Music and identity

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Abstract

Background*:* Music acts as an important source for the construction of identity and sense of self in the lives of adolescents. This is accentuated in the life-period of adolescence since developing one`s identity is the most salient developmental tasks during this time. However, it remains largely unclear whether music preference plays a role in specifically, educational identity and clarity of self-concept.
Research questions: This research aims to determine whether music preference predicts educational identity and self-concept clarity. This research also examined whether these relationships differed according to gender and school level.
Method: This was examined using a multiple regression analysis and dividing educational identity in three different identity statuses (commitment, exploration and change) whilst also looking at self-concept clarity. The covered music genres were Rock, Heavy Metal, ChartTop40, Jazz, Trance and Hip-Hop.
Results and conclusion: Music preference predicted self-concept clarity and educational identity, this relationship differed depending on gender and education level (depending on music genre). Rock, Trance, Jazz and Top40 were the music genres that predicted educational identity depending on the educational identity status. Jazz, Trance and Heavy metal predicted self-concept clarity. Gender and school level influences the relationship between music preference and self-concept clarity/educational identity.

Chapter 1. The introduction

The importance of music and identity

Music plays an integral part in the lives of adolescents. On average British students spend over 2.45 hours per day listening to music (Delsing et al., 2008). Adolescents even place music listening above all other leisure activities when it comes to their interest (North & Hargreaves, 1999). Music listening is more than just a leisure activity since adolescents also use music as a technique to enhance their mood and thus, it may help to battle internal problems such as depression and anxiety (Gabhainn et al., 2010). Additionally, music acts as an important source for the construction of identity and sense of self during the lives of adolescents. This is accentuated in the life-period of adolescence since developing one`s identity is one of the most salient developmental tasks during this time (Mulder et al., 2010). However, it remains largely unclear whether music preference plays a role the formation of educational identity and clarity of self-concept.

This research aims to bridge the gap within the literature regarding these concepts. Thus, the goal of this study is to see whether music preference and identity and clarity of self-concept are related whilst controlling for gender and educational level.

Educational identity formation

Erikson laid the foundation for identity research by connecting identity formation with the life phase of adolescence (Hurrelmann & Hamilton,1996). Marcia expanded on Erikson`s work by developing the identity status model which focuses on adolescents (Marcia, 1966). Marcia describes four statuses of identity formation. These statuses are based on the degree of exploration and commitment regarding one`s identity. The first status refers to identity diffusion. Identity Diffusion indicates that adolescents made no commitment regarding their identity and made little to no effort to explore different alternatives. The second status is Foreclosure. Foreclosure entails that someone has made a commitment but without exploration. The third stage is Moratorium. Moratorium revolves around adolescents that are in a state of active exploration but have not made a clear commitment yet. The final stage is seen as Identity Achievement. This state refers to adolescents who finished their exploration and have made a full commitment.

Another model, developed by Meeus, Crocetti, and colleagues, is also based on Marcia`s model of identity formation but takes on a slightly different angle (Meeus, 2011). Their model states that identity is formed by statuses of commitment, reconsideration, and in-depth exploration. They assume that adolescents explore commitments by reconsideration of those commitments and through in-depth exploration. Reconsideration refers to adolescents comparing the present commitments to other ones and determining whether these need to change. Whilst in-depth exploration looks at the process of constantly observing present commitments. This leads to a dual cycle model in which the first cycle entails that adolescent form commitments by considering and reconsidering them. The second and final cycle touches on identity maintenance, adolescents become more familiar with their current commitments by exploring them in-depth.

The CONAMORE data regarding identity is based on the U-Gids developed by Meeus et al., (2008). The three identity statuses described by the U-gids largely follows the definitions developed by Marcia(1966). However, the U-Gids has two types of exploration. The U-Gids divides exploration by the status of in-depth exploration and status of reconsideration of commitment. In-depth exploration can be defined as someone who explores and reflects on current commitments without disregarding said commitment. Reconsideration refers to someone who compare their current commitment with possible

alternatives. The final stage is that of commitment which can be seen as fully committing to your current status.

This study will mainly regard the U-Gids to measure a respondents identity status due to the alignment of its definitions with the used survey. This study will define reconsideration of commitment as the identity status of change since change is defined the same as reconsideration of commitment in the CONAMORE survey. Thus, respondents are measured on commitment, exploration and change in their educational identity.

Self-concept clarity

Another incremental developmental task for adolescents is gaining clarity regarding one`s self. Self-concept clarity can be defined as the degree in which the personal attributes of one`s individual`s self-concept is distinctly defined, consistent and temporally stable (Campbell et al., 1996). The definition of self-concept and clarity has overlap with identity but differentiates itself in the fact that identity revolves around the extent of commitment, reconsideration and exploration which is not the case for self/concept clarity. The clarity in one`s self concept indicates how much people know themselves.

Music taste in relation to identity formation

Even though literature regarding music taste and identity formation is sparse, there are some indicators that there may be a connection between these variables based on past study`s. Research conducted by Roe (1995) found that those that prefer Classical music, Jazz and Blues were more likely to be high-academic achievers. On the other hand, those that listen to heavy metal tend to be more discontent and lower achieving when it comes to their education. There was a similar effect (albeit less strong) for those that liked mainstream rock. More importantly, a negative commitment to education was associated to a preference of harder forms of rock. Fans of loud music such as rock also seem to use music to cope with confusing emotions (Arnett, 1991). Another study found that those that listen to more sophisticated music genres such as Jazz and Classical music are more interested by the complexity in music than the evoking of emotions (Schäfer and Sedlmeier,2009). Additionally, those that listen to for example Jazz base their music preference on intellectual stimulation instead of emotional arousal. Moreover, a study conducted by LeBlanc et al., (1996) implies that those that have a higher education level tend to prefer Jazz music. Based on these finding it can be concluded that those who prefer complex music may be more likely to achieve the education level that they want to reach. This in turn may lead to achieving the educational identity that they want and being more committed to their educational identity.

Music taste in relation to self-concept

Literature seems to show that there is a relationship between music and self-concept. North and Hargreaves (1999) conducted research examining the self-prototype matching hypothesis which states that a lifestyle choice (in this case music preference) gets chosen based on a prototypical person (for example a famous rapper in music videos wearing certain kind of clothes). The hypothesis assumes that adolescents want to enforce their self-image as much as possible. The other hypothesis predicts that the music preference of adolescents gets determined by choosing the music style that corresponds with the prototypical fans that match their own self-concept. North and Hargreaves (1999) found significant results which supported both hypotheses.

Another research that supports the connection between music preference and self-concept is a study conducted by Schwartz and Fouts (2003). They found that adolescents who prefer heavy music tend to have lower self-esteem and higher self-doubt. They also seemed

to have a less stable sense of identity (so lower degree of clarity in self-concept). Respondents that mainly listened to eclectic and light music did not suffer from significant problems regarding self-concept and self-esteem.

