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Pronoun processing in gracefully ageing adults and individuals with primary progressive aphasia: a case-control study

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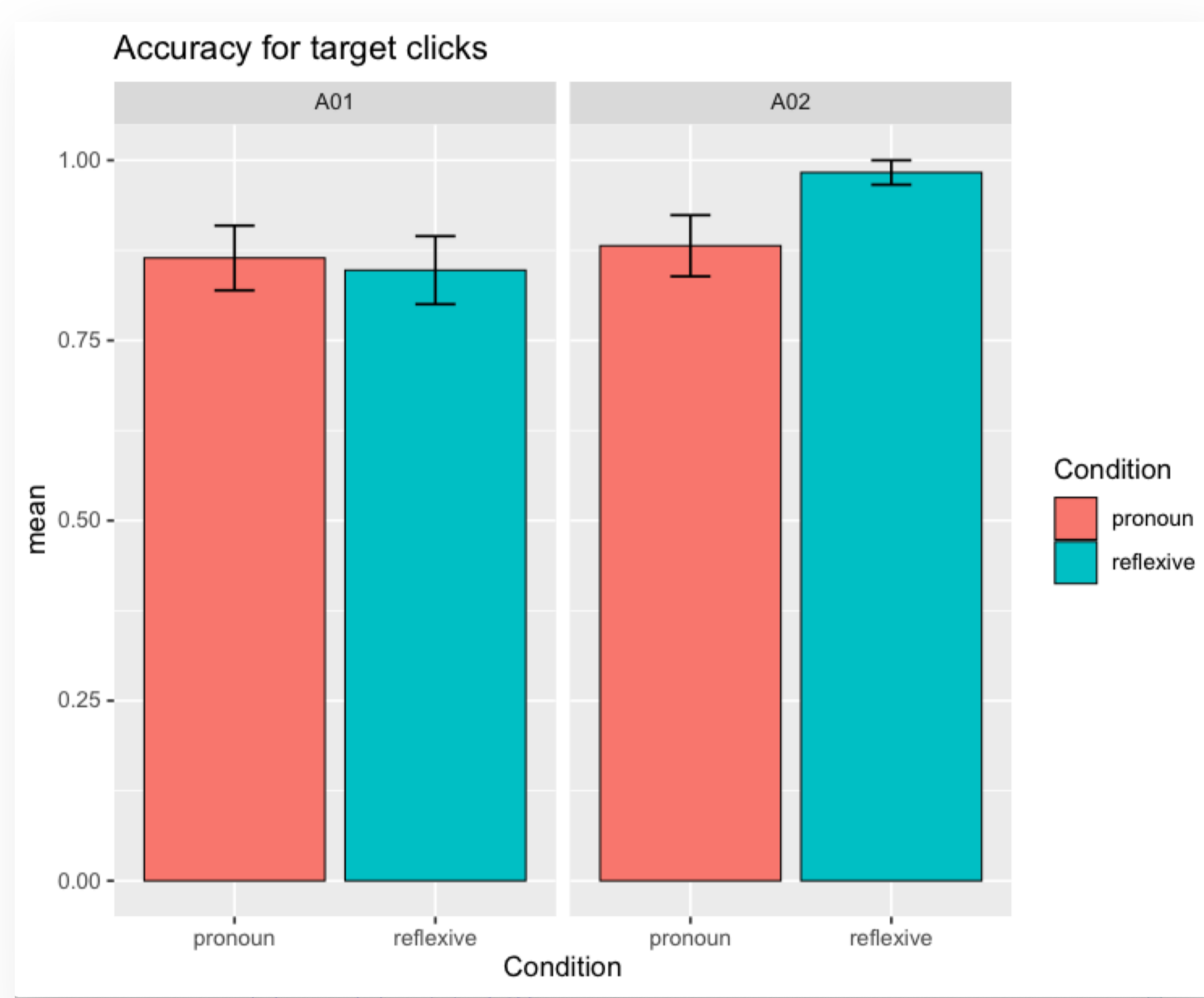
Pronominal processing is challenged in non-fluent progressive aphasia

Pronoun processing in gracefully ageing adults and individuals with Primary Progressive Aphasia: A case-control study

Background: Primary Progressive Aphasia (PPA) is a neurocognitive disorder caused by cortical atrophy. Pronouns are often reduced in PPA variants (Henry & Gorno-Tempini, 2010). Particularly, the non-fluent variant presents difficulty interpreting complex sentences (Charles et al., 2014).

Result 1: A01 performed more poorly on reflexives than older controls. A02 performed within control norms

Result 2: Older adults have reduced target looks for pronouns but not reflexives. PPA have rather atypical and reduced fixations overall.



Methods

Eye tracking

Comprehension

GORILLA™

Px Groups of young and senior unimpaired individuals and two cases with PPA were recruited

	N	Age	Remarks
Young	32	19	Performed at ceiling 98% in both pronoun and reflexives
Senior	31	68.8	Performed 97% in pronoun but 99% in reflexives
A1		84	Non-fluent PPA
A2		69	Logopenic PPA

Task Eye-movement monitoring and picture selection

The barista untangles *himself/him*



Conclusions: PPA individuals can interpret anaphoric elements with relatively unimpaired accuracy, but pronoun processing is poorer in non-fluent PPA consistent with the overall grammatical impairment. We are hoping to improve ways eye-tracking data reliably can be analysed within a case-control design. If you have ideas, say hello to people named below.



Seçkin Arslan, Leonie F. Lampe,
Bruna Tessaro, Lyndsey Nickels
(& thanks Mar Cordero Rull)

