

Published in THE HUMANISTIC PSYCHOLOGIST, 2005, 33, No. 2, 131-143.  
Copyright © Lawrence Erlbaum Associates Inc.

## **Future Psychology as a Science of Mind and Spirit: Reflections on Receiving the Abraham Maslow Award**

Charles T. Tart

Institute of Transpersonal Psychology, Palo Alto  
and  
University of California at Davis

### **Abstract**

Historically, psychology attempted to become a science of the mind, but failed for various reasons. These included (1) the apparent barrier between objective and subjective data, (2) ignoring of individual differences, (3) experimenter bias, (4) culture boundedness, (5) insufficient training of observers and (6) a limited, Newtonian physics view of reality. This paper argues that humanistic and transpersonal psychology can lead the way to a more comprehensive and effective science of mind because we have new methods today to deal more effectively with the limits imposed by these problems.

(The paper is based on an invited lecture given when the author received Division 32's Abraham Maslow award at APA, Honolulu, on July 30, 2004.)

I am very honored to be receiving the Abraham Maslow award from Division 32. Thank you! This is a personal, as well as a professional validation for me.

Receiving this honor has stimulated various reflections on the possible future of psychology that I want to briefly share. There are possibilities for an expanded psychology that excite me and will, I hope, excite you. I will speak of them mainly from the perspective of a scientist, but I do not mean "scientist" with the too-usual reductionist connotations of explaining our field "away." As I and others have argued, too many professional scientists have too narrow a view of reality and practice *scientism* rather than essential science. To me, the full role of scientist is to be both curious about the nature of things but also appropriately "humble" or "skeptical" about what we think we know. I want to know, I am curious. I think I understand a lot, but it is a good idea to be gently skeptical, to realize my and others' understanding is just the best theories we can come up with so far, but these theories are *always* subject to revision or even radical

change as we learn more. It is especially important not to ignore or reject a lot of rich and difficult aspects of human nature because they are difficult to be "scientific" about at this stage of our knowledge.

To begin: when I asked one of the Division 32 Board members, Kathleen Wall, why I was being honored with the Maslow award, she wrote me "The Abe Maslow award is for the furtherance of the human spirit - so go for discussing your work as the furtherance of the human spirit."

"Spirit" is a very interesting word, covering a range of meanings. At the "lower" end of that range, it is synonymous with mood, as in "They were in good spirits." We, especially we academics and scientists, are all comfortable with those kind of spirits. At the "higher" end, we have spirits as non-physical entities or spiritual forces, and most of us academics are not at all comfortable with that idea! As I said, though, it is especially important not to ignore or reject a lot of rich and complex aspects of human nature because they are difficult to be "scientific" about at this stage of our knowledge. So we may come back to spirits or even Spirit in the end.

### **Where Psychology Has Been**

To share my ideas on where an expanded psychology can go, it helps to remind ourselves, very briefly and in oversimplified form, of where it has been.

As an undergraduate, I was taught that in its earliest phases, psychology was the study of the soul, an area of theological speculation and argumentation. We would not want to call it a *science* of the soul, though, as accepted belief and logical argumentation within that belief system had priority over data. Philosophers then broadened the area somewhat and made psychology a subfield of philosophy, a study of the *mind*, but this was still all conceptual work. As both my professional and personal growth work have taught me to be suspicious of any theory that does not have firm foundations in empirical and experiential data, I cannot say that I miss this phase of our history.

In the latter part of the nineteenth century, psychology finally got out of the philosophy departments as the introspectionists and psychophysical investigators worked on making psychology an experimental and empirical science of the mind. A kind of mental chemistry was attempted: observe the compound workings of the mind, separate and reduce out the essential elements and the processes by which they compounded, and we would have a solid science.

Unfortunately, it did not work well: different investigators got inconsistent results, for reasons we will discuss later.

