

## SOE13: The goal of religion

Post by “Elayne” of January 2, 2020 at 7:54 PM

Ok Hiram, the first study on runners and meditators was small and methods are behind a paywall, but the purpose was to correlate mood changes with CRH, corticotropin releasing hormone, using the stimuli of running vs meditation, and they found no differences between the runners and the meditators. Both groups were highly skilled so self-selected for liking the activity. Would have interesting if they'd crossed it over, lol, and had the meditators run, etc. It's hard to generalize pleasure obtained by a group who already know they like an activity to a random person. But it goes with the idea that if an individual likes an activity, they'll get pleasure from doing it and there will be biochemical evidence of that.

I wouldn't advise citing that study as evidence for benefit of meditation-- that wasn't the study question.

The one on gray matter changes did have full access. It was also very small, 20 meditators and 15 controls, and they were testing a hypothesis that specific areas of the cortex would be thicker in meditators. Although more would need to be done to confirm, that wouldn't be surprising -- it would fit with other research showing brain changes with activity. There was not any overall thickening of the cortex. Just in specific regions.

But then they did what appears to be a post-hoc analysis (not in their original hypothesis) of age-related changes, looking for correlations by age group, and this made the comparison groups even smaller. Post-hoc analysis gets called the spaghetti method-- throw the data on the wall and see what sticks. It's considered bad form because what looks like a pattern is more often not there in attempts to replicate. So I wouldn't draw any conclusions from that part.

None of that really has anything to do with pleasure though. We'd need to ask the subjects about that, to know if cortex thickening correlates with pleasure. I've never seen that specific question asked but it's not my area, so maybe it has been.

I hate to say it, but the state of medical research is very very poor. People are publishing to get tenure and promotions. If you read Cochrane reviews on a question, generally they will say things like "we located 500 studies on x thing. 495 did not meet criteria for study design (not blinded, etc) and the 5 remaining were too small to draw any conclusions from." I'm exaggerating a little, but it is pretty pitiful.

Anytime you want my feedback on a study you want to cite in a paper or book in the future, I'm happy to look at it if not behind a paywall.