The effects of song titles towards preferences of a musical score

ABSTRACT

There have been multiple reports and analyses on the effect of the titles provided to artworks in visual aesthetic studies, however, there are comparatively fewer analyses on the effects of song titles towards preferences of a musical score. This study examines the influence of linguistic fluency, preferences for intense and rebellious music genres and musical training backgrounds on music evaluation. Participants were presented with instrumental rock music excerpts paired with Turkish sounding titles and artist's names while they were asked to rate them on various scales. Results showed that linguistic fluency did not significantly predict music evaluation scores however, preferences for intense and rebellious genres and a background in musical training emerged as significant predictors. Participants who had a higher preference for intense and rebellious genres and greater musical training tended to rate the musical excerpts more positively. These findings highlight the importance of individual musical preferences and expertise in shaping musical perception. However, further research is needed to explore the nuanced influence of linguistic fluency across diverse cultural contexts and to consider potential social influences on music perception.

INTRODUCTION

While the impact of titles on art appreciation and evaluation has been extensively explored in the visual aesthetics domain, its parallel influence on music perception and appreciation remains relatively unexplored. It was Arthur Danto(1981) who made the notable remark on the titles which serve as more than just a name. He explains that titles, often direct interpretation or reading and sometimes complicate the viewer's understanding. Therefore, this experiment seeks to investigate the impact of artist names and song titles in their ability to shape the evaluation of newly introduced popular pieces of music.

Previous studies have demonstrated that titles play a crucial role in shaping viewers' understanding and interpretation of artworks. The title often serves as a lens through which the artwork is perceived while providing a context and guiding the perceiver's interpretation (Leder, Carbon & Ripsas, 2006). Viewers tend to direct their attention differently based on the title focusing on certain elements or aspects that are implied by the title (Hristova et al., 2011), as well as Kapoula, Daunys, Herbez and Yang (2009). The impact of title further extends to viewers' liking and preferences for artworks – Belke, Leder, Strobach and Carbon (2010) and Gerger & Leder found that titles can significantly affect a viewer's emotional response and overall appreciation of the artworks.

In order to study the influence of titles on music perception and appreciation, this study solely focuses on processing fluency as a heuristic principle known to profoundly influence human judgement and decision-making processes (Reber, Schwarz & Winkielman, 2004). Processing fluency which is defined as the inclination to evaluate easily processed information more positively than its more challenging iterations, has been well-documented in the literature. For instance, studies have shown that stimuli perceived as easy to process are often considered more frequent, true, famous, likeable and familiar compared to less fluent stimuli (Tversky & Kahneman, 1973; Reber & Schwarz, 1999; Jacoby et al.,1989; Reber, Winkelman & Schwarz, 1998; Whittlesea & Williams,1998).

Drawing from Shah and Oppenheimer's (2007) application of fluency principles to the evaluation of financial stocks, which demonstrated that stocks which have easy to pronounce names were viewed as more favourable than difficult names, this experiment adopts a similar approach, termed linguistic fluency (Alter & Oppenheimer, 2006; Whittlesea & Leboe, 2000). This study applies the linguistic fluency principles to music evaluation (Angloda-Tort, Steffens, & Mullensiefen, 2018).

Therefore, the primary aim of this study is to assess the effect of linguistic fluency on music evaluation. Additionally, A secondary hypothesis analyses the potential moderating effects of

preference for Intense and Rebellious music genres and a background in musical training on the linguistic musical fluency effect.

METHOD

This section of the paper discusses the research process, including the details of the participants, methods, research design, and description of the various tools employed to conduct the overall procedure.

