



BACKGROUND: PREVIOUS EXPERIENCES AND PRESENT CASE STUDIES

Previous Experiences of the Researchers

- ▶ (A) Direct elicitation methods (Matthewson 2004) with understudied languages in Ghana (Akan and Ewe). (B) Experimental work on European languages.
- ▶ Experimental methods in semantics/pragmatics typically follow this pattern, i.e., few experiments 'in the field' (with some exceptions; see, e.g., Lima 2014).

Present Case Studies

- ▶ Experiments on an understudied language (Akan, Kwa, Niger-Congo) in a non-WEIRD environment (University of Ghana at Accra).
- ▶ Two case studies with unexpected results, focus here on baseline/controls.
- ▶ Aim: identify areas for improvement with future experiments 'in the field'.

CASE STUDY 1 (CS1): DEMONSTRATIVE BASELINE

- ▶ **Research question:** Does the Akan definite article *no* require an antecedent, in comparison to baseline condition demonstrative *saa...no*?
- ▶ **Method & Design:** pen-and-paper questionnaire with acceptability judgment task (3-point Likert scale).
- ▶ **Prediction:** Demonstrative (DEM) requires an antecedent (low acceptability).
- ▶ **Sample item:** Akosua went to a university class. She greeted *some students*.
[+ART] A bit later, *the professor started teaching*.
[+DEM] A bit later, *that professor started teaching*.

CASE STUDY 2 (CS2): EXCLUSIVE CONTROL

- ▶ **Research question:** Are exhaustivity inferences similar across constructions?
- ▶ **Method & Design:** in mouse-driven incremental information paradigm, participants (i) hear a sentence and (ii) uncover images until they have enough information to judge the sentence as true/false in the context.
- ▶ **Prediction:** for early response with exclusive *nkoaa* 'only', participants will judge exhaustivity violations as 'false', not continue uncovering.
- ▶ **Sample item:** Kwame *nkoaa* na too pono mu. 'Only Kwame shut a gate.'
(False if image shows that Kofi shut the gate.)

(UNEXPECTED) RESULTS: SOMETHING WENT AMISS!

DIFFERENCES WITH ELICITATION

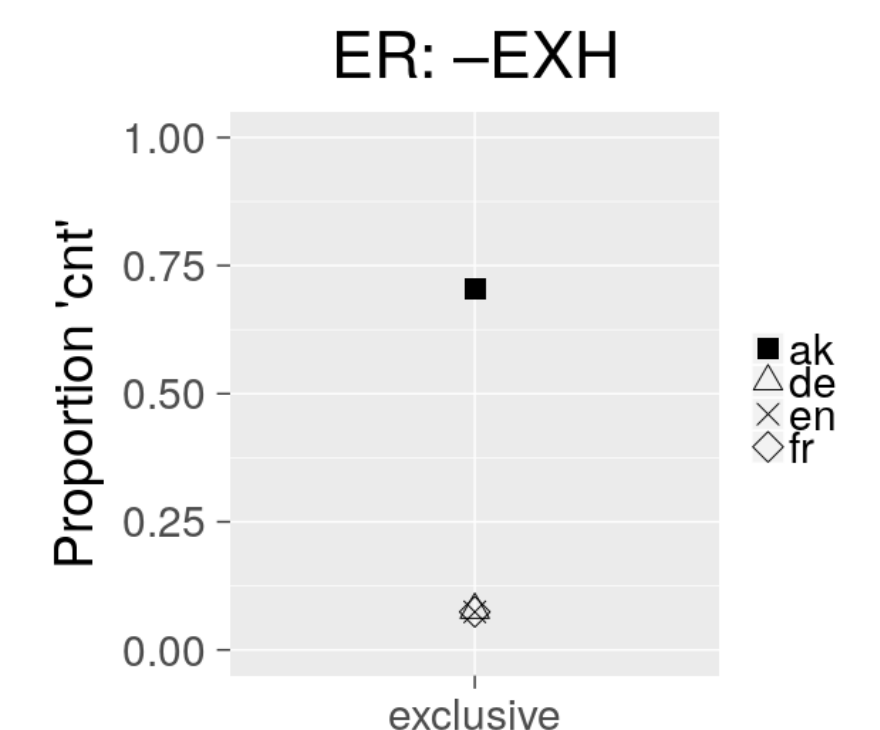
- CS1** ▶ **Experimental:** 55% of DEM without an antecedent judged as "acceptable", with inconsistent responses across items.
- ▶ **Elicitation:** in elicitation, parallel examples judged as unacceptable, and in post-hoc elicitations with questionnaire, participants changed their mind.
- CS2** ▶ **Experimental:** 'continue' for exclusives despite violations of exhaustivity [−EXH] / prejacent [±PRJ], rather than judge 'false'.
- ▶ **Elicitation:** *nkoaa* 'only' truth-conditional, at-issue exhaustivity (Duah 2013); literature is in line with post-hoc elicitations with two participants.

