

# Consciousness is Always $t$ (time) = 0

By Jayant Kapatker

## Consciousness is Always $t$ (time) = 0

Over the past 9 years, I have been attending classes on Vedanta and Bhagavad Gita and have covered a wide range of Upanishads. My perspective towards what is around us has changed dramatically. My guru who teaches these classes has an engineering background and his style is rooted in logic and clarity. Since I also have an engineering background; I enjoyed this precise style. To get a better understanding of what was being taught; I started reading both Vedanta and related scientific books. The more I read, the more I began to think that Vedanta could help Science in getting a better understanding of the universe.

In this paper I will try to cover ground in which I will try and integrate a few of Vedanta's concepts with Science. This may be of interest to followers of both Vedanta and Science.

### Paper Objectives

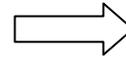
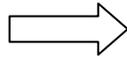
1. Science has taught us that Time started with the Big Bang about 13.7 billion years ago. Scientists have found out how fast the Universe is expanding. Extrapolating this backwards, science has been able predict that the Universe began about 13.7 billion years ago. This is  $t=0$  for Science and Universal Clock started then. The Sun's age of 4.7 billion years is in relation with this Universal Clock. In this article I would like to put forward a completely different perspective, I would like to show that it is NOT the Big Bang which is  $t=0$  but the Consciousness within each and every human being where  $t=0$ . This may seem a radical idea, but it is true and accurate. We will explore this further in this article.

2. Science has taught us that nature and worldly objects are out there and the reflected light from these objects moves towards the human eye, the retina, and forms an image, which is upside down. This image is reversed and then transmitted by optical nerves to the human brain. Science is not very clear



### The Science Way

what happens after that but in some way or fashion we see the world which has space and time. This lack of clarity shows that the scientific method is incomplete. Vedanta has a completely opposite viewpoint, the objects which we see are created in the mind in subtle form and then this is projected out as the worldly objects we see and observe. This paper will try and show that this is the only logical way to explain the perception process.



## Vedanta Way

To help discuss these objectives, we need to understand some background information, which is a mix of relevant Scientific and Vedanta concepts

1. Seer – Seen Discrimination
2. Einstein's Theory of Special Relativity
3. Einstein's Equation of Separation
4. Panchikaranam – Vedanta theory of Creation
5. Awareness is  $t = +0.5$  sec
6. Is Light a Wave or Particle?

Let us discuss each of them briefly

### 1. Seer – Seen Discrimination

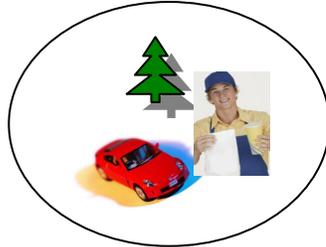
The Seer – Seen Discrimination is explained with clarity and precision by Adi Shankaracharya in Drik (Seer) Drishya (Seen) Viveka (Discrimination). This is the Vedantic explanation of the perception process. Science gives a good explanation of taking all the possible perceptions (sight, hearing, smell, touch and Taste) to the brain, what happens after it reaches the brain is still unknown to science. Since Science is unable to fill in these gaps using Vedanta is worthwhile, especially if it seems logical and reasonable.

1. All the world is made of names and forms or world objects. The qualities of these names and forms are seen by one sense organ. For example, the human eye which is a sense organ can see qualities like color, shape, and size of the forms of the world objects. This also applies to the other human senses like, ears, nose, tongue and skin, which see the different qualities of the same world objects.
2. One mind can see the different qualities of the sense organs. This means that the mind can see and know the content of the sense organs. Vedanta even says that the mind has each of the sense organs in subtle form. For example, besides seeing the content of the human eye, it also knows the limitation of the human eye, if it is shortsighted or losing its power of perception. This also applies to the other 5 sense organs

3. There is one Consciousness or witness which sees the qualities of the mind objects. The mind objects are thought waves or Vrittis (like ripples in a pond) which is made up of emotions, perceptions, memories, desires etc and Consciousness is the awareful witness of these. This is the last step; there is nothing beyond Consciousness.



**Seer**



**Mind Objects**



**Sense Organs**



**World Objects**

In any perception process there has to be an Object and Subject or Seen and Seer, without this perception can never be complete. From the above it becomes clear that Consciousness is the Subject/Seer and whatever is in the mind is the Object/Seen.

