Openness to Experience and Composer Bias: Emotional Reactions to AI-Generated Music

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Abstract

This study explores the connection between perceived authorship (human, AI, or human-AI collaboration) and the intensity of the emotional experience of music, particularly focusing on how the relationship is moderated by openness to experience. It was hypothesised that individuals high in openness to experiences would show similar emotional responses across all authorship conditions, while those scoring low in openness to experience would respond more emotionally to music believed to be composed by humans. To test this, the participants listened to the same song but were told it was either written by a human, a human working with AI or created entirely by AI, and reported their emotional response to the musical piece. Contrary to our hypothesis, openness did not significantly moderate the effect. However, a significant main effect of perceived authorship was observed, as participants reported stronger emotional responses when they believed the song was composed by a human. This supports prior research on composer bias and extends it by demonstrating its influence on the emotional experience of music rather than just evaluative judgements. The study's limitations include a small sample size, limited emotional depth of the music used, and the short duration of the listening clip. Future research should consider introducing more immersive musical experiences, more detailed exploration of openness to experience and consider evolving role of AI familiarity in shaping emotional and aesthetic responses to creative work.

Keywords: artificial intelligence, composer bias, emotional response, openness to experience, authorship information

Openness to Experience and Composer Bias: Emotional Reactions to AI-Generated Music

As the 21st century progresses, artificial intelligence (AI) has made extraordinary advancements (Tang et al., 2020). With its rapid development, AI presents itself as a relevant and useful tool that continues to revolutionise our everyday lives, medical diagnostics (Kalra et al., 2024), education (Zhai et al., 2021), and business (Chen et al., 2023). Its overarching presence is also becoming more prevalent in creative industries, where the usage of artificial intelligence is rising in different creative domains (Anantrasirichai & Bull, 2022), such as music production (Deruty et al., 2022). This disrupts our wider understanding of the value of AI-generated work and creativity, which is traditionally considered to be a uniquely human characteristic (Mycka & Mańdziuk, 2025).

Music is one of the key creative fields where AI is used and developed in new directions (Mycka & Mańdziuk, 2025). Streaming platforms such as Spotify and Apple Music employ generative AI models to personalise song recommendations based on listeners' history and online behaviour patterns (Ayemowa et al., 2024). Beyond this, AI is increasingly implemented in the composition and production of music itself (Mantaras & Arcos, 2002), due to its ability to generate well-structured and balanced musical pieces (Wu & Yang, 2020). However, using artificial intelligence in music remains controversial and challenges our idea of authorship identity and its importance in the listener's music experience (Mycka & Mańdziuk, 2025).

Specifically, research suggests that information about who authored a piece of music, whether it is human or AI, affects how people perceive music, regardless of its actual origin or its musical and technical qualities. Generally speaking, people are less likely to enjoy music when they are told it was composed by AI, a phenomenon called the composer bias (Shank et al., 2023). The presence of composer bias remains largely unresearched, with little

known about its impact on the emotional intensity of the musical experience. Furthermore, composer bias in AI has not been explored in relation to personality traits, such as openness to experience. To get a more nuanced view of composer bias in AI music, this research investigates the effect of music authorship information on the emotional intensity of a musical experience and the extent to which it is moderated by openness to experience.

Emotional intensity of a musical experience

Music, often called the *language of emotions*, is a powerful tool that deeply affects human beings and allows us to feel and express different emotions (Scherer & Coutinho, 2013). Musical emotions emerge from complex neural responses in brain areas linked to reward, self-awareness and memory (Trost et al., 2012). Listening to music activates brain structures involved in emotional processing (Koelsch, 2014; Trost et al., 2012; Vuilleumier & Trost, 2015). Moreover, emotional reactions to music can be observed as early as four months of age (Zentner & Kagan, 1998). Despite the established connection, research on emotions evoked by music remains an emerging field (Zentner et al., 2008). While theories of emotion often focus on evolutionary emotions (such as fear, anger and happiness), emotions in music tend to lack a clear evolutionary value (Zentner et al., 2008) and are usually described as *aesthetic emotions* (Scherer & Coutinho, 2013). Aesthetic emotions reflect feelings of wonder, transcendence, nostalgia, enchantedness (Zentner et al., 2008), and express human appreciation of meaningful artwork that is often accompanied by physiological responses such as goose bumps, shivers, and tingling (Scherer & Coutinho, 2013). Corresponding to this, current research on musical emotions suggests that music-induced emotions can be differentiated into nine emotional subfactors of wonder, transcendence, tenderness, nostalgia, peacefulness, power, joyful activation, tension and sadness. These are systematically categorised and measured through the Geneva Emotional Music Scale (Zentner et al., 2008), a model specifically designed to capture the richness and distinctiveness of emotions in music.