Behaviorism (and psychoanalysis/psychopathology) took over in the twentieth century and instead of being a science of mind, psychology became defined as a

science of *behavior*. Behavior was a lot easier to study with reliability and objectivity, and we learned a lot of useful information this way. But, as we know, the extreme reduction of humans to input-output black boxes, with interest in internal processes outlawed as "subjective" and "unscientific" (or pathological), hurt us by devaluing many of our most vital human experiences and ideals. If Behaviorism had remained within proper limits - studying things this way gives a certain useful kind of data, but there are other aspects of reality - it would not have been so bad, but, like most theoretical movements, it claimed totality.

In the latter third of the twentieth century the backlash against the sterility of behaviorism (and psychoanalysis/psychopathology) led to our fields, humanistic and transpersonal psychology. I believe all of us here think that was a good thing - but in terms of vital human needs, humanistic and transpersonal psychology are still much too small a part of psychology, and not growing fast enough.

### **Where Psychology Can Go**

My vision is for us in humanistic and transpersonal psychology to help move psychology in a direction where it is once again, both theoretically and in applied ways, a science of the *mind*. Indeed, to move far enough that psychology also becomes a science of the spirit and, perhaps, to use that uncomfortable word, a science of the Spirit.

I understand how that word spirit, much less Spirit, can be both appealing and quite uncomfortable to us. To illustrate, many of you have read a book of mine called *Spiritual Psychologies*, an anthology about the psychological theories and systems normally invisible to us because they are embedded in various world religious and spiritual systems. But you do not know you have read it. That is because when the book was in press, in 1975, my editor called me with good news and bad news. The good news was that the major American psychology book club wanted to use it for its monthly selection, having seen a prepublication copy. The bad news was that the book club managers knew that psychologists could not deal with the word "spiritual," so could we change the title before it was printed? This was how *Transpersonal Psychologies* got its title. The term transpersonal was still so new then that almost no psychologists had heard of it, so they would not have any conditioned aversions to transpersonal!

There is still a lot of ambivalence to "spirit" around, so I will mainly stick with talking about expanding psychology to become a science of mind. Or better, a science of Mind, just to remind ourselves that mind is a pretty big and primary concept, moving into the humanistic and transpersonal spheres, not just cognitive and perceptual processes.

Won't we be going backwards to develop psychology as a science of Mind? In one sense, yes, but I believe we have, as a result of humanistic and transpersonal psychology, as well as other developments, much better methodologies and tools,

as well as more open theoretical approaches now, and so can do a much better job of developing psychology as a science of mind than they did in the nineteenth and early twentieth centuries.

Why do we need to work toward a science of Mind?

One reason is that I am convinced, for reasons briefly mentioned below, that we have a lot of first-class, empirical data that strongly suggest that Mind has a reality of its own, a reality that cannot be simply reduced to materialistic, physical data, to merely the operation of the brain, body and nervous system. Where we can make correlations or reductions of mind and brain, fine, but for a really comprehensive science of psychology, I am convinced that *Mind must be studied on its own terms, not just ignored in the blind faith that the neurologists will explain it all (away) some day.* To use an analogy, you can learn a lot about how automobiles behave by studying their mechanics, but you must also study the drivers, and that latter study calls for psychology, not mechanics.

The primary rule of essential science (Tart, 1972, 1998) is that our concepts and theories must deal with *all* the relevant data, not just the convenient parts that satisfy us and make us feel clever because they fit into our theories. As the Division 32 website's statement of purpose says,

*Humanistic psychology aims to be faithful to the full range of human experience.*

Any psychology that ignores the data for the reality of Mind at this stage of our knowledge is not only incomplete, it is distorted and harmful. To deny the Mind, these aspects of the human spirit, to invalidate concern with Mind because it is devalued as "subjective" or "unscientific," damages us. I suspect most of you in this audience, for example, know of too many instances where a person has suffered unnecessarily because they felt their transcendent experiences were invalidated by the prevailing reductionistic ethos in psychology.

