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Creative Thinking:

HOW NOT TO GET BOXED IN

INTRODUCTION

Thinking about thinking is not something most people do very often. This is probably because we spend most of our time in our own heads, so think that the way we think is just fine. But the truth is, there are a number of other ways to go about thinking, ways we simply haven't thought of. At least not in any structured way. This booklet is meant as a friendly guide to open up your thinking. It won't necessarily make you smarter. But it'll give you certain tools and present exercises that will provoke nimbleness of thought and creativity, which may lay the ground for you to become "smarter" (whatever this may mean to you).

The first half includes a discussion of how we think, to how to become more aware of our assumptions, then covers lateral thinking and creativity. Because intelligence isn't all about being able to think about thinking, the second half of the booklet covers the importance of insight and humor, with the remainder affording hands-on ways to think with more agility and daring. The final section is a reminder that we all have bodies, thinking bodies. For while intelligence (the ability to acquire and apply knowledge and skills) is the apparent subject of this booklet, in the final analysis, it's the whole person that truly matters.

This handbook will take you through 6 very important topics:

1. Boxes Aplenty
2. Awareness of Our Assumptions
3. Lateral Thinking & Creativity
4. Insight & Humor
5. Using Lateral Thinking to Tell Stories
6. Bodies, Not Boxes

BOXES APLENTY

The well-known exhortation to “keep an open mind, but not so open that your brains fall out,” underlines a fundamental tension between freedom and thought. “Thinking outside of the box” cannot be taken literally, as in “think outside of all boxes,” since then there’d be no way to grasp the why and wherefore of our thinking. It would be like a game without rules—you’d never know what’s going on. The truth is, we all think in boxes of one kind or another. The trick is to retain the spirit of thinking outside the box by being inventive, by reshaping and bending the rules of the game to make it something else. We do this not by letting our brains fall out, but rather by cultivating the ability to nimbly shift from one “box” to another.

In the same way that we get used to eating certain foods day in and day out, we get used to certain ways of thinking. When we allow our habits of thought to pull us through the sea of our days like a tug boat, we’re no longer making use of our mind’s full potential. Instead of just floating along, try out different ways of thinking, other modes, other boxes. The skill to nimbly shift from one box to another, even to create new boxes, has become increasingly important with the rapidly changing nature of the world. The future is sure to present problems and challenges no one today has the solution to. Now that we know why these skills are important, the following sections will discuss some ways they can be consciously cultivated.

REFLECTION:

1. As we explore different ways of thinking, it’s a good idea to be aware of how best we learn. Consider the three basic ways of taking in information: (a) auditory, or learning by listening; (b) visually, or learning by seeing; and, (c) tactile learning, learning by doing, by being hands-on. Ask yourself how best you learn, and why.

2. There are a number of ways to process the information we gain when we learn. You’ve probably heard about the left-brain/right-brain split: the left brain is linear and logical, step-by-step (step A, then step B, then step C, etc.); and the right brain is more spatial, preferring more data

early on so as to fit it into a certain context, or box. Each is good at tackling different things. Do you consider yourself more left-brain, right-brain, or a good balance of both?

3. Another method of learning not often discussed is internal learning. This is learning by holistic insight, by intuition and the synthesis of information. It’s the eureka moment, completely getting something all of the sudden while doing something entirely unrelated. Have you had such eureka moments? And how can you give yourself a better chance to develop such moments?

4. Being open to constructive dissent and criticism is important. (The non-constructive usually comes in the form of negativity, such as putting someone down.) Consider a major problem in the world (global warming, for example). Brainstorm three solutions. Now list possible problems with these solutions, or even ask someone else if they see any problems with your solutions. Can you now think of ways to change or modify your original solutions?

**I SUPPOSE IT IS
TEMPTING, IF THE
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HAMMER, TO
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IT WERE A NAIL.**

Abraham Maslow
psychologist

AWARENESS OF OUR ASSUMPTIONS

We are all born into a world that is continually shaped by invention and conflict, by different ways of being and seeing. Just as we cannot think without framing our thoughts (the so-called “boxes”), we do not grow up in a vacuum. We all come from somewhere, from people and institutions that teach us how to think about the world. Our culture, our society, even our families, live and think in ways that are very different from others.

Our assumptions and biases are not things we can completely erase, since they are part and parcel of our upbringing. We aren't blank slates, but a colorful tapestry of where we came from, where we've been and where we want to go. But if we're open to doing so, we can neutralize them. We do this by first becoming conscious, or aware, of them. Once we have acknowledged them as assumptions and biases, we may then question them. Does what I believe actually reflect reality? Is this really the only way to go about doing x? We may then come to terms with our assumptions and biases.

Another way to neutralize them is to outgrow them. While they may always be a part of us, we can move beyond them by learning about diverse ways of seeing the world. You don't have to travel far to do this. There are more differences within any given society than there are differences between societies. In order to grow, it's important to listen to these other voices. But you don't have to agree with everything you hear. You only have to respectfully try to understand in order to grow your awareness of not only your own assumptions, but also those of others. It's the space between open-minded people that makes space for us to grow.

