

## **CHAPTER X: PUTTING IT ALL TOGETHER**

Well, how do we tie all this together? I borrowed this slide from Kathleen Hui, who's been trying diligently to teach me a little bit about the underlying neurobiology of these networks. And when I saw, I'll have to say I began, and as I was organizing this talk, I began to feel a little bit the way I felt at the end of the Oliver Stone movie, JFK, you know, when the conspiracies start coming fast and furious and, you know, maybe it was the CIA and maybe it was the Cubans and, oh, well, maybe it was the Teamsters and, you know, you're not equally quite sure what's going on and my guess is you may have the same impression as we're going.

There's a nice quote that I think highlights perhaps the most constructive lesson that we've learned from this talk so far, a wonderful quote from Adrian Owen where he talks about the translation gap, the difference between our ability to acquire beautiful pictures and our ability to understand them. And his quote, of course, is that our understanding for interpreting the pictures still lags very far behind our ability to acquire them, and then ends with the positive statement that the best is really yet to come, that the tools are powerful, we will learn how to use them.

And indeed, even with all the questions, there are certainly some conclusions that we can now make and I think with a quite high degree of confidence, having been plugging away at it for many years now. There are focal effects of acupuncture. They do seem to involve deep brain and cortical areas in a very salient way. The early brain response seems to be related to these areas and it's definitely connected to this Deqi sensation and it's distinct from other kinds of physical sensations, simple sensory responses or painful stimuli, it's quite distinct.

And what we're left with, of course, is how these early modulations in the limbic system, perhaps in dopamine, relates to then subsequent interactions with other neurotransmitter systems and how those all relate to how acupuncture may have long-term effects on the brain, which ultimately are more related to the kind of therapeutic effects that acupuncture's been purported to show.

And so with that, I'd like to give thanks to the many investigators who I've had the great privilege to work with and of course, my very generous and encouraging patrons,

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both here at NCCAM, at NCRR and at the New Mexico MIND Institute. Thank you very much.