ENLIGHTENMENT AND SPIRITUAL GROWTH: Reflections from the Bottom Up

Charles T. Tart, Ph.D.

ABSTRACT

A tendency to all-or-none thinking, you're either enlightened or you're not at all enlightened, confuses our understanding of possible aspects of spiritual growth. These ordinary state reflections begin with the difficulties of defining enlightenment, showing how it is clearet to consider endarkenment and work away from that all too common condition. Using the author's model that ordinary (and altered states) of consciousness are biological-psychological virtual realities, analogous with computer-generated virtual realities, various continuous dimensions of enlightenment can be considered. The primary two discussed herein are the available (altered) states of consciousness (ASCs) dimension—what ASCs can a person access that are appropriate to various situations?---and the within states dimension of intelligence--given you are in ASC N, how effectively, in how relatively enlightened a way, are you using it? A tool analogy clarifies this line of thinking, where the various tools available are analogous to the available states dimension and the skill in using individual tools is analogous to the within states dimension. The importance of individual differences is stressed, for a person might be relatively enlightened within one particular state, e.g., but not have useful ASCs available, or a person might have access to many ASCs but function neurotically in all of them. As a reminder that this kind of reasoning can only take us so far, even if a useful distance (relative enlightenment within ordinary consciousness), a case of Cosmic Consciousness is briefly described and suggestions for research are put fotward.

KEYWORDS: Enlightenment, endarkenment, altered states, virtual reality, spiritual growth

t is a real pleasure to be at this ISSSEEM meeting. The last time I spoke here was in the previous millennium, 1994, when we talked about the fear of psychic abilities. I guess we're going from one extreme to the other, because we'll move today from fear to enlightenment. What does enlightenment have to do with healing, the primary theme of this conference? Well some folks claim that enlightenment is the ultimate form of healing and anything short of enlightenment is just kind of a temporary measure, so enlightenment sounds pretty relevant.

What I would really like to tell you is that the **Consumers Reports** issue evaluating various paths to enlightenment has finally come out, and it will be the primary source of information I draw on. We all know what **Consumers Reports** represents: objective evaluations of products by experts who have no bias or affiliation with any particular brands of products, but just care for us consumers. A lot of us have been waiting for the issue evaluating paths to enlightenment for years! Wouldn't you like to know which paths are Best Buys, which ones have no serious flaws, no problems with lousy warranty service, no overstated claims, etc.? I really want to know these things! But I'm afraid this issue is no more than a fantasy of mine for now, and probably for a long time to come. . . .

OK, enough fantasy, back to reality.

After I'd been teaching at the University of California at Davis for about twenty years, the administration sent around a memo on how to teach. I liked that, I thought it was about time somebody told me, instead of letting me fake it all these years. They said it was a good idea to tell people what you're going to talk about in advance, keep them informed of where you are in your progress, and summarize at the end. So,

- I'm going to talk about the question of what enlightenment is. It's not an easy subject.
- Then I'm going to talk about how our own ideas and our culture's ideas affect what we think is possible, when it comes to the question of enlight-enment.

- Then I'll talk about whether we all end up enlightened in the same way. Is it really one mountaintop with various paths leading up to it, or maybe several mountain tops?
- What I'd also like to discuss and probably won't have time to get to, is what are the best ways to get enlightened, a sort of preview of what the *Consumers Reports* evaluation will cover someday.
- It would also be nice to talk about how seeking enlightenment can actually be an avoidance of real growth. But I don't think I'll have time to get to all of those things.

Since the first part of my talk is going to be rather broad and somewhat on the abstract side, I'll then give you an example of the kind of experience we could call an enlightenment or spiritual growth experience, one which is very moving and puts some juice into the more abstract conceptual framework.

DEFINING ENLIGHTENMENT

So, to get into the matter: What in the world is enlightenment?

I was taught that it's a good idea is to define your terms at the beginning of a discussion. So from Webster's dictionary:¹

en-light-en-ment (en-lit'n-ment) n. 1. a. An act or means of enlightening. b. The state of being enlightened. 2. Enlightenment. An 18^{th} -cent. philosophical movement devoted to critical examination of previously accepted doctrines and institutions from the viewpoint of rationalism.

So, the act or means of enlightening, or the state of being enlightened. OK, that's technically correct, but somehow I don't feel particularly enlightened about what enlightenment actually *is* from that definition. And, of course, we're not here to think about the eighteenth century philosophical movement.

I have a fair amount of attachment to the authority of dictionaries, though, so if the noun definition doesn't do it, maybe the verb one will?

en·light-en (en-lit'n) vt. -ened, -en·ing, -ens. 1. To provide with spiritual or intellectual wisdom. 2. To give information to: INFORM. -en·light'·en·er n.

Well, enlightening is to provide with spiritual, intellectual wisdom. Or to give information or inform. That seems like a pretty weak way to talk about enlightenment. We get information given to us all the time that doesn't let us feel like we're enlightened as a result of getting it.

o if you can't define enlightenment *per se*, maybe we can go to the opposite end and talk about *endarkenment*? (Audience laughter) Now, you laugh at this word, but personally and professionally I have studied and practiced endarkenment for almost sixty years now and I feel I know a good deal about endarkenment. And whatever enlightenment is, if you do less of the endarkenment stuff, you're probably moving in the right direction. We all are actually pretty good at endarkenment. We can get a handle on that part of it. So, one of the ways of starting from that direction, to get at what enlightenment might be, is that clarity and enlightenment must have something to do with perceiving reality correctly.

I'm not a philosopher, so I won't speculate on what the ultimate nature of reality is, but I find the idea that there is a reality independent of me to be a very useful working hypothesis in my everyday life. Although we are not in really direct contact with that postulated independent reality, since we are "located" behind a lot of psychological and physiological processes, it seems to make sense that having an accurate perception of whatever that reality is would certainly would be a component of enlightenment. So if the actual reality out there has got something square in it, then among the categories in your mind, if one that was squarish was activated in response, it would be a lot better than if one that was an arc shape or a star shape, or something like that was activated. That's represented in Figure 1. Accurate perception would certainly be one component of enlightenment.

Inaccurate perception, on the other hand would be a component of endarkenment. Let's say you see that thing shown in Figure 2 that some folks would call an angel, holding a big triangular thing in its hands, but your culture simply doesn't allow for angels. But you're good on triangles, so you perceive

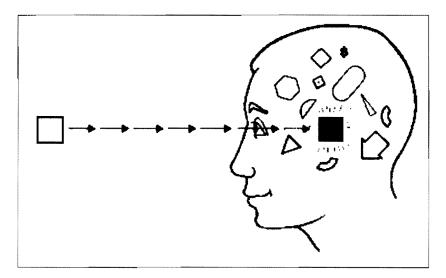


Figure 1. Accurate perception equals (relative) Enlightenment. Q1—What is Enlightenment?

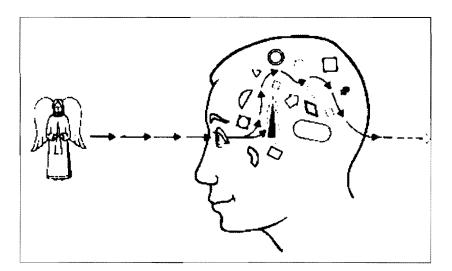


Figure 2. Inaccurate perception equals (relative) Endarkenment. Q1—What is enlightenment?

a triangle. It's a very simplified example, but we do enormous amounts of this kind of conditioned, biased, distorted perception all of the time. That's just the way things are.

hy is perception inaccurate? Our common-sense assumption is that perception is somehow like a camera. I should say a pre-digital, *film* camera, before we could all start to distort photos any way we wanted on our home computers. A film camera takes an accurate representation of what's actually in front of it. We think our perceptions are like that. But we now know from psychological research that it's not really like that at all. Perception is really a form of *thinking*. It's *very fast* thinking, and it's almost totally automatized. Most of the time, we have no conscious control over this processing/evaluation/thinking. Perception is really much more like what we saw in the popular film *The Matrix*, about living in a virtual reality, than it is like a film camera. How many of you saw *The Matrix*? (Most hands are raised) OK.

LIVING IN A BIO-PSYCHO VIRTUAL REALITY

The analogy of living in a virtual reality is a very useful one. I got very excited when computer-generated virtual reality came along because it enabled me to have a comprehensive analog or model for my own understanding of the mind. I've written about this at some length, both for ordinary states and transpersonal aspects of mind.^{2,3} Being immersed in, fooled by, computer-generated virtual reality (CGVR) is an instructive analogy for what I've long called being in biological-psychological virtual reality, bio-psycho virtual reality for short (BPVR). BPVR is where we live. We believe we're in direct touch with things, but actually we are inside a physiological/psychological process that is *simulating* the outside world. But we take the virtual, the semi-arbitrary constructions of our mind *about* reality, to be the real.

