

EMOTION AND
MELODY |

ARTICLE 1

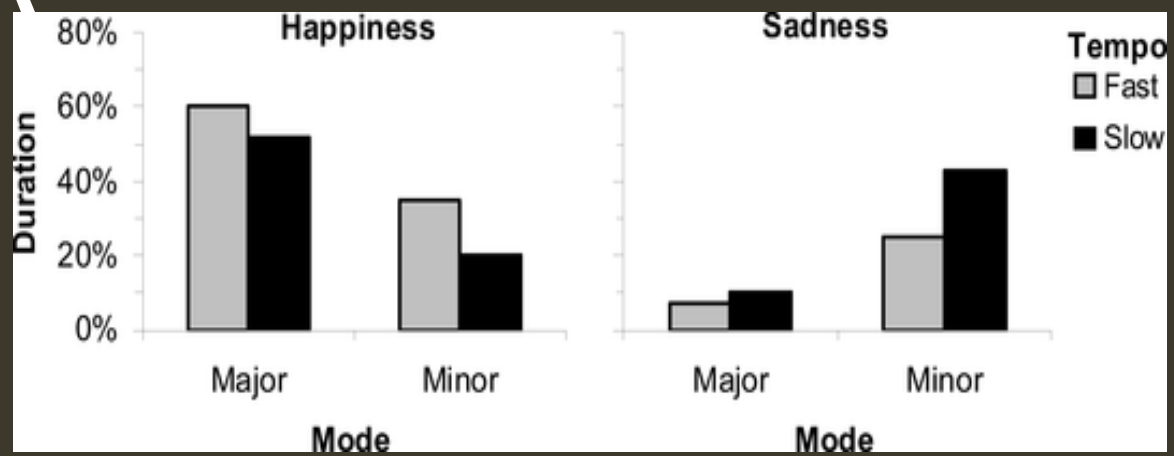
It's a bittersweet symphony: Simultaneously mixed emotional responses to music with conflicting cues.

- Can music elicit two emotions simultaneously?
- Songs with conflicting cues (ex: fast minor)
- Procedure:

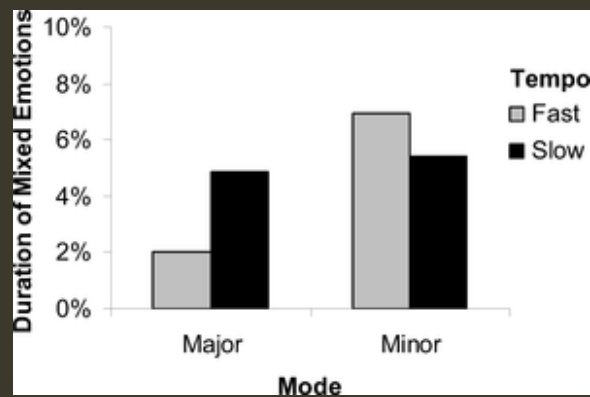
Songs played included songs in fast major, slow major, fast minor, and slow minor