Hypotheses and research questions

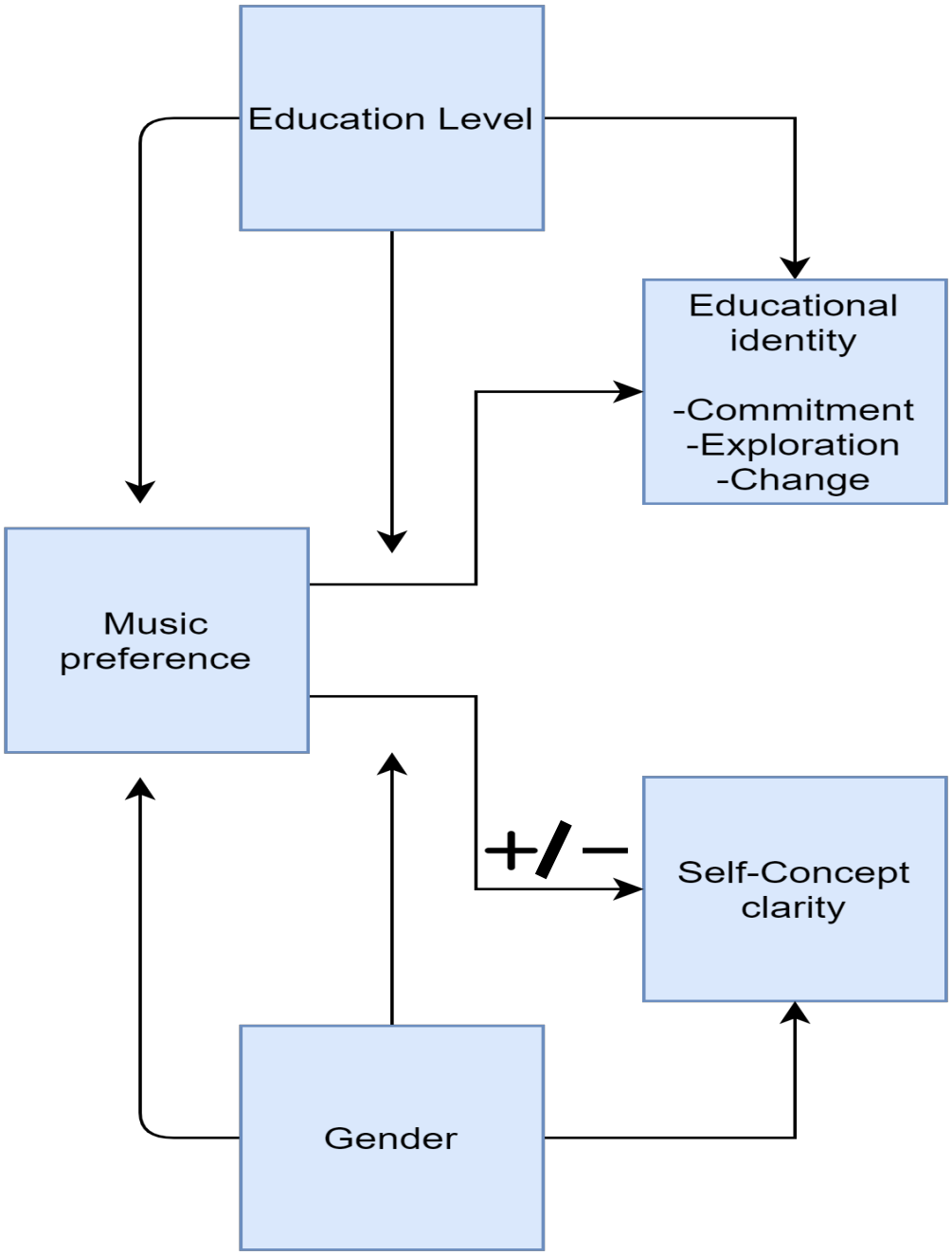
Based on the literature review it can be hypothesized that the preference for Rock and/or heavy metal leads to a lower commitment (Roe, 1995). Whilst it can be hypothesized that adolescents who listen to Jazz music tend to have higher commitment regarding their education (Schäfer & Sedlmeier, 2009).
It can also be hypothesized that the preference for Heavy Metal/Rock leads to a higher degree of self-concept whilst those that listen to ChartTop40 music have a higher degree of self-concept (Schwartz & Fouts, 2003; North & Hargreaves, 1999). Gender and educational level may influence these potential connections. Research already indicates that educational level may significantly influence music preference (LeBlanc et al., 1996). Past study`s also suggest that gender may affect the distribution of identity statuses amongst adolescents (Kroger, 1997). Thus, the variables gender and educational level will be controlled for. Therefore, this research will explore whether these potential relationships are significantly moderated by education level and gender. This leads to the following research questions and hypotheses:

- RQ 1: Does music preference predict educational identity?
- RQ 2: Is the potential link between music taste and educational identity significantly moderated by educational level and/or gender?
- RQ 3: Does music preference predict self-concept clarity?
- RQ 4: Is the potential link between music taste and self-concept/clarity significantly moderated by educational level and/or gender?

From the literature the following hypotheses emerge:

- H1: Preference for Heavy Metal and Rock music significantly predicts a lower self-concept clarity.
- H2: Preference for Top40 music significantly predicts a higher self-concept clarity.
- H3: Preference for Jazz music predicts the identity status of commitment
- H4: Preference for Rock and Heavy Metal predicts a low score in the identity status of commitment.
- H5: The relationship between preferring Jazz music and commitment is significantly moderated by education level.

Figure 1: Research model



Chapter 2. Methods

Sample/participants

Data used for this study has been derived from the CONAMORE study conducted by prof. dr. Wim Meeus from Utrecht University. The CONAMORE study collected data from 1275 secondary school students spread across 12 secondary schools in the province of Utrecht. The sample consisted of 615 boys (48.2% of the total sample) and 660 girls(58.8% of the total sample).

Research design and procedure

This research has a quantitative research design. Data from participants has been gathered through self-report-based surveys. The CONAMORE study is a longitudinal study consisting of several waves. It is important to note that this research will focus on the fifth wave of the CONAMORE study. The earlier mentioned self-reported surveys were conducted at school.

Measuring instruments

This research will focus on music preference and its potential connection with educational identity and self-concept clarity. Students answered questions on a 1-5 Likert scale. Self-concept clarity was measured using 12 questions which were based on the Self-concept clarity scale developed by Campbell et al. (1996). Respondents were asked to indicate whether they *Strongly agree (1), agree (2), don`t agree/don`t disagree (3), agree (4) or strongly agreed (5)* with statements looking at self-concept clarity. Those that agree with the statements to a high degree have a low amount of self-concept clarity (example item 3: "I spend a lot of time wondering about what kind of person I really am"). The scaling for this concept has been reversed to maintain the readability of my results.

The educational identity scale was used in order to measure educational identity status (Meeus,1996). The 12 questions were divided into the identity status of Commitment, exploration, and change. For educational identity respondents were asked whether they thought a said statement was either completely true (1), true (2), sometimes true/sometimes not (3), untrue (4) or completely true (5) for them. This scaling was also reversed to be in line with the results of self-concept clarity amongst respondents. Respondents were asked in what degree they agreed with these statements. The first five items examined commitment (Item 1: "My education gives me security in life"). The next five items focused on the exploration (item 2 "I often reflect about my education"). The last three items looked at the of change (Item: 3 "In fact, I'm looking for a different education").

Educational level was classified in the following options/levels which are based on the Dutch educational system: VMBO(10.7 percent of the total sample),MAVO/VMBOTL combined class(3.4 percent of the total sample), VMBO/MAVO/HAVO combined class(5.6 percent of the total sample), HAVO(8.6 percent of the total sample), combined class HAVO/VWO(40.1 percent of the total sample), GYMNASIUM(15.9 percent of the total sample), MBO/ROC(10.7 percent of the total sample) with a total N of 1331. For the analysis VMBO,MAVO/VMBOTL combined class and ROC were coded as 0 whilst HAVO/VWO, GYMNASIUM, HBO and University were coded as 1. For music preference participants were asked whether they found a said music genre either *very bad(1), bad(2), not good/not*

bad(3), good(4), very good(5) or don`t recognize(6). This measurement has been derived from "De geschiedenis van jeugdcultuur en popmuziek" written bij Ter Bogt (2000).

When it comes to gender participants could fill in either male (coded as 1) or female (coded as 2).

The factor analysis found three factors regarding educational identity. Furthermore, the factor analysis that has been run for the items looking at Self-concept clarity identified one factor.

Reliability analysis

A reliability analysis has been conducted regarding each concept to retrieve the Cronbach's alpha which showed a high degree of reliability. Cronbach`s for the 12 items regarding self-concept clarity was 0.86. The Cronbach`s alpha for the 5 items looking at the identity status of commitment was 0.91. Cronbach`s alpha of the 5 items regarding the identity status of exploration was 0.84. Finally, Cronbach`s alpha of the 3 items looking at the identity status of change was 0.90.

