

Art as Eye Movement

By Kenneth Hemmerick
With notes by Fred Herscovitch

SANSKRIT

RISHI

Knower

DEVATA

Process of Knowing

CHHANDHAS

Known

This writing concerns the relationship
between object and subject
in the perception of art and life.

The two are inextricably related,
for both entail experience and awareness.

Without experience and awareness,
there is no life or art.

If the subject (knower) is only absorbed in himself,
He is unaware of the *process of knowing* and *the known*.

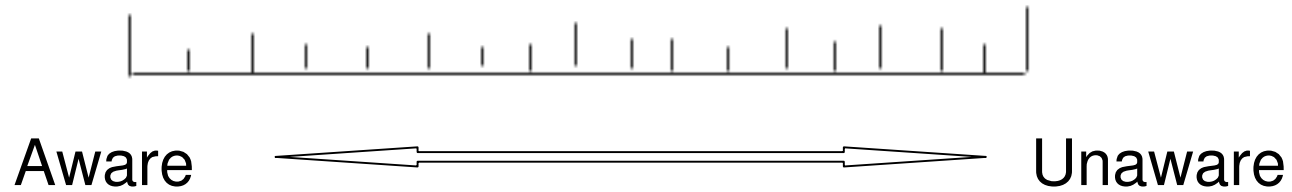
He is unaware of 2/3 of reality...

A little knowledge is a dangerous thing.

Awareness is commonly understood monologically.
That is,
awareness is usually considered as a unitary phenomenon.

We say for example, “I am aware of the tree before me.”
Or we can say, “I am not aware of the tree before me.”

However, with a little consideration and reflection, an understanding emerges that awareness is a spectrum, ranging from unawareness to awareness.



Cybernetics

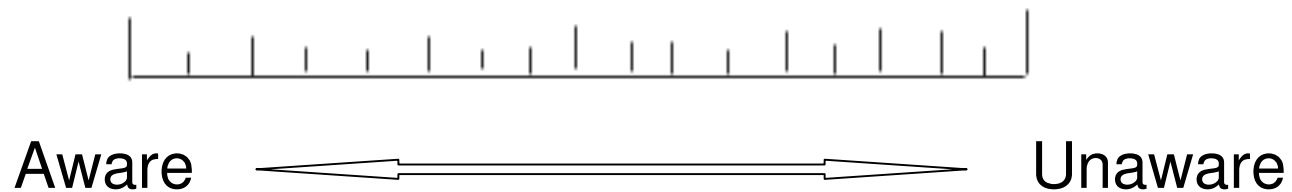
The so-called “subconscious mind” is not a mind at all. It is a mechanism — a goal-striving, “serbo-mechanism” consisting of the brain and nervous system, which is used by and directed by mind.

This creative mechanism within you is impersonal. It will work automatically and impersonally to achieve goals of success and happiness, or unhappiness and failure, depending upon the goals you set for it.

Maxwell Maltz, M.D., F.I.C.S
In Psycho-Cybernetics

In addition to being either aware or unaware, we can also be unaware that we are aware.

For example, we can be unaware, at the present moment, that we are aware of what day it is.



[The Human Computer} has self-metaprogramming properties, with limits determinable and to be determined.

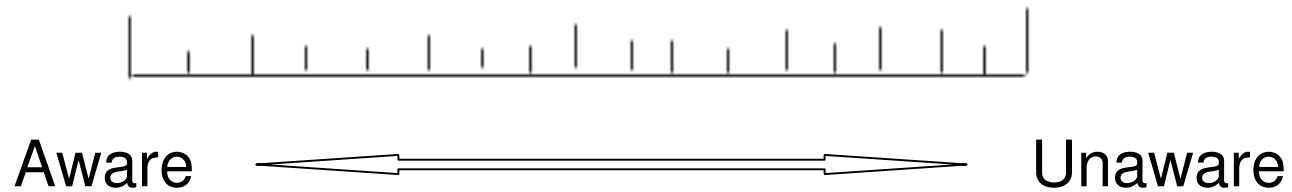
(Note: Self-metaprogramming is done consciously in metacommand language. The resulting programming then starts and continues below the threshold of awareness.)

