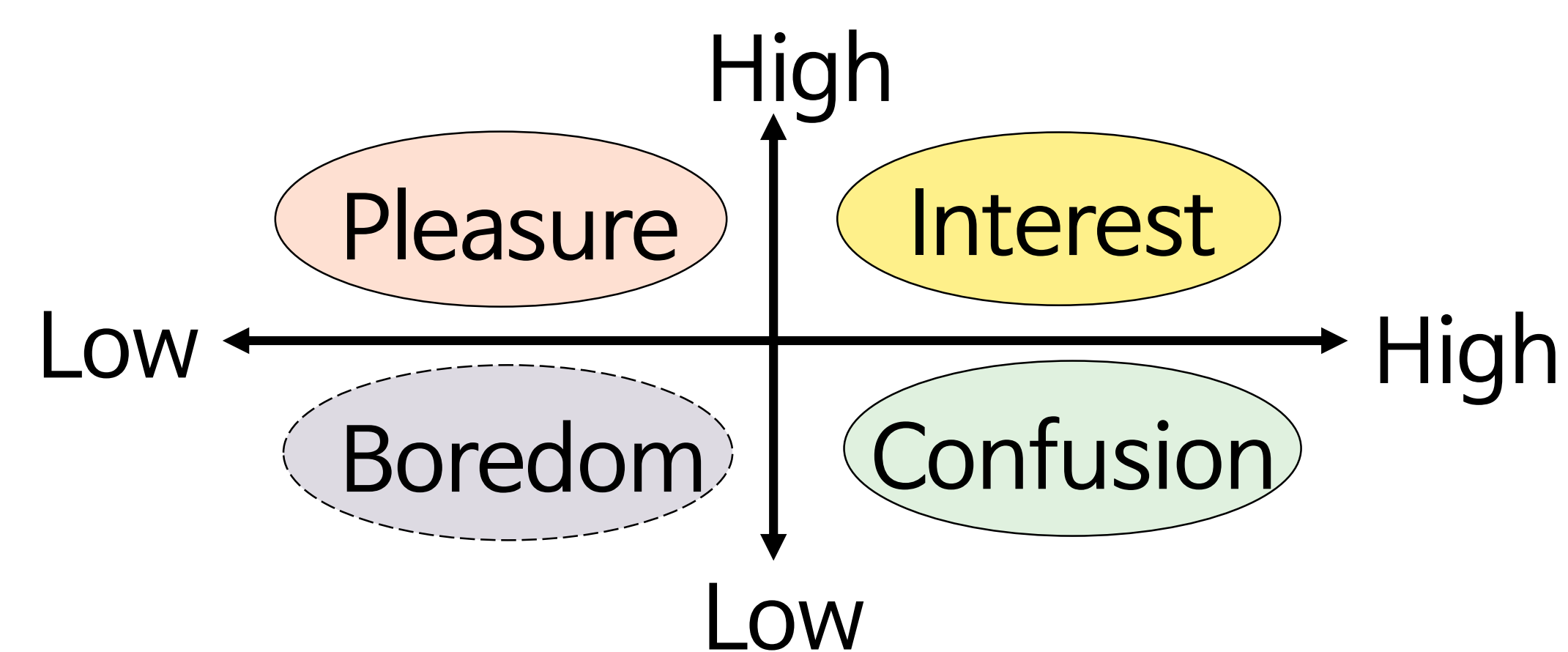


ABSTRACT

What objects do we feel interesting? According to prior literatures using visual stimuli, two appraisals which cause interest are "complexity" and "coping-potential". We are interested if these appraisals could apply to MUSIC. This study is to choose complex and simple jazz and check if coping-potential is manipulated. Moreover, we try to know if participants rate complex jazz as interesting when coping-potential is high.

BACKGROUNDS

"Interest" is a "Knowledge emotion"¹⁾



(← →) **Complexity** : How complex it is.

(↑ ↓) **Coping-potential** : How possibly an appraiser could understand what it is.

These are found on **visual objects** (polygons, poem, artworks).²⁾

Then, **what about MUSIC?**

Pleasant/unpleasant visual and auditory stimuli activate **the same core network** in the left hemisphere.³⁾

Complexity in music is found when...

- 1) **Melody is changed** than harmony is.⁴⁾
- 2) **Continuity is disappeared**.⁵⁾
- 3) **Music is unfamiliar** than is familiar.⁶⁾

Coping-potential in music was manipulated by giving participants **general information about the stimuli** as a prior literature did.²⁾

We chose JAZZ to study. Because jazz...

