

**From:** MARK TRAMO <[REDACTED]>  
**To:** "jeffrey E." <jeevacation@gmail.com>  
**Cc:** Lesley Groff <[REDACTED]>  
**Subject:** Re:  
**Date:** Fri, 26 Aug 2016 14:42:14 +0000

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Brilliant, Jeffrey! -

Did you save the output of the simultaneous recordings to an mp3 file? Would love to hear and discuss! I wonder what it would sound like if we digitally edited the recordings so they were all in the same key. It's now possible to do that without changing the duration of each frequency, the bugaboo of trying to do that in the old days. (FYI - Sir George Martin, our Institute Board member who passed away this year, managed to co-register recordings made in different keys into one key on Strawberry Fields in 1966!!!):

<https://www.beatlesbible.com/songs/strawberry-fields-forever/2/>

Following up on what you told me about a beautiful face indexing the mean of many faces, here's a paper by Dale Purves and colleagues that suggest something similar for aesthetics in music:

<http://www.jneurosci.org/content/23/18/7160.full.pdf+html>

So sorry we have been out of phase this month in trying to follow up on this - might you be available Sat (tomorrow) between 12N-3P NY time or Sunday between 11A-12M NY time?

Yours,  
Mark

On Sun, Jul 10, 2016 at 5:47 AM, jeffrey E. <jeevacation@gmail.com> wrote:

today I conducted an experiment encouraged by Noam's wholly justified aggressive and detailed directives to **joscha**. **joshcha** focused on layers being developed in the brain . the timing for the development of each layer being different per species .

I postulate that music might be a frosted window into that structure. symphonies begin with their first "layer" a theme. in fact , there might be more than one theme in the first layer , , the second part of symphonic form is the complex development stage. where those themes are inverted, deconstructed , reconstructed etc ,and the development stage takes the most time . in the conclusion of the symphonic form the recapitulation of all that has come before it forms a " **phenenoma** of the piece " a whole ,made up of its smaller concepts . As opposed to listening to music to record which neuron is firing, as most **musciologists** attempt . I propose that the music may be the audible result of those neurons firing, made possible by a select few who would attempt to notate those neuronal firings. Beethoven for example.

The experiment . I mashed all of the four symphonies together , playing recordings of the 3rd 5th 6th 7th all **overlayed** on each other, playing at the same time. - the way a brain might develop. I expected an ordered noise but to the surprising contrary , IT WAS AMAZING. . you can hear new "concepts" forming,

**if** wonder whether in the mind of a blind child , the " music" would be created even without the visual **referential**. but created none the less. later when the visual can be tied to concepts , the anatomy may be hijacked to produce sounds . that somehow relate to the concepts. .

I tried to mix music from different cultures- it didn't work. African does not work with western **europa**,- **chinese** works with neither of the other two. but within the same cultural music ( the brain of the local species ) the mash ups are beautiful.

I would note that computers engage in "parallel processing" only in order to take a hard problem and break it into its component parts, working on each component separately, here each problem interacts and the their resolutions interact in remarkable ways.

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