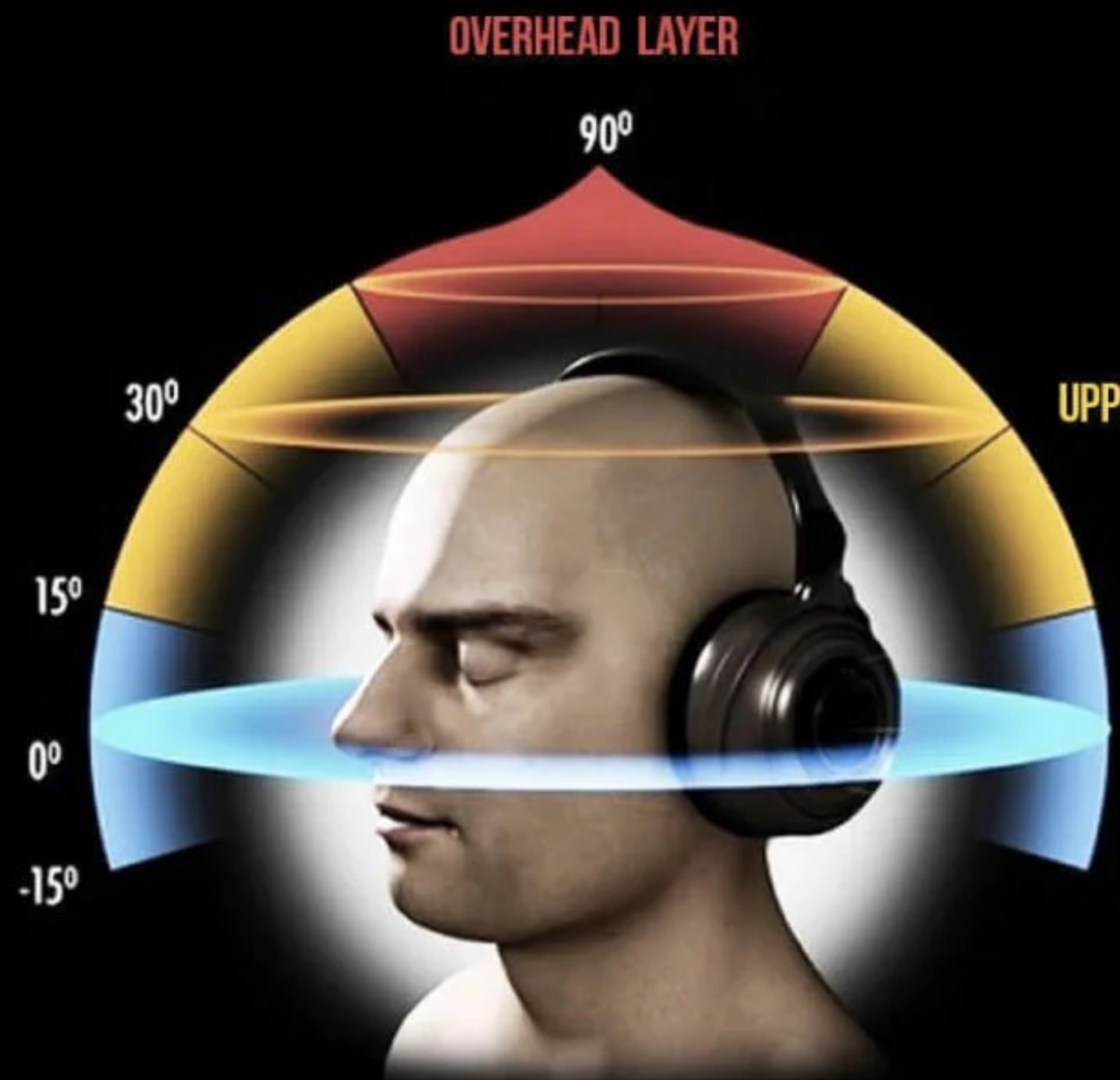


Is Static Binaural Worth it?

