

# Investigating the Parallelism Requirement of TOO

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## Research Question

**Research Question:** How does parallelism affect acceptability of *too*?

**Sub-Question:** Does *too* require identical predicates?

## Findings

- Parallelism did not modulate acceptability

- Absence of *too* led to decrease in acceptability: Suggests view of *too* as discourse marker

## Background

### Semantics of TOO (Abrusán 2016)

- *anaphoric* (e.g. hard to accommodate)  
presupposition that there is a distinct alternative to Focused constituent

(1) [Emma]<sub>F</sub> went to Salt Lake City **too**.  
*presupposes*: someone other than Emma went to Salt Lake City

*assertion*: Emma went to Salt Lake City.  
*presupposition*:

$[[x_i \text{ went to SLC}]]^{g,w} \in [[[\text{Emma}]_F \text{ went to SLC}]]^{g,w}_F$   
 $[[x_i \text{ went to SLC}]]^{g,w} \neq [[\text{Emma went to SLC}]]^{g,w}$

**But:** identical predicate not a strict requirement:

(2) *Corpus Example*

Diaries may be used as prewriting before group work to structure conversation with peers. [...] Teacher collaboration can be a powerful strategy, **too**.

### Processing Parallelism of Anaphors (Tanenhaus & Carlson 1990)

- Syntactic parallelism facilitates processing of anaphors even if not required:

(3) a. Someone had to take out the garbage.  
b. The garbage had to be taken out.

(4) But Bill refused to { **do it** /     }.

➤ faster reading times for both *do it* (deep anaphor) and ellipsis (surface anaphor)

## Hypotheses

**Hypothesis A:** Parallelism as grammatical constraint  
→ decreased acceptability for lack of parallelism

**Hypothesis B:** *Too* is processed like an anaphor (cf. van der Sandt 1992 for more general claim)  
→ parallelism-facilitation may impact acceptability

## Experiment

### Design

3x2:

- 1) ANTECEDENT TYPE
- 2) +/- TOO  
→ control effects independent of presupposition

(i) **parallel (= active baseline)**

At dinner, the butler disobeyed the countess.

(ii) **syntactic non-parallel (= passive)**

At dinner, the countess was disobeyed by the butler.

(iii) **semantic equivalence (= active with synonymous predicate)**

At dinner, the butler defied the countess.

The other staff were worried about bad consequences for him.

**TARGET** Surprisingly, he disobeyed the count (**too**).

### Methodology

- Acceptability Judgment Task (Likert Scale)
- 24 Items, 36 Fillers
- 48 MTurkers

### Predictions

- *Parallelism facilitates:* parallel (i) better than non-parallel (ii-iii) with *too*
- *Too-insertion weakened by lack of parallelism:* parallel (i) worse than non-parallel (ii-iii) without *too*

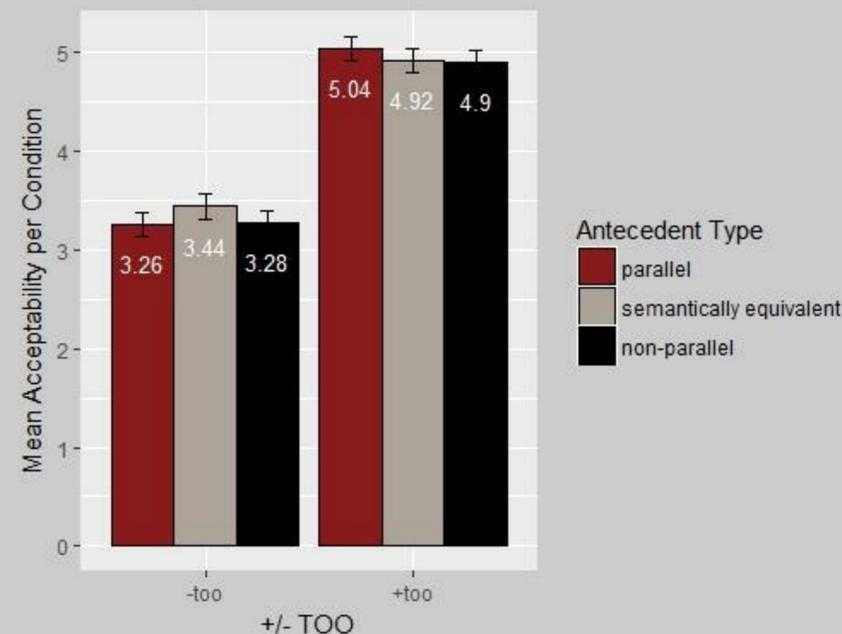
→ **interaction**

## Results

### Repeated Measures ANOVA:

- no effect of Antecedent Type ( $p_1 = .76, p_2 = .59$ )
- **significant effect of TOO** ( $p_1 < .001, p_2 = .001$ )
- no significant interaction ( $p_1 = .5, p_2 = .26$ )

→ Omitting *too* led to decrease in acceptability across all Antecedent Types



## Discussion

### Evaluating the Hypotheses

- no evidence for parallelism modulating acceptability:  
→ no grammatical constraint (Hypothesis A)  
→ suggests no facilitation from processing (Hypothesis B)
- raises question how “antecedent” is identified

### Caveats & Future Directions

- evaluation based on OFFLINE data  
→ Hypothesis B requires online data
- decreased acceptability without *too* in line with previous findings by Bade (2016):  
➤ Bade (2016) argues that “obligatoriness” of *too* is due to exhaustification triggered by Focus:
- (5) (Lisa went to Salt Lake City.)  
#[Emma]<sub>F</sub> went to Salt Lake City.  
= *Only* Emma went to Salt Lake City → Contradiction  
→ question whether current results can be explained in same way or suggest discourse function of *too* beyond triggering a presupposition

### Further thoughts on *too*

**Hypothesis:** *too* helps to structure the discourse  
→ *too as a type of discourse marker*

**Option A:** *too* as Resemblance Relation (Kehler 2002)

- “obligatoriness” of *too* seems to depend on Coherence relation (also Jacobson & Gibson 2014):

(6) Emma went to SLC because Lisa went to SLC (**too**).  
(7) Emma is a linguist but she likes to have fun (**too**).  
(8) Emma went to SLC but Lisa went to SLC #(**too**).

**Option B:** *too* as relating directly to the QUD, e.g. by reopening a previous topic (Grubic 2017)