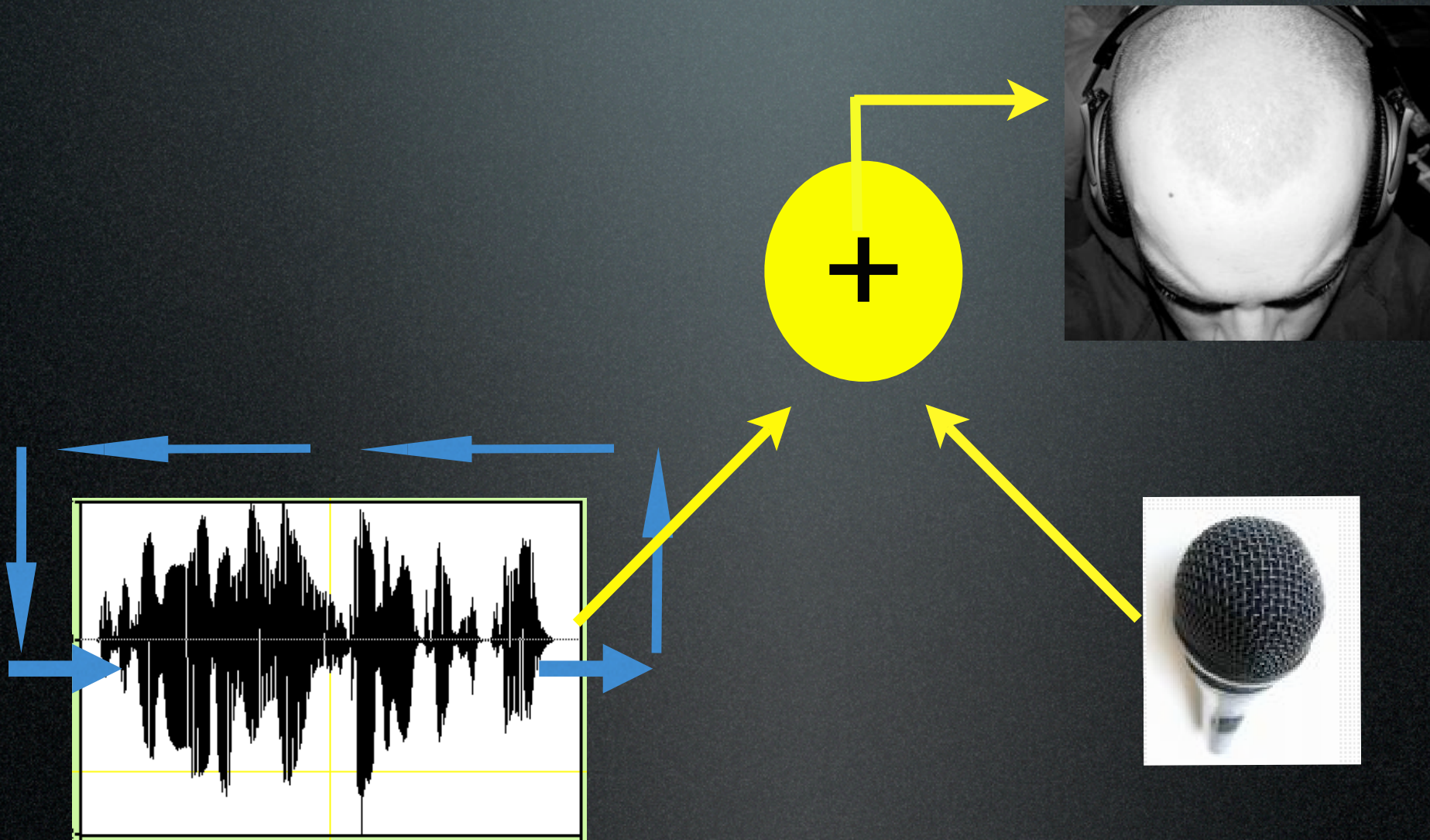


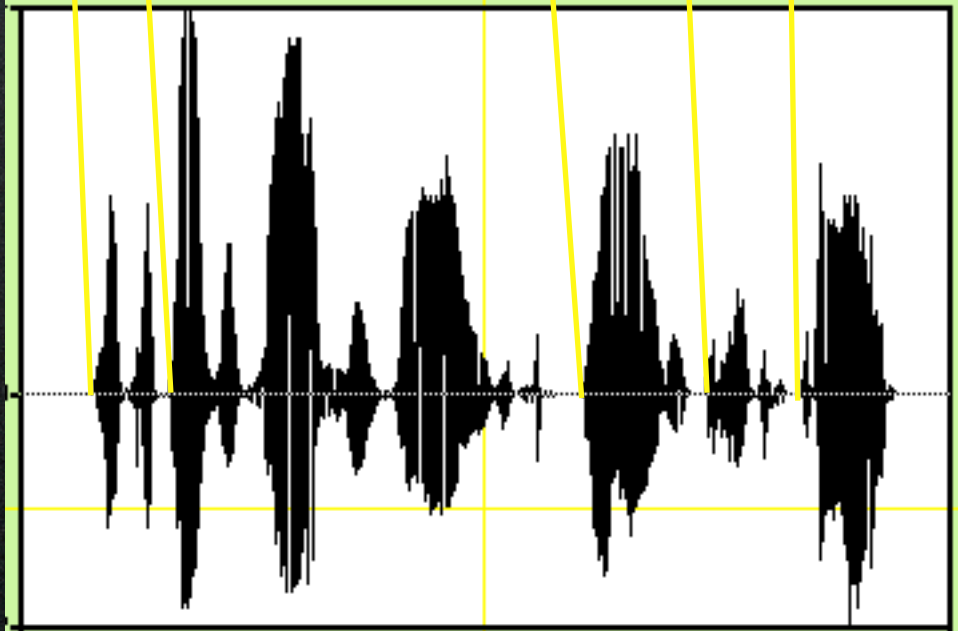
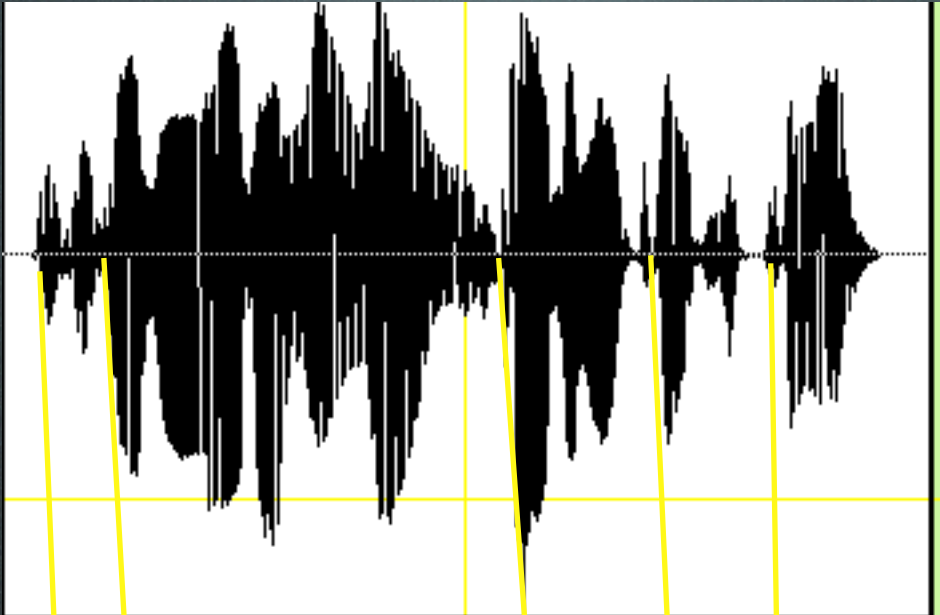
# Repetitive Synchronous Imitation

A new tool for looking at timing

# Repetitive Synchronous Imitation (RSI)



Target Phrase



# Origins of RSI

- Language teaching: Swedish prosody to L2 learners
- Developed by **Gabor Harrar**, at the Finnish Institute in Stockholm University
- Particularly effective at teaching pitch accent