Data analysis

A Regression analysis will be used in order to answer my research questions. Before running the analysis, it is important to go through the assumptions that are connected to regression. The following assumption were be tested through SPSS: No significant outliers that heavily influence the results, normality, multicollinearity, and homoscedasticity of residuals. All assumptions were met except for normality. The regression analysis was run in SPSS by making the dependent variables exploration, commitment, change or self-concept clarity and make music genres the independent variable(predictors). The used music genres were Rock, Heavy Metal, ChartTop40, Trance, Jazz and HipHop music. Additionally, a moderation analysis was incorporated to see whether these relationships are significantly moderated by gender and education level. A significance level of $p < .05$ was used during the statistical analysis.

Missing values were found among several respondents. The missing values were imputed for the items looking at the three identity statuses. Imputing did not work properly for self-concept, cases were excluded listwise in SPSS to handle these missing values.

Chapter 3. Results

The correlation matrix which can be viewed below shows the correlations between music genres and self-concept clarity/educational identity. The correlation matrix indicates that the music preferences for Rock has significant positive correlations with self-concept, exploration, commitment, and change. This is also case for Heavy Metal except for the identity status of change. Jazz on the other hand only has significant positive correlations with self-concept and commitment. The preference for Chart Top 40 music only significantly correlates with the identity status of change. The preference for Trance music negatively correlates with the identity status of commitment whilst positively correlating with the identity status of change.

Table 1. Correlation matrix.

		1	2	3	4	5	6	7	8	9	10
1.	Selfconcept	-	-	-	-	-	-	-	-	-	-
2.	Exploration	.04	-	-	-	-	-	-	-	-	-
3.	Commitement	.25**	.46**	-	-	-	-	-	-	-	-
4.	Change	.14**	.17**	.23**	-	-	-	-	-	-	-
5.	Rock	.16**	.14**	.12**	.11**	-	-	-	-	-	-
6.	Heavy Metal	.15**	.10**	.11**	.01	.63**	-	-	-	-	-
7.	Jazz	.13**	.02	.08**	.03	.23**	.14**	-	-	-	-
8.	Chart Pop Top 40	.01	.04	.02	.13**	.05	.21**	.00	-	-	-
9.	Trance	.01	.02	-.06*	.86**	.05	-.06*	.00	.23**	-	-
10.	Hip Hop	.01	.04	.03	.01	-.07*	.12**	.15**	.24**	.17**	-

Note. *p<0.05, **p<0.01, ***<0.001.

Table 2. Descriptive statistics for music preference, self-concept clarity and identity.

	N	*M*	*SD*
Music genres			
Rock	1262	2.69	1.37
Heavy Metal	1262	2.04	1.24
Chart Top 40	1313	3.87	1.11
Jazz	1272	2.48	1.19
Trance	1313	3.06	1.38
Hip Hop	1313	3.47	1.27
Self-concept clarity and each identity status			
Self-concept clarity	1254	3.46	0.6
Commitment	1256	3.77	0.75
Exploration	1260	3.29	0.78
Change	1272	2.24	0.77

Self-concept clarity

The first regression model indicates that educational level and gender significantly predict self-concept clarity F (2,1223)=9.025, p<0.001 and with an R^2 of 0.04. The first model also indicates that females have a lower degree of self-concept (β -0.20, SE B=0.03, p<0.001).

The second regression model suggests that music preference significantly predicts self-concept clarity F (8,1217) =13.675, p<0.001 and with an R^2 of 0.082. Gender remained a significant predictor in the second model (β -0.20, SE B=0.04, p<0.001) whilst education level became a significant predictor (β -0.08, SE B=0.04, p=0.005). Looking at each music genre the results show differences in significance on predicting self-concept clarity. A preference for Heavy Metal music predicted a significantly lower score in self-concept clarity (β -0.12, SE B=0.02, p=0.001). A preference for Jazz also significantly predicted a lower score in self-concept clarity (β=-0.08, SE B=0.02, p=0.06). A preference for Trance music significantly predicts a lower degree of self-concept clarity (β=-0.58, SE B=0.01, p=0.047).

The final model looks at the interactions with each music genre. The interaction results show that gender significantly moderates the relationship between Jazz music and self-concept clarity (β=0.30, SE B=0.03, p=0.001). Males with a low preference for Jazz music have a higher self-concept clarity than females, this effect was reversed for males and females with a high preference for Jazz music (see plot 1).

The significant interaction between school level and ChartTop40 music shows that those with a low school level and low preference for ChartTop40 music tend to have a higher self-concept clarity(β=-0.07, SE B=0.03, p=0.036).. This difference widened for those who have a high preference for ChartTop40 music (see plot 2).

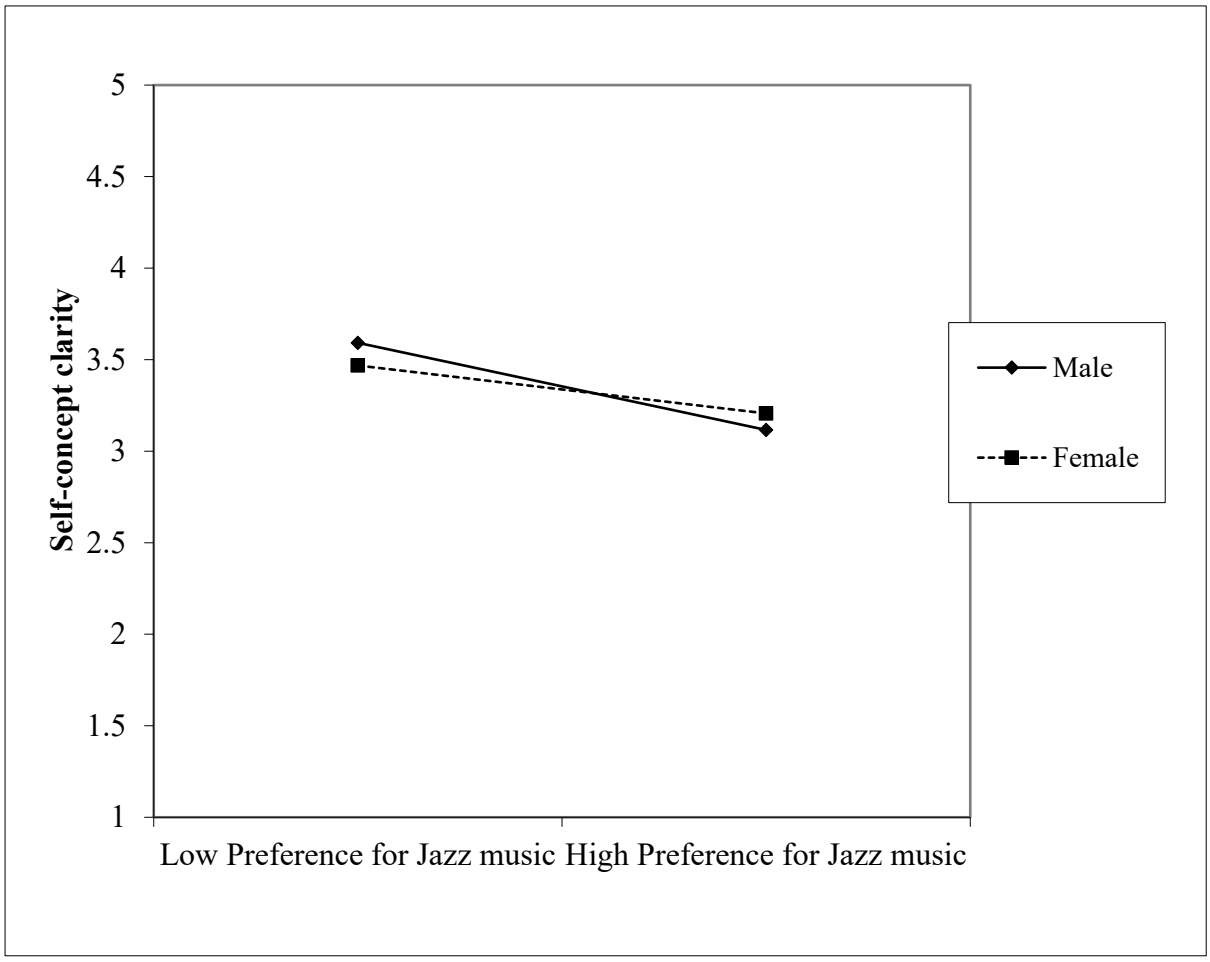
Table 3. ***Multiple Linear Regression for self-concept clarity Including Main Effects and Two-way interactions.***