What is Consciousness? Consciousness is the reality because of which you are the aware of what is happening in your mind. This is not the place to discuss this in detail, but Vedanta teaches us that the essential nature of everyone is not the Ego, but the Consciousness, which is divine, infinite and beyond time and space. Ego is another Object in the mind. People think they are the Ego and this Ignorance is the cause of suffering.

#### Conclusions to Remember

1. Everyone knows they are conscious and this Consciousness which is within every person is the ultimate Seer of all objects which are seen.
2. We think and feel we are seeing objects around us, but in reality we are only seeing objects which are in the mind or mind objects. This is an important point which must be understood.

## 2. Einstein Theory of Special Relativity

The Theory of Special Relativity deals with Space and Time. It is based on the fact that the speed of light is fixed at 186,000 miles per second irrespective of the frame of reference. We all experience relative speed. Going in a car at 60mph, we look into another car traveling in the same direction at 55mph, and we can see things inside the other car because the relative speed is only 5mph. We don't have this experience with reference to the speed of light. Light is travelling at 186,000 miles per sec and suppose you are traveling in a car at 60% of the speed of light. Sitting in the car, you would logically expect the light to travel at only 40% of its usual speed, but if you take the measurement you will find to your amazement that the light is still travelling at 186k miles per sec. What has happened is that space has

contracted and has shrunk so that light still covers 186K miles in one second. If you increase the speed of the car to 80% of speed of light, space will further contract. If you now slow down to 30% of the speed of light, space will now expand. All this done to ensure that the speed of light is a constant at 186,000 miles per sec. Just an aside, though it is physically impossible, if you can reach the speed to light, the space of this universe will be smaller than the smallest dot, time will come to a standstill and your weight will be infinite.

This expansion and contraction of space also happens even when walking or running. However, the speed at which you walk or run is so slow when compared to the speed of light that you are unable to notice, but the changes to the space time framework are definitely occurring.

The important take away point from this discussion is that each of us has our own space/time framework. Person A is sitting in a chair, Person B is walking, Person C is running, Person D is cycling and Person E is driving a car; all of them are moving at different speeds; this would mean that each of them will have their own separate space/time framework. This sounds radical, but it is very correct, and scientifically proven.

This entire universe is based on relative motion, as we just cannot find anything which is fixed. We are walking on earth; the earth is moving around the sun, the sun is moving in the Milky Way. The Milky Way is moving further away from other galaxies. Where is the Fixed (0,0) coordinates to make an absolute measurement of space?

If you look towards Vedanta, it will teach us that the Consciousness is the unchanging (0,0) coordinates in this changing universe. And what is most interesting is that Consciousness is within each of us. We just saw that each person has its own independent space/time framework, this means the 0,0 coordinate of this universe is within each of us. This implication is mind boggling.

### **3. Einstein Equation of Separation**

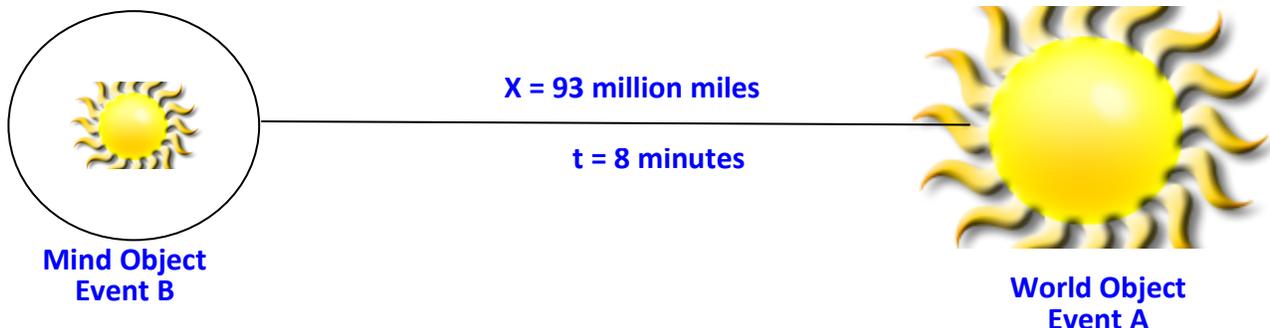
Einstein's Equation of Separation is relatively unknown and is an offshoot of the Theory of Special Relativity. Imagine a situation where Person A is on Earth, Person B is travelling in a rocket at 50% of the speed of light and person C is in a far away galaxy. Somewhere in this Universe two events happen – first a star explodes and after some time another star explodes in another part of the Universe. Both these events are visible everywhere in the universe.

