

# Deliberate Use of Mental Imagery

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The same process the mind uses constantly to combine sensory inputs and memory into coherent wholes is also capable of generating experiences and images that never existed, such as dreams. There seem to be some advantages for deliberate creativity from learning how to generate and perceive these internally generated perceptions.

## Spatial Visualization

Early researchers found that those who were able to deliberately manipulate and examine images in their minds seemed to do better at creative tasks. Albert Einstein did much of his basic work in visual images, imagining for example what it would be like to ride on a beam of light.

External images such as sketches and models can “fake” some benefits of spatial visualization, but it is possible to improve abilities in this area through practice and simply learning to pay attention.

## Left and Right Brain Processes

Theories of the functional anatomy of the brain are based on changes in mental ability in those with physical damage to the brain. Roger Sperry hypothesized that the left brain specializes in logic, details and complex verbal abilities while the right brain specializes in processing images and wholes. They analyzed people with damage on one side of the brain or with damage to the corpus collosum, the nerve bundle which links the two sides. After separation, it is possible to communicate with the different sides separately and discover they think differently. Because this ability to use images and wholes seems so critical to effective creativity, these findings have led many to deliberately encourage and tap into right brain processes to augment their creativity.

## Subconscious Flow of Images

This view of the brain was used by Julian Jaynes in his book *The Origin of Consciousness in the Breakdown of the Bicameral Mind*, to explain the stories in various religions of people hearing God speak to them. He speculated that the corpus

collosum was thinner in earlier humans, so the right brain had little ability to share its conclusions with the left brain. So it communicated by providing auditory hallucinations which the left brain heard and processed, and labeled as God.

Another investigator, Win Wenger, proposes that while the conscious part of our brain focuses on words and logic, the global parts of our brains attempt to share their insights in a constant stream of images and feels there is great benefit in paying attention and trying to interpret them.

## Beware the Value of Subconscious Images

Before covering various ways to learn to pay attention to these subconscious information flows, it is important to consider their validity. They may be better hints than solutions.

Michael Gazzaniga, in his book *The Social Brain*, has an interesting hypothesis about those times we wake up in the middle of the night with the greatest idea ever, but when we write it down or remember it in the morning, it makes no sense.

He sees the brain as constantly processing sensory data and knowledge in many different areas, like software modules, then communicating these sub-conclusions to other parts of the brain. The various modules of the brain observe each other's behavior and sub-conclusions and react to those conclusions. When an idea emerges from one module, the fewer negative judgments heard from the other modules, the better the idea.

Gazzaniga figures when most of the brain is asleep, one module might wake up enough to generate an idea about something, but there are no negative responses, because the rest of the brain is asleep. As time passes with no negative reactions, the brain triggers the emotional high of the AHA experience. We wake up from the sheer energy and delight of having such a great idea, and take the time to write it down. But when we read it in the morning, the rest of the brain is awake, has lots of comments to make, and the idea shrinks in potential and excitement.

A second problem with the stuff that emerges from our subconscious when we pay attention is that it reflects not only our complex thinking and insights, but also our hopes, fears, prejudices, and deepest Freudian emotions. Images may give a hint about the complex realities of a system, but also reflect some misguided prejudice or emotion.

### Exploiting Imagery

The processing we are conscious of is a small part of what our brains are actually doing, so maybe the idea that we are only using 10% of our brain capacity is wrong, but rather we are only paying attention to 10% of what our brain is doing. Many of the strategies of deliberate creativity can be seen as activating and attending to some of these different modules that we normally ignore.

When our conscious and logical brain learns to use imagined items and events as hints guiding the integration of our full knowledge and judgment, very interesting things can happen. During the invention of the sewing machine, the critical design feature of putting the hole for the thread in the pointed end of the needle resulted from a dream of being captured by cannibals, in which their spears had holes in the points.

Individual or guided practice can build the ability to create imaginary items and events or to tap into the continuous flow of images and invented sensations. For specific problems, guided imagery can draw on your mind's powers to fill in gaps in the guidance, often bringing very interesting hints.

Once you have image material in your awareness you can play with it as **hints** to solving the particular problems you are facing. And even if the images are actually completely random, it fits the technique of forced fit in which one attempts to use a random stimulus to generate ideas.

### Perceiving the Imagined

Go someplace where you won't be distracted and put yourself into a relaxed, quiet state. Maybe do some stretching and relaxing. Close your eyes.

Imagine selecting and enjoying an excellent piece of your favorite fruit. Imagine you are holding it and try to look at it, feel it, smell it. Then imagine eating it and feel the sensations. If it takes a while, focus on one physical aspect or another, such as the color. Imagine moving it around, looking at it from different sides.

With practice, you can be quite good at this, with the experience approaching reality. In solving a

problem, try creating and examining an image of the situation and/or possible solutions.

Also, a standard stress reduction technique is to imagine a visit to a place of perfect relaxation and enjoy the sensations of the weather, the view, etc. With practice you can take a five minute vacation whenever you need to throughout the day.

### Tapping into the Image Flow

Put yourself into a relaxed state, but instead of trying to see a particular image, try to quiet everything down so that the images going by can occur. In his materials for this technique, Win Wenger suggests that you use a tape recorder and describe the images as they go by, then go back and analyze the content of the tape. He also recommends asking a partner to watch your closed eyelids and ask you what you are seeing whenever they see rapid eye movement.

### Guided Imagery

This is something best done by an experienced facilitator because it can have impacts similar to hypnosis and because it can become so very real that it is psychologically stressful. It is excellent for examining the solutions for complex problems. We have used it to have teams tour a building they were designing, often discovering problems with the design.

### Interpreting

Again, the trick to all of this is to treat the image as a suggestion, sometimes almost like playing charades. Some images are concrete representation of solution elements, but others are analogies or symbols. The best method is to brainstorm possible interpretations and try to connect them to the problem at hand. But ultimately, it is your logical side which must decide on the real world alternatives to use.

### References

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