

# Deriving *Not*-initial constructions by movement of sentential negation\*

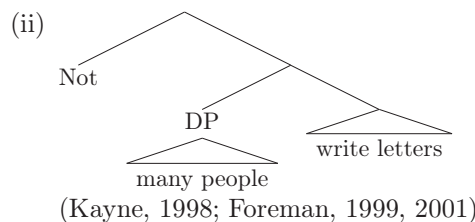
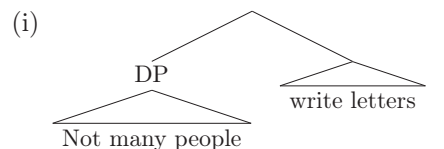
Sabina Matyiku (UCLA/Yale University)  
smatyiku@ucla.edu

Syntax Semantics Seminar at UCLA  
Feb. 19, 2016

## 1 *Not*-initial constructions

*Not*-initial constructions:

- (1) Not many people write letters nowadays.
  - (2) Not every student did the assigned reading.
- Begins with a negative element and is followed by a non-specific subject
  - Two syntactic analyses in the literature:



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\*I am grateful to Bob Frank, Larry Horn, Ed Keenan, Dominique Sportiche, Tim Stowell, and Raffaella Zanuttini for helpful comments and discussions about aspects of the research presented here. I have greatly benefited from presenting parts of this work to audiences at Yale, UCLA, and NYU and I am thankful for the feedback provided to me there. I would also like to thank Lauren Winans for providing judgments.

### 1.1 Observation: Negation has sentential scope

#### 1.1.1 Tag-questions

- Tag-questions have positive polarity

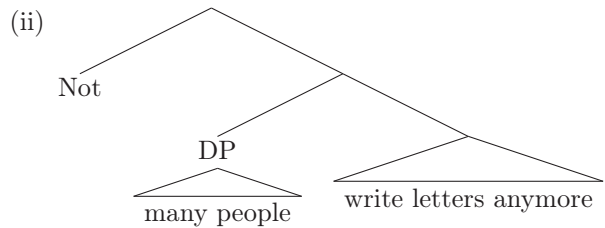
- (3) a. Not many people write letters nowadays, do they?  
b. Not every student did the assigned reading, did they?
- (4) a. \*Not many people write letters nowadays, don't they?  
b. \*Not every student did the assigned reading, didn't they?
- (5) a. Many people don't write letters nowadays, do they?  
b. Many people write letters nowadays, don't they?

#### 1.1.2 NPIs

- Negation is able to license negative polarity items outside of its immediate scope
- Negative polarity items outside of the subject can be licensed

- (6) a. Not many people write letters anymore.  
b. Not more than three people ever arrive on time.

- Negation c-commands everything it linearly precedes in Analysis (ii)

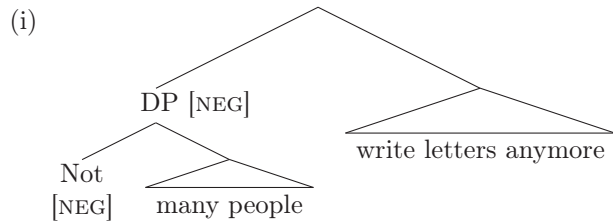


**However**

- Negation is able to scope out of the phrase out of which it is contained when it is clearly a determiner as in (7a), or when it is embedded as a possessor, as in (7b)

- (7) a. No children send letters to their parents, do they?  
 b. Nobody's children send them letters anymore.

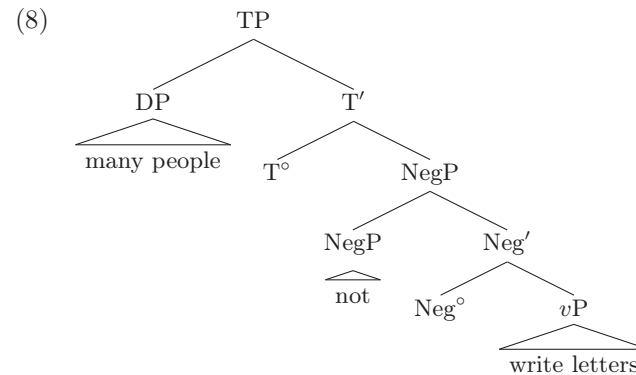
- Negation is able to project to the node that dominates it more generally in Analysis (i)



- At this point, there is no reason to prefer one analysis over another

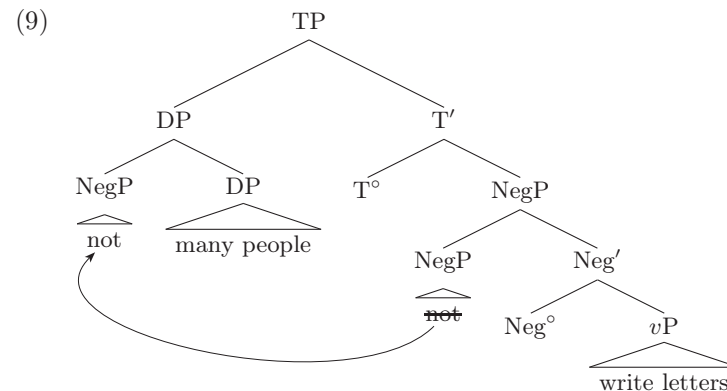
## 2 Syntax of *Not*-initial constructions

