Adger et al. and Bruening & Al Khalaf

LING 252 · Ethan Poole · 18 May 2020

1 Adger et al. (2017)

- The experiments were all conducted on MTurk and used only monolingual American English speakers.

- *Method*

  - Participants were presented with a sentence containing a pronoun and proper name. The pronoun and proper name were highlighted.[1]

  - Participants were asked whether they could use the sentence when the two highlighted expressions referred to the same individual. They were given the option of answering 'Yes' or 'No'.

  - To make sure participants understood the task, they were given a set of four practice items that involved simple Condition C judgements without movement. Anyone who failed this practice task was excluded from the results.

- *Question*
  Is this experimental task too metalinguistic?

- *Caveats*

  - They do not specify how many items there were in each experiment.

  - It is unclear whether they were genuine controls.

  - The "conditions" (actually, factors) are compared on an ad hoc basis.

  - As such, I do not think that they are able to draw the conclusion that they do on the basis of their results. The numbers are nevertheless interesting.

1.1 Experiment 1: PP complements to A and N

- Experiment 1 (n = 53) looked at Condition C connectivity with PP complements to adjectives and nouns in both local and long-distance extraction contexts.

- *Non-movement controls*[2]
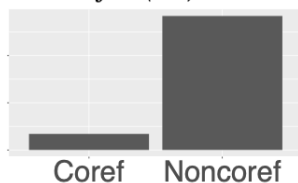
  (1) **Stimuli**
      a. He$_i$ saw that enemy of Superman$_i$'s partner.
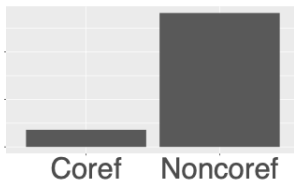   b. He$_i$ thinks [Lois saw that enemy of Superman$_i$].

  (2) **Results**[3]

      a. *Results for (6a):*   *Results for (6b):*

[1] It is unclear from the text whether they were initially highlighted or became highlighted.

[2] It is unclear whether every item had a control condition or whether these were separate items.

[3] (6a) = (1a)
(6b) = (1b)

b.

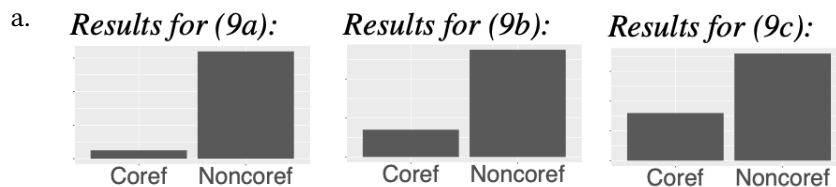|	Coreference	No coreference
(7)	6 (11.1%)	48 (88.9%)
(8)	10 (18.5%)	44 (81.5%)

- *PP complements to A*

  PP complements to adjectives are often reported to have stronger Condition C judgements (e.g. Huang 1993; Heycock 1995; Takano 1995).

  (3) **Stimuli**

  a. [$_{AP}$ How proud of Elizabeth$_i$] is she$_i$ ___?
  b. [$_{AP}$ How proud of Elizabeth$_i$] does she$_i$ think [Philip is ___]?
  c. [$_{AP}$ How proud of Elizabeth$_i$] does Philip think [she$_i$ is ___]?

  (4) **Results**[4]

  a. *Results for (9a):*   *Results for (9b):*   *Results for (9c):*

  Coref   Noncoref   Coref   Noncoref   Coref   Noncoref

  b.

	Coreference	No coreference
(11)	6 (8.6%)	64 (91.4%)
(12)	15 (22.4%)	55 (78.6%)
(13)	24 (36.4%)	42 (63.6%)

- *Vehicle change*

  – Adger et al. claim that these examples allow us to assess whether Condition C connectivity may be ameliorated through vehicle change:[5]

  (5) a. *She$_i$ is very proud of Elizabeth$_i$. (Condition C)
  b. *She$_i$ thinks Philip is very proud of Elizabeth$_i$. (Condition C)
  c. She$_i$ thinks Philip is very proud of her$_i$. (No violation)
  d. *Philip thinks she$_i$ is very proud of Elizabeth$_i$. (Condition C)
  e. *Philip thinks she$_i$ is very proud of her$_i$. (Condition B)

  – They claim that if vehicle change converts the R-expression in the lower copy to a pronoun, then coreference should be reported as bad in all cases except for (3b), which violates neither Condition B nor Condition C under vehicle change.

