



How music tastes change over time: A longitudinal study on peer influence

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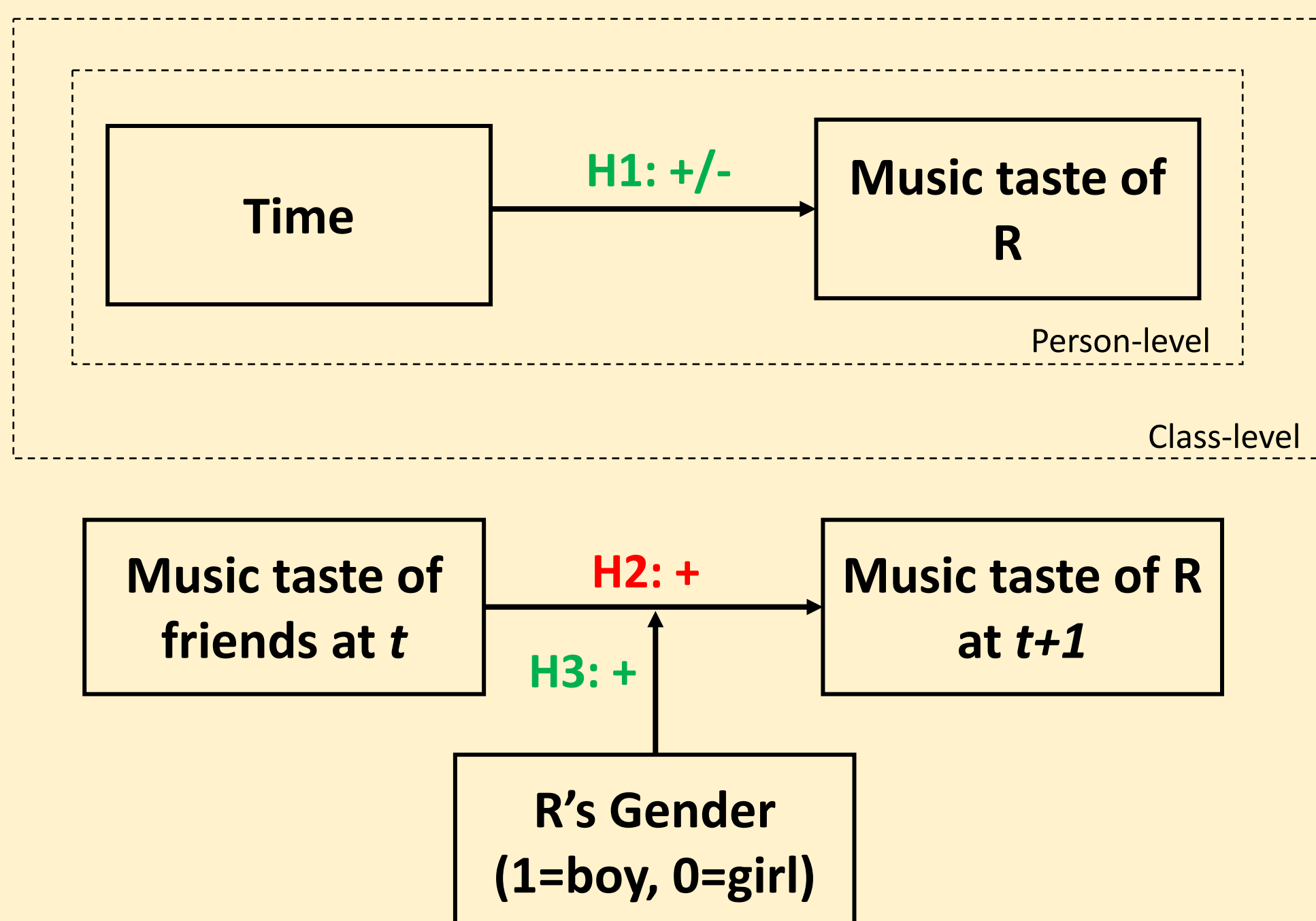
Introduction

- Teenagers often change their music taste [1].
- However, most researchers use individual-level characteristics like mood or personality to explain music taste instead of peer influence [2].
- In addition, Carli [3] found that boys are generally more influenced by peers than girls, especially concerning some collective 'group image' that may be disturbed by deviant behavior.

Research Questions

- Does the music taste of a teenager change over time?
- Could peer influence explain why the music taste of a teenager change over time, and is there a difference between boys and girls?

Conceptual Model



Note.

- For H1, we assume that the effect of time on the music tastes of respondents also varies with persons and classes.
- green = supported, red = not supported, see results for more details
- "R" is short for "respondent"

