

# HOW TO LOOK ACROSS THE ROOM

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## ABSTRACT

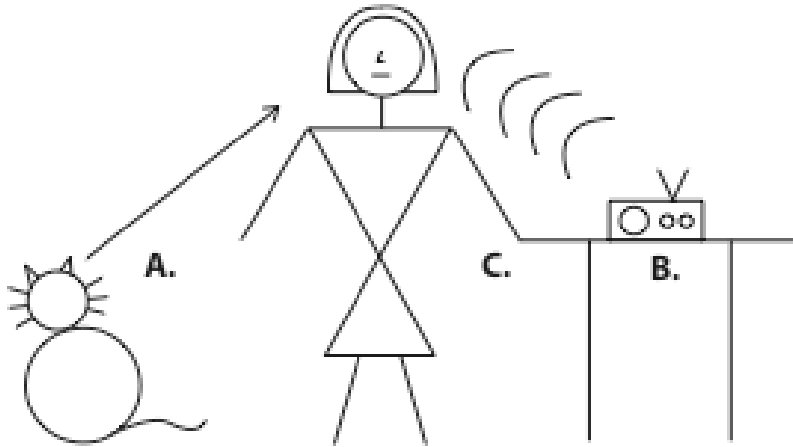
*Abstract.* The combined “inness” and “outness” of our sense experience, such as seeing and looking and hearing and listening, has been systematically investigated from the physical input, psychic output and combined perspectives. For completeness, both the Seer and Attention were included in the proposed analogies for perception. Phenomena rationalized by the combined analogies included interruption of the physical chain of events, coherence of and location of images, separate seeing of the eyes, and stability of the viewed world. Also the dual physical and psychic nature of our senses was verified by examples of distant looking and listening. We structured our knowledge of the senses by an Absolute Theory of Attention from the Vedic tradition. Connections of sense experience with the Divine were made with spiritual traditions worldwide. Including the subjective aspects of Attention and Seer in the combined analogy does not interfere with normal ways of gaining reliable knowledge.

Keywords: Attention; Being; integrated perspective; seer-seeing-seen; senses; Vedic Science.

## INTRODUCTION

Have you ever wondered about your sense experience? A remarkable feature about it is its “out-thereness” (Harris, p. 313). When we look at something, we see it “out there,” even though our sensory apparatus, our eyes and nervous system, is “in here.” Likewise, when we touch something, our sensation of it is at the point of contact of our hand, say, and the object of touch, the tabletop, for example. Once again the sensation does not occur along any nerve passage or in the brain, but at the point of touch. Lastly, consider the sound sense. The music from the radio comes from “out there” even though the compression waves are carried through the air into our ears and brain “in-here.” Figure 1 shows “Inness” and “Outness” in graphic form.

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**Figure 1.** “Inness” and “Outness” of Experience.

Diagram shows origin: of light from A, of sound wave from point B, and the nerve impulse from point C, with signal from nerves traveling to the brain. Conversely, sight experience occurs at point A, sound experience at point B, and touch sensations at point C.

“Inness” and “Outness” of experience is something we have lived with all our lives, but how many of us have ever really stopped to consider how extraordinary is its ordinariness? How can sound come from your mouth when the sound waves from your voice box travel to my ears? Could it be possible that the “me” that is doing hearing “in here” and the “me” that is doing the listening “out there” is the same me? This and other questions will be considered in this paper.

Historically, the question of “Outness” and “Inness” of sense experience has been the subject of much discourse (Lindberg 1981, Machamer and Turnbull 1978, p. 137-160). Discussion has taken scientific, spiritual and philosophical forms. In this paper we will follow the scientific form as much as possible. This means that there will be more emphasis on experience than on logic. As needed we will refer to other traditions of knowledge, namely metaphysics, which in an elementary sense is just drawing pictures (Ong, 1988) (Schroedinger, 1956) and Vedic Science from spiritual traditions (Maharishi Mahesh Yogi, 1987). Vedic Science is the science of Being<sup>1</sup> and the empirical dimension of this science is the experience of Being. Thus the three major fields of knowledge that we will use, Science, Metaphysics and Vedic Science all have an empirical basis.

The goals of science are to obtain structured knowledge, which is repeatable and verifiable. This will be our goal also. The scientist also works from an analogy, often implicit. We will attempt to make our analogies explicit; further, it is not possible for any

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analogy to be scientifically correct in a literal sense since the map is not the territory. We can only disestablish the validity of any proposed theory or analogy by falsification. The substitute analogy is then subject to acceptance or rejection according to its success in accounting for the empirical facts. In this paper we will not establish the truth of anything; the best that we will be able to do will be to falsify a proposed truth or demonstrate its incompleteness.

To analyze sense experience, we will first use an “inness” model, then an “outness” model and finally a combined model. The combined model, a synthesis of the two, will include the perceiving Self (that which says “I”) as part of the model. It will also add a psychic or spiritual dimension to the senses, so that the senses will be shown to be more than the physico-chemical response of the corresponding stimulus. We will use the science of the experiencer, Vedic Science, to add structure and understanding to the analysis. As Schroedinger (1956) has pointed out, a peculiar feature of science has been its predisposition to exclude the experiencing Self from its world picture.<sup>2</sup> You and I are completely missing from the scene! By including the Self, which we will attempt to do, we can allow for the influence of the Self on the process of seeing in our analogy. We will find, not surprisingly, that its influence on the process of seeing is considerable. We will also show that objectivity, in any sense, is impossible.

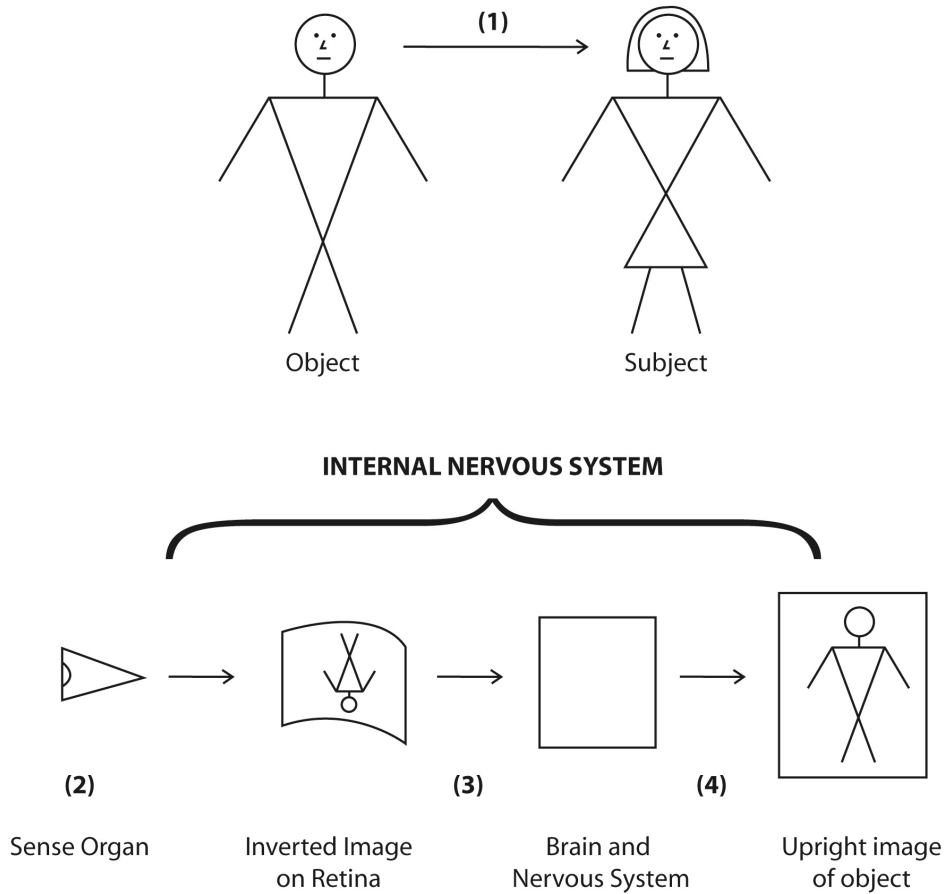
### DEVELOPMENT

An understanding of how we see has been sought since antiquity, and an extensive literature exists on the subject. Two schools of thought have dominated discourse: first, the “Inness” of experience school, and second, the “Outness” of experience school. Intromission, relates to the inward direction of stimulus from the outside into the sensory apparatus of the viewer. Conversely, Extramission, relates to the outward visual stimulus from the viewer to the viewed object. Let us begin our inquiries into the understanding of the sensory process by a consideration of intromission.

