X

HOW TELEVISION DIMS THE MIND

WHEN you are watching television and believe you are looking at pictures, you are actually looking at the phosphorescent glow of three hundred thousand tiny dots. There is no picture there.

These dots seem to be lit constantly, but in fact they are not. All the dots go off thirty times per second, creating what is called the flicker effect of television, which is similar to strobe or ordinary fluorescent light.

For many years conventional wisdom held that since this flickering happens at a rate beyond the so-called flicker-fusion rate of the human eye, we do not consciously note it, and we presumably are not affected by it. However, recent discoveries about the biological effects of very minor stimuli by W. Ross Adey and others, and the growing incidence of television epilepsy among those particularly sensitive to flicker, have shown that whether we consciously note the flicker or not, our bodies react to it.

A second factor is that even when the dots go "on," not all of them are lit simultaneously. Which dots are on determines the picture. In a sense, the television screen is like a newspaper photograph or the images on a film, which are also comprised of dots, except that the television dots are lighted one at a time according to a scanning system that starts behind the screen. Proceeding along a line from the upper-right-hand portion of your screen across the top to the left, the scan lights some dots and skips others, depending upon the image to be conveyed. Then the scan goes down another line, starts at the right again and goes across to the left and so on.

What you perceive as a picture is actually an image that never exists in any given moment but rather is constructed over time. Your perception of it as an image depends upon your brain's ability to gather in all the lit dots, collect the image they make on your retina in sequence, and form a picture. The picture itself, however, never existed. Unlike ordinary life, in which whatever you see actually exists outside you before you let it in through your eyes, a television image gains its existence *only* once you've put it together inside your head.

As you watch television you do not "see" any of this fancy construction work happening. It is taking place at a rate faster than the nerve pathways between your retina and the portion of your brain that "sees" can process them. You can only see things that happen within a range of speeds. This is because four million years of human evolution developed our eyes to process only that data which were concretely useful. Until this generation, there was no need to see anything that moved at electronic speed. Everything that we humans can actually do anything about moves slowly enough for us to see.

Even though you don't see every dot go on and off in sequence, these events are happening. Your retina receives the light continuously and your brain cells record their reception. The only thing that doesn't happen continuously is the translation of the energy into images inside your head. That happens

only at about ten times per second. Television is sending its sequential images at thirty times per second.

A few years ago there was a big fuss about advertisers exploiting the differential in these rates. A technique called subliminal advertising places images within the dot-scan sequence at a speed which is faster than sight. You get hit with the ad, but you can't process this fast enough, so you don't know the ad is registering. Your seeing processes are plodding along at nonelectronic speed while the advertisers have access to electronic speed. Your brain gets the message, but your conscious mind doesn't. According to those who have used the technique, it communicates well enough to affect sales.

For the entire four hours or more per day that the average person is watching television, the repetitive process of constructing images out of dots, following scans, and vibrating with the beats of the set and the exigencies of electronic rhythm goes on. It was this repetitive, nonstop requirement to reconstruct images that are consciously usable that caused McLuhan to call television "participatory," another unfortunate choice of words. It suggests exactly the opposite of what is going on.

I wish he had said "overpowering." The word "participatory" has been passed around at thousands of cocktail parties, misleading people to assume that if only they could have managed to get through McLuhan's books, they'd have discovered that their innate feeling (anecdotal evidence) that the experience is passive and that it "deadens my mind" was somehow wrong. In fact, watching television is participatory only in the way the assembly line or a hypnotist's blinking flashlight is. Eventually, the conscious mind gives up noting the process and merges with the experience. The body vibrates with the beat and the mind gives itself over, opening up to whatever imagery is offered.

Hypnosis

As the largest category of terms that people use to describe their television viewing relates to its hypnotic effect, I asked three prominent psychologists, famous partly for their work with hypnotism, if they could define the TV experience as hypnotic and, if so, what that meant.

I described to each the concrete details of what goes on between viewer and television set: dark room, eyes still, body quiet, looking at light that is flickering in various ways, sound contained to narrow ranges and so on.