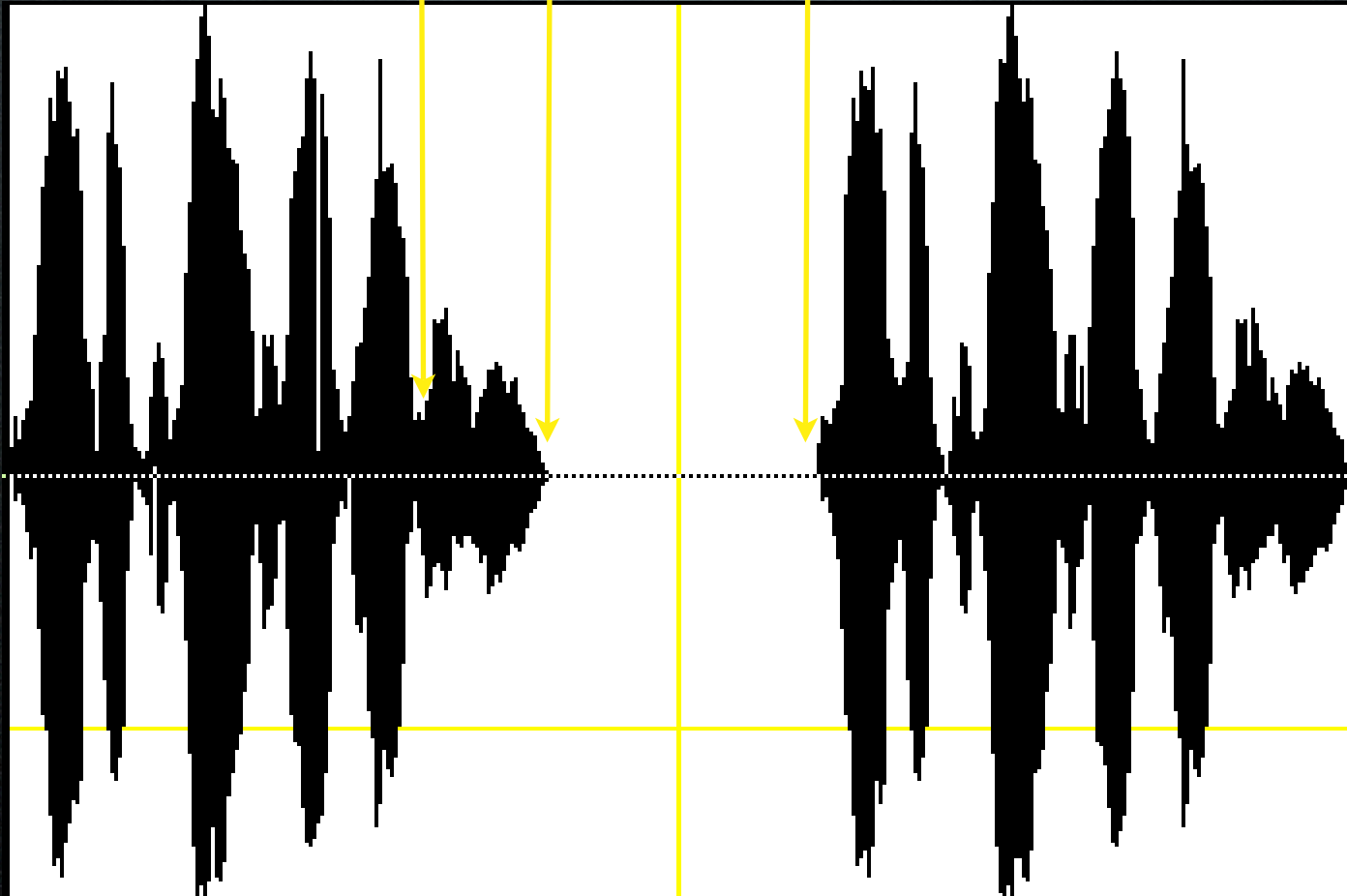
Oh boy, oh boy, a new toy!