#### Intromission

Figure 2 supplies an analogy of the intromission process along with a verbal description (Siegel, 1970). This is the familiar “objective” analogy used in science: materialistic and deterministic. Material input, energy or matter, causes material output, energy or matter. We can test the model for ourselves by following the path of the stimulus described in the figure. Light from the object viewed enters the sensory apparatus of the viewer and causes stimuli on the retina, in the optic nerve and ultimately in the brain. All of this “causes” us to see, Step 5 of Figure2. Sight will be impaired if the path is interrupted for any reason: lack of light, damage to the eye or the optic nerve, or brain damage. The model seems plausible so far. Let us now use the analogy as a basis for asking questions. First if an image is formed, such as the one depicted in Figure 2, following step 4, where is it located? Second, since all this neurological activity causes us to see something,

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**Figure 2.** Intromission. (Like a Camera)

Intromission consists of successively: (1) the physical phase of the incoming object of perception, (2) the stimulation of the sense organs, (3) the conduction of a stimulus via nerves to the brain, followed by (4) the formation of the image of the object, followed by (5) the experience of sight (not represented.) (After Siegel)

Where is the seer of the image, where are we? Turning to the first of these questions, we note from experiments with binocular vision that the geographic locus of either the one-eyed or binocular image has not yet been found. A simple experiment in binocular vision can help us here. By crossing our eyes, either voluntarily or involuntarily, we see two separate images. If we now uncross our eyes, the two separate images again cohere. Question: where does this coherence occur? No screen has been discovered at the back of the head where the two images could cohere. There is nothing between the two halves

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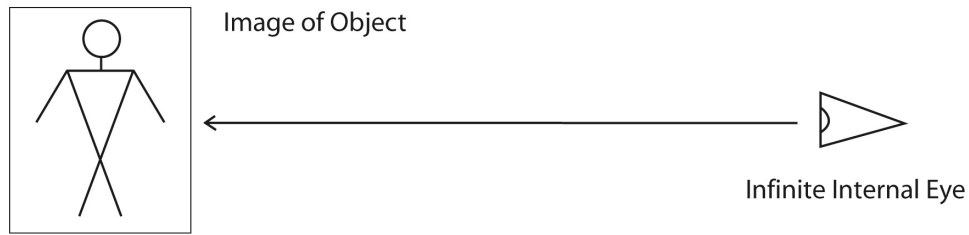
of the brain where the same coherence could occur. No master awareness cell in the brain has yet been discovered. Further, flicker experiments (Sherrington, 1963) suggest that such integration of images is not physical, but psychic: the image is out of the bounds of time and space.

In addition, if we first close one eye and then the other, the light intensity of the world remains essentially the same whether one or the other or both eyes are open. We can now reason that if our sight were completely physical we could expect that since half the intensity of light entered our sensory apparatus when one eye was closed, we would sense approximately half the intensity of what we viewed when both eyes were open (Sherrington, 1963). This does not occur. Accordingly, we reason that seeing is not a completely physical process. Further, this conclusion is not inconsistent regarding the “whereness” of the coherence of the binocular images discussed above. In both experiments it has not been possible to physically locate the image, which we would expect to do if it were a purely physical process.

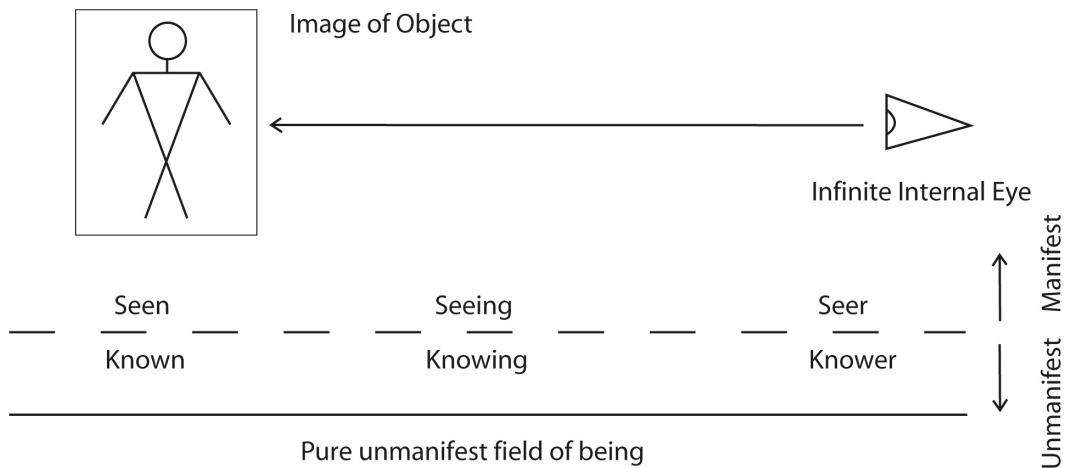
We ask: where or who is the seer of the image? Consider what Gregory (1978, p. 48) has to say concerning the image of the object, Figure 2. “We do have mental pictures, but this should not suggest that there are corresponding electrical pictures in the brain, for things can be represented by symbols—but symbols will generally be very different from the things represented.” So far so good, he seems to be in agreement with the earlier conclusion regarding the inability of the image to be spatially and materially located. He then goes on: “The notion of brain pictures is conceptually dangerous (emphasis added.) It is apt to suggest that these supposed brain pictures are themselves seen with a kind of inner eye involving another picture, and another eye.... and so on.”

Clearly he recognizes the limits of the intromission model but appears to be unwilling to take the step out of the objective-material model into uncharted territory. However, there is nothing that says that we have to be so constrained. Models not only have analytical and explanatory power but also have heuristic value; that is, they help us to ask questions of our analogy. So using Figure 3 as an aid, we ask who is the someone that seems to be looking at something or through something. From our own experience, we see something when we look “out” from our eyes. Also, rather than dismissing the infinite number of internal eyes as an impossibility as Gregory proposes, consider perhaps that what is looking is infinite in nature, Figure 3a, an unbounded field, perhaps. The incorporation of an unbounded seer into our model is not particularly satisfactory from a material perspective. However, certain facts of existence (non-localizability of both the image and the seer) oblige us to consider this possibility seriously. In anticipation of further development and to supply some theoretical understanding of Being, we draw on Vedic Science.

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**Figure 3a.** Infinite Eye.  
Image seen by an infinite internal eye, an aspect of Being.



