

Neuroscience Hypothesis for *The Book Fay*

by D.C. McGuire

Newness rewards humans with their own, endogenously produced opioid, dopamine (DA)*. Integral to human survival, its biological purpose is to catch and hold our attention long enough to register whether a new person or creature, is friend or foe, if the behavior or circumstance is dangerous or pleasing, and to store a memory of whatever was just experienced for the future safety*.

Strong emotions, drugs, sex, certain foods, alcohol, conquest, acquisition, risky behaviors, and, meditation are all rewarded with DA.* However, the pleasures associated with these experiences decrease with repetition, inducing a need for ever-larger doses of DA-producing substances, or amplified experiences of DA-producing behaviors, in order to maintain the same intensity of pleasure.*

The exception to that cycle of tolerance is meditation. Meditation, which breaks up old neuronal patterns, built by habitual thinking, continuously supplies the newness to perpetuate DA rewards. Meditative states are capable of increasing DA secretions by 65%.(Kjaer, et al., "Increased dopamine tone during meditation-induced change in consciousness", 2002)

In *The Book of Fay* (TBF), each image produces its own unique flood of reactions, and with it, a continued dose of DA. The paradoxically familiar/unfamiliar images evoke surprise and curiosity, inducing a startle response* of strong emotions to the new and unexpected. Does the photo elicit joy, fear, reassurance, or reawaken feelings linked to past memories? While the brain attempts to categorize or understand the nature of what is being seen, novelty and cognitive dissonance demand a DA release.

DA competes for the receptors connecting neuronal pathways to executive functions in the prefrontal cortex, and in so doing has the potential to circumvent or release embedded patterns of thinking. (P. Sharp, "Meditation-Induced Bliss Viewed as Release from Conditioned Neural Patterns which Block Reward Signals in the Brain Pleasure Center", Bowling Green State University, Bowling Green, OH, 2012) TBF's novel montages, guided by the unique energy of each location and explicitly explored for

healing and wisdom, may sustain the DA release to move participants beyond the familiar, to safe contemplative spaces of expansive consciousness and potential enlightenment.

Because the impulse behind TBF is to encourage expansion of both personal and collective wisdom, these images may be capable of instigating deep exploration of universal states of being. In a condition of universal connection, the “bond and befriend” neurochemical, oxytocin (OX) circulates throughout the body.* Feelings of relationship and well-being increase, cooperation, compassion, and collaboration are natural outcomes, problem solving becomes simpler, and outcomes more sustainably valuable.

Brain regions, like muscle groups when “pumped” regularly, become stronger and the “go-to” pathways for cognitive functioning.* Brain scans would demonstrate that repetitious use of TBF could physically re-wire the brain for sustained benefits. Repeated interaction with TBF would be expected to enhance human capacity for long and short-term problem solving. Combined with increased compassion and an enlarged ability for collaboration potentiated by TBF, the outcomes could be transformational for humanity.

Conclusion: The Book of Fay is a tool with a capacity to reach deeply into the human mind, and transcendental spirit. Whether the interaction is intellectual, physical or



spiritual, the images encourage a state of concentrated focus that would be predicted to alter neurochemistry, simultaneously initiating positive neuroplastic and epigenetic changes.*

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*Scientific data available on request.