## THE PSYCHOBIOLOGY OF THE IDEO-DYNAMIC PROCESS



**TUTOR TALK:** As most students are no doubt aware, the nervous system operates via transmitted messages rather like a complex telephone exchange.

A *stimulus* from the outside world produces a *response* within a sensory organ. In turn, *impulses* (messages) are sent along the nerve pathways to the brain. Nerves (*neurones*) are each separated from the next by tiny gaps (*synapses*), and it is the role of *neurotransmitters* to carry the impulse across the gaps. The process of carrying impulses across the synapses is called *neurotransmission*.

The neurones, or nerve cell units, are self-repairing and self-wiring. They can,

- amplify
- promote
- block
- inhibit
- attenuate

the minute electrical energy signals which have been passed to them, through them and from them. As a result of these complex range of actions, there occur an incredibly complex range of signalling patterns between, and within, the neurone network, including the cerebral network which is the physical mind.

## **NEUROTRANSMITTERS**

The process of signalling between and within groups of neurones occurs as a result of the neurotransmitters, which are minute quantities of chemical substances. These neurotransmitters stimulate selected neighbouring neurones, causing an electrical response which, either by excitation or inhibition, and frequency, reflect the pattern of stimulation.

In this way, the nerve impulses are passed on from cell to cell. This continuous alternation between electrical and chemical conveyance of signals on their journeys through the pathways of the brain and nervous system, provides a special opportunity for the traffic of electrical impulses to be modulated or blocked as they attempt to jump the gap between one neurone and the next at their junctions, transposed into pulses of chemical substances.

This is the point where selected constellations of neurones from the vast array of neuronal populations can effectively interact, one with another, to filter, edit, integrate and add precise direction to their interplay of communication.

## **NEUROMODULATORS**

More recent research into neurotransmission has shown that there is a further class of messenger that modulates neurotransmission. These second messengers are hormonal information substances which stimulate or inhibit neural action as well as the activities of most other cells, tissue and organ systems of the body.

These hormonal substances, neuromodulators, have the capacity to enhance or decrease the extent of release of neurotransmitters.

As an example of this, the neuromodulator *adenoisinetriphosphate (ATP)* secreted with the neurotransmitter will decrease noradrenaline release from certain nerves.

It has been found that a sudden shock or stressful event, such as a car accident, produces a kind of neuromodulator which in turns alters the action of neural systems in the brain so that memory is dealt with in a different way, so that the images and sensory inputs of the accident are stored in the memory of the victim in a type of altered state of consciousness.

In this way, as the accident victim returns to normal consciousness from a kind of "daze", the vivid details of the horror appear more or less forgotten.

The memories of the accident were encoded while the stress-induced hormonal information substances were released. As the mind returns to normal, so that altered state cannot be accessed and the memories are not available to normal consciousness.

It is the very nature of these unaccessible memories that causes nightmares – as the victim sleeps, an altered state of consciousness is produced and access to the memories occurs. In addition, these "repressed" memories can cause psychosomatic and psychological illness.

Traumatic life situations can often cause stress-encoded problems which are reflected by psychobiological processes.

The ideodynamic process for such events would be to facilitate the focusing of attention by the patient on the reliving of the sensory details, cues, emotions and circumstances of the life event or trauma. By making the association within the mind, the memories can be accessed which are state-dependent and often non-verbal, i.e. graphic vision.

## THE HYPNOTIC STATE

The hypnotic state is accessed by all of us, every day of our lives.



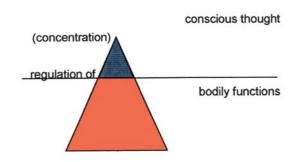
**TUTOR TALK:** Those students who drive, or even those who are just passengers in a vehicle will be familiar with the feeling of being "miles away", and "deep in thought" to the point where one cannot remember the last few moments of driving.

Children are excellent examples of people in trance states when they are "glued" to the television screen – so absorbed that they are unaware of anything else around them. The hypnotic state is a very natural state of mind, and a very healthy state of mind.

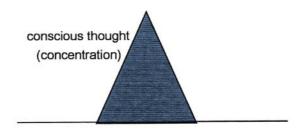
Essentially, the human mind operates on 4 differing activity levels.

- beta
- alpha
- theta
- delta

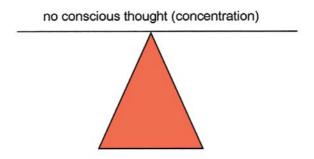
**BETA** level is the level of normal, *complete* consciousness, ie the level on which we function during the waking day. This beta level allows regulation of bodily functions, such as heart, lungs, gastro-intestinal and kidney functions. The beta level is further divided, with 75% on monitoring bodily functions and the remaining 25% operating our conscious thought.



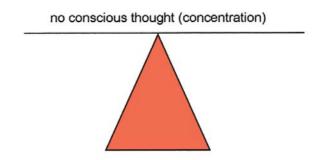
**ALPHA** level is the level of our *sub*conscious mind. Examples of alpha levels are hypnosis, meditation, daydreaming, the points of crossing into sleep and out of sleep. Within this level we have 95-100% concentration ability. We are *awake* and *aware*.



**THETA** level is the level of our *un*conscious mind when in light sleep, i.e. *not* awake and *not* aware. We dream within this state.



**DELTA** level is that of deepest *un*consciousness, where we obtain maximum rest. No hypnotic suggestions will be heard – there is no awareness. This stage lasts for around <sup>3</sup>/<sub>4</sub> hour per night.



Every day we go through a cycle of all levels:

- alpha (crossing from sleep)
- beta (full consciousness)
- alpha (daydreaming)
- beta (concentrating)
- alpha (daydreaming)
- beta (concentrating)
- alpha (daydreaming)
- beta (concentrating)
- alpha (crossing into sleep)
- theta (light sleep)
- delta (deep sleep)
- theta (light sleep)
- and so on

To further complicate matters, the mind is divided (not physically) into two halves,

right
emotional
imaginative
creative
pictures
senses
feeling

Within the alpha level (hypnosis), the *left* hand side is shut down as far as possible, using relaxation techniques. As every muscle relaxes, movement decreases (ie the desire and therefore *perceived* ability to move decreases). As a result, concentration increases, within the *right* side of the mind where our senses, feelings and creative imagination operate.

Within the hypnotic state, with a highly sensitised right hand side of our brain tuned in to maximum efficiency, we are receptive to *ideas*.



**TUTOR TALK:** The student can now appreciate how the *ideo*-motor, i.e. pertaining to *ideas* technique can be employed to facilitate *dynamic* healing within the body.