	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Background									
Gender	-0.24	0.03	-.20***	-0.25	0.04	-.20***	-0.24	.04	-.20***
Education level	-0.05	0.04	-.04	-0.11	0.04	-.08**	-0.09	.02	-.07*
Music preference									
Rock				-0.03	0.02	-.06	-0.01	.05	-.01
Heavy Metal				-0.06	0.02	-.12**	-0.08	.06	-.15
ChartTop40				0.02	0.02	.03	0.06	.05	.10
Jazz				-0.04	0.01	-.08**	-0.20	.05	-.39***
Trance				-0.03	0.01	-.06*	-0.04	.04	-.08
Hip Hop				0.00	0.01	.01	0.04	.04	.09
Two-way interactions									
School*Rock							0.03	.04	.03
School*Heavy Metal							-0.01	.04	-.01
School*ChartTop40							-0.07	.03	-.07*
School*Jazz							0.05	.03	.06

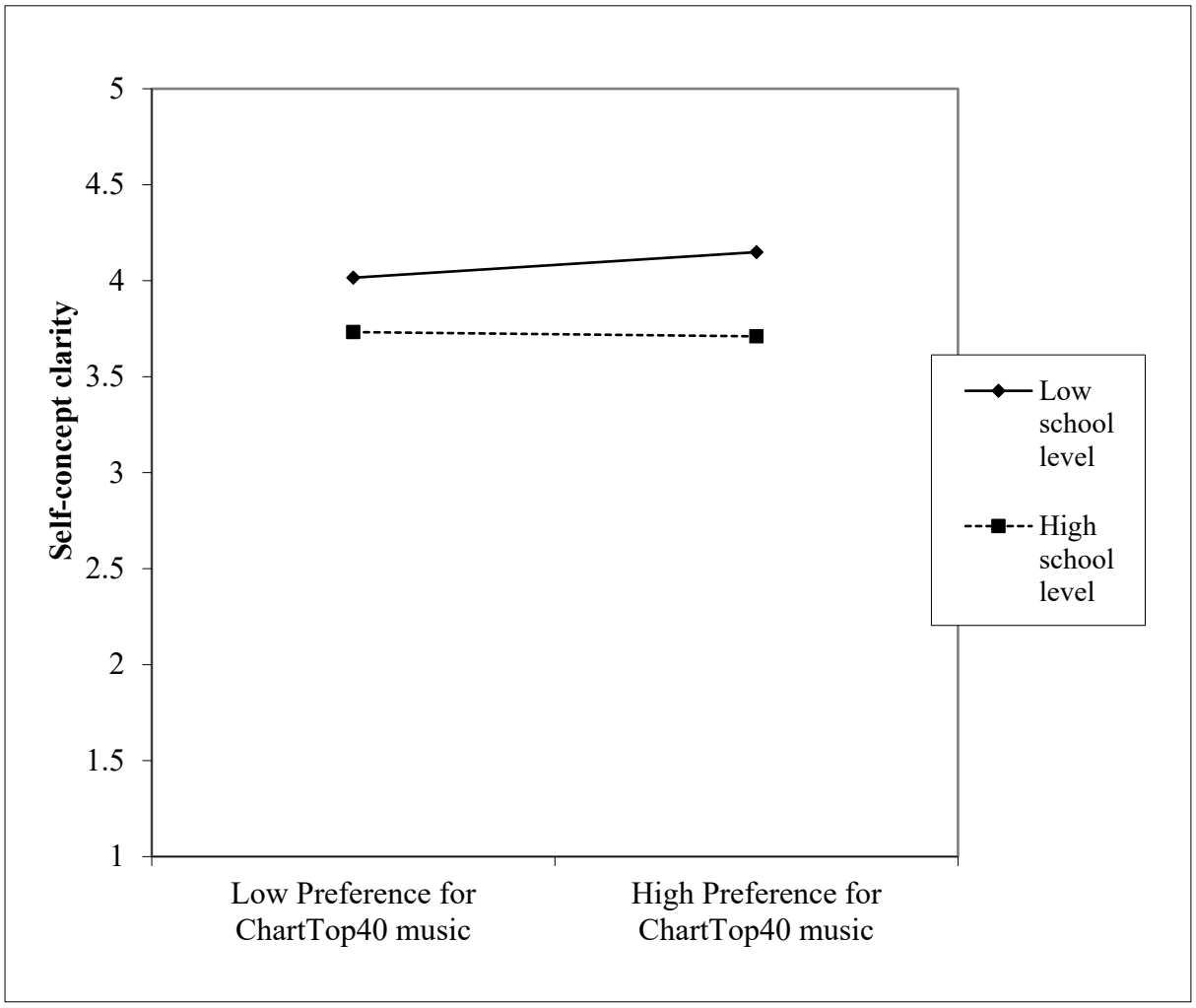
School*Trance			-0.02	.03	-.02
School*HipHop			-0.04	.03	-.04
Gender*Rock			-0.02	.03	-.07
Gender*Heavy Metal			0.02	.04	.05
Gender*ChartTop40			-0.01	.03	-.03
Gender*Jazz			0.09	.03	.30**
Gender*Trance			0.01	.03	.03
Gender*Hiphop			-0.02	.03	-.07
R²	*.04*	*.08*	*.10*		
F change	*25.58****	*9.35****	*1.96**		

Note. Dependent variable: Self-concept clarity. **p<.05, ** p<.01, *** p<.001*

Interaction plot 1. Interaction between Jazz and gender.



Interaction plot 2. Interaction between ChartTop40 and school level.



Commitment

The first model indicates that gender and education level significantly predict the identity status of commitment F (2,1223) =4.711, p=0.09 and with an R^2 of 0.008. The first model also shows that females tend to have a lower commitment when it comes to their educational identity status (β -0.09, SE B=0.04, p=0.002).

The second model indicates that music preference significantly predicts the identity status of commitment F (8,1217) =6.164, p<0.001, with an R^2 of 0.039. The significant effect of gender remained in the second model (β=-0.11, SE B=0.05, p<0.001). The multiple regression analysis also suggests that only the preference for Trance music significantly predicts a lower degree of commitment (β=-0.10, SE=0.02, p=0.002).

The third model looked at the interaction results. The results show that only school level and Trance have a statistically significant interaction (β-=-0.10, SE=0.03, p=0.002). A high school level seemed to indicate that a high preference for Trance music may result in a lower degree of commitment. The opposite was true for those with a low education level(see plot 3).

