John W. Campbell*

STREET & SMITH PUBLICATIONS, INC.

304 EAST FORTY-FIFTH STREET, NEW YORK 17, N. Y.

JOHN W. CAMPBELL, JR.  
EDITOR . ASTOUNDING SCIENCE-FICTION

July 10, 1957

Mr. T. G. Hieronymus  
1325 Orange Isle  
Ft. Lauderdale, Fla.

Dear Galen:

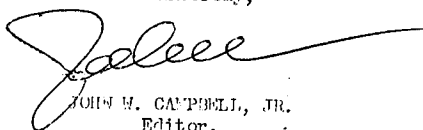
The reason you haven't heard from me is that I haven't heard from Claude Shannon.

The thing came up near the end of the school year; he was probably tied up with that. He may be on vacation before summer school now. I'm going to write him and recheck as to what goes on, and I'll let you know. But, of course, I don't think we should push too hard on the thing. Annoying, I know---but what can we do?

It might also be that the question I raised, "Define what is meant by 'an adequate demonstration of a new principle'," has caused him to do some thinking and discussing that leaves him uncertain as to how to proceed. There's not much point in doing something unless you have some idea as to what you're doing, why you're doing it, and the meaning of what happens as a result of doing it.

I'll write and ask him, however, and let you know what I learn.

Sincerely,



JOHN W. CAMPBELL, JR.  
Editor.

## The Story of Eloptic Energy

STREET & SMITH PUBLICATIONS, INC.

304 EAST FORTY-FIFTH STREET, NEW YORK 17, N. Y.

JOHN W. CAMPBELL, JR.  
EDITOR . ASTOUNDING SCIENCE-FICTION

August 26, 1957

Mr. T. Galen Hieronymus  
1825 Orange Isle  
Ft. Lauderdale, Fla.

Dear Hieronymus:

I finally heard from Claude Shannon—and learned why there has been such a delay.

He's been transferred from M.I.T. to the Institute for Advanced Study of Behavioral Problems, at Stanford, California, for a year. That's a major Ford Foundation setup which has been inviting the top creative thinkers—not the highly publicized men—of science to help attack the major problem Man faces right now. The problems of psychology and sociology.

Claude's been busy going six ways at once settling things both in Massachusetts and in California; he'd just bought a new house in Massachusetts when this California move came up. He's evidently been somewhat more than up to his ears.

So for the next year, Claude's unavailable. He suggested that Dr. Wayne Batteau of Harvard might conduct the tests. I know Wayne well, and know he's a Grade A/1 man, a genuine thinker, and a brilliant and wise scientist-philosopher. He wouldn't be a friend of Shannon's if he weren't.

The one difficulty is that our major problem is that scientific facts aren't against us, nor is scientific testing something we need worry about. We're being stopped by the ancient "Galileo Problem"; Constituted Authority "knows" the idea is impossible, and "knows" there is no point in dignifying such nonsense by "looking through the telescope." No amount of scientific data helps on that problem; the only force that will combat Constituted Authority is, of course, Authority. Wayne is a brilliant man, he's perhaps as competent as Claude...but at the moment, Claude is an Authority, while Wayne is simply wise and competent. (One doesn't need to be wise and competent, actually, to be an Authority. One needs only reputation, not wisdom.)

I'm going to have to investigate what can be done about the situation. Like most really big men, Claude is marvelously unaware of the fact that he is an Authority, and that his Authority is a real, important, and critical factor in the problem. So far as he sees it, he's just another one of the gang working on problems. He's quite sincere in holding that Wayne is fully as competent to do the job as he himself.

I have, meanwhile, been looking at another angle of attack on the problem. The AMA is a major factor in this problem, since much of the important data on psionics lies in the psycho-medical area, and the AMA has been solidly,

## Correspondence with John W. Campbell

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powerfully, and effectively clamping down on it, with all the very great and real weight of their Authority. As you well know.

Frequently, when you need to get someone out of your way, rather than attacking him directly, it can help to set up a "Let's you and him have a fight, huh?" situation.

There's a man by the name of Hoxsey, of whom you have no doubt heard, who's been giving the AMA a hard time for thirty years. Hoxsey's winning; the AMA has recently pulled the egregious error of putting up advertisements about the Hoxsey cancer cure in all the post offices. They're warnings against it, of course...but they tell people it costs only \$460, doesn't entail surgery or radiation, and tell exactly where to go to get the treatment. Inasmuch as most cancer victims can't be helped by medical science (even the MD's claim only 32% success), most cancer sufferers are desperately seeking something else to try. Advertising that there is another way to try will do the public a great service—and help Hoxsey no end.