Considering the unique and meaningful emotions music triggers and the fact that these experiences are understudied, studying factors that predict these emotions is important.

Literature mentions three factors that shape the individual's emotional experience of music. First, the structural features of the music itself (e.g. harmony and tempo) serve as sensory and perceptual inputs which impact our emotional response to the music. Second, the listening context shapes the nature of emotional experience through performance features (e.g. expression and dynamics), listener characteristics (e.g. mood, preferences, memories, attitudes), and contextual aspects (e.g. the situation in which the music is heard) (Scherer & Zentner, 2001). Lastly, another factor that has been shown to shape the listener's connection with music is authorship information, which refers to the perceived author of the music and is explored in this study.

Authorship Information

Authorship information refers to knowledge about who created a certain work, such as a novel, a film, a scientific article or a piece of music (Zauner et al., 2018). This information plays an important role in how a person interprets and evaluates a creative work, as the audience often shapes their opinion of the piece not only by the content itself but also by perceptions of the creator's identity, gender, characteristics or background (Colley et al., 2003). This can significantly alter the perceived value of the work, the originality and the emotional depth of it.

The effects of authorship information can be understood through the Vienna Integrated Model of Art Perception (Pelowski et al., 2017), which highlights the role of top-down (such as prior schemas and perceived self-relevance) and bottom-up (stimulus features) processes that shape aesthetic experiences. According to the model, authorship information activates the audience's beliefs and schemas, such as the idea that artificial intelligence cannot be emotional or produce art, which changes their experience of music.

As shown by research, artworks and poetry attributed to AI are consistently rated as less emotional and inferior to other art, even when the content is identical (Agudo et al., 2022; Köbis & Mossink, 2021). In the context of music, this phenomenon is known as AI composer bias: the tendency to evaluate music less favourably when we believe it was created by artificial intelligence (Shank et al., 2023). Due to the bias, listeners rated AI-attributed music as less enjoyable and less likeable (Shank et al., 2023).

Despite the growing body of research, affective engagement with music in the context of AI attribution remains under-investigated. Previous studies focusing on emotional responses to AI-labelled art have found diminished emotional reactions among audiences (Grassini & Koivisto, 2024), suggesting that authorship information can lower emotional reactions to art. Specifically regarding music, Kiernan et al. (2021) found that knowing the identity of the composer significantly shaped the audience's emotional experience of music.

Based on these patterns, we suggest that authorship information, particularly when the work is attributed to artificial intelligence, may diminish the intensity of the emotional experience of music. However, we argue that this effect is crucially dependent on another factor, the individual's openness to experience.

Openness to experience in music listening

Openness to experience is a fundamental personality trait within the Big Five, a personality model based on five personality factors: extraversion, neuroticism, openness to experience, conscientiousness, and agreeableness (Grajzel et al., 2023). Openness to experience is characterised by an intrinsic need for novelty and variety (McCrae & Costa, 1997). High-scoring individuals are sensitive to their own emotions and the feelings of others, attracted to new ideas and often exhibit socially unconventional attitudes (McCrae, 1993-1994). They tend to show a high appreciation for art, beauty, and nature, are likely to seek out

new information and are often described as understanding, imaginative, and bold (McCrae, 1993-1994).