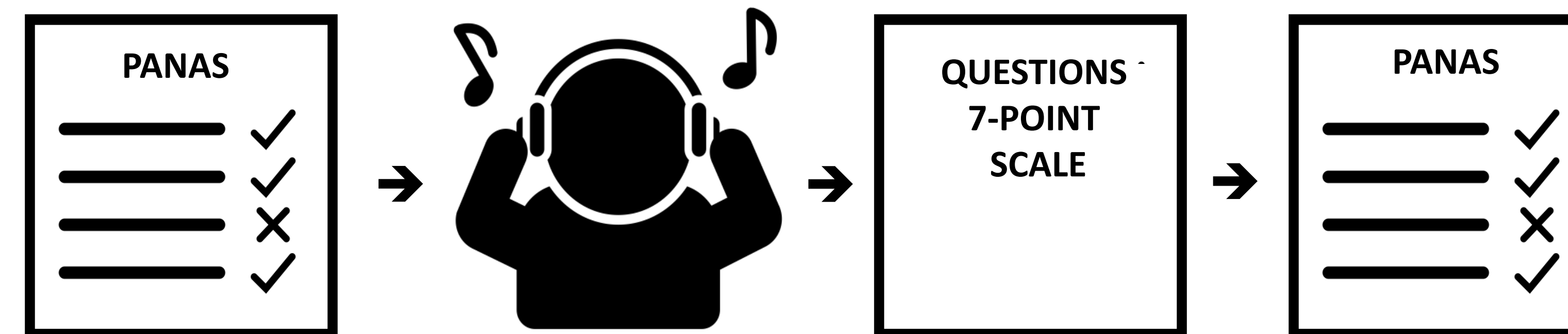
- 1) is **not familiar** to undergraduate students.
- 2) has a **similar emotional valence**. not gloomy, but enjoyable.

METHODS

Pilot test (n=81) 2X2 Between design

Purpose To sort out 20 jazz as a Complex or Simple one.

Procedure PANAs-Listening-Measuring-PANAs



With no vocal, not in blue, and approx. 100-120bpm songs

Complexity Manipulation Coping-potential

- | | |
|--|--|
| <ol style="list-style-type: none"> 1) How familiar is it? 2) How frequent is the melody repeated? 3) How variable is the pitch? | <ol style="list-style-type: none"> 1) Giving Detailed or Undetailed information to participants 2) How well do you understand music? |
|--|--|

8 jazz were survived : 4 Complex ones, 4 Simple ones.

Study (n=70) 2X2 Mixed design

Purpose To see how participants feel the jazz as complexity and coping-potential were changed.

MAIN HYPOTHESIS

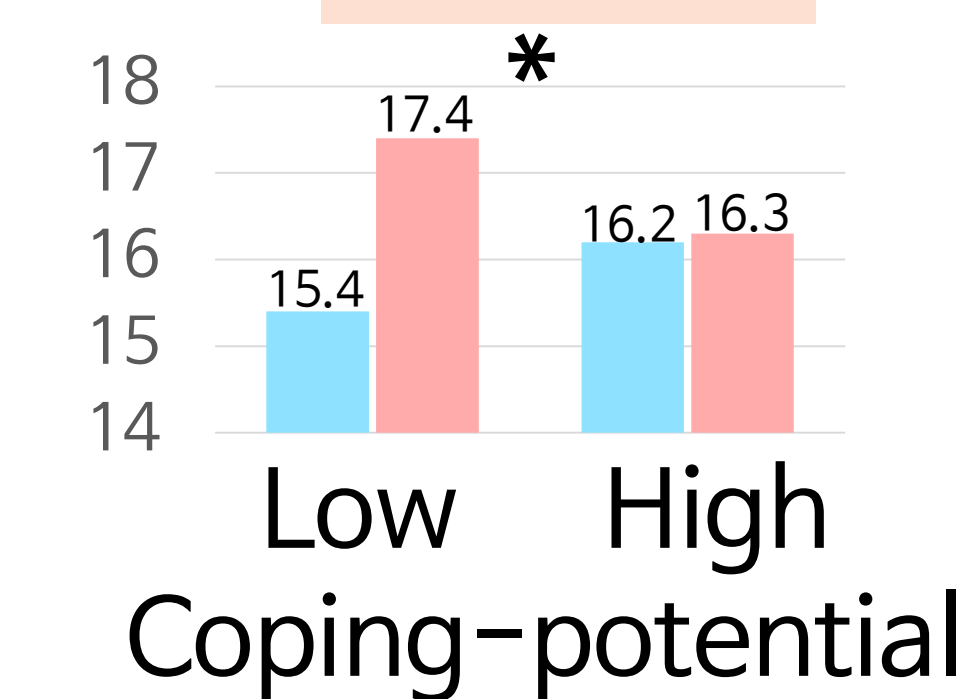
Jazz would be **interesting** if **complexity and coping-potential are both high**.

