## **ACT FIVE**

## THE SUB-CONSCIOUS and SUB-CONCIOUS PROCESSING

According to Carl Jung, the unconscious includes everything "... whose energy charge is not sufficient to maintain it in consciousness" (Read, et.al, 1978, p. 8). He adds that the unconscious comprises everything we have forgotten and everything we have experienced but didn't consciously notice (subliminal perceptions). He labeled this the *personal unconscious*. Jung elaborated that our personal unconscious makes associative connections of high intensity which cross over or rise up into consciousness in the form of inspirations, intuitions, and lucky ideas (p. 9).

Jung, however, further expanded his definition of the unconscious to include the *suprapersonal unconscious* which is "buried in the structure of the brain" and only discloses its living presence "through the medium of creative fantasy" (p. 10). According to Jung, the *suprapersonal unconscious* "comes alive in the creative man, it reveals itself in the vision of the artist, in the inspiration of the thinker, in the inner experience of the mystic" (p. 10). For Jung, the *suprapersonal unconscious* is a sort of "extension of man beyond himself" (p.10).

According to Jung, imbedded within our *suprapersonal unconscious* are 'innate possibilities of ideas' or 'archetypes'. The archetypes for Jung form the core of our being. Nagy (1991) provides an excellent and thorough philosophical analysis of Jung's understanding of the unconscious, the 'creative force' and its intentionality, and archetypes as *a priori*, or "inborn forms of perception and apprehension" (p.142). Nagy says that "for Jung the concept of the archetypes embraces both the unknown energic drive force or life force and (partially) the image by which it is expressed and perceived" (p. 144). Or in other words, the energy of the processes of life ignites the archetypes and brings them to life in the personality and behaviours of the person within which these archetypes were born.

For me, the idea that there are two sources of creativity within the 'sub' conscious makes sense. Through analysing my own poetry I have identified the source of much of my creativity to be my personal unconscious, which I concur is really just a depository of everything I have experienced, learned, absorbed and felt throughout my entire life. However, I have also been aware of a much deeper source of creativity. This source for me has always had a feeling of non 'self' attached to it. For many, and for most of us for most of the time, however, the *personal unconscious* provides the primary input to the creative process.

Our brain is an extremely complex relational database with billions upon billions of pieces of data stored in its neurons. This information is in many forms, including emotions, smells, touch, sound, pictures, videos, words, numbers, shapes, colours, 'feelings' and ideas. Because we cannot possibly be consciously aware of all of the information in our brains (and we wouldn't want to be), this data base is primarily 'sub' conscious; it is below the surface of our conscious awareness.

Although any of this information is accessible to our 'conscious' self, without triggers and our extraordinary relational capacity (maps), it would be impossible to find. These 'maps' however, are not easily accessible to our conscious mind. Remembering data stored in our brain is a complex retrieval or 'access' function. A computer knows where information is stored because it either stores the information based on a relational map (program), or because it creates an index as it goes along. We can consciously store information through memorization techniques. However, the process to consolidate and integrate this data is primarily an unconscious function. In his article, *Dreams are key to memory*, Professor Rick Nauert (2018) writes that according to Professor Robert Stickgold, Director of the Center for Sleep and Cognition at Beth Israel Deaconess Medical Center (BIDMC) in Boston and associate professor of psychiatry at Harvard Medical School "dreams are the brain's way of processing, integrating and really understanding new information". Nauert says new findings from BIDMC "suggest

that dreams may be the sleeping brain's way of telling us that it is hard at work on the process of memory consolidation."

Encoding (storing) information is a function of the brain's hippocampus. According to Human Memory (2018), an educational website, the hippocampus "acts as a kind of sorting centre where the new sensations are compared and associated with previously recorded ones. The various threads of information are then stored in various different parts of the <a href="brain">brain</a>" (Memory Encoding). Memories must then "be actively reconstructed from elements scattered throughout various areas of the <a href="brain">brain</a> by the <a href="encoding">encoding</a> process. Memory storage is therefore an ongoing process of reclassification resulting from continuous changes in our neural pathways, and parallel processing of information in our brains" (Memory Storage).

