

PSI, INTERNAL ATTENTION STATES AND THE YOGA SUTRAS OF PATANJALI

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Rex Stanford introduced me to the Yoga Sutras of Patanjali about ten years ago. Although I had never been interested in Eastern philosophy, I found myself intrigued by what seemed to be a very sophisticated orderly approach to my main area of interest, the relationship between psi phenomena and "altered" states of consciousness. My initial Ganzfeld work was stimulated in part by Patanjali, as was my preliminary account of the role of psychophysical noise-reduction in psi-conducive states.

The association between psi phenomena and meditation can be traced back to the Vedas of ancient India. Claims of siddhis—psychic powers—occurring as by-products of meditation were common in all of the early writings on Yoga. Patanjali is generally regarded as the founder of the Raja system of Yoga and devoted one of the four chapters of his Yoga Sutras to a classification of siddhis. Patanjali's Yoga Sutras is believed to be one of the oldest surviving textbooks of Yoga and has been translated with commentaries by various Indian scholars (Mishra, 1967; Prabhavananda and Isherwood, 1953; Taimni, 1961; Vivekananda, 1955). In the following discussion, I will be relying primarily on the translation and commentary of I. K. Taimni, in his book, *Science of Yoga*.

I will briefly outline some of the main features of Patanjali's system which bear on psi-conducive states research. I will then discuss what Patanjali suggests is the next and most powerful stage with respect to the manifestation of psi phenomena and offer some thoughts concerning some experimental approximations.

That Patanjali views Yoga as a process of psychophysical noise reduction is made clear in his second Sutra: "Yoga is the inhibition of the modifications of the mind" (I-2, p. 6). Patanjali describes eight "limbs" or stages of Yoga which are designed to successively attenuate external and internal sources of distraction.

The first five stages are described as preparatory purification and are intended to systematically reduce external sources of distraction. The first two stages (Yama and Niyama) involve attenuation of distractions asso-

ciated with emotion and desire. The next two (Asana and Pranayama) are concerned with the removal of somatic distractions. The fifth stage (Pratyahara) involves detachment of attention from the sensory organs in order to isolate consciousness from external perception.

Experimental research on psi-conducive states to date has focused almost exclusively on the latter two categories; i.e., reduction of sensory-somatic distractions, through the use of a variety of naturally-occurring or induced states or procedures, e.g., REM sleep, traditional meditation practices, hypnosis, progressive relaxation and Ganzfeld stimulation. The experimental work on relaxation and perceptual isolation has been discussed from a variety of perspectives elsewhere (e.g., Braud, 1978; Horton, 1977, 1978, 1979; Kennedy, 1979a, 1979b; Sargent, 1979, 1980).

The last three stages of Patanjali's system are devoted to the attenuation of internal cognitive distractions. This is accomplished by maintaining attention on a single object or image. These three stages are characterized by increasing durations of concentration. The object of concentration serves to focus and limit attention within a narrowly prescribed area. Concentration (Dharana) is achieved when attention is confined within the boundaries of a single object or image. In this stage, attention is free to fluctuate within the defined area but may not wander outside of it. Meditation (Dhyana) involves the maintenance of concentration for a longer period of time. It is characterized by less movement of attention within the boundaries of the focal object or image, which is experienced with greater continuity. In the final stage (Samadhi), concentration is maintained for a still longer period. This stage is characterized by total continuity of attention on the focal object or image. Attention is said to be "absorbed" in the object and there is a dissolution of normal subject-object differentiation that is associated with an experience of transcending space-time. Collectively, these last three stages constitute a process which Patanjali calls Samyama. According to Patanjali, paranormal phenomena may be produced by performing Samyama.

There has been very little experimental psi research pertaining to concentration. Rhea White in her seminal article on old and new methods of response to ESP targets, describes the technique used in earlier qualitative experiments by Mary Craig Sinclair, Doris Carlson and others which placed great emphasis on concentration, forming a specific image and holding that image to the exclusion of everything else prior to the target retrieval or "reception" period (White, 1964). Despite the strong interest generated by White's paper, there has been little follow-up research on concentration and associated practices. The major exception is Morris's recent and as yet largely unreported work involving visualization training.

