Coldplay vs Radiohead Danceability over Time*

Exploring Coldplay's Consistent Danceability Advantage

Chenika Bukes Khushaal Nandwani Yunkyung Ko

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This study explores the danceability of Coldplay and Radiohead over time by using data extracted from Spotify's API. The results show that Coldplay's average danceability scores have remained consistently higher, typically ranging from 0.4 to 0.6, compared to Radiohead's fluctuating scores, which vary between 0.2 and 0.6, reflecting Coldplay's stable pop-rock style and Radiohead's experimental musical approach. These findings are relevant in understanding the musical evolution of both bands and their appeal to different types of listeners.

1 Introduction

The estimand in this paper is the average danceability of tracks by both Coldplay and Radiohead over time. Danceability describes how suitable a track is for dancing based on a combination of tempo, rhythm stability, beat strength, and overall regularity. This paper shows how this metric changes for each band and discusses the implications.

This study reveals a striking contrast in the danceability trajectories of Coldplay and Radiohead. Coldplay's music exhibits stable and gradually increasing danceability scores over the years, consistent with their evolution toward a more mainstream pop sound. In contrast, Radiohead's danceability scores are characterized by notable fluctuations, reflecting their experimentation with diverse musical styles. These differences highlight the distinct artistic choices made by each band and their appeal to varying listener demographics.

Understanding how danceability evolves over time can provide insight into the bands' stylistic changes and the broader trends in the music industry. All analysis in this paper was completed using R (R Core Team 2023). The remainder of this paper is structured as follows. Section Section 2 describes the data collection and preparation. Section Section 3 presents the findings using the tidyverse package (Wickham et al. 2019), and Section Section 4 discusses the implications of these results.

*Code and data are available at: https://github.com/chenikabukes/RadioheadColdplay

2 Data

The data used in this study was retrieved using the Spotify Developers (2024) and processed using the R package spotifyr (Thompson et al. 2022). The package allows bulk retrieval of an artist's entire discography along with associated audio features, including danceability, tempo, energy, and others. We accessed both Coldplay's and Radiohead's discographies and calculated the average danceability of their songs by year of release. The data consists of metadata about each track, including the release year, danceability score, and album information.

3 Results

In Figure 1, we observe Coldplay's tracks exhibit relatively stable danceability over time, with scores ranging between 0.4 and 0.6, with slight increases toward the latest releases. Coldplay's more consistent and upward trend aligns with their pop-rock style, which tends to favor rhythmically engaging and accessible music, contributing to a higher and more consistent danceability score. Radiohead's danceability exhibits much more fluctuation, ranging from around 0.2 to 0.6. There is an increase during the early 2000s, but it dips again afterward. The lower and more fluctuating danceability for Radiohead reflects their tendency to diverge from mainstream pop structures.

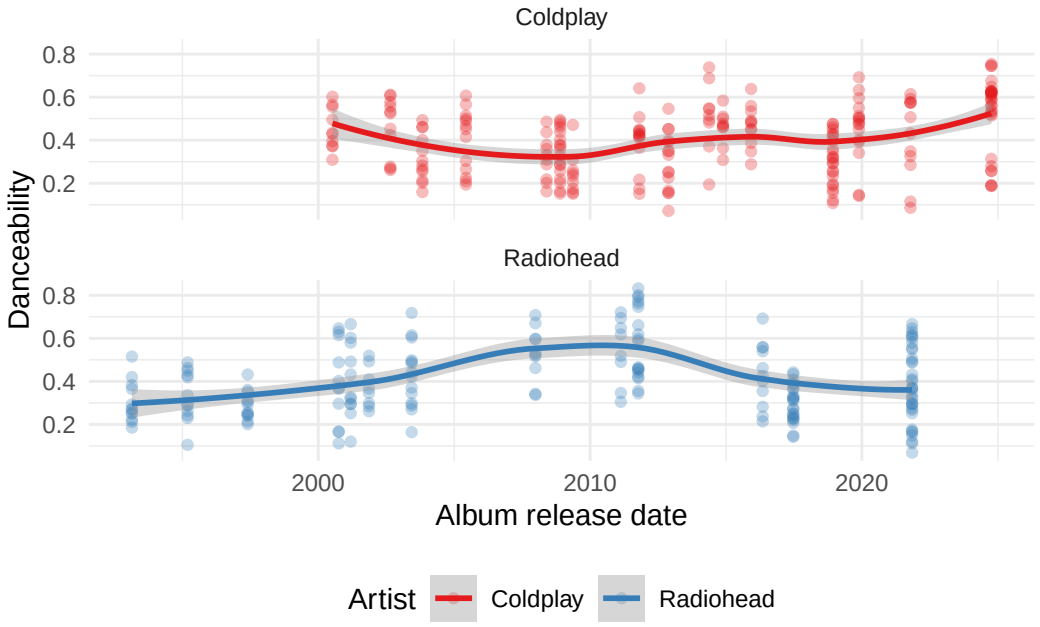

Figure 1: Danceability of Coldplay's and Radiohead's tracks over time

4 Discussion

Both bands show some increase in danceability in their later albums, though Coldplay's increase is more pronounced, reflecting their shift towards more pop-centric music.

5 Appendix

Out of interest we decided to explore the correlation between danceability and tempo. The below results do not show a significant relationship and thus were not included in the main findings.

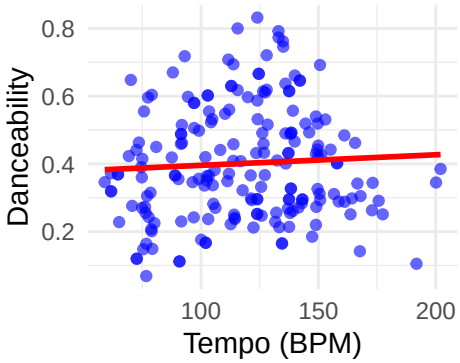

Figure 2: Danceability vs Tempo for Radiohead Tracks

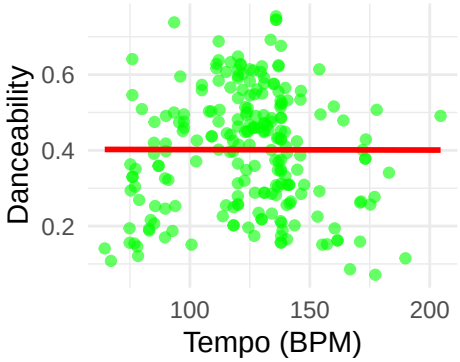

Figure 3: Danceability vs Tempo for Radiohead Tracks

References

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Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, et al. 2019. "Welcome to the tidyverse." *Journal of Open Source Software* 4 (43): 1686. https://doi.org/10.21105/joss.01686.