The same piece of data can be, and normally is, stored in numerous places in the brain — based on relationships with other data. For example, the word 'black' might be stored with other colours, and the word 'cat' might be stored with other animals. However, black cat might be stored under 'danger', and a random thought that might rise to the surface when one thinks about a black cat, is "Don't walk under a ladder". This is a seemingly unrelated association, but those with superstitious leanings would likely relate.

Those of us with 'good' memory are relatively successful at retrieving data, but data that has not yet been stored in long-term memory (has not been fully integrated), or data that has not been accessed for quite some time, is not easily accessible. Retrieval of this information is enhanced significantly by relational data retrieval processes, and/or triggers.

The creative process oft-times results in an AHA! moment – the sudden appearance of a new idea, or solution to a problem in the 'creator's' conscious awareness. These intuitive, insightful and/or inspirational moments, I believe, are the result of the conscious and 'sub' conscious processing and encoding of new data and retrieving stored data, comparing all data (new to new, old to old, old to new) and identifying a 'relevant' relationship – thereby 'creating'

a new idea. On the surface, this seems rather simple. However, there is much debate about how much of this processing is conscious and how much is 'sub' conscious.

Weisberg believes the AHA! moments arise from ordinary thinking combined with hard work and lots of acquired knowledge (continuity with the past) and cross pollination from the environment. However, there are strong indications that the 'sub' conscious plays a primary role in intuitive, insightful and/or inspirational AHA! moments. Although Weisberg struggles with the thought that most relational processing is 'sub' conscious, he does admit that "many modern psychologists do believe that unconscious thinking of one sort or another plays an important role in creative thinking. It is assumed that unconscious thinking can bring about connections among ideas that could not be produced in ordinary conscious thinking" (p. 350). He says that cognitive accounts assume "that some kind of information processing keeps going on in the mind even when we are not aware of it" (p. 101).

Weisberg notes that "In theories of creativity based on the Freudian concept of the unconscious, the creator cannot tell us how and why certain ideas surfaced in his or her work", mainly because "we are not aware of those unconscious connections". Weisberg refers "to this class of theories as postulating an *associative unconscious*" (p. 93). Weisberg admits that "both the associative unconscious and unconscious processing may be true" (p. 94), and he also notes that Csikszentmihalyi and Professor of Psychology Keith Simonton, University of California, both postulate unconscious processes as the basis of creation of new ideas (p. 95).

Professor of Psychology, Sandra W. Russ, Case Western Reserve University, Cleveland, in Weisberg, says "primary process thinking, or 'sub' conscious thinking, "has a particular looseness or flexibility about it, so that it may facilitate searching among associations to come up with a new idea" (p. 344). Weisberg acknowledges that in "primary-process thinking, anything can be connected to anything else, even when, from the point of view of secondary-process and reality-based thinking, only the slightest link between those ideas actually exists" (p. 345). For

example, sometimes something metonymically represents something else – a police officer represents authority, or a hockey game might represent competition.

Weisberg notes that "theorists are in general agreement that during incubation unconscious processing is taking place" (p. 413). He states that there is much support for the idea that the unconscious is able to make connections that the conscious mind cannot (p. 413). He however, goes on from there to discredit this idea because of the reliance on subjective self-reports. Citing the lack of laboratory evidence to support incubation (subconscious processing), Weisberg makes the conclusion that "there is no strong and consistent laboratory evidence to support the related notion of unconscious processing" (p. 427). This is unfortunate. In my mind, and in the minds of the vast majority of 'creators' and psychologists, inspiration is primarily the result of 'sub' conscious processing.