While states of absorption and concentration would appear to be the next logical stage in the evolution of psi-conducive states research, there are several problems which I believe have retarded its development. The most challenging problems concern the induction and objective measurement of concentration/absorption. We can now relatively easily induce and measure relaxation through convergent physiological and verbalization methods and we can regulate perceptual input through Ganzfeld stimulation and similar techniques. But how do we induce and objectively measure states of absorbed concentration?

Before proceeding to discuss a few possibilities, it should be noted that we are dealing at best with crude approximations of the type of absorbed states described by Patanjali and his commentators. It is clear from their writings that the successful practice of Samyama requires a level of individual dedication and discipline that exceeds the limitations of any pragmatic research program. Indeed, attainment of the higher yogic states is said to require an investment of several lifetimes—a commitment that few of us are prepared to make on either practical or philosophical grounds.

The commentary discussions on absorption/concentration, especially that of Taimni (1961), describe a state of conscious abstraction chiefly characterized by what is literally a lack of subject-matter, i.e., dissolution of subject-object differentiation. This may account for the difficulties of communicating such experiences in the implicit dualism of everyday life. It would also account for reported time-distortions, considered by some of the commentators as good indices of progress, and for the transcendence of space and time, experienced in the more profound stages. As several psi Ganzfeld studies already suggest, time distortion (the relative difference between clock and perceived time) may be a useful measure (Stanford and Neylon, 1975; Palmer, Bogart, Jones and Tart, 1977). Psychological tests that measure self-consciousness, field-dependence and, of course, psychological defensiveness, should correlate with abstractedness. Beyond rather gross measures of relaxation and deafferentation, it is probably not productive to speculate at this time on the most probable psychophysiological concomitants.

In addition to following up the Sinclair-Carlson visualization method, mentioned above, several other methods of concentration deserve consideration. One of the most obvious of these is biofeedback. Passive attention to pleasant auditory tones and/or visual patterns which vary in relation to the practitioner's EEG, hand temperature, etc., could provide a more sensitive version of meditations based on following or counting one's breath. While the suggestion here is to use the biofeedback signal(s) simply as an attentional focus, the value of which may be independent of the attainment of any degree of training proficiency, degree of proficiency

attained could be a useful measure, particularly if it converges with self-report measures of time distortion, deindividuation, etc.

Another, albeit less obvious, approach which, although moving away from Patanjali and the traditional psi-conducive states procedures, may provide strong potential for absorption in an experimental task, involves embedding psi tasks in game-like fantasies using computer video games.

The commercial success of electronic arcades testifies to their popularity. Recent estimates suggest that 20 million Americans have deposited \$2.5 billion—mostly in quarters—in these machines since their introduction eight years ago and that 59% of the population over the age of 13 has played coin-operated video games (Lachenbruch, 1980).

Whatever else may be involved, the player must maintain very close attention to the task in order to e.g., avoid losing his/her laser cannon to the Space Invaders, or having his/her spaceship destroyed by a never-ceasing barrage of Astroids. For those who enjoy them, and of course not everyone does, these games are highly absorbing and motivationally self-contained. As Lachenbruch (1980) put it, "The appeal of the video game is that it's completely absorbing. So many things are happening at one time that concentration is essential. And the game provides us with a thrill with which we are personally unfamiliar—like driving a race car or battling in space—in a totally familiar environment, the television tube" (p. 8).

What would happen if we substituted a "live" random source for the pseudorandom elements in these games, allowing a psi component (e.g., whether the laser cannon misfires, the point value of hitting the flying saucer, whether the player can regain control of his/her racecar after hitting an oil slick, etc.)?

With the availability of relatively inexpensive, powerful and easy-to-use microcomputers, the possibility of developing completely self-contained, motivationally-relevant and absorbing psi experiments embedded in video game formats is now within our reach.

While the principal concern of this discussion is in the promotion of highly absorbed, concentration states, it should be noted that this approach also enables a high degree of experimental control which, from the standpoint of the subject ("player"), is totally unobtrusive. Interfaced with appropriate hardware random event generators, these systems can automatically generate targets, record targets and responses, count hits and perform sophisticated statistical analyses. Indeed, aside from recruitment and selection of subjects, the experimental design is the computer program. The possibility of sensory cues (in ESP-type experiments) is eliminated as is any but the most sophisticated computer fraud. The latter possibility, as well as data selection artifact, can be minimized through a variety of

methods, the most important being systematic independent replications, which should be easier to achieve since the experimental design, i.e., the computer program is constant and replaces the experimenter as the primary motivator and source of interest in the experiment.