So, the "real world" we take to be out there right now is, in important respects, our biological-psychological virtual reality, our simulation, our best, largely automated guess about what's happening. Thus at least one aspect of enlightenment can be seen as relatively accurate perception of whatever is really out there: how well does our internal simulation, our BPVR construction, match the real world?

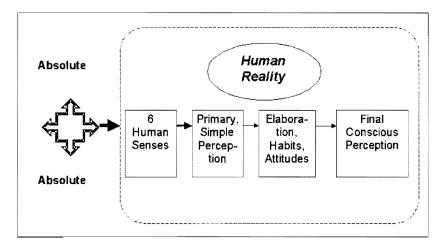


Figure 3. Meditation/psychological perspective: basic human system.

hat's actually out there? In Figure 3 I represent this as the multipronged figure labeled the Absolute. But we're not in direct touch with that. We're in Human Reality, not Absolute Reality. Through our human senses we take in a very small and specialized range of the totality of what's out there. Then we have some kind of primary, simple perceptions as a result of that. Very importantly, we then start *elaborating* those simple perceptions—or, more accurately, they are automatically elaborated for us by the BPVR process, which is controlled by our attitudes, enculturation, habits, defense mechanisms, and biological nature. At last we get some final, conscious perception. You notice these information flow arrows get smaller as we progress in the figure: we tend to get more and more specialized, throwing out more and more information on what's actually out there and reshaping it in terms of our own habits, our thoughts, our cultural conditionings and like.

As shown in Figure 4 on Samsaric/Neurotic Existence, from a psychological perspective, most of the action in the BPVR process is not in simply taking in information about what's actually out there, and having full conscious perception of it, but rather most of our activity is back to the right side of the figure, at the more complicated psychological level. This is where our needs, our hopes, our fears, our habits, our particular skills are constantly generating input as we tell ourselves Our Story. Only a little bit of actual reality gets in there to do much about modifying Our Story.

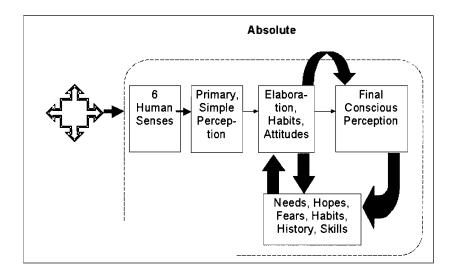


Figure 4. Samsaric/neurotic existence: attention consumed in endless, automatized fantasies, consequent reality distortion.

My wife Judy came up with a wonderful cartoon (Figure 5) to express our usual mental life. Something happens and you think about it. Your thoughts remind you about other things, which you think about, and you think about, and you think about, and you think about, and you think about! Which sets off some emotions, which triggers more thoughts, which sets off emotions, which triggers more thoughts. . . . We spend our time lost in a cloud of internal processes rather than being very much in touch with real, external reality. To put it another way, ordinary consciousness, which we don't think of as enlightened, has a high *noise level*, rather than primarily being a sensitive receptor of anything deep within us or of perceiving the nature of the outside world. All sort of processes are going on all of the time, and they are very difficult to stop! As I was telling people in my meditation workshop the other day, I used to be terrible at any kind of meditation, because the directions for meditation usually start with "First quiet your mind and then . . ." I could never get to the "and then" part.

ONTOLOGY AND BELIEFS, PARAMETERS OF THE POSSIBLE

Now as I was developing this talk I found that I was frequently thinking about ways to shift my IRA investments around. I thought, "Well I'm really distracted

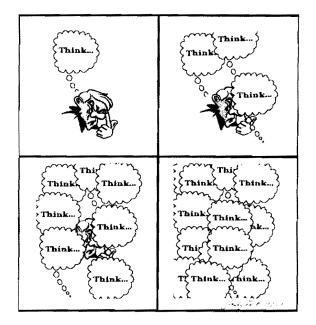


Figure 5. High "noise level" aspect of endarkenment.

by the irrelevant here," but I began to wonder, am I distracted for a reason? Is there more to this than simple, ordinary distraction? Perhaps this was a relatively "enlightened" distraction? Which led me to thinking about ontology, what's real. It's a word I don't ordinarily use, because I think philosophers have first call on ontology. But it's relevant here: ontology refers to our basic ideas about the nature of the real world and how you find out about that nature. Our ontology or ontologies, our really basic ideas about the way the world is and what's possible will determine what we think enlightenment could be and perhaps even determine what it actually will be. So let's look at the dominant ontology in our current society, materialism: What is real is what is physical.

I know that Jerry Wesch, in his Presidential address the other day, declared victory over reductionistic materialism in terms of the evidence for psychic healing being very solid. But that doesn't mean the forces of materialism have gone away: they are still enormously powerful! Materialism can take the idea of enlightenment—if it bothers to think about it at all—and can say maybe it would be a sort of optimal brain functioning—but that's it. It would allow

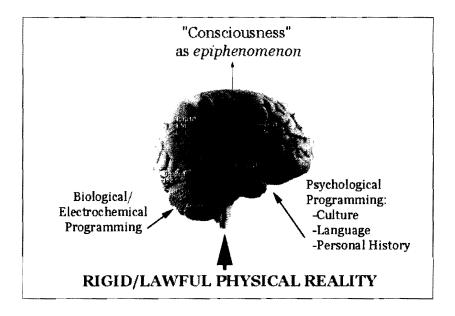


Figure 6. Scientistic materialism: mind equals brain.

none of the far out stuff like psychic healing, spirituality, or psi in general, as that kind of stuff is *a priori* impossible. So if materialism is right, then consciousness is indeed nothing but an *epiphenomenon*. This is diagramed in Figure 6.

Epiphenomenon is a fancy philosophical term often used to devalue something, make it a secondary and misleading effect rather than a primary reality. If consciousness is nothing but an epiphenomenon of brain functioning, then maybe the best you can hope for in enlightenment is some kind of drug that will make life flow relatively happily for you. From that materialistic perspective, in thinking about my IRA instead of focusing on enlightenment, I was really quite realistic and "enlightened," because if I could invest my IRA better, I could have access to better medical care and better drugs as I get older, and that's the end of the story.

Well that's not the end of the story for me, because my ontology is more of a dualist perspective. *Something Else* gets added to the material, something of a different nature than ordinary material stuff. "Mind," "soul," "spirit"—

whatever you want to call it. So, if you want to talk about consciousness, yes, the brain is important. That's our particular, personal bio-computer. It has it's own qualities—including crashing once in a while. The computer can be one of the most powerful and useful analogies for talking about consciousness. But all the evidence from parapsychology and other areas strongly argues for me that something is added to the brain that is of a different nature. Something "completely different," as they used to say on the *Monty Python* show, which makes our consciousness something more that just the operation of the brain.

So, my own approach to consciousness and enlightenment is what I call a *pragmatic dualism*. Something fundamentally different from just material stuff is added to the brain and nervous system, and consciousness is then *mind* interacting with the *brain*. That's the ontology that I'm going to use in talking about enlightenment. There's lots of good scientific evidence for it, which I have no time at all to go into, but which I've discussed extensively elsewhere.⁴

Insofar as you take dualism as real in this way, it says that, among other things, you must study spirit or consciousness on it's own terms. Don't just look at the physical side of it. Perhaps some things that, from a materialistic view, you'd be totally inclined to dismiss, have something to do with reality. Look at this diagram in Figure 7, by Sylvan Muldoon as to how he experienced astral projections, e.g. It's taken from a book that always impressed me, Muldoon and Carringtons' *The Projection of the Astral Body.*⁵ From a purely materialistic point of view, this is nonsense. Or maybe you can see it as "artistic" if you're humanistically inclined or something like that, but it has no reality to it. Once you begin to realize we have solid evidence that mind is something more than just the brain, though, you see that diagrams like this may be telling us about something real and important that needs to be looked at seriously.