**Figure 3b.** Schematic Structure of Being.  
Pure unmanifest Being knows itself to be unmanifest knower, knowing and known in infinitely dynamic interrelation. The unmanifest manifests itself (in this case) as seer, seeing and seen.

**Figure 3.** Vedic Representation of the Infinite Nature of the Seer, Figure 3a, and the Field-of-Being Origin of the Seer, Figure 3b.

What is looking is an aspect of a yet deeper entity, Being or Self, Figure 3b. You can think of Being or the Self as the “I” which says, “I see.” Being, although possessing no attributes, can be thought of as an infinite field with the “I” and the “see” displaying infinite qualities. Your “I” is part of the field you move around in, and since the field is infinite, contact with your “I” is never lost. Symbolically in Figure 3b, we represent unmanifest Being as a straight line differentiating into unmanifest Knewer, Knowing and Known, which we then experience as manifest Seer, Seeing and Seen. For a scientific

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discussion of how this field of Being can coexist with the knower, process of knowing and known in infinite correlation with material existence, see Bentov (1977, Chapter 3). Empirically, our experience is “I see the object of experience.”

We have begun the process of incorporating the knower into our understanding of the nature of seeing. Perhaps we can now appreciate the difficulty experienced by Professor Gregory (1978, p.48) in his encounter with unbounded Being. There simply has not, up to now, been an adequate Science of Being with which to develop understanding. This, of course, has been recognized by others, among them Schroedinger (1956, p.209).

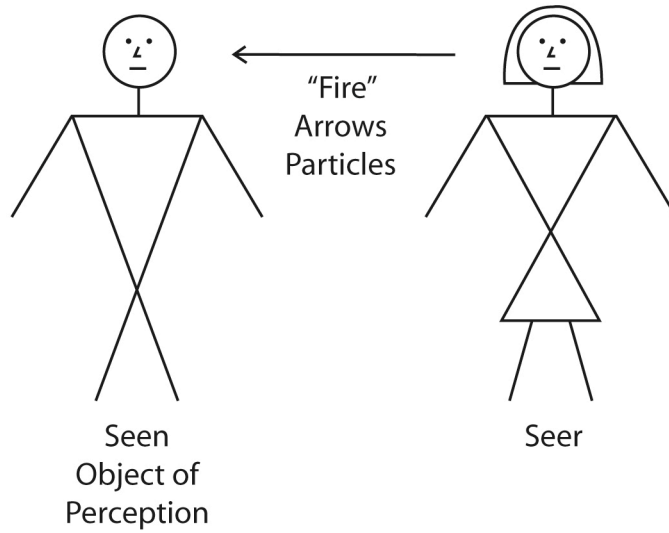
As our conception of the process of seeing is expanded, we will accordingly develop our understanding of Being. Briefly summarizing so far, a material intromission model works for some physical aspects of sight (absence of light, damage to the apparatus, etc.) but fails significantly with respect to other phenomena (separate seeing of the eyes, location of cohered binocular vision, etc.). We can conclude accordingly, not that the intromission model is incorrect, but that it is incomplete. We have begun the process of making our analogy more complete by adding to it the seer of whatever is being seen. There now remains the task of relating the seer to the seen (through seeing) and to rationalize the “Outness” of our experience. This is the subject of the following section.

### Extramission

In the extramission analogy, the direction of vision is directed outward from the viewer to the object of perception. Figure 4 depicts the process. Temporarily, I have employed terminology used in antiquity by Plato, Euclid and Empedocles among others to signify this outward emanation: fire, particles, rays, etc. (Park 1999, p. 35-41.). A modern objection to extramission is that once the signal (fire, particles, rays, etc.) leaves the Seer, all communication with the signal by the Seer has been lost, so that the Seer would not know what was being looked at. Conversely, however, in support of this analogy is the fact of subjective experience that we all have of the “Outness” of the object of perception.<sup>3</sup>

Let us try to rephrase the older terms for the extramitting emanations (fire, arrows, particles, etc.) into modern terminology. How about attention? When we put our attention on an object “out there,” note that we do not lose contact with attention as it flows outward from the seer to the object viewed and back again.<sup>4</sup> To account for the fact that contact is not lost between Seer and object seen, we use the concept of the infinite eye as a field of awareness, Figure 5.

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**Figure 4.** Extramission. (Like a Projector)

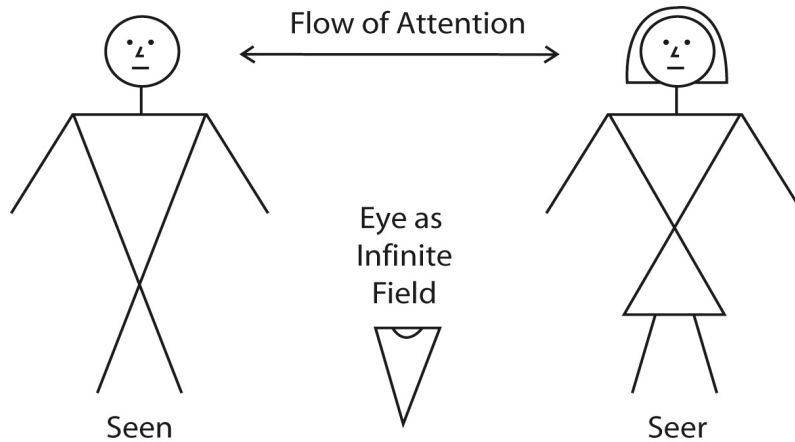
“Fire” (Arrow, Particles) radiates from the eye of the Seer, and coalesces with light to see the seen object.

The behavior of attention becomes more intelligible when we treat the infinite eye as a field, very much analogous to a gravitational or an electromagnetic field. Fields act at a distance and interact with the objects within them, with the objects in the field exhibiting mutual interaction. Like that, Seer and seen interact mutually, at a distance, by means of attention.

Briefly summarizing to this point: when we try to account for “Inness” and “Outness” of experience by two familiar analogies, intramission and extramission, we encounter the necessity to include the Seer as a field. Furthermore, upon analysis we find the Seer impossible to localize. The “eye” icon in Figures 3 and 5 represents this graphically. Further, if we did not include the Seer, the model would be incomplete.



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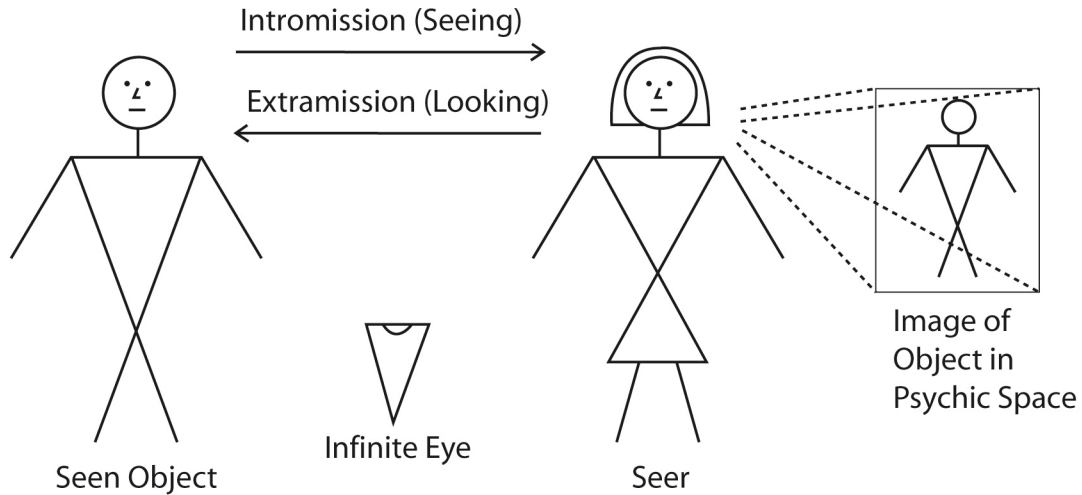
**Figure 5.** Extramission, Including Infinite Field of Being.