Openness to experience is closely linked to aesthetic engagement across various art forms. Individuals high in openness tend to show greater appreciation for the arts and interpret artistic experiences more meaningfully than others (Silvia, 2007). Furthermore, the personality trait is strongly associated with artistic preferences, gallery visits and creative self-perception (Chamorro-Premuzic et al., 2009), and is linked to higher life satisfaction through engagement with the arts (Manolika & Jacobsen, 2025). Open individuals are also more likely to take part in different artistic activities (Feist & Brady, 2004; Furnham & Avison, 1997; Rawlings et al., 2000; Kaufman, 2013), and often experience more intense emotional reactions to art (McCrae & Costa, 1991; Fayn et al. 2015). For example, openness to experience has been identified as a strong predictor of awe-like experiences (Silvia et al., 2015) and aesthetic chills, as an emotional response to artistic experiences (McCrae, 2007).

Openness to experience has also been shown to be relevant in the realm of music listening, particularly in three key ways. First, individuals who score high in openness to experience tend to be exploratory in their music listening (Dollinger, 1993). This engagement with art and music may lead to a stronger emotional response to music. Second, openness to experience is associated with positive attitudes towards new technologies (Tuten & Bosnjak, 2001; McElroy et al., 2007), which can further strengthen their emotional connection to music, as they approach it with interest, rather than scepticism. Third, these individuals are more likely to integrate new technology into their lives (Svendsen et al., 2013) and welcome this novel and unconventional form of creativity.

Given the trait's association with deep engagement in artistic experiences, likelihood to explore new forms of music and a positive receptivity towards new technology, we predict that individuals high in openness to experience will be less influenced by authorship

information in their listening experience. Furthermore, their strong, deep emotional engagement with art and appreciation for artistic novelty suggest that authorship of the music will not diminish the intensity of their emotional response. By comparison, for people who score low in openness to experience, we predict that knowing the composer was human, rather than an AI or a human working with an AI, will enhance their emotional experience of the music, as they may have a stronger composer bias.

Present Research

The current study makes three significant contributions to the literature on composer bias. Firstly, the study incorporates a hybrid condition on music made by humans with the help of AI, going beyond the contrast between human-made and AI-made music. This reflects the usage of artificial intelligence in real-world music production and provides more ecological validity. Secondly, the study introduces openness to experience as a moderator, which has not been previously explored in this role, offering insight into how personality shapes our biases. Lastly, the study focuses on understanding the listener's emotional experience and its intensity. While prior studies explored the general liking and evaluation of AI music or explored other emotional aspects, this study provides us with more information on the affective impact of authorship.

Methods

Participants and Design

The dataset consisted of 155 cases. To ensure data quality, we employed a systematic exclusion process. In the first step, we excluded 45 participants whose responses were incomplete. In alignment with our predefined criterion, a response was considered incomplete if the participant did not get to the seriousness check or failed to complete the seriousness check, which assessed participant engagement. It is important to highlight that a substantial portion of participants in these incomplete responses merely accessed the opening screen of

the survey and did not meaningfully engage with the content of the survey. Of the 45 participants excluded on these grounds, only 12 reached the experimental manipulation and the remaining 33 exited the study before this phase. These details show that most of the participants we excluded for incompleteness never really took part in the study, rather than dropping out halfway through, which suggests that the high dropout rate does not point to problems with the study's design. In the second step, we first verified whether any participant indicated that they had not taken the study seriously via the seriousness check. Since none failed this check, no one was excluded at this stage. In the third step, we removed an additional 27 participants due to their failure on the attention check in the questionnaire. The attention check was designed to assess the participants' attention in the questionnaire by asking them about the experimental condition they were part of. Participants who failed the check were not considered reliable for our final sample. Finally, we removed 3 participants based on their explicit request to have their data withdrawn after the debrief. After completing the exclusion process, a total of 75 cases had been removed from the original dataset. Therefore, our final sample consisted of 80 participants (46 females, 34 males, $M = 31.41$, $SD = 14.49$; age range: 18 - 75), who completed the questionnaire and passed the attention checks and consented to be part of the research.

The study employed a between-subjects experimental design. The independent variable, authorship information, had three different levels (fully human, hybrid, and fully AI). The dependent variable was emotional intensity, and the moderator in the study was openness to experience. Participants were randomly assigned to one of the three experimental conditions. The study was conducted as a part of a larger Bachelor's thesis research project that included additional variables not discussed in this report. Other variables and their measures can be found in Appendix A.

