

Chapter 7. May I Have Your Attention, Please!?

In our last chapter we discovered that inertial kinetic accelerations tend to expand a system. Appearances to the contrary are due to distortions in the energy bubble caused by wave guide effects. This is true for rockets, guns, car engines, mechanical levers, and so on. In thermodynamics the tendency of a system that evolves kinetically over time to expand its phase space is known as "entropy". Entropy is a measure of the number of possible configurations the microstates of a system may assume.

This expanding tendency of kinetic systems leads us to a simple principle of OP. We observe that gravity is found everywhere that a multiplicity of matter or energy manifests. It appears to be a force that draws multiple expressions of mass-energy together toward compact singularities. Entropy also is everywhere. The second law of thermodynamics is enshrined as a universal inviolable principle. It has the same universality as gravity. It is also monopolar. But it causes the phase space, and ordinary physical space-time occupied by a system to expand. Locally it can appear to vary its rate of change, but it is a relentless universal trend. Just like gravity, entropy can not be found in empty space or in a single isolated entity. Both phenomena appear only in systems containing ensembles of mass-energy. Thus, OP proposes that entropy and gravity are the opposite poles of a single "force". Galaxies and solar systems are nice examples that are governed macroscopically by gravity-inertia. Their smaller scale components are held together primarily by the EM bipolar force.

Because the distortions we see commonly in inertial systems are caused by wave guide effects, it seems worthwhile to look with more detail into the fundamentals of how wave guides are made. Let's begin with our primitive observer in a field of undefined awareness -- (ABC). **Attention** is awareness, (A), flowing through a wave guide. The structure of the guide is (B), boundaries. The function of the wave guide is governed by (C), the operator that shifts emphasis from foreground to background. The shape of the boundary determines the specific distortion of awareness. Awareness is totally complaisant and conforms to any boundary, like water or air or space or any other waveform that can conform to its container.

To explore systematically how attention works, I suggest the exercises in the little workbook **ReSurfacing** by Palmer. If you are familiar with TM, we can look at some aspects from that process. Attention can focus and defocus. Through the experience of TM we discover that focusing of attention, contrary to popular belief, can be quite effortless.

If you do not know the TM technique, you may use **ReSurfacing** Exercise # 3, "Disciplining Attention" to get a tiny bit of a flavor of the possible effortless of attention. Be sure to follow the instructions carefully. But the TM process will give you a much clearer demonstration. Section III of the **Avatar Materials** provides a technology to expand this principle of effortlessness in any direction you please.

Maharishi says that effortlessness in focusing attention comes from what he calls the

"Natural Tendency of the Mind" (i.e. attention) to flow toward more and more. For most people on our planet that normally translates into a more expanded, more entropic state of going for more money, more sex, more food, more travel, and -- hey, I like those things too! But in the TM process we are surprised to find that less and less can lead to more and more. This is the physical principle of Least Action applied to the Mental Space. Nature is fundamentally lazy and takes the path that expends the least energy when it has to move to get to a place it likes to go. Why not? Source is a nice place, full of energy, intelligence and all possibilities. Why should it be hard to get there? That would be a real teasing game. Of course, some people like to play teasing games.

When we look closely at Maharishi's principle of a Natural Tendency, it turns out to be a special case of an even more general principle:

Principle: Everything changes. (C) operates on (B) to create and discreate (AB)s and other states via (BC)s within (ABC).

Corollary: The only thing that doesn't change is change itself. Whatever happens, (ABC) is still (ABC).

In any case, during the TM process thoughts effortlessly become subtler and subtler, fainter and fainter, and, at the same time, the attention becomes more and more focused. Then suddenly we transcend thought and end up in an unbounded gap -- pure awareness (A). (B) backgrounds, and boundaries drop off. (C) then backgrounds, since the backgrounding of boundaries ceases when it has no boundaries to background. (A) stays in the foreground. Suddenly we are completely defocused and experience pure awareness (A).

Since pure awareness is source awareness, the home of attention and the end of the mind's Natural Tendency to seek greater energy, resources, and happiness, there is no reason for attention not to stay there, except that there are prior creations that have accreted in the "Body", the World Space. When the attention is defocused from its preoccupations as during sleep, or meditation, or other distractions (either deliberate or default), the body of prior creations takes over and becomes a secondary source of thought.

So thoughts (experiences) apparently arise from TWO different sources.

(1) Pure undefined awareness (ABC) can produce thoughts (beliefs) deliberately through the mechanism of a will (C) expressed deliberately by a Self, or

(2) Thoughts can arise as reminders of "things to experience" from prior resisted (AB) creations -- that is, stress patterns that are floating around unexperienced in the observer's self identity.