# Rhythmic Expectation

- Allow subjects to set the silent interval between phrases
- Ss instructed to choose an interval they would like if they had to speak along with the target
- Compare the intervals they choose with those generated by free production

Foot

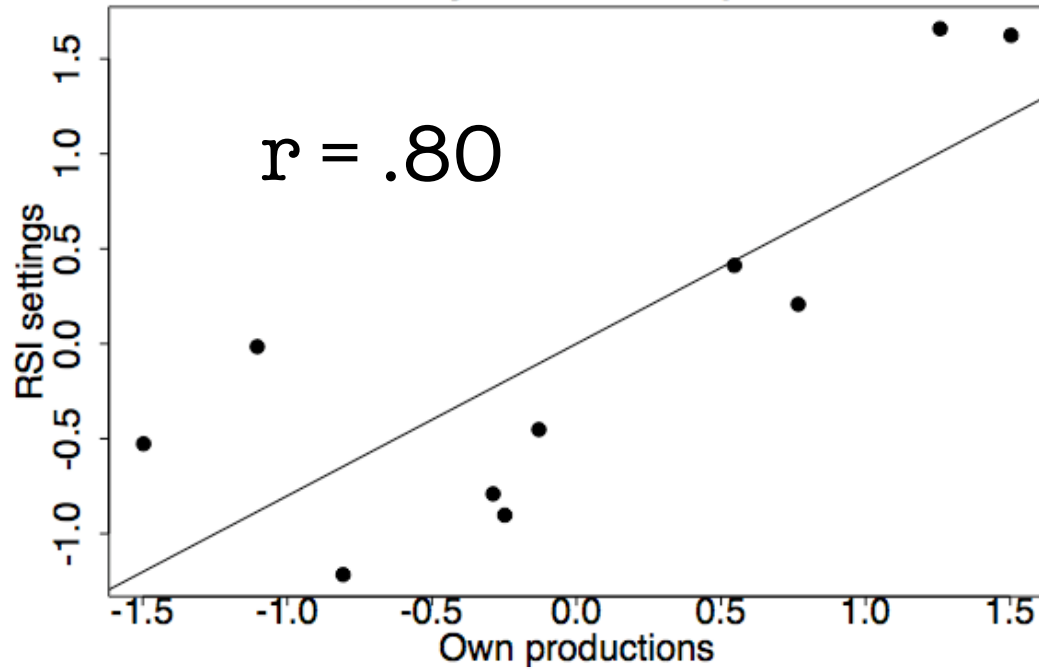
