**Electrical Brain Responses to an Auditory Illusion**

**and the Impact of Musical Expertise**

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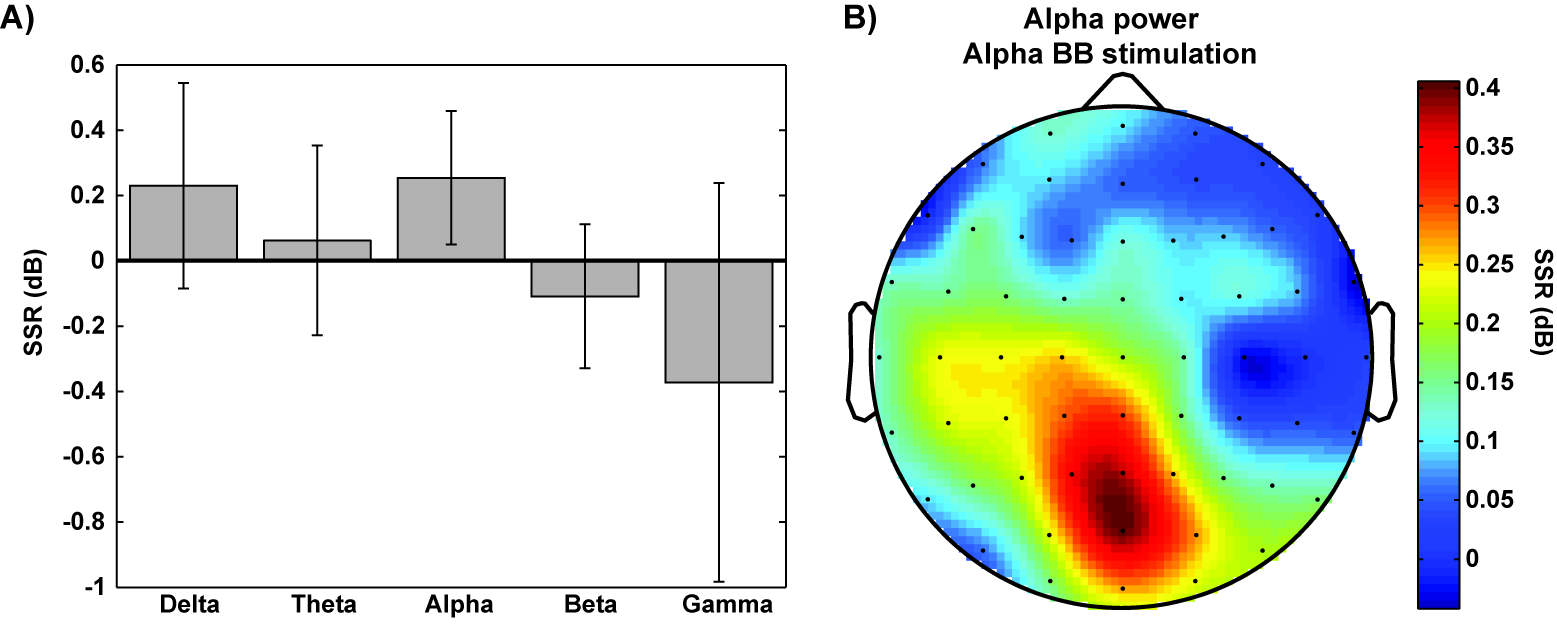
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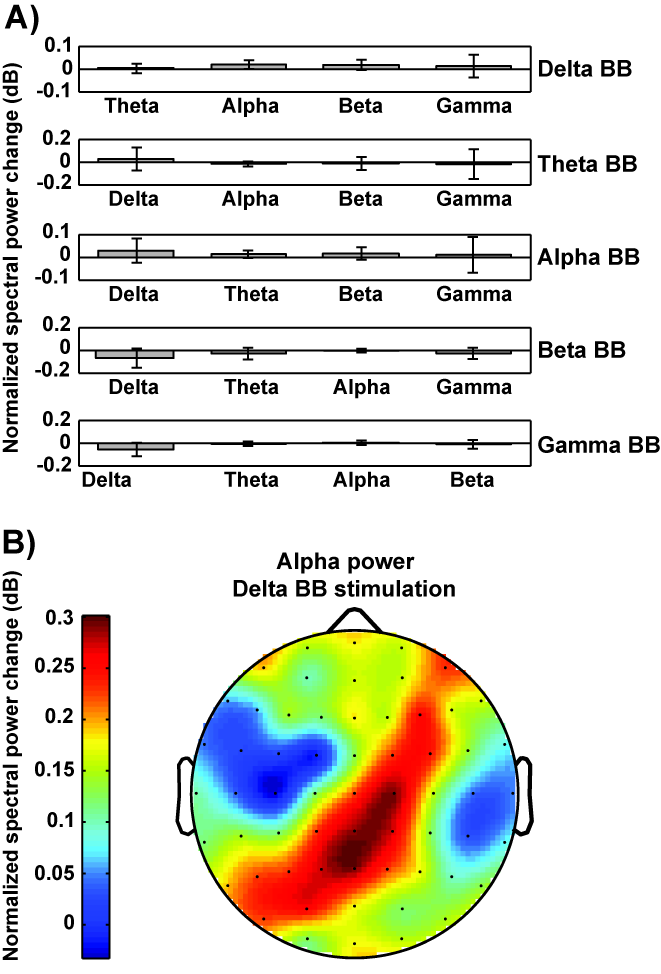
**Additional Power Analysis**

We calculated normalized SSRs for all five EEG frequency bands (Figure A). Any value systematically larger than zero would suggest a significant frequency following response for that frequency band specific BB stimulation. Five separate one-sample *t*-tests were conducted (Bonferroni-corrected *P*, *Pcorr* = 0.01) and only the alpha-BB revealed a significant effect in its SSR. Although some of the effect sizes of the SSRs in other frequency bands were considerable (i.e. delta-BB and gamma-BB), these effects turned out to be non-significant (*P* > *Pcorr*) due to large variability across participants.



**Figure A**. Normalized SSRs in each frequency band across all participants, error bars indicate 99% confidence intervals. A significant effect was observed during alpha-BB stimulation.

Next we investigated the cross-frequency responses against BB stimulation and the results are shown in Figure B. For each EEG frequency band specific BB stimulation, we conducted four separate one-sample *t*-tests (*Pcorr* = 0.0125). The only significant effect was found in the alpha-EEG power for low frequency delta-BB stimulation (*t*31 = 2.67, *P* = 0.012 < *Pcorr*, *d* = .47); for BB stimulation at the rest of the frequencies, we did not find any cross frequency effect surviving the Bonferroni-corrected level of significance.



**Figure B.** Cross frequency responses against BB stimulations, error bars indicate 99% confidence intervals. A significant enhancement of alpha-EEG power during delta-BB stimulation was found.