In addition to concentration, absorption and interest, there is one other element of the game-fantasy environment that could be very important. This has to do with the effective temporary acceptance of a belief system in which the occurrence of psi is possible, natural (and thereby socially approved) and useful.

Ordinarily, in our experiments we are asking people to invoke abilities that are at best unfamiliar and at worst contrary to their "received" cultural beliefs. Yet the alternate realities created by games and fantasies are familiar to all. The ground-rules are thoroughly understood. Entering the world of fantasy, we can accept many bizarre circumstances and strange entities, invoke mythical abilities through "magic," the "Force," etc., and perform heroic feats with life-threatening consequences, all in the comfort of knowing that when the game is over, we will return to the safety of ordinary reality.

There is a new game-form, variously labeled role-playing fantasy, interactive fiction or, after the original, "Adventure," which has gained popularity through the home computer market. Unlike arcade games which are over very quickly, the completion of an adventure may require many hours. These games generally involve a mix of logic and magic. The adventurer is presented with a goal (find and return with treasure, save the fair maiden, rescue hostages, prevent a nuclear accident, etc.) and an environment (Treasure Island, Medieval Europe, a space expedition, etc.). The player must learn how to manipulate his/her environment, find tools and hidden clues, ward off hostile entities, etc., in order to successfully complete his/her mission.

In the better examples of this genre, there are many points at which random decisions are made which significantly affect the player's temporary status or even the game's eventual outcome. These include personal attributes of the central character (intelligence, strength, courage), provisions and supplies (food, weapons, oxygen, etc.), frequency and helpfulness of clues, ability to invoke the magic word, encounters with entities, entity attributes and disposition, the location and value of treasure, etc. Each of these parameters provides an entry point for psi (through "live" as opposed to algorithmic randomness) that is wholly consistent with the overall goals and objectives of the game.

Indeed, this is one case in which the provision of a psi element constitutes a genuine enhancement of the game, since the adventurer must

invoke real magic through some criterion of success on the random generator in order to successfully pursue and complete his/her mission.

Will this approach work? The most promising work on psi fantasy testing to date is undoubtedly that of Margaret Anderson. She went into elementary school classrooms and created an elaborate fantasy in which the children's ESP card-guessing success would launch an imaginary rocket ship. Several variations also produced promising results (Anderson and McConnell, 1961). While we cannot distill and reproduce gifted experimenters, we can capture, through the vehicles provided by our present technology, some of the interest and motivation which has hitherto depended almost entirely on the variable social skills of experimenters.

BIBLIOGRAPHY

- Anderson, M. and McConnell, R. A. "Fantasy testing for ESP in a fourth and fifth grade class." *Journal of Psychology*, 1961, 52, 491-503.
- Braud, W. G. "Psi conducive conditions: explorations and interpretations." In B. Shapin and L. Coly (Eds.), *Psi and States of Awareness*. New York: Parapsychology Foundation, 1978. Pp. 1-41.
- Honorton, C. "Psi and internal attention states." In B. Wolman (Ed.), *Handbook of Parapsychology*. New York: Van Nostrand Reinhold, 1977. Pp. 435-472.
- Honorton, C. "Psi and internal attention states: information retrieval in the Ganzfeld." In B. Shapin and L. Coly (Eds.), *Psi and States of Awareness*. New York: Parapsychology Foundation, 1978. Pp. 79-100.
- Honorton, C. "Methodological issues in free-response psi experiments." *Journal of the American Society for Psychological Research*, 1979, 73, 381-394.
- Kennedy, J. "Methodological problems in free-response ESP experiments." *Journal of the American Society for Psychological Research*, 1979, 73, 1-15.
- Lachenbruch, D. "Zap those aliens!" *TV Guide*, December 6, 1980, pp. 4-8.
- Mishra, R. *The Textbook of Yoga Psychology*. New York: Julian Press, 1967.
- Palmer, J., Bogart, D., Jones, S. and Tart, C. "Scoring patterns in an ESP Ganzfeld experiment." *Journal of the American Society for Psychological Research*, 1977, 71, 122-145.
- Prabhavananda, S. and Isherwood, C. *How to Know God: the Yoga Aphorisms of Patanjali*. New York: New American Library, 1953.
- Sargent, C. "Repeatable significance and the significance of repeatability." Paper presented at 3rd Annual Society for Psychological Research International Conference, Edinburgh, 1979.
- Sargent, C. *Exploring Psi in the Ganzfeld*. Parapsychological Monographs. No. 17. New York: Parapsychology Foundation, 1980.
- Stanford, R. G. and Neylon, A. "Experiential factors related to free-response clairvoyance performance in a sensory uniformity setting (Ganzfeld)." In J. D. Morris, W. G. Roll and R. L. Morris (Eds.) *Research in Parapsychology 1974*. Metuchen, N.J.: Scarecrow Press, 1975. Pp. 89-93.
- Taimni, I. K. *The Science of Yoga*. Wheaton, Ill.: The Theosophical Publishing House, 1961.
- Vivekananda, S. *Raja Yoga*. New York: Ramakrishna-Vivekananda Center, 1955.
- White, R. "A comparison of old and new methods of response to targets in ESP experiments." *Journal of the American Society for Psychological Research*, 1964, 58, 21-56.