Dr. Freda Morris said, "It sounds like you're giving a course outline in hypnotic trance induction."

Morris, who is a former professor of medical psychology at UCLA and author of several books on hypnosis, told me that inducing trances was really very easy. The main method is to keep the subject "quiet, still, cut down all diversions and outside focuses," she said, and then to "create a new focus, keep their attention and at a certain point get them to follow your mind.

"There are a great variety of trance states. However, common to all is that the subject becomes inattentive to the environment, and yet very focused on a particular thing, like a bird watching a snake."

"So you mean," I said, "that the goal of the hypnotist is to create a totally clear channel, unencumbered by anything from the outside world, so that the patient can be sort of unified with the hypnotist?"

She agreed with this way of putting it, adding that hypnotism has power implications which she loathes. As a result she uses her first session with patients to teach them how to self-hypnotize, reducing her power over them. "I don't use tricky signals to set them off anymore, or get them to look

into my eyes. That encourages their giving power to me; however, I'm sorry to say that most doctors don't encourage self-hypnosis. I guess they want the power."

Dr. Ernest Hilgard, who directs Stanford University's research program in hypnosis and is the author of the most widely used texts in the field, agreed that television could easily put people into a hypnotic state if they were ready for it.

He said that, in his opinion, the condition of sitting still in a dark room, passively looking at light over a period of time, would be the prime component in the induction. "Sitting quietly, with no sensory inputs aside from the screen, no orienting outside the television set is itself capable of getting people to set aside ordinary reality, allowing the substitution of some other reality that the set may offer. You can get so imaginatively involved that alternatives temporarily fade away.

"A hypnotist doesn't have to be interesting. He can use an ordinary voice, and if the effect is to quiet the person, he can invite them into a situation where they can follow his words or actions and then release their imagination along the lines he suggests. Then they drift into hypnosis."

Dr. Charles Tart, professor of psychology at the University of California at Davis, author of several best-selling books on altered states of consciousness, told me, "Hypnosis is probably the closest metaphor as a state but I don't know if I could equate it [with television watching]. Hypnosis is a state where you destabilize the ordinary state and then eventually get people into an altered state where they will follow a particular stimulus input much more strongly and with much less critical reflection than they would normally; there is certainly a lot of comparability there."

Tart explained that the way you induce *any* altered state of consciousness is by: disrupting the pattern of ordinary awareness, and then substituting a new patterning system to reassemble the disassembled pieces. He said this applied to any

altered state of mind, from drug-induced alteration to Sufi dancing or repetitive mantras, and, he said, it could also apply to television.

Morris said that since television images move more quickly than a viewer can react, one has to chase after them with the mind. This leaves no way of breaking the contact and therefore no way to comment upon the information as it passes in. It stops the critical mind. She told me about an induction technique called "confusion," which was developed by a pioneer in hypnotism, Dr. Milton Erickson. "You give the person so much to deal with that you don't give him a chance to do anything on his own. It's fast, continuous, requiring that he try to deal with one thing after another, switching around from focus to focus. The hypnotist might call the patient's attention to any particular thing, it hardly matters what. Eventually, something like overload is reached, the patient shows signs of breaking and *then* the hypnotist comes in with some clear relief, some simple instruction, and the patient goes immediately into trance."

The more I talked with these people, the more I realized how very obvious the process was. Every advertiser, for example, knows that before you can convince anyone of anything, you shatter their existing mental set and then restructure an awareness along lines which are useful to you. You do this with a few very simple techniques like fast-moving images, jumping among attention focuses, and switching moods. There's nothing to it.

Morris described a formula she learned in medical school in which the hypnotist builds "attention, involvement, emotion and expectation," which are at last relieved when the hypnotist's instruction comes through. I then told her about a formula I learned in the Wharton School of Business which reduced to the easily memorizable AIDS. Attention. Interest. Desire. Sell. The first two are disassembling, the third is re-

assembling. The "sell" is tantamount to the hypnotist's instruction. Repetition over time reinforces the instruction, like the hypnotist's posthypnotic suggestion.

