







Information Processing & EMDR

¥ When processed traumatically, or under fearful circumstances, experiences are encoded, but <u>unlinked</u> to existing neural networks, precluding processing into adaptive resolution.



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¥ Consequently, new information, positive experiences and affects are unable to functionally connect with the disturbing memory.

¥ This impairment in linkage leads to a continuation of symptoms and to the development of new triggers.

Information Processing & EMDR

- ¥ EMDR procedures facilitate access to dysfunctionally linked experiential components, allowing them to be integrated/linked within appropriate emotional, cognitive, somatosensory, and temporal systems.
- ¥ This facilitates the effective processing of traumatic or disturbing life events and <u>associated beliefs</u>, to an adaptive resolution.

Information Processing & EMDR

¥ As a result of effective EMDR treatment, previously impaired linkage or binding mechanisms in the information processing system are repaired,

¥ facilitating real-time access to appropriately linked emotional, cognitive, somatosensory, and temporal systems.

















			Neural Oscillation	
	Delta	0.1 - 3 Hz	deep sleep, lucid dreaming, increased immune functions, cognitive memory	Parietal & Temporal
	Theta	3 - 8 Hz	deep relaxation, meditation, increased memory, focus, creativity, lucid dreaming, emotional memory	Parietal & temporal
	Alpha	8 - 12	light relaxation, "super learning", vision, imaging	Occipital
	Mu	7 - 11	Mirror neuron activity	Throughout the brain
	Low Beta	12 - 15 Hz	relaxed focus, improved attentive abilities	
	Mid- range Beta	15 - 18 Hz	increase mental ability, focus, alertness, IQ	Parietal & frontal
	High Beta	above 18 Hz	fully awake, normal state of alertness, stress and anxiety	
	Gamma	31-100 Hz	Predominately 40 Hz associated with information-rich task processing and high-level information processing & integration.	Entire brain



MEMORY SYSTEM	S and a set
 ¥ PERCEPTUAL REPRESENTATIONAL ¥ aka NONDECLARATIVE ¥ Implicit ¥ Unconscious ¥ Somatosensorial ¥ Non-verbal 	
¥ EPISODIC ¥ Explicit ¥ Procedural	
¥ SEMANTIC ¥ Hyper-associative ¥ Meaning	













Attention and Memory

After the perceived event is no longer attended to, the distributed networks of the engram (neural map) deactivate/unlink their synaptic connections.





