Attention flows out from Seer to Seen while maintaining contact one with the other. Contact is maintained by means of Field of Being. (Note that although the process is termed Extramission, attention flows both ways denoted by the two-way arrow.)

### Synthesis

We have analyzed two models of perception to help us understand both “Inness” and “Outness” of experience. Each analogy has explanatory power as well as limitations: Intromission is a physical analogy, while Extramission is non-physical. We can combine the two for a more complete analogy.<sup>5</sup> This combined model will provide opportunity for further insights as well as for inquiry and speculation. Figure 6 shows the Intromission and Extramission analogies of Figures 2 and 4 combined.

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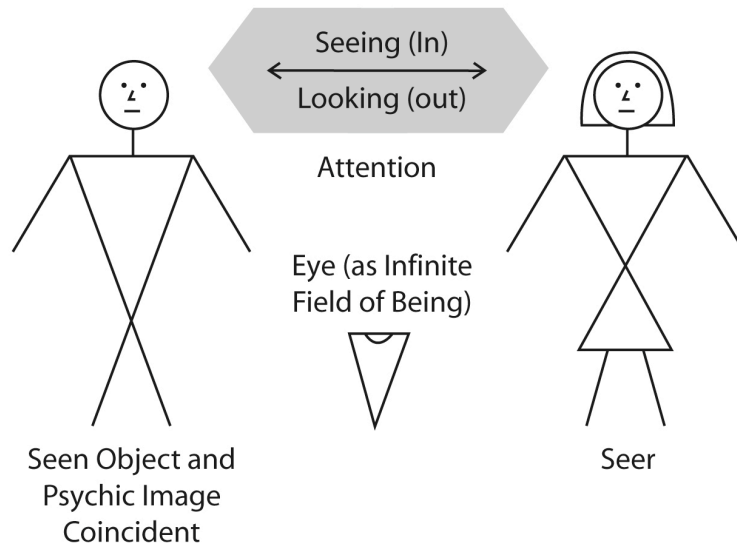


**Figure 6.** Intromission and Extramission Models Combined.

Figure shows Looking (Extramission) and Seeing (Intromission) as well as the Image of the (seen) Object in the psychic space of the Seer.

Note that this combined model agrees with our everyday understanding of looking, which is subjective, outer directed and psychic, and seeing, which is objective, inner directed and physical. The model also contains the infinite field of Being (the eye icon) which we need to maintain “attention at a distance.” The combined model also contains the image of the object, as shown in Figure 2. However, recall that in our consideration of the image, no location has been found for it so far, and it has been shown in Figure 2 as occupying “psychic“ or non-physical space. Regarding the image: just where is it? To make matters no more complicated than necessary then, let the image and the object directly coincide as shown in Figure 7.

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**Figure 7.** Combined Model.

The object of perception and the image of the object, heretofore located in the psychic space of the Seer (Observer) have been made coincident. The Field of Pure Being (Eye icon) is shown, as is Attention (block two-way arrow) which is differentiated into two parts: Looking out and Seeing in.

By this action the psychic image has been removed as unnecessary. There is no psychic image of the viewed object. Our perception of our outer world is immediate. This should make empirical sense to us. After all, when we see something, we don't register a picture of it and then look at it. Likewise when we hear a voice, we don't record it someplace and then listen to it. The sound we hear also is immediate. To help us structure our understanding of perception let us draw on an Absolute Theory of Attention (ATA) from Vedic Science<sup>6</sup> (Maharishi, 1976). Parenthetical comments, which accompany the theory, are intended to help relate the theory to our models.

1. "Attention is the flow of consciousness. It flows both within its own unmanifest nature and outwards towards greater levels of excitation." (Refer to Figure 3b and Figure 7 for a schematic representation of this step.)
2. "In the process of perceiving objects, attention flows from unmanifest to manifest. It enlivens both subject and object, perceiver and perceived." (Unmanifest Being underlies everything as schematically represented by the solid line in Figure 3b, and by the eye icon in Figure 7.)

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3. i) “Attention is the link between subject and object.” (Note two-way arrow in Figure 7.)

3 ii) “When it goes towards objects, consciousness takes on the form of the object.” (This step results in the “outness” experience of looking, Point A, listening, Point B, and feeling, point C of Figure 1.)

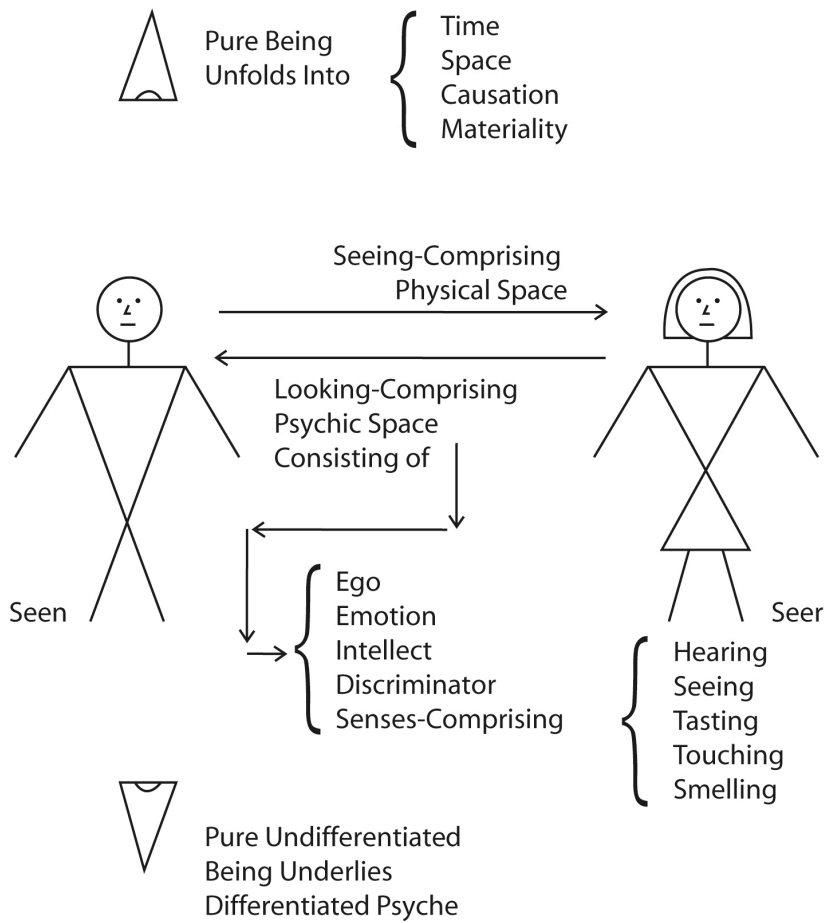
3 iii) “Attention identifies an object by transplanting it onto the consciousness of the subject.” (If this were not so, there would only be vibrating particles in a dark universe). It is the Self that supplies to the world the rest: color, shape, brightness and all other attributes. The Seer is the “greatest of all cosmic wonders” (C. G. Jung in Schroedinger, 1956, p. 216).