REFLECTION:

1. There's the saying about how when “life gives you lemons, make lemonade.” Here is a problem that must be solved: There is a large dog in your bed that won't go away, even though you tell it you need to go to sleep. Even if you curled up next to it, it keeps waking you up because it wants to play. Now think of the worst possible solution to this problem. Now share it with everyone else, and ask each other why you would assume this or that to be the worst possible solution.

2. There is a doctor, a garbage person, and a wizard. Each has one of these three pets: a shark, a kangaroo, and a cat. Which person would own which pet, and why?

3. Come up with three assumptions you have about the world. Now find a way to directly challenge them. Example: The sun always rises in the east (assumption). The four cardinal points (north, south, east, west) have been replaced with numbered degrees, so that the sun now rises from 180 degrees (challenge).

4. Unquestioned biases can be harmful and promote stereotyping of people and groups. Good and bad, what are some of the biases you think people should question more often, and why?

**FORTUNATELY
FOR SERIOUS
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RECOGNIZED IS A
BIAS STERILIZED.**

Benjamin Haydon
painter and writer

LATERAL THINKING & CREATIVITY

Lateral thinking is a great skill set to have for when we are really stuck. It's a way of seeking solutions to tough problems through unconventional methods. It looks at and uses elements that would normally be overlooked by logical thinking. Thus is lateral thinking (lateral meaning "from the side" or "toward the sides") distinguished from logical, or vertical, thinking. The latter takes a reasonable view and works through problems in clearly defined steps. Vertical thinking is good at solving problems like $2+2$, for example, whereas lateral thinking is better for handling problems that don't have clear answers. Perhaps the answer is a fuzzy, ambiguous one, such as questions involving how someone feels. Or no answer yet exists. The two ways of thinking are best used together in combination, since most of life's problems are not purely logical or purely fuzzy.

We cultivate lateral thinking in order to provoke new ideas. Our minds create patterns of thought that help us deal with what happens in life. With lateral thinking, we shake things up and restructure our usual patterns in order to come up with new ones. When faced with unfamiliar or novel problems, we can respond by finding creative ways to restructure our patterns. While creativity is important for lateral thinking, it is different from it. Creativity isn't necessarily about finding applicable solutions to problems. It can serve beauty or fun, for instance. Whereas lateral thinking is about finding unconventional ways to resolve issues or proffer solutions to problems. So when faced with no way forward, we are forced to be creative and think laterally. Otherwise we remain stuck.

REFLECTION:

1. Here's a puzzle: There are six eggs in a basket. Six people each take one of the eggs. How can it be that one egg is left in the basket? The solution is at the foot of this page. Why is this puzzle difficult to solve? What were some of the barriers that kept you from finding the solution right away?

2. Lateral thinking is in no way just a set of mental exercises. An example of a real world application is the answer to this question: Why is it better to have round manhole covers and not square ones? Find the answer below. This makes us consider something we always took for granted, namely, that manhole covers are round for a reason. Can you come up with any other real world facts that appear to be related to lateral thinking? (Here's an example: There 12 months in a year. Why?)

3. Sometimes we can clear the path to answers simply by deciding what information is pertinent, and what isn't. Here's an example: How could a baby fall out of a twenty-story building and live? The answer is below. Clearing the path this way allows us to look at the question in a different way and forces us to realize that we were looking at the problem with certain preconceptions. Can you think of any preconceptions you would like to challenge? Can you use it to come up with your own puzzle?

4. The old man the boat. Does this make sense to you? If not, read it again, but with a shift of emphasis. What word is always spelled wrongly? Sometimes we are looking everywhere for our hat, except for where it actually is, right atop our head. Sometimes the answers are right in front of us, and we just need to step to the side to see it. We only get it when we restructure our thought patterns. Can you think of something very obvious and find a different way to look at it?

¹ The last person took the basket with the last egg still inside.

² Round covers cannot fall down or be dropped down a manhole, unlike square ones.

³ The baby fell out of a ground floor window.

⁴ Wrongly.

**SOONER OR LATER,
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WE CAN'T CLEAR,
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IN THOSE
SITUATIONS,
SIDEWAYS IS
FORWARD.**

Steven Kotler
writer

INSIGHT & HUMOR

Lateral thinking is meant to find purposeful solutions that can be somehow applied. It is related to insight and humor, with the difference being it has a certain direction and goal, while insight and humor do not necessarily. But, in an ever-changing world, the grassy knoll and the playground are just as important as the classroom, if not more so.

Insight and humor are the mental gardens in which we cultivate our nimble and flexible ways of thinking. Insight is the ability to understand the true nature of a thing. This is usually done intuitively. Humor is of course what makes us laugh or chuckle, usually situations or jokes. A leading theory as to how and why we find certain things funny is the theory of incongruity: humor is the response to incongruity, which includes ambiguity, logical impossibility, irrelevance, and inappropriateness. (You may find this theory itself humorous in that it uses a large number of big words to explain one small one. It's quite incongruous, no?)