I have in mind that I may be able to stir up something in that area that will force the AMA to do some thinking that's badly needed, on the subject of "What constitutes 'proof' of something?" On the Hoxsey business, they're baffled, frustrated, and angry, because they can't prove something—to wit, that Hoxsey's a fraud. (I don't think he is; I do think he's mistaken in his belief that he has a cancer specific, however. One indication; the patients he has treated who have been under long continued morphine sedation should after the cancer clears up, be morphine addicts. They appear not to be. It looks as though his medicine not only cures cancer, but also morphine addiction...which is highly interesting, indeed. But which means that whatever it is he has, it isn't a cancer specific.)

Since the big, wealthy, powerful, and authoritative AMA is stuck most frustratingly because of its inability to prove something that they most desperately want to prove..."Let's you and him have a fight, huh? Let's you, AMA, and him, the problem of proof, have a slug-fest, and crack the problem, huh?"

If we could get the AMA to crack the problem of "How can something be proven?" we could ride in on the results very handily. One thing's for sure—if the AMA once takes a good, hard look at the problem, they'll never have the present attitude again.

The reason the AMA is helpless against Hoxsey is that they're trying to prove a negative proposition; that Hoxsey can not cure cancer at all. They should hire a good philosopher specializing in the Science of Proof Theorems; he'd have saved them no end of time, trouble, and worry, by telling them that no one has ever found a way to prove a negative proposition. That's why the English legal system is based on "Innocent until proven guilty," rather than on the older "Guilty until he proves he is not." To prove "He is guilty," is a positive proposition; proof of positives is possible.

Our problem is that they've given us the job of proving a negative—"The Hieronymus device is not a hoax." It can't be done, in any yet-known way.

## The Story of Eloptic Energy

-3-Mr. Hieronymus

That's why I think it would be advantageous to make the AMA realize what their problem with respect to Hoxsey is...and let them change their methods enough to give us a way through.

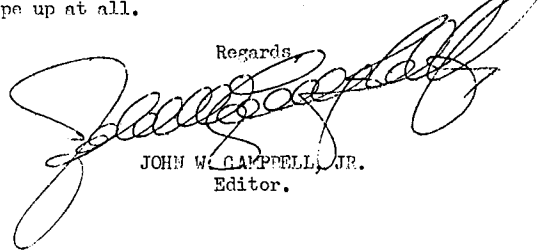
I have a hunch that Hoxsey's medicine contains an unidentified substance that is sort of the reverse of the tranquilizer drugs---that it is a purpose-stimulator, instead of a purpose-depressant. If my hunch is right, the use of that drug would improve scores on psionic devices. Tranquilizers will knock your score down to zero. If you want to experiment, try taking a Miltown, and then see how you do on your device.

Hoxsey's too busy slugging it out with the AMA on cancer to do any decent research, and the AMA's too busy attacking Hoxsey to bother to do honest research. I want somebody to find out what Hoxsey's got; I think I can use it.

You may find ASF doin' somet' poking into that area shortly; don't hink that means I've lost interest in the psi devices---it just means I'm attackin' along more than one line at a time.

I'll get in touch with Wayne, and see what can be worked out. I'll let you know as soon as things shape up at all.

Regards,



JOHN W. CAMPBELL, JR.  
Editor.

*Correspondence with John W. Campbell*

1325 Orange Isle  
Ft. Lauderdale, Fla.  
Sept. 4th , 1957.

Mr. John W. Campbell, Jr.  
Editor, A.S.F.  
Street and Smith Publications, Inc.  
304 East 45th St.  
New York 17, N.Y.

Dear John:

Thanks for your letter of August 26th and your interest in our work. I have held up answering until today, as I was in the midst of a most interesting experiment and I wanted to give you a preliminary report on it.

A long time ago, I discovered that one of the laws of behavior of Eloptic energy was that the energy would flow on light rays. The next stop was to photograph an object and find the energy from the object on the film. Several other experiments verified the fact that the energy could be picked up from light rays after having traveled quite some distance.

We borrowed the films taken of some of the planets and found that we could analyze them. For quite some time, I have been engaged in research of a definite kind and the further analysis of the energy from the planets had to be dropped. Recently, I made up an optical device that will allow a small telescope to be focussed on a planet and a motor drive that will keep it trained on the target, just a simple adaptation of the mechanism used on most large telescopes. In addition, I made a special eye piece that would allow me to focus the telescope and at the same time, to pick up the emanations, brought along the rays of light, and direct them into the Eloptic Analyzer.