DISCUSSION

BRAUD: Perhaps you should consider trying Hanselquest with Hansel as your first subject to maximize motivation. But more seriously, in connection with measuring concentration, I've toyed with the idea of using sensory aids for concentration, varying the proportion of time you give this aid to the subject as a possible means of quantifying concentration.

HONORTON: Can you give an example?

BRAUD: Suppose the feedback from the random generator is a tone of a certain frequency and amplitude. Then you would give an identical tone to the influencer as a kind of model, a template, as what you would like to have reproduced. Then by varying the amount of time that you give this tone to the person, you can quantify the percentage of time that the person's mind is filled with that aid, and hope that that will co-vary with the amount of time that the person attends to it.

HONORTON: Is this something that you have done?

BRAUD: It's in progress now. I'm wondering about your thoughts on these kinds of sensory aids.

HONORTON: I have an experiment that is about ready to start now that involves sensory aid. I think it is the same idea, but it's a different kind of implementation. This is a GESP experiment where the sender and receiver in their respective rooms are seated in front of color TV sets. Prior to the ESP task there is a period of mutual relaxation. The instructions appearing on the screen inform both participants that they are going to listen to the same relaxation exercise and as they relax each part of their body to imagine that part of the partner's body is simultaneously becoming more and more relaxed. Then after the relaxation, there's a sensory exercise which doubles as a disguised PK task. Most of the time all the participants see on the screen is a white dot, but at random intervals, whenever there is a p or $\frac{1}{4}$ hit, the white dot is replaced by a color graphics display. There are sixty different color graphic displays and only the sender and receiver in this experiment are sharing this information, so this is an attempt to attune them by providing common sensory experiences prior to the presentation of the target. The final stage is that after this random graphics display is done—it goes for about four minutes—there are five ESP picture trials in the experiment and each one is preceded by a triangle going to the center of the screen. This continues for two minutes. Each time the triangle reaches the center of the screen, there is a quasi-subliminal message, which is either the sender's name, the receiver's name, the word "merge" or the word "relax." This is

presented repeatedly for about two minutes. Is this similar in concept to what you were talking about?

BRAUD: Similar. The idea is that you can very easily quantify the duration of your sensory aid and all you have to do is assume some kind of correlation with duration of attention. And another point I'd like to make is about absorption. You consider absorption very important, but absorption in what? Is there not a danger of becoming too excited about the computer graphic displays in your experiment? By maximizing certain kinds of motivation in an experiment, we might inadvertently create other noise sources. Getting back to Patanjali, you might increase emotional excitement and bodily noise which may work against your goal.

HONORTON: Well, there would have to be an optimal level I would think, as in consideration of any other factor that would be important in an experiment. Too much absorption in what? This is something that is not really made very clear in, at least, the commentaries of Patanjali that I'm familiar with, because what he seems to be implying is that, by performing samyama, which is a combination of concentration, meditation and very extended single focus, one gains paranormal knowledge of the object that is being concentrated on or power over it. And that is not elaborated in a way that is particularly helpful. Rex is probably more familiar than I with the Eastern literature, particularly Patanjali. Would you agree with that?

STANFORD: Well, I have a comment, but I'll wait.