ALL-OR-NONE VERSUS RELATIVE ENLIGHTENMENT DIMENSION

This brings us to the first important concept I want us to think about concerning enlightenment. We tend to think of enlightenment as all-or-none. Somebody *is* enlightened or somebody *is not* enlightened. I'm going to argue that is probably much more helpful to think of relative *degrees* of enlighten-

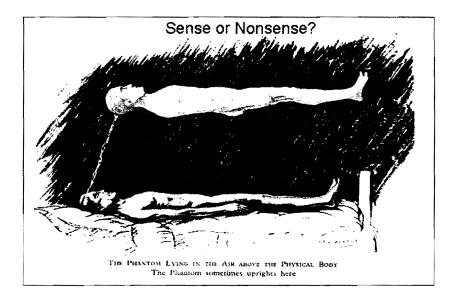


Figure 7. Sylvan Muldoon illustration of his astral projection (OBEs) experiences.

ment. Somebody may be partially enlightened to a certain degree in some certain aspect of whatever enlightenment is, rather than all-or-none.

I could be wrong about this. If the all-or-none view is right, for instance, I shouldn't be speaking to you today because I'm not enlightened, so what could I say that would be useful? This could be a serious methodological problem if the all-or-none approach is correct. By analogy, maybe being enlightened is like sex. You're either experienced or you're a virgin. We can probably all remember in our childhoods some of the crazy ideas we had about what sex was about-and what a change took place when we actually experienced sex! Maybe all our ideas about enlightenment are like a bunch of child virgins speculating about intercourse? Wild and off the mark. But, on the other hand, maybe not. And unenlightened people, or virgins, eventually plan circumstances in such a way that they're no longer virgins. So thinking about enlightenment from an unenlightened perspective, as we're (or at least I'm) doing today, may indeed help us to get there sometime or tell us something useful about using it or getting there. That's why the subtitle of this talk is "Reflections From the Bottom Up," talking about enlightenment with this relative approach, rather than an all-or-none approach.

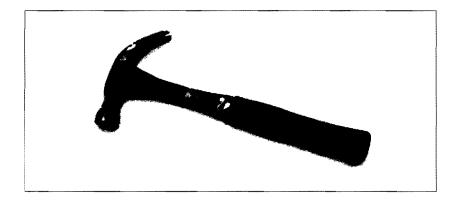


Figure 8. Tools and mental faculties

STATES OF CONSCIOUSNESS AND TOOLS— AVAILABLE STATES DIMENSION

I like to think about enlightenment and about our mental faculties in terms of tools. This approach shows you some of the influences of culture. We're a very tool using culture. As Figure 8 shows, here is a rather paint-spattered claw hammer I came into possession of, for reasons I never understood, many years ago. But particular states of consciousness or particular mental abilities are analogous to tools. A tool can do certain kinds of things well, *if it's used well* and it can do other types of things poorly, no matter how skillfully you try to use it. For example, relatively unenlightened functioning with a hammer is using it to cut boards. You *can* cut boards with a hammer, as shown by my efforts in Figure 9, you hack away at them with the claw and eventually you work your way through. But people would not want to display this as an example of fine carpentry! We can use the wrong kind of state of consciousness or the wrong kind of mental functioning to attack certain problems, and we may get some kind of result, but it may not be the best.

Let me make that point more formally, as shown in Table I. Unenlightened functioning, *relatively* unenlightened functioning, involves insensitive perception of the nature of the situation—in this case, not realizing that hammers don't cut well. Unenlightened functioning involves biased perception and

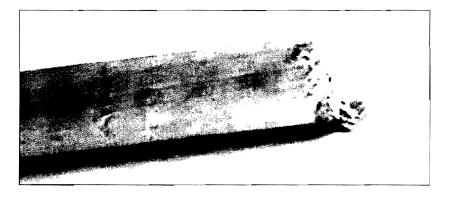


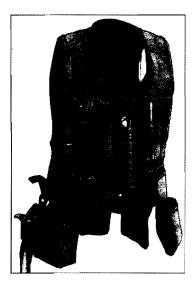
Figure 9. Relatively unenlightened functioning. Board "cut" with hammer.

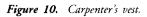
attachment. That's my hammer, I love that hammer! I need to use it for some kind of apparent reason. Personal needs tend to predominate, rather than the situation. The saw is over there somewhere, I don't want to walk that far to go get the damned saw! Unenlightened functioning involves a lot of unintended consequences. So, if you are supposedly being employed as a carpenter, your boss looks at that hacked off board and says, "Do it over again, neater!" You create karma, consequences, through unenlightened functioning, to use a rather clear term. Unenlightened functioning is also, you might say, functioning from partial knowledge. If you remembered what a lousy job hammers make of cutting things, you wouldn't do that sort of thing. But we tend to not have our full range of knowledge available when we are engaged in unenlightened functioning. Also unenlightened function tends to be neurotic or selfish or egotistical. So you cut the board that way, and the boss says do it over again, and that reminds you that your damned boss is always picking on you, and it's not fair. There ought to be a law and you should be able to sue somebody about it, and blah, blah, blah, blah.

More enlightened functioning is represented by analogy in Figure 10, showing a carpenter's vest. If you hire a carpenter to do a job for you, you expect the carpenter to arrive with a variety of tools, and to know how to use that variety of tools. When there's a board to be cut, the relatively enlightened carpenter uses a saw and gets a nice clean end on the board.

Table II summarizes the differences: relatively enlightened functioning means sensitive perception, that's sensitive to the situation and knows the right tool

<i>Table 1</i> Relatively Unenlightened Functioning					
*	Insensitive Perception		Hammers don't cut well		
*	Biased Perception Attachment	_	My hammer is my hammer and expensive!		
*	Personal Needs Predominate		It's too much trouble to find the *!@!*&! saw!		
*	Actions have many Unintended Consequences	-	Won't fit and boss says do it over again		
*	Only Partial Knowledge available	-	Doesn't recall previous experiences of results of not planning ahead		
*	Neurotic, Selfish, Egotistical	_	Damned boss always criticizing <i>me</i> !		





	<i>Table II</i> (Relatively) Enlightened Functioning					
*	Sensitive Perception	-	Knows good tool for job, saw			
*	Unbiased Perception, Non-Attachment	-	Task determines right tool, not attached to <i>my</i> tool			
*	Personal Needs subordinate to task, higher goals	_	Go find right tool, enjoy the walk			
*	Actions have <i>few</i> Unintended Consequences	_	Outcomes fit well into necessary sequence			
*	All relevant Knowledge available		Recalls right tool and consequences of using wrong tool			
*	Transcendent, ego negligible	-	Satisfaction of job well done			

for the job. It involves unbiased perception and non-attachment. The goal, the task determines the right tool *from moment to moment*. The situation determines the right kind of response to it, rather than your being attached to *my* way of responding, *my* state of consciousness, *my* skill, and what not. What's appropriate for the job? Your personal needs are subordinated to the task. If you have to go take a walk to find the right tool, relatively enlightened functioning would be to enjoy the walk.

There is an instructive story about the spiritual teacher G. I. Gurdjieff. Once some of Gurdjieff's students noticed a French road crew working on a roadside job. They were filling holes with gravel, using shovels. All but one of the workmen were working from a gravel pile right beside the hole and shoveling it in. One workman was walking off to a distant pile and coming back with a shovel full of gravel to fill with. He kept having to walk back and forth, which seemed very inefficient to the students. Gurdjieff pointed out that this workman enjoyed a nice walk back and forth on this pleasant spring day, instead of just working hard. When you're carrying out relatively enlightened functioning, you have fewer unintended consequences. I've italicized *few* in the table for a reason. I think one of the things that can really mislead us, especially if we fall into the allor-none model of enlightened functioning, is to think that every single thing an enlightened person does must be perfect. Every single thing! We're not going to cut those folks the slightest bit of slack! That's pretty rough. Rough on the enlightened person and rough on the students, who may project all sorts of delusions of perfection onto mistaken actions, which is probably a main component of endarkenment, rather than enlightenment. . . I'm not sure that enlightenement guarantees that every thought and action is going to be perfect. But there will certainly be fewer unintended consequences and more happy outcomes.

All relevant knowledge is available with relatively enlightened functioning, or at least more of it. You know the consequences of using the right tool. You know how to use it, and so forth. Your own egotism is relatively negligible in dealing with various things. So, this is one way of thinking about relatively enlightened functioning, using tools as analogies for states of consciousness or different kinds of psychological functions.

ow, I take the reality of various (altered) states of consciousness as a useful working hypothesis. That is, I don't think consciousness as we normally know it can simply do everything from any single state. I think consciousness is naturally organized into relatively discrete states - that is, the "parts" fit together in certain ways but not others. I won't make that an absolute statement, it's just my best understanding of the data we currently have on altered states.