1. **Participants:** The study involved 1848 participants who were the past and current cohort of students at Goldsmiths University. The average mean age of the participants was 27.9. There was a total of 368 participants who identified as male, 1368 participants who identified as female and 112 participants who identified as other. There were initially 1889 participants in the pool, of which, the Turkish participants were eliminated from the data set. The exclusion of Turkish participants was implemented to mitigate the potential fluency bias arising from their familiarity with Turkish sounding titles and names.
2. **Materials used for the study:** The materials used in this experiment were selected to facilitate the examination of linguistic fluency in music evaluation. Eight instrumental rock song excerpts of 15 seconds duration were sourced from a Getty database of royalty-free music. These were chosen based on their validated comparability with commercially released music of the same genre to ensure that the musical stimuli represented the context of the experiment. Further, Turkish sounding titles and artist names have been derived from Shah and Oppenheimer's(2007) work on fictitious Turkish brokerage firms. This has resulted in the experiment having 4 pairs of easy-to-pronounce (Fluent) and another set of 4 pairs of difficult-to-pronounce (Dis-Fluent) name title pairs. This selection aims to manipulate the fluency of information which is presented to participants. Additionally, basic demographic information, language spoken and participant's musical Training (MT) backgrounds and their preference for Intense and rebellious music were collected through the Gold-MSI sef report inventory. To test the participants liking, six rating scales were considered which included – overall liking, willingness to pay for a concert ticket, composition quality,

performance quality, perceived commercial success and likelihood of recommending the song to a friend.

3. **Design:** The experiment design used in this study employed a Latin Square design based on its ability to control for potential confounding variables, it also allocated participants across fluent and dis-fluent conditions. The design involved a random combination of 8 name title pairs with 8 distinct song excerpts which resulted in a total of eight stimuli combinations, assigned to participants randomly. The key independent variable of the design is the fluency of the name title pairs manipulated between participants. The primary dependent variables were participants responses to the six rating scales mentioned in the materials. For the second hypothesis, the evaluation from Gold MSI self-report of musical training and preference for intense rebellious music was considered.
4. **Procedure:** Participants were sent a link to the experiment through the Qualtrics survey platform, which facilitated the collection of data. The participants were instructed to listen to the eight song excerpts which were accompanied by a Turkish sounding title and artist name. They were then asked to rate the musical pieces across the six rating scales and take the Gold MSI self-report to arrive at the averages for Musical training and preference of Intense and rebellious genres of music for each participant. The averages across the six rating scales were calculated to arrive at a single Dependent variable based on the preferences of the participants for the stimuli of the musical excerpt. The factors of Fluency namely – Fluent and Disfluent were dummy coded on Jamovi, with Disfluent as number 0 and Fluent as number 1 to conduct analysis on Jamovi.

RESULTS

This section of the paper discusses the Results of the statistical analysis.

TABLE 1

Linear Regression analysis with the dependent variable as the average of the six rating scales and Fluency as the factor.

Model Fit Measures

			Overall Model Test			
Model	**R**	**R²**	**F**	**df1**	**df2**	**p**
1	0.0147	2.18e-4	0.402	1	1846	0.526

Model Coefficients - Average

Predictor	**Estimate**	**SE**	**t**	**p**
Intercept [a]	49.964	0.511	97.742	< .001
Fluency (D = Disflunet; F = Fluent):				
1 – 0	0.458	0.723	0.634	0.526

[a] Represents reference level

The Linear Regression Analysis revealed a negligible relationship between the predictor of fluency of the name title pairs (D = Disfluent, F = Fluent) and the average rating scores, as indicated by the small effect size, $R^2 = 2.18e\text{-}4$, $F(1, 1846) = 0.634$, $p = 0.526$. The fluency did not significantly predict the average rating scores, $\beta = 0.458$, $SE = 0.723$, $t(1,1848) = 0.634$, $p = 0.526$.

TABLE 2

Linear Regression analysis with the dependent variable as the average of the six rating scales, Covariates of STOMP_IR (preference for intense and rebellious genres) and GMSI_MT (scores of musical training backgrounds) calculated with the GOLD-MSI self-report for Model 1 and Fluency as the factor Model 2.