Similarly, each computer has a certain level of ability in metaprogramming others-not-self.

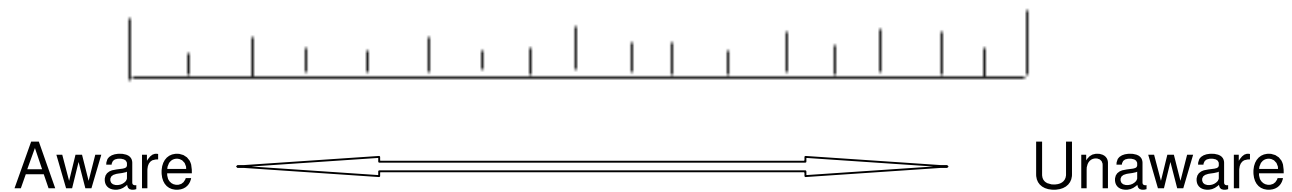
John Lilly, M.D.

From Programming and Metaprogramming in the Human Computer

Similarly, we can be aware that we are unaware of the velocity of light through space as being 186,282.3960 miles per second.

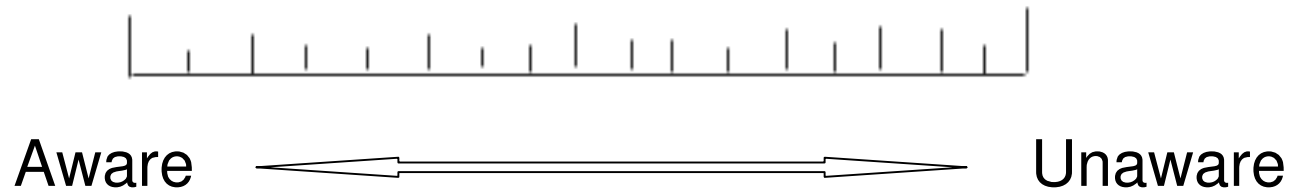


With this information, we are now aware that we are aware that the speed of light through space is 186,282.3960 miles per second.



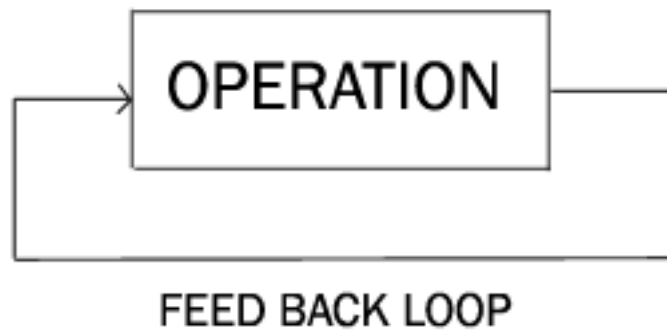
If I asked you, how many miles per hour does this part of our galaxy rotate around the galaxy centre? *

You will most likely say, “I don’t know.” This is being aware of being unaware.



* 700,000 mph

Awareness as a Self-referral Mechanism



Audio feedback is one example of an operation. A microphone too close to a loud speaker sets up a feedback loop which is self-amplifying — resulting in a loud squeal.

To briefly recapitulate:

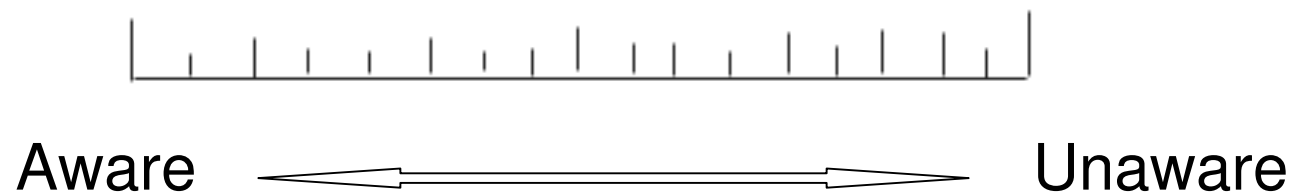
Awareness is a spectrum.

We can be **aware** that we are **aware**.

