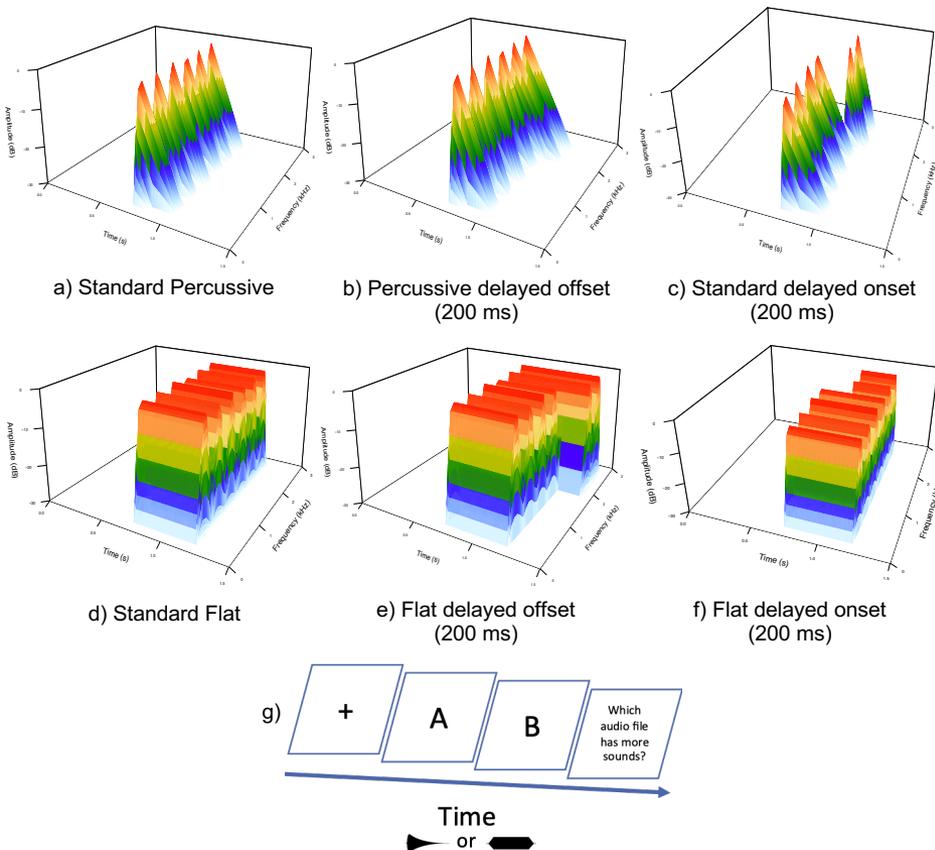


## Purpose

- Multiple frequency components join to make one cohesive auditory tone. When does that binding break apart? And how does binding differ with varying the amplitude envelope?
- Our team revealed that sound structure affects our perception (Chuen & Schutz, 2016) and here we investigate how amplitude envelope affects frequency binding.
- We expected that energy-varied tones would be perceived as more cohesive than tones with a sustained energy.



## Methods



## Results

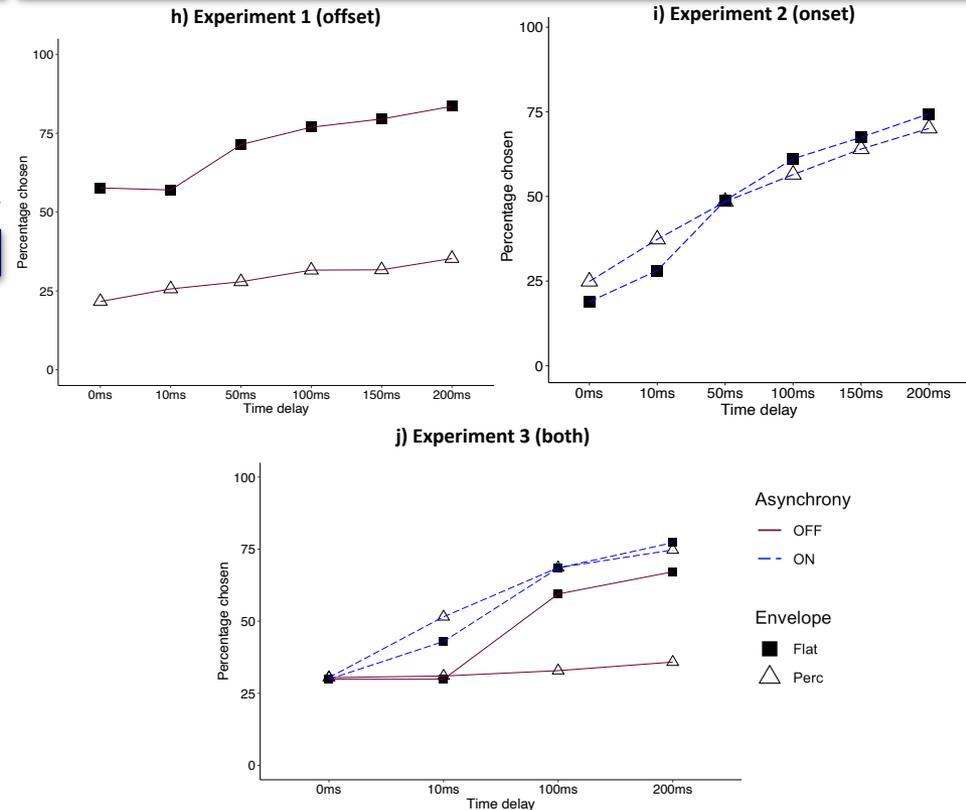


Figure h) shows the percentage of participants who chose each tone condition as having more sounds using the standard tones as well as the offset-manipulated tones. Figure i) shows the percentage of participants who chose each tone condition as having more sounds using the standard tones and the onset-manipulated tones. Figure j) shows the percentage of participants who chose each tone as having more sounds from the standard tones, offset- and onset-manipulated tones

## Conclusions

- Amplitude envelope plays an important role in perceptually grouping sounds.
- Altering sound offset had a significant effect when amplitude envelope was manipulated.
- In line with current literature, longer onset asynchrony times are predictable of the perceived number of sounds.

## Acknowledgements & Selected References

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