  – I am not convinced of this connection, however, because Fiengo and May (1994) discuss vehicle change applying to R-expressions to change them into *reflexives.*
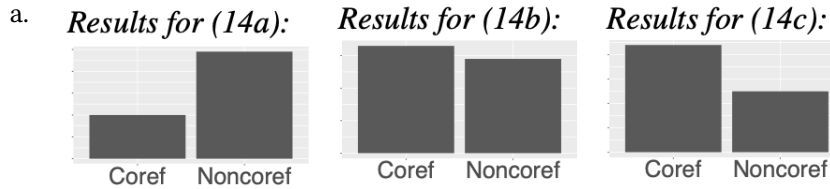
- *PP complements to N*

  (6) **Stimuli**

  a. [$_{DP}$ Which side of Elizabeth$_i$] does she$_i$ prefer ___?
  b. [$_{DP}$ Which side of Elizabeth$_i$] does she$_i$ say [Philip prefers ___]?
  c. [$_{DP}$ Which side of Elizabeth$_i$] did Philip say [she$_i$ prefers ___]?

(7) **Results**[6]

a. *Results for (14a):*   *Results for (14b):*   *Results for (14c):*

b.

	Coreference	No coreference
(15)	21 (30%)	49 (70%)
(16)	34 (53.1%)	30 (46.9%)
(17)	45 (64.3%)	25 (35.7%)

⇒ *Conclusions*

– There is obligatory Condition C connectivity with APs.

– These results demonstrate that speakers access underlying representations, as predicted by a movement approach to long-distance dependencies.

– However, there is not support for Condition C connectivity with complements to nouns. Instead, a disjoint-reference effect is only found in local cases. Speakers appear to permit coreference with sufficient distance.

– Importantly, this cannot just be an effect of processing, since speakers are able to recover Condition C violations over the same distance with adjectives.

## 1.2 Experiment 2: The effect of proximity on Condition C

- Experiment 2 (n = 91) looked at the effect of linear and structural distance on coreference possibilities under reconstruction of extracted DPs.

- *Stimuli*

(8) a. *Condition 1: Baseline*
[DP Which statue of Barack$_i$] does he$_i$ dislike ___?

b. *Condition 2: Structural distance*
[DP Which statue of Barack$_i$] does Michelle think [he$_i$ dislikes ___]?

c. *Condition 3: Linear distance*
[DP Which statue of Barack$_i$ in Michelle's study] does he$_i$ dislike ___?

- *Results*[7]

(9) a. *Results for (18):*   *Results for (19):*   *Results for (20):*

b.
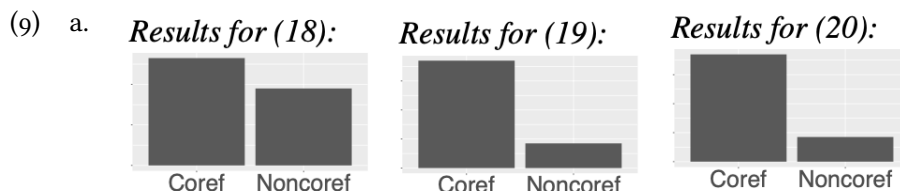
	Coreference	No coreference
(21)	54 (58.7%)	38 (41.3%)
(22)	75 (81.5%)	17 (18.5%)
(23)	76 (82.6%)	16 (17.4%)

- For long-distance extraction, Experiment 2 replicates Experiment 1, when the intervening DP c–commands the extraction site.

- For local extraction, the results are mysterious: In Experiment 1, a majority reported that coreference was *not* possible for them, while in Experiment 2, a majority reported that co-reference was possible.