Results

Figure 1 Self-reported music taste by individual pupils over time

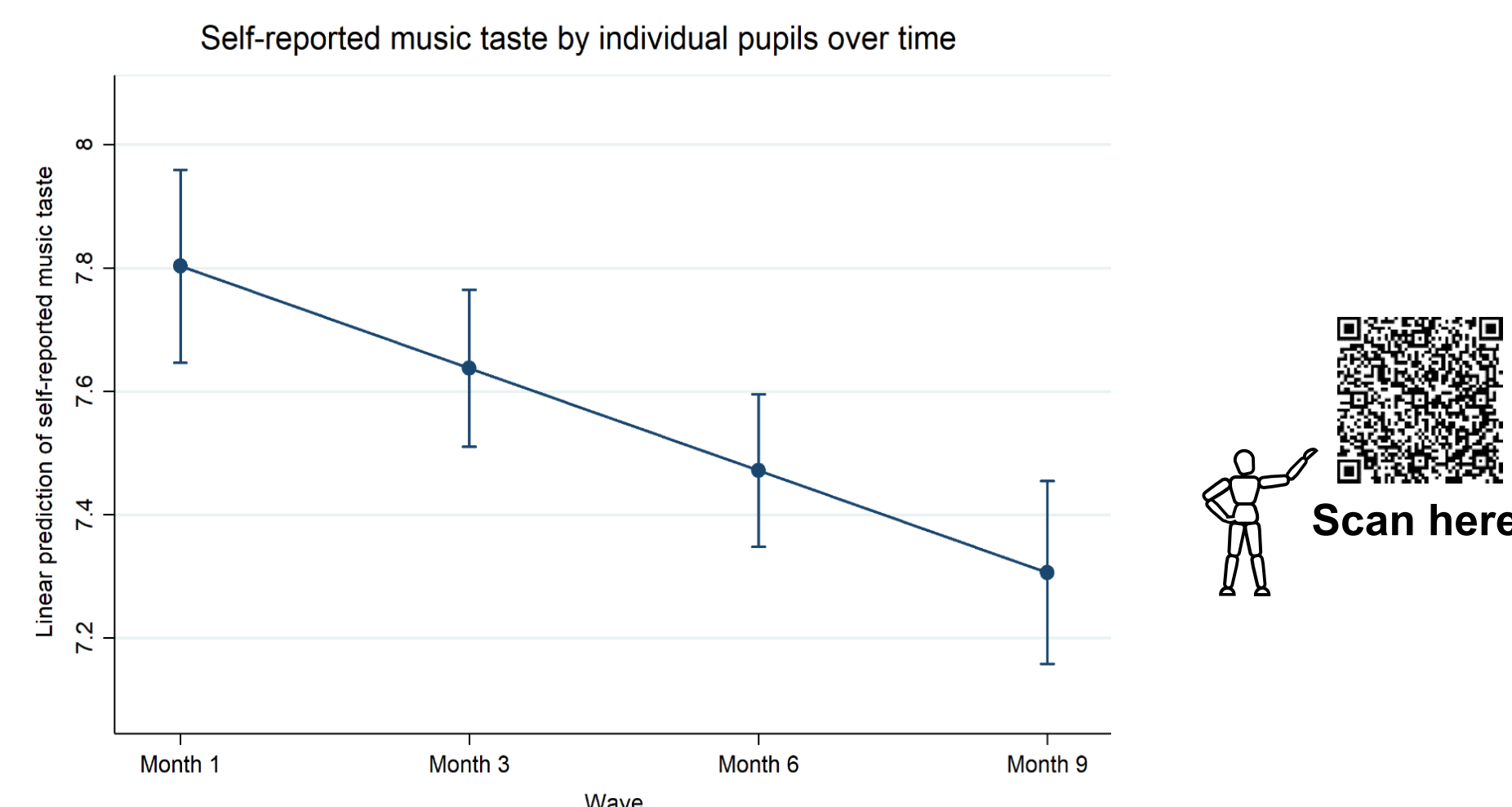


Table 1 Multilevel model with random intercepts and random slopes for time

	B
Fixed effects:	
Intercept	7.969 ***
H1 Wave	-.166 ***
Random effects:	
<i>Level 2: Within-person</i>	
$\sigma^2_{u(wave_j)}$	2.067 ***
<i>Level 3: Class-level</i>	
$\sigma^2_{u(wave_j)}$.031 *
σ^2_{ϵ}	1.564 ***
Obs	237,323

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

Indeed music tastes of respondents change over time

Peers influence each others music taste. However, the effect size and direction differ by gender.

Table 2 Dynamic time model with the random intercept at ego_level

	All	Girls	Boys
	B	B	B
Fixed effects:			
Intercept	15.928 ***	15.026 ***	6.076 ***
Mainstream Music_ego	-.335 ***	-0.249	1.232 ***
H2/H3 Mainstream Music_friends	-.097 ***	-.549 ***	1.293 ***
Number of friends	.580 ***	4.891 ***	-6.878 ***
Wave	-.324 ***	-3.469 ***	-3.252 ***
Male	-4.137 ***		

Random effects:

Level 2: Ego-level

σ^2 : Constant	10.909	16.026	36.008
σ^2_{ϵ}	.504	.106	.111
Obs	844	354	490

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

Data and Methods

Longitudinal Data: four waves, every 3 month | 3165 pupils in the first grade | 126 classes | 14 Dutch secondary schools | 2003/04

Measurements:

- Dependent variable: listen to mainstream music (1-10: from "others" to "pop music")
- Independent variables: a. Wave (1-4); b. listen to mainstream music tastes of respondents' friends

Models:

- Three level multilevel model: Level 1: Time | Level 2: Person | Level 3: Class
- Dynamic model: Model 1: All teenagers | Model 2: Girls | Model 3: Boys

Conclusion

1. On average, students tend to listen to less mainstream music over time. But time effects vary with persons and classes.
2. If their friends listen to more mainstream music, teenagers will listen to less mainstream music over time
3. If their friends listen to more mainstream music, *girls* will listen to less mainstream music over time while *boys* will listen to more mainstream music.

Limitation

- The rank of mainstream music is in 2018 and is constructed for the general population, not for teenagers specifically.

References

- [1] Thomas, K. S. (2016). Music Preferences and the Adolescent Brain. *Update: Applications of Research in Music Education*, 35(1), 47–53. doi:10.1177/8755123315576534
- [2] Laplante, A. (2014). Improving music recommender systems: what can we learn from research on music tags? In 15th International Society for Music Information Retrieval Conference (ISMIR '14). *International Society for Music Information Retrieval*, 451–456.
- [3] Carli, L. L. (2001). Gender and Social Influence. *Journal of Social Issues*, 57(4), 725–741. doi:10.1111/0022-4537.00238