

The FAV Corpus: An Audio Dataset of Favorite Pieces and Excerpts, with Formal Analyses and Music Theory Descriptors

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1. Introduction



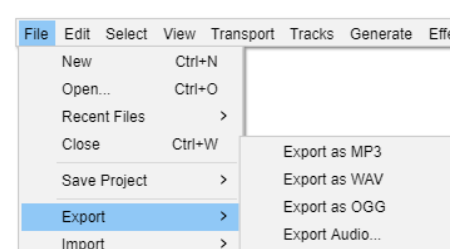
- Why do we like the music we like?
- Surprisingly little research on this question
- Sloboda (1991): Asked participants to identify musical passages causing strong physiological effects; identified specific music-theoretic elicitors (i.e. sequences, appoggiaturas)
- Gabrielsson & Wik (2003): Research on the effects (emotional, cognitive, physical) of “strong experiences” of music
- Our study differs from previous work:
 - Systematic, survey-based approach to music preference (rather than exploratory approach)
 - Focuses on passages of music that are strongly liked (rather than causing chills or other physiological responses)

2. Method: Participants & Data Collection



- 140 undergraduate students at University of Rochester (New York) were given a survey about their favorite pieces and excerpts
- ~85% were music majors (Eastman School of Music)
- The survey asked each respondent to identify “three of your favorite excerpts of music...in any style and from any time period” (providing a URL)
- Then to “identify the 15-second excerpt that’s your favorite” from that piece (providing timepoints)
- The survey also asked, “Why do you love the excerpt? Try to be as specific and detailed as possible (music theory terms are encouraged but not required).”

2. Method: Creating the Corpus



- The URLs were then exported to WAV files
- The FAV Corpus is publicly available at EthanLustig.com/FavCorpus
- The corpus contains:
 - Three 15-second excerpt audio files & three full-piece audio files for each participant;
 - Formal analyses;
 - Comments about why they like the excerpt;
 - Other data (see paper)



3. Results: Stylistic Content of the Corpus



- We categorized each excerpt as classical (50%), pop (41%), or jazz (9%)
- Most popular artists/composers in survey →
- Classical selections were dominated by a handful of composers, while jazz & pop selections were diverse

Composer	# Excerpts
Bach	17
Brahms	14
Beethoven	12
Tchaikovsky	10
Rachmaninov	9
Mahler	6
Kendrick Lamar	6
Debussy	6
Sibelius	5
Handel	5

3. Results: Formal Analysis



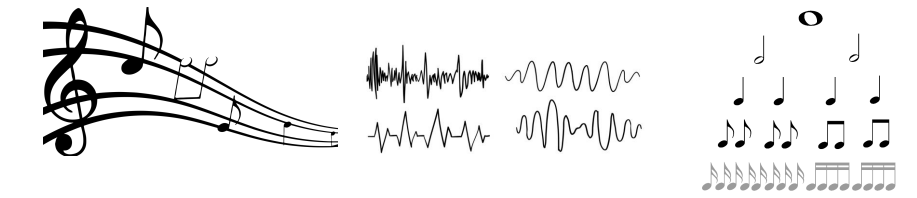
- Subset of corpus pieces were coded into formal sections (e.g. Verse, Chorus, Primary theme)
- Choruses preferred 2x more often than verses
- Favorite excerpts showed a slight tendency to involve formal boundaries:
 - 49% of favorite excerpts contain a formal boundary (compared to 38% of random excerpts from the same pieces)

3. Results: Content Analysis of Comments

- Survey respondents gave their reasons for liking each excerpt (encouraged to use music theory terms)
- Content analysis of the comments yielded 17 themes:
 - Autobiographical connection, complexity, dynamics, energy, harmony, instrumentation, interpretation, lyrics, melody, meter, physical response, return, rhythm, surprise, texture, timbre, virtuosity (see paper for details)



3. Results: Content Analysis of Comments



- Melody is the winning theme, appearing in 34% of comments; harmony also prominent (27% of comments)
- However, possible that the instructions (encouraging the use of music theory terms) biased respondents towards pitch-oriented terminology
- Sonic factors were also prominent in the comments (texture 28%, instrumentation 24%, timbre 13%)
- Rhythmic factors were less important (rhythm 19%, meter 5%)

3. Results: Content Analysis of Comments



- Word frequency analysis:
 - “Groove” (and related words) appears 20 times
 - Simplicity > Complexity (3x)
 - Energy gain > Energy loss (14x)
 - Complexity loss > Complexity gain (3x)
 - Build-up > Build-down (16x)
 - Crescendo > Decrescendo (2.5x)

4. Discussion Summary

Get To the Point



- In our study, 140 students (mostly music majors) identified three of their favorite 15-second passages of music; and gave comments explaining what they love about it
- Comments focused on energy gain, build-ups, groove, crescendo, and simplicity
- **Takeaway:** *listeners’ favorite musical moments may involve energy gain or “build-up”, have low complexity, crescendo, and a good groove*

4. Discussion Future Directions

FUTURE

- Expand the study: Global online survey with more participants (and collection of personality, socio-economic data)
- More songs & excerpts from each participant → Analysis *within* participants
- Supervised machine learning: could a system learn to identify favorite excerpts?
- Audio feature analysis of corpus (i.e. energy, spectral flux, dissonance, complexity)
- Music-theoretic analysis of corpus (i.e. scale-degree distribution, harmonic root patterns, metric positions)

5. References (See paper for full references list)

- A. Gabrielsson and S. L. Wik, “Strong experiences related to music: A descriptive system,” *Musicae Scientiae*, vol. 7, no. 2, pp. 157–217, 2003.
- J. Sloboda, “Music structure and emotional response: Some empirical findings,” *Psychology of Music*, vol. 19, no. 2, pp. 110-120, 1991.



← EthanLustig.com/FavCorpus