BRAUD: At this point I'll come in on that very notion. Patanjali gives very specific parts of the body upon which to do samyama for a definite siddhi and that's eminently testable.

HONORTON: I think there's a lot in Patanjali that we should pay attention to. For example, there is the idea that as one progresses in concentration there are time distortions. I think that Patanjali is a fruitful source of research ideas, that really has not been explored very widely in the field.

RUDOLPH: I'd like to comment on what I perceive to be the difference between Patanjali's approach and Buddhist meditation. Daniel Goleman's book, *Varieties of Meditative Experience*, has a good discussion of this. He considers samhadi to be a take-off point for Buddhist meditation, which then expands into mindfulness. Buddhist meditation, as I read it, looks for a balance between concentration, which is focusing down to a very narrow point, and mindfulness, which is opening up the mind to experience everything simultaneously. Progress towards enlightenment, the breaking free of conceptual conditioning, requires a balance between these two factors. I sense a parallel with the balance that William Braud mentioned in his talk and wondered how that fits in here.

HONORTON: Before you go on, let me just make a brief comment on that. We're hoping to do a comparative study of two mental training techniques, one of which is clinically standardized meditation, which was developed by Patricia Carrington in Princeton and is essentially a mantra type Yoga-based meditation and the other of which is called "open focus" and this is a more Buddhist mindfulness approach that was developed by a biofeedback researcher in Princeton named Lester Fehmi. If we can get the two of them together so that we can develop a study that will be satisfactory in terms of doing a legitimate test of their respective techniques, it could provide a basis for resolution of this issue, and we could then synthetically develop something out of both approaches that is closer to being optimal for our purposes.

DUNNE: I have a tendency to resist the encroachment of using the computer as a model of or substitute for human functions, even though I recognize its importance and usefulness. These games are indeed very useful when we are trying to learn something about what it is we're doing in our laboratories, but some of the computer games might serve more usefully as metaphors for real life activities. I can see physicists playing "Hunt the Quark" and I can imagine all of us involved in this field as being engaged in a large scale "Dungeons and Dragons" game, trying to map some subterranean maze with little knowledge of what we may find in the way of treasure or obstacles. Perhaps we should try to raise these metaphors to a more practical use than confining them to the realm of make-believe. Rather than creating games perhaps we should recognize that through our research efforts we are creating a belief system that can become a reality.

HONORTON: This is not a panacea; this is not something that's going to appeal to everybody or work with everybody, but I agree with you. Belief systems are very important to psi and we are very constrained in our work in the degree to which we allow people to believe that they're doing things in the laboratory that their culture and entire lives have previously suggested was impossible or abnormal or maybe diabolical. A game, however, is something that we're all familiar with. We can enter into a game and to a greater or lesser degree into the belief system that is required in order to do so and then get out of it again. It's not threatening in the same way that it could be to come on in a very heavy way with subjects and run them through essentially a propaganda or brainwashing session before participating in an experiment and then debriefing them before they leave so that they don't try to drive home clairvoyantly.

DUNNE: That wasn't what I meant. What I was trying to say was that any psi experiment is a game. Perhaps any experiment in any field is a game and I think that we could use the analogies of these games in the

sense that this is what we're doing. I mean all of us here are looking for some mysterious psi treasure that's been hidden by the dragons of the unconscious mind and we can make our whole approach to the field itself one that brings the same degree of interest and absorption that one brings to an artificial "game." We can utilize that approach in a broader sense than in just specific computer tasks; we can use it in any task that we present in a laboratory and, perhaps more important, in the design and functioning of the laboratories themselves.

HONORTON: I certainly don't mean to restrict game playing to computers. Computers are very convenient for this and one of the additional payoffs here is in portability and replicability, to the degree that we have not been deluding ourselves all these years in talking about the role of motivation, interest, novelty and so on, in accounting for successes and failures of experiments. We ought to be able to produce a noticeable improvement in our replicability rates if we can develop games that can be transported from one place to another, where the principal involvement is between the player and the game. Put the weight of interaction on the player/game situation, rather than subject-experimenter interaction. This is something everyone is familiar with. It's a natural thing, unlike being a subject in an experiment where there are variable interpersonal styles. With this approach we should be able to reduce the degree to which conventional kinds of experimenter effects produce differences in results.

