During conversation, people appear to plan their speech while comprehending others [1]. However, dual-tasking research has shown that both language production and comprehension interfere with, and can be interfered with by, a concurrent non-linguistic task [e.g. 2, 3]. Little research has tested whether language production and comprehension interfere with one another in a dual-task. Here we ask:

Is there more dual-task interference when word production is combined with a linguistic than with a non-linguistic task?

**Experiment 1**

### Dual-task:
- Task one (T1) – picture naming
- Task two (T2) – syllable or tone identification

1. See picture
2. SOA of 50ms, 300ms or 1800ms
3. Hear syllable or tone
4. Response: T1: “bali”
   T2: [press button]

Two linguistic tasks have greater interference at the early SOA in T1, and at all SOAs in T2.

**Experiment 2**

Is the effect due to syllables and tones being acoustically different? To test this, sine-wave speech (SWS) syllables [4] were presented to all participants, with different instructions.

- Normal ‘aak’
- SWS ‘aak’

SWS versions of ‘aak’ and ‘iek’

Group one: computer-generated sounds
Group two: distorted syllables ‘aak’ and ‘iek’

**Discussion & Conclusion**

- There is greater dual-task interference with two linguistic tasks than one linguistic and one non-linguistic task in T1 and T2.
- The null results in Experiment 2 suggest that the complexity of language sounds may contribute to interference, but this is inconclusive.
- As the syllables are non-words without lexical representations, the greater linguistic interference is likely present at the phonological level.

Concurrent linguistic access results in interference in both production and comprehension.

**REFERENCES:**