### **Why Mind is More than Brain**

I won't touch on experiential data at all here, in spite of our interest in experience in humanistic and transpersonal psychology, for lack of time, but simply note the existence of thousands of rigorous, objective (usually double blind designs) published studies in the refereed journals of experimental parapsychology<sup>1</sup>. For a parapsychological experiment, you basically set up an "impossible" situation, impossible in terms of prevailing materialistic paradigms that reduce mind to

---

<sup>1</sup> The major ones are the *Journal of the Society for Psychical Research*, the *Journal of the American Society for Psychical Research*, the *Journal of Parapsychology*, the *European Journal of Parapsychology*, and the *International Journal of Parapsychology*.

nothing but brain. You randomly generate information at location A and at location B, which is thoroughly shielded (by distance, physical barriers, and/or time) from location A, you ask a person, a *percipient*, to tell you about the target information. Then you use some objective technique and appropriate statistical analysis to decide whether the percipient's impressions contain significantly more correct information about location A than can be reasonably accounted for by chance alone. This is your basic test of ESP, extrasensory perception. If the person at location B is asked to mentally influence the outcome of a random material process at location A, you have your basic psychokinesis (PK) or psychic healing test procedure, again usually evaluated objectively and statistically. ESP, PK and psychic healing phenomena are collectively referred to as *psi* phenomena. Because of intense controversy about the existence of psi, the methodology in such experiments has evolved so much in the past century that it is usually considerably more rigorous than that used in mainstream psychology (Sheldrake, 1998) or any other field of science.

I consider five basic psi phenomena to have been demonstrated by so many experiments with each (dozens to hundreds) that they may be taken as givens at this stage of our knowledge. (There may be other, real psi phenomena, but they have not been investigated extensively.) The five are (1) **telepathy**, where a person or *agent* at location A is actively trying to mentally send the information about the target (such as the order of a randomized deck of cards) to the percipient at location B; (2) **clairvoyance**, the direct perception of the state of material targets at location A, without the information being in anyone's mind at the time; (3) **precognition**, either telepathic or clairvoyant, where the percipient is asked to describe the targets at location A before a random process brings them into existence; (4) **PK**, direct mental influence on material objects, usually, but not always, limited to producing deviations in random processes such as thrown dice or electronic random number generators; and (5) **psychic healing**, which might be a form of PK, but the targets are biological processes, such as the growth rate of injured plants.

Time limitations do not allow me to give examples, although I have extensively discussed psi phenomena elsewhere (Tart, 1992), and a good and current overview is available in Radin (1997). Indeed, I am not at liberty to give the best examples I know of. I was a consultant to the remote viewing studies (a form of clairvoyance) at the Stanford Research Institute (now known as SRI International) in the 1970s, for example. As these studies were funded by various government intelligence agencies, I had to get a Top Secret clearance to be involved in the project, with full access to the data, and that meant signing all sorts of contracts that ended with phrases like "ten thousand dollar fine and ten years in jail for revealing any of the material seen!" I do recall there was one "cheap" contract that only called for a five thousand dollar fine and five years in jail, but still.....Much of this material has been published by others now using Freedom of Information act data, though (Schnabel, 1997), and shows that psi can sometimes be used for practical purposes, it is not just a laboratory anomaly or an uncontrolled, spontaneous event in people's lives.

The bottom line: psi usually functions at low levels, erratically and unreliably, but it can sometimes function at quite high levels. Its existence not only supports treating Mind as a reality that should be investigated on its own terms, as I argued earlier, but the occasional high functioning psi suggests new frontiers for psychology, the main topic we now turn to.

### **Science of Mind: Earlier Failures and Future Possibilities**

I will share my vision of an expanded psychology more specifically now by looking at half a dozen areas that led to failures in the nineteenth century introspective attempt to create psychology as a science of Mind, with indications of why we could do a much better job.

#### **Problem # 1: Inherent Privacy of Mind**

We can readily refine our knowledge of external objects by several of us looking at them from different angles and then combining our observations. But we can not look directly at any mind other than our own (and even there problems exist - see training discussion below). Philosophers of science take this as an inherent, eternal obstacle: other minds are private, invisible to us.

But what happens to this apparently fixed boundary when you bring the reality of telepathy into the equation?

