PORTRAYAL OF LOVE

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RESEARCH QUESTION

How has the average number of times the word “love” and its synonyms appear in the lyrics of the top 100 U.S. songs changed across 1963, 1993, and 2023?

HYPOTHESIS

Love-related words would appear more frequently in 1963 than in 1993 and 2023

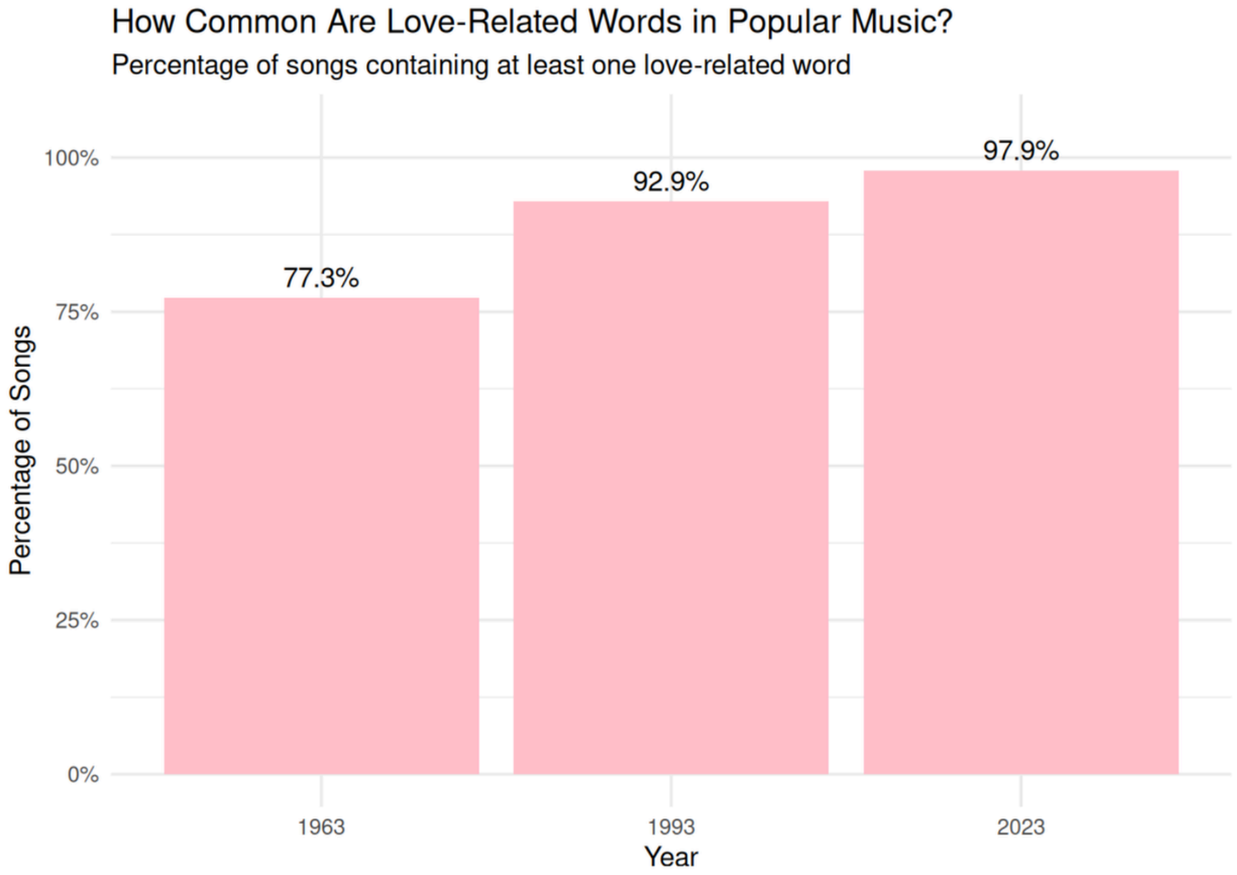
MAY BE DUE TO:

- Popular music in earlier decades may have emphasized romantic love more explicitly
- Contemporary songs may increasingly express romantic and intimate relationships through different