## **Conscious Awareness and EGO**

Neuro science has determined that when people enter the state of 'creative flow' their lateral pre-frontal cortex, the part of the brain that is used to 'manage' or 'control' what we think about, turns off (Silva, 2013). What actually manages this part of the brain is up for debate. I used to think 'I' controlled my conscious thoughts, and that 'I' and my consciousness were the same thing. Now, I am not so sure. Neurological tests are indicating that our decisions to act are actually made before we are aware of them (Lanza and Berman, 2009, p. 38). This is astounding, and almost unbelievable (like most quantum physics). If these decisions were made before my environment told me I needed to make a decision, it would be downright spooky.

Although I will leave this tantalizing thought aside (perhaps as a matter for biocentrism to tackle) it does raise a few interesting possibilities. I do know that when I am thinking deeply about life, the universe and everything, while I am driving to work for example, I get to work

without any memory of how I got there. I was busy thinking about important things while someone else drove the car. This means we do not have to be consciously aware of our environment in order to act in it. While some sort of automaton acts and pretends to be me in this world, 'I' takes my consciousness elsewhere, or 'out of this world'.

I believe that for creative relational processing to successfully occur at the 'sub' conscious level, the 'conscious' processor sometimes needs to be distracted.

As I mentioned previously, relational processing and creativity go hand in hand. The storing and encoding of data (in a complex relational database), however, is primarily an un-conscious process. Our brain relates and stores information in our long-term memory mostly while we are sleeping – in our dream state. We are also consciously capable of relating and storing information, but only with information we are aware of, or information we have access to. There is significantly more information available to the creative process than that which we can remember, or choose to use ('we' makes choices on what information to store and what information to access). To access the information 'we' have not consciously stored, or information 'we' have chosen to not consider or ignore, it makes sense that the 'we' must be distracted or pushed out of the way.

Weisberg notes that those who argue that unconscious processing is primary in the creative process are presuming that during the period of sub-conscious incubation, "the content of the conscious line of thought is taken up by the subconscious, and there, out of reach of the censorship of awareness, the abstract scientific problem has a chance to reveal itself for what it is..." (p. 100). He clarifies that "...in the subconscious, rationality could not censor the connection..." (p. 101) and "...intentionality does not work in the subconscious. Free from rational direction, ideas can combine and pursue each other every which way. Because of this freedom, original connections that would be at first rejected by the rational mind have a chance to become established" (p. 102).

In my mind, distracting the 'manager' or 'controller' of our thoughts is very important. The subjectivity that the EGO brings to information processing limits the type and amount of information that will be considered. Suppression of the EGO permits access, or opens the door, to other information. This could be information that the EGO cannot remember, other information from the 'sub' conscious (information the EGO never really paid attention to and/or chose not to store), information from the environment that the EGO would normally filter out, either because it was unnecessary or it did not conform to its identity, and perhaps information from some other source. Although I won't delve too deeply into this right now, for many, this other source or other sources could be the *suprapersonal unconscious*, the numinous, the whole, the universe, the 'Real', Gaia, a universal 'awareness', our consciousness that exists in another universe, our imaginary friend, and/or God.

This concept synchronizes quite coincidentally with the path of our mystics to greater wisdom. Their 'processes' focus on minimizing the EGO, or pushing it out of the way. For some, including the Buddhist, to access this wisdom, to become one with the 'universe', 'God', the 'Great Creator', or the 'Creative Force', the Ego must be overcome – or perhaps more realistically – we must open a door to that which is beyond the reality in which our ego exists (or has been created). Our greatest mystics spend their lives resisting ego, usually through meditation, in order to obtain glimpses of this other 'reality'.

The EGO is developed in response to the need to survive in the physical world. Although all life has the urge to survive, the creation of an individual identity, an EGO in other words, makes the survival of 'I' extremely important. In most cases, the EGO eventually believes it is the sum total of the entity in which it resides. If the EGO gets really large, it begins to believe that it, and its survival, is all that matters.

