

Coldplay and Metallica

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1. Introduction

In this question I ventured to come up with an analysis on the trends over time of the well-known bands Coldplay and Metallica. A comparative analysis of advanced scatter plots was used to compare their albums over time around themes such as song duration (excluding live recordings), and danceability (how suited a song is for dancing) of songs recorded during live and non-live (studio, demo, remastered etc.) performances.

2. Clean and remove live songs

First we want to make sure song durations is measured the same for both bands. Need to convert duration column in Metallica's dataset (currently in milliseconds) into seconds.

Next want to get release dates as years only and make sure column names are the same in both dataframes to make for easier coding later.

Now want to filter out all the live songs.

3. Song length over time

The analysis starts by simply examining how the length of song released by each band varied over time.

Below we plot the average song duration for both Metallica and Coldplay over time.

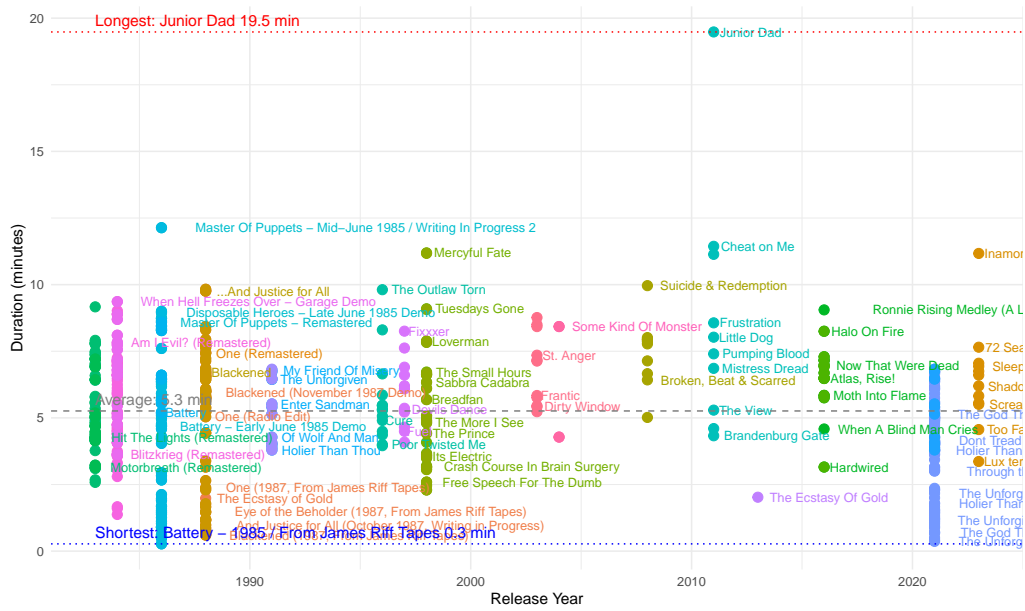


Figure 3.1: Plot showing Metallica song durations over time

Now want to perform the same for Coldplay

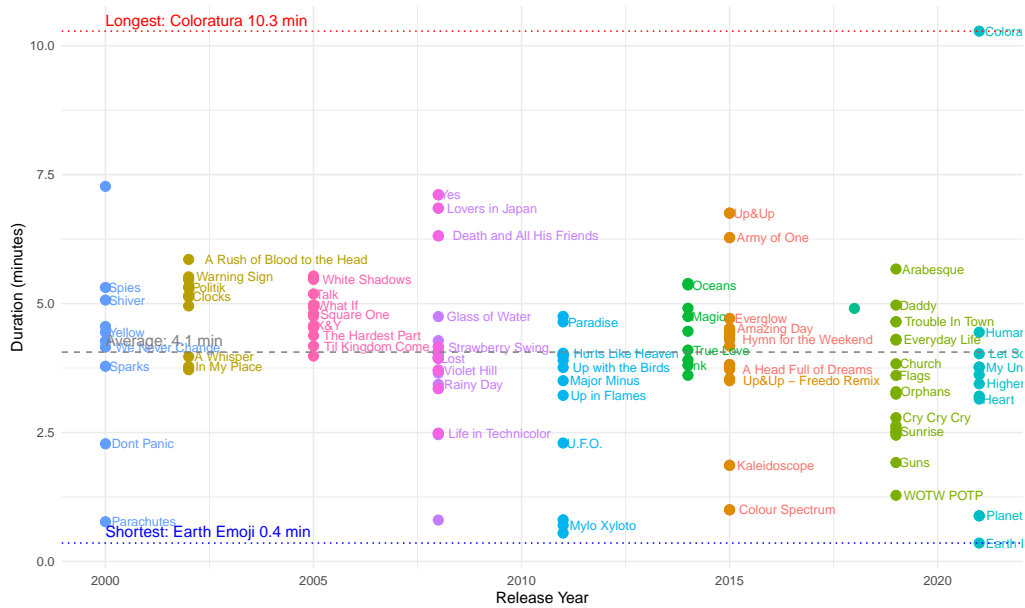


Figure 3.2: Plot showing Coldplay song durations over time

The above graphs show the following interesting summary statistics:

- Metallica had a longer average song duration.
- Metallica's longest song is almost double that of Coldplay's.
- Metallica also has the shortest length of song between the two bands.

4. Danceability comparison (Studio vs Live comparison)

One of the hallmarks of music is being able to dance to a good set. This section compares the difference in the danceability between Coldplay and Metallica throughout each of their albums. It then also compares this only for their live performances, to see if there is a big difference which exists between their studio-recorded, and demo performances etc., and their live shows.