The way I see states of consciousness, every state of consciousness is a particular way of organizing your mind. It's a relatively stable organization and, given that organization, a particular state is *good at some things, and bad at other things.* That is I'm not simplistically saying there are "higher" and "lower" states of consciousness. Maybe there are. But that's something to be determined *empirically*, actually testing what a state is and isn't good for, not just deciding ahead of time, or confusing our value judgments with actual performance capabilities. What might be a wonderful state of consciousness for going to church, for example, could be a terrible state of consciousness for balancing your checkbook.

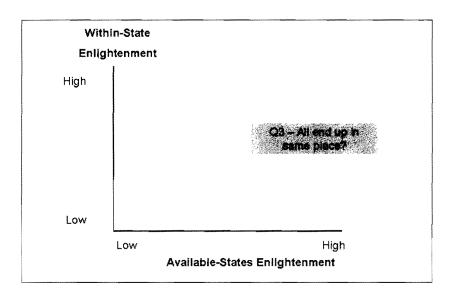


Figure 11. Two dimensions of relative enlightenment.

INDIVIDUAL DIFFERENCES

Given the reality that consciousness tends to organize itself in specific sorts of states, I've been thinking about two dimensions of relative enlightenment. One of those dimensions is that, given any one particular state that you are in at some specific time, how enlightened are you *within* it? Do you use the state really well? Up at the high end? Or do you use the state stupidly, even though it has the potential to be used in a better way. This is the *within-state enlight-enment* dimension I have plotted vertically in Figure 11. Can you use a particular state well, as you might be able to, continuing with our analogy, use a particular tool well?

The second dimension of relative enlightenment in the figure, plotted horizontally, is what other states of consciousness are available. You may have only one state of consciousness available. If it's not the best one for a particular job, too bad. It's all you've got. Or you may have a lot of them available. Let me make that a little more concrete in the next slide here (Figure 12).

I've arbitrarily plotted four states (or styles of functioning) here, and made each one analogous to a particular tool, a hammer, gloves, a rake, and a pair of

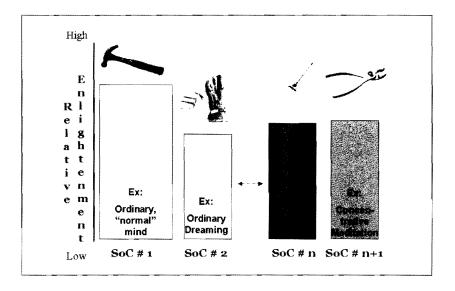


Figure 12. Some specific SoC's using the tool analogy

pliers. The quality of functioning within each state is plotted on the vertical axis.

Let's make the example a little more concrete. Suppose the hammer state is like ordinary consciousness: ordinary consciousness is good at pounding reality into shape sometimes. It's forceful, it can be very handy that way. Let gloves be analogous to dreaming. You can handle hot stuff in dreams without getting burnt in everyday reality. A rake can be like insight meditation, *vipassana*, you can rake the gravel of karmic obstructions aside and see the true pattern of your mind underneath. Concentrative meditation can be like a pair of pliers, it lets you get a firm grip on things in a particular way. These analogies are a little forced, but they will probably help you remember the more abstract points a bit better.

Using these analogies, we're now talking about the individual differences possible in enlightenment. Figure 13, e.g., could represent a normal person who operates in the low range of his ordinary state. He has a little bit of dreaming functioning available, but again in the low functioning range of

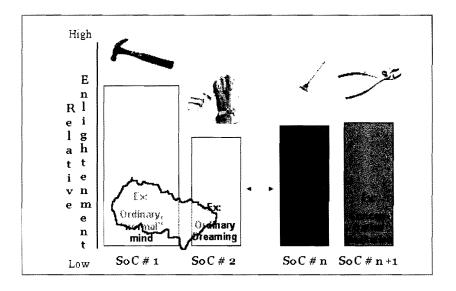


Figure 13. "Normal" but neurotic range of functioning.

dreaming, so he is not relatively enlightened in either state. He's just within the normal range. He doesn't use his ordinary state at its best possible advantage by any means, and he doesn't make any serious use of his dreams.

In Figure 14 I've illustrated the idea that you might have someone who is relatively enlightened in the sense that she can have quite high levels of functioning within one state, her ordinary state. Dreaming is still pretty much ignored. But she doesn't really have any altered states available. So, you can have some people who are quite enlightened, as it were, *relatively enlightened within one state.* But limited in the kind of states they can get into. Quite good with one tool, but it's their only tool.

In Figure 15 we have an example of some kinds of people we all know. I use the technical term "flaky," here. You could use neurotic or psychotic if you want—-I'm from California, flaky is a technical term there. We all know people who can get into a variety of altered states of consciousness and have all sorts of interesting and unusual experiences, but they still screw their life up left and right, day after day. Having all of these unusual experiences doesn't really help that much. So they may have a lot of different states available, but they're not

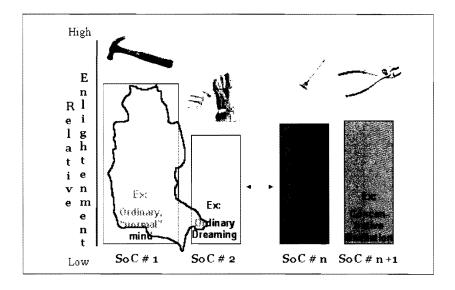


Figure 14. High functioning, mature but one-state functioning.

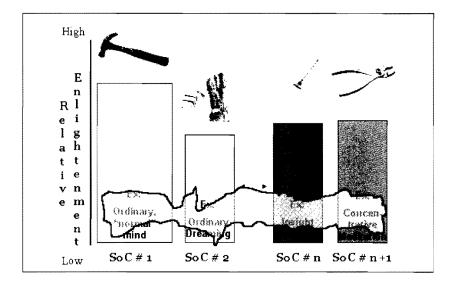


Figure 15. "Flakey" or psychotic functioning.

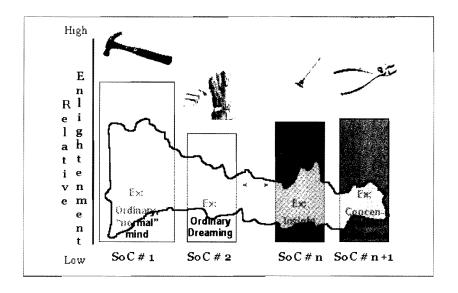


Figure 16. Moderate to high functioning of both dimensions.

using them well. It's like a person who owns a number of tools, but doesn't know how to use any of them well.

You may know people who are moderately enlightened, in the sense that they have a variety of states of consciousness available as tools and they can get up to relatively high levels of functioning within each of those. That's plotted in Figure 16.

We could extend this way of diagrammatic thinking and perhaps represent a fully enlightened person by drawing a line around the whole range of functioning, high and low levels in all states, thus arguing that a highly enlightened person is someone who has lots of states of consciousness available and knows how to use each one of them very well. But this graphical thinking also illustrates the limits of trying to grasp things this particular way, there is much to reality that isn't represented at all on these diagrams.

Looking at individuals this way also alerts us to the importance of individual differences. A style or state of functioning that's quite enlightened for one person may not be effective or relatively enlightened for another. A path or

practice that's effective in increasing the enlightenment for one person may not be very effective for others, or it may be useless for another person who is already pretty good in that aspect of enlightened functioning.

I like reframing enlightenment in these relative terms, because it makes our life a little easier. Let's face it, if it really is all-or-none, you're a bunch of unenlightened people listening to another unenlightened person who couldn't possibly know what he's talking about! What a waste of time! But if conceptualizing relative enlightenment has something to say for it, you are people who are probably relatively enlightened in some ways, if not in others. And I might be too. And we might be exchanging some useful information. Let's hope that's true!

AN EXAMPLE OF ALTERED STATES/COSMIC CONSCIOUSNESS

ow, I've mentioned this altered states of consciousness dimension as an aspect of enlightenment. Let me give you a concrete example now, so that we don't just have a lot of abstractions here. How many of you have read R. M. Bucke's classic book, **Cosmic Consciousness**?⁶ (Many hands raised) His book described a classic kind of mystical experience, a kind of enlightenment experience that permanently changed Dr. Bucke and that he believed a number of historically venerated persons (Buddha and Jesus, e.g.) had also experienced. It was one of the most moving books I ever read. Bucke's account was also impressive to me because he was trained as a physician and was trying to be scientific in describing it, to be very clear about what actually happened, instead of just giving us his interpretations of what was going on.

