Research on deception shows that: (a) **speakers** produce verbal and nonverbal cues that signal deceit when lying, and (b) **listeners** attend to certain cues when attempting to recognise deceit. Are the cues that **listeners** rely on in **perceiving deception** the same as those **speakers** produce when lying?

### Previous work on deception

**Behavioural cues to deception**

1. Pitch variation due to various emotions associated with deception (the **emotional hypothesis** [1])
2. Increased speech disturbances due to greater mental load (the **cognitive hypothesis** [2])
3. Rigid or unnatural behaviour due to increased effort to mask deception (the **attempted control hypothesis** [3])
4. Cue behaviour may be more pronounced when speaker’s motivation increases—the **Motivation Impairment Effect** [4]

**Limitations**
- Inconsistencies across studies often lead to conflicting results e.g., [2] and [3]
- Production studies tend to employ cued lying paradigms
- Perception studies tend to rely on post-hoc judgements
- Studies frequently overlook the interactive component of deception

### Current study

**Investigate the production and perception of verbal and nonverbal cues to deception in an interactive, two-person dialogue game.**

**Motivations for design**
- **Speakers** given free choice to lie or tell the truth
- **Listeners** judge speakers’ utterances in real time
- Interactive element of task adds ecological validity to findings

### Experiment

**An example trial:**

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**Participants**
- 24 same-sex, native British English speaking dyads
- Two roles: **Speaker** ( liar) and **Guesser** (lie detector)

**Stimuli**
- Visually-related object pairs
- **Motivation manipulation**: Gold coins (20 points) and silver coins (5 points)

**Design**
- 48 trials; 8 lists
- Objects counterbalanced for role (treasure/non-treasure image), position (treasure on left/right) and motivation to lie (gold/silver coins)

**Results: Verbal cues**

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**Task**
- **Speakers** specified an object as the one concealing the treasure
- **Guessers** clicked on object with the aim to find the treasure
- Players awarded points for treasure retained (**Speakers**) or found (**Guessers**)
- Winner received £1 cash reward

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**Results: Verbal cues**

- More likely to perceive utterances characterised by disfluency as lies
  - a) Silent pauses, \( p < .01 \)
  - b) Filled pauses, \( p = .07 \)
  - c) Silent pause duration, \( p < .05 \)
  - d) Onset latency, \( p = .08 \)

**Results: Nonverbal cues**

- More likely to perceive utterances characterised by smiling/laughing as truthful, \( p < .05 \)

**Conclusions**

1. There appears to be a disconnect between **Guessers’ perception** and **Speakers’ production** of behavioural cues to deception
2. Gs behaviour suggests expectations based on the **cognitive hypothesis**; Ss behaviour supports the **attempted control hypothesis**
3. Verbal behaviours appear easier to control than nonverbal (cf. Ekman & Friesen’s ‘leaky channels’)
4. Motivation results do not support the **Motivational Impairment Effect**
   - May be due to different operationalisations of motivation across studies
   - More work would be needed to explore the motivation effect within speakers

**References**