Although meditation is one method to distract the EGO, there are others. It makes sense that when we do physical things, as a 'thing' developed in response to survive in the physical world, the EGO will focus its attention there. Although the EGO can and does direct our consciousness,

our consciousness is not always directed by it. EGO's of sufficient strength will usually suppress input from the 'sub' conscious, the environment and other sources. While working at Athabasca University, for example, I noticed that for most PHD's information often flowed only in one direction.

I believe the 'random access' to information within the 'sub' conscious when the EGO is turned off or distracted' is key, and perhaps even fundamental to the creative process. Turning off the EGO part of the conscious brain, or distracting it, eliminates, or at least significantly diminishes, its 'subjective' influence, and opens the door to thoughts and ideas that would not otherwise be consciously considered – and the 'sub' conscious is an incredible 'food' source for the creative process.

Research suggests that physical activity that does not require 'conscious' awareness enhances our capacity to enter the *state of flow* – or what I call the **ZONE.** I believe this is because physical activity distracts the EGO. When I walk or run, or when I write (physically move my fingers across a keyboard) my capacity to create increases significantly.

Both Weisberg and Csikszentmihalyi both attempt to explain what has been commonly called the 'incubation' period in the creative process. Once the 'creator' has acquired hoards and hoards of information, they begin to brood – to think deeply about life, the universe and everything – consciously and 'sub' consciously – their relational processor goes into hyper-drive – and then, as if by magic, the answer to all of life's questions pops into conscious awareness. Many 'creators' admit that this AHA! moment occurs while they are either doing something physical, and/or when they are enjoying nature or while they are appreciating the wonders of human creation (art, architecture). One of the major reasons this happens, I believe, is because these activities distract the EGO from the issue of the day.

A respondent to Csikszentmihalyi said, "Generally, the really high ideas come to me when I'm gardening" (p. 411). Weisberg says: "Keeping the mind idle sometimes involves simple repetitive physical activity", and he admits that "Gardening is exactly the kind of mindless

physical activity that allows one to do one thing while thinking about something else" (p. 432, 433). He stumbles on this truth unawares. Much thinking is occurring while we are gardening, and most of it is below the surface of conscious awareness. I believe there is also something about nature (including gardening) that has the capacity to open the door to creative energy and to other knowledge not accessible to the EGO, including knowledge that is not accessible in the 'Symbolic' realm. This is such an important point that I will address this later in a chapter of its own.

Although self-reports provide compelling evidence that 'sub' conscious processing is key to the creative process and the occurrence of illuminations, Weisberg is uncomfortable supporting this theory. He believes that anecdotal reports "are not adequate grounds on which to build a scientific theory of creative thinking." He therefore concludes (incorrectly) that "unconscious processing cannot explain the occurrence of illuminations" (p. 433). He says "it seems more reasonable to conclude that we cannot follow the thought process of the creative individual because we do not possess the same content of thought as the creative person" (p. 592). Then, with no congruent answers from within his scientific paradigm, Weisberg ventures into the land of speculation. He supposes that "maybe the creative individual is more intuitive than the noncreative" (p. 599). This may actually be true, but it is astounding in my mind that, after thousands of years of human existence, one such as Weisberg has to resort to speculation to explain creative inspiration. One might as well reincarnate the muses.

Today, our greatest thinkers are of several minds when it comes to the occurrence of illuminations (the AHA! Moment). Some (especially the more scientific) deny that the source is the 'sub' conscious – creativity is simply the result of putting a lot of knowledge and hard work into a problem (out of personal passion or interest, usually in a highly competitive environment) and then connecting the dots (sometimes on your own, through thoughtful discussions with others as knowledgeable as you, or via a random environmental event or idea) to create a new idea or thing, that may or may not be valued by others. Additionally, or alternatively, many

accept and acknowledge the 'sub' conscious as a likely source. From this perspective, intuition, insight and inspiration spring from the 'sub' conscious.