Some years ago, I met another physician, Alan Smith, who had also had a cosmic consciousness experience. This was especially interesting because at the time it occurred, he had never heard of Bucke and had no interest in this sort of thing, so couldn't have been influenced by Bucke—yet his experience was so similar. Alan was a physician and an anesthesiologist, working as a researcher. He'd been brought up in a mildly religious family, but he had long ago rejected religion. He thought of himself as an atheist—not an active atheist, he simply wasn't interested in any of this weird, illogical stuff. It had no place in his life and he didn't give a damn about it. But he spontaneously had a cosmic consciousness experience that had so much effect on him that, although he was an outstanding young researcher, and had won a national prize for his research in anesthesiology, and was going to be offered a tenured position at a major university, but he quit! So that he could have more time to study what had happened to him. As all you academics will understand, somebody who quits just before getting tenure is making a major life change! I've really appreciated the protection tenure gave me all through my own career!

I m going to read you some excerpts of Alan's cosmic consciousness experience. I do this partly to show you that what I've said so far is useful, but inadequate, and partly to show you how thinking about enlightenment as we've done today can actually lead to some useful research. If you are interested enough to want details on this, I interviewed Alan at length, and together we wrote an article which was published in the *Journal of Consciousness Studies*.⁸ The full text of this article is available on my website, www.paradigmsys.com/cttart/.

This was and is, to my knowledge, the only first person comparison of spontaneous cosmic consciousness and psychedelic experiences from the inside, from direct experience. In the scholarly literature there are lots of learned arguments about whether psychedelics can produce "genuine" mystical experiences. The vast majority of them are written by people who have never had either a mystical experience or a psychedelic experience! There are a few written by people who have had one kind of experience, but not the other. I thought Alan was quite amazing, because after he'd had this mystical experience, he went out and took psychedelics to make a comparison between them. So we had someone who actually had observations from the inside for both things.

Here are some aspects of Alan's experience, just some of the highlights.

My Cosmic Consciousness event occurred unexpectedly while I was alone one evening and was watching a particularly beautiful sunset. I was sitting in an easy chair placed next to floor to ceiling windows that faced northwest. The sun was above the horizon and was partially veiled by scattered clouds, so that it was not uncomfortably bright....

The Cosmic Consciousness experience began with some mild tingling in the perineal area, the region between the genitals and anus. The feeling was unusual, but was neither particularly pleasant nor unpleasant. After the initial

few minutes, I either ceased to notice the tingling or did not remember it. I then noticed that the level of light in the room as well as that of the sky outside seemed to be increasing slowly. The light seemed to be coming from everywhere, not only from the waning sun. In fact, the sun itself did not give off a strong glare. The light gave the air a bright thickened quality that slightly obscured perception rather than sharpened it. It soon became extremely bright, but the light was not in the least unpleasant. . . .

Along with the light came an alteration in mood. I began to feel very good, then still better, then elated. While this was happening, the passage of time seemed to become slower and slower. The brightness, mood elevation, and time slowing all progressed together. . . . Eventually, the sense of time passing stopped entirely. It is difficult to describe this feeling, but perhaps it would be better to say that there was no time, or no sense of time. Only the present moment existed. My elation proceeded to an ecstatic state, the intensity of which I had never even imagined could be possible. The white light around me merged with the reddish light of the sunset to become one all enveloping, intense undifferentiated light field. Perception of other things faded. . . .

At this point, I merged with the light and everything, including myself, became one unified whole. There was no separation between myself and the rest of the universe. In fact, to say that there was a universe, a self, or any "thing" would be misleading—it would be an equally correct description to say that there was "nothing" as to say that there was "everything." To say that subject merged with object might be almost adequate as a description of the entrance into Cosmic Consciousness, but during Cosmic Consciousness there was neither "subject" nor "object." All words or discursive thinking had stopped and there was no sense of an "observer" to comment or to categorize what was "happening." In fact, there were no discrete events to "happen" —just a timeless, unitary state of being.

Cosmic Consciousness is impossible to describe partly because describing involves words and the state is one in which there were no words. My attempts at description here originated from reflecting on Cosmic Consciousness soon after it had passed and while there was still some "taste" of the event remaining.

Perhaps the most significant element of Cosmic Consciousness was the absolute knowingness that it involves. This knowingness is a deep understanding that occurs without words. I was certain that the universe was one whole and that it was benign and loving at its ground. Bucke's experience was similar. He knew, ". . . that the universe is so built and ordered that without any peradventure all things work together for the good of each and all, that the foundation principle of the world is what we call love and that the happiness of every one is in the long run absolutely certain."^{6(p.8)}

The benign nature and ground of being, with which I was united, was God. However, there is little relation between my experience of God as ground of being and the anthropomorphic God of the Bible. That God is separate from the world and has many human characteristics. "He" demonstrates love, anger, and vengeance, makes demands, gives rewards, punishes, forgives, etc. God as experienced in Cosmic Consciousness is the very ground or "beingness", of the universe and has no human characteristics in the usual sense of the word. The universe could no more be separate from God than my body could be separate from its cells.

Moreover, the only emotion that I would associate with God is love, but it would be more accurate to say that God is love than God is loving. Again, even characterizing God as love and the ground of being is only a metaphor, but it is the best that I can do to describe an indescribable experience.

The knowingness of Cosmic Consciousness permanently convinced me about the true nature of the universe. However, it did not answer many of the questions that (quite rightly) seem so important to us in our usual state of consciousness. From the perspective of Cosmic Consciousness, questions like, "What is the purpose of life?" or "Is there an afterlife?" are not answered because they are not relevant. That is, during Cosmic Consciousness ontologic questions are fully answered by one's state of being and verbal questions are not to the point.

Eventually, the Cosmic Consciousness faded. The time changes, light, and mood elevation passed off. When I was able to think again, the sun had set and I estimate that the event must have lasted about twenty minutes. Immediately following return to usual consciousness, I cried uncontrollably for about a half hour. I cried both for joy and for sadness, because I knew that my life would never be the same.

So, this is a good reminder that my talk is only some reflections on enlightenment and spiritual growth, and they are reflections from the bottom up. I've never had that kind of experience.

Table III					
Joy	High	Ecstatic	Emotional Condition		
1	×	x	good news in personal life		
3	1	x	being newly in love		
5	3	×	LSD, marijuana		
х	8	1	average orgasm		
X	x	4	best orgasm of my life		
x	×	40	Cosmic Consciousness		

CROSS STATE COMPARISONS

Wen with this overwhelmingly intense experience, though, we can make useful conjectures and comparisons. Alan did go on to compare his cosmic consciousness experience with a number of other kinds of experiences. Table III compares states of joy, states where you feel high, states where you feel ecstatic, being in love, orgasms, and cosmic consciousness. For instance, you probably never knew the ratio between the best orgasm ever and cosmic consciousness. But he has rated cosmic consciousness on an ecstasy scale as a forty, and the best orgasm in his life was only a four, and the average orgasm was one. That will fix things in your mind, won't it? But notice that while states like joy are high in everyday existence, he doesn't even rate those in comparison to cosmic consciousness. Those aren't part of the experience. Those are left so far behind.

The fact that someone can begin to make comparisons like this is encouraging to conceptualizers like me. And I hope someday we have enough refined knowledge to say this table is incredibly crude. But it's a beginning. It's a

beginning of mapping relationships through states of consciousness, and learning something more about the possibilities of enlightenment.

SUMMARY

Let me do a quick review of the things I've talked about. Remember this was on the handout the University gave me on how to teach. You should review things at the end, so people will know what you've talked about.

he first major theme I dealt with was the issue of defining enlightenment. I pointed out that unenlightened people like us can't adequately define it. Maybe enlightened people can't either, whatever enlightenment is! Seeing what endarkenment is gives us some baselines, though, to begin to understand where we're at, where we might move from and a direction to move in.

The second major theme was about distinguishing *relative* levels of enlightenment, instead of thinking in an all-or-none fashion. This gives us a useful conceptual handle to begin to understand some things about enlightenment, and, as I said, makes us unenlightened folks less ashamed of just being a bunch of unenlightened clods. We are all relatively enlightened in certain ways.

A third major theme I've talked about is how our own and our culture's ideas affect our idea of what's possible. We looked at the materialistic versus a more spiritual view. I certainly have opted for the later, and I think just about everybody here would. We recognized that the mind is the brain, *plus* a *something else*, a something else that's very, very important. I can't stress how important the ontology, the underlying beliefs you have are: they affect how you're going to see things. The way you pose the questions, as it were, can have a profound effect on the kind of answers you get. It's good to recall John Lilly's succinct saying, "In the province of the mind, what one believes to be true either is true or becomes true."