Procedure Repeated the above procedure with 8 jazz.

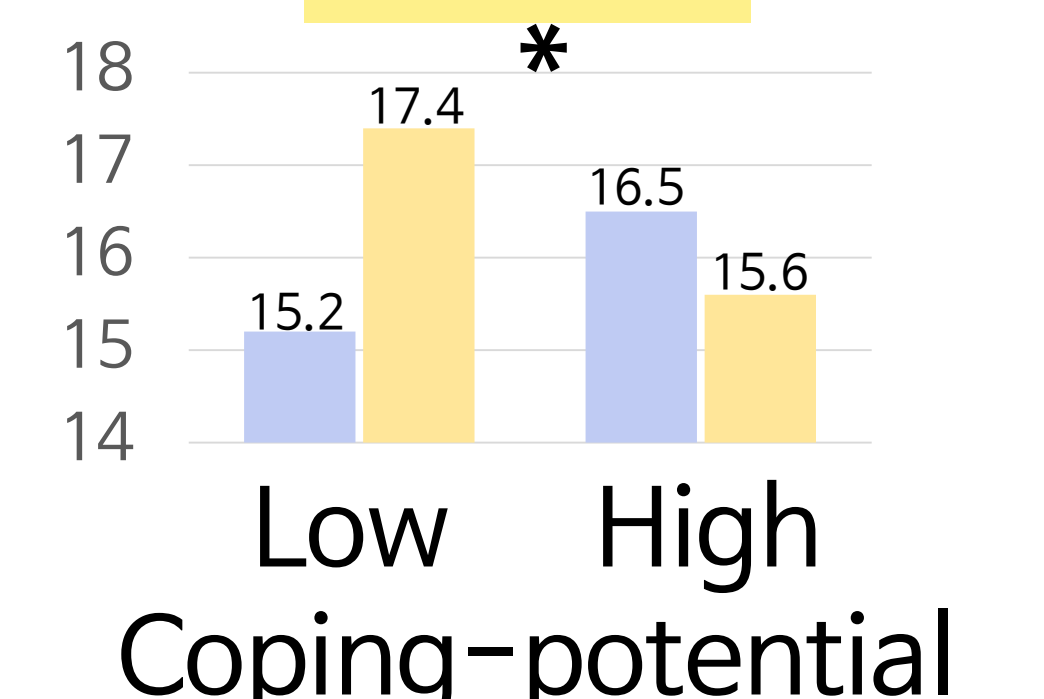
Manipulation Same as the pilot study. For coping-potential, we additionally gave an explanation for each song.

