Syntactic variability across dialects, idiolects, and sociolects presents challenges for comprehenders:
- Same meaning may be expressed with different structures
- Meaning of newly encountered structures not always clear

**Hypothesis:** Language comprehension *implicitly learns* distribution of syntactic structures in *current* situation

Predictions of implicit learning account:
- Adaptation even in fluent speech (not a speech error / typo)
- Integrated with existing knowledge & can *compete* with familiar structures

**DIALECTAL NEED**
Syntactic structure used in Ohio, western Pennsylvania

“The car needs washed *because* of the dust storm.”

*means:*

“The car needs to be washed…”

But without knowledge of Dialectal Need, “The car needs washed…” must be interpreted as including a modifier of an upcoming noun:

“The car needs washed carpets to make the interior look attractive.”

Results in *garden path* effect when *disambiguating region* disambiguates sentence to Dialectal Need.

**VISUAL WORLD TASK**
**Task:** Drag 1 of 4 pictures to center picture based on audio
- e.g., use bucket to wash car

Critical sentences use *Dialectal Need:*
“*The car needs washed because of the dust storm.***”

Temporarily ambiguous

- Fixate “parts” region
- Garden-path modifier interpretation: Need a washed item

Correct Dialectal Need interpretation:
“Need an instrument to wash car”

- Fixate “instrument” region

**PROCEDURE**
All participants previously *unfamiliar* with Dialectal Need
- Confirmed by debriefing questionnaire

**TRAINING PHASE:**
Learn picture pairings (e.g., car should be washed with soapy bucket)

**CONVENTIONAL EXPOSURE:**
Hear 10 conventional needs to be & 10 fillers

**DIALECTAL NEED EXPOSURE:**
Hear 10 Dialectal Need & 10 fillers

Between-subjects exposure manipulation

**TEST PHASE:**
Hear 8 Dialectal Need & 8 fillers

Fillers: “The car should have…” and “The car should be…”
All items use different participle (washed, cut, trained, etc.)

**TEST PHASE RESULTS**

- Conventional-exposure group is garden-pathed by Dialectal Need
- *Dialectal exposure group considers both interpretations!*

Rapid adaptation to unfamiliar syntactic structures in speech
- Effects emerge *prior* to disambiguation
- Exposure also improves comprehension accuracy (not pictured)

**CONCLUSION**
Results consistent with implicit learning of an unfamiliar structure
- Adaptation even to fluent spoken speech
- *Competes* with familiar structures even before disambiguation

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