

## How about Raising Your Deliberate Deep Thinking Skills?

Welcome in the era of information. Our brain is continuously fed with information - much of it is unreliable - but it is also under a permanent pressure. So, we tend to think more with our guts. Throughout the day, we let impressions and information coming to us. We think passively. Passive thinking and intuitive thinking are fine ... sometimes. It is also an era of systems. We live in a world of systems. While the gut is undoubtedly important for your overall health, systems really don't care about your gut feelings. We really need more than intuitive thinking. Today, active thinking is unquestionably a key skill to master. Active thinking transforms selected valuable information into knowledge. It transforms knowledge into understanding, and hopefully also in wisdom. It is the key to deepen our understanding. This is essential for better decision making and for problem solving. It also helps avoiding the creation of more problems. Active and deep thinking is necessary to build and to innovate. Of course, this doesn't concern the simple, local, little, easy and fluffy stuff that anyone can do with limited effort and some elementary skills. We talk about the larger, serious, sometimes more complex and more lasting endeavours that have a significant meaning, value and impact. We talk about those endeavours which produce a lifetime proud.

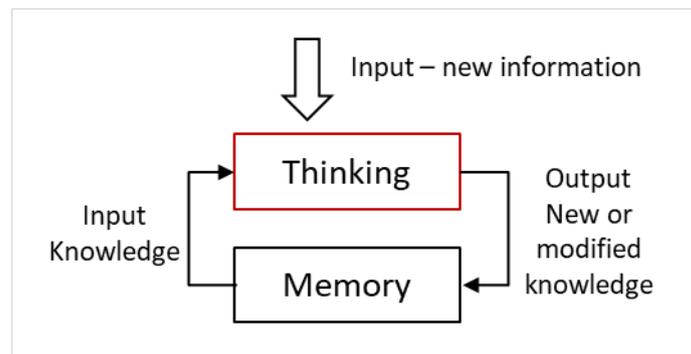
Active thinking is complementary to intuitive and passive thinking. Since systems always act and react accordingly to their own logic, understanding systems is crucial. Therefore intuitive thinking is only of little help when dealing with systems. It also helps to better understand situations. Active thinking provides a great advantage over superficial thinking.

What is that secret that will boost your (active) thinking? Basically, it is about having the right mindset and "Questions". Knowing this won't help you very much to become a better thinker. So, let's get somewhat deeper into the subject.

Questions, when related to information, have, at least, two functions. A question allows the asker to obtain additional information about an issue. The person or system to which the question is posed can select the information, formulate the answer and transfer it to the asker. This usage of a question may increase the knowledge of the asker. Questions have another much more fascinating function. Questions are very powerful generators of knowledge and understanding. It is this function that we need.

Did you ever notice that when you are (actively) thinking questions are popping up in your mind? A huge part of thinking, if not all thinking, is a matter of finding answers to questions you posed mentally to yourself. So, thinking relies heavily on questions. They are intrinsically related. In fact, these questions literally boost the thinking. One question makes you thinking a little bit, or maybe somewhat more. Imagine how much thinking is required if you had to answer 100 or 1000 questions in mind. The problem is that we use this technique very poorly, too sparsely or sloppily. Moreover, there are some pitfalls.

Knowledge is a belief of which we are confident to be true because of some good reasons.



**A good memory, in itself doesn't ensure good thinking. Memory feeds the thinking process by providing input and the thinking process feeds the memory with information it created. Memory supports thinking, but doesn't replace it.** It is important to keep this interaction in mind.

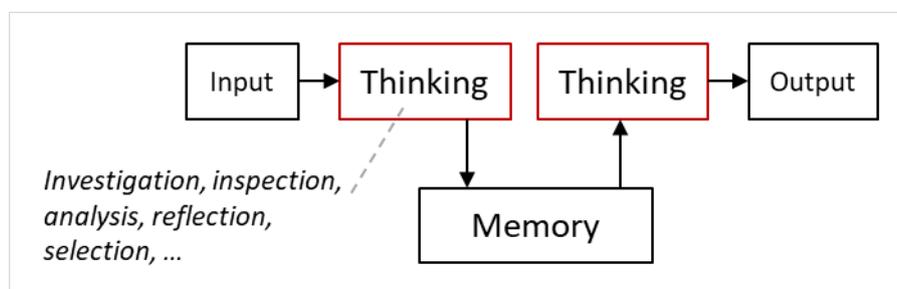
### Learning from Bad Thinking

By analysing poor thinking, we can identify mechanisms, habits and traps causing this poor thinking. Valuable lessons can be learned from it. They help us to avoid making the same mistakes. From this understanding, we will also be able to deduce good tactics.