Participants had a “happy” and “sad” button

DATA



Similar results found
in Hunter's study



ARTICLE 2

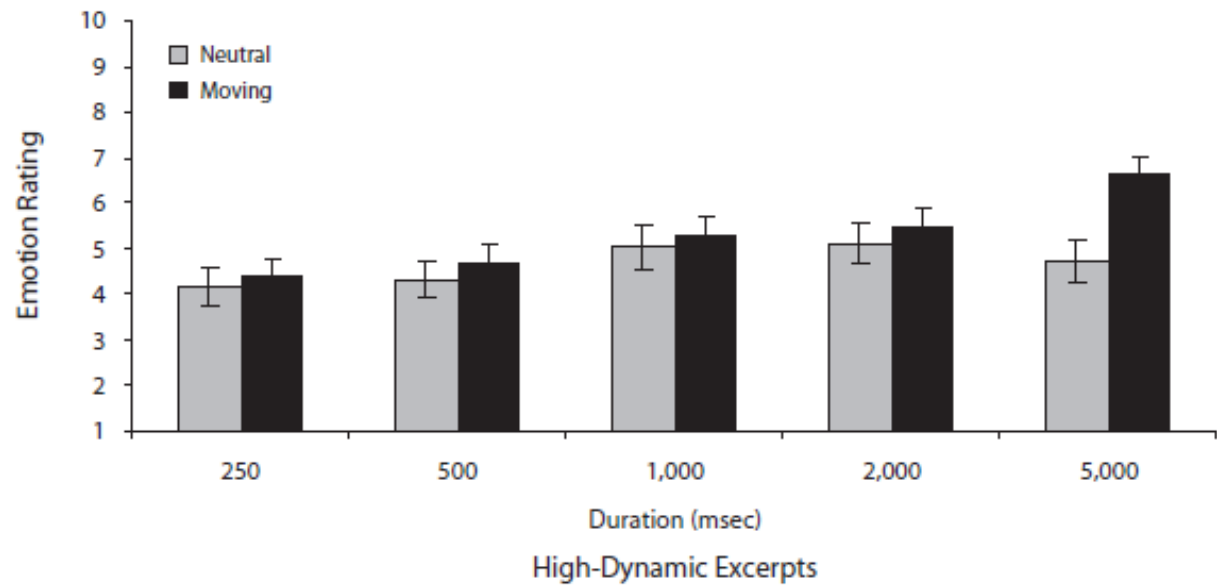
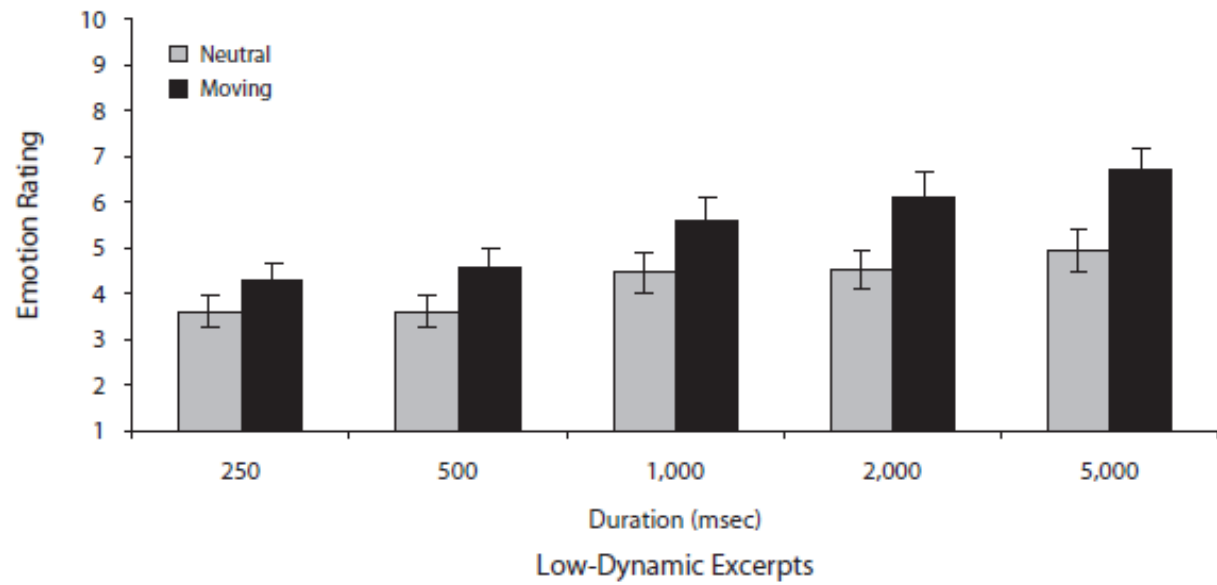
Judging familiarity and emotion from very brief musical excerpts

30 people listening to 28 different musical excerpts chosen by musicologists to be emotionally moving or emotionally neutral. Also, some high, some low dynamics.

They listened to them at 250, 500, 1000, 2000, and 5000 msec

Rate on a scale of 1 to 10 how emotionally moving it felt.

There was not much of a difference in high dynamics vs low but there was a significant rise in the lengths they were played.



ARTICLE 3

16 classical pianists with at least 17 years piano training

Controlled music: 1) no irregular tempo or rhythm; 2) can be performed mainly by hand and finger movement; 3) all subjects had played prior to study and could play without technical mistakes; 4) tempo regulated at 60 bpm

Tasks (all were asked to minimize excessive movements such as moving the head trunk and upper arms)

- 1. Play with normal artistic and emotional expression
- 2. Play without emotional expression
- 3. Play without emotion using a forte volume throughout
- 4. Listen to recording of the first task
- 5. Listen to recording of the second task
- 6. Rest in a stationary sitting position (control)

Rated:

- Level of pleasantness and arousal (1-10)
- Report if able to elicit emotion when performing and listening
- Where they felt the most emotion
- Were they able to inhibit emotions when asked?

RESULTS

- Autonomic nerve activity during performance and perception
- Activity much greater during performance
- All subjects reported higher level of arousal and pleasantness when playing with emotion than when asked to inhibit
- Playing induced greater increased heart rate and decreased parasympathetic activity during performance than perception.

SYNTHESIS

Evoking emotions is common in music therapy, both to recall emotions as well as to regulate emotional response.

- Greater effects of emotional change is expected when physically playing music or an instrument rather than just listening to the music.

The expressive neural network used in playing is different than that used for perception. These “sensorimotor-associated” areas have a strong connection with the autonomic nervous center, stimulating more reward-emotion processors.

Use major modes to elicit happiness in a song and slow tempos to elicit sadness (in general)

The longer you play a piece of music, the more likely a client is to have a higher emotional response to it.

SOURCES

Nakahara, H. (2011). Performing music can induce greater modulation of emotion-related psychophysiological responses than listening to music. *International Journal of Psychophysiology* 81(3), 152-158. doi:

<http://10.1016/j.ijpsycho.2011.06.03>

Larsen, J.T. & Statny, B.J.(2011). It's a bittersweet symphony: simultaneously mixed emotional responses to music with conflicting cues. *Emotion* 11(6), 1469-1473. doi:

<http://dx.doi.org/10.1037/a0024081>

Hunter, P. G., Schellenberg, E. G., & Schimmack, U. (2008). Mixed affective responses to music with conflicting cues. *Cognition and Emotion*, 22, 327–352. doi:http://10.1080/02699930701438145

Filipic, S., Tillmann, B., Bigand, E., (2010). Judging familiarity and emotion from very brief musical excerpts. *Psychonomic Bulletin & Review*, 17(3), 335-341. doi:http://dx.doi.org/10.3758/PBR.17.4.601.