Abstract:

# Natural 4-Dimensional Hologram

By changing 3-Dimensional perspective, one will end up in a 4-Dimensional perspective. The change of Dimension is accomplished by reducing 3-Dimensional perspective. To reduce 3-Dimensional perspective, use simultaneously a single eye and a parallel view direction. Experiments 1 and 2 have been carried out in this way which results in new floating depth symptoms.

Experiments 3 and 4 were **not** carried out with a single eye and parallel view direction, these two experiments are just to inform and remind what is 2-Dimensional and 3-Dimensional perspective. Experiment 3 and 4 confirm that 3-Dimensional perspective are ruled out. For this reason i have no other options left than to categorize the perspective projection as a 4-Dimensional perspective (Hologram).

All experiments have been carried out with projection because a projection has no fixed Dimension and therefore adapts to the Dimensional perspective where the viewer is in. The data consists of four visual images where the different perspective Dimensions are visible.

Also written by this author: Quantum Rainbow (Ultimate Invisibility Theory) which is honored in 2017 with an Award in the vision science contest Best illusion of the Year - President Susana Martinez Conde. (Harvard medical school). The Theory and data can be found at : - https://www.facebook.com/Johns-rainbow-effect 2/04/2018

# Natural 4-Dimensional Hologram

If one change it's own perspective in space, The perspective of a projection becomes 4 -Dimensional

Based on the absence of 3-Dimensional depth perspective

4-Dimensional perspective projection = 4-Dimensional Hologram

# Phase 1

The projection <u>must</u> travel in a fixed parallel direction with the view direction of the eye, the Dimension of the projection now partly changed 4-Dimensional. *Reference* 1

For the 4-Dimensional perspective projection to be visible it is fundamental to combine simultaneous phase 1 and 2. Between these two phases the 4-Dimensional Hologram will not be visible.

### Phase 2

The now parallel projection should be viewed with one eye. By doing so, you move even further into 4-Dimensional perspective. At this moment the loss of your 3-Dimensional perspective is so immense, that a new perspective occurs which results in a 4-Dimensional perspective. *Reference* 2

#### \* \* \* \* \* \* \* \* \* \*

Visual data experiments: 4 visual data experiment images + 2 illustration data video's + 1 extra visual data experiment image. Experiments 1 and 2 are carried out with one eye observation. The eye is a good observer so a high quality Hologram can be seen. A lower quality Hologram can be detected with a digital camera. One eye observation and a digital camera achieve the same result. No Hologram can be seen in experiments 3 and 4 these experiments are only to support and to remind what 2-Dimensional and 3-Dimensional perspective projection looks like.

#### **Experiment 1.**

Method: Flash light ( any type of light can be used ). 3-Dimensional plastic airplane. Flat 2-Dimensional wall. Digital camera. **Setup:** Digital camera (because one eye observation and a digital camera achieve the same result) is placed in front of the right eye, the left eye is closed. Light source is placed on the forehead in the pineal gland area, parallel with the field of vision. Distance wall till airplane: 5 centimeters. Distance airplane till light source: 3 centimeters.

A projection of a shadow is cast on a 2-Dimensional flat wall. If one observe with one eye very precise and almost perfectly parallel in a fixed position with the direction of the projection the projected shadow will behave like a 4-Dimensional Hologram with new floating depth symptoms underneath the plastic airplane. On this image the 4-Dimensional Hologram with floating depth symptoms are mainly visible around the engine and the wheel of the airplane shadow projection.

For good result use one eye, try to cast a shadow sharp as possible on a glossy white surface, use an object which has clear 3-D forms to cast the shadow, keep the object 1 centimeter from the wall and keep the object 1 centimeter from the light source, give the eye time to adapt to 4-Dimensional perspective. I would like to draw attention to the fact that this experiment can be done but is difficult to perform because the airplane can also easily block the 4-Dimensional Hologram from your sight, one have to concentrate underneath the airplane for the 4-Dimensional Hologram to see. The problem that the airplane blocks the parallel 4-Dimensional Hologram from your sight is not the case in experiment 2. Included illustration video: 4-D Hologram projection shadow.



#### Experiment 2.

Method: A led projector. Digital camera (because one eye observation and a digital camera achieve the same result). 3-Dimensional (irregular depth) walls. **Setup:** The projector is placed in a fixed parallel direction with the field of vision of a one eye or Digital camera. Projector is placed on the forehead in the pineal gland area, parallel with the field of vision.