So, watch out what you believe! We are biased observers, we see the world through our biases and we act on the world the way we believe it is. We're liable to get (biased) evidence to prove that particular point of view. This is nicely illustrated in my favorite joke about the optimist and the pessimist. The optimist says, "This is the best of all possible worlds!" The pessimist says, "Yeah."

There's often a slight delay before people get it. The joke is actually a profound teaching about ontology. So, we opted for a dualistic view to take the spiritual stuff seriously.

Then a fourth major theme I talked about was these two major dimensions of enlightenment. There are certainly more dimensions than this, of course. One of those we discussed is the within state dimension. Giving that you're in some particular state of consciousness, how well are you using it? Are you using it stupidly or neurotically at the bottom end, are you using it skillfully and with finesse at the top of the dimension? Thus you may have some people who are pretty enlightened, given the one state of consciousness they have available. The other dimension we discussed of relative enlightenment is what other kinds of states do you have available? Because other kinds of states are different kinds of tools, which are good for some things and not for other things.

Maybe there's an ultimate enlightenment of some sort, that somehow includes all these different states and good functioning within them. That's a possibility, but we're not too close to that particular one yet.

ooking at different dimensions also deals with the question of whether we all end up in the same place if/when we get enlightened? No, at least not with the levels of enlightenment that we might see, where people might be relatively enlightened in some ways and not in other kinds of ways. So, nobody's totally unenlightened from this point of view. You don't need to feel bad about where you are.

Some Action Conclusions

There are some action conclusions from this approach. It's nice to think about enlightenment, but can we begin to do things that might make this type of ultimate healing more possible for all of us? From this approach, for instance, it's important to start mapping various altered states of consciousness and to find out more *precisely* what they're good for and what they're not good for. Then we can be specific in saying this state is the tool to use for that job, and if you use that other tool you're going to have consequences you don't like, or it won't do it effectively, or something like that. We need to know the positive traits and skills of each state *and* the negative costs of it. And, of course, how to train people operating within those particular states to optimally use that particular kind of consciousness.

e also very much need to observe and study our own biases and hopes and fears in this search for knowledge. One of the ways I've grown in this life, for instance, is to discover some of the highly unrealistic ideas I have about what enlightenment ought to be like. Once I was watching a rerun of *The Ten Commandments* movie, and I realized on some level what I wanted to become enlightened for. I wanted to wrathfully cast down my tablets of righteousness and destroy my enemies! When I saw that, I thought "Uh oh, maybe that's not quite what the whole story is about. Watch that one."

This approach also emphasizes how important it is to recognize individual differences and study them. What's going to be effective for particular people?

Here's a brief story to illustrate that. A friend of mine, Shinzen Young, is one of the best meditation teachers in the United states. He got his training in several Asian cultures under the best teachers. It's his experience that if he teaches people meditation at a weekend or a retreat, just about everybody gets something out of it, and they all say meditation is going to become a part of their life. If he comes back a year later and five percent of them are still meditating regularly, he's done well! He's spoken to many other teachers about this and that's the experience of other teachers, including teachers in the East, where we think effectiveness must be much better. Shinzen says, no, they've got about the same success rate, they just justify it in terms of karma. If it's your karma to come around and learn meditation, you'll come around. But if it's not your karma to stick around, you won't stick around. Maybe you'll come back ten lifetimes later, maybe you won't.

From my western point of view, if I started a college and had a ninety-five percent flunk out rate, I would seriously look at how I'm teaching! Sure, you get a few students who aren't suited to college, but ninety-five percent? Something's very wrong there. We really need to study what's effective for each particular kind of person. Then we can have an effective curriculum. It goes back to that **Consumers Report** issue that we're waiting for. What works for what kind of person, what product/method is best for you?

I ended this talk with Alan Smith's cosmic consciousness experience, to remind us that we're taking a stab at understanding enlightenment, but we don't understand that much, even though it's vitally important. Think of the healing qualities of that experience: to know that the deepest level of your being, that the universe is all right! Haven't we all had bad days, when we've looked at the universe and thought, "I don't know about this universe, it looks pretty bad?" It would affect our functioning considerably to know at the deepest level of our being that it's really all right.

So, my talk has been somewhat heady, but hopefully not too heady. This is the end of the formal talk, but hopefully the beginning of people's reflections and thinkings and perhaps going somewhere with this. Thank you for your attention.

• • •

CORRESPONDENCE: Charles T. Tart, Ph.D. • Professor, Institute of Transpersonal Psychology • Palo Alto, CA • cttart@ucdavis.edu • www.paradigm-sys.com/cttart/

REFERENCES & NOTES

- 1. Webster's II: New College Dictionary (Houghton Mifflin, New York, 2001).
- 2. C. Tart, Multiple Personality, Altered States and Virtual Reality: The World Simulation Process Approach, *Dissociation* **3** (1991), pp. 222-233.
- 3. C. Tart, Mind Embodied: Computer-Generated Virtual Reality as a New, Dualistic-Interactive Model for Transpersonal Psychology. In K. R. Rao (Ed.), *Cultivating Consciousness: Enhancing Human Potential, Wellness and Healing* (Praeger, Westport, CT, 1993), pp. 123-137.
- 4. C. Tart, Parapsychology and Transpersonal Psychology. In B. Scotton, A. Chinen & J. Battista (Eds.), *Textbook of Transpersonal Psychiatry and Psychology* (1996), pp. 186-194.
- 5. S. J. Muldoon & H. Carrington, *The Projection of the Astral Body* (Rider & Co., London, England, 1929).
- 6. R. M. Bucke, Cosmic Consciousness (University Books, New Hyde Park, NY, 1961).
- 7. A. Smith & C. Tart, Cosmic Consciousness Experience and Psychedelic Experiences: A First Person Comparison, *Journal of Consciousness Studies* **5** (1998), pp. 97-107.
- 8. Anonymous, A Course in Miracles (Foundation for Inner Peace, Tiburon, CA, 1975).

QUESTIONS AND RESPONSES

Attendee 1: You mentioned meditation as one path to enlightenment, what else would you suggest that you personally do to become more enlightened?

CTT: I think one of the greatest kinds of progress will happen when we learn about specific occasions that various therapy and growth techniques are more important for than meditation. For the current situation with almost all meditation teachers, e.g., if you say you're having problems with meditation, the almost universal advice is to do more meditation. Which may eventually get you there—or might be extremely inefficient. To return to our tool analogy, it might be using a hammer when you need to repair a watch. I hope we'll have the discriminating wisdom someday that we'll be able to say, e.g., for this kind of person, go get three hours of Adlerian therapy, and then your meditation will probably get much better, or something like that.

We don't know enough to do that skillfully or systematically yet, but I think that's the direction we need to go. We know a lot about neurosis and personal growth in the West. This question is dealing with one of those areas that I didn't have time to go into, individual differences, and also the issue of apparently attempting to finding enlightenment as a defense against real growth. If you don't get along with people, e.g., instead of looking at your own shortcomings it's very easy to say "Well it's because I'm a high spiritual being, I wish to spend my time in meditation." I suspect building your meditative practice on that kind of foundation is not going to help.

Attendee 2: When you were reading about Alan Smith's experience, you said that when he was in that cosmic consciousness state he had an experience that there was no thought, there was no time, there was no separation, there was only being and oneness. So if that's the case, when he came out of that, how was, what was there to give him memories of what happened?

CTT: I suspect Alan would characterize it as "fake" memories, and yet extremely vital memories. He would say that description is how he thought about the experience afterwards, he didn't think those things during the state and simply remember it that way. It's just that afterwards this is just his best attempt at making some sense out of it.

Attendee 2: I'm wondering, if there was no separate individual in the experience, how could he have remembered anything about it coming out of it?

CTT: That's a good question!

Attendee 2: That's what I thought about when you said that. I thought, well who remembered?

CTT: I wish I could answer that. The only thing I can say to that is that Tibetan Buddhists have a nice philosophy here, they talk about, you can have these experiences of

the Absolute, nyams, and then they pass and you're back here in the Relative world. You have to keep respecting the relative, not devalue it because of the Absolute. It's a real pathology to have experiences of the Absolute, and then somehow not care and not show impeccable behavior here in the Relative. For instance, you may have a mystical experience in which children being run over with cars is just part of the overall workings of the universe, yet you know that everything's good in the end. If that makes you watch a child start to wander out in front of an approaching car and you don't try to bring them back, that's not good! That's not real enlightenment.

Kevin: I am just curious what your reaction would be to a statement that I'd heard one time, namely that the amount of enlightened people, the percentage of enlightened people, has not changed over time. Since the beginning of when we started this, whatever that means. I wonder what your reaction to that is, and if that made a difference in the five percent solution you had earlier.