We can be **unaware** that we are **aware**.

We can be **aware** that we are **unaware**.

We can be **unaware** that we are **unaware**.



There are always three aspects to reality:

RISHI – The subject or knower

DEVATA – The process of knowing or creating.

Chhandas – The object or known.

These three aspects of reality are exhaustively analyzed and studied in the Vedas.

There are whole books devoted to each of these areas separately.

Awareness inevitably requires an “otherness”.

That is, something or an event or person of which one is aware.

There is always, in awareness, an object and subject — an object being perceived and a subject perceiving.

CHHANDHAS – That which hides.

A materialistic person focuses on Chhandhas which hide the other values of reality.

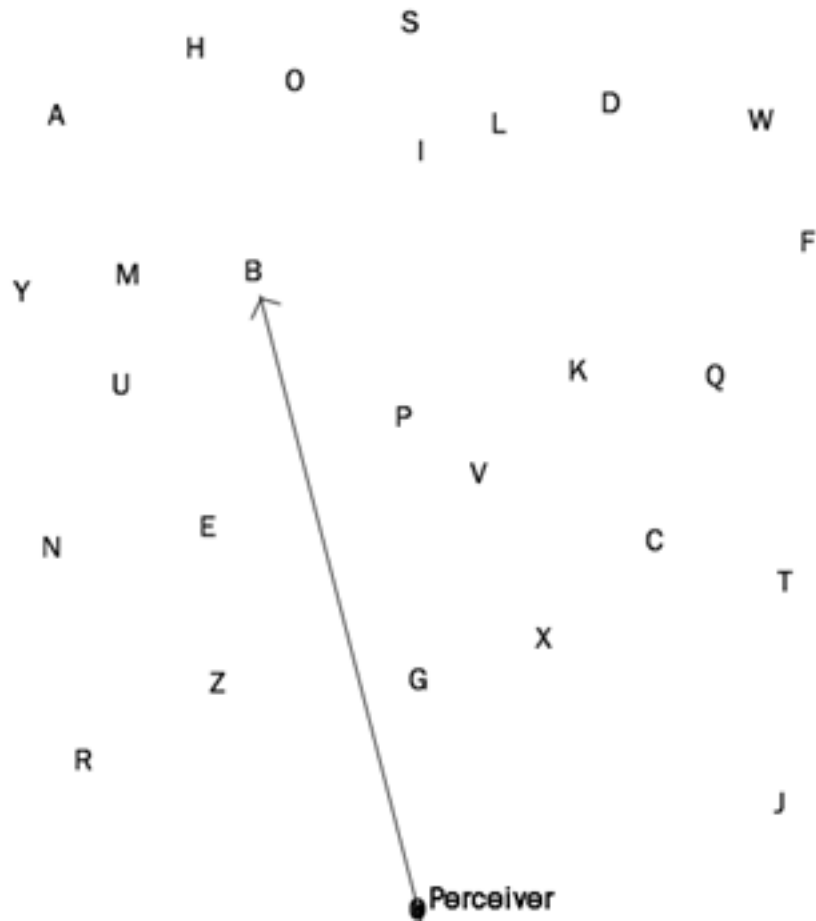
Presently under discussion is awareness.

Awareness is the object of perception.

