

Why Creative Thinking is Inclusive Thinking

by Michael Michalko

□ Albert Einstein was once asked what the difference was between him and the average person. He said that if you asked the average person to find a needle in the haystack, the person would stop when he or she found a needle. He, on the other hand, would tear through the entire haystack looking for all the possible needles. With creative thinking, one generates as many alternative approaches as one can.

□ Creative thinking is inclusive thinking. You consider the least obvious as well as the most likely approaches, and you look for different ways to look at the problem. It is the willingness to explore all approaches that is important, even after one has found a promising one.

□ Most of us have been educated to think exclusively which means we think in deficit by focusing our attention on specific information and excluding all else. Exclusive thinking is fine when we absolutely know which information is relevant and what is not. Many situations, in fact, most are ambiguous. In these instances, exclusive thinking leads us to neglect potentially important pieces of the puzzle. Exclusive thinking doesn't merely inhibit irrelevant facts and perceptions it can also smother the imagination.

□ An experimental psychologist set up the task of making a pendulum. Subjects were led to a table on which had been placed a pendulum-weight with a cord attached, a nail and some other objects. As the psychologist described the experiment, he held the pendulum and cord and let it swing back and forth demonstrating the movement of a pendulum. Then He asked the students to hang the pendulum on the wall. There was a nail among the objects on the table but there was no hammer. Most of the subjects were baffled and unable to accomplish the task. Without a hammer it couldn't be done.

□ Next, another series of subjects were given the same task under slightly altered conditions. The cord was placed separately from the pendulum-weight and the word pendulum-weight was not used. The psychologist did not demonstrate movement using the pendulum with the cord attached. He simply asked the participants to hang the pendulum on the wall. All the subjects accomplished the task. They simply looked at what was available, realized there was no hammer and then considered all of the available items to see what they could use to pound the nail into the wall. They used the pendulum-weight to hammer in the nail, then tied the cord the weight and the weight to the cord.

□The first group failed because the weight was firmly embedded in its role as a pendulum-weight and nothing else, because it had been verbally described as such and because visually it formed a unit with a cord attached. The visual categorization of the weight-attached-to-cord, plus the verbal suggestion of their experimenter made it impossible for them to change their perception of a pendulum-weight into a hammer. Thinking exclusively they concluded that they needed a hammer and since one was not available they couldn't accomplish the task.

□The second group had not been primed to think of the cord and weight as a single unit. Thinking inclusively they looked for ways to make something available work as a hammer. This is productive thinking as opposed to reproductive thinking.

□

□The illustration contains a collection of seemingly random irregular shapes. Can you find the hidden message these shapes convey? When most of us look at the shapes, we automatically fixate on our past experiences to see if we have encountered something similar before. If we find similar experiences, we then analytically select the most promising past approach, excluding all others, and apply it to the problem. If we find no similar experiences in our past, we mentally default to do what is easiest which is to excuse ourselves from further deliberative thinking and do nothing.

□When exclusive thinkers are confronted with something unfamiliar and strange, they automatically fixate on their past experiences to see if they have been taught by someone else on how to solve it. They think reproductively. If they discover nothing from their past they conclude that it is meaningless or can't be solved. Whereas, inclusive thinkers would be driven by their natural curiosity to find the hidden message by looking at the information in many different ways.

□Experimental psychologists like to tell a story about a professor who investigated the ability of chimpanzees to solve problems. A banana was suspended from the center of the ceiling, at a height that the chimp could not reach by jumping. The room was bare of all objects except several packing crates placed around the room at random. The test was to see whether you could teach the chimp to stack the crates and make them into steps to reach the banana.

□The chimp sat quietly in a corner, watching the psychologist arrange the crates into steps and then distributed them randomly again. The chimp understood and performed the task. The professor invited his associates to watch the chimp conceptualize and build the steps to the banana. The chimp waited patiently until the professor crossed the middle of the room. When he was directly below the fruit, the chimp suddenly jumped on his shoulder, then leaped into the air and grabbed the banana.

□Though the chimp had learned how to build steps out of boxes, when another more direct easier alternative presented itself the chimp did not hesitate. The chimp learned how to solve the problem but instinctively kept an open mind to other more effective solutions. In other words, building steps was just one of many ways to reach the banana. Humans, on the other hand, once we learn something or are taught to do something a particular way by someone in authority (teacher, boss, etc.), seem to keep repeating the one method we know -- excluding all else from our thought.