Experience with dialectal variants modulates online syntactic processing
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What makes difficult syntactic structures difficult?
➢ Intrinsic properties?
» e.g., memory demands, parsing heuristics
➢ Infrequency / lack of experience?
» Repeated exposure can make hard structures easier

Test online comprehension of a dialectal syntactic variant:
➢ Are these structures easy with long-term (lifetime) experience?
➢ Can readers learn to comprehend based on recent experience?

MATERIALS & METHOD
➢ 20 simulated e-mail stimuli, 3-4 sentences each
➢ 10 critical e-mails:
» Next-to-last sentence contains needs + participle
» 15% of total sentences

NEEDS + PARTICIPLE
Syntactic construction used in Ohio, western Pennsylvania
“The display case needs polished before we add the trophies.”

means:
“The display case needs to be polished…”
(Object of polish is display case)

But without knowledge of needs + participle construction,
“The display case needs polished…” must be interpreted as including a modifier of an upcoming noun:
“The display case needs polished trophies to look its best.”
(Polished modifies trophies)

Results in garden path effect when disambiguating region disambiguates sentence to needs + participle structure.

PARTICIPANT RECRUITMENT
➢ Web-based (Amazon Mechanical Turk)
➢ Recruit participants from areas likely to be:
» Unfamiliar with needs + participle (CO)
» Familiar with needs + participle (OH & PA)
➢ Confirm familiarity with post-experiment questionnaire
» Lure questions about other structures to avoid bias

CONCLUSION
➢ Strong role of experience in syntactic processing
» Structure easier for participants with long-term experience
» Quickly learn to comprehend after recent experience
➢ Web-based methods can recruit participants varying in dialectal features relevant to sentence comprehension
» No effect observed of putative source of e-mails
» Participants may not know geography of needs+participle
» Poor cue: Some Denver residents use needs+participle

RECEIVING TIME RESULTS
Long-term exposure to needs participle matters
» Familiar participants faster in disambiguation
But, unfamiliar participants learn
» Group difference declines after early trials
Not about differences in overall reading speed
» Equal reading times at unambiguous needs

"I'm certainly excited to have a new award to display. The display case needs polished before we add the trophy. Let's do that this afternoon."
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