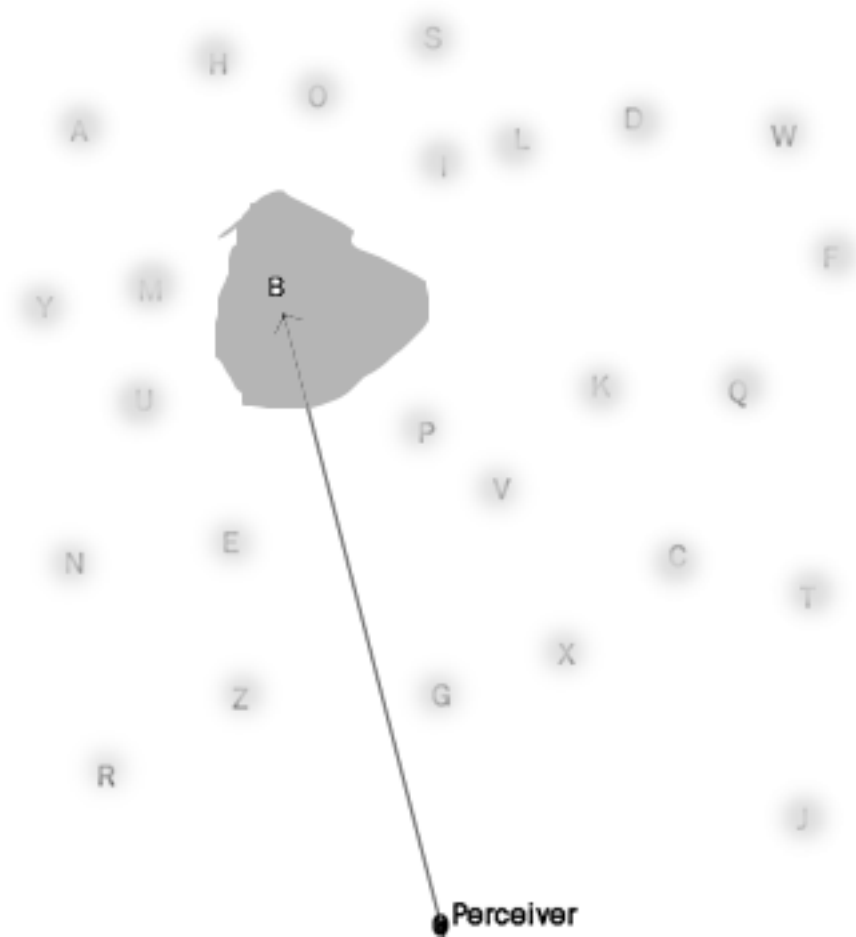
You are the subject perceiving —

Being aware of being aware and
being aware of being unaware requires focus of attention.

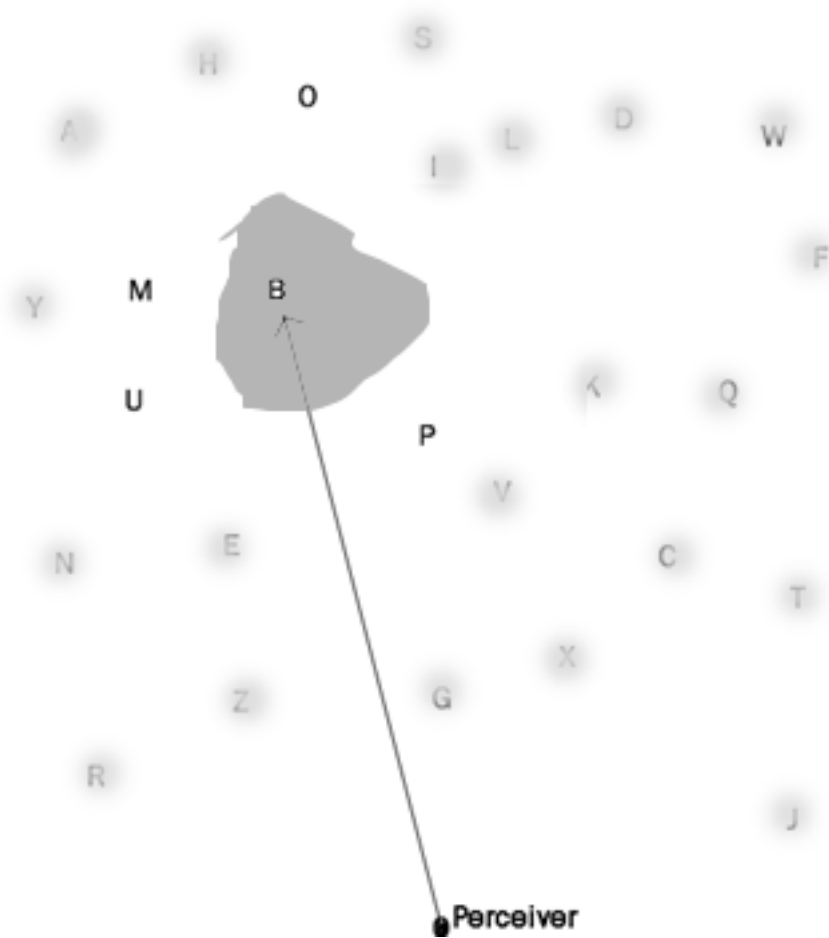
Ergo, energy and direction.