I use the term 'Bad Thinker' for the sake of simplification and in order to remain gender neutral. We all think sometimes well and sometimes poorly. We are all "bad thinkers" now and then. But let's focus on the bad habits and find out what they are.

Bad thinkers may be satisfied with knowing facts, rather than seeking to understand. They may confuse both. Or maybe they assume that, for now, knowing is sufficient and that the understanding will spontaneously emerge from their knowledge, later, when needed. But understanding is not an automatic result of knowledge. Emergence is somewhat similar to luck. Both are completely involuntarily, unpredictable and may come late or not at all. We can't count on them to build, to progress or to reach an objective.

Bad thinkers accept information more easily at face value. When new information is captured, it should be examined and evaluated before being accepted and stored in memory. This step might be reduced, flawed or even omitted.



When new information is presented to bad thinkers, they may use their intuition, their guts, to evaluate the information. Information that is obvious and simple is more easily trusted than complex information. Bad thinkers tend to accept more easily information they understand. Unfortunately,

the world is rarely simple or easy to understand. They may fall into the trap of oversimplification and accepting simple but wrong answers. Information that is positive, which corresponds with what the person expects and with what he or she wants or likes to hear is also much more likely to be accepted. It is much easier to accept information coming from a self-confident person, from a person with an authority or from a trusted person. Presenting information in an attractive way helps also to convince. When a person captures same information several times from different sources, he or she is also much more inclined to accept it.

As a result, junk information, information not reflecting the reality reliably, may find its way to the memory of the bad thinker where it will be integrated and stored.

Bad thinkers are more receptive to information that is in line with their knowledge and understanding. Since it is considered as a confirmation of their knowledge, it strengthens their position and boosts their self-confidence. This is particularly true if this knowledge is shared by a trusted person, by a group they like, by a community to which they belong (group thinking), or when it concerns a widespread or mainstream idea, like with hypes.

Bad thinkers do reject information as well. Hereby, they may rely on their guts feeling as well. Information that doesn't fit into their belief system or simply information they dislike can be promptly denied and rejected without giving it a single thought. Bad thinkers easily assume their knowledge to be true. Mostly, they are even very confident about it. They are not likely to find their own knowledge suspicious or to question it. New information contradicting the bad thinker's knowledge must be wrong. In fact, they aren't aware that they might compare junk information already present in their memory with new veracious information. Conflicting new information can also simply be ignored or not even being noticed.

A rejection may give the impression that the person is perfectly able to distinguish right from wrong. The person is convinced to be a critical and independent thinker. And a determined acceptance or rejection of information creates the feeling of being in control. This is self-deception if the reality is that much true information is being rejected for wrong reasons. It's not really a sign of an open mind.

Each person is accustomed to his or her knowledge. A person developed a whole understanding, a vision of the world and a belief system upon her knowledge. All this forms a more or less coherent whole. It is an important part of a person. New information contradicting simple knowledge already present in the mind creates incoherence. It creates some uneasiness. This is experienced as a mental discomfort in the mind (cognitive dissonance). The easiest and quickest way to deal with this discomfort is to downplay, to reject, to deny, to vilify or to ignore the new information.

Information that invalidates our knowledge would suddenly create uncertainty. Being uncertain is commonly considered as a sign of weakness. On the other hand, being frequently right intensifies the feeling of strength and self-confidence. Whether information is true or not is of secondary importance.

Accepting new conflicting information requires one's existing knowledge or view to be reconsidered and to be adapted in order to allow the integration of the new information.

Information is not necessarily either true or false. It isn't always black or white. There are perspectives, opinions and preferences. Also information can be somewhat true and somewhat false. There might be a probability of truthiness. It can be sometimes true, in specific circumstances or cases, and sometimes untrue or it can be true for a certain period of time.

Information conflicting one's knowledge is rather disagreeable. It is much worse when it affects one's understanding. And it becomes intolerable experience when it undermines one's vision of the world or one's belief system. It is very hard, if not unbearable, for many people to deal with a crumbling belief system. This might be at the same time unconceivable and extremely frightening. The rejection is then much more a protection of the own mental world and of the self. Changing one's world view requires a tremendous persuasion effort, or the right tactics. However, it is by changing our world view, our values and our belief system that we progress and mature the most. This explains why, unfortunately, often, but not always, ascending to a higher level of maturity happens through crises.