Model Fit Measures

			Overall Model Test			
Model	**R**	**R²**	**F**	**df1**	**df2**	**p**
1	0.280	0.0783	78.4	2	1845	< .001
2	0.280	0.0785	52.4	3	1844	< .001

The Linear Regression Analysis aimed to predict the average of the six rating scales using covariates of preferences for intense and rebellious genres (STOMP_IR) and scores of musical training backgrounds (GMSI_MT), along with the factor of fluency in Model 2. Overall, both Model 1 and Model 2 demonstrated a significant fit to the data, For Model 1, $R^2 = 0.0783$, $F(2,1845) = 0.435$, $p = 0.509$.

Model Comparisons

Comparison							
Model		Model	ΔR²	F	df1	df2	p
1	-	2	2.18e-4	0.435	1	1844	0.509

Comparing the models, there was no significant difference in R^2 between Model 1 and Model 2, $\Delta R^2 = 2.18e\text{-}4$, $F(1,1844)$ 0.435, $p = 0.509$.

Model Coefficients - Average

Predictor	Estimate	SE	t	p
Intercept [a]	34.890	1.456	23.96	< .001
STOMP_IR	2.965	0.241	12.28	< .001
GMSI_MT	0.503	0.216	2.33	0.020

[a] Represents reference level

In both Model 1 and Model 2, the covariates of preferences for intense and rebellious genres (STOMP_IR) and musical training backgrounds (GMSI_MT) emerged as significant predictors of the average rating scores with $p < 0.05$.

Model Coefficients - Average

Predictor	Estimate	SE	t	p
Intercept [a]	34.661	1.497	23.150	< .001
STOMP_IR	2.965	0.242	12.274	< .001
GMSI_MT	0.503	0.216	2.332	0.020
Fluency (D = Disflunet; F = Fluent):				
1 – 0	0.458	0.694	0.660	0.509

[a] Represents reference level

For Model 2, the fluency of the name title pairs did not significantly predict the average rating scores, with an estimate of 0.458(SE = 0.694, t = 0.660, p = 0.509).

DISCUSSION

This study analyzed the influence of linguistic fluency as well as covariates of preferences for intense and rebellious genres and scores of musical training backgrounds on music evaluation. The analysis provides valuable insight into factors contributing to individual's perceptions and judgement of music. However, Contrary to our hypothesis, the fluency of the name title pairs did not significantly predict the average rating scores of music excerpts. This suggests that the participant's evaluation of the music was not influenced by the ease of pronunciation of the accompanying titles and artist's names. These surprising results are contradicting previous research which highlighted the impact of titles on art appreciation (Angloda-Tort, Steffens, & Mullensiefen, 2018).

However, consistent with previous studies, both preferences for intense and rebellious genres and background in musical training emerged as significant predictors of music evaluation. Participants who reported a higher preference for intense and rebellious genres tended to rate the music more positively across the various rating scales. This aligns with previous studies which show that individual musical preferences play a significant role in music perception and enjoyment proving our secondary hypothesis. Additionally, participants with a greater level of musical training background tended to provide higher ratings for music excerpts. This underscores the importance of expertise and familiarity in shaping musical evaluations.

While previous studies have shown linguistic fluency can influence various cognitive processes and judgements, such as aesthetic appreciation (Belke et al., 2010) the specific impact of linguistic fluency on music evaluation in relation to title fluency appears to be more nuanced. In this study, however, there are a total of approximately 19% of participants in the cohort who are Turkish. The intermingling of students who are studying together and spending time with each other might have contributed an element of fluency to other languages from around the world, and in this specific scenario, the Turkish language. The

chance influence of friends sharing music from their country with each other and increasing fluency with music titles around the world cannot be discounted.

References

Anglada-Tort, M., Steffens, J. & Müllensiefen, D. (2018). Names and Titles Matter: The Impact of Linguistic Fluency and the Affect Heuristic on Aesthetic and Value Judgements of Music. *Psychology of Aesthetics, Creativity, and the Arts*. DOI: http://dx.doi.org/10.1037/aca0000172.