Perceiver directs attention to object “B” and is aware of being aware of object “B.”

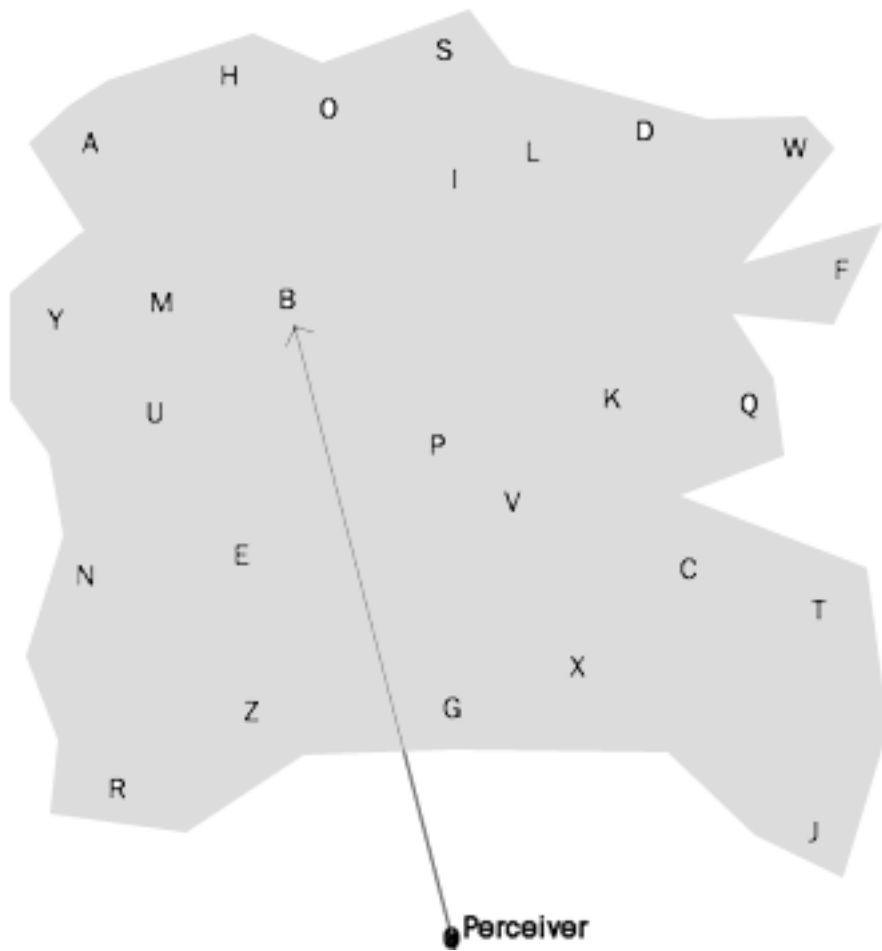


Perceiver is unaware of being unaware of other subjects.



Perceiver is aware of object "B" and unaware of the awareness of objects "O", "M", "U" and "P."

The ability to focus on a single object,
while simultaneously being aware of peripheral objects,
is a characteristic of unity consciousness.



Perceiver is aware of object “B” and aware of the unawareness of other objects.

We can be aware of an object as far away as

6,000,000,000,000,000,000 miles away as in the case of Andromeda which humans can see with the naked eye.

Or we can be aware of a thought that is less than

10^{-3}

seconds away in the firing of a neuron.

Experience is an impression of awareness, which is left in the brain. There are 10^{11} to 10^{12} neurons in the brain

and there are 10^{15} synapses in the brain which connect the neurons to each other.

The brain as such is limited and finite, but with such capacity that there exists a minimum of two states (inhibitory and excitatory.)

With this in mind, we can conclude that there exist in the order of

$$2^{10^{15}}$$

possible brain states available.