The discomfort, the need to protect one's self and the gigantic effort required to change our thinking are probably the main reasons why it is so hard for people to accept different opinions, negative feedback, critics and complaints. Actually, these should be appreciated since they are opportunities for improvement. This doesn't imply that all feedback is justified. It only means that people should accept that they might be wrong and consider the feedbacks with an open mind. If the feedback is justified, then they can learn from it, improve and progress. This can be incredibly valuable information.

Bad thinkers also perceive a subject, a situation or an idea from a very few number of perspectives. Usually, it is a perspective relating to themselves like, their role and responsibilities, their interests, their goals, their activities, their family, their possessions, their rights and so on. Some perspectives can be marketing, risks, financial, a demand or mission, the visible aspect, the usage, the cost, obstacles, systemic view, people view, the short term. Each perspective provides only a partial view and understanding. But together, they provide a more complete and reliable understanding.

Bad thinkers are more inclined to answer a question very quickly with information they've readily available in memory. They may provide an answer that only looks like plausible. Or, they may guess. They may be satisfied with more superficial answers or with information of a lower quality. They may want to quickly get rid of the question. Having to answer a question may be seen as problematic. It makes them feeling uncomfortable. Once the question is answered, there is a feeling of relief. Everybody is satisfied and things can go on.

Let's pretend not much thinking is done when information is accepted and integrated, when information is expressed and not much thinking is done in between either. The information communicated by the person is then likely to be more or less the same as the information communicated to the person. By parroting information, much information is disseminated regardless of the truthfulness of the information. But a bad thinker may interpret the information and, unwittingly, distorting its meaning and then conveying incorrect information. This increases the confusion and creating false beliefs.

Bad thinkers may replace thinking by guessing. Guessing takes usually lesser effort and time than thinking. Responding quickly is important because hesitation and doubt are considered as an

indication of ignorance, by other bad thinkers. They are also a sign of weakness. Thinking is a mental activity that should take place between the understanding of the question and the formulation of the answer. Hesitation can be an indication of being actively thinking. It means that your brain is at work and you don't have the answer yet. You are actively consulting and questioning your knowledge. You are doing a genuine effort to formulate a decent answer. More thinking means more hesitations. Hesitation can also be a sign of openness. It's an indication of the ability to adapt your knowledge and your understanding if necessary, which is the exact opposite of a rigid mind-set. This requires humility, sometimes even a lot of it.

Answering a question is not difficult at all. Everybody can do this. But thinking about a question in order to come up with a real answer is something else.

Bad thinkers don't ask a lot of questions. They don't verify their information and they don't think much. Therefore, they make more frequently assumptions, poorer judgments and they are more inclined to jump too quickly to conclusions. It results in issues which further undermines their confidence. Possibly, it increases the urge to be right and makes them also blinder to reality.

Usually, people judge themselves more capable than they actually are. Maybe they experienced too often being wrong or insufficiently right. They feel uncomfortable, weak and uncertain, while they want to feel the exact opposite. It seems that the tactics put in place to deal with these feelings inhibit the open mind-set and the thinking. They have an adverse effect.

We tend to avoid those things we things we are not good at. Thinking is important to answer questions and to solve problems. Bad thinkers may have developed an alternative tactic avoiding these activities. They rely on the opinion of others. It's fine to ask advice, opinions and ideas to other people. And some questions and problems are best to be answered by people who are more capable in a certain matter. But it is problematic when it is used as the main and (nearly) sole tactic to avoid answering questions or solving problems. It becomes a problematic when it is a systematic tactic for matters the person herself should be able to resolve. It is problematic when this tactic becomes the sole developed and used "problem solving skill" and when this skill is mainly reduced to asking for answers or choosing a solution from a set of suggestions. It is problematic when the person systematically hopes that the answer and solution will come from elsewhere or emerge like by magic and that very few answers and solutions are provided by the bad thinker himself/herself. It is problematic if that person always fully relies on others.

## Tactics for Improving Deliberate Deep Thinking Skills

First, we need to adopt a right mind-set. The mind drives how we think and what we do. So, this mind-set has to be suitable in order to capture and to deal correctly with information. Then we need to adopt the right thinking habits and apply some practices and principles.

### 1) Mind-set

#### a. Truth seeker

How useful is it to apply good thinking techniques while using fallacious information?

Using unreliable information and superficial insight to take decisions is likely to create more problems. Trying to resolve problems or to build systems based on

limited and distorted understanding of the reality results more often in awkward, weak, problematic and labile solutions. Such a solution will probably not deliver the expected results or may even miss their goal. Over time, it may deteriorate much faster than expected or it can collapse. Let's look at some causes.