It works very well. I looked up the declination and hour angle of three of the planets, Jupiter, Venus and Saturn, calculated the elevation and azimuth to be very sure and took shots of them. We only worked for a few minutes that first night as the mosquitoes were out in force. We did find that there was a showing of life energy on both Venus and Saturn but not on Jupiter. Since there was only one test made on each planet at that time and the apparatus had not been finished to the point where it is today, I do not want to be at all positive as to the results obtained on either Jupiter or Saturn.

With Venus, it is slightly different. On August 30th last, the western sky was free

## *The Story of Eloptic Energy*

of clouds and very clear. At 7:15 PM, ZT 1915, GMT 0015 31 August, we started and ran the same kind of analysis we generally run when trying to find out what is wrong with a sick person. The attached chart shows the dial settings and the part of the anatomy involved. We have known for a long time after many tests, that animals show the same anatomical parts and the same frequency rates as humans. Many plants have been tested but not with the same anatomical list as that used for humans, until this week. We had tested plants for general vitality and diseases many of the latter being similar to those found in humans.

In looking over the test results, please do not pay any attention to the low values shown. They probably represent contamination from the operator or perspiration from the one building the instrument (myself), left on wiring or other parts inside, that show a very small radiation when there is no other source of radiation to blanket it. In other words, consider all values of around 50 or less, to be 0.

A study of the Venus chart shows some startling things. There was no heart indicated. Also no liver, parts of the pituitary or adrenals, no thyroid, and in the reproductive organs, no testes, breasts, or uterus.

This would indicate that there was life but not in the form of humans or animals as we know them here on earth.

To run down the life aspect, we took leaves of plants and ran the same set of tests, with some startling results. While there are certain differences between different kinds of plants, there is a startling similarity between plants as we have them here on earth, and the chart of life on Venus.

Naturally, we took specimens of trees and plants that were around us here in Florida. We took a Mango as a fruit tree, a Willow tree as a tree that grows around water, and a pine tree that grows in dry areas. For the Grasses, we used Bermuda grass from our yard as a type that does not seed but puts out runners, and a weed growing in the yard that has seeds for reproducing itself.

The startling items are that plants do not have a Heart. Naturally as they do not pump sap round and round as we pump blood. Only the Pine showed that it had something similar to the Islands of Langerhand, where the sap (blood sugar) is changed to turpentine (I believe this is a turpentine Pine, it could be a sugar sap type).

Note that the Bermuda grass has no reproductive organs while the seed type plant and all the trees show some of the other organs of reproduction.

Now, the first thing a botanist will say is that plants do not have these types of reproductive organs. Remember, we are dealing with energies radiated from the plant or human or animal under analysis. I care not whether the energy comes from an organ shaped like that of a human or whether it comes from something entirely

*Correspondence with John W. Campbell*

different in shape, color, secretions etc. if it performs the function, it can well have the same frequency of radiation.

Back to Venus, it would seem that Venus has plant life in plenty and of an order very similar to that we have on this planet. I cannot believe that Venus has animals or human beings of the warm blooded type as we have. There is no reason why there might not be men of a higher order than we have here. Definitely, we are of the order just slightly above the lower animal.

We tested the Venus rays for several of the common violent diseases found on earth. We found no cancer but did find tuberculosis; no gonorrhoea or syphilis but did find one of the flus and one of the undulant fever rates. Then we tested the plants and found that they also show several of the same diseases. They showed that they are just like humans, they show diseases after being subjected to poisons such as DDT and Malathion. Some trees definitely have cancers.

This is just one analysis chart on Venus. Others made over a period of time might show different results. We are positive of the results obtained in each test. We have done too many over many years so we know when they are to be trusted and when there are other forces working that effect our results. Several individual tests were duplicated to be sure of the results.

Now, about the Shannon-Batteau situation. Not long ago, every so called scientist "absolutely KNEW" that the laws of conservation of energy and conservation of matter were immutable and the very idea of their interchangeability was unthinkable.

Dr. Millikan wrote a paper denying the possibility of Cosmic Rays. Later he ate his words and went on to become the greatest student of the study of Cosmic Rays.

I do not want to spend time and money (either my own or someone else's) going to Boston or New York to run tests for someone to disregard. Naturally, I am quite disappointed in not having an opportunity to work with Dr. Shannon. However, if he recommends Dr. Wayne Batteau, I am sure that Dr. Batteau would be as interested as most anyone else and I believe that Dr. Shannon would believe anything that Dr. Batteau told him resulted from our tests. That would mean that Dr. Shannon would probably use his "authority" in the matter later.