Jacques Ellul, in his classic book *Propaganda,* describes the process of influencing a large number of people at once by using virtually the same formula of dissociation and restructuring, especially through the media, which automatically confines reality to itself.

Some version of this same method appears in all power relationships where one person attempts to dominate the awareness of others. A preacher shatters your ordinary reality and then, in the midst of dismay and confusion, substitutes another, previously organized system of perceptions. A political leader attempts to do the same. To the degree that the audience or congregation or patient is separated from prior connections or grounding, the task is made easier.

I have described how Werner Erhard systematically disassembles all connections to increase focus on his version of reality.

Reverend Moon requires all followers to give up every worldly connection and all possessions, turning them over to him. Then he replaces the "Moonie's" life-style with a new one that consists of virtually nothing but repetitive sayings, repetitive games and repetitive foods until all of life assumes the condition of mantra. This clears the mind for Moon's instructions, and if you have ever met a "Moonie," the word "trance" is a mild way of describing his or her condition. People who have left the Moonfold invariably describe leaving as "waking up," "breaking the power" and so on.

The hypnotic method can work not only in the intimacy of dark rooms with flashing lights where a voice is speaking soft instructions; it can operate wherever the ingredients are appropriate. It is simpler to hypnotize someone in a confined space where external reality is removed.

It is also simpler when the wider context is already disassembled, leaving the subject in confusion.

One explanation that I've heard for the Hitler phenomenon is that with the social and economic conditions in post-Weimar Germany so out of control, the singularity of his voice, amplified by radio and microphones and supported by the rising cheers at rallies under klieg lights turned upon forty-foot swastikas, itself became a nationwide resolution of disorder. A clear channel of clarity out of confusion. Reassembly out of disassembly.

One can draw parallels with the U.S. today. In a confusing society, with grounding lost and expectations sinking, we have the television itself as the guru-hypnotist-leader, opening a clear channel into surrogate clarity. Always constant. Whatever the changing images on the screen, there is always the light, flickering upon our retinas. Whatever the changing words, there is always the even tone. Whatever he says, the voice of Walter Cronkite remains constant, reassuring, unconcerned. Whatever the action, the gestalt continues, program after program, one program merging into the next, images following images, the wider world a distant shadow. There is no need to do more than follow the images, hear the voices, watch the cycle of realities building and then resolving, program after program.

But if I had hoped for some way of proving from my interviews that TV is hypnotic, I could not.

"About the only way you can tell if someone is hypnotized," said Morris, "is if they can do some of the things hypnotized people do . . . if they get lost within the hypnotist's imagery, then we say they're hypnotized. There are no physiological measurements for it."

I came away from these interviews realizing that hypnosis is nothing special. It happens in many of life's experiences—from lullabies in the crib to theatrical productions to tele-

vision. Hypnotism functions wherever circumstances produce that singular, clear channel of communication. To the degree that it exists with television, it is a one-way channel—the set speaking into the mind of the viewer.

Television Bypasses Consciousness

I do not think of myself as hypnotized while watching television.

I prefer another frequently used phrase. "When I put on the television, after a while there's the feeling that images are just pouring into me and there's nothing I'm able to do about them."

This liquid quality of television imagery derives from the simple fact that television sets its own visual pace. One image is always evolving into the next, arriving in a stream of light and proceeding inward to the brain at its own electronic speed. The viewer has no way to slow the flow, except to turn off the set altogether. If you decide to watch television, then there's no choice but to accept the stream of electronic images as it comes.

The first effect of this is to create a passive mental attitude. Since there is no way to stop the images, one merely gives over to them. More than this, one has to clear all channels of reception to allow them in more cleanly. Thinking only gets in the way.

There is a second difficulty. Television information seems to be received more in the unconscious than the conscious regions of the mind where it would be possible to think about it. I first felt this was true based on my own television viewing. I noticed how difficult it was to keep mentally alert while watching television. Even so the images kept flowing into me. I have since received many similar descriptions from correspondents.