Statement 3 iii) will present conceptual difficulty for some because the consciousness of the subject appears to be where the object is, but at the same time it is “I” that sees through the eyes of the subject to the object “out there.” How can this troublesome paradox be resolved? Elsewhere it has been suggested that such resolution can be achieved by expansion of our frame of reference (Ong 1988, p. IV-8, Russell 1974, p. 26). In this case it suggests that the self, the Seer, is everywhere present as a field, Figure 7. This is consistent with the initial observation of “Outness” and the evidence presented so far for consciousness to be a field phenomenon. I (in here) see “out there,” I (in here) hear “out there,” I (in here) touch “out there.” The Seer is both material and spiritual, temporal and eternal, bound and free, finite and limitless.

Returning now to the question posed in the introduction: am I part of everything I see? From Figure 7, we infer that I am indeed everywhere, and that there is no limit to the Self.<sup>7</sup>

We can expand on our synthesis. Figure 8 depicts the attention of our analogy to be both physical and psychic; the physical part, seeing, exists within time, space and causation, and the psychic part, looking, exists out of the bounds of the physical. The psyche consists of ego, mind, emotion, intellect and senses. In turn, at least a part of the senses, consisting of hearing, sight, taste, touch and smell have their origin in the field of Being (Maharishi 1994, p. 62). Using Figure 8 as a way of asking questions, our model would seem to indicate that our senses are part physical and part psychic. Can we put this to the test? We can, in a number of ways. Consider first, the sound sense. A listener, Figure 9, hears a distant sound in the form of a thunderclap.

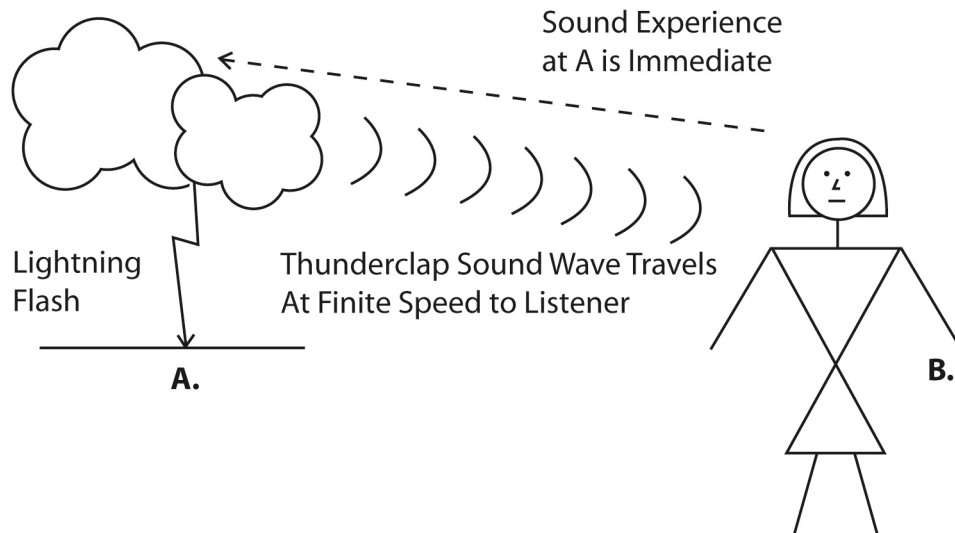
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**Figure 8.** Combined Analogy Expanded.

The illustration differentiates the physical (passive seeing) and psychic (active looking) aspects of perception and also elaborates the multi-dimensionality of both physical and psychic realms.

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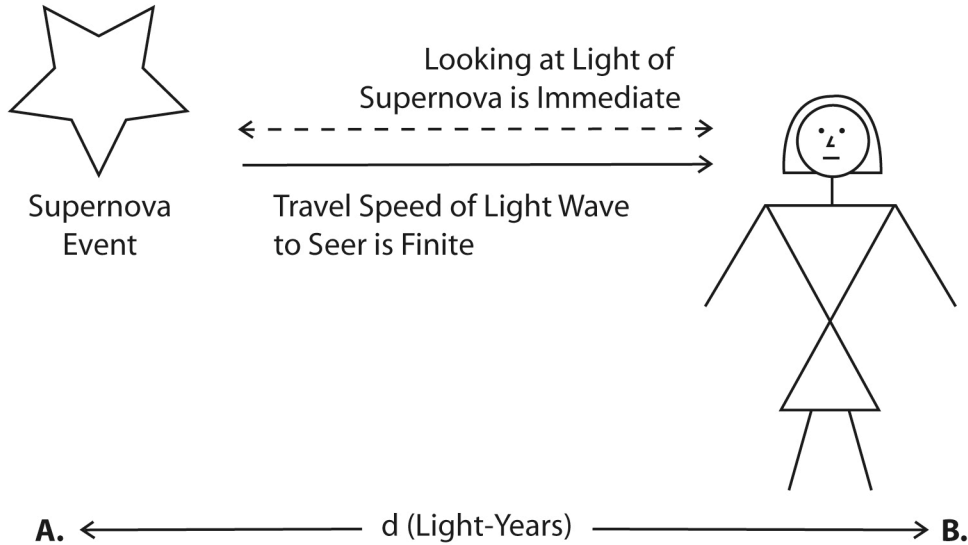
**Figure 9.** Listening to Distant Noise.

Thunderclap originates at Point A at a distance, 1 mile say, from listener at B. Sound vibration reaches listener at point B after a time. Sound is immediately heard at A, at the time sound vibrations arrive at B.

Depicted is the occurrence of a thunderclap occurring at point A about one mile from the listener, point B. We know from the lightning flash and its speed of travel and from our knowledge of the speed of sound in air, about one mile in five seconds, that the sound wave takes about five seconds to reach our ears. At the instant of its arrival, our experience is of a sound occurring immediately at the origin of the sound. We conclude that our sound sense is indeed of two natures: a) physical, requiring a finite amount of time to register and b) psychic, requiring no time to register.

Consider in the first sight case, the occurrence of a supernova event at a distance,  $d$  light-years from the observer, shown in Figure 10.

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**Figure 10.** Looking at a Distant Event.

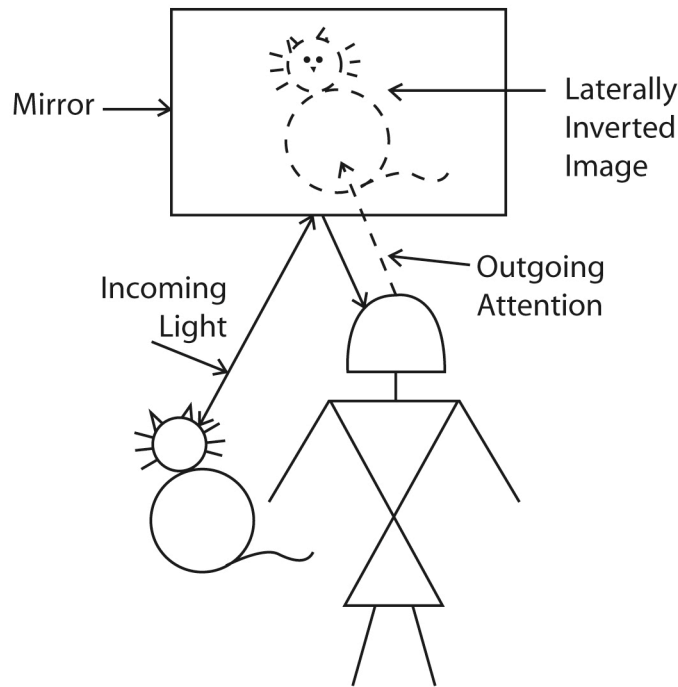
Supernova event occurs at point A, a distance  $d$  light-years from observer at point B. Time of travel of light wave from A to B is  $d$  years. Apprehension of light experience at point B is immediate.