I am not arguing that telepathy could be trained to work so well that it gives complete and accurate information about processes in another mind. Perhaps that is potentially possible, but it is a long way from the occasional flashes of telepathy we see today. But even if telepathy only works occasionally, only provides partial information, and produces some mistaken information as well as accurate information, the wall of isolation of other minds can begin to crumble.

Of course if we never try to use telepathy to study other minds, we are unlikely to think it is possible, but we already know how easily we can limit ourselves by the assumptions we are attached to.

#### **Problem # 2: Ignoring Individual Differences**

The early introspectionists wanted an objective science, they wanted to get at the basic elements of the mind, just as chemists had discovered the elements of matter. In their hurry to discover the Elements of the Standard Mind, I believe they overlooked the realities of important individual differences between introspective observers, so they were averaging apples and oranges in their results, coming up with "standard" elements that differed too much from what actually happened in people's mental processes. They committed the error that Stent (1972) called *premature parsimony*.

Humanistic and transpersonal psychology have a major advantage here, because we not only respect, we often treasure the individuality of the people we work with. We will study each apple and orange in detail, as it were, instead of mashing it all into mush. An excellent survey of the wide range of transpersonal research methods can be found in Braud and Anderson (1998).

### **Problem #3: Experimenter Bias**

For quite useful reasons, any science tries to be objective, to discover and utilize general principles of how reality works irrespective of the particular person observing or working with reality. Such objectivity is readily obtained in the "easy" sciences like chemistry or physics: objects fall at the same rate in our gravity field whether the experimenter is in a good mood or a bad mood. Psychology, wanting to be a "real" science, instead of a branch of philosophy, embraced the goal of objectivity, but in its enthusiasm ignored (and still too much ignores) serious problems of experimenter bias: the beliefs, hopes, fears and attitudes of the experimenter may be as or more important in determining an experimental outcome than the officially recognized independent variables. To reverse the usual distinction of "hard" and "soft" sciences to one of "hard" and "easy," psychology is one of the "hard" sciences in terms of difficulty, while sciences like physics are "easy."

You probably remember Robert Rosenthal's pioneering research, for example (Rosenthal, 1963). Children were tested, but then randomly assigned to "late bloomer" categories even though they were average. When their teachers knew these assignments, they subtly altered the way they interacted with the children and, sure enough, the "late bloomer" kids had done better in their school work at the end of a year than the "dumb" ones.

The early introspectionist psychologists were often Herr Doktor Professors in highly authoritarian German university settings, and their assistants and subjects were of much lower status. Bias could easily have run rampant there<sup>2</sup>.

No one likes to be called biased, so this is a touchy subject. I am amazed at the way the topic of bias rose in general psychology in the 1960s and 70s -- and then almost completely disappeared! The word repression too easily comes to mind. The way to discover and compensate for the effects of bias is not to pretend it is not there! I have always assumed, in my own experimental work, for example,

---

<sup>2</sup> I vividly remember a tour of Charles University in Prague in conjunction with the International Transpersonal Association conference in 1992. Frances Vaughan and I were lagging behind, looking at an ancient lecture hall with the walls covered with oil paintings of famous scholars of the past in their academic robes, looking down at us. We both agreed that it would be very difficult to voice an original idea in this kind of setting if it disagreed in any way with such Authorities!

that I am biased, I strongly prefer to get certain kinds of results. But I also have a strong preference to get at the truth of things as much as possible, so I have tried to discover my biases and set up studies to control or minimize their effects.

Humanistic and transpersonal psychology today have a major advantage over the early introspectionists because we recognize that a unique *person* is the primary research "instrument," not an abstract method. Any unique person has advantages and disadvantages, strong points and weak points, and by recognizing this we have a chance to control for bias and so be more objective.

#### **Problem # 4: Culture Boundedness**

The early introspectionists tried to develop psychology within the container of the most advanced and civilized culture in the world -- or so they believed. Our culture and our field has matured enough, I hope, to recognize the culture boundedness, the cultural relativity of much of our knowledge. Like experimenter bias, when you pretend it is not there, it runs rampant in the background, distorting our perceptions and thoughts.