DIFFERENCES WITH OTHER LANGUAGES

High rate of continue in Akan, unlike English, French, German (see graph).

- Early Response [−EXH]: 172/244 continue
- Late Response: [−PRJ] 37/45, [+PRJ] 20/43 continue

Yet, final TVJ: 219/248 'false' (when continuing not an option—in line with other languages).



DISCUSSION: ADDRESSING THE ISSUES IN THREE STEPS

(1) PRIOR ASSESSMENT

The experiments on Akan should be feasible.

(a) General task (& motivation)

- ▶ Akan is a well-documented language—elicitation data both on definiteness (CS1) and on exhaustivity (CS2) available.
- ▶ Acceptability judgments (CS1) and truth-value judgments (CS2) are standard in semantic fieldwork (Matthewson 2004).

(b) Experimental setup & procedure

- ▶ Participants are university students (Linguistics), used to answering (written) questionnaires.
→ ability to follow instructions in both case studies
- ▶ Participants use computers and smartphones in everyday life
→ computer as a medium in CS2
- ▶ Akan (and its main dialect Twi) has a standard orthography and is taught as a subject in schools.
→ written questionnaire (CS1), instructions in Akan (CS2)
- ▶ English is a national language and the language used in instruction (schools to higher education).
→ pre-experiment oral instructions from experimenter in English (CS2)

(c) Participant assessment

- ▶ Akan (Twi dialect) is widely spoken in Ghana
→ participants selected based on whether mother tongue is Akan (Twi)

(2) OBSERVATIONS FROM THE FIELD

Prior assessment criteria, especially with respect to procedure and speaker selection, were insufficient.

(a) General task

- ▶ CS1: In face-to-face elicitations on the same phenomenon, speakers gave consistent judgments across items.
- ▶ CS2: Participants sensitive to truth-value judgment task (proportion of final 'false' responses and post-hoc elicitation).

(b) Experimental setup & procedure

- ▶ Akan only taught up to high school, orthographic variation, Akan appears to be primarily spoken.
→ informants varied in spelling.
→ misspellings or misreadings lead to different interpretation! *baa bi 'a bar'* vs. *baabi* 'somewhere'
- ▶ Subtle differences between Ghanaian English and British/American English
→ Misunderstandings with English instructions?
Does this ring good to your ears? (Ghana) vs. *Does this sound good?*
- ▶ More differences
→ Use of a scale (CS1)
→ use of computer (CS2) or paper (CS1) not direct interaction.
→ Highly hypothetical tasks perhaps ill-suited? (cf. Flynn 2007)

(c) Participant assessment

- ▶ Pervasive code-switching between Akan and English, English loanwords
→ Did speakers comprehend all the words in the items?
- ▶ Multilingualism in Ghana/Accra: 'mother tongue' probably not best assessment of language competence?
→ Parents may speak a different local language (Ewe, Ga, ...), but the child may grow up in an Akan-speaking community → high proficiency, (near-)native speakers?
→ Native speakers of Akan may rather use Ghanaian Pidgin in everyday life → low proficiency, heritage native speakers?

(3) SOLUTIONS AND PROSPECTS

Refine procedure / speaker assessment & selection.

(a) General task

- ▶ Complement quantitative experiments with one-to-one elicitation to check (external) validity.

(b) Experimental setup & procedure

- ▶ Training session on different phenomenon.
- ▶ Focus on audio-visual media.
- ▶ More robust (e.g., forced-choice task, rather than scale) or real-world based tasks (concrete vs. hypothetical referents, sensu Flynn 2007)

(c) Participant assessment

- ▶ Collect more fine-grained metadata (similar to multilingualism studies?)
→ How often do you speak Akan with friends?
→ Did you grow up in an Akan-speaking community?
- ▶ More stringent inclusion criteria to achieve a more homogeneous group re Akan proficiency.
- ▶ Post-hoc vocabulary test to check that speakers understand lexical items.

All is not lost: individual/overall patterns

- ▶ CS1: 3 participants provided consistent judgments across items.
- ▶ CS1: Speakers' comments in elicitations addressed experimental manipulations.
- ▶ CS2: Final judgments in line with that of other languages.

→ With some improvements in assessment and methods, experiments on Akan should be possible!

REFERENCES & BIBLIOGRAPHY

• Duah 2015. Exhaustive Focus Marking in Akan. *Interdisciplinary Studies on Information Structure* 19. • Flynn 2007. What is intelligence?: Beyond the Flynn Effect, CUP. • Henrich, Heine, Norenzayan 2010. The weirdest people in the world?, CUP. • Lima 2004. The Grammar of Individuation and Counting. PhD • Speed, Wnuk, & Majid (in press). Studying psycholinguistics out of the lab. In *Research Methods in Psycholinguistics and the Neurobiology of Language*.