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Materials and Procedures

Participants completed an online Qualtrics survey in which they were told a cover story stating the research aimed to explore how music is perceived differently by humans and artificial intelligence. The study employed deception in order to reduce demand characteristics. To protect the privacy of participants, only minimal demographic data (gender and age) was collected. The study was approved by the Ethical Committee of Psychology at the University of Groningen. It took approximately 10 minutes to complete, and all the materials were presented in English.

Openness to experience

After providing their informed consent, we first measured participants' openness to experience. For the assessment of participants' openness to experience, we used a 10-item scale based on Goldberg's (1993) Big Five Inventory (BFI) ($\alpha = .81$) which has previously shown high reliability and validity across different populations. Participants rated themselves on a 7-point Likert scale ranging from 0 *(Not at all)* to *(Extremely)* on items such as "I see myself as someone who is original, comes up with new ideas," and "Is curious about many different things". The overall mean score derived from these items indicated the individual's general openness to experiences, with higher scores reflecting greater openness.

Authorship information

The independent variable in the study was authorship information, which was manipulated by changing the description participants received about how the song they would hear was created. It is important to highlight that the song itself remained the same in all three experimental conditions, only the description of its origin varied. Participants were randomly assigned to one of three conditions: (1) the AI-only condition, where the song was described as entirely created by a music-generative artificial intelligence model, (2) the hybrid condition, where the song was described as being made by a human artist who used AI tools,

and (3) the fully human condition, where the song was described, as fully created by a human artist. This manipulation allowed us to isolate the effect of perceived authorship on participants.

As mentioned above, before listening to the 90-second excerpt of the pop song, each participant read a short text explaining how the song was made. While each condition provided a different description of how the song was created, all three conditions used the artist name *"Victoria Bellamy"* in the text description to maintain consistency and ensure that the differences in responses could be attributed to the manipulated authorship information. The song was generated using Suno, an AI music composition tool based on our creative prompts. The song genre (pop) was chosen based on its general accessibility and popularity across a wide audience. To ensure participants were fully engaged with the song, they had to listen to the song for the full 90 seconds. Only after the 90-second period of time, the continue button on the survey appeared.

The emotional intensity of the music

After listening to the song, participants' emotional response to music was assessed with a 9-item Geneva Emotional Music Scale (GEMS-9) ($\alpha = .83$), which is widely recognised for its validity in measuring music-evoked emotions (Trost et al., 2012). Participants were asked to express their emotional response to the music on a 7-point Likert scale, ranging from 0 *(not at all)* to 7 *(extremely)* on items such as "This song made me feel wonder (filled with wonder, allured, moved)" and "This song made me feel transcendence (fascinated, overwhelmed, feeling of transcendence)." The overall mean score derived from these items indicated the individual's overall emotional experience of the song. In addition, participants were given the opportunity to provide an open-ended, qualitative reflection on the song and their experience.

Attention check

In addition to the described questionnaires used to assess the participants' personality and emotions, the study incorporated a manipulation check. The participants were asked a direct question about whether they had been told that the song was created by a human, a human working with AI or AI on its own, to verify whether the participants had paid enough attention to the authorship information they were given. To ensure quality and attentiveness, the study also incorporated a seriousness check, which asked the participants about the sincerity of their answers. Finally, all the participants were debriefed at the end of the survey. The debriefing explained the true purpose of the study, clarifying the deception and giving participants the option to withdraw their data.

Results

To test our predictions, we conducted a moderation analysis using IBM Statistics SPSS 29.0 and the PROCESS macro (Hayes, 2013). Before the main analysis, the data was checked for assumptions of normality, linearity, homoscedasticity and the absence of multicollinearity. All the assumptions for conducting the analyses were met.

To test our hypothesis that individuals high in openness to experience will be less influenced by the song's authorship information (human, AI or collaboration) in their emotional response to music compared to individuals low in openness to experience, we a moderation analysis with authorship as the independent variable, emotional intensity as the dependent variable and openness to experience as the moderator.