These "secondary" thoughts are other "ready-made" wave guides that volunteer to act as conduits for attention. The Natural Tendency of the Body, as Maharishi refers to it, is to

experience off and dissolve any leftover "wave guides" that we carry around in our definition of self. In Cosmic Consciousness or above, such wave guides do not linger about in the observer's identity. The Self becomes flexible like water, like air, like space. We can play with wave guides, but they don't stick to us, because our attention doesn't stick to them. It takes two to tango, as they say.

TM releases fixed attention on everything all at once. Regular practice of the technique thereby gradually relaxes a person so he can integrate more easily and effortlessly with his overall World Space and Mind Space. However, the TM technique does not address any specific issues. Palmer has developed a simple little process for releasing fixed attention on specific issues. Try it. (**ReSurfacing**, exercise # 12.) A coach is helpful for that exercise, but is not required once you get the hang of it.

The above few paragraphs gave a brief introduction to mental wave guides. Now let's take a look at physical wave guides. Mental wave guides and physical wave guides are all ultimately energy structures. In the physical world we seem to observe energy manifesting as four forces: strong, weak, EM, and Gravity. As we continue our exploration of OP we will analyze the forces and show how they all fit together.

To this list of "forces" we can add the mental force of attention. We know that attention involves energy, since it involves a flow of awareness. Thoughts come and go and change from moment to moment. This dynamic flow is a sign of energy. You can do simple exercises that consistently and reliably demonstrate how this flow works and enable you to modify your experience deliberately.

Exercises: For example, spend some time just putting your attention on some objects and notice what happens to your experience of those objects. (**ReSurfacing**, Exercise #3, "Disciplining Attention".) You can use ordinary household objects such as pens, cups, chairs, etc. Or take a walk. Whatever you like. Explore the details of things in your environment. Then do **ReSurfacing**, Exercise # 7, "The Behavior of Attention" and notice your subjective reactions to things in your environment. Notice areas in your life where some amount of attention has been fixed for a long time. What effect does that have on your life? Do Exercise # 11, "Minding the Edges" and see what effect that has on the way you perceive objects. Then find a partner and have them help you explore Exercise # 12, "Releasing Fixed Attention".

Some energy forms seem bipolar, and others seem monopolar. If Newton is right with his laws of mechanics, there can't be any monopolar forces. A force, by definition, is bipolar. It is a resistance. You resist something and it responds by persisting.

Experiment: Push your hand against a wall. You feel the wall pushing your hand. Gently touch the wall. The wall gently touches your hand. Let your hand hover just next to the wall. The wall hovers just next to your hand. Smash your head against the wall and what happens? It seems to be a simple experiment. But it is quite instructive. (You don't have to do the last step. That's a joke.)

Attention is bipolar and can guide awareness to expand or contract. Electromagnetism is also bipolar. The weak force is biased to expansion, and the strong force is biased to contraction. We have to look at those two closely in OP. Gravity seems biased to contraction, but that may only be half the story, if as I suggested, the kinetic energy of entropy/inertial acceleration is gravity' s expansion phase.

A galaxy or solar system is a gravity wave guide. A tokamak is an electromagnetic wave guide. So is any chemical structure such as a tube or bucket or lever. However, underlying such chemical-mechanical wave guides is the attractive strong force that binds together the nucleus. Yet another level below that is a mysterious wave guide "force" that holds the stable elementary particles such as protons and electrons together.

Let' s go down to this "elementary particle" level for a bit of preliminary scouting. In spite of the numerous reputed members of the subatomic particle zoo, there are really only two types of particle, fermions and bosons. Fermions obey the Pauli exclusion principle and do not allow more than one particle in the same energy/position state. Bosons are gregarious and like to be in the same energy/position state.

Experiment: To get an idea of these two types of particle put some marbles in a bowl. Each marble will occupy a separate position in the bowl. The bowl will only hold so many and then it will be full. This is fermionic behavior. Now turn on a light in a room. The whole room is filled with photons zipping about. Turn on another light, and another light in the same room. You can turn on as many lights as you like in the room. The room gets brighter, but always has more room for more light. Each light fills the room completely. But there' s always room for more light. Photons like company. This is bosonic behavior.

Among fermions there are really only three stable particles: neutrinos, electrons, and protons. Each of these particles has an anti-twin. Neutrinos seem to oscillate among two or three sizes, but are stable as neutrinos. All the other particles are just souped up and unstable variations of these three. This includes the neutron. Of course, the above statement about particles is made from the viewpoint of an observer in our space/time locality, not in the quark soup right after the Big Bang. But that' s another discussion.

