Further Reading, Neural Resonance, 'Primal Leadership' (extract) - Daniel Goleman

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> - from 'Primal Leadership', Daniel Goleman et al

"Scientists describe the open-loop (neurological system in humans) as "interpersonal limbic regulation," whereby one person transmits signals that can alter hormone levels, cardiovascular function, sleep rhythms, and even immune function inside the body of another ('co-regulation')… in all aspects of social life, our physiologies intermingle, our emotions automatically shifting into the register of the person we're with. The open-loop design of the limbic system (the emotional brain) means that other people can change our very physiology – and so our emotions.

Even though the open loop is so much a part of our lives, we usually don't notice the process itself. Scientists have captured this attunement of emotions in the laboratory by measuring the physiology – such as heart rate – of two people as they have a good conversation. As the conversation begins, their bodies each operate at different rhythms. But by the end of a simple fifteen-minute conversation, their physiological profiles look remarkably similar – a phenomenon called mirroring. This entrainment (synchronisation) occurs strongly during the downward spiral of a conflict, when anger and hurt reverberate, but also goes on more subtly during pleasant interactions. It happens hardly at all during an emotionally neutral discussion. Researchers have seen again and again how emotions spread irresistibly in this way whenever people are near one another, even when the contact is completely non-verbal. For example, when three strangers sit facing each other in silence for a minute or two, the one who is most emotionally expressive transmits his or her mood to the other two – without speaking a single word.

… The amygdala (a part of the brain) and connected circuits keep us in sync as a key relay station in the interpersonal open-loop for emotions. This circuitry also attunes our own biology to the dominant range of the feelings of the person we are with, so that our emotional states tend to converge. One term scientists use for this neural attunement is 'limbic resonance' - "a symphony of mutual exchange and internal adaptation" whereby two people harmonize their emotional state. Any time we have a genuine connection with someone where we've felt "on the same wavelength" – whether a pleasant time or even a good cry together – it signals that we've just experienced such an interlocking of brains.

(Goleman et al, (2002) Primal Leadership, p7; p48)