

Breaking it Down: The influence of break routines on the urge to move in electronic dance music



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Background

- Break routines in electronic dance music (EDM) can induce movement¹
- Individuals move more during the “drop” of the break routine^{1,2}
- What is not known is whether ratings of groove, or urge to move change in a similar way
- Here, we explore how individuals’ subjective urge to move ratings change dynamically when listening to break routines

Research Question

How do individuals’ urge to move ratings change when listening to break routines?

Methods

Participants

- N = 30, 17-24 years old (M = 18.5, SD = 1.12)

Stimuli

- 2 clips from each of 10 instrumental EDM tracks (one with break routine and one without) = **20 clips total**

Apparatus & Materials

- Collected continuous ratings of urge to move (Fig. 1)
 - Range** and **slope** of continuous ratings may indicate dynamics that differ due to break routines
- Collected Likert ratings of enjoyment, familiarity, and actual movement (Fig. 2)

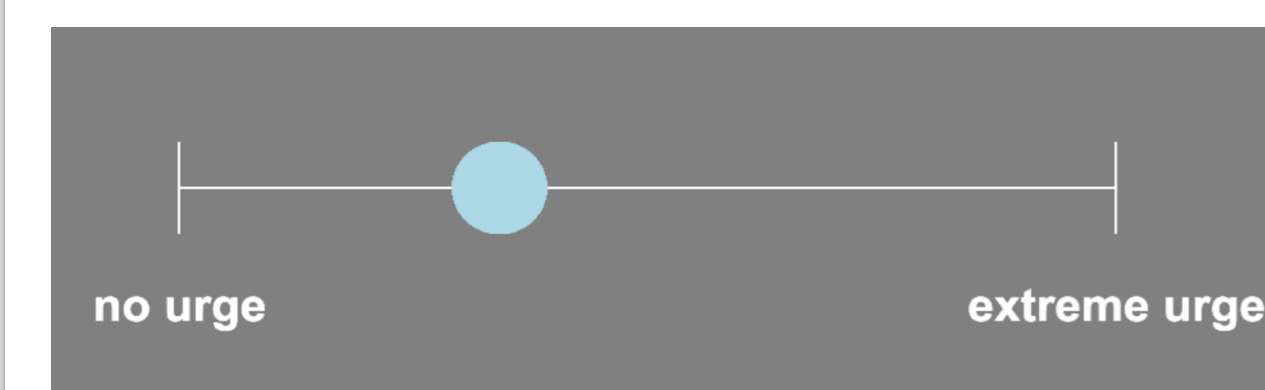


Figure 1: Continuous rating scale of urge to move ratings

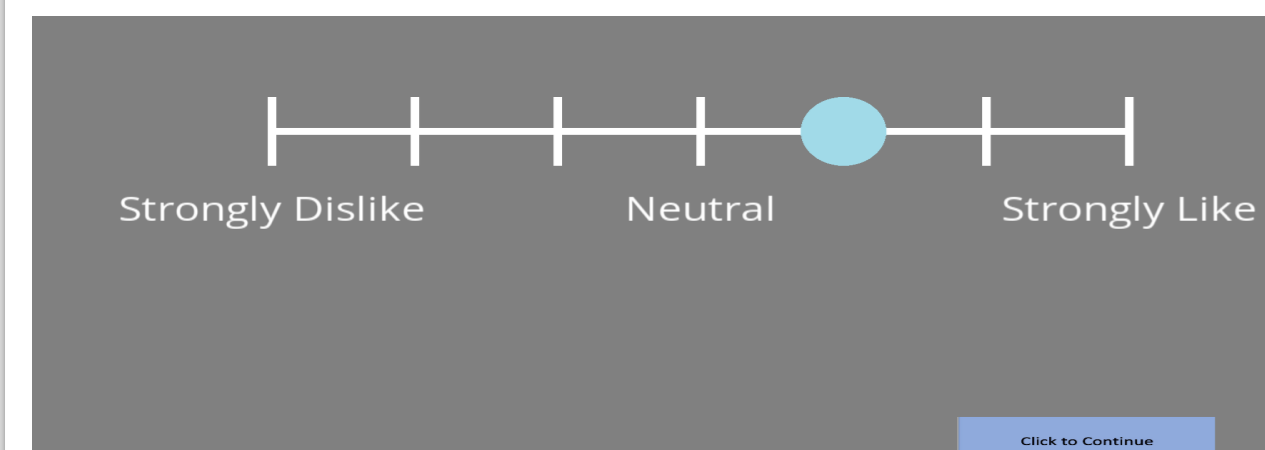


Figure 2: Likert rating scale of enjoyment ratings

Results

- We plotted all raw participant continuous ratings for the two tracks highest rated on enjoyment
- We calculated the average and variance at each time point and then calculated the range and slope for the average data (Fig. 3). Slope and range was calculated starting from the 10 second mark.