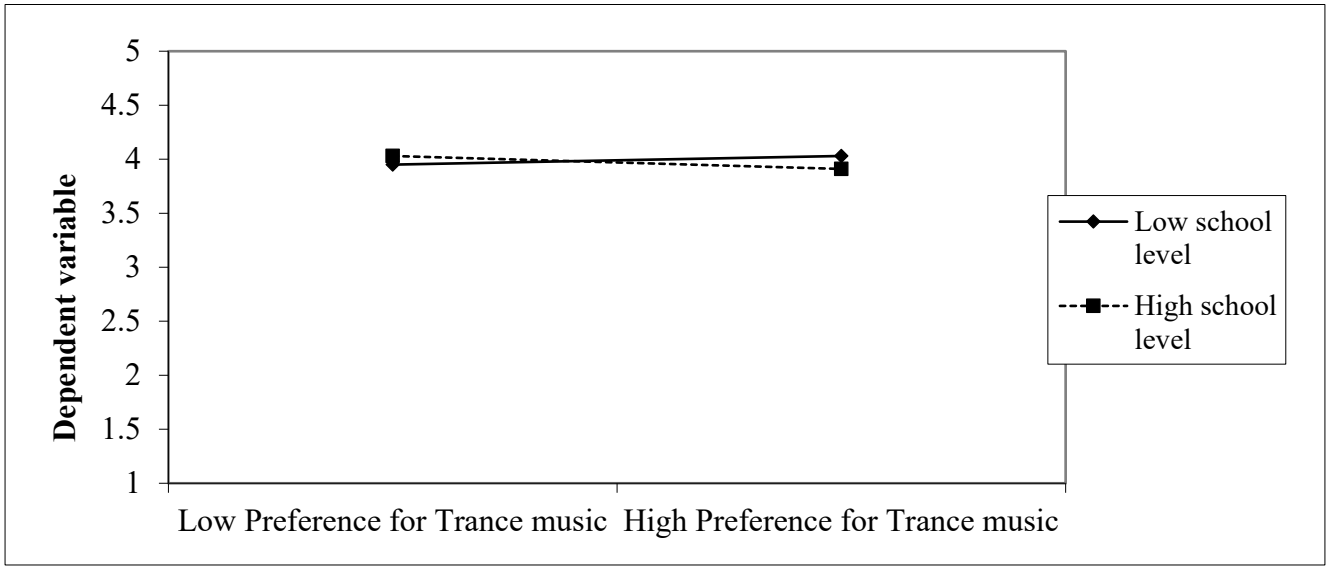
Table 4. Multiple liniear regression for commitment including main effects and two-way interactions

	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Background									
Gender	-0.13	0.04	-.09*	-0.17	0.05	-.11***	-0.16	.05	-.11**
Education level	0.00	0.05	.00	-0.05	0.05	-.03	-0.02	.05	-.01
Music preference									
Rock				-0.04	0.02	-.07	-0.11	.07	-.19
Heavy Metal				-0.04	0.02	-.07	0.04	.07	.07
ChartTop40				0.04	0.02	.06	-0.04	.07	-.05
Jazz				-0.03	0.02	-.05	-0.03	.06	-.05
Trance				-0.05	0.02	-.10*	0.04	.05	.07
Hip Hop				-0.02	0.02	-.03	0.01	.05	.01
Two-way interactions									
School*Rock							-0.02	.05	-.02
School*Heavy Metal							0.06	.06	.04
School*ChartTop40							- 0.06	.04	-.05
School*Jazz							-0.05	.04	-.05
School*Trance							-0.10	.03	-.11**
School*HipHop							-0.02	.04	-.02
Gender*Rock							0.05	.04	.14
Gender*Heavy Metal							-0.06	.05	-.14
Gender*ChartTop40							0.07	.04	.15
Gender*Jazz							0.01	.04	.03
Gender*Trance							-0.04	.03	-.11
Gender*HipHop							-0.01	.04	-.04
R^2			.01			.04			.06
***F* change**			4.71**			6.61***			2.11*

Note. Dependent variable: Commitment

**p<.05, ** p<.01, *** p<.001.*

Interaction plot 3. Interaction between the preference for Trance music and school level.



Exploration

The first regression model suggests that education level and gender significantly predict the identity status of exploration F (2,1228)=14.326, p<0.001 and with an R^2 of 0.023. The first model also indicates that education level significantly predicts the identity status of commitment (β=-0.15, SE B=0.05, p<0.001). Those with a high education level tend to have a higher degree of exploration as an identity status.

The second model in the multiple regression analysis suggests that music taste significantly predicts the identity status of exploration F (8,1222) =6.383, p<0.001 and with an R^2 of 0.040. The significant effect of education level remained in the second model (β=-0.13, SE B=0.05, p<0.001). Most music preferences do not significantly predict the identity status of exploration with Rock music being the exception (β=-0.10, SE B=0.02, p=0.011).

The third and final model looks at the interactions. The third model shows a significant interaction between school level and ChartTop40 music and school level (β=-0.10, SE=0.04, p=0.005). Those with a low school level and low preference for ChartTop40 music tend to have a higher degree of exploration. This difference becomes significantly larger for those with a high preference for ChartTop40 music (see plot 4).

A significant interaction effect can also be seen between Jazz music and school level (β=-0.10, SE=0.04, p=0.006). Those with a low preference for Jazz music and high school level have a slightly higher degree of exploration. Those with a high preference for Jazz music and high school level have a significantly lower degree of exploration than those with a low school level (see plot 5).

A significant interaction effect is also present between school level and the music preference of Trance (β=-0.14, SE=0.03, p<0.001). Those with a low school level and low preference for Trance music have a higher degree of exploration (small difference). This difference increased significantly for those with a high preference for Trance music (see plot 6).

A significant interaction is also there between school level and the music preference for HipHop (β=-0.15, SE=0.04, p=<0.001). Those with a high school level and low preference for Hip-Hop music have a higher degree of exploration than those with a low school level (small difference). This difference became significantly bigger for those with a high

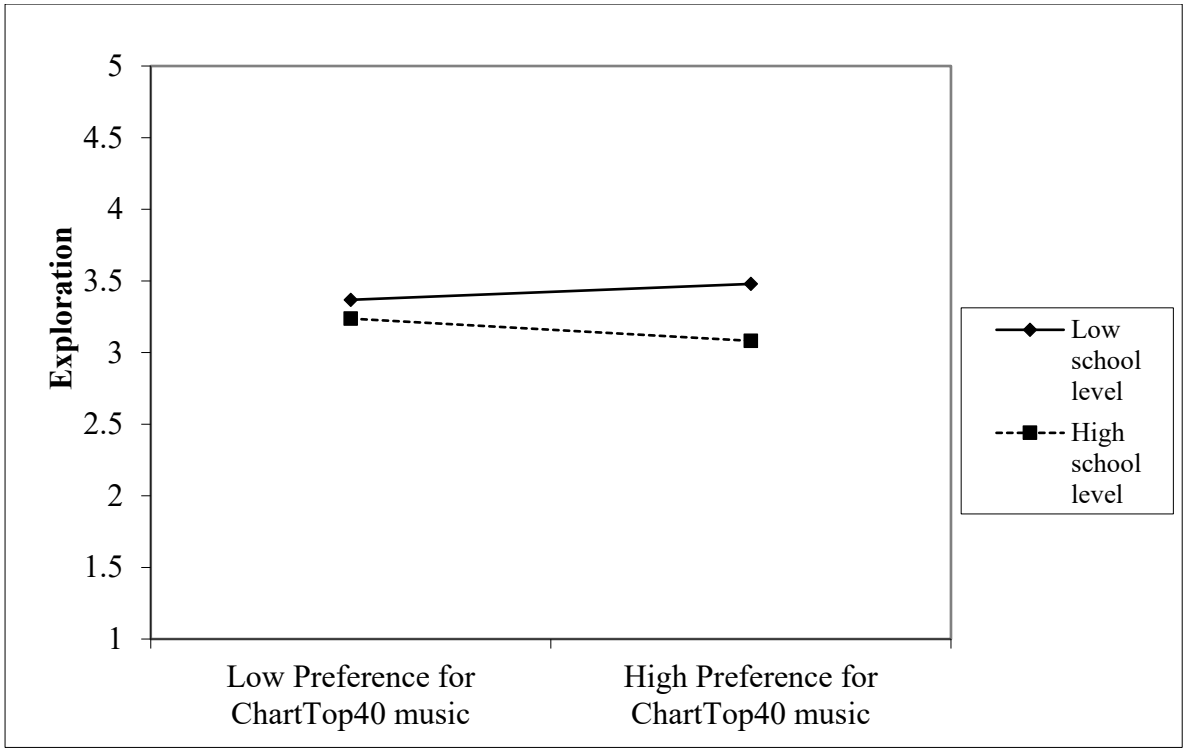
preference for Hip-Hop music (see plot 7).

Table 5. Multiple linear regression for exploration including main effects and two-way interactions.