Below the surface of conscious awareness, our intuition 'assesses' something in our external environment – a person, thing or situation – and then alerts 'us' to something that might be important. The trigger is usually a 'like' or 'not like' reaction, a 'watch out, something's wrong' reaction, or a 'this information is important, pay attention please' sort of nudge. The 'Aha! Moment', often arises in a similar fashion – it as if we have an internal 'sense' that says to our conscious awareness, "this information is important, pay attention please". However, the information that this 'nudge' is trying to get us to focus on can be in the external environment, and/or within our own minds (usually below the surface of conscious awareness). The vast majority of self-reports indicate that this inspiration or intuition appears to come from out of nowhere. However, there are strong arguments that most of our intuition is triggered by residual emotion or judgement based on forgotten, suppressed or repressed memories. I won't argue with this point, however, I will point out an important observation – something within our 'sub' conscious is triggering the 'intuition' and bringing this 'alert' to our conscious awareness. What this says to me is that our 'sub' conscious, or something within it, pays attention to the outside world just as much as, or perhaps more-so than the conscious 'we' does – the 'we' is simply not aware of it unless something within our 'sub' conscious decides that it is important. The triggering of many 'AHA! Moments, I believe, is much the same.

The more philosophical and/or spiritual of us acknowledge the connection and entanglement of all that is. For us, intuition, inspiration and insight arise from this connection. As a result of quantum physics, and the 'scientifically' proven oddities of the quantum world, and space and time, the deeper thinkers of our age, are beginning to realize that (like the Mobius Strip) there may be no 'within' or 'without' – all is entangled and connected, and inspiration, insight and intuition are simply a result of this connection. The most astounding of the related theories, as I described earlier, is that the 'consciousness' of life creates reality.

Most psychologists would agree that the 'sub' conscious plays a very large role in influencing our behaviour – the effects of repression and suppression of traumatic events leaks out of us until they are resolved. Our inner child, and/or our wounded child can play a directing role in our lives – whether our conscious selves permit them to or not. Emotions appear from nowhere. We react to events today, in accordance with events in the past for which we have no conscious memory. We write poems that have layers and layers of meaning that speak to our future selves and scream to us to listen, and heal. A random scent ignites fear or love or anger. Our intuition tugs at us, and sometimes screams at us to take action or to watch out. And a key piece of information arrives as if by magic helping us solve some of the greatest problems ever created. Perhaps Weisberg's discomfort with the idea of 'sub' conscious processing hovers around bigger questions that have no easy answers: Is the process random or intelligent? Who or what is doing the processing? Is there a 'sub' conscious processor? Is there a *suprapersonal unconscious*?

Weisberg inadvertently poses an important related question: "If consciousness is a serial processor with limited capacity, while the unconscious is a parallel processor with much greater capacity, how can the individual coordinate them? Somehow the individual must be able to direct....the undirectable subconscious process, so that insights result" (p.410). He has made interesting assumptions that raise some interesting questions. Does the 'individual' direct the 'sub' conscious? Is the 'sub' conscious undirectable? Why does he think it is necessary to direct the 'sub' conscious? Could one imagine the possibility that the 'sub' conscious directs us? Or, does it direct itself, out of sight and out of mind from conscious awareness and ego?

This leads me to a hazy space. It may be a holdover from my Christian belief system – the idea of an 'intelligence' within me, or accessible through me, has 'god-like' origins. The desire that this intelligence is protecting and guiding me is somewhat comforting. On the other hand, however, if such an intelligence existed, then the ideas of fate and free will would clash quite violently within my brain – perhaps resulting in a mushy thoughtless soup. Maybe this 'intelligence' is simply our own brain enhanced by creative energy. Or perhaps this creative energy helps us 'synchronize' with our environment giving us access to a much larger source of information – the wholeness or oneness of everything that is. I don't know. All I know is that my

search for meaning will continue until I cease to exist. Much like an upward moving spiral, I will move up along the twister as the opening at the top gets wider and wider and the questions get bigger and bigger and the answers blow me to the next level, in an infinitely twisting spiral where size doesn't matter, where there is no outside, and everything we do affects everybody else.