

## 1 Introduction

❖ *So*-inversion:

(1) John plays guitar and **so do I**.

- ❖ Previously analyzed as a **pro-form** (Toda 2007; see also Chomsky 1957:65-6) and as an '**additive adverb**' (Quirk et al. 1985; Huddleston & Pullum 2002).
- ❖ These analyses miss important facts about polarity, additivity, and evidence of internal structure at the ellipsis site.
- ❖ Recent work on polarity has provided evidence for a **high polarity-focus position** (or verum-focus position),  $\Sigma P$ , in languages like Basque (Laka 1990), Hungarian (Liptak 2008), Finnish (Holmberg 2001, 2007), Oevdalian (Rosenkvist 2007).

**Proposal:** *So*-inversion is parallel to *neither*-inversion, and both constructions are examples of **polarity-focus**. *So* in *so*-inversion is neither a pro-form nor an additive adverb, but is instead an affirmative polarity marker.

## 2 *So*-inversion and Polarity

❖ There exists a construction where *so* clearly expresses affirmative polarity

(2) I hope *so*/not.

❖ In addition, *so*-inversion requires an affirmative antecedent (Klima 1964):

- (3) a. John doesn't play guitar and \**so* do I (not play guitar).  
b. John doesn't play guitar and I also don't (play guitar).

❖ *So*-inversion must itself be affirmative:

- (4) a. John plays guitar but \**so* don't I/\**so* do I not.  
b. John plays guitar but I don't (play guitar) also (play guitar).

❖ The converse holds for *neither*-inversion:

- (5) a. John doesn't play guitar and *neither* do I.  
b. John plays guitar and \**neither* do I (play guitar).

*This would be unexpected on either a pro-form or an adverbial approach: why should negation be specially barred?*

### 3 *So and Too*

- ❖ *So*-inversion clearly has additive meaning.
- ❖ But interestingly, *too* can be added to the construction **without any extra additive meaning**:

- (6) a. John plays guitar, but **so too** does Mary.  
b. Just as some children ignore their parents, **so too** do some parents ignore their children.

- ❖ Interestingly, *too* does not always have additive meaning:

- (7) They told us to eat bugs! And **we ate them, too**, we really did.

- ❖ There is also emphatic *SO/TOO*, which always precedes the verb phrase. Notice that *SO* and *TOO* are interchangeable, but cannot co-occur.

- (8) a. I did *SO/TOO* take out the trash.  
b. \* I did *SO TOO* take out the trash.

- ❖ Notice, too, that the corresponding emphatic negation is always *not* or *either*, but never *neither*.

**Fred:** You play with bugs.

- (9) **Bill:** I do NOT!/I don't EITHER!/\*I do NEITHER!

#### Complementary Distribution of *too* and *so*

- (10) a. *So*/\**Too* do I ~ b. I do \**so/too*

### 4 *So and Neither*

- ❖ Huddleston & Pullum (2002:1539) claim that there are two crucial differences between *so* and *neither*:

- (a) *so* can occur with *too*, but *neither* stands alone.  
(b) *so* must contrast subjects, but *neither* need not do so.

- ❖ With the decompositional analysis here, (a) follows automatically: with *neither*, the “*too*-like” element is always overt.
- ❖ (b) seems to be incorrect: *so* does not have to contrast the subject. The following example was found on [www.americancorpus.org](http://www.americancorpus.org):

- (11) **The Druze** will continue as individuals to play their policing role, but **so** will **they** continue as a group to protest it indirectly through democratic channels.

## 5 Internal Structure and Ellipsis

❖ Pro-form analyses such as Toda (2007), where *so* **replaces** a pre-posed VP, run into problems with evidence of **internal structure** at the VP ellipsis site, lacking in the pro-form *do so* (see Haddican 2007, Johnson 2001).

❖ **Wh-echo** words can be recovered:

- (12) a. **Fred:** So did John.                      c. **Fred:** John did so too.  
 b. **Matt:** So did John what?                d. **Matt:** \* John did so what too?