The Einstein equation of separation posits that the distance between these two events and the time duration between these events will be exactly the same for everyone in this universe. Each one of them will have a different space time framework but the equation of separation will remain the same for these two events.

If Person A will calculate the distance of the first exploding star (based on the speed of light) from Earth and then calculates the distance of the second star, then using the Equation of Separation, he can calculate the distance and time difference between the two events. If this calculation is performed for

Persons B and C also, we would find that the difference in distance and time would be the same for all of them.

Let us now apply the equation of separation to our day to day perceptions of sight. Suppose you look at the sun. If you look closely, any perception is made up of two events the World Object and Mind Object. The sun is the world object and is the 'there-then' event. The mind object is seen in the mind and is the second 'now-here' event. If you apply the equation of separation to this, you will find out that the separation is zero, which means both the events happen simultaneously. This definitely supports our day to day experience. This is possible because the distance the light travels from the sun cancels out with the time taken for this light to reach the second event, to give a zero separation between the two events. This would make it appear that both the events are happening at the same time. This is possible because what the Seer /Subject sees is the sun, which is 8 min old.



Let us look at objects/events which are much closer than the Sun and the equation of separation will still be zero. We see a tree outside the window, the light has to travel from the tree to us, the time period may be very small, and it is definitely not zero. This tree we see is in the past, however small.

Seeing from my window, I can see the tree, the sun and the exploding star (with my telescopic vision). They all have zero separation, the tree is micro/nano seconds old, the sun is 8 minutes old and the exploding star is one year old. Nothing is seen in real time, everything is in the past. What a strange and unreal world we see around ourselves. It seems the universe is like a 3D canvas, with time providing the depth to this canvas. Objects which are closer are a short time away and objects which are far away are much further away in time. The depth is based on the constant speed of light, which provides a smooth flow between the past and the distant past.

It is not without reason that Vedanta calls the universe unreal. All what we see or hear is dated stuff.

We will come back to this topic later on when we analyze this information in more detail to prove the two objectives of this paper.

#### **4. Panchikarana – Vedanta theory of Creation**

Panchikarana is an ancient Vedanta theory of creation. Before anything existed, there was Brahman, the Absolute Reality in an unmanifest condition. Brahman is the underlying reality because of which

everything exists, it is the 'uncaused' cause. Brahman and Consciousness are exactly the same. Brahman applies to the Universe and Consciousness applies to an individual jiva or living being.

What is unmanifest? "Unmanifest" here means a potential form or the "seed" which gives rise to all existence. Just like a seed has the potential to grow into a gigantic tree, the unmanifest or potential form can give rise to the entire Universe. When the right conditions exist, this seed manifests and becomes a tree. In the same way, this unmanifest potential, when the right conditions exist, manifest to become the Universe of Names and Forms.

In the first stage of manifestation, subtle elements are created. In Vedanta, there are 5 subtle elements – space, air, fire, water and earth. These elements combine with each other to create a fully functioning subtle universe. In Vedanta this subtle universe is also called the Cosmic Mind, which includes the cosmic intelligence. The summation of all the individual minds is the cosmic mind. The Subtle Universe is similar to the software in a computer. In Science, you could equate this to the stage immediately after the Big Bang.

In the second stage subtle elements combine in a pre-determined manner to form the 5 Gross elements.



This process of combination is called Panchikarana. These 5 gross elements combine with each other to form this universe of names and forms or world objects. In Science, you could compare this to the Big Bang theory, which also posits the elements, and their combining to give rise to the Universe. In Science, we know there are about 95 basic elements which combine with each to form this Universe.

The key point to remember here is the "Grossification" process, the visible universe is created from subtle to gross and not from gross to subtle.