DUNNE: I had one other point on a different topic. I applaud your suggestion that we incorporate some of the concepts and principles of Eastern teachings into our approach to constructing models or theories of paranormal phenomena. One thing we should keep in mind, though, is that these systems were designed as holistic systems. I think we may be tempted to approach them in a purely Western or linear analytic mode and tend to break down, step by step, techniques that were designed to be perceived as a totality. Yoga is supposed to represent a union or yolk between mind and body. The steps outlined are not so much a program or hierarchy of steps to develop sensory or cognitive isolation, but rather attempts to integrate cognition, perception and sensory processes and to raise them to a level of awareness where we can learn to dehabituate them. We should be cautious lest we break them down into parts and forget what the whole system is trying to present.

HONORTON: I agree with that. But I would also add that the success of the relaxation and Ganzfeld work, for example, indicates that for the purposes of maximizing psi performance, it is possible, at least to some degree, to take some of these steps out of context. Very few people are willing or able to make the kind of total life commitment that is required to practice Yoga the way Patanjali is recommending. I certainly agree

that we must not lose sight of the intended purpose of these disciplines and the integrative aspects of them. But at the same time, I do think that the past ten years of research in parapsychology shows that we can't take some of the steps without all the others and use them effectively.

MORRIS: First, you're asking about research on the effects of breathing and posture. As I recall, a fellow names James Hardt, at Langley-Porter, was doing research on breathing techniques being used in several different ways back in the early seventies. Secondly, although I don't have any references, I suspect there may be some valuable information on the effects of posture on human performance in the human factors literature. I'll try to search that out for you. Next, with regard to the concentration techniques, we did a study a couple of years ago in which we involved people in extensive concentration enhancement techniques of a fairly ordinary sort, did pre- and post-testing on free response ESP and found that without exception, everybody got worse. In interviewing the people afterwards, what emerged was a picture of our having given them too hard a concentration task. They would take it home, attempt to do it as homework; they would find that their life was a little bit disordered and they couldn't really devote the attention to it. It was not experientially rewarding. They got behind in their homework; they felt guilty though they wouldn't admit it to me. They came in for their post-training psi test sessions feeling that they would fail because they'd blown all their assignments and lo and behold they validated that expectation very nicely.

That suggests the possibility that many concentration enhancement techniques may be very susceptible to some aspects of individual differences. The early literature has frequently suggested that discipline is a characteristic which is needed. Duane Elgin, in surveying some of the reasons he feels psi isn't going to be radically misused to the detriment of society, cites as an inhibiting factor, the fact that concentration seems to be necessary, that a lot of people just don't have the discipline to do it. This leads me to questions about the measuring of concentration, not only the measuring of concentration effects, but the measuring of aspects of concentration while it's going on. Such factors as depth and duration are really going to be important to assess. And I wonder, in Patanjali's original descriptions, how much was he talking about siddhis occurring during the act of concentration versus as a result of concentration in general and what kinds of objects of concentration did he use? Were they very simple, straightforward ones or were they complex and likely to change?

My last question is, to your knowledge, how adequate are the various translations of Patanjali, since the original documents date from so long ago? Do you have any feel for how different and independent the various

translations are? Are there certain areas in which they differ quite widely, each from each other?

HONORTON: I haven't noticed any major differences in the four or so versions that I've studied, but most of the modern translations and commentaries seem to derive, to a large extent, from Vivekananda, who seems to be the primary influence in terms of Western translation. That was originally published back around 1902, shortly after his death.

MORRIS: Would you say then that the aspects in which you're presenting Patanjali to us represent common factors to all those writings?

HONORTON: Yes, to the best of my knowledge. As far as objects of concentration are concerned, William mentioned that Patanjali suggests focusing on different parts of the body to develop various sorts of powers. But I think it's clear from the context of his discussion of samyama that whatever one wants to have power over or knowledge of provides the focal object for performing samyama in a particular situation.

MORRIS: With no limits to its complexity then.

HONORTON: None that are stated or easily inferred.