Regardless of whether the 'solution' corresponds to the demand, to the wants and to the expectations, it must fit with the real situation. The discrepancy between the decisions or the conception and the reality is too significant. The choices and decisions didn't respect natural laws and nature of things. A truth surfaced and people become aware of the reality.

If a bad decision has been taken, it is interesting to understand how we came to that decision. Where did it go wrong and how can we prevent it from happening again?

If a solution or product is not suitable, it is interesting to look for the causes in the conception and building process of the product and how it has been executed, the resources that were used and the environment. So, even in this process the fundamental principles, the nature of things, a natural logic and natural laws have to be known and respected.

Taking good decisions, solving problems or building something valuable, stable and lasting requires a good and objective insight in the reality. It requires reliable information and often a more profound understanding.

Good thinking is about questioning our knowledge and seeking to understand the real world.

A good thinker welcomes each progress in the understanding of the reality. They may experience a positive emotion, like a satisfaction, each time he or she learned something, improved the knowledge or got a new insight.

Become a deliberate truth seeker.

Seek to improve the quality of your information.

We live in an objective world as well as in a subjective world. Each subject can be approached through an objective perspective as well as through a subjective perspective. Make the distinction between subjective information and objective information. Sometimes we need to go through a layer of subjectivity, surrounding the objective world, in order to reach this objective world.

Avoid or limit subjectivity, desires, preferences or emotional aspects interfering with the acquisition of objective knowledge.

Understanding the subjective world is important as well. Since the subjective world exists, it is a part of the reality. However, it plays a different role.

"Truth is disturbing and causes anger when it confronts a false mind-set; whereas, one who is on a foundation of truth can calmly handle any challenge." (J.J. Dewey)

**b. Seek to Understand**

Knowledge is a matter of memory. Common knowledge has to be true and is often only superficial knowledge. It doesn't provide much understanding. Understanding enriches and expands the knowledge. It adds dynamic and depth to knowledge. To increase our understanding, we have to dig deeper into a matter. That's easier said than done. But it's a habit that can be trained.

**c. Purpose Seeker – Seek Meaning**

We have to find out what matters, what is meaningful, what the purpose is and what the nature of things is. This provides often a kind of foundation for further thinking. This is a useful driver for our attention.

**d. Openness**

We to be interested in information that doesn't correspond with our expectations, with what we want to hear or information that is not in line with our knowledge or belief system or with the mainstream thinking. This information should be judged fairly. And we have to be ready to adapt our knowledge, view and belief system if this new information turns out to be true.

Openness doesn't mean that we have to accept and integrate any information inconsiderately. It remains crucial to make carefully the difference between false or useless information and true and useable information. We have also to be careful with the filters and distorting lenses which are present in our mind.

Exercise: Take an idea, a subject or anything else that is part of your life or of society and of which you are convinced to be undeniably good. Then think about all its negative aspects.

Exercise: Take something of which at glance nothing good can be said about it. Find the positive aspects of it.

**e. Flexible Mind-Set**

Abandon a rigid mind-set. Try to be more flexible with the thoughts. Knowledge and understanding are never, or very rarely, finished products. They can even be wrong. Accept that knowledge and insight can evolve and allow them to do so.

We all have a belief system. How would you react if something you know to be absolutely true or a strong foundational belief was proven to be false? How easy would it be to review and readjust your perspective, your view and beliefs or even replace them with new ones?

**f. Humility**

Our knowledge, understanding, perception and beliefs are infested with information that is not as true as we might think. It requires humility to accept that what we know might be wrong and that our knowledge is limited. We have to concede that someone else may know more than we do or might be right. Without this humility we will defend our own knowledge (and ego) and we may fail in understanding the reality.

Are you sometimes wrong? How did you experience it? Or in general, how do you experience to be wrong? How big is your fear of it?

**g. Be an Independent Thinker**

If we are not an independent thinker, then our knowledge and thoughts will be a kind of sum and summary of what others told us to think. We have to be suspicious about (nearly) all information we receive and, if it is important, we have to verify it and to think about it before accepting it as being true.

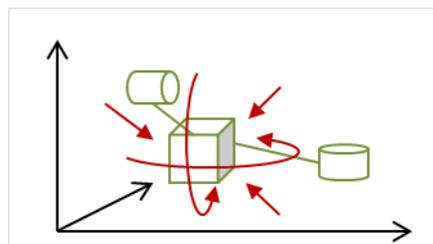
**h. Curiosity**

**i. Player**

Learn to play with knowledge, perspectives, dimensions, hypothesis, ...

