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Music and the Mind

Prof. Olivia Kang

The Mozart Effect

Discussion of "Arousal, Mood, and the Mozart Effect"

(Thompson, Schellenberg, Husain, 2001)

The central finding of this paper, that the Mozart effect is due to arousal and positive mood rather than to some other special property of Mozart's music (or, indeed, of the genre, or perhaps even of music generally) seems plausible to me in principle. I do think it would be interesting, however, to test a broader panel of music rather than the two used in this study. This experiment pits happy music against sad, basically, which is an extreme case. In the middle ground, I would be interested to know whether there are any secondary characteristics of music which may enhance the Mozart effect - e.g. if a rock song and a classical song give me exactly the same amount of arousal and positive mood, might the classical song have a slightly stronger effect for some reason? Speaking very unscientifically here, this reason could be that its more sophisticated structure warms up some brain area. Or it could be a kind of placebo where people feel smarter after listening to classical music - which is still relevant!

I also think it's interesting to consider the possible applications of these findings. In the classroom or the workplace, for example, perhaps music should be used more heavily as a productivity booster. There are certainly implementation issues here. People differ in their genre preferences, whether they like to listen to lyrical music or any music at all in particular circumstances, etc. But perhaps we can imagine a classroom in which students are allowed to listen to music in one ear at a moderate volume as they please. Certainly, there is potential for that to be distracting, but I think if it's implemented carefully it's very plausible that it would improve students' enjoyment of school and their educational outcomes.

Research Proposal

I hypothesize that the behavior of kennel dogs exposed to music is sensitive to several features of the music, including tempo, tonality, and rhythm. The participants are kennel dogs, and their task is just to go through their typical days, except that I will be playing various kinds of music for them and recording their behavior. The independent variables are the tempo, tonality (at least a binary for major/minor), and rhythm (perhaps meter and amount of syncopation) of the music played for the dogs. The dependent variable of interest is how well-behaved they are. I'm not sure what the best way is to measure this explicitly; I'll have to do a bit more review and take a cue from the previous literature on that.

The results will inform our understanding of non-human animals' experience of music. If the hypothesis is true, then the effect of music on non-human animal behavior resists reduction (e.g. "they're just paying attention to the tempo, not the music *per se*"). The more distinct features of music that are found to be relevant to behavior, the more we should believe that the dogs are experiencing music as music in some sense, rather than just as another sound. Further research could extend to other animals in other settings, perhaps performing directed tasks rather than simply going through their day and having their behavior evaluated.