Andrea Beltrama, Erlinde Meertens & Maribel Romero
University of Konstanz   andrea.beltrama@uni-konstanz.de

DECOMPOSING CORNERING EFFECTS: AN EXPERIMENTAL PERSPECTIVE

The goal: Alternative Questions with *or not* (**NAQ**) convey a *cornering effect*, which isn't found with they polar counterparts (**PQ**). This effect has been claimed to consist of two parts (Biezma 2009): NAQs **(i)** can't be used discourse-initially (1) and **(ii)** are necessarily discourse final (2).

(1) A: Jane had a baby!   B: Great news! Is it a boy?(# or not)?

(2) A1: Jane had a baby! B1: Great news! Is it a boy? A2: The baby is so cute. B2: Ok, but is it a boy or not? A3: We should visit her! B3: #Is it a boy?

In this paper, we ask the following: Are both parts of cornering linked to the same property of NAQs? Or do they reflect distinct linguistic phenomena? We explore the issue by comparing the behavior of NAQs to Complement Alternative Questions (**CAQs**), a type of question that, like NAQs, presents logically opposite alternatives but, unlike NAQs, fully spells out the 2nd one:

(3) Is it a boy or a girl?   (4) Is the car automatic or manual?

Results from three experiments suggest that only part **(i)** of cornering reflects a distinctive property of NAQs; part **(ii)** can instead be explained in terms of a pragmatic ban on resorting to a questioning strategy that didn't previously work. We thus argue that the two parts of cornering pertain to different phenomena and propose an analysis that derives the two parts independently.

Hypotheses: It has been claimed that part **(i)** and **(ii)** of cornering are part of the same phenomenon. Biezma (2009) links cornering to NAQs presenting logically opposite alternatives, which force a cooperative hearer to provide an answer. As such, they fail to license further sub-questions, while coming across as overly insisting discourse-initially. Biezma & Rawlins (2014), instead, trace cornering to NAQs *bundling* all alternatives to p with negation, conveying that the speaker is exclusively interested in p. Such a strategy is only felicitous when the discourse is already biased towards p (hence, **(i)**), and is more powerful than any other available strategies to inquire about p, making them irrelevant (hence, **(ii)**). Crucially, if **(i)** and **(ii)** are driven by the same force, we expect CAQs to have homogeneous behavior across **(i)** and **(ii)**. In particular, the former accounts predicts that CAQs, by also presenting logically opposite alternatives, should behave like NAQs in (1-2) (**Hyp.1**); the second account predicts that CAQs, by *not* bundling the second alternative under negation, should neither feature part **(i)** nor part **(ii)** (**H2**). As a third possibility (**H3**), we hypothesize that **(i)** and **(ii)** might pertain to different phenomena; specifically, part **(ii)** might be linked to **Repeat*, a pragmatic principle that penalizes resorting to a strategy that already proved unsuccessful (i.e., the first PQ). If so, we expect that, *independently* of what we see for **(i),** both NAQs and CAQs should fail to license a question that was previously unsuccessful, but not questions that hadn't been used yet.

Exp1: Exp1 compared CAQs and NAQs with respect to **(i).** Trials were written dialogues ending with a question, rated on a 1-7(max) scale. The question was either a NAQ or a CAQ, which was either asked for the 1st or 2nd time. 48 English speakers were recruited on Turk (24 items, 24 fillers). While both CAQs and NAQs are felicitous to re-ask a question, NAQs are significantly worse than CAQs when asked 1st ($p<.0001$), ruling out **H1** and leaving **H2-H3** open.

Exp2: We tested NAQ/CAQs' ability to license further questions (**(ii)**) if the addressee doesn't respond. In each trial the speaker first asks a PQ; then either a NAQ or a CAQ; and finally a PQ with either normal or emphatic intonation (CAPS) in Ex2A, and either a PQ or a Wh-Q in Ex2B.

Herb: "Man, I'm happy about the car!" **Kelly:** "Is it automatic?"   1st Q
H:"Well, it drives great!". **K**: "Ok, but is it automatic or {**NAQ:** not?/**CAQ:** a stick shift?}" **:**   2nd Q
Exp2A: H:"It has 6 gears". **K:**"{**Plain PQ**: Is the c. autom.?/**Emphatic PQ**: IS THE C. AUTOM?}   3rd Q
Exp2B: H:"It has 6 gears". **K:** "{**PQ**: Is the c. autom.?/**Wh-Q**: What is the trans. system of the c?}   3rd Q