One friend, Jack Edelson, described his feeling that "the

images seem to pass right through me, they go way inside, past my consciousness into a deeper level of my mind, as if they were dreams."

As we study how the TV images are formed, it is possible to understand how Edelson's description might be keenly accurate.

I have described the way the retina collects impressions emanating from dots. The picture is formed only after it is well inside your brain. The image doesn't exist in the world, and so cannot be observed as you would observe another person, or a car, or a fight. The images pass through your eyes in a dematerialized form, invisible. They are reconstituted only after they are already inside your head.

Perhaps this quality of nonexistence, at least in concrete worldly form, disqualifies this image information from being subject to conscious processes: thinking, discernment, analysis. You may think about the sound but not the images.

Television viewing may then qualify as a kind of wakeful dreaming, except that it's a stranger's dream, from a faraway place, though it plays against the screen of your mind.

The stillness required of the eyes while watching the small television screen is surely an important contributor to this feeling of being bypassed by the images as they proceed merrily into our unconscious minds. There are hundreds of studies to show that eye movement and thinking are directly connected. The act of seeking information with the eyes requires and also *causes* the seeker/viewer to be alert, active, not passively accepting whatever comes. There are corollary studies which show that when the eyes are not moving, but instead are staring zombielike, thinking is diminished.

Television images are not sought, they just arrive in a direct channel, all on their own, from cathode to brain. If indeed this means that television imagery does bypass thinking and discernment, then it would certainly be more difficult to make

use of whatever information was delivered into your head that way. If you see a person standing in your living room, you can say, "There is a person; how do I feel about this?" If, however, the person is not perceived until she is constructed inside your unconscious mind, you'd have to bring the image up and out again, as it were, in order to think about it. The process is similar to the way we struggle to keep our dream images after waking.

If television images have any similarity to dream imagery, then this would surely help explain a growing confusion between the concrete and the imaginary. Television is becoming real to many people while their lives take on the quality of a dream. It would also help explain recent studies, quoted by Marie Winn and many others, that children are showing a decline in recallable memory and in the ability to learn in such a way that articulation and the written word are usable forms of expression. We may have entered an era when information is fed directly into the mass subconscious. If so, then television is every bit Huxley's hypnopaedic machine and Tausk's influencing machine.

Have you ever kept a journal or a diary? At various times in my life I have done both. Sometimes I've recorded dreams, sometimes waking experiences. I have found the process very educational.

The act of recording a dream or the events or feelings of the day is an act of transferring internal information from the unconscious mind, where it is stored, into the conscious mind, where you can think about it. In this way patterns can be seen, understanding developed, and perhaps personal change stimulated.

Whether or not you have kept a journal, I am sure you are aware of the difference between a dream which you are able to describe in words, and one that you can't quite get at. In the former case, the more you talk, the more of it comes

into your awareness. The talking seems to drag it up from the unconscious space where it seeks to return.

Once you have described a dream to a friend, or written it down in a journal, you have literally moved it out of one mental territory, where it was inaccessible, into another territory (consciousness), where it is accessible. At that point you can think about it.

The same is true with a review of the day's activities. At the end of the day, most of us feel that the day has been a blur of activity. If you review it, however, either out loud to a friend or in writing, the day takes on patterns that you would otherwise miss. The events become concrete, integrated with your conscious mind, available.

Entire cultures are based on this process of transferring information from the unconscious to the conscious mind. The most widely studied are the Senoi people of Malaysia, who begin each day by describing the details of their dreams to each other. The Balinese do this unconscious-conscious transfer process via shadow theater, in which people's behavior is "played back" so it can be consciously noted and discussed. Other cultures talk a lot, describing the details of life's intimate experiences all day long. Describing the details helps one "see" them and understand them.

In America, where people are less in the habit of intimate conversation, the feedback role has been given to therapists, particularly those who work with groups. The therapy is in the talking and in the response of group members bringing the unsaid into awareness.