Firstly, we examined the interaction between authorship information and openness to experience. Contrary to our predictions, openness to experience did not significantly moderate the effect of authorship on emotional experience. The interaction between openness and the fully AI manipulation was not significant t (74) = 0.60, p = .55. Similarly, the interaction between openness to experience and the human-AI collaboration manipulation was also non-significant t (74) = - 0.25, p = .80. These results indicate that the effect of authorship on

emotional experience did not differ based on levels of openness to experience, therefore our hypothesis was not supported.

Secondly, we examined the main effect of authorship on the emotional experience of music. The analysis found that authorship significantly affected the intensity of participants' emotional experience of music. Participants in the AI condition (M = 2.35, SD = 1.03) and the human working with the AI condition (M = 2.38, SD = 0.86) reported less intense emotional experiences than those in the human condition (M = 2.94, SD = 0.88). This effect was statistically significant for the AI condition compared to the human condition, t (74) = - 2.19, p = .032, and marginally significant for the AI-assisted condition, t (74) = - 1.98, p = .052. These findings suggest that knowledge of human authorship is associated with stronger emotional engagement with music compared to non-human authorship, which is consistent with previous research on authorship bias, where people respond more favourably to artistic content when they believe it was created by a human.

Lastly, we examined the main effect of the moderator, openness to experience. Analysis showed that there was no significant main effect of openness to experience on emotional intensity, t (74) = -1.12, p = .27, which indicates that openness to experience did not predict the intensity of participants' emotional responses to music.

Discussion

The present study aimed to investigate whether openness to experience moderates the effect of authorship information on the emotional intensity of participants' responses to music. We hypothesised that individuals high in openness to experience would be less affected by whether a song was described as created by a human, AI or a human collaborating with AI. Specifically, we predicted that they would report a similar emotional response to music across all authorship conditions, while those low in openness would react more emotionally to music they believed was composed by a human. However, our findings did not support this

hypothesis, as the interaction between openness to experience and authorship information was not statistically significant. This indicates that openness to experience did not moderate the emotional impact of authorship. Furthermore, there was no significant main effect of openness, which suggests that openness to experience does not independently influence emotional engagement with music based on its perceived authorship. Despite the lack of interaction, the study did reveal a significant main effect of authorship, as participants who believed that the song was composed by a human reported significantly higher emotional responses to the song in comparison to those in AI and hybrid (human-AI) conditions.

The absence of the expected moderation effect is somewhat surprising given that established literature links openness to experience to strong aesthetic and emotional engagement with art, as well as with positive reactions to aesthetic novelty (McCrae, 1993-1994). When considering the absence of the expected moderation effect, two possible explanations stand out. First, our study explored openness to experience as a single, undifferentiated trait. However, Silvia and Nusbaum (2011) argue that openness has two meaningful components: openness, which reflects aesthetic sensitivity and imagination, and intellect, which reflects cognitive engagement with new ideas. While both are associated with art appreciation, the two facets behave differently when it comes to emotional engagement: openness is a strong predictor of heightened emotional responses in aesthetic contexts, but the intellect is not. This could suggest that openness to experience does not directly translate to a heightened emotional engagement when it is considered an undifferentiated construct.

Second, our results suggest that the song itself lacked sufficient emotional richness to elicit emotional reactions across conditions. Our emotional intensity ratings were overall low across all conditions: AI-authored ($M = 2.35$), human-AI collaboration ($M = 2.38$) and even human-authored ($M = 2.94$), all below the midpoint of the 1-7 scale. These low means could overall imply that the stimulus may not have been emotionally engaging enough to reveal the

expected differences. By comparison, while using liking rather than emotional experience as a measure, Shank et al. (2023) found a more positive response to their stimulus in their study using a -3 to +3 liking scale for both classical (M = 1.01) and electronic *(*M = 0.31) music, both well above the midpoint of the scale. This contrast demonstrates that our stimulus was different from stimuli in previous research and points to its low emotionality.