❖ *So*-inversion can co-occur with **Topicalization**:

**Mary:** I never kill animals.

**Fred:** Really? I kill bugs.

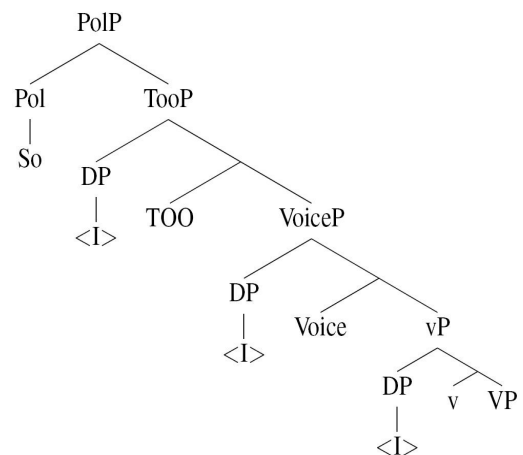
- (13) a. **Mary:** Oh bugs, so do I, but I never kill anything furry.  
 b. **Mary:** \*Oh, bugs, I do so too, but I never kill anything furry.

❖ If *so* were a pro-form, we would not expect (12b) and (13a) to be grammatical, because *so* would replace the constituent containing *what* in (12b) and *bugs* in (13a)

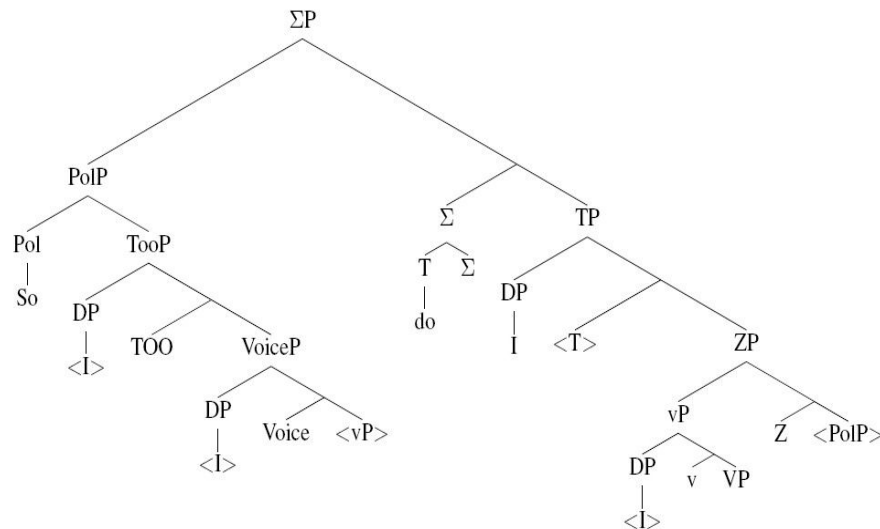
## 6 Analysis

- ❖ *So* is a polarity head which sometimes licenses a silent TOO
- ❖ Polarity facts come from *so*'s status as an affirmative polarity particle, and additivity comes from the silent TOO.
- ❖ The analysis of *too* based on Kayne (1998), where *too* attracts the focused constituent to its specifier.

(See Baltin to appear, Collins 2005, and Alexiadou & Anagnostopoulou 2004 for justification of VoiceP)



- ❖ A high polarity-focus head  $\Sigma$  (Holmberg 2001, 2007, Rosenkvist 2007, Laka 1990) attracts the remnant PolP (AffP or NegP) after the subject and  $v$ P have evacuated it (see Baltin 2006, Kayne 2005, and Bentzen 2005 for the possibility of a position between T and Pol to which  $v$ P moves).
- ❖ Subject-aux inversion applies generally with polarity focus in English (e.g. *never have I seen someone so completely hopeless*), and the preposed position must be lower than the complementizer *that* (see Culicover 1991), ForceP in Rizzi (1997).



- ❖ \**Too do I* is ruled out because  $\Sigma$  is a polarity focus (or *verum*-focus) head; it attracts PolP (NegP/AffP).
- ❖ \**So do I not* is ruled out for the same reason as \**I do SO NOT*: presumably *so* and *not* compete for the same structural position.
- ❖ The similarity between *not/either* and *so* in (8-9) is the result of these constructions being essentially the opposite polarity of the same construction.
- ❖ Why no *so do I* which doesn't mean *too* (i.e. that means *I do SO*)? Conversely, why no *I do so* which does mean *too*?
  - ❖ Possible answer: non-additive *too* does not attract anything to its specifier, and thus does not enter into a local relation with anything. Specifierless *too* somehow allows polarity focus *in situ*.
- ❖ The facts in (12-13) follow from the accessibility of  $v$ P, which is often, but not always, ellided (see e.g. 6b).

## 7 Conclusion

- ❖ Taking *so*- and *neither*-inversion to be polarity-focus explains a wide variety of facts about these constructions: their polarity requirements, the possibility of overt *too*, and the *wh*-echo/topicalization facts.
- ❖ Further, this analysis makes a non-arbitrary connection to other polarity-focus constructions in English (2, 7-9).

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