In some ways, reading a book also has a feedback role because reading is a kind of interactive process, similar to conversation or writing in journals. Unlike images, words that you read do *not* pour into you. The reader, not the book, sets the pace. All people read at different speeds and rhythms. When you are reading you have the choice of rereading, stopping to think or underlining. All of these acts further

conscious awareness of the material being read. You effectively create the information you wish to place in your conscious mind.

We have all had the experience of reading a paragraph only to realize that we had not absorbed any of it. This requires going over the paragraph a second time, deliberately giving it conscious effort. It is *only* with conscious effort and direct participation at one's own speed that words gain any meaning to a reader.

Images require nothing of the sort. They only require that your eyes be open. The images enter you and are recorded in memory whether you think about them or not. They pour into you like fluid into a container. You are the container. The television is the pourer.

In the end, the viewer is little more than a vessel of reception, and television itself is less a communications or educational medium, as we have wished to think of it, than an instrument that plants images in the unconscious realms of the mind. We become affixed to the changing images, but as it is impossible to do anything about them as they enter us, we merely give ourselves over to them. It is total involvement on the one hand—complete immersion in the image stream—and total unconscious detachment on the other hand—no cognition, no discernment, no notations upon the experience one is having.

It is my hypothesis that these effects are unavoidable, given the nonstop nature of television imagery, the process of dot construction inside the head, and some outrageous technical trickery invented by advertisers that will be described later. However, in keeping with my intention to seek proof for my own observations, I decided to seek scientific evidence.

I talked with the three most widely published dream researchers in the country. I wanted to know how they might compare television imagery with dreams, or if television imagery itself might not qualify as a kind of dream. None had

thought to investigate this, and each assured me that no one else had either, though it surely sounded to them like an interesting hypothesis. I suggested that they should get cracking.

Then I came across an astonishing study from Australia.

Television Is Sleep Teaching

In Chapter Eight I referred to a fascinating study of television completed in 1975 by a team of researchers headed by psychologists Merrelyn and Fred Emery at the Center for Continuing Education, Australian National University at Canberra. It caused a sensation in Australia but was barely noted in America.

The Emery report acknowledges, with a certain degree of rage, that its findings are not based on great amounts of evidence. The authors remark that it is tantamount to scandal that there has been so little research on the neurophysiology of television viewing.

Nonetheless, they were satisfied in the end that when we watch television, our usual processes of thinking and discernment are semifunctional at best. They conclude that while television appears to have the potential to provide useful information to viewers—and is celebrated for its educational function—the technology of television and the inherent nature of the viewing experience actually inhibit learning as we usually think of it. Very little cognitive, recallable, analyzable, thought-based learning takes place while watching TV.

The report says: "The evidence is that television not only destroys the capacity of the viewer to attend, it also, by taking over a complex of direct and indirect neural pathways, decreases vigilance—the general state of arousal which prepares the organism for action should its attention be drawn to specific stimulus.

"The individual therefore may be looking at the unexpected or interesting but cannot act upon it in such a way as to complete the purposeful processing gestalt.

"The continuous trance-like fixation of the TV viewer is then not attention but distraction—a form akin to daydreaming or time out."

The report explains that since television information is taking place where the viewer is not, it cannot be acted upon. The viewer must deliberately inhibit the neural pathways between visual data and the autonomic nervous system, which stimulates movement and mental attention. To do otherwise than inhibit the process would be ridiculous. The viewer is left in a passive but also frustrated state.

The authors present a forty-page technical treatise summarizing relevant brain research to trace the effects on the mind of a "simple, constant, repetitive and ambiguous visual stimulus," particularly upon the left side of the brain, the area where language, communicative abilities, cognitive thought—comprehension—are organized.

"The nature of the processes carried out in the left cortex and particularly area thirty-nine [the common integrative area] are those unique to human as opposed to other mammalian life. It is the centre of logic, logical human communication and analysis, integration of sensory components and memory, the basis of man's conscious, purposeful, and time-free abilities and actions. It is the critical function of man that makes him distinctively human."

