Fantastic 4: Super Bowl Ads

Examining the Relationship Between Celebrity appearances and Super Bowl Ad Viewership

Julia, Sam, Qeima, and Zach



Why Super Bowl Ads? Introduction & Motivation

Motivation

- Super Bowl ads attract millions of viewers and are a major investment for brands.
- Celebrities are frequently used to capture attention and increase engagement
- We wanted to investigate whether celebrity appearances actually translate into higher viewership compared to other ad features.

Research Question

Do Super Bowl ads featuring celebrities (Categorical) receive more views (Numerical) than ads without celebrities? Does the celebrity appearance matter more than other ad features(Categorical)?

Dataset

- The CORGIS Dataset Project, using advertisements collected by Superbowl-Ads.com since 1998.
- Super Bowl advertisements aired between 2000 and 2020.

```
`year` : superbowl year
`brand` : brand for commercial
`data.content.funny` : contains humor
`data.content.showsproduct` : shows product quickly
`data.content.patriotic` : shows if ad is patriotic
`data.content.celebrity` : shows if ad features a celebrity
`data.content.danger` : shows if ad contains danger
`data.content.animals` : shows if ad contains animals
`data.content.sexual` : indicates if ad uses sexuality
`data.viewership.views` : number of views
`data.viewership.likes` : number of likes
`data.viewership.dislikes` : number of dislikes
`data.title`: source that reported the ad
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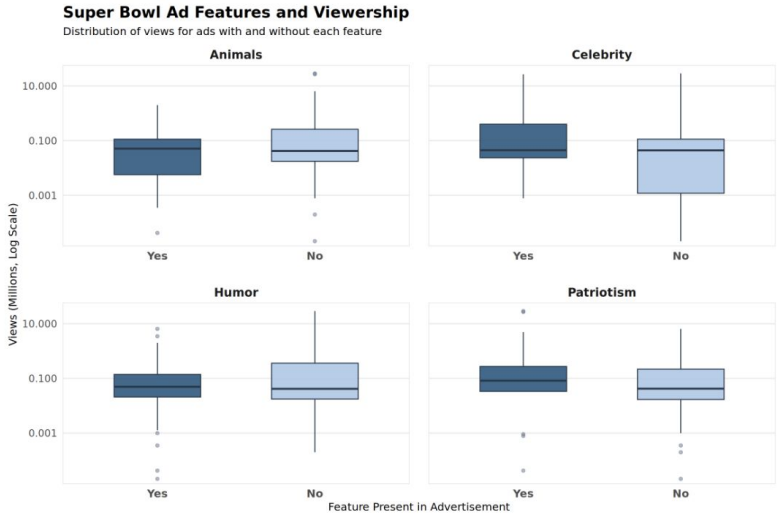
Do Certain Ad Features Attract More Views?



Super Bowl ad viewership by content features (logarithmic scale)

Table: Summary Statistics of Super Bowl Ad Viewership by Content Feature (Millions)

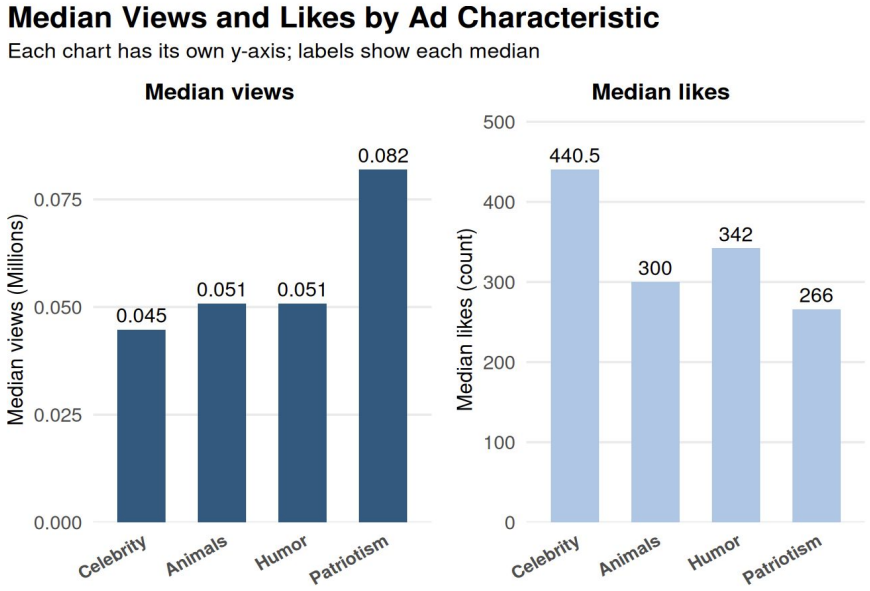
Ad Feature	Present	Count	Mean	Median	SD	Min	Max
Animals	Yes	15	0.197	0.051	0.502	0.000	1.990
Animals	No	43	1.736	0.042	5.961	0.000	28.785
Celebrity	Yes	30	1.558	0.045	4.998	0.001	26.727
Celebrity	No	28	1.102	0.044	5.426	0.000	28.785
Humor	Yes	32	0.445	0.049	1.288	0.000	6.428
Humor	No	26	2.437	0.041	7.520	0.000	28.785
Patriotism	Yes	15	4.109	0.082	9.689	0.000	28.785
Patriotism	No	43	0.371	0.042	1.118	0.000	6.428

Table: Median Viewership Comparison by Ad Feature (Millions)

Ad Feature	Median: Yes	Median: No	Difference (Yes − No)
Animals	0.051	0.042	0.009
Celebrity	0.045	0.044	0.001
Humor	0.049	0.041	0.008
Patriotism	0.082	0.042	0.040

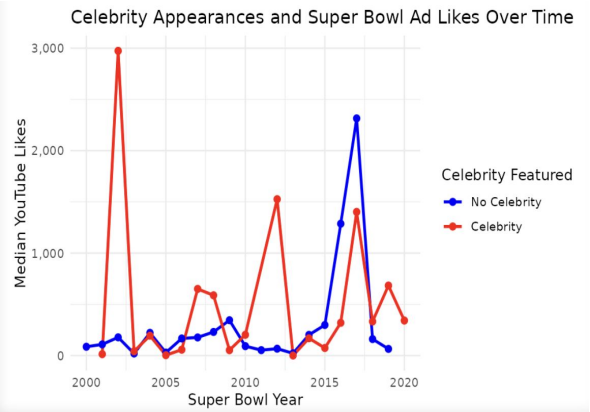