The light waves reach our sensory apparatus after  $d$  years. We see it after a finite amount of time. However, our apprehension of the supernova event occurs immediately. Again we can conclude that our sight sense, like our sound sense, is of two natures, physical and psychic.

The second case demonstrating the dual nature of our sight sense is the viewing of a mirror image. Figure 11 demonstrates this phenomenon.

The incoming light rays reflect off the mirror surface into the sensory apparatus of the seer, producing a laterally inverted upright virtual image of the object “on” or “behind” the reflecting surface. Concerning the production of the image, Intromission theory has little to say. However, from the expanded perspective of the combined In-Out model, we note that the incoming stimulus, light waves, is physical; and the outgoing effect, flow of attention, is psychic. This is consistent with Step 3 iii of the Absolute Theory of Attention (ATA). From this example we also can infer that attention of the seer apparently “flows” in a straight line. This is also consistent with our experience.

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**Figure 11.** Viewing Mirror Image.

Physical light rays from object reflect off mirror into sensory apparatus of Seer. Seer projects attention onto mirror to produce laterally inverted virtual image. Light rays are bent, but flow of attention is in a straight line.

For many, accustomed to thinking in physical terms, the idea of the outness of our experience will be difficult to get used to. However, recall that images exist in psychic space, not physical space. Also, from the Theory of Relativity, we know that at the speed of light, both space and time shrink to nothing, so from the frame of reference of a photon traveling at that speed time and space do not exist. In analogous fashion, instantaneous sensory apprehension, transcending space and time, should not appear out of the ordinary, especially since that portion of our senses is non-material, or psychic. Thus, from both a material and psychic perspective, immediacy of perception is plausible.

Another objection that could be made lies in the use of the combined In-Out model, Figure 7. If we were to revert to the physical Intromission model, Figure 2, we could do away with all this instantaneous seeing of things many light years away. Yes, but...the image still exists in psychic space, not physically locatable.

Yet another difficulty for many will be the miraculousness of the outer-directed looking and listening of the combined model. But miraculousness cannot be avoided. For example, in the intromission model Step 5 of Figure 2, “the experience of sight” is



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another example of it. Once again, from a material perspective the choice appears to be between two undesirable alternatives.

The last word has not been said on this subject, but as Harman (1969) has noted, this represents a situation calling for responsible dialog for its possible resolution. We would add the provision, however, that if an alternative analogy is to be offered as a substitute candidate, its nature should be made explicit.

Another phenomenon that can be cited to make a case for both types of perception, relates to the question: Why does the world remain stable when we move our eyes (Gregory (1978) p. 101)? Our eyes are continually in motion, making tens of thousands of movements each day. These motions are called saccades. At each move there will be an image on the retina at a different location. Yet, for all this movement, the seen background remains remarkably stable. Conversely, if the eye is moved by ones finger (lightly!) the image is violently unstable—try it for yourself.

In the first case, the perception is active like the projector or extramission model, Figure 4. In the second case, the eye is behaving very much like the camera or passive intromission model, Figure 2. If these saccades are not extramission, they certainly are not intromission! What a dramatic contrast in behaviors!<sup>8</sup>

Consider the saccades again with the eyes making their many daily movements. For every movement we make, we see a new image immediately, with no lag in image formation. Further, the retina, despite the large number of new images it adapts to, does not seem to get tired. Once again the data supports a non-physical extramission process involved in the phenomenon of seeing.<sup>9</sup>

We have put together a combined model to account for inness and outness of seeing. The model includes Seer, seeing and seen, underlain by a field of Being. Evidence has been put forward to disestablish Intromission as a complete model to describe Outness of experience. This includes non-localized images, single- and double-eye opening, absence of a Seer, absence of attention, absence of a psychic dimension to the senses, empirical evidence of our dual sensory nature and the instability of sensory input when the eye is passively moved.

In the next section we will expand on the usefulness of the combined model and indicate some possible further applications for it.

## DISCUSSION

We now consider some possible applications of the combined model, which include considerations of completeness, objectivity, state of Being of the Seer, flexibility of thought, connection of science with spiritual tradition and scientific implications associated with the adoption of a new analogy.

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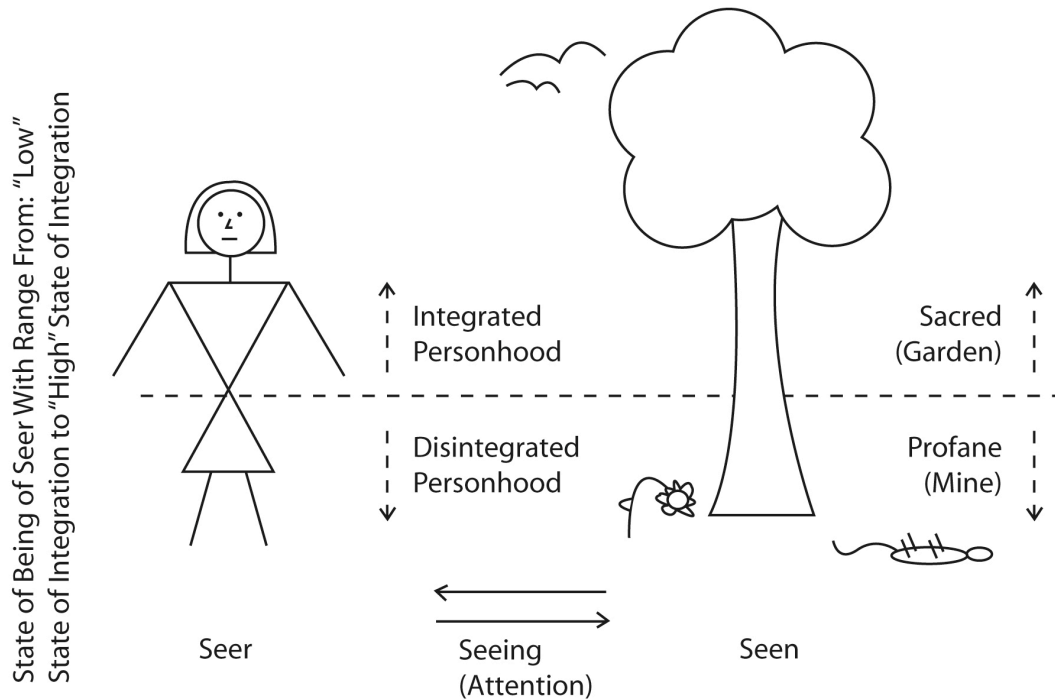
Completeness. We have added “looking out” and the Seer to the “seeing in” model, with some success toward making our analogy complete. Is our analogy complete? Consider the situation shown in Figure 2 where we see that an inverted image on the retina gives rise to an upright representation of the object...a mystery (Park, p. 303)! Also consider the formation of a laterally inverted image from a mirror reflection<sup>10</sup>...another mystery (Gregory (1997) pp. 88-103)! We conclude that the proposed analogy is incomplete in respect to supplying an explanation for these phenomena and in other respects.

