“If you always get what you’ve always got you’ll always do what you’ve always   
 done”[[1]](#footnote-1) - how therapy can be helpful.

As discussed in the previous articles our understanding of ourselves and the world are set up *in relation to* other people, predominantly in our childhood. Our interactions with the world and with other humans quite literally *wire* *our* brains with the “programming” that will be used to navigate our way through life. If you are interested in reading about how this happens without too much complicated neuroscience a really accessible book is “The Brain, The Story of You” by David Eagleman.

It used to be believed that once our brains were “programmed” the programming was permanent. It was believed that any deficits or unhelpful “wiring” could not be improved. Our brains and hence our thoughts, beliefs, ways of viewing and being in the world were set and we had to live with what we had.

In recent years Neuroscientists have discovered that the brain retains a level of *plasticity* throughout life, it retains the ability to change and be changed in response to new experiences.

In evolutionary terms, this makes good sense, our ability to learn and adapt helps us to survive. We need to be able to adapt our behaviours in light of new information, for instance a stream that is no more than a babbling brook in the summer months and hence easy to cross, may turn into a torrent when swollen by ice melt in the spring and will wash us away if we attempt to cross then; the new information we receive allows us to modify our understanding of the stream, change our behaviour and protect ourselves from harm.

The same is true in psychological terms and “re-wiring” can take place when facilitative conditions are provided. Connections are formed within our brains when pairs of neurons fire at the same time and the more often the pair are triggered together the stronger the link will grow “neurons that fire together wire together”[[2]](#footnote-2).

So much information bombards us every second of every day we cannot hope to take it all in and process it quickly enough to react appropriately so our brains use our implicit memories to “pattern match”, we unconsciously sort through our memories for something from the past that at least roughly resembles the situation we are facing and we use the response from that experience as our starting point in the new situation. For example, if anger equalled violence in our childhood and we are approached by an angry person we predict the outcome of this interaction will be violent and prepare ourselves physically and psychologically for that. We automatically use memory matching to work out how to react in the here and now, even where the people and situation differs from the original.

By providing a *different experience*, provoking a *memory mismatch[[3]](#footnote-3)* in the therapeutic relationship we are triggering the brains inbuilt ability to reconfigure itself and enable change for our clients.

1. Judy Knight [↑](#footnote-ref-1)
2. Hebbs Law (or Rule) http://thebrain.mcgill.ca/flash/i/i\_07/i\_07\_cl/i\_07\_cl\_tra/i\_07\_cl\_tra.html [↑](#footnote-ref-2)
3. http://www.neuropsychotherapist.com/memory-reconsolidation-understood-and-misunderstood/ [↑](#footnote-ref-3)