The Emerys say that the evidence shows that human beings "habituate" to repetitive light-stimuli (flickering light, dot patterns, limited eye movement). If habituation occurs, then the brain has essentially decided that there is nothing of interest going on—at least nothing that anything can be done about—and virtually quits processing the information that goes in. In particular, they report, the left-brain "common integrative area" goes into a kind of holding pattern. "Viewing

is at the conscious level of somnambulism," they assert.

The right half of the brain, which deals with more subjective cognitive processes—dream images, fantasy, intuition—continues to receive the television images. But because the bridge between the right and left brains has been effectively shattered, all cross-processing, the making conscious of the unconscious data and bringing it into usability, is eliminated. The information goes in, but it cannot be easily recalled or thought about.

If the Emerys are correct, then their findings support the idea that television information enters unfiltered and whole, directly into the memory banks, but it is not available for conscious analysis, understanding or learning. It *is* sleep teaching.

All of this helps explain recent findings that children, after watching television, have difficulty recalling what they have just seen. Whatever "knowledge" they gain is the sort that passes through the conscious regions where it would be available for recall and use.

Television as sleep teaching would also help explain my own observations, from political work, that the more that public issues are confined to television, the *less* knowledgeable the public seems to be about them. The voter cannot process information he or she is apparently receiving. When Carter and Ford made their implicit agreement to avoid content and concentrate on style, they were right on the mark.

The Emerys report at length upon one study that measured brainwave activity during television viewing. It established that no matter what the program is, human brainwave activity enters a "characteristic" pattern. The response is to the medium, rather than to any of its content. Once the set goes on, the brain waves slow down until a preponderance of alpha and delta brain waves become the habitual pattern. The longer the set is on, the slower the brainwave activity.

The Emerys explain that slow, synchronous brainwave ac-

tivity is ordinarily associated with "lack of eye movement, fixation, lack of definition, idleness, inactivity, overall body inertness." They quote from A. R. Luria, who writes in *The Psychophysiology of the Frontal Lobes*: "No organized thought is possible in these phasic states and selective associations are replaced by non-selective association, deprived of their purposeful character."

Alpha is the mental state most commonly associated with meditation, but before anyone equates meditation with television, it's important to make a critical distinction. In the former, you produce your own material and in the latter it comes from outside; it is not internally generated. Dr. Freda Morris, the psychologist-hypnotist quoted earlier, told me that people who are good at meditation are among the most difficult to hypnotize. "They start going into hypnotic trance, but at a certain point they begin producing their own material and cannot be influenced by outside instruction unless they choose to be. They've got their own thing going." She told me that she doubted that good meditators watch much television and added that meditation might be an excellent ability to develop in people who are bothered by television addiction. In fact, she said, television addiction might itself be symptomatic of an inability to produce one's own mental imagery.

Herbert Krugman, a Florida researcher whose brainwave work the Emerys drew upon, compared brainwave activity while watching television with brainwave activity while reading magazines.

"It appears that the mode of response to television is . . . very different from the responses to print . . . the basic electrical response of the brain is clearly to the medium and not to the content differences," said Krugman. "The response to print may be fairly described as active . . . while the response to television may be fairly described as passive . . . television is not communication as we have known it. Our subject was

trying to learn something from a print ad, but was passive about television. . . . *Television is a communication medium that effortlessly transmits huge quantities of information not thought about at the time of exposure.*" (My italics.)

I took the Krugman report and the Australian study to Dr. Erik Peper, a widely published researcher on electroencephalographic (brainwave) testing, formerly associated with MIT, currently a professor of Interdisciplinary Sciences at San Francisco State University.

It turned out that Peper had worked with Dr. Thomas Mulholland on a study similar to Krugman's.

"Krugman's statement is correct," Peper told me. "You get a decrease in beta [fast waves] and an increase in slow activity with a large percentage of alpha."

I asked Peper to explain the meaning of this.

