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## Expanding the Neuro in NLP

We can think what we like about our brains, the brain doesn't mind. It even allows us to conceive, remember and believe the silliest theories about itself. Neuro-science is full of scattered statistics and measurements; what we lack are the grand dreams that encompass all the data and that enable us to better understand the neuro in NLP.

### *1 Learning*

Working with NLP demonstrates that for humans a single experience may be sufficient to build an entirely new line of thought and behavior. To understand how 'one trial learning' can occur within NLP change work, we need to look at the neuronal basis of learning.

Most contemporary neuro-scientists agree that learning takes place at the neural switch points – the synapses. Research has shown that experience can change synapses: they can become either stronger or weaker; and this change can persist for a lifetime. Changes in synaptic conduction are without doubt the basis for learning and long-term memory. But how exactly does this work?

Generations of psychologists adhered mistakenly to the so-called 'Hebb rule' which maintained that using a neural connection will automatically strengthen it. In other words, the more you think of something, the better you learn it. But Sinclair (1981) turned this Hebb rule upside down.

According to Sinclair synaptic connections get stronger while they are resting, right after they have been used. Just using a synapse only weakens it. In other words, thinking about the same thing continuously reduces the neural connections involved. And such weakening of connections means extinction, amnesia or reverse learning. Only when we stop, after thinking about the same thing for a while, do we provide the used neural connections with a period of rest. During this rest the connection is strengthened again. And provided that the synaptic con-