CTT: My reaction to that statement is that I basically have no reaction to it, because I have no idea whether there's any truth in it. Is there a testing organization going around, taking representative samples of the earth's population through history to measure the percentage of enlightened people? Maybe someday we can develop such an enlightenment test and you can characterize people. But I really don't know, whether it's increasing, decreasing, or staying the same.

I do have another reaction though: I don't like that statement. Because it's liable to make you think, "Well the quota is already filled for now, so I'm not going to be able to get enlightened." Remember Lilly's dictum again, "In the province of the mind, what one believes to be true either is true or becomes true."

Ken Cohen: It seems to me you're speaking about enlightenment as something that is attained or achieved. In other words the *via positiva*. I am wondering if you could comment on enlightenment as a *via negativa*, as something that is undone, released or unlearned. For instance, Dionysius the Areopagite said that one knows God not through gnosis, but through agnosis, through unknowing all things. And then only God is left. So, again, I was wondering if you could comment on the negativa versus the positiva.

CTT: They're certainly both useful approaches. Trying to strive to create something, or perhaps just discover what's really already there, versus the via negativa, which I like to think of as simply removing obstacles. You can take the view, for instance, that we're all basically good at some deep level, we're all basically Buddhas or enlightened beings. We've just gotten our goodness clouded over. Then removing those obstacles, those clouds, is what's

important: you don't have to create anything. You don't have to make anything be there. I've always liked what it says in **A Course in Miracles**,⁸

Those who seek the light are merely covering their eyes. The light is in them. It's in them now. Enlightenment is but a recognition, not a change at all. The Peace⁻ of God is shining in you now.

What I would like to know is not simply that these two general roads exist, but which is best for which kind of person at what time? When should a particular seeker be told, now work on obstacles, forget about doing anything positive or vice versa? That's one of the things I'd like to know.

Ken Cohen: In other words, your talking about what the Buddhist call *upaya*, skillful means. That is gearing the method to the individual.

CTT: Right. In my (limited) observation, there is a lot of lip service given to adapting the methods of each path to the individual aspirant, but I think that, in practice, most spiritual teachers basically teach what they've been taught, which was what their teacher was taught, etc., etc., going way back. It's kind of a one size fits all approach. Historically that makes sense. Historically, you were very lucky if there was a spiritual teacher anywhere near the little village you lived, and most people never traveled more than five or ten miles from the village they were raised in. Naturally one particular way would be passed down, you wouldn't have a choice. If it didn't happen to be a way that was very effective for you, too bad. What could you do about it?

We do have choices now, we do have the possibility of trying to find out what works for particular people. My dream project, which some younger psychologists have to take up and do for the next thirty or forty years, is to take the next hundred thousand people who go on various spiritual paths and give them every psychological test we've got. We don't know which tests are going to work out, so give them a very large number of tests. Then we start checking these people every few years as to outcome and empirically develop scales on various tests that predict outcome. Someday, somebody's going to come in and want advice on taking a spiritual path and you'll give them these scales that have been empirically developed. Then you'll be able to say things like "OK, for your type of personality, Zen Buddhism leads to enlightenment quickly—except there's a thirty percent psychosis risk. Sufi work of type N, on the other hand, goes much slower for your type but the risk rate is much lower." I'd like to be able to give that kind of advice. Then that issue of **Consumers Reports** will come out.

Attendee 3: Have you heard of a book by Franklin Merrell-Wolff, that's titled *Pathways Through To Space*?

CTT: Yes, but I think it's been thirty years since I looked at it, so don't ask me anything detailed about it.

Attendee 3: Well he had this extraordinary experience in 1926, he was a Stanford University Professor in math and philosophy. He was using the meditation by Patanjali. Just as I am. He entered a point of awareness that he called the pinpoint, which exploded into ultimate consciousness. It almost blew out his brain, and then he spent the rest of his life writing about it. One of his books was *Pathways Through To Space* and another one was *The Philosophy of Consciousness Without an Object*.

CTT: That's a good example. There are people around who have occasionally written brilliant accounts on the way they've accessed this kind of mystical space. But this stuff tends to be kind of scattered about here and there. It's not like we have a well-developed field of mystical studies where people are making comparisons between different kinds of experiences, or correlating them to individuals or types of people. I wish they would. Wolff's accounts would certainly be some of the material that would be studied.

Attendee 3: I'd like to also suggest, now that there was a discussion about via positiva and via negativa, there is also the stuff of Meister Eckhart. Matthew Fox has written beautifully about that whole movement, about via positiva, where you are in God and then there's a dark journey of via negativa, where you let go and then you come into the experience of God within you, which he calls via creativa? But then, he says, you're not going to fully live out your life unless you're also into compassion and justice. Adding the way of compassion and justice makes for a pretty integral picture.

CTT: That's my own bottom line about spirituality anymore. I used to be pretty intrigued by people having fantastic, unusual experiences, but now I tend to ask whether, in the long run, "Do they become wiser and more compassionate?" If they don't, then their experiences are "entertainment," in a sense. It's nice, maybe there's a potential there, but it's how people manifest in their everyday life that is really the bottom line as to how spirituality is demonstrated.

(Applause)

Thank You. Demonstrate that in your own life too. I suspect you all do it already, but it never hurts to have a reminder.

Kate: I just want to say, I receive your newsletter. And it's really great and I really appreciate it as a student. It comes and I'm always surprised.

CTT: Is that the student notices email list? You actually might tell people about that. If you go to one of my websites (www.paradigm-sys.com/cttart/ or The Archives of Scientists'

Transcendent Experiences (TASTE) www.issc-taste.org) there's a box to sign up for either or both of my occasional newsletters. Once in a while, when I see something interesting about consciousness, I send it out to one or the other of these email lists.

Kate: And then you always announce when you're on the radio. I listen to you also. Anyway, I wanted to respond to that call for younger psychologists to give every personality test ever and then follow up on people. I just wanted to say, that's a good idea, except first you have to operationalize what enlightenment is. I think your talk is trying to do that, but that's really the very difficult part. I mean what's enlightenment for each individual person? And, you know, it's a lifelong task to define it for yourself.

CTT: Well, let's have a fun little methodological wrestle on this. What you say is right in one sense. If we could operationalize enlightenment in terms of coming up with specific tests or something like that first, it would be an enormous help. But if we sit back and wait for that to happen, lots of opportunities go by meantime. I'm thinking of a purely boot strapping, empirical research project here. Consider the MMPI, the Minnesota Multiphasic Personality Inventory, which I studied extensively in graduate school. Has anybody here ever taken it? (Many hands raise) I used to have to take it over and over again in psychedelic research.

The MMPI was developed by creating a large pool of a thousand or more simple true/false questions, like, "Roses are my favorite flower," true or false. If somebody answers that true does that mean they have a tendency to be schizophrenic or manic depressive? Who knows? There's no obvious logical connection there. But they basically gave these thousands of questions to hundreds and hundreds of hospitalized mental patients as well as thousands of presumably normal visitors to act as controls. They found out empirically what different patterns of answers meant. I think, e.g.—it's been a long time since I looked at this, so my memory may play me false on particulars—that schizophrenics are more likely to answer that roses are their favorite flower, so a true answer there counts toward diagnosing you as schizophrenic. Now the answer to one question does not a schizophrenic make, but empirically they ended up with a test that could discriminate different diagnostic categories of mental illness, and later many personality characteristics.

There are deeper issues we could raise about the validity of diagnostic categories, of course, but that's not the issue here. The point is the developers of the MMPI did a purely empirical research project, and that's what I'm thinking we need to get started on. Just get all the data we can, and start to see what kinds of patterns fall out of it. There'll be a lot of dead ends, but we might discover a lot of things that would predict how well people would do in different paths, things that we'd never think of ahead of time. That's why it's going to take a lot of people working a long time.

Parenthetically, there is one test that I know of for whether someone's enlightened. My friend Arthur Deikman told me about it. His wife Etta came up with it. To test if someone is enlightened, you ask his or her spouse! There's a lot to be said for that.