Usually when an object is perceived, we believe that we are perceiving the object instantaneously.

That is, we believe we are perceiving the object as it is happening.

In fact, what we are perceiving is an after-image in the brain of the object of which we are aware.

Once an object is sensed, and an impression is made in the brain, then the object is experienced.

All experience occurs in the brain. We never “perceive” outside of ourselves.

We do not see the tree out “there”.
We see an image of the tree in the brain.

There is always a time lag.

1 light year = 6 million million light years.

The nearest star to us

is 4 light years away — a distance of

4 x (6 million million miles.)

In the same way that when we see a star at night we believe the star to be in the exact same location in the sky.

The truth of the matter is such that it takes time for light to travel (at the rate of 700,000,000 miles per hour.)

As such, the star we are “seeing” is millions, perhaps billions, of miles away from its “seen” location.

What we are seeing is the star’s “after-image.”

Awareness of awareness is sometimes called witnessing. It is a sign of growing consciousness and usually appears first in the dream state.

At this time we are aware that we're dreaming.

In the field of consciousness —

We can have experiences of which we are aware that we are aware of having the experience.

We can have experiences of which we are unaware that we are aware of having the experience.

We can have experiences of which we are aware that we were unaware of having the experience.

We can have experiences of which we are unaware that we are unaware of having the experience.

As the nervous system becomes free of stresses, impressions then become more and more toward “the drawing of a line in air.” No impressions are left.

In addition, the whole physiology becomes more refined, including the digestive system which begins to manufacture a whole set of chemicals unknown as yet to science.

One of these chemicals is known as ***soma*** and information about the effects of soma on the human entity is described in the 9th and 10th Manadalas of the Rig Veda.

Some impressions in the brain are deep and akin to carving in stone.

Others are closer to writing in sand,

Others still can be described like the ripples of waves in water.

And some impressions are closer to the movement of air through the atmosphere.

Look at an object in the room which you are presently in.

Look at the object with respect to its colour, shape, texture and light which seem to bring it to life.

Become familiar, very familiar with the object.

Now close your eyes.

Did you notice, when your eyes closed, there remained an “after image” of the object you were looking at?

Now look at the same image again and then close your eyes.

Did you notice that the “after image” or impression of the object you experienced became more defined?

Repeat this process of looking at your chosen object and “recalling” the image in the brain until the image is clear in the brain.

Think back!

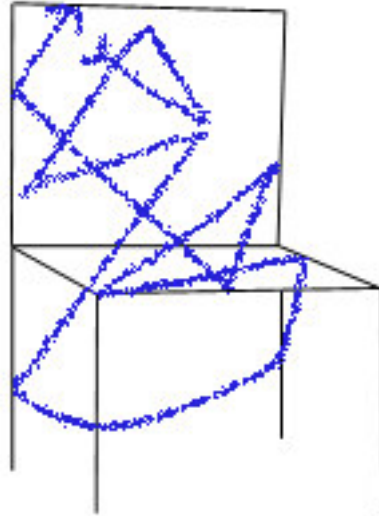
Did you notice when you were reviewing the perceived object with your “inner” or “mind’s” eye, your mind’s eye seemed to move following the contour or shape of the object you were perceiving, and your perception was not a static stare?

Look at the same object once again and close your eyes.

This time, however, be aware of the inner eye's awareness or movement.

I have, while writing these past few pages, experienced a chair.

My eye movement was something as follows:



(These eye movements will vary from person to person, and will change from time to time with observation of the same object.)

Here is a visual description of my



inner eye's movement of perceiving the chair with the eyes closed.

To a mathematician or physicist



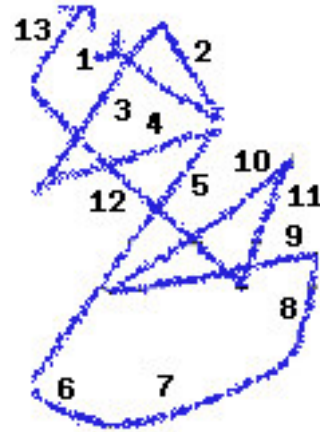
this diagram looks like a vector
or a visual description of motion and direction of energy.