The study revealed a significant effect of authorship, as participants who believed that the song was composed by a person reported significantly higher emotional responses to the song in comparison to participants in other conditions. These findings are consistent with previous research on composer bias (Shank et al., 2023). Unlike prior studies that generally focused on the appreciation of music or other aspects of emotions, our study focused on emotional intensity and used a novel, AI-generated stimulus. This allowed us to extend previous research by examining a new angle on AI composer bias. The AI-generated stimulus allowed us to present our participants with a new and unknown song, which eliminated confounds of familiarity or prior associations. Our results closely align with the Vienna Integrated Model of Art Perception (Pelowski et al., 2017), which highlights how top-down processes and bottom-up stimulus features shape aesthetic and emotional responses. In our study, labelling music as AI-composed or human-composed likely activated negative schemas about AI (Kidd & Birhanne, 2023). This prompted participants' detachment from the song, finding less meaning in it, and reducing emotional connection to it, even though the music remained constant.

Our results suggest that openness to experience does not moderate the relationship between authorship information and the emotional experience of music. Nonetheless, our results provide evidence for AI composer bias and show that individuals experience less intense musical emotions when they believe the music was composed by AI.

Limitations

The study had three methodological limitations that should be acknowledged. First, the sample size was relatively small, which may have reduced the statistical power needed to detect interaction effects. At the same time, the sample consisted primarily of our student social circles and could be more diverse. Further research should aim to recruit a bigger, diverse participant pool, including individuals with diverse familiarity with AI and openness to technology (Schiavo et al., 2024). The diverse participant pool could help us recognise if people differ in their receptiveness to AI-generated music, leading to more generalizable and nuanced insights.

Second, the song sample used in the study was created by *Suno*, an AI-based music generation platform. While this allowed us to present participants with an original music piece which none of them could have been exposed to before, the AI song generation possibly did not match a human-created song. In participants' qualitative feedback, several participants reported that the song sounded very generic. This was further reflected in low means on our measure of emotional intensity. Given that the explored dependent variable is emotional intensity, it is important to introduce technically advanced and emotionally rich stimuli. Future research should consider this limitation when using AI-generating music technology and aim to create music comparable to the quality of human-made music.

Lastly, a possible limitation is that the study used a 90-second clip of the song, which could have been too short to produce meaningful emotional responses from participants. Extending this listening time could potentially allow deeper emotional engagement with the music. At the same time, longer exposure could demand more participants' attention and lead to disengagement with the study or increase study dropouts. Future research should consider this and explore how listening time relates to the emotional response to the music.

Future research

Looking beyond the current study, future research should more precisely investigate both the psychological mechanisms, such as perceived creativity and individual differences, and contextual factors that shape the emotional response to authorship information. At the same time, a more detailed examination of openness to experience, with a focus on differentiation between the two components of openness and intellect (Silvia & Nusbaum, 2011), could shed more light on the relationship between openness to experience and authorship information. Another valuable insight could be found in exploring how familiarity with AI technologies and AI capabilities shapes listener perceptions over time. For example, individuals who engage with AI technology more frequently may have a different relationship with AI technology compared to those who are not often in contact with it (Kelly et al., 2023). This could shed light on how attitudes towards AI evolve and affect emotional perception over time.

Beyond academic research, our findings could have practical implications for creative industries, AI development, and marketing. This study highlights the significance of perceived authorship in shaping emotional engagement with music and art more broadly. Understanding how listeners engage and emotionally respond to different composer information can guide musical artists on how to promote and present their work. Furthermore, this information can help AI developers design AI models that are engaging and emotionally rich. At the same time, we highlight a potential risk in using AI technologies in the creative sector, since the audiences perceive AI-made art as less emotionally engaging. To avoid this, creatives should avoid uncritical adoption of AI-generative tools and consider how authorship is communicated to their audiences, to maintain an authentic emotional connection with them.

Conclusion

The present study aimed to provide a clearer view of AI composer bias in music and investigate the effects of music authorship information on the emotional intensity of a musical

experience and the extent to which this is moderated by openness to experience. While our research did not find evidence that openness to experience moderates emotional engagement with music, the present study shows that individuals tend to feel more emotionally engaged with music they believe was created by a human. As AI-generated content becomes more integrated into creative fields, further exploration is needed to understand how the perception of creativity and authorship shapes emotional and aesthetic experiences.