The bosons act as go-betweens, facilitating interactions between fermions. They show up as gauge bosons, mesons, and gluons. Thus all bosons seem to be transitory in nature -- even photons, though photons can last a long time as they travel through space to exchange energy. Mesons are transitory bosonic fermions made from quark-antiquark pairs. The only really stable bosons seem to be the photons, and they disappear when they are absorbed. The (W) and (Z) intermediate vector bosons decay extremely rapidly, and the theoretical gluons are effectively bound to the quark clusters, decaying at any distance from them. We can add that fermions act somewhat like bosons when they are in the state of bose condensates or when certain isotopic and molecular configurations approximate boson requirements. Are all bosons transitory? We will discover that there is one type of boson that is unknown, and yet very common, and appears quite stable, even though it is inherently completely unstable.

How do you make a stable elementary particle such as a proton or electron or neutrino? Off the top of the head one might guess that they are mini black holes. But they don't behave the same way as the large black holes physicists find lurking in the centers of galaxies. Black holes can be very stable, but they also keep eating anything that gets in their way, so their masses are not fixed and stable. Fermions follow the Pauli exclusion principle and have a wall that won't let anything in to disturb their stable rest masses. They can add energy, but it is unstable and sloughs off, and eventually they return to their ground states. Black holes have a "wall" known as the event horizon that won't let anything out. That's interesting. Maybe stable elementaries are "anti-black holes of matter or anti-matter.". They won't let anything in. Black holes won't let anything out.

But these statements are not completely true. Hawking has shown that mass-energy can tunnel out of a black hole. In fact there is a threshold of size where a small black hole will tend to evaporate and disappear spontaneously by Hawking radiation. The smaller the hole, the faster it evaporates.

Robert Frost once said, "something there is that doesn't like a wall." Walls are not very good at making for a stable situation. Maharishi has said the same thing about immortality. If you want to get close to immortality, create a dynamic system that governs itself automatically by an iterative self-referring feedback loop. In other words, create an automaton.

My hypothesis is that the elementary particles such as protons and electrons have no hard walls. They are wild maelstroms of chaotic energy whirling about like vortices in a stream. They are black holes of chaos. Because of their tiny size, they are constantly and instantly self-destructing by Hawking radiation. However, they happen to be at resonant waterholes in vacuum state geometry, which enables them to suck energy up out of the vacuum state at the same rate at which it drains off from them and dissolves back into the vacuum state. We don't see them radiating because the exchange of energy takes place right at the boundary of an internal event horizon and the vacuum. The vacuum is constantly making virtual particles of all sizes, but most of the time they all decay immediately back into the vacuum. Only certain resonating states can stabilize -- in exactly the same way that, at a grosser level, only stable electron orbits exist and all other possible orbits instantly decay.

Elementary particles exist on a scale where they interact dynamically with the Planck radius. They loop energy in tiny vortices at particular "watering hole" ratios. I think there are several sub-cells of convection energy boiling and circulating about inside these particles like tiny weather systems, Benard cells, or spherical harmonics, and I want to work up some models and equations that will demonstrate how this works. This is a great example of dynamic chaos theory. How else can we explain the curious rest masses (inertial resistances) that we identify for these particles that persist indefinitely over the life of the universe and allow construction of complex objects?

The secret to why they fall where they are lies in the various constants involved. The fundamental constants of physics are (h), (c), (e), and (G), plus (ϵ_0), the permittivity of space, and a constant of spatial geometry ($\%$) I've identified that governs looping and scaling processes. I call these quantum constants "quanstants". These quanstants set the parameters for the space/time we live in and the possible particles that it can display in stable modes.

- * H = Planck's energy quanstant, 1.054×10^{-34} J-s. (I write h -bar with a capital H .)
- * e = Coulomb's charge quanstant, 1.602×10^{-19} kg/s.
- * c = Einstein's light speed quanstant, 3×10^8 m/s.
- * G = Newton's gravitational quanstant, $6.67 \times 10^{-11} \text{m}^3/\text{s}^2 \text{kg}$.
- * ϵ_0 = Maxwell's spatial permittivity quanstant, $8.854 \times 10^{-12} \text{kg}/\text{m}^3$.
- * $\%$ = White's Dimensional-shift quanstant, 3.1622776 m.

If you define $P \text{Ru}^2$ as the area of a unit circle, where $P = \pi = 3.14159\dots$, and (Ru) is a 1 meter radius, then $(P \%^2)$ is a circle with area ten times that. The value of ($\%$) given above is based on using a meter as the "unit" radius (Ru) and the base ten number system for calculation. So $(\%^2)$ happens to be an order-of-magnitude, or dimensional, shifter in this system. It seems like an arbitrary choice, but this value pops up a lot when you study the relationships of the quanstants. So it is not just an artifact of the number system and metric that we chose to use.