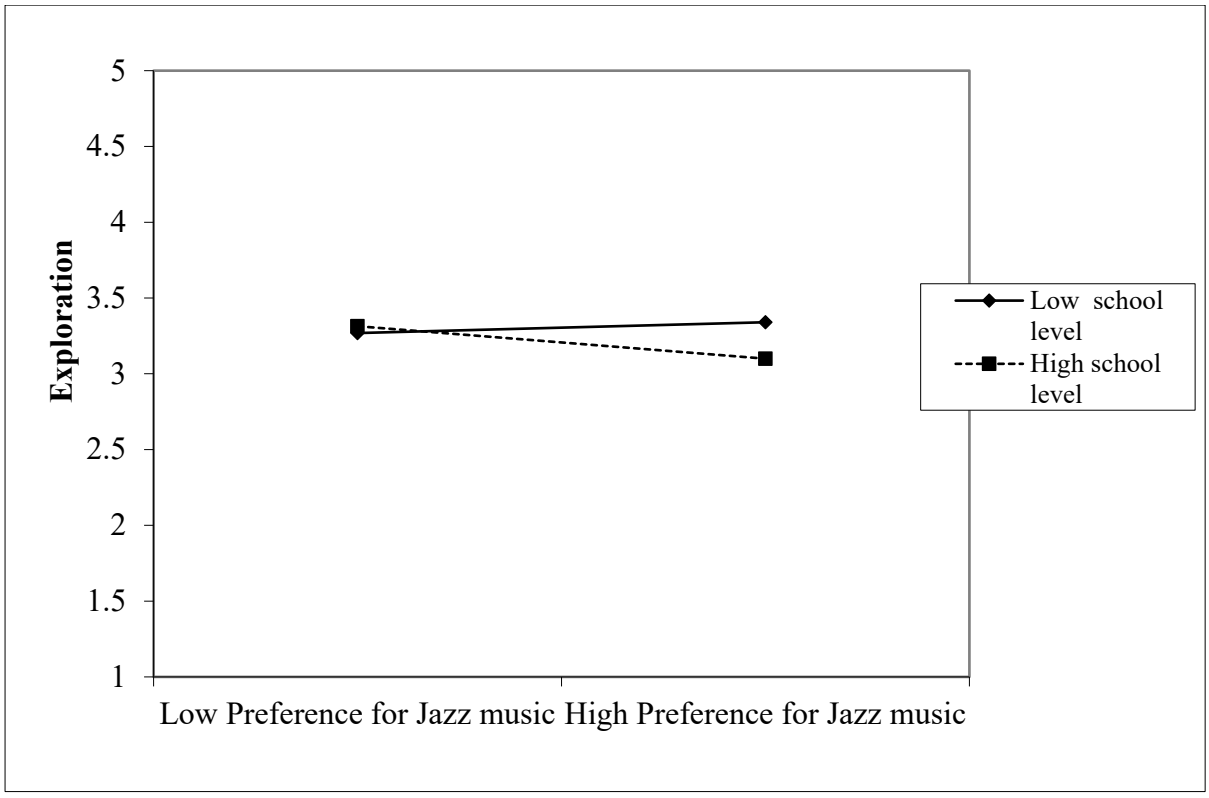
	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Background									
Gender	-0.03	0.04	-.02	-0.02	0.05	-.01	-0.01	.05	-.01
Education level	0.25	0.05	.15***	0.21	0.05	.13***	0.20	.05	.12***
Music preference									
Rock				-0.06	0.02	-.10*	-0.21	.07	-.37**
Heavy Metal				-0.02	0.02	-.04	0.02	.07	.03
ChartTop40				-0.03	0.02	-.04	0.05	.07	.08
Jazz				0.02	0.02	.02	0.03	.06	.05
Trance				-0.01	0.02	-.02	0.05	.05	.08
Hip Hop				-0.03	0.02	-.05	-0.09	.06	-.14
Two-way interactions									
School*Rock							-0.06	.05	-.06
School*Heavy Metal							0.06	.06	.05
School*ChartTop40							- 0.12	.04	-.10**
School*Jazz							-0.12	.04	-.10**
School*Trance							-0.14	.03	-.14***
School*HipHop							0.15	.04	.14***
Gender*Rock							0.12	.04	.32
Gender*Heavy Metal							-0.03	.05	-.08
Gender*ChartTop40							-0.02	.04	-.05
Gender*Jazz							0.01	.04	.02
Gender*Trance							-0.01	.03	-.01
Gender*HipHop							0.00	.04	.00
R^2			.02			.04			.09
***F* change**			14.33***			3.67**			4.98**

Note. Dependent variable: Exploration
**p<.05, ** p<.01, *** p<.001*

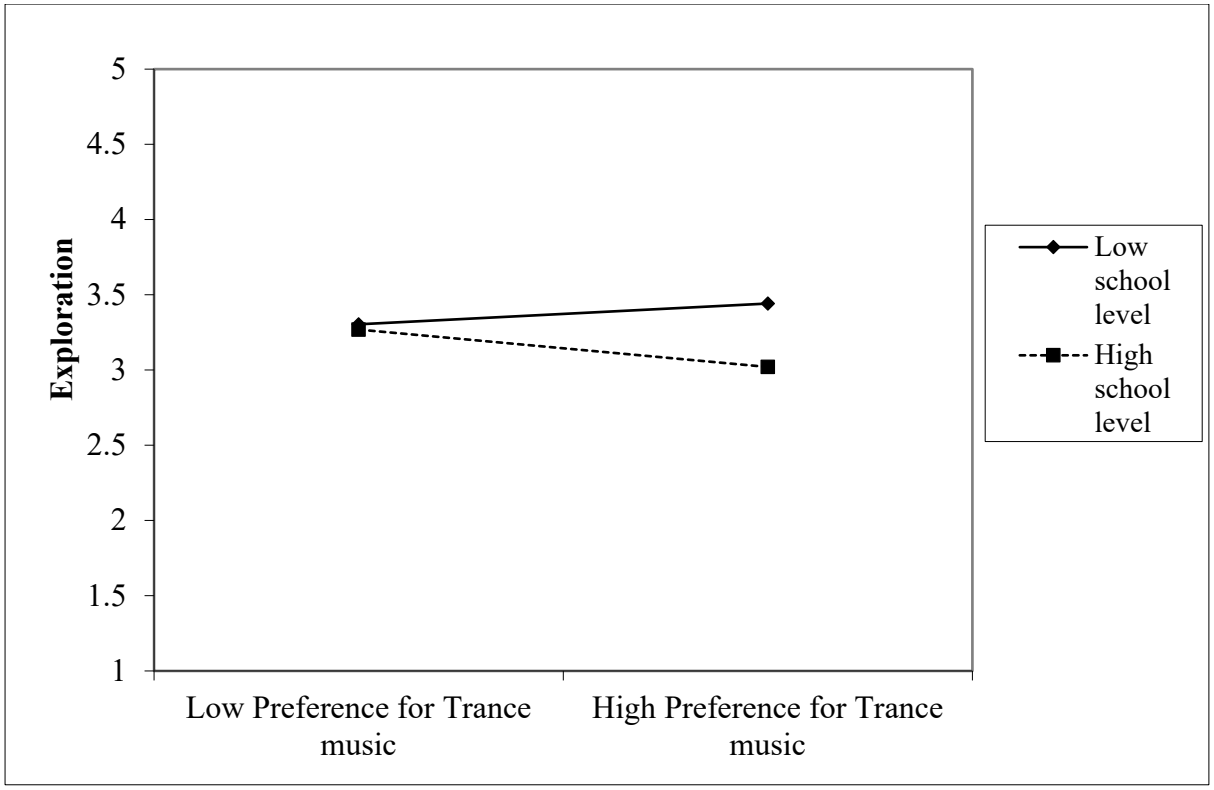
Interaction plot 4. Interaction between the preference for ChartTop40 music and school level.



