

THE MIND - BODY CONNECTION: A NEOBEHAVIORIST APPROACH.

Have you ever wondered why you behave and react in a certain manner? Have you noticed how your emotional state influences your physiological being? This is because our mind stores our experiences as memories and those memories trigger emotional, physical and behavioural responses; sometimes without us even being aware of the process!

Many years ago, people believed that the mind and body were two separate entities, and through the years, several individuals have attempted to prove that the mind and body are one; that our body responds to what we think or feel. The call for scientific credibility and validity has driven our culture for many centuries and the need for empirical testing of the mind-body connection was instrumental in the rise of a particular approach of behaviourism; named neobehaviorism.

This article will explain how our behaviour is created, how we store our memories and what influence those memories have, on both a conscious and subconscious level, within a neobehaviorist framework.

One Approach: Neobehaviorism

Neobehaviorism was an influential psychological approach of the 1950's and 60's. Enthusiastically embraced and endorsed by prominent Harvard psychologist B. F. Skinner, neobehaviorism was "profoundly committed to the empiricist tradition of western science" (Lachman & Butterfield, 1979, p. 39). In more simple terms, neobehaviorism proposed that behaviour can be *scientifically* tested and explained. To demonstrate this, Skinner devised the "Skinner box", in which an animal would be rewarded for accomplishing an act such as raising its head above a certain line or pressing a lever to attain the release of food pellets. Skinner explained that a movement rewarded (reinforced) in this way was more likely to occur, while behaviours that were punished were reduced and subsequently eliminated.

Creating Behaviour Through Positive/Negative Reinforcement and Punishment

Neobehaviorism proposes that all behaviours occur in response to a given factor (or stimuli) and that future behaviours are consequently shaped by the elicited response. *Positive reinforcement* occurs when a pleasant or desirable consequence follows a certain behaviour, while *negative reinforcement* occurs when the behaviour is changed due to a removal of unpleasant stimuli. Punishment however is designed to decrease the frequency of a specific

response by the use of an 'aversive stimuli', such as a whip or spurs (if used as punishment, not as a training aid).

It is important to distinguish that while both positive and negative reinforcement aim to increase the frequency of a response, punishment aims to decrease the frequency of a response.

Here's a way of thinking about this concept in 'horse language':

Positive reinforcement - we are float loading a young horse; we quietly ask the horse to step onto the ramp, each time he does, we reward him with pats and carrots.

Negative reinforcement - we are float loading a young horse; we tap the horse lightly but constantly with a whip or swing a rope, stopping only when the horse steps onto the ramp.

Punishment - we are float loading a young horse; we ask the horse to enter the float, if he evades the exercise in anyway, perhaps by trying to turn away from the float or by pulling or rearing, we use our voices, or a whip or rope to 'reprimand'.

Often, we use a combination of all three – think about your training methods and relationship with your horse; which approach do you use the most commonly? And how does reinforcement and punishment influence *our* behaviour?

Unconscious Perceptual Analysis

When we receive a response or reaction to our behaviours, we register them, hold them briefly and then analyse them perceptually, meaning that they are noted mentally. This process of perceptual analysis is largely unconscious, it is not limited by attention, and the results of all our perceptual analyses are stored in our memory. The results of these perceptual analyses must then be retrieved from our memory in order to execute a response/reaction/behaviour. That response will depend on whether the memory involves positive or negative reinforcement or punishment.

Mind stores experience as memory

Our memory is our own way of storing our individual experiences. Our capacity to remember certain events requires a combination of at least two strategies used by the brain to acquire information: *explicit memory* underlies memory for events and the circumstances of their occurrence; it requires *conscious* participation and involves the hippocampus and the temporal lobes

of the cerebral cortex of the brain. *Implicit memory* on the other hand, encodes information about perceptual and motor skills *unconsciously*, using non-cortical structures. Many learning tasks require both memory systems.

This means that our reactions are influenced not only by the experiences we are able to recall consciously, but also by those that we have processed, analysed and formed responses to ... totally unconsciously. Of course this has enormous repercussions as riders and also helps us to understand some of our horse's responses a little easier.

Memory is influenced by the emotional state at the time of the experience

State-dependent memory is a term which explains the context in which we store our memories. This means that the memory will be stored (consciously or unconsciously) in relation not only to the circumstances of the specific event, but also to the emotional state which was characteristic of or caused it. This creates a cyclic effect: whenever that specific memory is activated so is the corresponding emotional response, and, whenever the emotional state is activated, so is the corresponding memory.

When this is considered, it becomes easier to understand how some situations evoke specific emotional responses, and also how some emotional states can trigger a specific memory – remember this may be done on either a conscious or sub/unconscious level.

Physiological responses to memory

Keeping the above information in mind, it is easy to see how our conscious and unconscious memories (due to positive/negative reinforcement) are able to evoke emotional responses. Emotional responses involve changes in the chemical and electrical signals within the body; these changes are instantaneously translated into physiological responses. These physiological responses may include increased pulse or respiration, nausea, dizziness or faintness, headache, and even stuttering.

When we consider the incredible sensitivity of the horse, it becomes clear how our emotional states, triggered through *conscious* or *unconscious memories* and consequently influencing our physiological condition, are easily read and translated by our mounts.

As we begin to realise how our emotional states and memories influence our physical being, we are able to connect to some of those memories and create a different, more positive approach. More information about this approach may be attained through reading literature pertaining to Neuro-Linguistic

Programming (NLP), an excellent example of which is Wendy Jago's book; Schooling problems solved with NLP (2001).

References.

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