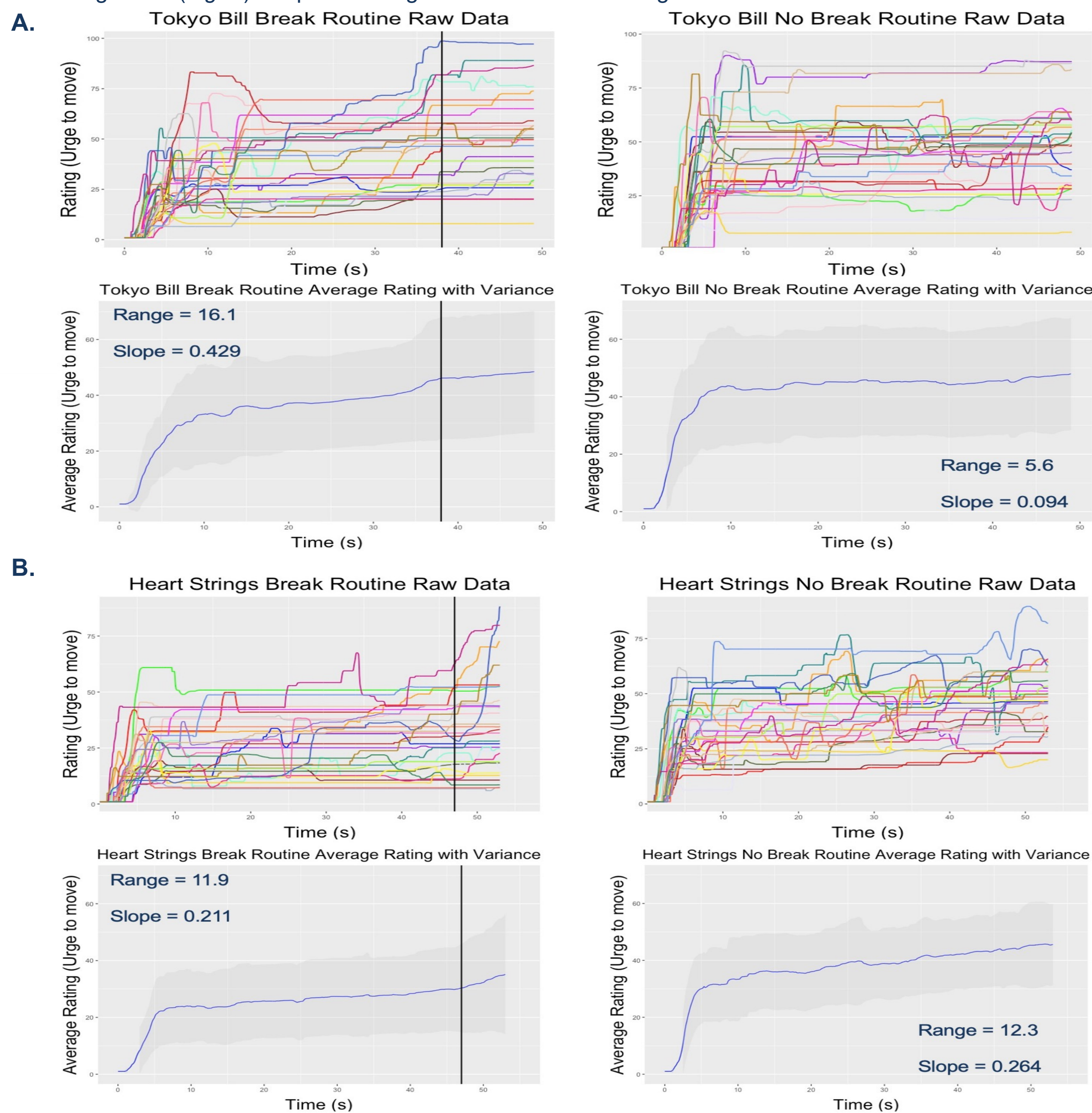


Figure 3: Raw and average continuous ratings of the two highest rated clips for enjoyment, Tokyo Bill (A) and Heart Strings (B). Break routine clips are left and no break routine clips are right. Beat drop occurs at black vertical line.