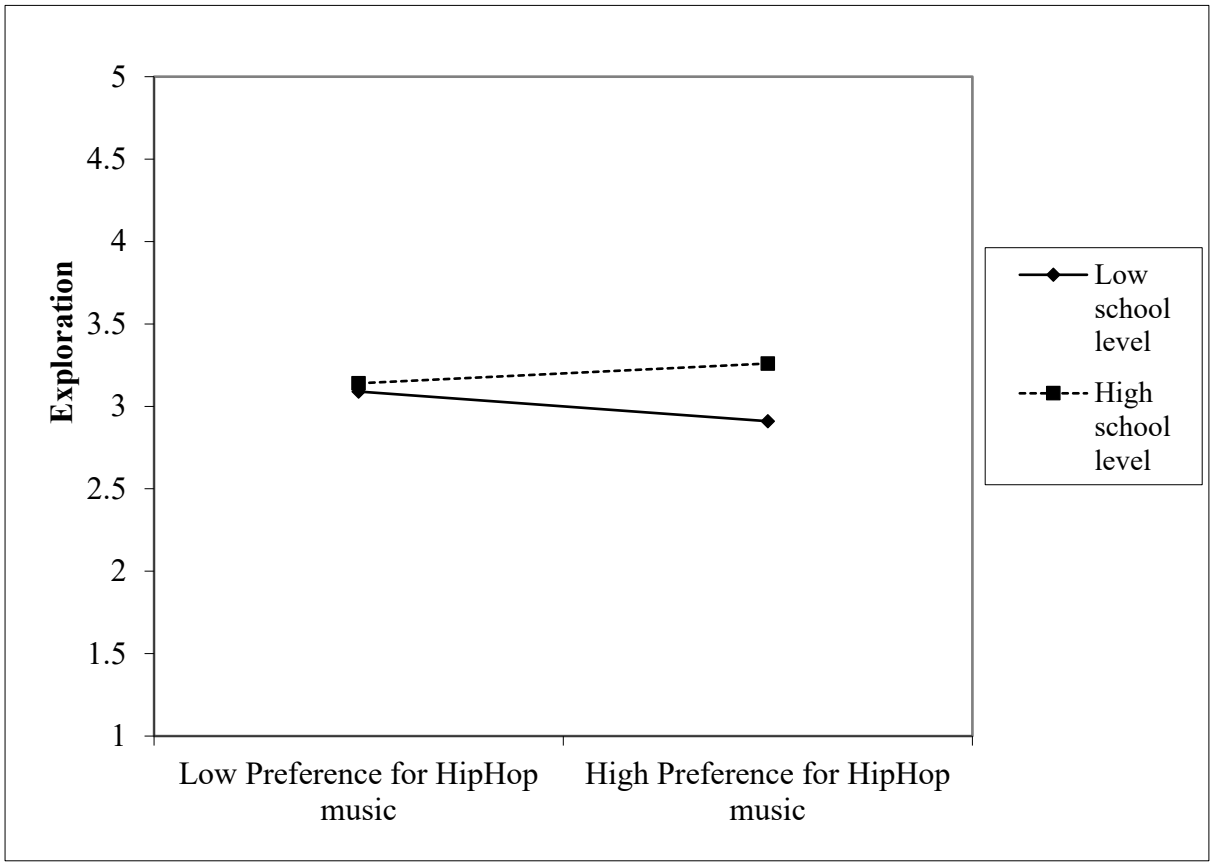
Interaction plot 5. Interaction between the preference for Jazz music and school level.



Interaction plot 6. interaction between the preference for Trance music and school level.



Interaction plot 7. Interaction between the preference for HipHop music and school level.



Change

The first model suggests that gender and education level significantly predict the identity status of change F (2,1238) =58.585,p<0.001 and with an R^2 of 0.086. The model shows that gender significantly predicts the identity status of change (β= -0.12, SE B=0.06, p=<0.001), females tend to have a lower degree of change. Education level also significantly predicts the identity status of change (β= 0.27, SE B=0.06, p=<0.001), those with a high education level tend to have a higher degree of change.

The second regression model indicates that music preference significantly predicts the identity status of change F (8,1232) =19.492, p<0.001, with an R^2 of 0.112. The significant effects of gender and education level remained in the second model. Preferring to listen to ChartTop40 music significantly predicts a lower score in the identity status of change (β= -0.12, SE B=0.03, p=<0.001). Jazz music predicted a significantly higher score in the identity status of change β=0.06, SE B=0.03, p=0.022). Trance music also significantly predicts a higher score in the identity status of change (β=0.04, SE B=0.02, p=0.004).

The third model looks at the interaction variables. None of the interaction variables are significant which indicates that gender and education level do not significantly moderate the relationship between music preference and the identity status of change.

Table 9. Multiple linear regression for change including main effects and two-way interactions.

	Model 1			Model 2			Model 3		
	B	SE B	β	B	SE B	β	B	SE B	β
Background									
Gender	-0.26	0.06	-.12***	-0.15	0.06	-.07*	-0.15	.06	-.07*
Education level	0.62	0.06	.27***	0.59	0.06	.26***	0.58	.07	.25***
Music preference									
Rock				-0.08	0.03	-.10	-0.18	.09	-.24*
Heavy Metal				0.06	0.03	.07	0.11	.10	13
ChartTop40				-0.12	0.03	-.12***	0.04	.09	.04
Jazz				0.06	0.03	.06*	0.06	.08	.06
Trance				0.06	0.02	.08*	0.11	.07	.15
Hip Hop				-0.01	0.02	-.01	-0.11	.07	-.14
Two-way interactions									
School*Rock							-0.11	.07	-.08
School*Heavy Metal							0.10	.07	.06
School*ChartTop40							-0.07	.06	-.04
School*Jazz							-0.02	.05	-.01
School*Trance							-0.05	.05	-.04
School*HipHop							0.08	.05	.06
Gender*Rock							0.09	.06	.18

Gender*Heavy Metal			-0.05	.06	-.09
Gender*ChartTop40			-0.10	.06	-.15
Gender*Jazz			0.01	.05	.01
Gender*Trance			-0.02	.04	.04
Gender*Hiphop			0.05	.05	-.10
R^2	*.09*	*.11*	*.12*		
F change	*58.59****	*5.99****	*1.33**		

Note. Dependent variable: Change
**p<.05, ** p<.01, *** p<.001*

Chapter 4. Discussion

Summary of results

The results of this study indicate that music preference may predict educational identity and self-concept clarity. Those who prefer Heavy Metal music or Jazz music have a lower degree of self-concept clarity. The relationship between Jazz music and self-concept clarity differs depending on gender. The results also show that music preference may predict the identity status of commitment. The only music genre that predicted commitment was Trance music (negatively), this association differed depending on school level. The Results also confirm that music preference predicts the identity status of exploration. The preference for Rock music predicted a lower degree of exploration. Finally, the results indicate that half of the analyzed music genres predict the identity status of change. A preference for Chart Top40 music predicts a lower degree of change whilst a preference for Jazz or Trance music predicted a higher degree of change. Depending on music genre and identity status and self-concept clarity these variables were significantly moderated by gender and/or education level.

Explanation of results

In the first hypothesis H1, it was expected that fans of Heavy Metal and Rock music score significantly lower when it comes to their self-concept clarity. This hypothesis was largely confirmed since the preference for Heavy Metal music significantly predicted a lower degree of self concept clarity, this was not the case for Rock music. The finding that the preference for Heavy Metal music results in lower degree of self-concept confirms the results of earlier study`s (Schwartz & Fouts, 2003; North & Hargreaves, 1999). They hypothesized that preferring Heavy-Metal music leads to lower self-esteem, more self-doubt and a lower degree of self-concept clarity. The result of this study confirms that having a lower degree of self-concept due to preferring Heavy Metal music may result in being less sure when it comes to their identity status since Heavy Metal was not predictive for any of the identity statuses.

In the second hypothesis H2, it was predicted that Preference for Top40 music significantly predicts a higher self-concept clarity. This hypothesis was not confirmed in the results of this study. One of the only studies on light/eclectic music listeners shows that this group does not suffer from significant problems regarding their self-concept (Schwartz & Fouts, 2003). However, this does not seem to lead to a significantly higher degree of self-concept clarity. More research needs to be done regarding listeners of popular music to look at mechanisms that make this group have a stable sense of self-concept.