Objectivity. Refer to Figure 8 to follow the path taken which results in the occurrence of sight. On the input (physical) side, the path (of light) taken follows that shown in Figure 2, which is unique to each individual’s nervous system – unique eyes, unique brain. On the output side, the psychic “path” (of attention) is affected by the senses, the discriminator (where we put the attention), the intellect (our education and conditioning), the emotions (our mood) and the ego (our archetypical nature). If objectivity means freedom from the influence of the Seer, surely we can see that this is impossible. There is no such thing as objectivity as any trial lawyer or officer of the law can attest to. At the same time for many of us trained in the scientific tradition, there is a strong sense (albeit subjective!) of objective reality in what is perceived. I see (hear, feel) the real cat (table, flower, etc.) The sense of objectivity is a common reality due to agreement with other Seers, the Lockean Community of Churchman (1971, p. 95) and the “shared verifiability” of Dember and Warm (1990, p. 26). Another way of understanding our strong sense of objectivity is that the Seer imposes stability on the object. This is described in Step 3 ii of the Absolute Theory of Attention (ATA.) Nature designed our senses to comprehend our physical world clearly (objectively) for survival if nothing else.

Another reason to consider that the Seer is responsible for our sense of objectivity is our sharpness of vision. The eyes are capable of detecting minutiae in our field of vision (a leaf on a distant tree, an insect on a branch, a pebble in the grass, etc.). Surely we can infer validly that it is the Seer, not only the one “in here” looking but also the spotter, the “I” that is “out there” that picks out the details in a scene. This is another example of seer manifesting as both seer and seen, Step 3iii) of the ATA.

State of Being of the Seer. In addition to the physical state and the psychic state of the Seer as discussed above, we should also consider the spiritual state (State of Being) of the Seer as it affects the process of seeing. It is possible through transformational practice, such as meditation or prayer, to infuse the Seer with greater amounts of Pure Being. In so doing the Seer becomes more “awake,” “intelligent,” “aware,” or “integrated” in his/her outlook. An attempt to show this in schematic form is given in Figure 12, which shows that what is seen, either profane or sacred, is a function of the state of being of the Seer, either disintegrated personhood or integrated personhood.

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**Figure 12.** Effect of State of Integration of Seer on Seen environment.

Schematic representation of seen environment, ranging from profane to sacred, as a function of state of psychic integration of Seer, ranging from disintegrated to integrated.

In practice there are gradations of integration and various scales and states of integration have been proposed for their rationalization. Some have been described elsewhere (Hawkins, 1995, Campbell, 1974). Such extensions of the model involving the influence of Being would not be possible from the Intromission model alone. Some purposes that such an extended analogy might serve would be to rationalize mental powers, such as imagination, visualization, creativity, "remote viewing," and intuition. It might also be possible in the future to correlate the possession of such attributes as a function of the extent of infusion of Being into the person. This could be done by kinesiology perhaps, as suggested by Hawkins or by brain wave mapping. Another possibility would be to establish a relation between one's state of being and one's view of the environment (for example, as mine to be exploited, or garden to be tended) as has been suggested in Figure 12.

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While we have been able to infer by intellect the existence of Being, many people have subjectively confirmed its existence by anecdotal description of immediate experience. Here is an example: “I am dual, both limitless and limited.” With regard to our unlimited nature: “I am unbounded, eternal, omnipresent” and to our limited nature: “I am also you” (Miller, p. 84).

Flexibility of Thought The use of analogies, as employed in this paper, particularly in graphic form allows for great freedom of thought as enumerated below:

Description (e.g. Figure 2).

Analysis (as done in Figures 9, 10 and 11).

Inquiry (e.g. Figure 3 concerning introduction of Being)

.Connections and feedback (e.g. Figures 5 and 8 concerning attention).

Adaptability (e.g. Figures 6 and 7 concerning location of image).

Flexibility (choice of categories as situation requires).

Subsuming of paradox by inclusion of opposite qualities in graphic form (e.g. looking and seeing, matter and psyche, input and output).

Synthesis (e.g. Figures 6 and 8 concerning combining models).

Note that with the exception of the last attribute, all the others are derivative from the analogs. Analogy is basic: reason is derivative (Pirsig, p. 246).

With the introduction of Being and of the Seer in her/his physical and spiritual nature, the door is now open for extended empirical treatments of problems of long standing, such as the origin and development of humans as a species, our relation to the cosmos and our transcendent nature.

Connecting With Spiritual Traditions It has been necessary for us to add the Seer to our analogy describing seeing. Also, enlightened people from all traditions have often made connections with the Seer and the Divine. Saint Francis of Assisi said, “What we are looking for is what is looking.” Also Meister Eckhart stated, “The eye by which I see God and the eye by which God sees me is the same eye.”

We also have “Ye are the light of the world” (St. Matthew 5:14) from the Western spiritual tradition and from the Vedic tradition we have, from the Chhandogya Upanishad, “There is a light which shines beyond the world, beyond everything, beyond all, beyond the highest heaven. This is the light which shines within your heart” (Mascaro (1965) p.113.) Without the Seer, whether saint or sinner, believer or pagan, there are only vibrating particles in a dark universe. Both the scientific conclusion and the spiritual realization are congruent. From the Quran of Islam we have “God is the light of Heaven and of Earth.” If we can relate the eye of our model with the Divine, then once again we have congruence.

Importantly, we should recognize that ordinary experience is identical with divine experience. If we can see, touch or hear, we are having divine experience. The validity of this is empirical and not proscribed by ecclesiastic, written or any other authority. We should teach this to everybody!

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Scientific Implications. The foregoing treatment of “outness” of experience presents the scientist with great opportunities in the following ways:

i) There is no threat to objectivity as it is presently understood: make your observations and your measurements, test your theories, draw your conclusions and establish your laws.<sup>11</sup> In fact, the subject matter of both the currently in-fashion intromission analogy and the combined analogy of this paper should be as rigorously tested as any other scientific theory for agreement with experiment.

ii) With the expanded analogy, the door is now opened for fields of research heretofore considered off limits to science. The research referred to is research on the Self and its marvelous capacities. It is now time to put an end to depreciative allusion to the supposed shortcomings of the human: insignificance, subjectivity, illusion, solipsism and projection.

iii) Also, the opportunity now becomes available for us to abandon the objective, physical, determinist analogy as an exclusive model. It now becomes possible to set in rational and scientifically verifiable order, more facts of experience. These include looking, “outness,” non-physical (spiritual) reality including attention, the dual nature of our senses and the spiritual state of Being (Wisdom, Integrity, Intelligence) of the subject. Let us now close the door on the science of limitation and open the door to the science of all possibilities!

iv) It has been recently observed that science advances by one funeral at a time. Is it possible to avoid this disheartening observation? A promising start might be to examine one’s own (usually implicit) analogy, then check for contradictory data arising within that analogy and then attempt to expand it to account for any supposed contradiction. For example, expansion of one’s frame of reference has been used to resolve paradox (Russell), to include purposefulness and determinism within the same model (Ong), and to include matter and spirit within the same scientific model (This paper). Also, recognize that analogy has truth content, and that truth, not contained within an explicit analogy, is in danger of becoming baseless and irrelevant.

In summary, we have seen, in the light of the expanded analogy, that there cannot be any separation of the Seer from the process of gaining knowledge. There is also the possibility of including within the analogy not only the Seer but also including, as a variable, the spiritual state of the Seer. We have also demonstrated that by use of analogies great flexibility of thought, including inquiry, analysis and synthesis becomes possible. The connection of spiritual wisdom with scientific knowledge can now be placed on an empirical basis. Lastly, we can establish that no threat to customary ways of doing science exists from considering the expanded analogy as a more complete model of reality.

