# The Effect of Perceived Similarity on Listener Behavior

Bella Ball, Brennan Chan[a]

[a]Baylor University, 311 S 5th St, Waco, 76706, TX, United States

ARTICLE INFO

*Keywords*:
perceived similarity
attitude homophily
consumer behavior
listener behavior

ABSTRACT

This study aims to analyze the influence of perceived similarity between listeners and artists on consumer behavior in the music industry. Modern advancements in technology have allowed more people to become musical artists and those artists to reach a larger audience. Because of this, there is a growing need to understand the psychological factors that drive revenue-generating behaviors, such as online streaming, purchasing tickets, mechandise, or copies of albums. Using a series of ANOVA tests, our research finds higher percieved similarity to lead to greater willingness to partake in revenue-generating behaviors, but did not have significant impact on listening.

## 1. Introduction

The modern music industry is full of artists marketing their music to a wide range of audiences. Advancements to technology has allowed more people to become musical artists, and has allowed artists to reach a larger audience of people. Because of this, there is greater competition amongst artists. For artists to be able to market themselves better to listeners, artists must first understand factors that lead listeners to partake in revenue-generating behaviors, such as purchasing merchandise or tickets, or listening to their music. We hope to look at one particular potential factor, a listener's perceived sense of similarity to the artist.

## 2. Related Works

There is an existing precedent in other contexts to suggest that perceived similarity may influence consumer behavior. Lee and Watkins (2016) found perceived similarity to be an influencing factor upon the development of parasocial relationships which in turn affects consumer behavior. In their research their model was applied to beauty vloggers promoting 3rd party luxury items. Sokolova and Kefi (2020) applied a similar model to YouTube and Instagram influencers. In another article by Xiang, Zheng, Lee and Zhao (2016) similar findings were reported to be present when applied to social commerce platforms.

In both Xiang et al. (2016)'s and Sokolova and Kefi (2020)'s articles, instead of using a single factor to measure perceived similarity, they used two factors, social attractiveness, and attitude homophily. In these, social attractiveness could be summarized as likability, and attitude homophily as similarity of beliefs. We decided to use the questions from Study 3 of Lee and Watkins (2016)'s work as model to base our questions off of.

## 3. Experimental Design

The previous research that we reference all added parasocial interaction as an intermediary factor between perceived similarity and consumer behavior but we decided to forgo this level for a two main reasons. Firstly, it would be a much larger scope of project than we had the time, means or knowledge to undertake. Secondly, we wondered if there was a direct impact perceived similarity on consumer behavior that can be traced without psi as an intermediary.

Our experiment intended to analyze the role of perceived similarity on listener's behaviors. These behaviors we intended to look at were listeners' reported willingness to support the artist, actual listening, and actual spending in relation to the artist.

**Hypothesis 1 (H1).** *Populations with a higher sense of perceived similarity to an artist leads to greater willingness to support the artist.*

**Hypothesis 2 (H2).** *Populations with a higher sense of perceived similarity to an artist leads to increased listening of the artist.*

**Hypothesis 3 (H3).** *Populations with a higher sense of perceived similarity to an artist leads to an increase in spending related to the artist.*

Due to a lack of responses, we could not test the third hypothesis.

## 4. Methodology

### 4.1. Data Collection

To collect data, we had participants fill out a survey asking questions pertaining to their perceived similarity to their favorite artist, willingness to support the artist, and actual listening and spending behaviors. From this, we had to remove two entries whose responses were extreme outliers and two columns that lacked responses.

### 4.2. Factor Analysis

Before we could perform our analysis, we had to make sure our questions showed the underlying latent variables of perceived similarity and willingness to support. To do so, we performed a factor analysis on both relevant subsets of questions, employing Bartlett's test (NIST) and Kaiser-Meyer-Olkin's test (Fein, Gilmour, Machin and Hendry, 2022) to make sure it was fit for factor analysis. From there, we used scree plots to determine it was fair to summarize

perceived similarity and willingness to support each as a single factorFein et al. (2022). At the end of this, we used Cronbach's Alpha to verify these findings.

### 4.3. ANOVA

Once we had determined that it was fair to use these factors, we calculated a factor score for each by taking the means of each question for the relevant factors (DiStefano, Zhu and Mîndril, 2009). We split the population into 'High Perceived Similarity' and 'Low Perceived Similarity' along the mean. To decide if we should do MANOVA or ANOVA, we checked a correlation matrix and found a very low correlation between the dependent variables. Because we found the correlation between the two dependent variables to be low, and we wanted to see the effect on each dependent variable separately, we opted to do two ANOVAs instead of a singular MANOVA. When looking at the variance of the poulations, we noticed a large difference of variances in minutes listened, so we applied a logarithmic transformation to this variable before running our ANOVAs.

## 5. Results

***Hypothesis 1*** For both hypotheses we used a p-value of 0.05 to determine whether to reject or fail to reject the null hypothesis. As shown in Table 1, our ANOVA for hypothesis 1 returned an F value of 8.366425 meaning perceived similarity had a strong effect on willingness to support. It also returned a p-value of 0.009332, meaning this effect is statistically significant. From our tests, we found that perceived similarity had a significant impact on Willingness to Support.

***Hypothesis 2*** Again using a p-value of 0.05 to determine whether to reject or fail to reject the null hypothesis, we failed to reject the null hypothesis for our second hypothesis. Displayed in Table 2, our second ANOVA returned a p-value of 0.315465, meaning perceived similarity has no statistical significance on listening behvaior. In our ANOVA we did not find a significant impact on listeners' behavior caused by higher perceived similarity.

**Table 1**
ANOVA Results for Willingness to Support

| | sum_sq | df | F | p-value |
|---|---|---|---|---|
| **Population** | 5.469160 | 1.0 | 8.366425 | 0.009332 |
| **Residual** | 12.420364 | 19.0 | | |

**Table 2**
ANOVA Results for Listening Behavior

| | sum_sq | df | F | p-value |
|---|---|---|---|---|
| **Population** | 0.774230 | 1.0 | 1.06306 | 0.315465 |
| **Residual** | 13.837761 | 19.0 | | |

## 6. Discussion

From our research, we were able to find perceived similarity to have a significant impact on listener's willingness to support artists, but not on how much they listen. These findings may be helpful to musical artists in developing marketing tactics. If artists already have an established listener base whom they want to encourage to partake in revenue-generating behaviors, according to our findings, listeners show more willingness to partake in these revenue-generating behaviors if they believe the artist to be similar to them.

## 7. Future Work

This research can act as a stepping stone to more impactful articles on psychology's effects on musical marketing. We suggest future works to further look into how actual spending is affected, as well as other factors that may be connected to those we looked into, such as listener retention and parasociality. We also suggest future research to look into what are potential actionable steps artists can take to encourage listeners to have a greater sense of perceived similarity. We also want to encourage future researchers to verify our findings among a larger and more diverse sample size.

## 8. Conclusion

The goal of our research was to find if listeners perceiving an artist to be similar to them had a significant impact on three variables, willingness to support, actual listening, and actual spending. Of these three, we found one to have significant impact, one to not have significant impact, and one was not testable. Finding Hypothesis 1 to be significant can act as both an actionable insight in business behaviors for those in the music industry, as well as a stepping stone for researchers interested in how psychological factors influence consumer behaviors, especially when interacting with media.

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