Juan Acosta: My take on enlightenment is and from my reading, mainly, and from extraordinary people I've met in my life. It's an exceedingly rare event, it's truly a gift of spirit. It's something very few people attain. I'm a neuroscientist so I have a neuroscientist's view to some degree, but there's a book called The Mystical Mind, Probing the Biology of Religious Experience, by Eugene d'Aquili and Andrew Newberg's Why God Won't Go Away: Brain Science and the Biology of Belief. And they've actually mapped out the neural substrates. They work with Tibetan monks and Franciscan monks. They call it the absolute unitary being state. Equivalent to cosmic consciousness, and it's a very specific state. They know the structures involved in it and they described the pathways of the via positiva and the via negativa and so on. My sense is that most of us mortals are lucky if we have an experience of the sacred. That can change your life, and that's like a goal that we can all seek, it's an attainable state. I've talked with individuals that have had what they believe to be kundalini arousal experiences in which they become light, they turn into light, and they're haunted by that experience, they're always trying to seek an explanation of what happened to them. It wasn't a particularly enlightening experience. Why did it happen to them? So, my path is to foster the experience of the sacred and having that be an important growth that we can all obtain. And that will make a big difference.

CTT: I wish you well on that! As I said earlier, if we set up an idea that we've either got enlightened people or unenlightened people, all-or-none, we're setting ourselves up for a lot of failure. Experiencing the sacred at various levels in-between, yes, that's excellent! I have a general knowledge of the work you're talking about. I also worry about the psychological aspects of it, though. I worry because our culture worships the brain and machines. As a psychologist, I can get enormous power over anyone in our culture by saying to them, "I'm going to do something that affects your brain." I've become a high priest of what's really real and so forth. So in a lot of the neurological work I look at, I want to eventually see it done with proper control for psychological bias. Let me give you a particular example.

Do you remember the 70s, when biofeedback was going to lead to enlightenment? People learned alpha brain wave feedback or the like, and talked about these wonderful experiences. But I don't notice that we have thousands of enlightened beings walking around now as a consequence. The psychology of it was if you told people they were controlling their brain, that was an enormous psychological intervention. People got very excited about that. So I see a lot of neuropsychological stuff that doesn't take the psychological dimension

into account at all, even though it may be just as, if not more, important than the physiological aspects.

Another classic example of the importance of psychological factors in apparently basic physiological research: When I was learning basic psychophysiology back in graduate school, everyone knew that adrenaline caused fear and noradrenaline caused anger - or was it the reverse? One way or the other, but everyone knew this was a straightforward neurochemical reaction. It was in the textbooks. Until someone finally did the study double blind, to get rid of the biases. It turned out that both adrenaline and noradrenaline injections caused tingling. How the subjects interpreted the tingling turned it into anger or fear. That kind of finding has always made me skeptical of premature claims that the physiological basis of something has been discovered.

Ann: In terms of writings that are first person accounts of the truly sacred experience, I'd just like to add the name Emanuel Swedenborg. I think he would have been so comfortable in this setting because he was an eminent scientist of his day. Then in mid-life he sought to remove every filter from his consciousness, so that he could have the experience we're discussing. There is a Swedenborg foundation that contains further information.

CTT: His writings are very interesting. And what you say is a perfect occasion for me to say something about my TASTE website.

TASTE is the acronym for The Archives of Scientists' Transcendent Experiences. It's basically a place where I've allowed scientists to anonymously (if they wish) talk about their own spiritual experiences. The anonymity is important, because a lot of scientists who have talked about their spiritual experience have suffered from nasty consequences created by their employers and colleagues. I have approximately 75 experiences posted there now from people who are scientists. We all know that if a Ph.D. physicist talks to God it will be more profound than if a plumber talks to God. Right? I didn't invent that prejudice and I think it's kind of silly. But as long as we have that prejudice, I'm going to use it to destroy the stereotype that scientists don't have a soul! So there are some very moving accounts of a variety of mystical and transcendent experiences on TASTE. I invite people to take a look. The URL is www.issc-taste.org. Some of you may have something to contribute. Tell your friends about it, since it's only through word of mouth that people here about it. And thank you for mentioning Swedenborg.

Maureen Gamble: I live in a paradigm that says, our physical selves—brains, bodies all of that—become, or come into being through our energetic presence. That's just a paradigm I live in, but a lot of people are coming to that paradigm, that we are not

separate from this energetic part of us. And it's this constant environmental exchange that makes us physically what we are. I say that as a preface for a different way of future scientists perhaps looking at ways of enlightenment and ways of identifying states of enlightenment and what kinds of things are going to work for what kinds of people for what kinds of enlightenment—try looking in our DNA. Because we are all of what we are, and it changes. Changes, I strongly believe, that are made in ourselves psychologically, spiritually, etc., have to be reflected somewhere in our bio-physical makeup within our DNA. We just have to do more DNA research and then we can just take all your psychological tests and we can throw them out and we don't have to put people through three hours of taking an MMPI. We can just take a drop of blood.

CTT: I have no idea whether DNA testing would be useful, but anything that works is my bottom line! You know, the Dalai Lama has spoken with Western scientists, saying that if you folks can invent any machines that can help people meditate better, please do it! **Sara Davidson:** I'm actually blown away by your saying that there is a ninety-five percent drop out rate in people who learn meditation. Is anybody asking the question that you posed, as a teacher, how to teach it better?

CTT: No, with respect to the numbers of people who should be working on it, not really. Shinzen Young is doing some. He's devised a number of ways since becoming aware of the problem to run that percentage up. But that's not systematic research on it, he's just trying various things. For example, Shinzen has invented the concept of a meditation buddy. Not some enlightened being, but just a buddy who will call you up once a week and ask, "How's it going." To remind you, just to remind you. This is because when you come out of a meditation retreat back to the "ordinary world," you're in an environment that does not, to put it mildly, encourage meditation or spiritual growth. So the meditation buddy work is beginning to change the social circumstances, and he's found it helpful. Shinzen is experimenting with other ways, but lots of people should be experimenting with it, and we need to be collecting all of this data somewhere. It really is a terrible figure, a ninety-five percent dropout rate.

Sara Davidson: I have another quick question. When you talk about enlightenment in these (altered) states, isn't there a tendency for people, for example Mr. Smith, to want to recreate that state and to feel that his life afterwards isn't as rich or he's not doing something right if he isn't in that state? It's seems to me like we've had a progression of understanding of enlightenment as not being one state that you attain and that's it, but more of a kind of living, breathing, growing dynamic. An embodiment of certain qualities, like equanimity, love and compassion. So, I'm kind of startled that you're talking about trying to define an enlightened state more than a process. **CTT:** You're quite right, it really is a process. It's easier to talk about a state, and you've got to start somewhere. People can certainly have experiences that feel good and get attached to that. In my meditation workshop yesterday, for instance, in the mindfulness in regular life part of it, I had to warn people that, using some of the procedures we went through, sometimes it will feel very, very good. And there will be a tendency then to forget the actual way the process is to be carried out, and instead subtly change it so you try to recreate feeling good. I'm not going to knock people for that, I like feeling good! Feeling good feels better than feeling bad. But if your trying to learn something about mindfulness and perceptiveness and equanimity and things like that, you've got to be open to the full range of things. We didn't get very far into that area, but there are lots of traps on the road to even relative degrees of enlightenment. Some of them are quite attractive traps.

Bob Nunley: My question is a very short and easy question for you. If you were going to evaluate any person before you as being X percent enlightened at the moment and Y percent unenlightened or endarkened, and you were going to have those two percentages always sum to a hundred, so we'd have a pure, simple ratio, what three questions would you ask to try to ascertain that?

CTT: I'm trying to pass this task off on younger psychologists who have a long time to work on it!

Bob: And if you give them the right three questions, they will work on them Charley.

CTT: Bob, you're dangerous! I think I'd be more interested in how they actually live their lives, than asking them questions. Verbal knowledge is too easy.

Bob: I'll rephrase: What aspects of their life would you like to observe?

CTT: One aspect of their life I'd like to look at would be some ways of assessing how sensitive they are to what actually goes on in the world and the people around them, versus being lost in their own internal stories. That to me would be a very important assessment. But, that's not enough, because you can become very perceptive and still be very screwed up in ways in which you're cruel and uncaring. So, I'd also like to observe how caring a person is, how much they will put themselves out to be of use to other people. That might not be caring in a conventional sense, that they devote X amount of hours to charity or anything like that, but some way of getting a feel for how much do they really care to help other people.

I've got to come up with a third one to answer your question. I could say I'd wait for inspiration on the third one, but that would be dodging the question. I don't know . . . but I'm going to think about that, Bob.

Bob: Will you publish the answer on your website?

CTT: If I like it.

Bob: Will you be willing to publish your PowerPoint presentation on the website?

CTT: You obviously like it. Without the talk going with it, though, I don't think the slides by themselves would help, but if ISSSEEM wanted to do something like put the audio together of the talk with the slides in some kind of thing, I'd seriously consider that.

Bob: Thank you very much for an outstanding performance.

CTT: Thank you.

∞ ∞ ∞