"Alpha wave patterns, recorded over the occipital areas of the scalp, disappear at the moment when a person gives visual commands (focuses, accommodates, and verges), when he takes charge of the process of seeking information. Any orienting outward to the world increases your brainwave frequencies and blocks [halts] alpha wave activity. Alpha occurs when you don't orient *to*. You can sit back and have pictures in your head, but you are in a totally passive condition and unaware of the world outside of your pictures. The right phrase for alpha is really 'spaced-out.' Not orienting. When a person focuses visually, or orients to anything, notices something outside himself, then she or he gets an immediate increase in faster wave activity and alpha will block [disappear]. Many meditators are in alpha but in meditation you are learning self-control and how to call upon your own internal processes. There is no such discipline with television. You are not training your mind to control itself, which biofeedback, and also meditation, accomplish; television trains people only for being zombies. Instead of training active attention, television seems to suppress it."

I asked Peper to describe the Mulholland experiment.

"As far as I know, this study is the only one that has been made, aside from Krugman's. Ten kids were asked to watch their favorite television programs. Our assumption was that since these programs were their favorite shows, the kids would be involved in them and we'd find there'd be an oscillation between alpha slow-wave activity and beta. The prediction was that they would go back and forth. But they didn't do that. They just sat back. They stayed almost all the time in alpha. This meant that while they were watching they were not reacting, not orienting, not focusing, just spaced-out."

I told Peper about a study which showed that children who were watching television were far slower to react to an emergency than children who were doing something else.

"That's predictable," Peper said. "When they are watching television they're being trained not to react."

He then volunteered his own thoughts about television as an educational medium: "To really learn anything, you have to interact with the source of the data. With television you don't really think. I know that speaking for myself, I can only really learn if I get engaged, as in the Socratic method of teaching. The best teaching is an interactive form. Some people learn best, for example, by writing notes because the notes are a feedback system." (Like a journal or a diary.)

"Television watching is only receiving," he went on, "no longer reacting. It can't do anything but hold your attention; you are receiving, not looking. The key for why they're in alpha is that when they're watching they're not looking *at*, not orienting. This is all by way of totally agreeing with Krugman. If you have a light which is not really being attended to, you can get an infinite amount of alpha. Perhaps it's that the TV target is so far away, the screen so small that your eyes needn't move; you're looking at infinity, in a way, like looking at the hypnotist's flashlight. If you look at moving targets, you have at least a little active interaction;

that would tend to put you into beta. But with television though there seems to be movement, you stay all the time in alpha."

I asked Peper if he agreed with Krugman that reading was a more active learning process. "Definitely," he said. "Reading produces a much higher amount of beta activity. You would expect abnormality in anyone who produces alpha while reading. The horror of television," he added, "is that the information goes in, but we don't react to it. It goes right into our memory pool and perhaps we react to it later but we don't know what we're reacting to. When you watch television you are training yourself not to react and so later on, you're doing things without knowing why you're doing them or where they came from."

Television Is Not Relaxing

If television puts our minds in a passive-receptive mode, if it inhibits thinking processes as the preceding remarks certainly suggest, can this be seen as positive? As mentioned in Chapter Eight, many of my correspondents seem to like what happens to them. People say "it relaxes my mind," others use the term "spaced-out," some call it "meditative." The evidence that television produces alpha brain waves, commonly associated with meditation states, encourages the idea that something beneficial can result, especially for our mentally obsessed culture.

In many ways, we are a people isolated in our heads. Nature is absent. Our senses are deprived.

The business person lives in the mental world of offices: paper work and forward-focused, driven-thinking processes. The suburban person lives in predefined mental and physical movement patterns: freeways, mechanical kitchens, repetitive routines. The child sits in schools, fixed in chairs, focused on

mental work, attempting to channel thoughts in a way that will help later in this world.

As the environment has been reconstructed into linear monolithic patterns, and as our days have been reconstructed to function within those patterns, our minds have had to adjust.

We drive them forward into obsessive work. We push our thoughts into line, marching with military precision, objectified, analytical, isolated from our senses, our feelings and any alternate patterns of mind. We need to do this. The creative free-roaming mind would help neither the child get through school nor the adult pay rent.

We have celebrated "the life of the mind," but is this the mind we wanted?