## 5. Awareness is $t = +0.5$ sec

Benjamin Libet, a well known Neuroscientist, conducted a wide variety of experiments over many years to show that action/reaction is already initiated by the mind in the brain, but one is only aware of it after around 0.5 sec

### Experiment 1

A person touches a hot rod. The signal is transmitted to the brain in 100 milliseconds, the brain instructs the hand to remove it from the rod, this takes another 100 milliseconds. All this action takes place, but the person becomes aware of the pain caused by the hot rod only after 0.5 sec. This shows that there is fully functioning subtle universe which we are not aware of.

### Experiment 2

A person's brain is all wired up with electrodes and he is instructed to look at the clock and make a decision to press a button. When he decides to press the button, he makes a note of it on the clock. The experimenters found that it took 200 milliseconds to press the button after the person made a decision to press it. They also found that 300 milliseconds before this person took a decision to press the button; there was activity in the brain, the electrodes in the brain were lighting up. This suggests that in the subtle level the decision to press the button was made much earlier than the person's awareness of having made the decision. These findings have very interesting implications which are relevant to our discussion here.

These experiments have led many people to doubt if human beings really have Free Will. Based on these experiments and the teachings of Vedanta, I believe that there is free will only in the subtle level, and not in the physical world. The physical world is like a robot getting all its instructions from the subtle world. It would seem there is a fully functioning subtle universe, which is still unknown to science. Also this subtle world controls and creates the physical world.

## **6. Is Light a Wave or Particle?**

It is clearly documented and proven in science that Light is both a wave and a particle depending upon the circumstances. It is a wave when no one is watching or observing it. It becomes a particle or photon the moment someone is observing the light either directly or indirectly via a camera or other scientific devices. Experiments have proven the same phenomenon also applies to heavier objects like atoms and molecules. If this is correct, there is no reason to believe it does not apply to all the objects in this universe including planets and living beings. This is an incredible phenomenon of nature. Unfortunately science is still unable to explain why an object can be both a wave and particle.

Vedanta has a logical explanation for this unique happening. As discussed earlier, Vedanta tells us that we see mind objects only and not world objects. Only objects which are in our mind are observed and only these objects become particles or solid matter. Everything else which is not a mind object and therefore not observed remains a wave. This seems logical to explain what becomes particle and what remains a wave.

This process also supports the concept of Panchikarana, where subtle objects become gross. Only mind objects which are subtle can become gross. If they are not a mind object, then they just cannot become gross and will remain a wave.

### **Objective Analysis**

We now have a good background to undertake the task of analyzing the information gathered to explain the two objectives of this paper.

#### **Analysis Objective 1**

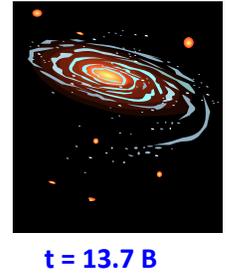
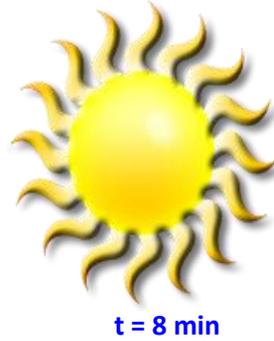
1. With the understanding of the Seer – Seen discrimination and the Space Time framework which is specific to each individual, let us study a couple of examples which will clearly show that time does not start with the Big Bang

Example 1

**Seer**



**Memory**



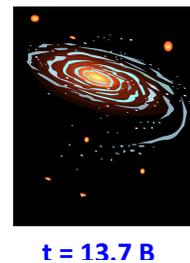
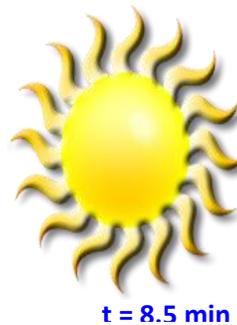
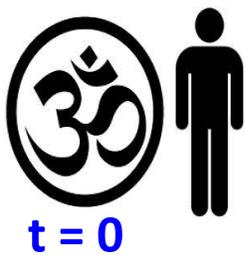
As our study of the perception process shows, all the world objects reach the mind and these mind objects are the things perceived by the Seer or Subject. Even a memory when activated takes some time (though of a very small time duration) to be retrieved from the memory bank and an image is perceived by the Seer. It is like retrieving data from the hard disk. In the drawing this has been identified by ns (nano seconds).

The tree is the closest external object, and we can guess that it takes milliseconds to reach the mind. The sun takes about 8 min, the big bang (if it can be perceived at all) about 13.7 billion light years, and other objects something in between.