In this experiment a different type of projection is used. The parallel direction of view where the 4-Dimensional Hologram appears is not blocked any more by an object (the airplane) which was the case in experiment 1. The projection is now being cast from a led projector on irregular 3-Dimensional walls which are at 90 degrees angles connected to each other. Notable is that the projection is not distorted by the irregular walls, this means the projection does not behave 3-Dimensionally, instead new floating depth symptoms are visible, one can now see the floating 4-Dimensional perspective Hologram in its full form.

*In experiment 3 i will explain why the 4-Dimensional perspective projection is not a 3-Dimensional perspective projection.* **Included illustration video: 4-D Hologram projection projector.** 



#### Experiment 3.

Method: A led projector. Digital camera. Two eye observation. 3-Dimensional (irregular depth) walls. **Setup:** The projector is **not** placed in a perfect parallel direction with the field of vision of a Digital camera.

This experiment is to show that the 4-Dimensional perspective projection which can be seen in experiment 2 is not 3-Dimensional.

This experiment is just to mention what is 3-Dimensional perspective projection (distorted projection), and to remind how projection should behave when it is adapted to a 3-Dimensional environment (walls with depth).



З.

#### Experiment 4.

Method: A led projector. Digital camera. Two eye observation. 2-Dimensional flat wall. **Setup:** The projector is not placed in a parallel direction with the field of vision of a Digital camera.

This experiment is just to show that the 4-Dimensional perspective projection conditions which can be seen in experiment 1 and 2 are not 2-Dimensional.

This experiment is just to mention 2-Dimensional perspective projection, and to remind how a projection should behave when it is adapted to a 2-Dimensional environment (flat wall). This is an everyday projection where everyone is familiar with. A not parallel enough projection which is viewed with both eyes on a flat wall or canvas during a presentation. Because both eyes are used and the projection is not parallel enough with the view direction, 4-Dimensional depth perspective will never appear.



#### Extra experiment 5.

Method: Digital camera. flash light from the digital camera. one eye observation. 3-Dimensional irregular walls. and object (human being). **Setup:** The flash light is placed in a fixed parallel direction with the field of vision of a one eye or Digital camera. flash light is placed on the forehead in the pineal gland area, parallel with the field of vision.

This experiment is not intended to support the theory because not enough research has been done yet. I just mention this experiment because it came forward.

The in mid air floating projection does not change in size regardless the distance between the viewer and the projected surface. The absence of 3-Dimensional depth perspective and a form of infinity seems to play a role here.



A: The wall surface where the shadow is projected onto

is the furthest away from the observer.

B: The stone vase where the shadow is projected onto is closer to the observer than the surface of the wall.

C: The sign that hangs on the fence where the shadow is projected onto is closer to the observer than the wall and the stone vase.

D: The floor where the shadow is projected onto is closer to the observer than the wall the stone vase and the sign that hangs on the fence.

# **Results experiments:**

**Experiment 1:** We see a 4-Dimensional perspective projection. By completing phases 1 and 2 (one eye and parallel projection). Our 3-dimensional depth perspective mostly disappears. A 4-Dimensional perspective projection with new floating depth symptoms in mid air will appear.

**Experiment 2:** We see a 4-Dimensional perspective projection. By completing phases 1 and 2 (one eye and parallel projection). Our 3-dimensional depth perspective mostly disappears. A 4-Dimensional perspective projection with new floating depth symptoms in mid air will appear.

#### Experiment 3: We see a 3-Dimensional perspective projection

#### Experiment 4: We see a 2-Dimensional perspective projection

All digital images from the experiments are registered according the one eye principle (which corresponds with a digital camera). The reason the images can be used as visual data is: For the 4-Dimensional perspective projection to be visible it is fundamental to combine simultaneous phase 1 and 2 (if only one phase has been carried out, it will not affect the effect) between these two phases the 4-Dimensional perspective will not be visible.

# Extra information in experiment 5 that came up during experiment 1 and 2 but still need to be researched more, this experiment is not intended to support the theory because not enough research has been done yet:

There is another phenomenon that emerged during experiments 1,2 and 5 as soon as the <u>projector</u> is mounted on a fixed place (in case of the shadow the <u>airplane / human being</u> and light source mounted on a fixed place) the 4-Dimensional projection Hologram seems not to change size regardless the distance between the viewer and the projected surface. The absence of 3-Dimensional depth and infinity seems to play a role here.