In a world where we are surrounded by endless gadgets that demand our attention and time, insight grows increasingly important. Or rather the allowing for insight does. Finding a quiet place to just be and allow your mind to peacefully float in the stream of time has become very difficult. But a deep understanding of anything requires such quietude. And humor is not just enjoyable, but is also important to freedom and flexibility of thought. It places a funhouse mirror up to the logical and conventional worlds. If we want a world of truly free thinkers, insight and humor must be nurtured, not quashed.

REFLECTION:

1. Where do you do your best thinking? Why there? And if you don't have a place in mind, where would be your ideal place for thinking?

2. "If you want to be understood, listen." How is this statement related to insight and humor? Do you agree or disagree with it? Why?

3. What qualities do you associate with someone who is said to have a "good sense of humor"? Make a list and see how these qualities may relate not only to humor, but also to insight and lateral thinking.

4. Here a few quick jokes: What is another word for thesaurus? Why do they call a building a building when it's already built? I never make mistakes...I thought I did once, but I was wrong. Can you spot any similarities between the structures of these jokes and lateral thinking?

**LIFE IS TOO
IMPORTANT TO
BE TAKEN
SERIOUSLY.**

Oscar Wilde
writer

USING LATERAL THINKING TO TELL STORIES

Our world is made up of stories. Stories have been the vehicle by which cultures have passed along much of their wisdom. How we think about ourselves and our world rests on a foundation of stories, large and small. All these stories shape and orient our thought patterns. Being aware of these stories allows us greater access to who we are and how we came to be the way we are. This awareness deepens our thinking and gives greater meaning to our actions. This is the serious side of storytelling.

The mirthful side of storytelling lies in both the creative telling of a story as well as the enjoyment of a good story. The artist Pablo Picasso once said that when we are born, we are all artists. Similarly, when we acquire language, we are all storytellers. Recent scientific studies have shown that when we are being told a story, parts of our brain are actively trying to predict the future. As engaged listeners, our brains come up with what happens next before we are even told, so that an alternate possibility is already playing out inside our heads in anticipation. We can't help but get ahead of the storyteller. And this is partly why we get so much joy out of being surprised by a plot twist or when we learn unexpected information.

The following is meant to empower you as a creator by facilitating storytelling using lateral thinking. You may find what you come up with quite surprising.

REFLECTION EXERCISES

1. Reverse opposite: Take a truism, reverse it to its opposite, and make that a fact. Example: Everyone sleeps; reverse opposite says nobody sleeps. The story is about what people do all night instead of sleep. Perhaps someone starts to fall asleep. What would the others make of this? (This is turning logic on its head.)

2. The crazy fact: Start with something that is outrageous. Now figure out a way to make it convincingly true. Example: The sun is dying of a broken heart. This is true because scientists have finally decoded the signals sent out by solar flares. They tell the story of this heartache. (This is considering the impossible in order to shed light on what already exists.)

3. Random words: Take a book and pick out three random words. Combine these to make a story. You'll be surprised at how many ideas you come up with. (Random input to provoke new ideas.)

**IT IS NOT ENOUGH
TO HAVE A GOOD
MIND,
THE MAIN THING IS
TO USE IT WELL.**

René Descartes
philosopher

BODIES, NOT BOXES

The notion that the mind and the body are totally separate is on its way out. What we do with our bodies affects our ability to think. Our patterns of thinking can have consequences for our physical health. Without us being completely aware of it, our bodies and mind work in tandem to regulate our breathing, to get up and walk to the kitchen for a glass of water. Awareness of these seemingly simple actions requires conscious effort. But in everyday life, our actions proceed subconsciously.

Just as the knowledge and thought-provoking exercises in the previous sections put your mind in spaces and circumstances conducive to growth, there are things you can do physically to get you thinking. The trick is to do these things with some deliberateness, for a purpose, and not just for its own sake. While you should start with this intent, don't be afraid to lose yourself in the flow of what you are doing. When intent and action combine and click, things take no effort at all. Here are some things you can do that involves your physical body, things you may not have considered brain-powering.

REFLECTION:

1. Listen to music. Music can assist in connecting parts of your mind that are usually not talking to each other. Scientists have actually come up with such things as Binaural Beats and Isochronic Tones to help improve brain function. But just your favorite tunes should suffice.

2. Actual exercise. Improved blood flow brings more oxygen to the brain, helping it function better. Recent research suggests many other ways exercise benefits thinking, too many to list here.

3. Go on walks. Many great thinkers, from philosophers to artists, move their feet in order to move their thoughts.

4. Spend time with friends or family. Being able to share your ideas with people who aren't going to put you down can yield great results. There is also the motivational element of gaining encouragement and support as you pursue your line of thinking.

5. Dim the lights. Studies have shown that in dimmer lighting the subconscious mind feels freer of constraints (think opposite of "deer in headlights").

6. Be sleepy. The hypnogogic and hypnopompic states describe the transition from being asleep to waking and from being awake to falling asleep. In these strange netherworlds our minds may make connections and come up with concepts that our waking selves can't.

**THE PART CAN
NEVER BE WELL
UNLESS THE
WHOLE IS WELL.**

Plato
philosopher