DATA AND METHOD

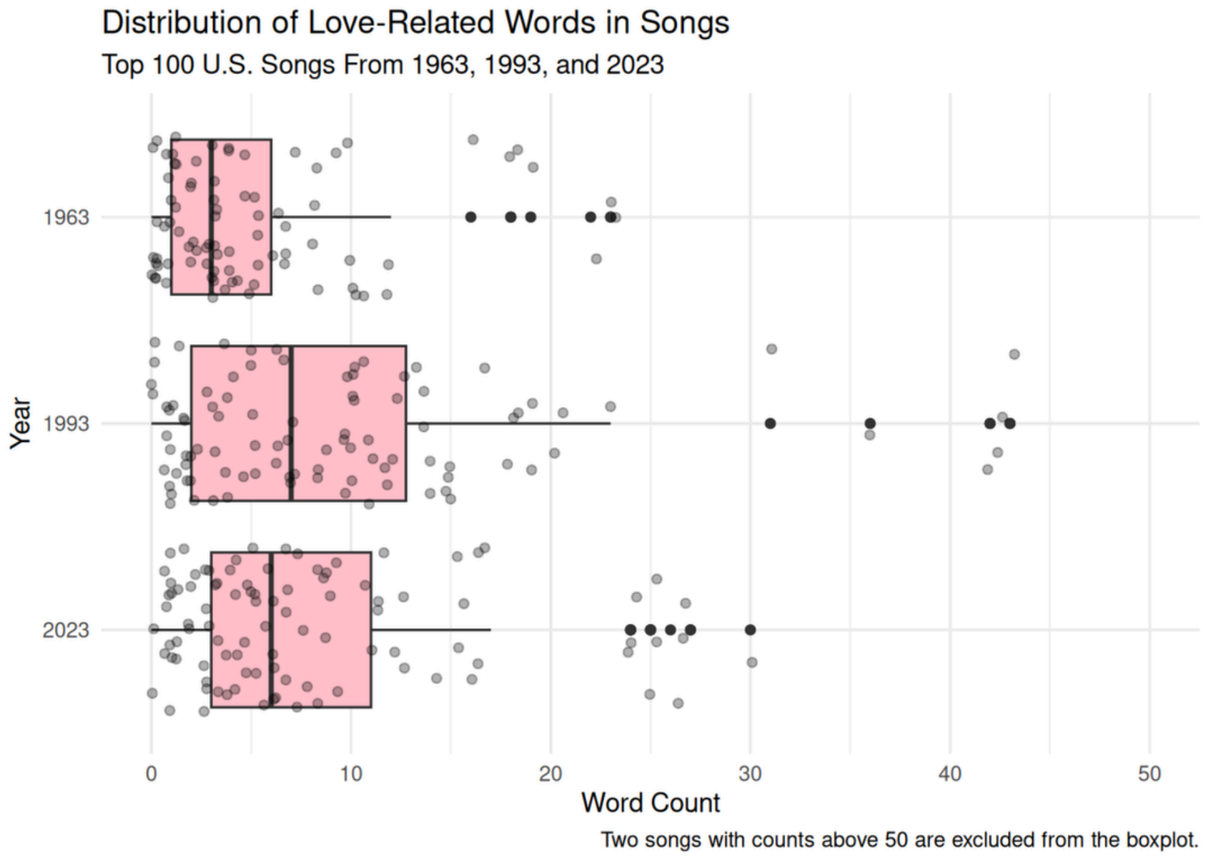
- Data: Billboard's year-end top 100 songs for each selected year.
- Lyrics: Retrieved from Genius through a Kaggle dataset.
- Love-related words: Synonyms collected from Thesaurus.com.
- Analysis: Used R to count occurrences of "love" and its selected synonyms in each song's lyrics.

LOVE-RELATED WORDS APPEARED IN MORE SONGS OVER TIME



- Key finding: The percentage of songs containing at least one love-related word increased across all three years.
- So what: In 2023, love-related words appeared in more songs, but songs from 1993 used them more often on average. This suggests that love was more widely mentioned in 2023, even if individual songs did not use those words as often.

DISTRIBUTION OF LOVE-RELATED WORD COUNT



- 1993 had the highest median.
- 1993 also had the greatest variability.
- Two songs with counts above 50 are excluded from the displayed range.

- Key finding: Love-related word counts varied between individual songs, and 1993 had both the highest median and the greatest spread.
- Results went against our hypothesis: 1993 had the highest median number of love-related words, while 1963 had the lowest.

AVERAGE LOVE-RELATED WORDS PER SONG

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# A tibble: 3 × 3
   year average_love_related_words total_songs
  <dbl>                      <dbl>       <int>
1  1963                       5.81          97
2  1993                       9.94          99
3  2023                       8.03          97
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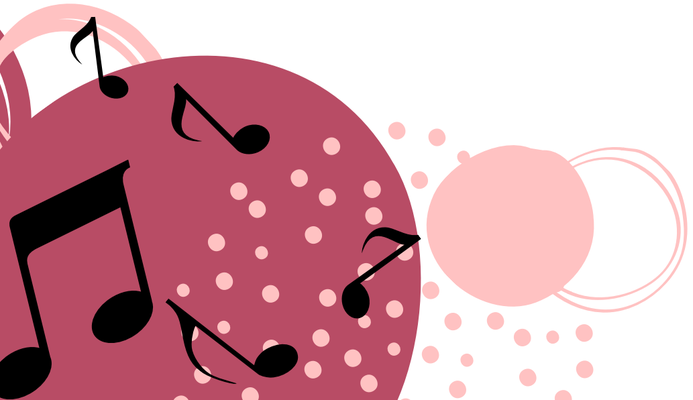
- Key finding: 1993 had the highest average at 9.94 love-related words per song, compared with 8.03 in 2023 and 5.81 in 1963.
- Results went against our hypothesis: 1963 had the lowest average, rather than the highest.
- So what? Songs from 1993 used love-related words more often on average than songs from the other two years.

LIMITATIONS

- Some lyrics were missing or inaccurate.
- One entry contained a book excerpt rather than song lyrics.
- The synonym list may miss slang or include words used outside romantic contexts.
- Song length and repeated lyrics affect the counts.

IMPROVEMENTS

- Measure love-related words as a proportion of each song's total word count.
- Expand the synonym list.
- Compare trends across musical genres.
- Examine how words are used in context.



CONCLUSION

- Our hypothesis was not supported: 1993 had the highest average number of love-related words per song.
- In 2023, the highest percentage of songs included at least one love-related word.
- The results show that love-related words appeared in more songs in 2023, but were used more often per song in 1993.

REFERENCES

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