I look at it this way. If Dr. Batteau finds any merit to the claims: 1. That there is such an energy as we claim Eloptic energy to be; and 2. That we can do certain things by manipulating Eloptic energy; then, that fulfills the requirement set out by Dr. Shannon, "That if there is such an energy, then, it represents an extremely important discovery, one which must be developed vigorously" (quoting your letter of May 15, 1957), and that tells me that he has not lost interest just because he happens to be



### *The Story of Eloptic Energy*

diverted to another part of the country for important work in a new field. The fact that he gives Dr. Batteau such a good recommendation would indicate that Shannon would take the word of Dr. Batteau as to the results of the tests and then Shannon could use his "Authority" to get set up for more exhaustive tests and study of the situation in a more formal way.

What I said in my letter to you of May 19th, 1957, still holds good. It will take several days for the tests. I would bring several analyzers. I would expect Dr. Batteau to first let me give him enough information on the behavior of Eloptic energy so we could set up reasonable test procedures. I would want to train more than one other whom Dr. Batteau would pick from his staff, so the question of only one person could operate the instrument.

If we are to do it at all, then lets do it completely, and leave no loose ends dangling for someone to take hold of and depreciate the results obtained.

I would even like to set up the optical device and show how to run analysis of the energy received from one of the planets such as Venus. The device is mounted on one corner of the roof of my lab which is an enlarged utility room built next to my home. The head can be removed from the stand by loosening a set screw, or the floor flange can be unscrewed from the roof. It would have to be readjusted for the latitude of the place where it's used.

I can see where the planet analysis could fit into an A.S.F. story and result in many future stories based on the results found. It would also knock a lot of former science fiction stories about the other planets and stars, into a cocked hat.

Will be looking forward to hearing from you soon as to both the Venus story and the working with Dr. Batteau.

Sincerely,

T. Galen Hieronymus.

## ELOPTIC ENERGY ANALYSIS

Tests made August 30, 1957,  
thru September 4, 1957.

Body Organ	Venue ity	Mango tree	Willow tree	Pine tree	Bermuda grass	Weed seed type
Vitality	1450	447	345	464	235	232
Heart	16	16	31	36	31	31
Lungs	1218	559	457	467	355	269
Kidney	1135	566	26	29	47	27
Liver	46	32	368	366	27	459
Lymphatics	34	669	31	31	369	33
Spleen	1235	35	461	566	36	352
Bone Marrow	22	465	52	759	569	361
Chlorophyll	1205	769	562	651	269	436
Pineal	1315	767	353	358	447	351
Thymus	1326	969	453	364	268	464
Pituitary	1210	350	357	458	471	452
Pituitary Ant.	23	33	27	350	43	21
Pituitary Post.	46	36	35	32	33	37
Adrenals	1220	367	468	461	570	552
Adrenals Cortex	50	27	43	369	51	29
Adrenals Medulla	33	16	27	27	37	37
Thyroid	32	267	251	468	271	446
Parathyroid	46	35	34	17	28	33
Parotid	1232	656	464	358	368	457
Stomach	1531	671	557	547	362	347
Duodenum	1124	555	37	368	33	32
Gall Bladder	52	766	252	36	366	247
Pancreas	1233	652	36	354	47	29
Pancreas Islands of Lang.	48	26	51	356	27	27
Colon Wall	1234	652	327	452	37	366
Appendix	34	32	34	32	353	36
Prostate	1536	866	352	359	28	467
Testes	24	27	24	29	23	22
Breasts	21	36	33	39	26	27
Ovaries	1333	770	350	459	33	352
Uterus	31	23	22	24	37	54
Nerves	1213	1067	458	465	371	156
Alkalinity	16	33	24	28	41	43
Acidity	1435	768	466	569	474	257
Sodium	26	21	26	47	48	24
Chlorine	23	21	152	31	29	32
Neurasthenia	17	32	263	60	24	51
Menopause	20	11	32	46	62	26

Note: A healthy human being or warm blooded animal would show a balanced condition in which all values for organs and parts of the body would be nearly the same value except for Neurasthenia and Menopause, which should be zero, and the sex organs. A healthy male will show very low values of the female organs and the healthy female will show low readings of the male organs. In some men, quite high breasts readings will be found. In many nervous cases, males have shown high female readings and females have shown high male readings. Alkalinity and acidity do not refer to PH values but will be the same amount as other organ values. The same for sodium and chlorine.

*The Story of Eloptic Energy*

ODE

“We are the music makers,  
and we are the dreamers of dreams,  
wandering by lone sea breakers,  
and sitting by desolate streams,  
world losers and world forsakers,  
on whom the pale moon gleams.  
Yet we are the movers and shakers  
of the world forever, it seems.

“With wonderful deathless ditties  
we build up the world’s great cities,  
and out of a fabulous story,  
we fashion an Empire’s glory.  
One man with a dream, at pleasure  
Shall go forth and conquer a crown,  
and three, with a new song’s measure  
can trample an empire down.”

By: Arthur Shaunessy