⇒ *Conclusion*
Adger et al. conclude that the influence of distance on coreference judgements with $\overline{\text{A}}$-movement of DPs can be attributed just to linear proximity, unlike true Condition C effects.

1.3 Experiment 3: Relative and complement clauses

- Experiment 3 (n = 89) examined the complement/adjunct asymmetry, which has been reported in the literature as impacting on coreference possibilities under reconstruction.

- *Stimuli*

(10) *Condition 1: Relative clause*

    a. Which allegation [that shocked Elizabeth$_i$] did she$_i$ deny ___?
    b. Which allegation [that shocked Elizabeth$_i$] does Philip think [she$_i$'s denied ___]?

(11) *Condition 2: Complement clause to N*

    a. Whose claim [that Elizabeth$_i$ is too old] did she$_i$ overhear ___?
    b. Whose claim [that Elizabeth$_i$ is too old] did Philip say [she$_i$ overheard ___]?

(12) *Condition 3: Complement clause to A*

    a. How proud [that Elizabeth$_i$ is still queen] does she$_i$ feel ___?
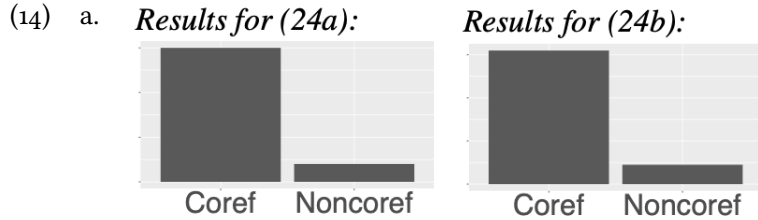   b. How proud [that Elizabeth$_i$ is still queen] did Philip say [she$_i$ feels ___]?

- *Results for complement clauses to N*

(13) a. *Results for (25a):*   *Results for (25b):*

b.
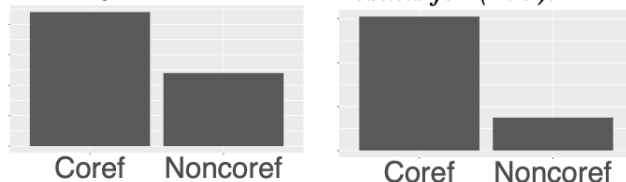
	Coreference	No coreference
(27)	44 (64.7%)	24 (35.3%)
(28)	61 (80.7%)	15 (19.3%)

- ***Results for relative clauses***

(14) a. *Results for (24a):*   *Results for (24b):*

b.

	Coreference	No coreference
(29)	60 (88.2%)	8 (11.8%)
(30)	62 (87.3%)	9 (12.7%)

- ***Results for complement clauses to A***
  A somewhat surprising result: PP complements to A seem to behave differently than CP complements to A.

(15) a. *Results for (26a):*   *Results for (26b):*

b.
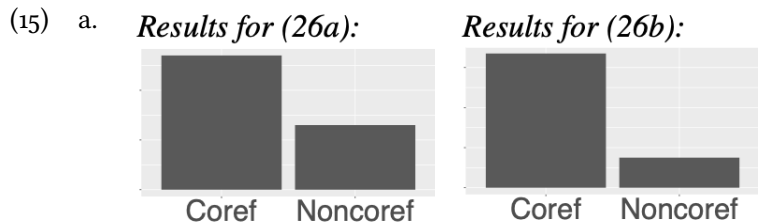
	Coreference	No coreference
(33)	54 (67.5%)	26 (32.5%)
(34)	67 (81.7%)	15 (18.3%)

- ***Conclusion***
  Adger et al. (2017) argue that there is no distinction between relative and complement clauses w.r.t. Condition C connectivity. They suggest that the observed differences are attributable to general properties of the two clause types.

2 Bruening and Al Khalaf (2019)

- The experiments were all conducted on MTurk and used only monolingual American English speakers.

- ***Methods and mateirals***
  - They use embedded *wh*-questions to provide a natural second possible referent for the pronoun.
  - Participants were asked a forced-choice task about who the referent of the pronoun was: the matrix subject or the R-expression in the embedded clause.