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### SUMMARY

We investigated the combined nature of our senses, a physical input and a psychic output, by means of two models or analogies. We started with the input model and showed that it had physical validity when the physical input was varied or interrupted, but fell short in regard to phenomena concerning coherence of images, location of images and separate seeing of the eyes. In addition it was necessary to add the unbounded Seer to make the model more complete. We added an output model and introduced Attention, a field phenomenon, to maintain contact between Seer and seen object. We then considered a combined analogy, which included physical seeing, and psychic looking. Examples of distant looking and listening were cited to verify the dual nature of our senses. To structure our understanding, we used an Absolute Theory of Attention from Vedic science that suggests that the Seer informs the world by supplying the qualities to the world from his or her state of being. The combined analogy was used to demonstrate that, from both a physical and psychic viewpoint, the Seer is inextricably involved in the process of perception. The inclusion of the Seer into the model permits connections to be made with spiritual tradition and spiritual understanding. Inclusion of the Seer into the model does not pose a threat to either objectivity or to familiar time-tested ways of gaining reliable knowledge.

### CONCLUSIONS

First, whether we consider sensory experience from the extramission viewpoint or from the intromission viewpoint, in either case we must consider it amazing. We should put aside all questions of accident or pure chance. We sense by means of pure Being. We should begin by regarding each living creature as extraordinary.

Second, the dual physical and psychic nature of our senses is a matter of empirical reality, not a question of logic or belief. Whatever disagreements there might be about the theories, methods and conclusions of this paper, the fact remains of “outness” of experience that must be considered for any adequate attempt to order our experience.

Third, reason should be made subordinate to analogy. What we want to be reasonable about must be contained within an adequate model. If not, we fall into error and confusion. As the engineer Charles F. Kettering once said, “Logic is an organized way of going wrong with confidence.” Stated differently, from the east we have from Rabindranath Tagore, “Imagination [analogy formation] is an inner light which, with help of reason, leads to construction.” (Mascaro (1965) p.27)

Last, the questions of i) the “whereness” of the image, ii) the lack of boundedness of the self and iii) the apparent action of some aspects of the senses existing out of the bounds of physical limitation all point to a non-physical reality that exists in daily life that needs to be incorporated into common understanding.

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### RECOMMENDATIONS

We should adopt new working definitions of the phenomenon of perception. They should appear in reference materials and textbooks at all levels of learning, from kindergarten through college. A suggested candidate for such a definition could be the Absolute Theory of Attention (ATA) as used in this paper. In addition, graphics should be employed to flesh it out, and a summary of the major areas of understanding (and non-understanding!)<sup>12</sup> that it embraces should be enumerated.

We should adopt a new model of reality, incorporating Being and Attention. The model should be consistent with both the data supporting intromission and with the data supporting extramission. There is no reason not to do this; in fact there is every reason to do so in order to uphold intellectual integrity. We can anticipate that phenomena, such as distant viewing, distant healing through prayer, and telekinesis, can now become topics of intellectual and scientific inquiry, rather than those of pejorative criticism and dismissal.

We should adopt a new attitude. The quest for knowledge should embrace the unknown and the unfamiliar, and while it is useful to limit our fields for the purposes of structuring our specific understanding, it is also good to be receptive to new fields, while preserving our critical faculties. It is not all junk science.

All knowledge is gained by a combination of miraculous physical and psychic processes. We have attempted to depict this in Figure 8. We cannot avoid this conclusion. Adopting a properly awesome attitude, we should learn to live in the wonder of it.

**Postscript:** Let us turn the title of this paper into a question: How do we look across the room? Answer: Pay attention. Next question: How do we look across the universe? Answer:...

### ACKNOWLEDGMENTS

I thank my friend Glenn Schmieg who helped me with knowledge of the behavior of electric fields. A critical portion of this manuscript was developed while on sabbatical at the Monastery of the Companions of St. Luke, Donnellson, Iowa, Michael-John, Abbot. The realization that attention was a field phenomenon came to me as I looked at an icon in the garden there! Many thanks to Sara Woods for her help in preparation of the figures. My wife Dian has suffered through the gestation of this work extending over a number of years. I thank her for her love, patience and proofreading.

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### NOTES

1. Here is Maharishi's gloss: "Vedic Science is a complete science, which extends and fulfills the objective approach of modern science by incorporating the knower and the process of knowing into the field of investigation. It provides a complete and comprehensive knowledge of the unified field of all the laws of nature [field of Being], which can be described as the unified state of the knower, known and process of knowing. Vedic Science also describes the sequential mechanics through which this three-in-one structure of the unified field gives rise to the infinite range and diversity of natural law displayed in the universe."
2. "While [objectifying] the world we imperceptibly remove the cognizing subject from it, and...are prone to overlook this circumstance."
3. Some people, perhaps due to inculcation into intromission ways of thought, will state that their experience of sight is "in the head." A simple experiment that will demonstrate the experience of the "Outness" of the sound and touch senses is simply this: close the eyes and put your attention on whatever you are hearing or touching. The locus of sound and touch is certainly not in the head! We could then argue by analogy that what we see is also not in the head.
4. I used to think that "Outness" of experience was the strangest fact of existence, but now, upon further reflection I think that attention is the strangest!
5. Attempts at a synthesis of two modes of experiencing has, of course, been attempted before. For example Grosseteste in the thirteenth century (Lindberg 1981, p101) writes: "But it should be understood that the visual species [issuing from the eye] is a substance, shining and radiating like the sun, the radiation of which, when coupled with radiation from the exterior shining body, entirely completes vision." The "visual species" of Grosseteste and our "attention" correspond to each other. In later years this synthetic view was displaced almost completely by the analytic viewpoint. This imbalance of synthetic and analytic views is beginning to soften but is still strong in places. More intractable than this schism, is the philosophical split between the Truth and the Good (Pirsig 1974, p. 371). Habit dies hard: we see it as Truth vs. Good, Rhetoric vs. Dialectic, Mind vs. Matter, instead of Truth and the Good, Rhetoric and Dialectic, Mind and Matter.
6. Veda means knowledge, of both the changing and non-changing aspects of reality. Maharishi Mahesh Yogi is in the process of reviving this knowledge and casting it into modern scientific language. See for example the Journal Vedic Science and Modern Science for many in-depth articles on Science and Consciousness.
7. This is consistent with ancient wisdom: "Existence is seeing and being-seen, or more exactly knowing and being-known, or most exactly of all, being and being-known" (Kerenyi, 1962 p.150). An attempt at a representation of this has been made in Figure 3b.



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8. It is surprising that proponents of one particular view, intromission, say, will fail to consider phenomena that would contradict that viewpoint. Churchman (1971, p.70) has suggested that contradiction plays the role in western science of establishing the stopping point of formal inquiry.
9. Support for extramission also exists at the quantum level of reality. Goswami (p. 26) states: "...an observer's looking creates a unique actuality from the sprawling possibility wave—that is, conscious looking manifests the actual event from all the [paradox-free] possible ones." It is not "Outness" or Attention that are the strangest facts of existence (Note 4), but this fact and Step 3 ii of the ATA!
10. For a discussion on the many attempts that have been made to explain the mirror-image mystery see Gregory (1997, pp.88-103).
11. The goal of Science (elucidation of law) and its ethos, material determinism, is not without irony. Laws of nature are ubiquitous, eternal, unchangeable, and omnipotent. In short, they are completely spiritual, non-physical, and transcendental. "The laws of physics...are ghosts..." Pirsig (1974, p.41).
12. A pet peeve of mine is not reporting what is not known about a subject!

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