Today we not only have an intellectual recognition of such cultural relativity, we have a moral commitment to understanding and honoring diversity, especially in humanistic and transpersonal psychology, and I believe this will let us do a much better job in developing psychology as a science of Mind.

#### **Problem # 5: Insufficient Training/Lack of Method**

The investigators of early psychology assumed it was a fairly straightforward task to get accurate observations of the workings of the mind. After all, we can observe our own minds and, by asking the right questions, we should get good observations from others about the workings of their minds. With a few hours of training to clarify terms and the like, subjects should be expert observers of their minds.

We now know in humanistic and transpersonal psychology, from psychotherapy and growth work, that observing your own mind or getting accurate reports from others about their minds can be a delicate and difficult task. Psychotherapeutic work may be needed even in what look like straightforward situations to clear distortions and defenses. We also now have training and observational methods available from the meditative traditions now that were not available a century ago, vipassana (insight) meditation, for example. In discussing the ability to observe the rapid and subtle shifts in the mind with Shinzen Young, a leading vipassana teacher, for example, he estimated it takes about 5,000 hours of training/meditation practice before most people get expert at observing their own minds. From this perspective, the dozen hours of so of training in early introspective psychology were woefully inadequate and it is no wonder that reports were unreliable. What could we learn with really trained, skilled introspectors?

## **Problem # 6: Dominance of Materialism**

In our society, scientists generally have much more prestige and social standing than philosophers, and, being human, we psychologists would like to have the prestige and social standing of "real scientists." Historically speaking, it was not that long ago that they let us out of the philosophy department, and we do not want to be sent back..... So we have tended to ape the methods of the physical sciences, not only in terms of actual procedures, but in terms of our thinking, implicitly as well as explicitly.

While this has led to useful results in some ways, as an overall methodology for psychology it has not encouraged studying Mind on its own terms. Too, the material world of psychology is still very much a Newtonian one, and there are no places in it for mind, Mind, spirit, Spirit, or psi. That is why I have emphasized earlier and elsewhere (Tart, in press) how important it is that parapsychological findings, showing the reality of various forms of psi, provide a firm scientific basis for investigating Mind and Spirit on their own terms. Without that parapsychological data, most of what is studied in humanistic and transpersonal psychology are, from a materialistic standpoint, nothing but illusions and delusions.

Today the "solid realities" of the Newtonian material world are not the primary paradigm of physics but a specialized case of a much more mysterious relativistic and quantum world. The quantum world in particular does not make sense to our ordinary way of thinking. How can something exist as both a wave and a particle, or not really be located any place in particular, until it is observed? How can two particles moving in opposite directions at the speed of light, the ultimate kind of isolation, nevertheless be entangled so altering one instantaneously affects the other? Yet quantum theory works extremely well in predicting what will actually be observed, and data is always primary in science, so it is an excellent reminder of the need for the humility, the gentle skepticism I spoke of earlier, of not getting too caught up in our beliefs and theories, but remaining open to new data.

One mind-stretching example: Some quantum physicist friends of mine who are also involved in parapsychological studies do not see how the phenomena of clairvoyance, the direct perception of the state of distant/shielded matter without use of the known senses, can exist in a quantum world. Yet the data say it sometimes happens. So, they reason, it is not really a "transmission" of information across space as we ordinarily think of it, it is really a precognitive perception of the future state of your own brain when you have received ordinary sensory feedback about what the target was. Information from the future affecting the past is readily conceived of in some interpretations of quantum physics.

Does this explaining away of clairvoyance make you scratch your head and feel confused? Me too! I find this an amusing and mind-stretching example of explaining a form of psi "away" by a mechanism I do not understand at all. And just to complicate life and remind us to stay open, Russell Targ and I did an initial experiment to test this idea (Targ & Tart, 1985). We set up a computer controlled clairvoyance experiment where percipients had to guess random numbers generated inside the computer. The computer scored the total of hits, but then destroyed all records of the target and response sequences *so no one in the future could ever know what they were*, thus eliminating the "precognitive feedback" possibility. We got results suggesting clairvoyance is real, though.