If both part (**ii**) and (**i**) of cornering are driven by bundling the second alternative with *or not,* as predicted by **H2,** we expect that CAQs, contrary to NAQs, should be able to license subquestion. If, instead, *Repeat is what drives part (**ii**) of cornering, as per **H3,** both NAQs and CAQs should *not* license questions that have already been asked (e.g., plain PQs); they should instead license inquisitive strategies that are discursively novel (e.g., emphatic PQs in Exp2A; Wh-Qs in Ex-p2B). The last question of each dialogue was rated on a 1-7 scale. A WH-Question-PQ-NAQ was also tested as a control, which is predicted to be felicitous under both **H2-3.** 48 native speakers of English were recruited on MTurk for each study (20 items, 20 fillers). Both final emphatic PQs and WH-Qs were better than regular PQs (ps<.0001), regardless of whether they were preceded by a CAQ or a PQ; they were also rated as natural as the control.
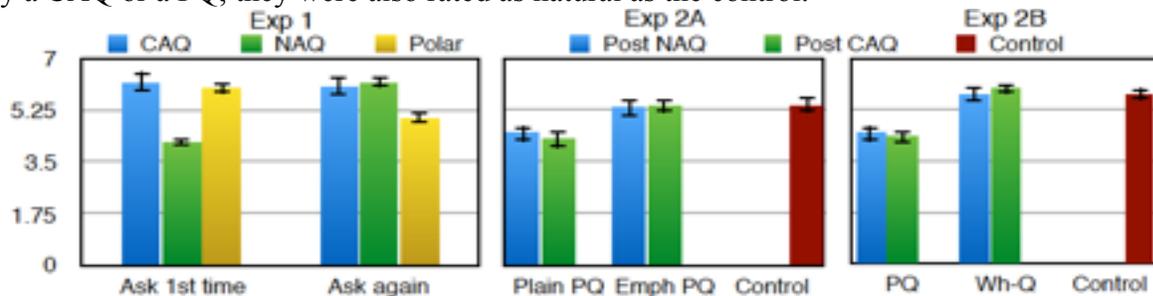
Discussion & proposal: These findings suggest that part (**i**) and (**ii**) of *cornering* are driven by different sources. EXP1 shows that the inability to appear discourse-initially, i.e. (**i**), is a specific property of NAQs; EXP2A/B support the idea that NAQs' seeming inability to license further subquestions, i.e., (**ii**), reflects a general pragmatic principle that applies equally to NAQ and CAQ. To explain (**i**), we appeal to the focus structure of alternative questions (AQs) and compare them to their PQ counterparts. AQs – no matter whether NAQs or CAQs - mandatorily place main focal stress on the disjuncts (Bartels 1999, Truckenbrodt 2012). This yields the focus struc-ture in (5a) for a CAQ - i.e. focus on the antonyms -, whose PQ counterpart is (5b); and the focus structure in (6a) for a NAQ – i.e. focus on the polarity-, whose PQ counterpart is (6b). Crucially, the PQ versions already behave differently discourse-initially: While PQ (5b) with focus on the antonym can be used naturally (see (1)), PQ (6b) with focus on the polarity cannot, as in (7). We argue that, to license this narrow focus on the polarity in (6a-b), the proposition "it to be a boy" has to be given (Schwarzschild 1999). This makes (6a-b) infelicitous discourse-initially, but ideal for re-raising the issue {p, ¬p}. What needs to be given in (5a-b), instead, is the proposition "∃X[it is X", which can be easily accommodated discourse-initially.

(5) a. Is it [a boy]$_F$ or [a girl]$_F$? (6) a. Is it a boy ([yes]$_F$) or [not]$_F$? (7)A: Jane had a baby!
    b. Is it [a boy]$_F$? b. [Is]$_F$ it a boy? B: Great! #[Is]$_F$ it a boy?

To explain (**ii**), we propose that the general pragmatic principle in (8) penalizes the felicity of inquisitive strategies that were previously unsuccessful in discourse, *regardless* of whether they were preceded by a NAQ or a CAQ. Supporting this claim is the observation that multiple strate-gies are available for the speaker to follow up to a NAQ/CAQ with another question, such as placing special emphasis on the question, or switching to a different question form.

(8)*Repeat: When pursuing an issue, avoid re-using a strategy that previously didn't help solve the issue.

The upshot is that part (**ii**) of cornering is linked to the optimal strategies that the speaker should pursue to solve the QUD. As such, the infelicity of follow up PQs in (2) emerges as a side effect of NAQs' licensing conditions: since NAQs always *need* to come after a PQ (part (**i**)), a follow up PQ will automatically cause a violation of *Repeat, leading to infelicity.

Bartels, 1999. The intonation of English..- Biezma, 2009. Alternative… SALT 19- Biezma&Rawlins, 2014. Bundling questions…Talk at SemPhilEur7 – Schwarzschild, 1999. Givenness, AvoidF…NLS7. Truckenbrodt 2012. Semantics of intonation.