# Summary experiments:

In experiment 1 and 2 we see new floating depth symptoms in the projection, experiment 3 and 4 supports the fact that the perspective of the projection in experiments 1 and 2 can not be 2-Dimensional or 3-Dimensional.

# References:

**Reference 1:** The projection <u>must</u> travel in a <u>fixed</u> parallel direction with the view direction of the eye. If we do not respect this fixed parallel direction of the projection with the view direction of the eye then our perspective will go 3-Dimensional into depth. 3-Dimensional depth would be created which corresponds with the 3rd coordinate axis of the 3-Dimensional Cartesian coordinate system.

https://mathinsight.org/vectors cartesian coordinates 2d 3d#vector3D

**Reference 2:** The now parallel projection should be viewed with one eye. If we do not respect the projection is viewed with a single eye then 3-Dimensional depth would be created which corresponds with Binocular vision. https://www.novavisioncenter.com/blog/depth-perception-vs-binocular-vision/

# Conclusion:

The absence of 3-Dimensional depth perspective results in a 4-Dimensional perspective projection. 4-Dimensional perspective projection is visible if one enters the absence of 3-Dimensional perspective far enough. To get far enough into the absence of 3-Dimensional perspective one has to accomplish simultaneous phase 1 and 2. This process results in a visible 4-Dimensional perspective projection.

Experiments 3 and 4 rejects the projection is 2-Dimensional or 3-Dimensional. A new kind of floating depth perspective can be seen in experiments 1 and 2. For these reasons there are no other options left then to categorize the projection as a 4-Dimensional perspective projection.

# Discussion:

The most intuitive explanation for the Hologram phenomenon should be that now one is moved so far into the absence of 3-Dimensional depth perspective one would experience a flat 2-Dimensional perspective projection without depth. However this is not the case when we are looking at the shadow projection in experiment 1, we unexpectedly see a floating shadow with depth symptoms this would be impossible if we are projection on a flat wall observing from a 2-Dimensional perspective. This was a reason to dismiss that the perspective projection was 2-Dimensional.

3-Dimensional perspective was also dismissed by performing experiment 2. Also a reason to dismiss 3-Dimensional perspective is because 3-Dimensional perspective is not an one eye observation and certainly not in combination with a parallel line of view with the projection ( both one eye and parallel projection are not specifically known for 3-Dimensional perspective) this means that we can not say that the depth phenomenon in experiment 1 is because one eye is adjusting to see a better 3-Dimensional perspective while in experiment 2 the eye now suddenly adjust to see better 2-Dimensional perspective, this combination I think can not be true. (reminder experiments 1 and 2 where also carried out under the same conditions ).

There must also be 3-Dimensional matter (for example fog) if one wants to project a kind of similar shadow, which even then would be far from the same. The 4-Dimensional Hologram shadow projection does not need 3-Dimensional matter with depth (for example fog) where the projection is cast on to make depth in the shadow visible. Therefore i could simply not find scientific evidence that we are observing a 3-Dimensional or 2-Dimensional perspective projection here.

To name this new perspective 1-Dimensional is also been considered, but since 1-Dimensional perspective will not show depth it was dismissed.

Author: john post

## Important

The intellectual property rights belong to the author John Post. The intellectual property rights are already officially registered on a specific date.

A device can be made which can sent Holograms into space. This device can form ordinary projection into 4-Dimensional projection as described here.

Multimedia devices such as smartphones and computers can be connected to this device so that communication can take place via 4-Dimensional Holograms.

These written intellectual property rights are necessary to assemble the device that can project the Holograms.

I do not give permission to others to use my intellectual property rights for business purposes to assemble a Hologram device and put it on the market to make a profit.

As an intellectual property owner, I am open to business proposals and agreements to further develop the Hologram device and bring it to the market. An early-stage prototype has already been made. Business partners are now being sought.

I do give permission to others to talk and visualize my findings to others via magazines, during meetings, presentations, lectures or for the use of teaching to expand the human brain and knowledge.

Inspired by the Holographic principle -Leonard Susskind -Gerard 't Hooft

Author: John Post ( optics scientist - inventor ), adres 8400 Oostende Belgium.

-https://www.facebook.com/Johns-rainbow-effect - https://www.facebook.com/john.post.716 email: modeljohnhasselt@yahoo.com