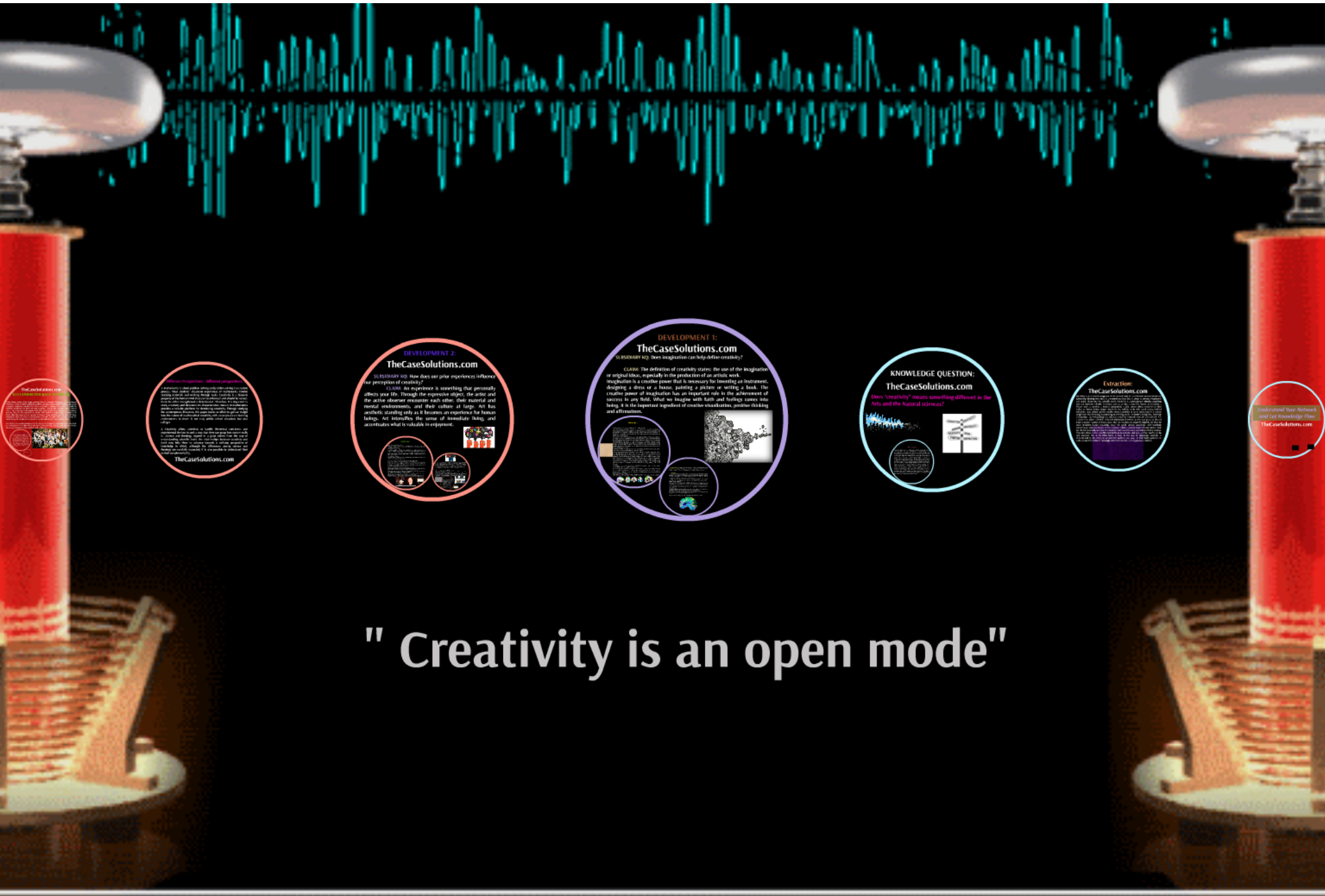
DEVELOPMENT 2:
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DEVELOPMENT 1:
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KNOWLEDGE QUESTION:
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Extraction:
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" Creativity is an open mode"
P ENVELOPE
FILTER
FILTER ENVELOPE


