The Role of Music Training in the Development of Mind, Social Behavior, and Brain
Assal Habibi
Are intelligent people better at music or Does musical training lead to higher intelligence?

NATURE

Genetic Predisposition

NURTURE

Music Education
To investigate the effects of systematic group-based musical training in children between ages 6 and 7 and to follow them for 5 consecutive years so as to explore the effects of such training on their brain, cognitive, social, and emotional development.
Structural Neuroplasticity

Habibi et al., 2017
Working Memory

Impulse Control
Working Memory – Music

Music Group Control Group

2 years music training

3 years music training

Habibi, Cahn, Damasio, A., & Damasio, H. (2016)
# DELAYED GRATIFICATION

Do you prefer to have 1 M&M /quarter NOW or 2 LATER?

<table>
<thead>
<tr>
<th>Reward</th>
<th>NOW</th>
<th>LATER</th>
<th>NOW</th>
<th>LATER</th>
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</thead>
<tbody>
<tr>
<td>Small Reward</td>
<td><img src="image" alt="1 M&amp;M" /></td>
<td><img src="image" alt="2 M&amp;Ms" /></td>
<td><img src="image" alt="2 quarters" /></td>
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<tr>
<td>1 vs. 2</td>
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<tr>
<td>Medium Reward</td>
<td><img src="image" alt="1 M&amp;M" /></td>
<td><img src="image" alt="4 M&amp;Ms" /></td>
<td><img src="image" alt="4 quarters" /></td>
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<td>1 vs. 4</td>
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<tr>
<td>Large Reward</td>
<td><img src="image" alt="1 M&amp;M" /></td>
<td><img src="image" alt="6 M&amp;Ms" /></td>
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<td>1 vs. 6</td>
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</table>
COGNITIVE INHIBITION

Name the Color of the Word

Blue

Sachs, Kaplan, & Habibi (2017)
Auditory Skills  Academic Achievement
Working Memory  Self Esteem
Impulse Control  Health and Well-being
Brain Function  Community Engagement
Brain Connectivity

Habibi, Damasio, A., Illari, Sachs, & Damasio, H. (2018)
The BCI Brain and Music Program

Assal Habibi & Hanna Damasio

Beatriz Ilari
Jonas Kaplan
Matthew Sachs
Priscilla Perez
Katrina Heine
Alison Wood
Sarah Hennessy
Antonio Damasio