- Celebrity ads averaged 1.558M views, compared to 1.102M for non-celebrity ads
- Median viewership was nearly identical: 0.045M vs. 0.044M
- Patriotism had the largest median difference, with nearly twice the views of non-patriotic ads., Celebrities had the smallest median difference, suggesting a weaker association with typical viewership than other features

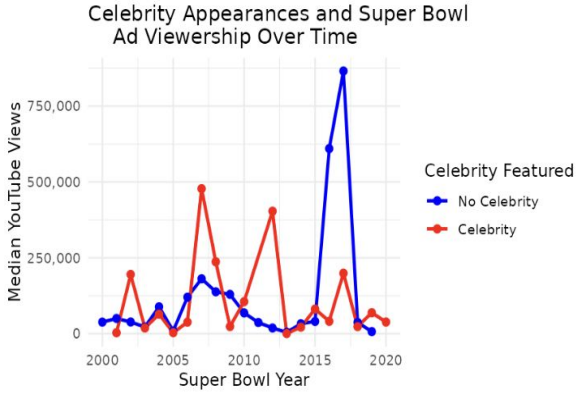
Features associated with the most views and likes?



- Celebrity has the most likes at 440 and Patriotism has the most views at 0.082 M. The presence of celebrities is much more meaningful to likes than to views.
- Patriotism has the least median likes (266) and celebrity has the least median views (0.045 M).
- Patriotic ads may be seen without viewers being prompted to like them while celebrity ads may have smaller audiences that engage more with the ads.

Has Super Bowl Ad Popularity Changed Over Time by Celebrity feature?





- Celebrity-featured advertisements often experienced higher peaks in views and likes, suggesting that celebrities may have contributed to greater popularity.
- From 2015-2017, Non-celebrity advertisements began outperforming celebrity advertisements in both views and likes
- Celebrity appearances do not consistently lead to greater popularity, suggesting that other factors, such as humor, creativity, and emotional appeal, may also influence an advertisement's success.

Conclusions/Discussion/Critique: Celebrity influence on popularity Super Bowl Ad Popular?

Conclusions

- Ads with celebrity features have higher mean viewership(1.558M vs. 1.102M), but median viewership was nearly identical (0.045M vs. 0.044M), median smaller than difference than presence of other ad features
- Patriotism presence had greatest median views, while celebrity presence had the greatest median likes
- Celebrity influence on median views and likes varied over the years→ celebrity appearances do not lead to consistent increase in popularity of an ad

- **Overall→ celebrities appearance in ads may be more strongly associated with likes than views. Simultaneously, other ad features may be equally or more important to viewership of ads**

What We Could Do in the Future…

Limitations

- Data only covers 2000–2020
- 225 Super Bowl Ads were used, Not very large dataset in comparison to total superbowl ads
- Factors such as advertising budgets, celebrity popularity, and platform algorithms were not considered.
- Did not consider combinations of ad features

Future Research

- Combinations of ad features
- Look at larger dataset