Belke, B., Leder, H., Strobach, T., & Carbon, C. C. (2010). Cognitive fluency: High-level processing dynamics in art appreciation. *Psychology of Aesthetics, Creativity, and the Arts*, 4(4), 214–222. DOI: 10.1037/a0019648

Danto, A. C. (1981). *The transfiguration of the commonplace: A philosophy of the art*. Cambridge, MA: Harvard University Press.

Gerger, G., & Leder, H. (2015). Titles change the aesthetic appreciations of paintings. *Frontiers in Human Neuroscience*, 9. DOI: 19.3389/fnhum.2015.00464

Hristova E., Georgieva S., Grinberg M. (2011). Top-down influences on eye-movements during painting perception: the effect of task and titles. *Toward Autonomous, Adaptive, and Context Aware Multimodal Interfaces. Theoretical and Practical Issues* (pp. 104–115). DOI: 10.1007/978-3-642-18184-9_10

Jacoby, L. L., Kelley, C., Brown, J., & Jasechko, J. (1989). Becoming famous overnight: Limits on the ability to avoid unconscious influences of the past. *Journal of Personality and Social Psychology*, 56(3), 326–338. DOI: 10.1037/0022-3514.56.3.326

Kapoula, Z., Daunys, G., Herbez, O., & Yang, Q. (2009). Effect of title on eye-movement exploration of cubist paintings by Fernand Léger. *Perception*, 38(4), 479–491. DOI: 10.1068/p6080

Leder, H., Carbon, C. C., & Ripsas, A. L. (2006). Entitling art: Influence of title information on understanding and appreciation of paintings. *Acta Psychologica*, 121(2), 176–198.DOI: 10.1016/j.actpsy.2005.08.005

Millis, K. (2001). Making meaning brings pleasure: The influence of titles on aesthetic experiences. *Emotion*, 1(3), 320–329.DOI: 10.1037/1528-3542.1.3.320

Müllensiefen, D., Gingras, B., Musil, J., & Stewart, L. (2014). The musicality of non-musicians: An index for assessing musical sophistication in the general population. *PloS ONE*, 9(2), e89642. DOI: 10.1371/journal.pone.0089642

Reber, R., & Schwarz, N. (1999). Effects of perceptual fluency on judgments of truth. *Consciousness and Cognition*, 8, 338 –342. http://dx.doi.org/10.1006/ccog.1999.0386

Reber, R., Schwarz, N., & Winkielman, P. (2004). Processing fluency and aesthetic pleasure: Is beauty in the perceiver's processing experience? *Personality and Social Psychology Review*, 8(4), 364-382. DOI: 10.1207/s15327957pspr0804_3

Reber, R., Winkielman, P., & Schwarz, N. (1998). Effects of perceptual fluency on affective judgments. *Psychological Science*, 9(1), 45–48. DOI: 10.1111/1467-9280.00008

Rentfrow, P. J., Goldberg, L. R., & Levitin, D. J. (2011). The structure of musical preferences: a five-factor model. *Journal of Personality and Social Psychology*, 100(6), 1139–57. DOI: 10.1037/a0022406

Russell, P. A. (2003). Effort after meaning and the hedonic value of paintings. *British Journal of Psychology*, 94, 99–110. DOI: 10.1348/000712603762842138

Shah, A. K., & Oppenheimer, D. M. (2007). Easy does it: The role of fluency in cue weighting. *Judgment and Decision Making*, 2(6), 371–379. DOI: 10.1037/e722852011-015

Swami, V. (2013). Context matters: Investigating the impact of contextual information on aesthetic appreciation of paintings by Max Ernst and Pablo Picasso. *Psychology of Aesthetics, Creativity, and the Arts*, 7(3), 285–295. DOI: 10.1037/a0030965

Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5(2), 207–232. DOI: 10.1016/0010-0285(73)90033-9

Whittlesea, B. W., & Williams, L. D. (1998). Why do strangers feel familiar, but friends don't? A discrepancy-attribution account of feelings of familiarity. *Acta Psychologica*, 98, 141–165. http://dx.doi.org/10.1016/S0001-6918(97)00040-1