Gap



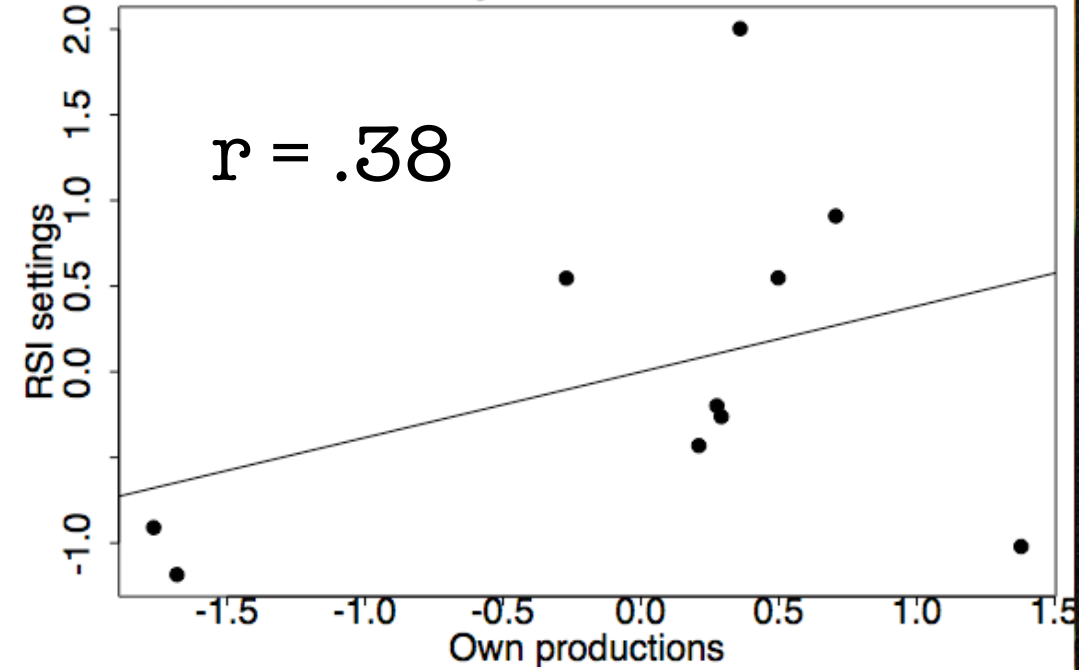
Joe books very few judges

# Correlations between own productions and RSI settings

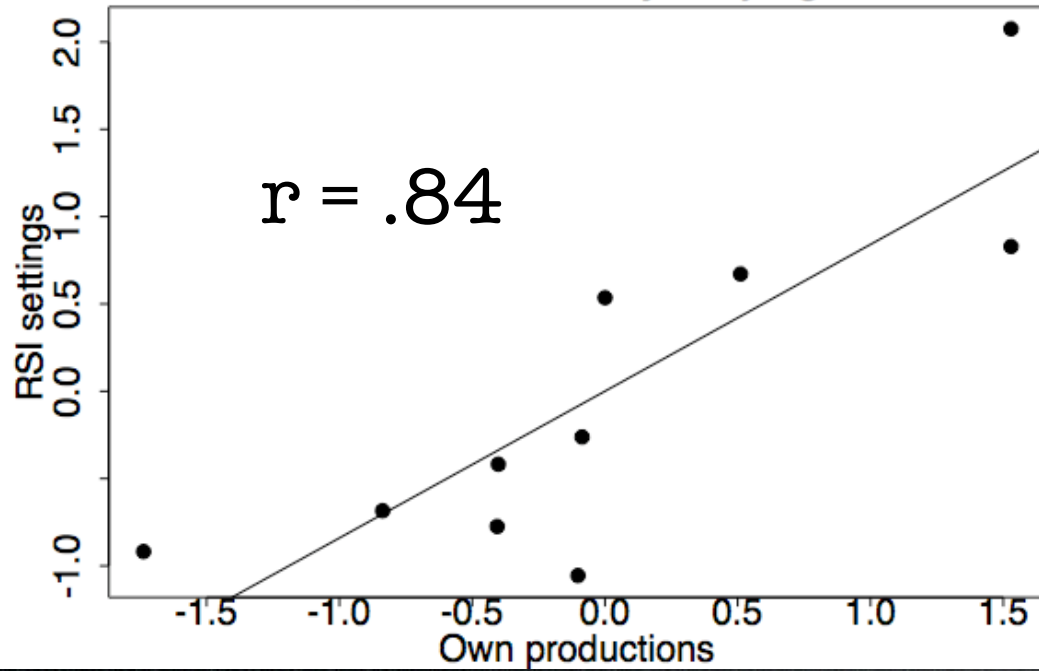
Foot, "Play in the street up ahead"



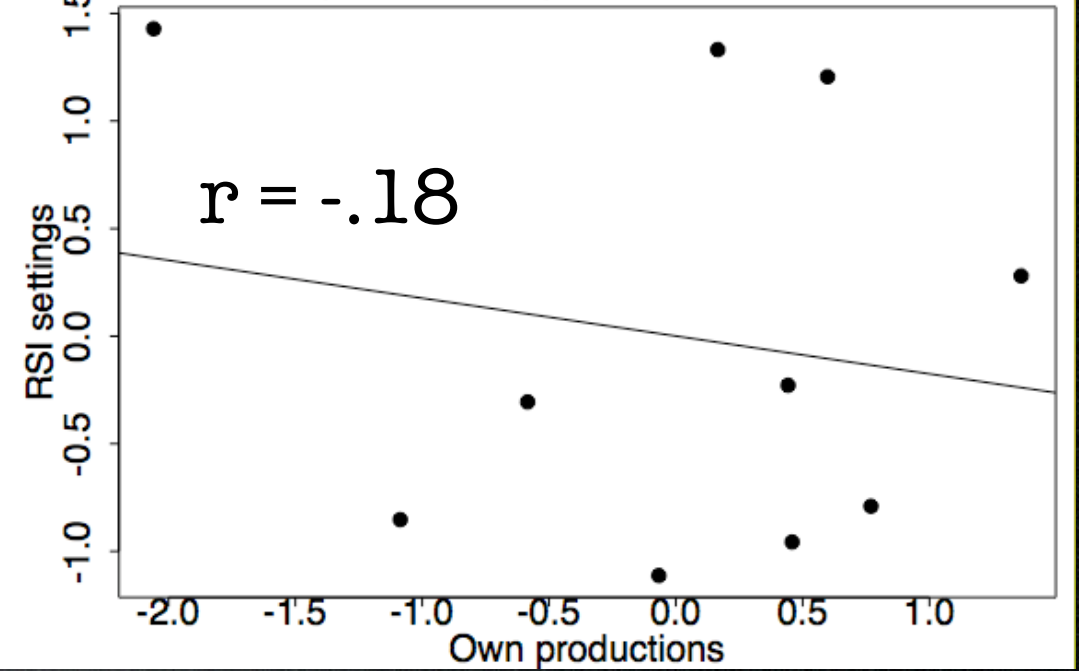
Foot, "Charlie, did you think to measure the tree?"



