

**THE CREATIVE PROCESS**  
The creative process is a complex and multi-faceted phenomenon that involves the generation of new ideas and solutions. It is often characterized by a state of mental flexibility and openness to new experiences. The process typically begins with a period of incubation, followed by a period of active problem-solving and a final period of evaluation and refinement.

**CREATIVITY: DEFINITION AND IMPORTANCE**  
Creativity is the ability to generate novel and useful ideas. It is a key component of innovation and is essential for success in a rapidly changing world. Creativity is often linked to a state of mind that is open to new experiences and ideas. It is a skill that can be developed and nurtured through practice and exposure to new challenges.

**DEVELOPMENT 2:**  
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**QUESTION:** How does our prior experiences influence our perception of creativity?

**ANSWER:** Our experiences shape our perception of creativity by providing us with a framework of what is considered creative. This framework is influenced by cultural, social, and personal factors. For example, someone who has spent time in a highly creative environment may have a more expansive and inclusive definition of creativity compared to someone who has not.

**DEVELOPMENT 1:**  
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**QUESTION:** Does imagination can help define creativity?

**ANSWER:** Imagination is a crucial component of creativity. It allows us to envision new possibilities and solutions that are not immediately apparent. Imagination is the power that enables us to think outside the box and to generate novel ideas. Without imagination, creativity would be severely limited.

**KNOWLEDGE QUESTION:**  
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**QUESTION:** Does 'creativity' means something different in the Arts and the Natural sciences?


**ANSWER:** Yes, the concept of creativity is often understood differently in the arts and the natural sciences. In the arts, creativity is often associated with the generation of novel and expressive ideas. In the natural sciences, creativity is often associated with the development of new theories and models that explain natural phenomena.

**EXTRACTION:**  
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This section provides a detailed analysis of the concept of creativity, exploring its various dimensions and the factors that influence it. It discusses the role of imagination, the importance of a supportive environment, and the ways in which creativity can be fostered in individuals and organizations.

**UNDERSTANDING YOUR NETWORK AND GET KNOWLEDGE FROM THE CASE SOLUTIONS.COM**

" Creativity is an open mode"



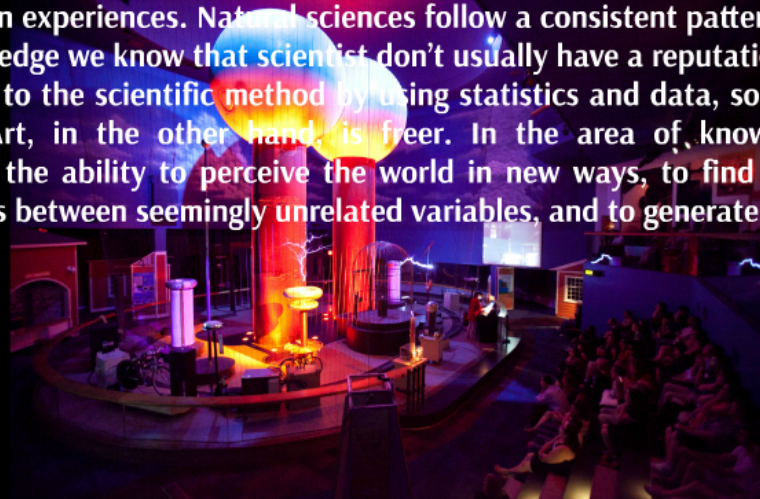
*Understand Your Network  
and Let Knowledge Flow*

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# Extraction: TheCaseSolutions.com

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: TheCaseSolutions.com

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



#### WORKS 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, Ben 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.

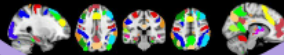
As Jung and colleagues note, their model of the structure of creative cognition is only a first approximation. At this point, we just have leads on the real neuroscience of creativity. The investigation of large-scale brain networks does appear to be a more promising research direction than focusing 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.sagepub.com/american\\_heritage/mind/the\\_real\\_neuroscience\\_of\\_creativity/](http://blogs.sagepub.com/american_heritage/mind/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, plan, idea, etc.) that is new, whereas creativity is doing something meaningful with your imagination.

**REFERENCE:**  
"The Elephant" by Sir Rex Robinson in this book about using creativity to find your true purpose (your "elephant") Sir Robinson discusses an important distinction between creativity and imagination. He may think that imagination and creativity are one in the same, but as Sir Robinson explains, they certainly are not.

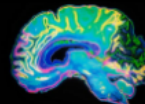
Sir Robinson explains that imagination is the "art of bringing things into existence that aren't here". He also explains in an earlier interview about how creativity is different than imagination.

How creativity is a bit different from imagination, because to be creative you have to do something. It's a very practical person, but the reason that we're sitting outside the natural history museum and we're not sitting 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 imaginations.

Knowing the difference will yourself how you are creative? How do you use your imagination to do something meaningful that is creative?

<http://www.thewordofgod.net/post/35227722/imagination-is-not-creativity>



# DEVELOPMENT 2: TheCaseSolutions.com

**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 experiences.  
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



**Visual Information Processing**  
Visual information processing is the visual processing, all that reside in (or even outside) the process and interpret sensory raw visual information that we gain through our eyesight. Visual perception plays a big role in our everyday life. It helps in learning and interacting with others. One option happens on offshoots, the more of what 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 interfaces.

**Carlson and Hirschman's Perception of Scene Cuts**  
Ever wondered what does "a picture speaks a thousand words" really mean? Or why are we able to understand visual faster than text?  
It's not that the picture looks as something, and everything. It is, in fact, our human ability to visually form memory of what we see. When we fix our eyes on objects, we have the visual ability to have 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.

Conclusion:  
Final Question : So, can creativity be taught?

Let's start with the concept of creativity, the main priority is to define creativity for more precision, among other things, that the term doesn't mean what most people think it means and it varies more about the person calling the thing creative. The RLS explored in the generation criteria that creativity is a very natural process influenced by necessity, previous knowledge, one's personal factors and what people have in their environment. Depending in which area you are studying "creativity", the meaning and how where it is used and how it is used. Creativity has been studied from a variety of perspectives and in different sciences contexts. Most of these approaches are interdisciplinary and it is therefore difficult to have a full view of the concept. People usually think on what being creative means to you and compare, and then when you look at what people call creative, the less it relates to you. The discussion of one RLS has an important role that creativity means a novel or different way of doing things, such as in the arts and the natural sciences, having its emphasis, in the arts, better creativity is more subjective and tends to the right, but a way of doing things, sometimes through the perception of a common sense perspective through a medium or particular art form. Thus, the source and nature of knowledge are influenced by our imagination to create. In relation to natural sciences, creativity instead can be taught due to its objectivity of patterns and following a system. In the other hand, beyond evidence for creative basic processes shown in cognitive approaches that try to discover thought mechanisms and the changes for creative thinking, in the area of neuroscience, it is stated that the most important for something, you can shape the connections in your brain and develop new skills, which is the case in shaping the creativity to music. There are the differences between a more subjective concept of creativity and one that is more open to a development, that is something more objectively. They help to reflect on whether there are more regular processes in creativity or if it's mostly unique process or ability. There are some results from the 'The Creative People in Business' 2016 of the people states that creativity can be taught and it is mostly well learned even though the best and poorest have a huge influence on it. Although we think there is a debate which is started in school, when we think about we always have where we looking, and help us know use generated by freedom in turning our creativity.



Next question to think of:  
How does the different areas of knowledge require a certain perception of creativity?



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