Understand Your Network
and Let Knowledge Flow
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Extraction:

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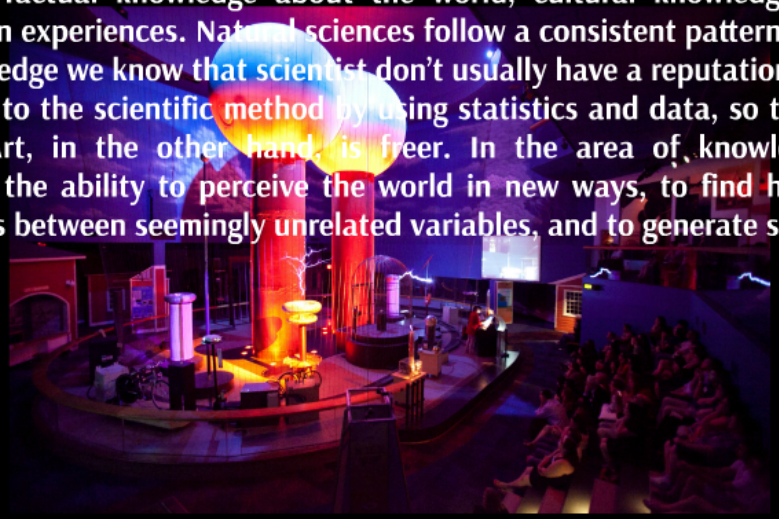
Creativity is an essential component of the musical band of Case Western Reserve University. Converting lightning into music is a revolutionary idea that is aimed to enhance imagination and artistic vision into the scientific world. Creativity is a phenomenon whereby something new and somehow valuable is formed, such as an idea, a scientific theory, an invention, a literary work, a painting, a musical composition, a joke, among others. Creativity is what makes us human beings unique. Creativity has nothing to do with social status, level of education, race, culture, gender, wealth, mental condition or IQ. It takes place in a natural progression from thinking, to producing, to affecting reality. It involves taking risks, challenge assumptions, and seeing things in a new way. Creativity is found in the arts and sciences. It is a factor that allows scientists to handle experimental devices so they can grasp an idea of what is nature. Natural Sciences states that our response to creativity depends on what we know; Including factual knowledge about the world, cultural knowledge, and knowledge gained by our own experiences. Natural sciences follow a consistent pattern and routine. From our shared knowledge we know that scientist don't usually have a reputation of being creative. They just adhere to the scientific method by using statistics and data, so their results can be very accurate. Art, in the other hand, is freer. In the area of knowledge, creativity is characterized by the ability to perceive the world in new ways, to find hidden patterns, to make connections between seemingly unrelated variables, and to generate solutions.



KNOWLEDGE QUESTION:

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Does “creativity” means something different in the Arts and the Natural sciences?

WOKs and AOKs:

Sense Perception is one area of knowledge related to the knowledge issue. Sense perception is the process by which we can gain knowledge about the outside world. Creativity has to do with perceiving the world around us and interpreting it. As well, Imagination is one of the main components of creativity. It defines the making process of each work and the extent of impact it has on the viewer. This factor of creativity, is seen in the Arts, Natural sciences and Human sciences. Natural sciences states that our response to creativity depends on what we know—which includes factual knowledge about the world, cultural knowledge, knowledge gained from personal experiences, and knowledge about the art process itself. Human Sciences can explain creativity through The “Experiencing Art: In the Brain of the Beholder”, a model which shows the psychological processes involved when we invite an aesthetic experience, implicates four essential features of our aesthetic response to art: the artist’s intention to offer a work for aesthetic appreciation, and three components that drive the beholder’s experience: sensation, knowledge, and emotion. Creativity in the Arts in the other hand, is related to motivation or inspiration, rather than following a consistent pattern and routine.