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Appendix A

Title of the study: BA Thesis AI Music

Table A1

Questionnaire Items

Measurement Scale	**Lyrical appreciation**
Instruction Please indicate how much you agree with each of the following statements.	
(1 = *strongly disagree*, 7 = *strongly agree*)	I identify with the lyrics of certain songs.
	I avoid listening to songs when I dislike the lyrics.
	A song with bad lyrics can still be good a song.
	I remember songs by their lyrics.
	I tend to listen to songs that have lyrics with deeper meaning.
	I prefer songs with lyrics over instrumental music.
	I don't care much about the lyrics of a song.
	Lyrics play a big role in determining a song's quality.
Measurement Scale	**Musical expertise**

Instruction	
Please indicate to what extent you agree with the statements below.	
(1 = *strongly disagree*, 7 = *strongly agree*)	I often pick certain music to motivate or excite me.
	I am able to talk about the emotions that a piece of music evokes for me.
	Music can evoke my memories of past people and places.
	I have been complimented for my talents as a musical performer.
	I would not consider myself a musician.
	I find it difficult to spot mistakes in a performance of a song even if I know the tune.
	I can tell when people sing or play out of time with the beat.
	I can tell when people sing or play out of tune.
	When I sing, I have no idea whether I'm in tune or not.

	I am able to hit the right notes when I sing along with a recording.
	I am not able to sing in harmony when somebody is singing a familiar tune.
Measurement Scale	**Openness to Experience**
Instruction Please indicate how much you agree with each of the following statements.	
(1 = *strongly disagree, 7 = strongly agree)*	I see myself as someone who is original, comes up with new ideas.
	I see myself as someone who is curious about many different things.
	I see myself as someone who is ingenious, a deep thinker.
	I see myself as someone who has an active imagination.
	I see myself as someone who is inventive.
	I see myself as someone who values artistic, aesthetic experiences.
	I see myself as someone who prefers work that is routine.

	I see myself as someone who likes to reflect, play with ideas.
	I see myself as someone who has few artistic interests.
	I see myself as someone who is sophisticated in art, music, or literature.
Measurement Scale	**Active Engagement in Music**
Instruction Please answer the questions below.	
(1 = strongly disagree, 7 = strongly agree)	I spend a lot of my free time doing music-related activities.
	I enjoy writing about music, for example on blogs and forums.
	Im intrigued by musical styles I'm not familiar with and want to find out more.
	I often read or search the internet fort hings related to music.
	I don't spend much of my disposable income on music.
	Music is kind of like an addiction for me – I couldn't live without it.
	I keep track of new music that I come across (e.g. new artists or recordings).

0 to 11 or more	I have attended _ live music events as an audience member in the past twelve months.
0 minutes to 4 hours or more	I listen attentively to music for _per day.
Measurement Scale	**Bias against AI**
Instruction	
We are interested in your attutides towards Artificial Intelligence. By Artificial Intelligence we mean devices that can perform tasks that would usually require human intelligence. Please note that these can be computers, robots or other hardware devices, possibly agumented with sensors or cameras, etc. Please complete the following scale, indicating your response to each item. There are no right or wrong answers. We are interested in your personal views.	
(1 = strongly disagree, 7 = strongly agree)	For routine transactions, I would rather interact with an artificially intelligent system than with a human.
	Artificial Intelligence can provide new economic opportunities for this country.
	Organisations use Artificial Intelligence unethically.
	I am impressed by what Artificial Intelligence can do.
	I think artificially intelligen systems make errors.
	I am interested in using artificially intelligent systems in my daily life.
	I think Artificial Intelligence is dangerous.

	Artificial Intelligence can have positive impacts on people's wellbeing.
	I shiver with discomfort when I think about future use of Artifical Intelligence.
	People like me will suffer if Artificial Intelligence is used more and more.
	Artificially intelligent systems can perform better than humans.
	Artificial Intelligence might take control of people.