Striving for prestige by imitating the physical sciences is still very much a problem for psychology, but at least we have a much more open physics as our model than the introspectionists had.

So there is a quick overview of some possibilities for a greatly expanded psychology of the Mind, where the barrier between objective and subjective is more permeable, where we understand and respect the individuality of both "subjects" and "experimenters" and so can turn the "biases" of each into potential avenues to knowledge, where we recognize and transcend our particular cultural limitations even while valuing cultural differences as another source of knowledge, where we have new (to us) introspective methods for studying the mind, and where we do it all in an overarching concept of the physical (and mental) universe that is much broader than in our past.

### **Applied Future Psychology of Mind and Personal Growth**

Recall that I said earlier, though, that I am not simply interested in a psychology that is all theory and study, I want application and personal growth to come from its knowledge. My time is almost up, but what, very briefly, might those directions be?

Consider psychotherapy and counseling. To greatly oversimplify, a client lacks key insights and capabilities, both cognitively and affectively, to live their life in an optimal fashion within their life circumstances. The client is, in a way, tangled in a maze of ideas, feelings and defense mechanisms, and cannot navigate very well. The therapist or counselor tries to understand this maze in order to help the client learn to navigate better. But because the client is tangled he cannot communicate about the maze very well, so a lot of time is wasted going down blind passageways, etc. as the therapist tries to figure out the client's maze and help the client understand it.

What might happen if the therapist were trained to use their ESP more effectively, to get deeper glimpses of what is going on in the client's mind?

I suspect good therapists already do this to some extent, but make it more acceptable by vaguely calling it "clinical intuition" and the like. But do they get any training at all, much less effective training, in how to develop this "clinical intuition" in today's graduate educational programs?

Consider personal growth. One important aspect of it is interpersonal encounter with others. This is often a difficult and tricky process, but humanistic and transpersonal psychology have worked with many methods to facilitate encounter. Suppose we could add a (partial) telepathic contact element to deepen encounter? Suppose (we do not know the specifics at this early stage of our knowledge) such telepathic contact bypassed some of the usual defense mechanisms and avoidances of ordinary interpersonal contact?

I suspect you will have a lot of ambivalence about this idea: I do myself! I want to be known more deeply and so (I hope) loved more deeply - but I want to be known on my own terms..... Indeed, I believe, from some of my research (Tart, 1982; 1984; 1986) that this fear of being known too deeply, without being able to control the impression you make on others, is a prime reason for the widespread irrational pseudo-skepticism about and resistance to the findings of parapsychology among psychologists and other scientists. But in humanistic and transpersonal psychology we already know that deep encounter is both growthful and resisted, so we may have ideas and methods for facilitating it.

### **Practical Politics**

A momentary aside here on what is really a very important subject that needs extensive discussion: can humanistic and transpersonal psychology afford to become associated with parapsychology?

Some years ago Michael Murphy, one of the co-founders of Esalen Institute, telephoned me to invite me to a conference he was organizing that would bring together parapsychologists and those who tried to scientifically study unidentified flying objects, UFOlogists. I gave him my immediate reaction, which was something like "Michael, that is intellectually interesting, but I have enough trouble with intense, irrational resistance from scientists for my work in parapsychology. I can not add to my troubles by associating with another far out, resisted group like UFOlogists!" Michael responded by telling me that this was exactly the reaction of the UFOlogists he had called to invite - they had enough trouble without additional guilt by association by being connected with parapsychologists.....

There is a lot of heated and irrational resistance to humanistic and transpersonal psychology: can we take a chance on associating with parapsychologists?

