

(Courtesy of Stephen Oglesby. Used with permission.)

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“The Creative Spark”

### The Solution

The business man behind a desk, the scientist in the lab, the artist approaching his canvas, the mathematician examining the symbols he placed on the blackboard--the thoughts going through each of their heads are very different in many ways, yet amazingly similar.

For example, the business man must come up with an idea to cut costs and increase revenue for his company. He must find a creative twist to an old idea, a new combination of numbers that allows the company to increase profit and drop costs. Yet this man strays from the numbers and thinks in images, and during the brief moment before the creative act his consciousness seems to play absolutely no role.

Often times we must get away from the problem to get closer to the solution. Similarly, we need to get away from words to think more clearly. I once heard a story of a semi-truck that got stuck while trying to drive through a tunnel that was too small. A traffic jam occurred and a team of engineers were called to solve the problem. The engineers measured the semi-truck, the tunnel, the length, the width and the height. But they still could not find a solution. A little girl in one of the cars behind the truck asked

her father why they did not just let some of the air out of the tires. The father rushed the girl to the engineers and had her tell them the solution that had been at their feet the whole time. The air was taken out, the semi was taken through, and the little girl was taken home.

In Physics, we are taught that there are many planes and many points of reference. To Person A, who is standing on a train, he is standing still; to the Person B on the ground, Person A is moving. Within Physics the difference in your point of reference can be the difference between a simple problem and a near impossible one. Within the story of the truck, the engineers' point of reference was the top of the truck. They were concentrating on how to get the top of the truck away from the top of the tunnel so that the truck could pass. This is a very complicated problem: the top of the truck is metal and does not give easily, meanwhile the tunnel is concrete and solid as well. The engineers might have figured out the force necessary to push the truck out of the tunnel, but this would involve a bulldozer or tow truck. Both would be hindered by the traffic and would take time. There are many factors besides just the force necessary to push the truck that affect the solution, with the most important factors being time and the inability to destroy the truck or the tunnel. The girl succeeded with limited knowledge of physics and without destroying the truck or the tunnel.

The girl saw that the truck had to get away from the top of the tunnel, but she understood that this was the same as making the truck get closer to the ground. This is simple and only requires some modification of the tires. What had started out as a complicated problem ended up being very simple. The girl had no background in Physics or measurements, so she relied on what she knew. She could visualize the air being

released from the tires, the truck driving through the tunnel, and her going home. Her lack of knowledge assisted her in solving the problem by keeping her away from the symbols and numbers.

I remember a lesson I had once in high school math class where we learned the difference between a number and a numeral. It turns out that we had mistaken for most of our lives in calling the symbols that we added and subtracted everyday numbers, for in truth they are numerals. A number is an idea and is symbolized by a numeral. The number “2” is a symbol representing two of something. This is incredibly similar to the words and thoughts or images. The word “red” represents the vivid color that we see in an apple or on a fire truck. Words and numerals are symbols that represent something in our mind or the world around us. They represent objects and ideas because we cannot fully explain what they are. For example, imagine trying to explain what a color (red, yellow, blue) is to a blind man, or trying to explain that they have never seen before. You cannot. You can try to explain through examples, but those would still only provide small pieces of the entire picture.

Arthur Koestler in his essay *The Three Domains of Creativity* cites a very interesting survey of mathematicians and how they think:

“In 1945, a famous inquiry was organized by Jacques Hadamard among eminent mathematicians in America to find out their working methods. The results showed that all of them, with only two exceptions, thought neither in verbal terms nor in algebraic symbols but relied on visual imagery of a vague, hazy kind” (Koestler 13).

This quote puts into words what anybody that has sat in front of a blank computer screen trying to write a paper knows. Many times we have an idea of what we want to say and

the general idea but the vehicle to communicate our idea, words, will not start. Words crystallize thoughts. Words are expressions of thought (a non-concrete object). How can someone express and describe abstract things like thought? Though writing has reached point where one can describe concrete objects and well formed ideas, we still cannot fully express something common to us all: emotion, creativity, love. This is why there are thousands of essays, sonnets, poems and articles on love. Every person has a different view and impression of love and although the ideas are varied and yet similar, no one can truly typify love into writing. We have all felt it but its expression in words continues to elude us. Words, though powerful enough to express ideas across countries and time, are still feeble under certain conditions. Thought and emotion are abstract in that they are formless and hard to grasp. This is why we must sometime shy away from words to think clearly. Words can only express formed thoughts, they do not form the thoughts. We must first give the thoughts and ideas form and shape in our minds before they can be placed on paper.

Maya Lin is well known as an architect who has aided in the design of many historical monuments, most notably the Vietnam Memorial. In order to design the different structures and sculptures, she must put a formed thought onto paper. The most extraordinary part about her architecture is the fact that she makes them incomplete--they are hazy images so that we may each finish them in our minds and derive our own meaning. Let me specify what I mean; when Maya Lin sent in her entry for the Vietnam Memorial Competition her design was very simple. She notes in her video biography that she knew she would have to go through great lengths to describe the design in her essay or the judges would dismiss it. The design she drew almost looked like a drawing by an

impressionist; it was a black line in a field. Impressionist art is most notably the art of hazy images, and Lin's design was a hazy image. By allowing the people to go to something so simple allows them to form the images on their own without prompt or disruption. Maya Lin's architecture is a prime example of a hazy image set in stone.

By allowing her art to maintain its simplicity, she allows the audience to derive whatever meaning is most fitting rather than to impose one. This is similar to thinking in hazy images because, first, the images don't have a definite form (so that they will not constrict the viewer), and secondly, the structures symbolize thought. The monuments themselves are not fully crystallized but rather they are general designs that everyone can complete on their own and thus make it more personal, in the same way that everyone has their own idea about love that is not ever fully crystallized for lack of words to describe it.

The idea in Koestler's essay can be applied to everyday life. When writing this essay I was supposed to form a thought. This essay is the series of thoughts that went through my head while I tried to understand the ideas of Koestler, organized and appended with other ideas and images to strengthen my idea. By the end, I believe that I have finally formed my thought enough to crystallize it into words. By trying hard to search for a solution we sometimes forget our age old instincts. By trying too hard to grasp a hazy image we sometimes find ourselves with nothing more than a dying puff of smoke. One must allow the image to form and come to us. That is creativity.