Conditions

Instructions Shown Before the Song

In this study, we explore how people experience music compared to AI. You will now listen to a 1-minute and 30-second snippet of a song and answer some questions about it. Please listen carefully and respond honestly; there are no right or wrong answers.
Please use headphones or be in a quiet environment where you can focus on the music. If you are not in a position to do that right now, we kindly ask you to return at a later moment.

Manipulation: Fully Human

The song you are about to hear is performed by Victoria Bellamy, a singer-songwriter from the UK who writes and composes her own songs. The lyrics, composition, and production of the song were entirely done by herself.

Manipulation: Hybrid

The song you are about to hear is performed by Victoria Bellamy, a singer-songwriter from the UK who collaborates with AI tools in her creative process. The lyrics of this song

were written by Victoria, while the composition and production were generated by artificial intelligence at her direction.

Manipulation: Fully AI

The song you are about to hear is performed by Victoria Bellamy, a virtual AI musician created entirely by the AI platform Suno. The lyrics, composition, and production of this song were generated by artificial intelligence without human intervention.

Table A2

Questionnaire Items

Measurement Scale	**Perceived creativity**
Instruction	
Please indicate to what extent you agree with the statements below.	
(1 = *strongly disagree*, 7 = *strongly agree*)	This song sounds fresh and original.
	The song contains surprising elements.
	This song feels ahead of its time.
	This song is logically composed.
	This song is valuable.
	This song is practical for its intended use (e.g., dancing, relaxation)
	This song is complex.
	This song sounds elegant.
	This song is well crafted.

	This song is easy to understand.
Measurement Scale	**Song Appreciation**
Instruction Please indicate how much you agree with the statements below.	
(1 = *strongly disagree*, 7 = *strongly agree*)	I liked the song I just listened to.
	I am interested in listening to this song again.
Measurement Scale	**Intensity of Emotions**
Instruction We are interested in the emotions that the song you just listened to evoked in you. Indicate how much you agree or disagree with the following statements.	
(1 = *strongly disagree*, 7 = *strongly agree*)	The music made me feel wonder (e.g. filled with wonder, allured, moved).
	The music made me feel transcendence (e.g. fascinated, overwhelmed, feelings of transcendence).
	The music made me feel tenderness (e.g. affectionate, romantic, tender).
	The music made me feel peacefulness (e.g. relaxed, calm, soothed).

	The music made me feel nostalgia (e.g. nostalgic, sentimental, dreamy).
	The music made me feel joyful activation (e.g. joyful, animated, bouncy).
	The music made me feel power (e.g. strong, energetic, triumphant).
	The music made me feel sadness (e.g. sad, sorrowful, tearful).
	The music made me feel tension (e.g. tense, irrigated, agitated).
Measurement Scale	**Evaluation of the Music**
Instruction	
Please indicate how much you agree with each of the following statements.	
(1 = *strongly disagree*, 7 = *strongly agree*)	Many listeners would enjoy this music piece.
	This music piece keeps listeners interested.
	This music piece presented a strong aesthetic appeal.
	This music piece was creative.

	This music piece included very original music ideas (range, dynamics, timbre, tempo texture, rhythm, melody).
	This music piece included an unusual imaginative musical idea.
	This music piece had a clear beginning, middle, and end.
	This music piece appeared well-organized, not random.
	This music piece had a good completeness overall.
Manipulation and Seriousness Check	
Instruction	
Think back to the song you listened to. What did the information you read state about the creator of this music?	
This music was created by…	A singer songwriter from UK who writes and composes her own songs.
	A singer songwriter from the UK who collaborates with AI tools in her creative process.

	A virtual AI musician created entirely by the AI platform Suno.
Open question	Do you have any comments about the song you listened to?

Appendix B: AI Acknowledgement

I acknowledge the use of OpenAI's ChatGPT (OpenAI, 2025) to refine my language, style, and clarity in the presented thesis. No content generated by AI technologies has been presented as my own work. ChatGPT was used exclusively to improve my academic writing and has not been used to generate any of the presented ideas or content. Its outputs were critically analysed, edited, and integrated by me.