DEVELOPMENT 1:

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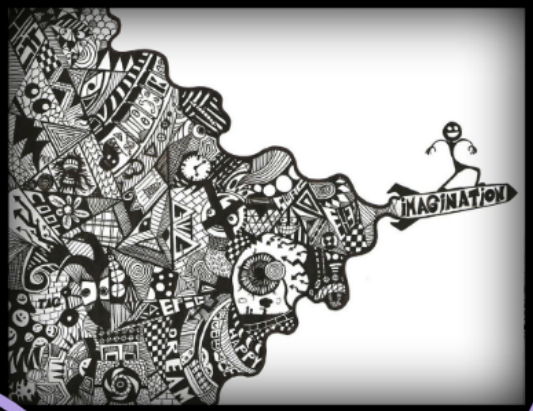
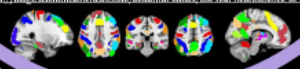
SUBSIDIARY KQ: Does imagination can help define creativity?

CLAIM: The definition of creativity states: the use of the imagination or original ideas, especially in the production of an artistic work.
Imagination is a creative power that is necessary for inventing an instrument, designing a dress or a house, painting a picture or writing a book. The creative power of imagination has an important role in the achievement of success in any field. What we imagine with faith and feelings comes into being. It is the important ingredient of creative visualization, positive thinking and affirmations.



EVIDENCE:

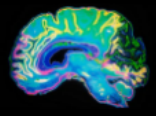
The Neuroscience of Creative Cognition: A First Approximation
The key to understanding the neuroscience of creativity lies not only in knowledge of large-scale networks, but in recognizing that different patterns of neural activations and deactivations are important at different stages of the creative process. Sometimes, it's helpful for the networks to work with each other, and sometimes such cooperation can impede the creative process.
In a recent large review, Rex Jung and colleagues provide a "first approximation" regarding how creative cognition might map on to the human brain. Their review suggests that when you want to loosen your associations, allow your mind to roam free, imagine new possibilities, and silence the inner critic, it's good to reduce activation of the Executive Attention Network (a bit, but not completely) and increase activation of the Imagination and Salience Networks. Indeed, recent research on jazz musicians and rappers engaging in creative improvisation suggests that's precisely what is happening in the brain while in a flow state.
However, sometimes it's important to bring the Executive Attention Network back online, and critically evaluate and implement your creative ideas.
As Jung and colleagues note, their model of the structure of creative cognition is only a first approximation. At this point, we just have leads on the real neuroscience of creativity. The investigation of large-scale brain networks does appear to be a more promising research direction than focusing entirely on the left and right hemispheres; the creative process appears to involve the dynamic interplay of these large-scale networks. Also, converging research findings do suggest that creative cognition recruits brain regions that are critical for daydreaming, imagining the future, remembering deeply personal memories, constructive internal reflection, meaning making, and social cognition.
Nevertheless, much more research is needed that investigates how the brain creates across different domains, species, and timescales.
It's an exciting time for the neuroscience of creativity, as long as you ditch outdated notions of how creativity works. This requires embracing the messiness of the creative process and the dynamic brain activations and collaborations among many different brains that make it all possible.
http://blogs.scientificamerican.com/beautiful-minds/the-real-neuroscience-of-creativity/



COUNTERCLAIM: The biggest difference between creativity and imagination is that imagination is thinking of something :: whether it's an object, place, time, etc. :: that is not present, while creativity is doing something meaningful with your imagination.

EVIDENCE:
"The Element" by Sir Ken Robinson In this book about using creativity to find your true purpose :: your "element" :: Sir Robinson discusses an important distinction between creativity and imagination. You may think that imagination and creativity are one in the same, but, as Sir Robinson explains, they certainly are not.
Sir Robinson explains that imagination is the "act of bringing things into conscious that aren't here", he also explains in an online interview details about how creativity is different than imagination:
Now creativity is a bit different from imagination, because to be creative you have to do something. It's a very practical process, but the reason that we're sitting outside the natural history museum and we're not exhibits in it, surrounded by other animals who created that thing, is because we have the power of imagination, and they don't, not to the same degree.
Imagination allows us to think of things that aren't real or around us at any given time. creativity allows us to do something meaningful with our imagination.
Knowing the difference: ask yourself how you are creative? How do you use your imagination to do something meaningful that is creative?

http://creativesomething.net/post/45457772/imagination-is-not-creativity



DEVELOPMENT 2:

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SUBSIDIARY KQ: How does our prior experiences influence our perception of creativity?