Pre-movement structure:



- There is a fixed structural position for negation, Neg°, following Pollock (1989)
- *Not* is generated in the specifier position of this projection as a phrase

*Not*-initial construction:



- The word order is derived by movement of the negative phrase
- The negative phrase adjoins to the subject

## 2.1 In favor of a movement analysis

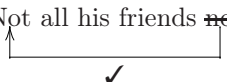
### 2.1.1 Subject/object asymmetry

- *Not* can precede subjects but not objects (observed in Klima, 1964)

- (10) a. Not all his friends came to the party. (Kayne, 1998)  
b. \*John invited not all his friends to the party. (Kayne, 1998)

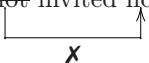
A movement analysis allows us to easily account for this asymmetry

- Subject:

- (11) Not all his friends ~~not~~ came to the party
- 

– Movement is upward (to a c-commanding position)

- Object:

- (12) John ~~not~~ invited not all his friends to the party
- 

– Would require downward movement

– A ban on downward movement of phrases gives us the subject/object asymmetry

### 2.1.2 Movement is subject to scope economy

#### Subject restriction

- Quantificational subjects are possible in *Not*-initial constructions, including strong quantifiers

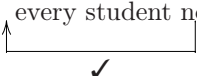
- (13) a. Not many people lived there then.  
b. Not every student did the assigned reading.  
c. Not more than half of us will pass.

- Definite subjects are not possible<sup>1</sup>

- (14) a. \*Not I would do that.  
b. \*Not the student knows the answer.  
c. \*Not their dogs can do that.

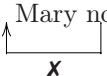
#### Restriction on movement

Movement occurs when the subjects are quantifiers

- (15) every student not did the assigned reading
- 

- Surface scope is  $\forall \gg \neg$  and the movement can give rise to a new order of operators,  $\neg \gg \forall$ .

Movement does not occur when the subjects do not interact scopally, such as with definites

- (16) Mary not did the assigned reading
- 

- Surface scope is  $\neg m$  and the movement cannot give rise to a new order of operators,  $*m \neg$ .
- Availability of *Not*-initial constructions is reminiscent of a known restriction on movement:

The Principle of Scope Economy (Fox, 2000)

- allows covert movement (QR) if it gives rise to a different interpretation than the one we had prior to movement
- disallows covert movement if it is semantically vacuous

- Scope Economy, as defined, concerns only covert movement
- *Not*-initial constructions involve overt movement

<sup>1</sup>We can return to a more in-depth discussion of the subject distribution later on.

- The principle can be extended to apply to overt movement in order to capture the subject restriction of *Not*-initial constructions

### Extending Principle of Scope Economy

- Allow the Principle of Scope Economy to apply to overt movement that is optional.
  - Optional movement is movement that is not feature-driven
  - The adjunction of negation is not feature-driven
- If the construction is not derived by movement, the mechanism by which *not* forms a unit with only certain types of quantifiers would need to have independent explanation, which, given the parallelism to Scope Economy, seems to miss a generalization

## 2.2 In favor of *Not*-DP forming a constituent

### 2.2.1 Constituency

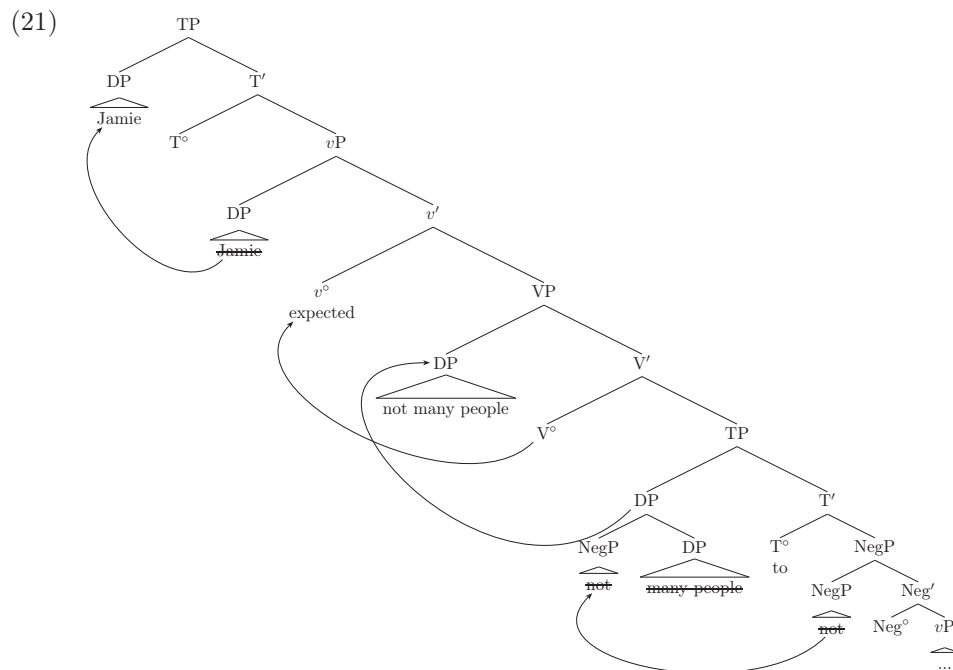
- (17) COORDINATION:  
Not many people and no animals lived there then.
- (18) STAND-ALONE:  
A: Who lived there then?  
B: Not many people.
- (19) PSEUDO-CLEFT:  
{ }Who lived there then were not many people.