**2) Tactics and Tips**

- a) Learn to think multi-dimensional: purpose, role, meaning, intentions, reasons, motives, context, implications, knowledge areas, skills, perspectives, subjective versus objectivity, usefulness, location, focus, alternative usages, appropriateness, similarities, commonalities, differences, cohesiveness, coupling, characteristics, parts – whole - greater whole, object versus environment, structures, systems, processes, lifecycles, flows, concrete and abstractions, mechanisms, balance, harmony, action – reaction, nature of things, cause-effect/consequence, different levels of detail, evolution, small amounts versus larger amounts (numbers, repetitions,...), what-if's, strengths and weaknesses, opportunities and limitations, obstacles, importance, criticality, options, generalisation versus specific case, mainstream and exceptions, forces, interactions, influences, relations, networks and hierarchies, certainty (probability), precision versus vagueness, approximation, variability, classification, priorities, order, and so on.



You can take a system, an object, a subject, an area, an environment and put it in the centre of your mental multi-dimensional (at least 3-dimensional) investigation space. Then you investigate it from all (relevant) perspectives, simply by observing and by questioning. You see other objects that are connected to it or related aspects. You can shift this ensemble by putting one of the connected the object in the centre and then focussing on it. You can do this for parts, co-systems, supra-systems and environments as well. Then you can repeat the investigation on the object that is now in the centre of your focus. You can put two objects in your investigation space and study their relation, interaction and influence or comparing them. And you can try with even more objects as well.

It is important to become familiar with these aspects. They should be well present in your background memory. They are then readily available to help you posing many questions whenever possible, which is nearly all the time.

- b) Do never compare the advantages of one thing against the disadvantages of another. Compare advantages and disadvantages of both.
- c) Having a good memory and a good brain is critical. However, a lot of incorrect information stored in memory will waste brain effort.

Check new information as much as possible before allowing it into your memory. Develop this habit and develop a good filter. Posing questions is critical before rejecting or integrating information is important.

- d) Ask yourself as many questions as possible. Analyse the question. Before answering a question, question the information elements that may lead to an answer. And once the question is answered, you formulate new questions related to the answer. Your brain has to be an endless ballet of questions and answers. This tactic is probably one of the most important ones.
- e) Have an environment (work environment) that fosters thinking activities. People tend to think better when they are alone, in a peaceful environment, like in nature. It doesn't work that well in group, with many events distracting the mind, under pressure, in a state of excitement or with negative emotions.

What environment and circumstances are necessary for you to think efficiently? Do you have your favourite places where you can think? Does your company provide such an environment?

- f) Do the thinking yourself whenever it makes sense. Don't delegate thinking to others.
- g) Observe your own way of thinking and analyse it.
- h) Develop your own thinking habits, patterns, principles, techniques, tricks, priorities, ...
- i) Be interested in how (not in "what", but in "how") other great thinkers think. Adopt their thinking patterns.
- j) Investigate all information: information contradicting your knowledge or view, opposite views. Try to understand them. Maybe there is a misunderstanding to be corrected, or, maybe it's simply a different, thus complementary, perspective.
- k) Search for feedback, critics, ...
- l) Try to see the abstract and conceptual forms of objects, systems, ...
- m) Learn and exercise the discipline of Systemology and Problem Solving. ( <http://bit.ly/2JzNTK3> )
- n) Use drawings, models and tools as much as possible.
- o) Qualify information correctly. Differentiate knowledge from assumptions, facts from preferences, subjective information from objective information.
- p) Avoid black and white thinking (splitting, all-or-nothing, us versus them, true versus false, right versus wrong, bad versus good).
- q) Know the cognitive biases and fallacies (Wikipedia published lists of them). By knowing them you will be better able to detect them and to avoid them.
- r) In the battle between truth and ego, let the truth prevail.
- s) Someone who disagrees or who has a different understanding is not (necessarily) an enemy. Each of us has the fundamental right to have his or her opinion and understanding. Such a difference is an opportunity to find out what isn't known or understood.
- t) There is a technique that an idea, concept, solution or understanding that is able to withstand a barrage of questions, it is probably good, right and solid.

A good thinker doesn't simply know more. He or she also understands much more than others. Having to face this difference imply not always being understood, being much more aware of the result of poor thinking and having to spend much more effort in explanation. All this creates a lot of frustration. Smart people aren't the happiest ones. Nevertheless, our society needs better thinkers.

Develop a real passion for thinking. How marvellous isn't it to create knowledge, to deepen the insight, simply by thinking?

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