RESULTS & CONCLUSIONS

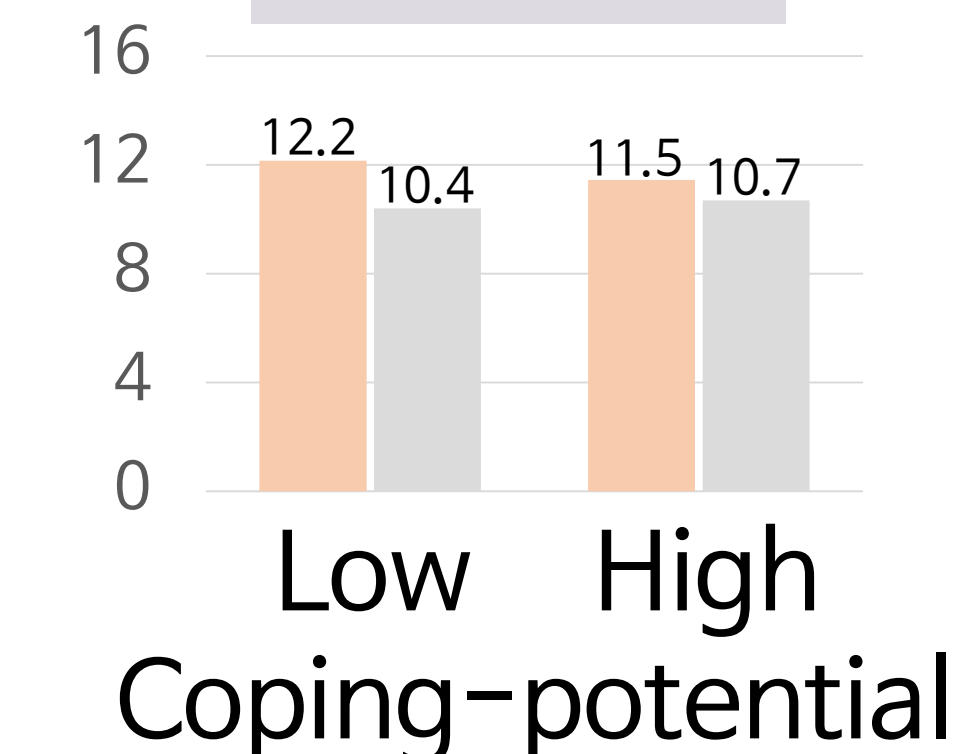
Pleasure



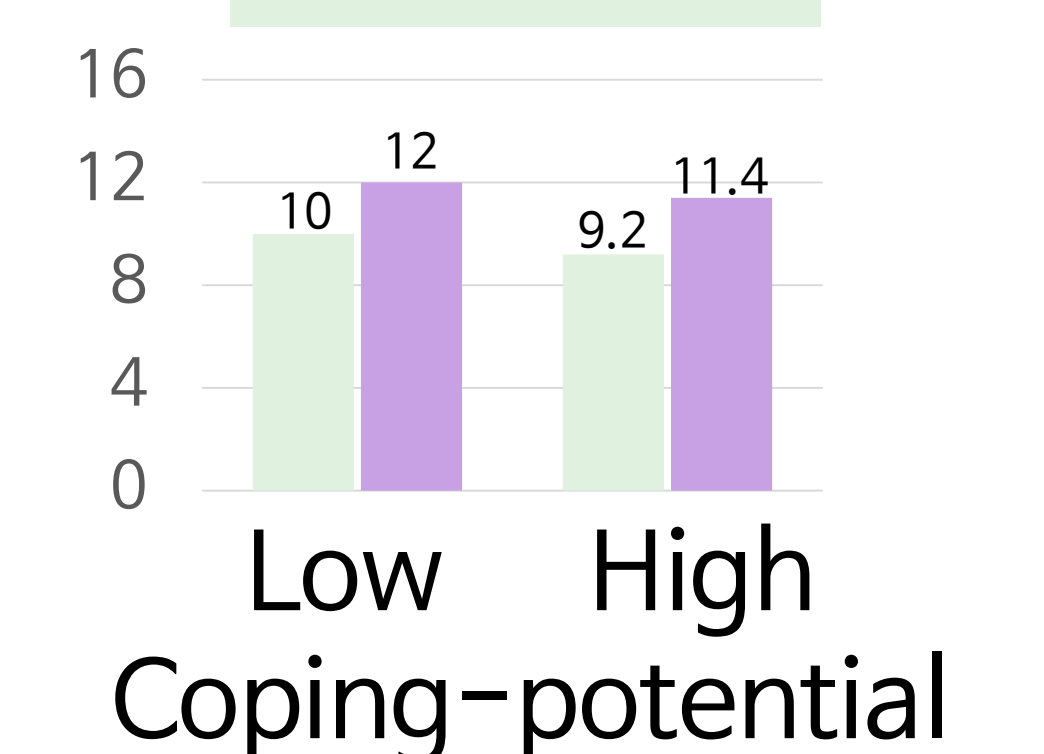
Interest



Boredom



Confusion



Legend: Low complexity (blue), High complexity (yellow)

- 1) Jazz is **interesting** when **complexity is high** but **coping-potential is low**.
- 2) **Interest and pleasure are not separated**.

- 1) The results is **opposite from the prior works** which used visual stimuli.
- 2) There is possibility that **jazz itself is easy to understand** (high coping-potential).
- 3) We propose to use **other stimuli like modern music**, which is difficult to understand and interpret.

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 3) Royet, J. P. et al. (2000). Emotional responses to pleasant and unpleasant olfactory, visual, and auditory stimuli: a positron emission tomography study. *Journal of Neuroscience*, 20(20), 7752-7759.
 4) Williams, L. R. (2008). Effect of Music Complexity on Nonmusicians' Focus of Attention to Melody or Harmony. Update: Applications of Research in Music Education, 26(2), 27-32.
 5) Madsen, S. T., & Widmer, G. (2006). Music complexity measures predicting the listening experience. *Entropy*, 1(4), 1.
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