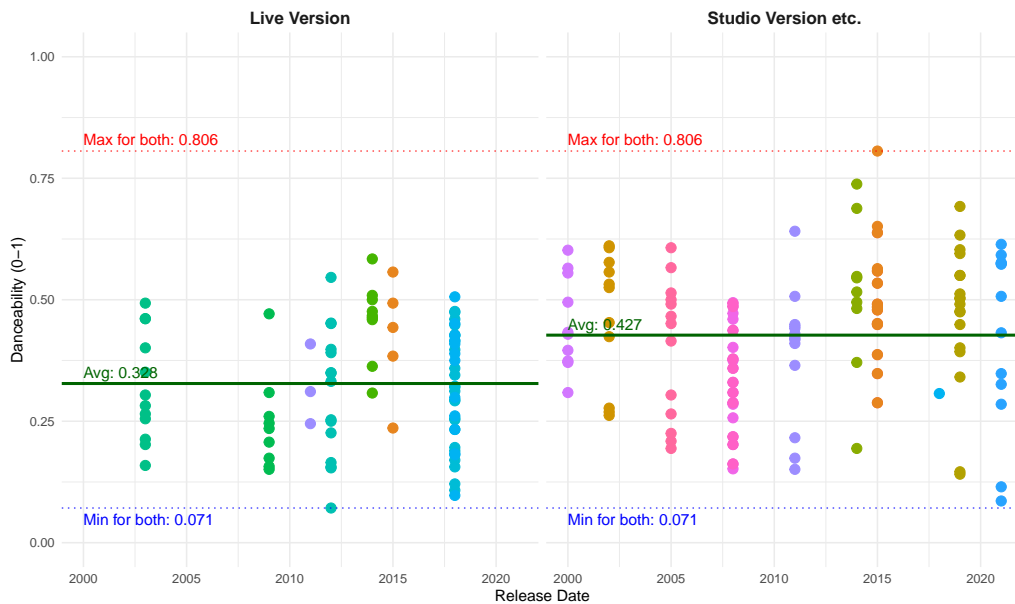


Figure 4.1: Plot showing Coldplay danceability difference between different recording types

When looking at Coldplay in Figure 4.1, we see that their studio and other versions (everything but Live recordings) displays a higher danceability than their live shows, implying that the latter tends to have a more down-beat atmosphere.

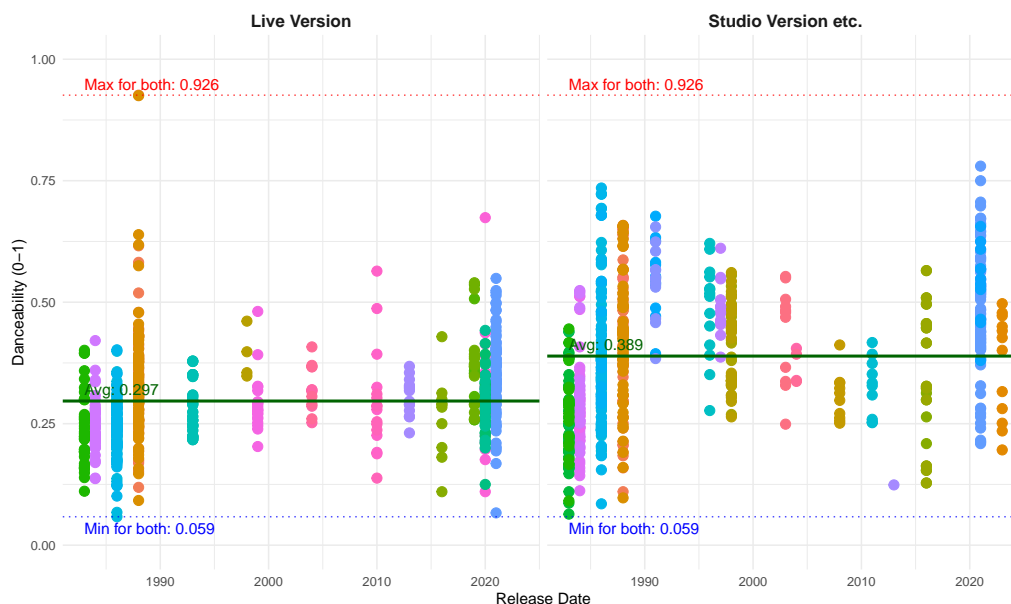


Figure 4.2: Plot showing Metallica danceability difference between different recording types

We see that in the case of Metallica, live shows are similarly less suited for dancing than their studio recordings.

This contradicts literature which states that live performances often bring out more energy and emotion, seen through better danceability scores (Swarbrick, Bosnyak, Livingstone, Bansal, Marsh-Rollo, Woolhouse & Trainor, 2019).

Furthermore, Coldplay boasted a higher average danceability than Metallica. This probably speaks to the more pop-focused sounds emanating from their music when compared to the latter.

5. Conclusion

The above analysis highlighted a few findings in the comparison between Metallica and Coldplay.

Firstly, Metallica produce longer songs than Coldplay.

Secondly, for both bands live sound performed worse in the danceability metric than non-live sounds.

Lastly, on average Coldplay produces music which is better suited to dancing than Metallica.

References

Swarbrick, D., Bosnyak, D., Livingstone, S.R., Bansal, J., Marsh-Rollo, S., Woolhouse, M.H. & Trainor, L.J. 2019. How live music moves us: Head movement differences in audiences to live versus recorded music. *Frontiers in psychology*. 9:2682.