It is not wrong to say that as one gets closer to the Seer, the time duration to reach the Seer keeps reducing. It is only logical to conclude that the Seer is the only place where  $t = 0$  and that the time coordinates start here. The Seer is beyond time and time space.

Example 2

**Seer**

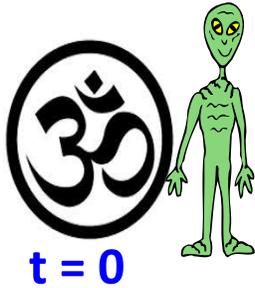


In this example, the same person moves to Mars and from there he sees the universe. His perspective would be different from what he saw on Earth. However, once again, world objects, which are further

away, are further in the past and objects which are closer are less far in the past. If you move down the scale, once again Consciousness or the Seer is  $t = 0$ . It does not matter where this person moves, the Consciousness or the Seer within this person will always be  $t=0$ .

Example 3

**Seer**



**t = 3 B Years**



**t = 13.7 B**

Let us now assume there is another person in far away galaxy about 3 billion light years away and views the external universe from this vantage point.

Here again  $t=0$  for the Seer of this person.

From this one can conclude that  $t=0$  for the Seer within any person. Each person irrespective where they are in the universe have their own  $t=0$ . It is therefore wrong for science to say time only started with the big bang.

2. Einstein theory of special relativity shows that each person creates their own time space framework. Also space and time are interrelated. Remember the Physics equation  $S = vt$ , here  $v$  is the velocity of light which is always the same, thus making distance and time interrelated. If  $t=0$  starts with Consciousness than it is only logical to state that the space coordinate for Consciousness is also  $(0,0,0)$ . What is interesting is that Science is making a futile effort to locate the  $(0,0,0,0)$  coordinates for space  $(x,y,z)$  and time  $(t)$  within the physical world. It will never find it there. As we have shown here that Science will only find the  $(0,0,0,0)$  coordinate within each and every living being.

To avoid the impression that there are multiple Seer's, Vedanta teaches that the Seer which is Consciousness is only One and is the underlying reality of everyone and everything. Vedanta suggests that Consciousness is infinite; if it is infinite it is impossible to have multiple Seers' or Consciousness.

Consciousness is ONE, it is the  $t=0$  for everyone and everything including the big bang. This also means that this Consciousness is beyond time and space. It is hard to imagine that this consciousness which is beyond time is within each of us and so close it seems only a thought away. Even when we die, the soul really does not have to travel very far, it just moves a thought away into the unmanifested Consciousness.

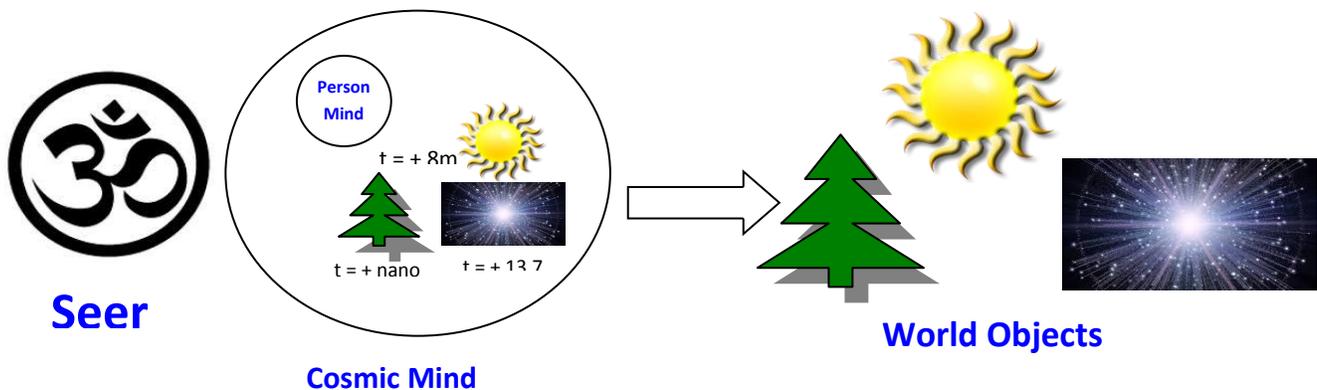
### **Analysis Objective 2**

The Equation of Separation showed that separation between two events, the world objects and mind objects is zero, so they happen simultaneously. As explained, this is only possible because all the world objects are from the past.