A vector can be described in 3-dimensional space with respect to a system of Cartesian coordinates.

A tensor is a magnitude by which components of a system may be transformed linearly and of which the notion of a vector is a special case.

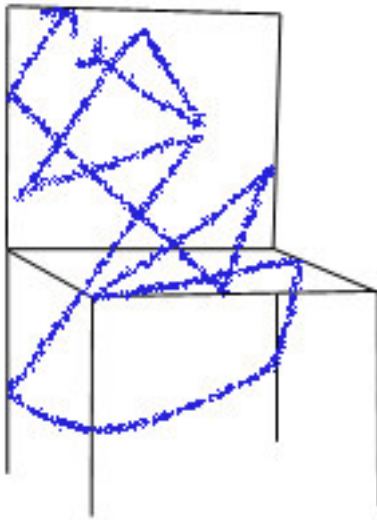
Tensor analysis is used in advanced engineering calculation as well as Relativity Theory.

The perception of an object requires



energy and direction. In this particular case, there are 13 specific directions of energy.

Each change in energetic direction



may be called an “event.”

The number of relationships between events is always

$$\frac{N^2 - N}{2}$$

where N = the number of events for consideration.

... Conservative estimates suggest about 10^{14} elementary operations per second in a single human brain. If we can believe the recent work of Hyden (1960) and Pauline (1961), these operations are performed on about 10^{21} molecules. From stability considerations (Von Foester, 1948) we may estimate that per second from 10^9 to 10^{11} molecules will spontaneously change their quantum state as a result of the tunnel effect ---etc.,...

...in order just to keep the logical strength of our wisdom from slipping, the ratio of coalescing , **k** to the rate of discovery, **m** , must okay the inequality.

$$\frac{\dot{k}}{\dot{m}} \geq k \cdot \ln 2$$

That is to say that all special interrelationships of all experiences define comprehension, which is the connections necessary for an understanding of what everything is all about.

In the case of the chair:

$$\frac{N^2 - N}{2}$$

or $\frac{13^2 - 13}{2}$ or $\frac{169 - 13}{2}$ or **78**

...with our tremendous increase in experimental techniques,

•
m

is occasionally so large that the same inequality is not fulfilled, and we are left with more riddles than before.

John Lilly, M.D.

From Programming and Metaprogramming in the Human Computer

This may possibly mean that it requires in a single observation of the chair with my mind's eye 78 relationships of which:

I am aware that I am aware or
aware that I am unaware or
unaware that I am aware or
unaware that I am unaware

is my experience which leads me to an expressed appreciation and comprehension of the chair.

I have noticed when two people are looking at each other, and there is considerable dislike between them, there tends to be little eye movement.

We sometimes say we stare in disbelief, meaning there is very little or no eye movement.

I have also noticed that severely depressed people exhibit very little eye movement.

The relationship of subject and object is discussed in *The Sense of Beauty* by the American philosopher George Santayana.

He discusses beauty as a system of *values*.

“Beauty is a value, that is, it is not a perception of matter of fact or of a relation: It is an emotion, an affection of our volitional and appreciative nature. An object cannot be beautiful if it can give pleasure to nobody: A beauty to which all men were forever indifferent is a contradiction in terms.”

I have also noticed two people “madly” in love “cannot keep their eyes off each other,” and there is considerable eye movement.

This leads me to wonder if what makes an object “beautiful” is neither the object nor the subject per se, but rather the relationship between subject and object expressed as eye movements.

“...The object, as the eye brings it to the centre of vision, excites a series of points on the retina ... every visible point becomes thus a point in a field and has a felt radiation of lines of possible motion about it.

Our notion of visual space has this origin since the manifold of retina impressions is distributed in a manner which serves as the type and exemplar of what we mean by a surface.”

George Santayana
From The Sense of Beauty

There is the saying “beauty is in the eye of the beholder.”
Perhaps this should read,

Beauty and art are in the eye movement of the beholder
defined by the number of relationships between events or
eye movements of the beholder in the perception or
experience of the beholder.