CLAIM: An experience is something that personally affects your life. Through the expressive object, the artist and the active observer encounter each other, their material and mental environments, and their culture at large. Art has aesthetic standing only as it becomes an experience for human beings. Art intensifies the sense of immediate living, and accentuates what is valuable in enjoyment.

EVIDENCE:

Gregory's Visual Assumption Theory
Psychologist Richard Gregory (1970) strongly believed that the visual perception relies on top-down processing.
What is top-down processing?
Top-down processing, also known as conceptual-driven processing, happens when we form our perceptions from the big picture to the tiny details. We make the best guess of what we see based on expectations, beliefs, prior knowledge and past experiences. In other words, we make calculated assumptions. According to Gregory, we are usually right in our assumptions.
The Hollow Face Experiment
Gregory's theory is backed by a lot of evidence and experimentations. One of the famous examples is the hollow mask effect.

Do you see a normal face when the mask rotated to the hollow section?
He used the rotation of a Charlie Chaplin mask to explain how we perceive the hollow surface of the mask as protruding based on our expectation of the world. Our prior knowledge of a normal face is that the nose protrudes. So, we subconsciously reconstructed the hollow face into a normal face.
How we perceive visual information based on Gregory's theory?
Almost 90% of what we see is lost by the time it reaches the brain. Therefore, the brain has to make the best guess based on past experiences or prior knowledge.
Visual information we see is combined with previously stored information about the world, which we have built up as a result of experience.
Also perceived from his various examples on the top-down processing theory are that the meaning of surroundings provides context to aid understanding.
Visual Information Design Takeaway #1 based on Gregory's Visual Assumption Theory

COUNTERCLAIM: Visual information processing is the visual reasoning skill that enable us (or even animals) to process and interpret meaning from visual information that we gain through our eyesight. Visual perception plays a big role in our everyday life. It helps us in learning and interacting with others. Perception happens so effortlessly, the ease of which we rely on such effortless perception, we tend to overlook the complexity behind it. Understanding how we interpret what we see will help us design our visual informatives.

EVIDENCE:
Castelhano and Henderson's Perception of Scene Gist
Ever wondered what does "a picture speaks a thousands word" really means? Or why are we able to understand visual better than text?
It's not that the picture tells us something, and everything. It is, in fact, our human ability to visually form imagery of what we see. When we fix our eyes on object(s), we have the visual ability to form an understanding of the environment and recognize the meaning of a scene.

Different Perspectives: Different perspectives:

1. Mathematics is about problem solving and problem solving is a creative process. Most students' classroom experiences of mathematics involve studying materials and working through tasks. Creativity is a dynamic property of the human mind that can be enhanced and should be valued. It can be either strengthened or deteriorated. Therefore, it is important to study creativity and determine its characteristics. Nature of mathematics provides a suitable platform for developing creativity. Through studying the contemporary literature, this paper makes an effort to gain an insight into the nature of mathematical creativity with an emphasis on learning environments to foster it not only within school situations but also colleges.

2. Creativity allows scientists to handle theoretical constructs and experimental devices in such a way that they can grasp how nature really is. Science and theology depend in a great extent from the way of understanding scientific truth, the relationships between creativity and truth may help them to advance towards a unifying perspective of knowledge in which, although the differences among science and theology are carefully respected, it is also possible to understand their mutual complementarity.

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RLS CONNECTED BACK TO THE KI:

Favio Chavez works at the largest garbage dump in Asuncion (Paraguay), as an ecological technician. There, in order to provide a positive and educational insight to children, he started a program inspired on the idea that “One man's trash is another man's music”.” I made this orchestra to educate the world and raise awareness,” Chávez told Fox News Latino. “But it’s also a social message to let people know that even though these students are in extreme poverty, they can also contribute to society. They deserve an opportunity.” Children in his music education program learn to make instruments from recycling material and, with those instruments they play Mozart and Beethoven, just like any other music student around the world. Being able to play an instrument has profoundly changed some members’ lives.

Creativity is an essential component of the project in Paraguay. Converting garbage into music is a revolutionary and educational idea that is aimed to help a lot of people who do not have the money to do procreative activities such as this one.

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