John Emslie 2/4/2023



Aim

An Online Experiment

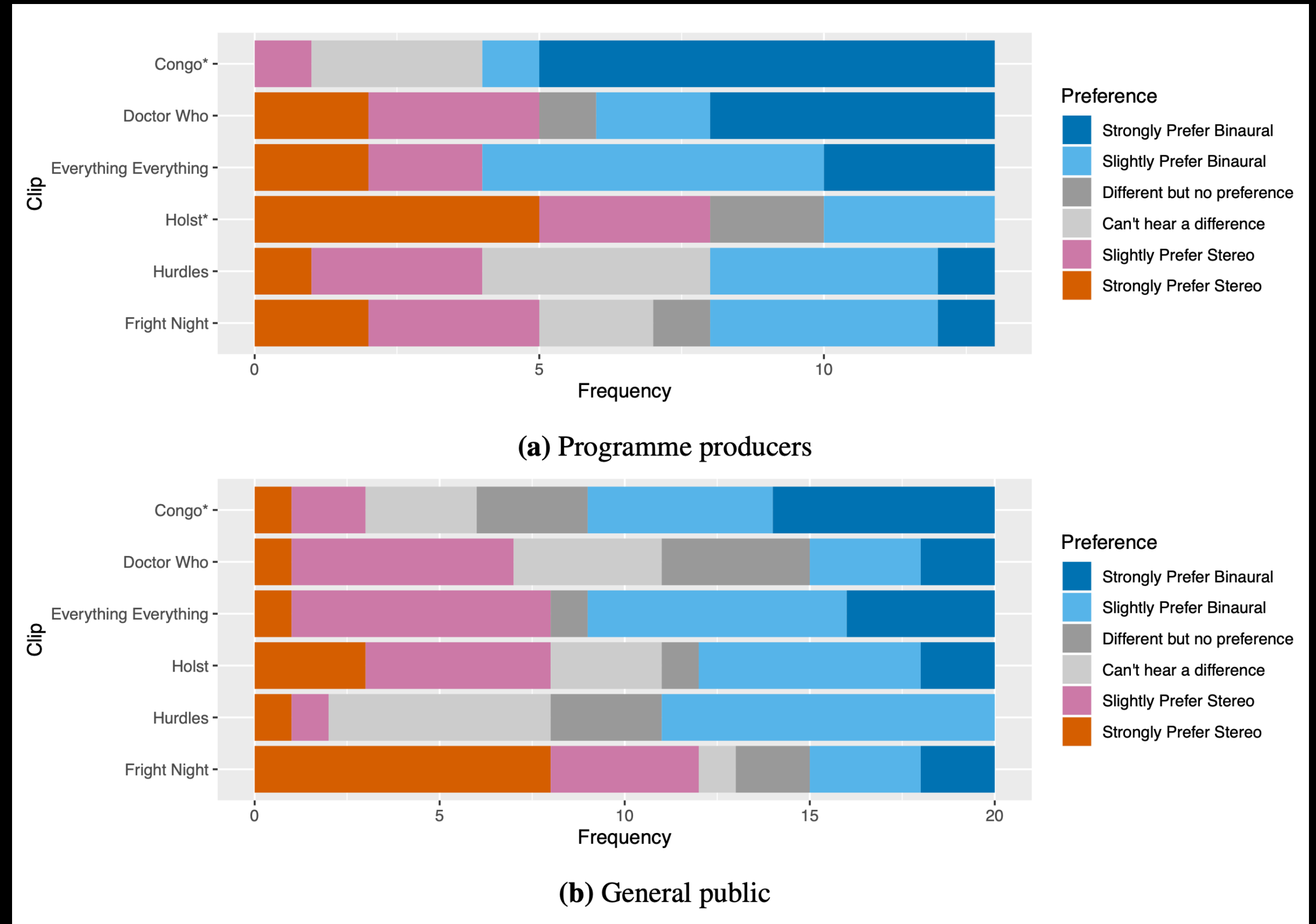
- To determine if listeners preferred stereo or binaural recordings of the same material
- Paired comparisons between a wide range of material
- Program producers (experience with binaural) and average listeners (typical broadcast audience)
- How do listeners describe the differences that give rise to a preference for binaural or for stereo in a comparison of the two formats?

Methods

- Two experiments (BBC producers and average Audience) of blind comparisons
- Preferences using free text response
- Online listening test interface to switch between the two and record responses
- 6 point scale
- Text box for reasons for preference

Results

- Producers - no significant trend although preference for binaural of a mono track and preference for stereo on one track
- General public - significant preference for only one track, which was also *Congo (mono track)*



Discussion

- More instances where general public could not tell the difference or had no preference (inexperienced listeners less discriminatory)
- Producers went into more detail citing position and timbre of individual objects (negative comments about timbre, positive about spatial aspects of binaural)
- General public focused on perceived clarity (twice as many positive comments on spatial aspects of binaural to stereo)
- Producers preferred stereo version of *Hoslt* (both timbre and spatial)
- General public's comments did not provide useful insight

Conclusion

My Own Thoughts

- Binaural signals may have been less effective due to HRTF not being personalised
- Binaural might depend on the execution
- Binaural might be better in some cases (documentaries) and not others (music)
- Advantage when it is head tracked (VR etc.) and things like binaural beats but all other literature points to timbral sacrifices or preferred stereo in music or dense soundtracks binaurally
- A mix of stereo and binaural might be the most effective (like drums in stereo and guitars panned in binaurally)
- Make an A/B comparison of a mix for my final assignment

References

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