

# Imagination

## AND THE RANDOMNESS OF THOUGHT

NeuroQuantology 2006; 1: 45-49

Lars Rönnbäck

Imagine no imagination. Thoughts would be nothing but appropriate responses to stimuli, humans reduced to rely on instincts alone and ideas impossible. If we on the other hand had only imagination, thoughts would be disconnected from the world outside us, our minds living in solitude without the possibility to communicate. Both ways are evolutionary dead ends, so nature devised a better way, one where imagination and instinct play equally important roles.

Somewhere in between the two extremes we find our everyday selves. We live more or less imaginative lives, altering between states influenced by different degrees of imagination. It is such an integral part of life that we have taken it for granted and rarely reflect upon the ways it affects us. But it plays such an important role for us, and evolution as a whole, that we ought to be more familiar with its nature. It is the birthplace for ideas, and strangely so since the best ones seem to pop up at the most unexpected times. Sometimes it is when you walk away from a difficult problem that you come up with the solution. It is almost as if imagination stands in contrast to concentration and is given more room when you enter a state of relaxation.

We can safely say that it is far from being under our control. There is no feat of mind that lets us turn it on or off like the flick of a switch. Neither does its influence remain constant throughout life. Children have it in abundance, while adults have to resort to crude but effective methods like brainstorming to jump start their imagination. The difference would be significantly smaller if we kept our minds fit and balanced through such exercises on a regular basis.

To understand the source of our imagination, we need to recall that we at all times operate on two different levels; the conscious and the subconscious. At any moment neurons in our brain are bombarded with impulses from different parts of our bodies. It is no small amount either; we are talking about many million bits of information that needs to be

---

Corresponding Author: Lars Rönnbäck, e-mail: [lars@delicate.se](mailto:lars@delicate.se) Intellibis, Kungsgatan 56 111 22 Stockholm, SWEDEN

processed. If this was to be done on a conscious level we could not possibly function normally due to information overload. Instead, almost the entire processing takes place on the subconscious level with an intricate decision system forwarding the most important information to our consciousness. Compared to our subconscious it is way behind in its ability to crunch bits. Attention can only be given to few pieces of information at a time, yet it is extraordinarily refined in the control it can impose on our actions.

Our imagination, on the contrary, is hard to control. An idea is certainly something that catches our attention, but we can hardly force them through even if we can try to “listen” for them. It is this inwards ear we turn to when we try to solve a problem. With a fit mind, exercised to listen to our imagination, it is easier to hear a solution. When we are waiting like this for an idea our consciousness assumes the role of a passive listener. It bypasses our normal system of attention and opens up a highway to our imagination. In our common mode of operation the rules that govern our attention are set by choice to mostly ignore it.

On the path to attention bits of information has to pass through what can be likened with a set of filters. Each one of them strips off unnecessary bits, weighs the information and relays them to the appropriate receiver. Most paths end before ever reaching the conscious level, our filters deciding that the information was not important enough. The right to do so is something we have been delegating them since our childhood. Throughout our entire lives we have been adding filters and training them to respond in appropriate ways; accept this – suppress that. We gain self control but also put a growing distance between us and the source of our imagination.

There is no need to worry though, because even if our imagination is clouded by a well groomed attention system, it is still available to us in its pristine form as long as we can find a shortcut to it. And we do, every night when we go to sleep our filters are put to rest. With enough of them deactivated dreams leak into our consciousness. Fortunately our memory is decoupled at night as well, leaving us with little recollection of them, or we would soon have a hard time telling real events apart from dreamt ones.

Dreams, ideas and the trains of thoughts experienced when exercising the imagination all have an undertone of randomness. It is as if the actual source of our imagination can be likened with a random thought generator. Truly random bits of information are passed through our filters. Most of the time they cannot be interpreted as anything but nonsense and are filtered out at an early stage, but sometimes they make sense and end up reaching our attention.

To explain this source of randomness we need to look closer at the space that we occupy with our body and mind. The empty space around us is actually not nothingness. There is a bustling activity of quantum phenomena going on everywhere. We cannot see, hear, smell, touch or taste them, but what our inwards ear is ultimately listening to is this quantum static firing off in the synapses of our brain. Our mind acts as a receptor for random sensory information, where the ghostly signals get clad as ideas by the filters they pass through. Imagination is omnipresent in the quantum static that permeates the universe. We are not overwhelmed by thoughts created by the noise because of our carefully trained filters, which hopefully ensures that only the ideas of most interest are brought to our attention.

In a normal day we will touch more or less the whole spectrum from instincts to ideas. We spend most of our time balancing between the two in the normal mode of attention, but

the scale frequently tips both ways influencing our actions. There is nothing preventing the same person from being both creative and able to stay within context. It is just a matter of learning how to let through different degrees of randomness into our thoughts. There are even single activities that in a short period of time span over the whole range; many athletes will agree, they trust their subconsciousness to make the right decisions.

