

Eureka moment as divine spark in the light of direct experience with the Spirit and nature

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Abstract

In the ancient world, the Greeks believed that all great insights came from one of nine muses, divine sisters who brought inspiration to mere mortals. In the modern world, few people still believe in the muses, but we all still love to hear stories of sudden inspiration. Like Newton and the apple, or Archimedes and the bathtub (both another type of myth), we're eager to hear and to share stories about flashes of insight. But what does it take to be actually creative? How to have such a flash insight? Turns out, there is real science behind "aha moments." We prefer to call it "*intuilytics*."

Introduction

Burkus, a professor of management science, explores creativity back to ancient Greek myths. He argued that in Greek mythology, so-called creativity was only possessed by a handful of people who were blessed by the gods' sprinkling of the "divine fire", so that they sometimes experienced Eureka moments.[1]

According to Burkus, there is no such thing as a creative spark or eureka moment. True creativity is an iterative process, often consisting of sluggish and gradual modifications and traits for current ideas. Creative humans hardly ever develop in isolation; in fact, companies are higher at innovation than individuals. Big thoughts are no longer usually recognized at first; many need years to appreciate, and others simply disappear.

Burkus also rejects the company's efforts to encourage creativity, arguing that there is little evidence of such efforts resulting in more innovation. Creative people are motivated by the work itself, which they feel is personally satisfying; Extrinsic motivators play a relatively small role in their lives. The answer, he suggested, was simply giving people the work they wanted to do, which they found satisfying.

He also believes that a happy workplace and a good team spirit, which is generally believed to be beneficial for creative thinking, can actually act as a barrier. "Excessive focus on cohesion.... actually can reduce team creativity," he wrote. "This can narrow down choices and cause those who have a unique perspective to censor themselves rather than take risks not to be considered part of the team."

What is Eureka moment?

Eureka's moment feels like a flash of insight because it often goes out of periods when the mind is not focused on the problem, which psychologists call the incubation period.

Incubation is the stage where people step back from their jobs.

Many of the most productive creative people deliberately set aside projects and take a physical break from their work by believing that this incubation stage is when ideas begin to coalesce below the threshold of conscious thought.

Some people juggle various projects at the same time under the belief that while their conscious mind is focused on one project, others are incubating their subconscious.

The insight that arises after incubation is what feels like we are harnessing the power of producing the same ideas that support Newton and Archimedes.[4]

A research team led by Sophie Ellwood recently found empirical evidence for the power of incubation to enhance creative insight. The researchers divided 90 undergraduate psychology students into three groups. Each group is assigned to complete the *Alternative Usage Test*, which asks participants to make a list of as many usages of common objects as they can imagine. In this case, participants were asked to make a list of possible uses of paper. The number of original ideas produced will serve as a different measure of thought,

an important element of creativity and an important step towards finding viable insights for Europeans.

The first group worked on the problem for 4 minutes continuously. The second group was interrupted after two minutes and asked to produce synonyms for each word from the list provided (considered another task that carried out creativity), then given two more minutes to complete the original test. The final group was interrupted after two minutes, given the *Myers-Briggs Type Indicator* (considered an unrelated task), and then asked to continue to work on the test of using the original alternative for another two minutes. Apart from the group, each participant was given the same amount of time (4 minutes) to work on a list of possible uses for a piece of paper.

The research team can then compare the creativity that results from ongoing work, work with the incubation period in which the related tasks are completed, and work with the incubation period in which the unrelated tasks are completed.

Interestingly, the researchers found that the group that was given a break to work on an unrelated task (the Myers-Briggs test) produced the majority of ideas, an average of 9.8.[4]

According to Burkus in his HBR article:

“One possible explanation for these findings is that when presented with complicated problems, the mind can often get stuck, finding itself tracing back through certain pathways of thinking again and again. When you work on a problem continuously, you can become fixated on previous solutions. You will just keep thinking of the same uses for that piece of paper instead of finding new possibilities. Taking a break from the problem and focusing on something else entirely gives the mind some time to release its fixation on the same solutions and let the old pathways fade from memory. Then, when you return to the original problem, your mind is more open to new possibilities – eureka moments.[4]

Discussions

That creative spark or Eureka moment is indeed rare is true. But it is also not always true that working in groups produces more ideas. Although Burkus's analysis is quite interesting, it seems that he is too influenced by the management's perspective on creativity.

More references are needed about methods of generating ideas and also the literature of creativity experts such as De Bono.[2][3]

In addition to the task switching method as a way of incubation described above, there are actually a variety of ways to generate fresh ideas and insights. See for example [3].

One quite interesting way is to provide regular intake to our minds, for example every morning, with two words combined at random (random).

Formerly around 2002-2003, one of the authors (VC) made a small script that basically: (a) uses the Miriam-Webster or Oxford dictionary as a data source, (b) randomly selects two nouns from the dictionary, (c) displays both words as new phrase to users.

Imagine, for example, one morning while you were having coffee and breakfast, knowing on your cellphone screen a strange phrase appeared: "ice cat" ... Your mind must have been searching for what was the meaning or application of the phrase "cat ice"? Maybe it can be a beautiful ice sculpture in the form of a cat (usually at a large party event there is "ice carving").

And so on, we tend to be more creative if our minds are routinely consumed with fresh things, which can be raised by the RWPG method (*random word-pair generator*).

Another way, which might be closer to the original meaning of the Eureka moment as "*divine spark*," is to use time deliberately to experience and communicate with God and nature.

This method is closer to *experiential learning* patterns.

For example, if you take an hour each morning to take a walk in the woods or in the fields, observe the things you find along the way. And also take time to pray and communicate with the Divine Spirit.

This direct experience method was explained by our colleague Dr. Robert Boyd. We also propose a new term, "*intuilytics*," as a combination of intuition (right brain) and analysis (left brain function). For us, this is the source of great discoveries. See our article [5].

Concluding remarks

Like Newton and the apple, or Archimedes and the bathtub (both another type of myth), we're eager to hear and to share stories about flashes of insight. But what does it take to be actually creative? How to have such a flash insight? Turns out, there is real science behind "aha moments."

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Acknowledgement

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References:

- [1] David Burkus, *The Myths of Creativity: The Truth About How Innovative Companies and People Generate Great Ideas*, Jossey-Bass. review by Morgen Witzel. Url: <https://petersposting.blogspot.com/2013/10/the-myths-of-creativity-by-david-burkus.html?m=1>
- [2] Edward de Bono. *How to be more interesting*. Url: <https://www.debono.com/Books/How-To-Be-More-Interesting>
- [3] Ken Hudson. *Idea generator: tools for business growth*. Url: <https://www.amazon.com/Idea-Generator-Tools-business-growth-ebook/dp/B003KK5RFK>
- [4] David Burkus. How to have Eureka moment. *HBR*, 2014. <https://hbr.org/2014/03/how-to-have-a-eureka-moment>
- [5] V. Christianto, R.N. Boyd, & F. Smarandache. How to balance intuitive and analytic function of brain. *EC Neurology*, july 2019. Url: <https://www.ecronicon.com/ecne/volume11-issue7.php>