The issue at stake here is to decide how does perception work, the Science way -moving from the outside to the inside, or the Vedanta way - moving from the inside to the outside.

1. Let us examine the Science way: we know the light or photon particles reflect from world objects, they could be a few feet away or they could be billions of light years away; it is these photons which carry the contents of these objects and pass through the eye and they become a mind object. It is not clear to science how the reflected photons really carry the content of the distant world objects. Also what is never discussed by science is how the time factor is carried forward by the streaming photons. How does the mind know how far the world object is or how much time it took the photon to reach the human eye to be converted into a mind object? Besides these unknowns, science still cannot explain what happens in the mind to complete the perception process.

2. Now let us explore perception from the Vedanta standpoint. According to Vedanta there is a fully functioning subtle universe within the cosmic mind (called Hiranyagarbha) and part of this cosmic mind are the individual minds. In this functioning subtle world, the mind objects are present in an individual mind. Though not proven it can be assumed that time and space coordinates of each mind object is available. These subtle mind objects are projected out like a hologram and are grossified by the Panchikarana process of converting subtle objects to physical or gross objects. The individual mind does not have the capacity to make the projection of the universe but the cosmic mind does this projection. As Vedanta explains the Cosmic Mind has the Maya Shakti to power it. This cosmic mind is the fabric of this universe and it includes the time space framework. The time and space coordinates which are



available for the subtle objects are also projected and this helps in the correct placement of the world objects in this time space fabric. As we discussed in the Theory of Relativity, the space and time framework is unique to each and every individual. This is an amazing view of the universe, though this viewpoint cannot be proven scientifically but it seems logical and overcomes all the shortcoming of the scientific explanation of perception. To complete the cycle, the light now travels back from these projected world objects and it takes time to reach the individual mind, what is amazing is that the time

taken is exactly the same as the space and time coordinate of the mind object. This way the individual mind is fooled by his experience of perceiving external objects.

3. The best scientific evidence for the Vedanta process of perception is the well proven light wave vs. particle phenomenon. All the experiments show that light is a wave when there is no observer and the same light becomes a particle when it is observed. To become a particle or a world object, it first must be observed by the seer, and all the seeing is done in the mind. What is seen is the mind object alone. If it is not a mind object first it cannot be seen and therefore it cannot become a world object and will remain a wave. This clearly shows that the mind object comes first and this is followed by the world object. This means that the Vedanta interpretation of the process of perception is the only correct way to understand the perception process.

4. The Benjamin Libet experiments also support the idea that there are only Mind Objects. The experiments clearly show that all the action happens first in the subtle mind and after 0.5 seconds the person becomes aware of a physical event.

5. Another way to look at this is that what we actually see is whatever is in the mind. Science would also agree with this. Science tells us that the optical signal from the eye is transmitted to the brain and that is where actual perception takes place. If this is true, why does our experience always tell us that we are seeing are world objects which are out there and not the mind objects which are within?

Like elsewhere, experience has a knack of fooling us. We see the sun setting, but actually the sun never sets, it is the earth which is rotating backwards. We see the blue sky, but there is really no blue sky.

The only logical way to explain this experience is that what we are seeing are **not** World objects but Mind Objects which have been grossified by the Panchikarana process and projected outwards. As some has put it, the Einstein Equation of Separation is nothing but the Equation of Maya, which makes us falsely experience that World Objects and Mind Objects as two events with zero separation. But the truth is that there are only Mind Objects. World Objects have no independent existence but are the grossified version of the mind objects.

## **Conclusions**

1. This paper clearly shows that Consciousness or the awareful Seer is within each living being. The zero coordinate for the space and time framework starts from each person's Consciousness, and each person will have their own time space frame work.

2. This is counter intuitive, but it must be understood that the power of Consciousness projects whatever is in the cosmic mind and in the individual mind as the physical world. To understand and accept this reality science would need to make a much more in-depth investigation of the subtle world. Science has made great strides in understanding the physical world and now needs to move to the subtle realm to really understand the universe. This will be possible with the great strides that technology is making. But, fortunately, Vedanta has already provided us an analysis many millennia ago. It will not reach the skeptics unless and until science can prove it also.