From an evolutionary point of view, the first being who tuned in to the quantum static got a razor sharp edge over the rest; imagination. Since then nature has refined the ways in which it is handled, placing humans gently balanced between no and complete randomness of thought. In order for us to keep that balance we have to lean on filters through which information has to pass before reaching our consciousness. An imbalance in these will cause us to fall towards either side and leave us stranded outside what is considered normal society.

If we were to assume that these filters are deterministic in nature, such that it would be possible to calculate the result of any given stimulus, we may easily be led to believe that any human action could be predicted. However, given the further assumption that the quantum static is completely random in nature and at the same time one form of stimuli, the actions of the system as a whole becomes unpredictable.

Human actions are often taken as the direct result of our will. We believe that we have a choice in the matter when it comes to our behavior. But should the above assumptions hold then our will is random rather than free. The filters in our mind are primed by the reactions to every previous action in our lifetime and the evolution preceding it. Both complex and individually flavored they give the illusion of conscious participation, but it is only observation of the thoughts approved by our subconsciousness.

If we see evolution as only favoring useful features, what possible good would awareness then do us? Well, having put your hand on the hot platter once, you are not likely to do it again. If you were unaware of the burning sensation in your hand, there would be nothing stopping you from putting it there again, but we know better. We are constantly priming our filters, and to do so we need to analyze the consequences of our actions. Reasoning is not something that can be done subconsciously and the benefit from being able to do so is undeniable.

Being conscious, aware of our actions and able to analytically process the consequences, with an added element of random stimuli is evolutionary favorable. The more random and frequent the stimuli are, the more degrees of freedom we can have. At any given moment we will have a number of random thoughts to pick from, even if it is up to the subconsciousness to play the role of the censor. Taking it to the extreme, imagine a pool of infinite randomness that we are constantly tapped into. Our filters would decide what out of an infinite amount of possibilities is forwarded to our consciousness. Could we then actually tell the difference between random and free will?

### **Invasion of a thought**

Think of a well known object such as a car. Close your eyes and picture the car in front of you. Let your mouth form the word car, over and over until your focus has shifted to another object. Form the new word. Continue like this until you have reached an object that is completely unrelated to the car; "car, car, car, car, wheel, wheel, wheel, drive, drive, highway, invoice". Move on to the next step when your focus is shifting rapidly and you quickly reach unrelated words.

### **Avoiding dead ends**

Close your eyes and let your mouth form the first word that comes to mind. Let your attention shift as fast as you can through the different thoughts that appear, still naming them. Sometimes objects will come into focus demanding so much attention that you cannot easily let them go. When you reach such dead ends practice avoiding them until you can do so with as little effort as possible. Listen for the next association and catch it instead of lingering. Move on to the next step once you can keep your mind occupied for a minute without interruptions.

### **The randomness of thought**

By now your mind should be faster than your mouth. Try to keep a thought for as short a time as possible before letting an invading thought catch your focus. You will be thrown in surprising directions with unimaginable speed. Feel the boiling nature of your subconscious. The longer you can keep this high speed train of thought going, the more gratifying it is. On a side note, this also turns out to be a very efficient way to transition into a sleeping state.

When we are intentionally waiting for the birth of an idea, consciously but passively listening to the random noise of the quantum static, we enter a certain state of mind that we could call *subnosis*. By giving it a name we can relate it to other states with respect to the degree of randomness in our thoughts. If we put our normal state of attention in the middle of the scale between no and complete randomness, the state of dreaming will have a higher degree than normal. Let us also call the highest degree of randomness we are aware of pure imagination. Subnosis would then fit in somewhere between dreams and pure imagination, but is contrary to the latter possible to enter at will. In the state of subnosis we are trying to let our subconsciousness spill over into the domain of the conscious. It is more random than dreams, since it lacks the themes and structures they have. Dreams are rarely invaded by thoughts that are out of context. Subnosis has no context at all. This is contrary to hypnosis, where we try to let our consciousness spill over into the domain of the subconscious. In a hypnotized state there is little randomness to our thoughts and actions and almost impossible to stray out of context. We can even be told what to do and think. On an increasing scale of randomness, we would have to place it before normal attention. Even less random are the thoughts and actions that appear as a response to stimuli exactly the same way every time. Thoughts like these will be called pure instinct, since they enjoy no degree of randomness at all. Like dreams can be found between our normal attention and subnosis, stress can be found between it and hypnosis. In a stressful environment less attention is given to random thoughts and more to impulses from other senses. Efforts are concentrated to the current context and the thoughts that manage to pass the appropriate set of filters start to govern our actions.