Foot, "Joe books very few judges"



Foot, "Here I was, in Miami and Illinois"



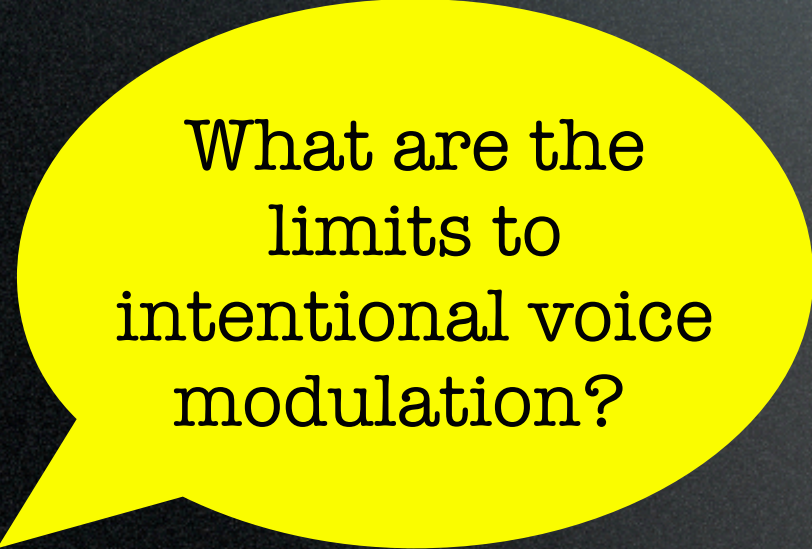


# Initial observations

- Correlations, where present, reflect temporal expectation
- Expectations are high when a single syntactic unit is repeated (Not just a mean value)
- Expectations are less evident when the repeating unit is composite
- Foot+silence is a better indicator of expectation than silence alone

# Other Potential Uses?

- \* Considerably more effective than mimicry
- \* Timing (rate, proportional timing changes)
- \* Intonation and Tone modification



What are the limits to intentional voice modulation?

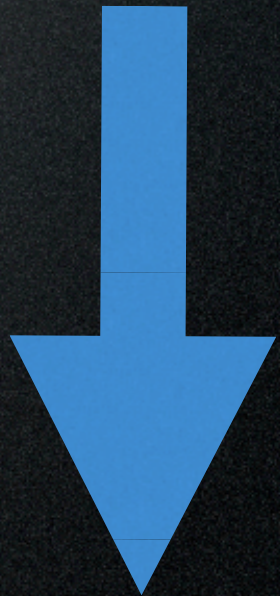
# CHAINS: CHaracterising INdividual Speakers

- 3 Corpora: each with parallel speaking conditions:
  - Reading alone
  - Reading with altered speech
  - Speakers modify speech towards a known target
  - Q: what remains invariant despite intentional modification?

# 3 Corpora

- Regular read speech +
  - Synchronous Speech
  - Mimicry
  - Repetitive Synchronous Imitation

Minor



Major

# For Discussion

- What might one do with this tool????