Of course, the next question is, if the elementary rest masses are set by these constants, what determines the relative values of these constants? Ah, that is a wonderful question. I believe the answer to that lies in the observer. Mathematics, especially geometry arises in the mind of the observer as a phenomenon of the flowing and folding of awareness within itself. The constants fall out as a direct consequence of pure geometry. The physical world is a reflection of the mental constructs in the mind of the observer. Thus the world an observer sees conforms to the fundamental belief structures that he harbors in his awareness. So we can describe relationships among the physical quanstants as relationships among the geometrical constants, thereby mapping the mental to the physical.

So things proceed roughly as follows in creation:

^ $ABC \rightarrow (C \text{ operates on } ABC) \rightarrow AB \text{ (self)} \rightarrow \text{other } AB' \text{ s and sub } AB' \text{ s by iteration } \dots \rightarrow \text{observer/observed} \dots \rightarrow \text{ratio, perspective, comparison} \rightarrow \text{geometry} \rightarrow \text{fixed attention on "universal" ratios} \rightarrow \text{resistance to that stuff} \rightarrow \text{constants of nature} \rightarrow \text{space/time and quanta} \rightarrow \text{forgetting of source} \rightarrow \text{physical world} \rightarrow \text{attention on physical world as an object} \rightarrow \text{Big Bang and inflation} \rightarrow \text{simultaneous deflation of observer viewpoint} \rightarrow \text{little me is lost in space} \rightarrow \text{redevelopment of skill at managing attention} \rightarrow \text{start figuring it out} \rightarrow \text{physics etc., mental models of the "real" world} \rightarrow \text{SCI} \rightarrow \text{Avatar, etc.} \rightarrow (C \text{ operates on world}) \rightarrow ABC.$

The current paradigm of an expanding universe (not to speak of an inflationary one)

brings up a major (and fairly obvious) consequence of relativity that nobody seems to have mentioned. If the whole universe appears to expand from a Big Bang startup, then that means the observer's viewpoint appears to contract at the same time. As the world gets bigger and bigger, we seem to get smaller and smaller in comparison, even if we forget the past and look at now.

Is that just how it is? Not necessarily so. TM has shown us that we can systematically expand our awareness and reacquire the habit of using an expanded or defocused attention. There may be many other ways of using attention and awareness that we have forgotten about while stuck in certain particular modes of awareness. Some of these modalities persist in our background awareness as "woo-woo" modes of remembrance. The expression "woo-woo" refers here to beliefs that have been disparaged by established "authorities" as "subjective", "unscientific", "unconventional", "superstitious", "cultish", "bizarre", "mystical", "crazy", "stupid", and so on. The discrediting of a belief by negative labeling with qualities people have already been conditioned to avoid is a good way to indoctrinate people into backgrounding it. People then habitually shift attention away from a "woo-woo" idea and ignore it.

Indoctrination is the process of filling someone with beliefs. A belief that is set up as a standard worth believing is called a doctrine.

Exercise: Do **ReSurfacing** Exercise # 22, "Belief and Indoctrination".

The game of indoctrination is a very interesting one. It can become very complex and sophisticated. Many people on this planet are deeply involved in advanced levels of indoctrination games. A large portion of what passes for politics, commerce, education, and entertainment -- not to speak of culture and religion is really a cover for indoctrination games. What is the motivation for a person to believe that someone else OUGHT to believe (or not believe) something? I suspect that when you dig deep enough, you'll find a pretty insane game. What do I mean by insane? Not much. But perhaps sanity is governed, as Palmer has suggested, by compassion, harmony, and appreciation.

Discussion Question: What do you think is the motivation for indoctrination? (It may help to do the above exercise on indoctrination first.)

What is a game? A game is a belief system created for entertainment purposes. This definition corresponds to Palmer's definition of **lie**: "Basically an entertainment device." (**ReSurfacing**, p. 88.) So games arise from the desire to pretend, which is a creative exercise of the imagination. In any case pretty much anything can become a game. But a game is not **nothing**. It involves at a minimum certain kinds of beliefs:

Requirements for a Game

- * One or more Players.
- * Players organized into opponents and/or teams (optional)
- * One or more Observers (optional).
- * One or more Tokens (optional in number and type, but at least one token is required, even if it is only an idea. It is something to play with.)
- * A Space/Time or other dimensional arena in which to Play.
- * A set of one or more Rules.
- * One or more Referees (optional).
- * A Goal or Mission of the Game.

A minimal game thus requires a player, an arena for playing, a token, a rule, and a mission. Because solitaire is an accepted form of game, games can be more primitive than communication systems or languages, which, by definition, require a minimum of two players.