When we speak of relaxing our minds nowadays, it is not as though we have been working them at anything like their capacity. If our minds are strained, it is from confinement within one pattern of thinking. Most of our mental capacities have gone fat and soft, or dead from atrophy. It may be that our minds are not tired from overwork, but underwork.

If you have ever done physical exercise on a regular basis, you know the result is not exhaustion, but stimulation. The more of it you do, the more you wish to do, and the more you can do. It is only after extraordinarily long effort that one becomes depleted and needs to rest. And then the relaxation is sweet.

In our culture, the chronically exhausted person is the one who sits all day, or the one whose physical work is chained to fixed patterns: assembly line, store counter, waiting on tables.

I believe it is the same with our minds. Confined to one mental process, they are exhausted by underuse and repetition. After a day of paper work, turned off in so many realms of experience, compulsive and obsessive in those that remain, we dearly seek to escape mentally.

Psychiatrists report that an increasing number of people these days complain they cannot quiet their minds. One cannot *will* the mind to cease its fixations and rumination. Even when it comes to sleep or sex or play, experiences that require shifting out of focused thought, the mind continues to churn.

It is little wonder, therefore, that we have seen the sudden growth of Eastern religious disciplines, yogic practices, martial arts, diverse exercise regimens and many forms of meditation. They help relieve the agonies of uncalm minds pacing their narrow cages. They stop obsessive thinking and open alternative mental awareness. They allow for the reception of new experiences. They encourage yielding as opposed to always driving forward. They teach people to take in rather than put out.

While many people use these ancient disciplines to achieve freedom from the driving of their minds, most people do not, choosing drugs instead. Alcohol is good. Valium is better. Some sleeping potions work. And there's television.

They all succeed. Drugs provide escape while passing for experience and relaxation. Television does as well.

All help break obsessive thinking, but this is where their similarity with meditation and other disciplines comes to an end.

I have quoted from Dr. Morris and Dr. Peper to the effect that in meditation one produces one's own internally generated imagery. Both contrast meditation with television viewing in which the images are imposed.

This difference between internally generated and imposed imagery is at the heart of whether it is accurate to say that television relaxes the mind.

Relaxation implies renewal. One runs hard, then rests. While resting, the muscles first experience calm and then, as new oxygen enters them, renewal.

Similarly, one thinks and thinks, driving one's mind forward. To relax the mind, one needs to cease thinking, to calm the mind. In Zen meditation, for example, something called "empty mind" is desirable because once achieved, renewal begins. When the mind is quiet, one produces one's own new imagery, or experiences a new sense of one's place in the world.

There are other forms of meditation, however, that are less interested in *self*-renewal and discovery. These are the forms imposed by the "right wing" of the religious disciplines, those with autocratic leadership: Erhard, Moon, Maharaj Ji, L. Ron Hubbard. These leaders are not interested in "empty mind," but in minds which are empty only long enough to be refilled by them.

Whether you are doing Zen meditation or the specific mantras of Reverend Moon, your mind may go into alpha. But one condition is not similar to the other. With the latter, your mind is not renewed, it is occupied.

And so it is with television. When you are watching, absorbing techno-guru, your mind may be in alpha, but it is certainly not "empty mind." Images are pouring into it. Your mind is not quiet or calm or empty. It may be nearer to dead, or zombie-ized. It is occupied. No renewal can come from this condition. For renewal, the mind would have to be at rest, or once rested, it would have to be seeking new kinds of stimulation, new exercise. Television offers neither rest nor stimulation.

Television inhibits your ability to think, but it does not lead to freedom of mind, relaxation or renewal. It leads to a more exhausted mind. You may have time out from prior obsessive thought patterns, but that's as far as television goes. The mind is never empty, the mind is filled. What's worse, it is filled with someone else's obsessive thoughts and images.

In this way, television serves to continue the same channeled mental processes from which one is seeking relief. The mind is as weary after watching as before. No invention or creation can result, only sleep, if you are lucky, as with the aftermath of alcohol and Valium.