In the third hypothesis H3, it was expected that fans of Jazz music score significantly higher in the identity status of commitment. Hypothesis 3 based on the findings of Schäfer and Sedlmeier (2009) that Jazz music predicts a higher degree of commitment was not confirmed in this study. The opposite was true in this case since those that liked Jazz tended to have a higher degree of change. This may be because those who listen to Jazz are rather discontent with their current education since they want to achieve a higher level of education.

In the fourth hypothesis H4, it was expected that fans of Rock and Heavy Metal score significantly lower in the identity status of commitment. The hypothesis based on the findings of Roe (1995) that preferring Rock or Heavy Metal leads to lower degree of commitment was not confirmed by the results of this study. Having a strong dislike towards school seems to not lead to having a lower commitment when it comes to educational identity.

In the fifth hypothesis H5, it was expected that the relationship between preferring Jazz music and commitment would be significantly moderated by education level. This was not confirmed by the results. Additional research is needed to further this investigate this potential association.

Additional interesting results were found apart from the hypothesis based on the literature. This was especially true for the identity status change since literature on this identity status is limited. Considering the earlier results, it is noticeable that Trance and Jazz predicted the identity status of change(positively) since these music preferences are also connected to having a lower degree of self-concept clarity. A possible explanation could be that having a low self-concept clarity heightens the chance that someone is likely to want to change their educational identity.

Another interesting result regarding the identity status of change is that the preference for Jazz and Trance music predicts change. A possible explanation might be that Trance and Jazz are not necessarily mainstream music genres. Most respondents preferred genres like Hip Hop and Top40 music more than Jazz and Trance. This can be seen in the results table since this table shows that Chart Top 40 music (3.87) has a much higher mean that Trance (3.06) and Jazz (2.48). Since these genres are less mainstream/liked, those that prefer these music genres may be higher in their degree of change as an identity status. Past literature did not look at these music genres thus, the results of this study are the only indication of this theory. The opposite may be true for those that prefer Chart Top 40 music. They may be less inclined to be in the identity status of change since they prefer a more mainstream music genre since the results show that those who prefer Chart Top 40 music have a lower degree of change. The result that the preference for Jazz music predicts a higher score in the identity status of change is not surprising considering the study conducted by Schäfer and Sedlmeier (2009). Schäfer and Sedlmeier (2009) state that those who listen to Jazz listen to Jazz for intellectual stimulation instead of emotional arousal.

Additional results were also found when it comes the identity status of exploration. Rock was the only music genre that predicted the identity status of exploration(negatively). This may be explained due to the preference for Rock being indicative for someone who has a less stable sense in what they want regarding there education which leads to low degree of exploration. Unexceptedly, school level influenced the relationship between a majority of the music genres(Top40, Jazz, Trance and Hip Hop) and the identity status of exploration. This may indicate that educational level heavily influences educational identity (especially exploration), more research is needed to further substantiate these findings.

Limitations and strengths of this study

The main strength of this study is the large number of respondents that have been reached. Additionally, this is one of the few studies that looks at music preference and its potential link with educational identity/self-concept clarity. This study covered the most important/popular music genres that adolescents tend to listen to. The inclusion of education level and gender as moderators increased the reliability of this research since the literature indicates that both education level and gender may

influence identity and music preference. Thus, these variables are controlled for in this study. The results increased existing evidence when it comes to the effect of education level on the interplay between music preference and educational identity/self-concept clarity. Whilst including gender as a moderator broke new ground since past research did not include the role of gender when looking at these concepts. This study is unique since it one of the first that includes gender and education level as moderators which further deepens newly gained knowledge regarding these topics and the role that they play.

However, there are several limitations when it comes to the methodological design of this study. The biggest weakness of this study is its single measure design. Data has from this study has been derived from only one wave of the CONAMORE study. Thus, it is not possible to draw any causal conclusions from this study. Another limitation is that the surveys where self-reported. This may decrease the overall reliability of the measures since a self-report does not guarantee that respondents answer truthfully. Finally, the scope of respondents is limited since all respondents were situated in or around the province of Utrecht which hampers the overall representability of these results.

The earlier mentioned limitations could partly be overcome by applying a longitudinal design when doing research regarding these concepts. This increases the overall reliability since it gives the opportunity to compare respondents within several measurements as they get older. Finally, for future research it is important to also include respondents from other cities/provinces to increase the overall representability of results.

A final recommendation would be to include music preference when studying identity since these results and past research shows that music preference may play a role in the identity formation of adolescents.

Conclusion

This study is one of the first that looks at the potential connections between music preference and educational identity/self-concept clarity. This research shows there is a connection between music preference and educational identity/self-concept clarity. However, this is largely dependent on the music genre and identity status. The results also show that gender and education level play a role in these associations. Current literature is extremely sparse when it comes to music preference and identity/self-concept clarity. Thus, there is still a vast amount of knowledge to uncover regarding these concepts. These results raise the question on how music preference is connected to identity as a whole (not only educational identity). This study could be the start of unpacking these questions to increase the knowledge of one the most important facets in the lives of adolescent`s: Music and identity.

Appendix 1: Interdisclipinarity

Bronfenbrenner's model looks at several levels which are relevant when looking at the social context. For my research I will be analyzing the potential link between educational identity and music taste and self-concept/clarity and music taste. I will describe in which context every factor of my research plays a role. Bronfenbrenner`s ecological model entails the following levels/systems (Harkonen,2008):

· **Chronosystem(changes over time):** Identity and music taste are prone to changing over time. Adolescents tend to get more independent from their parents over time which then reaches a plateau in terms of music taste and development (Zimmerman,1996). Whilst identity changes over time(certain personality traits get developed more than others).
· **Macrosystem(social and cultural values):**Development of music taste is also dependent on the cultural values and context (Schedl et al., 2017). The identity and amount of self-concept is also determined by the cultural and social context.
· **Exosystem(indirect enviorement):** The exosystem has a role in determining the amount of exploration a child can do in order to develop their identity, music taste and self-concept(Ilari, 2017). This in turn influences the factors of my research.·
· **Mesosystem(Connections):**The meso system is less applicable to my research because the surround environment interaction does not necessarily determine the identity, music taste and self-concept.
· **Microsystem(immediate environment):**The immediate environment has a major effect on the child development and their sense of identity and music taste(Ilari,2017). Their immediate surrounding in a way shape these aspects of a child when growing up.

My research mainly research question mainly has individual influence, but peer influence also plays a major role. Thus, the focus will be on micro level whilst educational level mainly revolves around meso level. Parents also determine the personality that their children develop and have. Societal norms also define someone`s educational identity and how music taste impacts their identity. So, this research is at the intersection of peer context, parent context, societal context, and individual influence. Peers and parents play a key part in developing one`s music taste and the personality traits that a child has/learns. This has elements of psychology (due to looking at self-identity) sociology (influence by peers) and neurology (Self identity and music).

Appendix 2: Contract data use

Utrecht, 2020 This letter constitutes formal confirmation of the fact that the data from the Utrecht University CONAMORE data dating from 2005 has been made available to Connor Zijtveld of Utrecht University. These data will not be made available to others, and the data may be used only for analysis and reporting on topics for the thesis, about which agreement has been reached with Tom Ter Bogt. Connor Zijtveld will receive access to the data from the dataset in order to answer the following research questions within the framework of the thesis Research questions:

- RQ 1: Are music taste and educational identity correlated?
- RQ 2: Is the potential correlation between music taste and educational identity significantly moderated by educational level and/or gender?
- RQ 3: Are music taste and self-concept/clarity correlated?
- RQ 4: Is the potential correlation between music taste and self-concept/clarity significantly moderated by educational level and/or gender?

The following variables will be used: Dependent variable: Music taste
Independent variables:

- Educational identity(page 7)
- Self-concept clarity(page 6)
- Music preference(page 7)
- Gender
- Educational level(page 19)

No report based on the data from the project entitled of the CONAMORE study may be made public, unless permission has been obtained in advance from the Project Coordinator for the CONAMORE study. After the expiration of this contract, dated ….., …. Connor Zijtveld shall delete the Music and identity data. Dates and signature:

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