- For each experiment, there were only eight critical items such that each participant only judged two of each condition. The power is therefore very low.

2.1 Experiment 1: CPs within NPs

- Experiment 1 examined *wh*-movement of NPs that include CPs within them.

- *Stimuli*

  (16) a. **Wh Arg**
            A female staffer told everyone which of the announcements that Hillary Clinton was running for president she had actually authorized.

        b. **Wh Adj**
            A female staffer told everyone which of the announcements that Hillary Clinton had tried to take back she had actually authorized.

        c. **NoWh Arg**
            A female staffer told everyone that she had actually authorized one of the announcements that Hillary Clinton was running for president.

        d. **NoWh Adj**
            A female staffer told everyone that she had actually authorized one of the announcements that Hillary Clinton had tried to take back.

- *Results*
  A main effect of *wh*-movement, but no effect of argument/adjunct or any interaction.

  (17) a.

NoWh Arg	NoWh Adj	Wh Arg	Wh Adj
4.7%	2.7%	42.7%	56%
	percent 'B' response		

        b.

	Estimate	Std. Error	z value	$\Pr(>|z|)$
(Intercept)	-4.4366	0.7029	-6.311	2.76e-10
Wh-movement	4.7674	0.8004	5.956	2.58e-09
Argument versus Adjunct	0.6562	0.8413	0.780	0.435
Wh-movement*Argument/Adjunct	-1.3902	1.0065	-1.381	0.167

- *Conclusion*
  "We conclude from this that there is no reconstruction for Condition C at all with CPs that front as part of wh-NPs."

2.2 Experiment 2: PPs within NPs

- Experiment 2 examined *wh*-movement of NPs that include PPs within them.

- *Stimuli*

  (18) a. **Wh Arg**
       The chambermaid told me which portrait of the countess she considered
       to be the most valuable.

       b. **Wh Adj**
       The chambermaid told me which portrait in the countess's collection she
       considered to be the most valuable.

       c. **NoWh Arg**
       The chambermaid told me that she considered one particular portrait of
       the countess to be the most valuable.

       d. **NoWh Adj**
       The chambermaid told me that she considered one particular portrait in
       the countess's collection to be the most valuable.

- *Results*
  A main effect of *wh*-movement, but no effect of argument/adjunct or any interaction.

  (19) a.

NoWh Arg	NoWh Adj	Wh Arg	Wh Adj
2.7%	1.3%	22.0%	30.7%
	percent 'B' response		

  b.

	Estimate	Std. Error	z-value	Pr($>|z|$)
(Intercept)	−5.0157	0.8698	−5.766	8.1e-09
Wh-movement versus no wh-movement	3.9473	0.9323	4.234	2.3e-05
Argument versus adjunct	0.7204	1.0351	0.696	0.486
Wh-movement*Argument/Adjunct	−1.3622	1.1898	−1.145	0.252

- *Conclusion*
  "We conclude that the literature that has claimed that there is a difference between
  argument and adjunct PPs is incorrect. We find no effect of the argument– adjunct
  distinction."

3 Discussion

- **You cannot statistically draw a conclusion from the absence of an effect!**

- In Bruening and Al Khalaf (2019), there is simply not enough power to see small
  effects. There are clearly numerical trends towards an interaction between *wh*-
  movement and argument/adjunct. They should have tested more items.

- Both papers have an almost monomaniacal focus on the argument/adjunct distinc-
  tion, but ignore the role of the scope from Romero (1998) and Fox (1999).

- They also largely ignore the role of *structural* distance discussed in Huang (1993), Takano (1995), and Romero (1998).

- ***A better test paradigm***

(20)   a.   He said that **she**$_1$ likes [the statue of **Michelle**$_1$].

       b.   **Which statue of Michelle**$_1$ did he say that **she**$_1$ likes ___ ?

       c.   He said that [the statue of **Michelle**$_1$] resembles **her**$_1$.

       d.   [Which statue of **Michelle**$_1$] did he say resembles **her**$_1$?

References

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