NELSON: I have a couple of comments. One of them has to do with the term *concentration* which many people have already addressed. It's a difficult one as you suggested when you first mentioned it. There's a kind of implication, which I think most of us as Westerners immediately attach, of assertiveness or aggressiveness. Eastern writings are pretty explicit in saying that that has to be avoided if the concentration that you're seeking is to be useful at all in achieving the ultimate goal. My other point is possibly more important. It has to do with the siddhis that are said to arise in the course of intensive concentration or contemplation. Those are again considered very differently by the Easterners from the way we seem to consider them. They're never intended as a kind of goal. They're never the direction of the concentration. They're never the object of attention, you might say. Instead, they're actually thought of as obstacles or distractions along the way or, at least, potential obstacles. So, the question that arises I think is, how can we capitalize on the wisdom expressed by various of the Eastern philosophies in our search for evidence that psi exists? How can we try both to apply the disciplines developed by the Easterners in our investigative quest and at the same time avoid the obstacles, the distractions? You may have done some thinking on it.

HONORTON: I have, but it hasn't stopped and it isn't likely to in the near future. The importance of testing the difference between Western and Eastern ideas about concentration is the primary reason why I'm interested in biofeedback as a possible concentration device, because that also requires a kind of passive volition. As you start straining or trying

to do it, it doesn't work. Usually with biofeedback what happens is that, whatever the initial baseline value was, the performance goes down rather than up. The subject sits there and grunts and groans and strains and tries to achieve something. At some point, he lets go and says "to hell with it" and the tone comes on. And that's a very common story in biofeedback. So I think that biofeedback has an advantage in that area. On the very profound question of not getting lost in the forest with these paranormal powers, this provides a real dilemma for people such as ourselves who are devoting our lives to studying these phenomena and trying to make them more reliable. In my own thinking, I guess the closest I've come to any kind of peace with myself on that is that I have not yet lost track of why I'm interested in psychic phenomena.

I'm not interested in psychic phenomena for their own sake. I think that most of us are interested in psychic phenomena because they seem to point to new directions or very old directions, perhaps I should say, a broader definition of what it is to be a human being and the nature of reality. That's what we're interested in. That's what Yoga is all about. That's what enlightenment is all about, understanding the nature of reality.

STANFORD: I think that certainly as far as these Yoga aphorisms are concerned, the ideas that come out can often be applied to psi research. There is one area where we already have in our literature evidence to indicate that they might be fruitful, even though they haven't been studied directly. This is in the area of PK. In trying to summarize the experimental PK literature, I was rather impressed with the amount of evidence that a non-egocentric approach to the task, a kind of non-effortful flow of attention toward the objective of the PK task, seems to be much more effective than an attempt to struggle with it. The *kind* of attention is really important. But it does seem to me that if you study the meditation literature, including the Yoga aphorisms, the quality of the attention is extremely important. In fact, the second step of the three points that you were talking about is the stage at which the concentration becomes fluid, so to speak, the mind moves, as it is said, toward the object of concentration effortlessly, without our pushing it. It literally flows, as though milk were being poured out of a pitcher into a glass. We have indications from our literature that that kind of attention might be useful for the occurrence of PK. To the degree that traditional meditation techniques train for it, that ought to be good. But I would suggest that we don't need to think of it in terms of traditional techniques. We might develop specialized approaches in the lab. Of course, you are now doing this in terms of psi games. But I'm talking about actually giving people practice over a period

of time. We don't have to connect this with religious ideas, use religious objects or anything of that sort. We could just simply, perhaps, have some training sessions so that we may be able to measure the progress.

HONORTON: Well, this is why there are real advantages to using techniques like Patricia Carrington's clinically standardized meditation, because there has been a good deal of work already done on it in terms of its psychological effects and it does not involve any religious orientation. It's something that can be learned through a cassette tape program. As a research tool that certainly has some real advantages.

DEAN: It seems appropriate to say here that Eileen Garrett, in her advice to us on how to approach the agent's task in a telepathy experiment, said that it should be done in a "state of high carelessness." My question has to do with Patanjali's last three stages of increasing concentration. How to measure that is the easy part as I see it. The hard part, it seems to me, is how without disturbing the subject's concentration, we can get out of him his guess of what the target is, to find out, is he doing a siddhi? Is he doing ESP or not?

HONORTON: Well, do it as a PK experiment instead and make the object of concentration contingent on your PK target system. That's certainly one way to do it. The focus of attention say is the light—Pantas and Madis did an experiment with one of Helmut Schmidt's circular devices where Pantas used that as his concentration device and obtained very strong results in a short series, but provocative enough certainly to be pursued further.