I think the eventual association and use of parapsychological findings is essential for the reason I mentioned earlier: the basic parapsychological findings of the

reality of psi (telepathy, clairvoyance, precognition, PK and psychic healing) give a solid, scientific reality basis to our fields of humanistic and transpersonal psychology, and without this backing our fields are too easily dismissed by materialists as being about nothing but illusions and delusions. I have been exhorting parapsychologists to consider the implications of their findings and move closer to humanistic and transpersonal psychology (Tart, 2001) and am now starting to exhort humanistic and transpersonal psychologists to move closer to parapsychology (Tart, in press) but personal and political considerations do make this a tricky topic.

### **The Future?**

I am something of an impatient person and am sure the expansion of psychology I have discussed will move too slowly to satisfy me. But I am excited and gratified that it is possible: someday we may have a science of Mind, and perhaps a science of Spirit.

A lot of human stupidity and evil is rooted in our psychological isolation, allowing the depersonalization and exploitation of others. When we can facilitate deeper mind-to-mind, perhaps Spirit-to-Spirit contact, this world will be a better place.

Thank you again for the Abraham Maslow award. I have sketched some directions for the furtherance of the human spirit: please join me in furthering these directions, and the many other positive directions that the people in Division 32 represent!

### **References**

- Braud, W. & Anderson, R. (1998). *Transpersonal Research Methods for the Social Sciences*. Thousand Oaks, California: Sage Publications.
- Radin, D. (1997). *The Conscious Universe: The Scientific Truth of Psychic Phenomena*. New York: HarperEdge.
- Rosenthal, R. (1963). On the social psychology of the psychological experiment: The experimenter's hypothesis as unintended determinant of experimental results. *American Scientist*, 51, 268-283.

- Schnabel, J. (1997). *Remote Viewers: The Secret History of America's Psychic Spies*. New York: Dell.
- Sheldrake, R. (1998). Experimenter effects in scientific research: How widely are they neglected? *Journal of Scientific Exploration*, 12(1), 73-78.
- Stent, G. (1972). Prematurity and uniqueness in scientific discovery. *Advances in the Biosciences*, 8, 433-449.
- Targ, R. & Tart, C. (1985). Pure clairvoyance and the necessity of feedback. *Journal of the American Society for Psychical Research*, 79, 485-492.
- Tart, C. (1972). States of consciousness and state-specific sciences. *Science*, 176, 1203-1210.
- Tart, C. (1982). The controversy about psi: Two psychological theories. *Journal of Parapsychology*, 46, 313-320.
- Tart, C. (1984). Acknowledging and dealing with the fear of psi. *Journal of the American Society for Psychical Research*, 78, 133-143.
- Tart, C. (1986). Psychics' fear of psychic powers. *Journal of the American Society for Psychical Research*, 80, 279-292.
- Tart, C. (1992). Perspectives on scientism, religion and philosophy provided by parapsychology. *Journal of Humanistic Psychology*, 32( No. 2), 70-100.
- Tart, C. (1998). Investigating altered states of consciousness on their own terms: A proposal for the creation of state-specific sciences. *Ciencia e Cultura, Journal of the Brazilian Association for the Advancement of Science*, 50(2/3), 103-116.

Tart, C. (2001). Parapsychology and transpersonal psychology: "Anomalies" to be explained away or spirit to manifest? *Journal of Parapsychology*, 66, 31-47.

Tart, C. (in press). On the scientific foundations of transpersonal psychology. *Journal of Transpersonal Psychology*.

### **Author Note**

Charles T. Tart received his Ph.D. from the University of North Carolina in Chapel Hill, and is currently Professor of Psychology at the Institute of Transpersonal Psychology in Palo Alto and Professor Emeritus of Psychology at the Davis campus of the University of California. Besides his formal interests in humanistic psychology, transpersonal psychology and experimental parapsychology, he currently focuses on building bridges between essential science and essential spirituality, such as his *The Archives of Scientists Transcendent Experiences* website ([www.issc-taste.org](http://www.issc-taste.org)). More information and reprints of many publications are available at [www.paradigm-sys.com/cttart/](http://www.paradigm-sys.com/cttart/) He is best contacted by email at [ctart@itp.edu](mailto:ctart@itp.edu) or [cttart@ucdavis.edu](mailto:cttart@ucdavis.edu).