- We ran t-tests comparing all participant ratings of enjoyment, actual movement, and familiarity (Fig. 4)

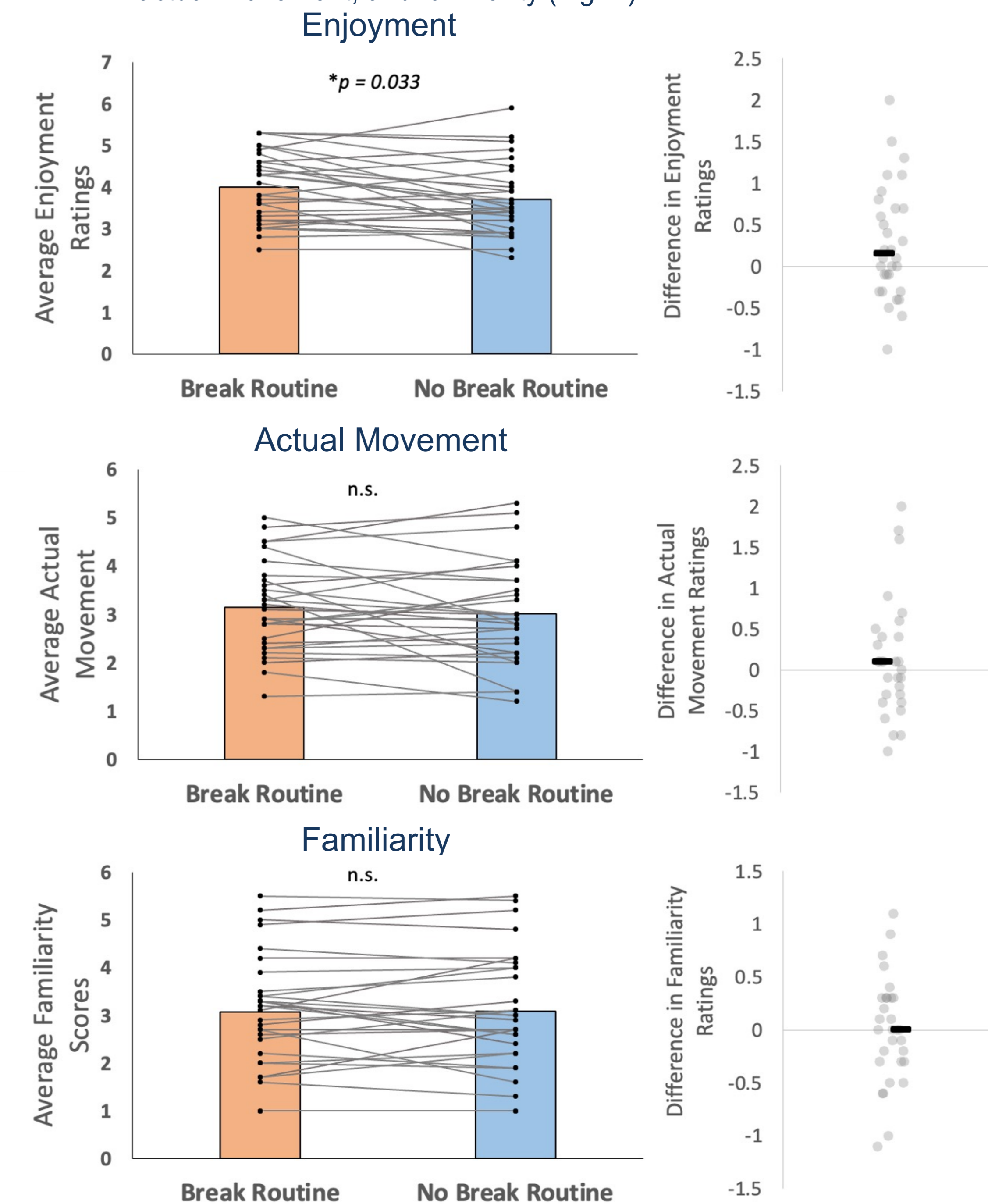


Figure 4: Average Likert and difference ratings. Participants’ average ratings are represented by the black lines. Each participant’s difference scores is represented by a grey dot.

- Clips with a break routine elicited greater enjoyment than clips without a break routine ($p = 0.033$)
- No significant differences were seen in the actual movement or familiarity ratings

Summary & Future Directions

- Participants rated clips with a break routine as more enjoyable than clips without a break routine
- Analysis of the continuous ratings is ongoing, but preliminary results suggest an increase in urge to move ratings during the beat drop portion of the break routine
- We expect the results to reveal insights into how break routines affect the dynamics of the urge to move
- Further investigation will compare urge to move ratings and actual movement when dancing

References

- Solberg, R. T., & Jensenius, A. R. (2017). Pleasurable and Intersubjectively Embodied Experiences of Electronic Dance Music. *Empirical Musicology Review*, 11(3–4), 301–318. <https://dx.doi.org/10.18061/emr.v11i3-4>
- Van Dyck, E., Moelants, D., Demey, M., Deweppe, A., Coussement, P., & Leman, M. (2013). The Impact of the Bass Drum on Human Dance Movement. *Music Perception*, 30(4), 349–359. <https://doi.org/10.1525/mp.2013.30.4.349>