### 2.2.2 Embedding

#### ECM

- (20) Jamie expected not many people to come.
- If ECM constructions involve movement of the subject from the embedded clause to an object position in the matrix clause, most

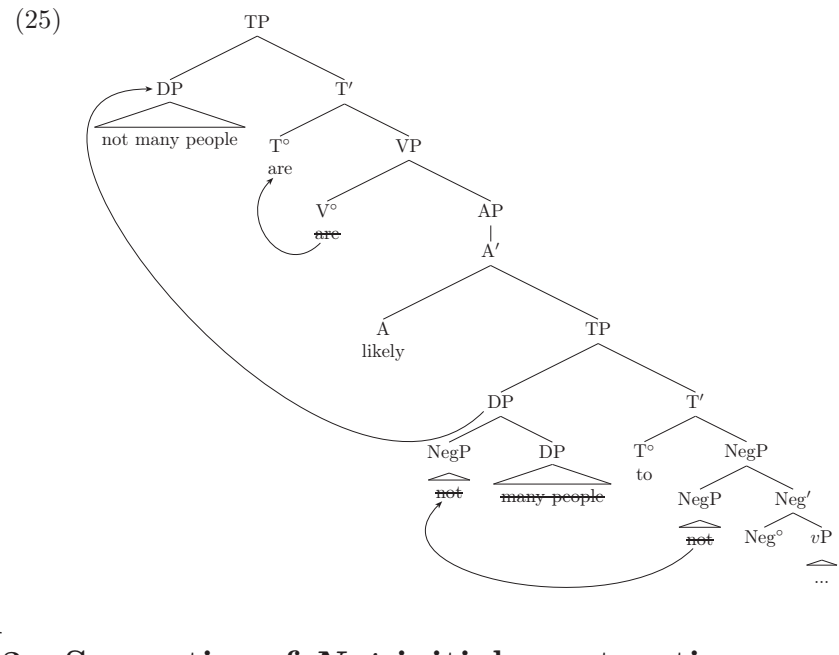
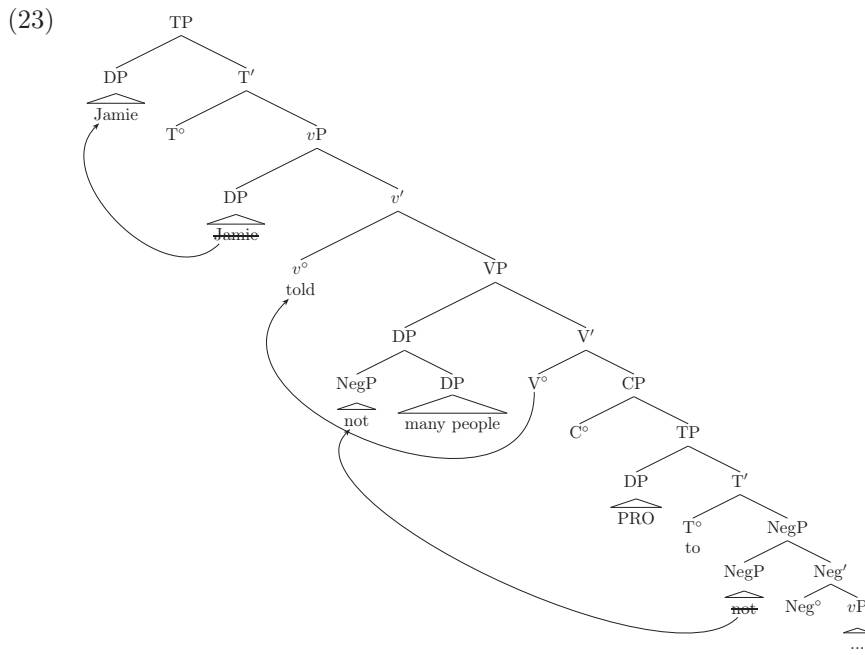
adamantly argued for in Postal (1974), the acceptability of the sentence suggests that *not* and the DP form a constituent because they are able to move as a unit



#### Control

(22) \* Jamie told not many people to come.

- Given current assumptions, the construction would be derived by movement of negation from the embedded clause to adjoin to the object of the matrix clause
- Such movement is not possible; optional movement appears to be clause bounded



### 3 Semantics of *Not*-initial constructions

#### Raising

(24) Not many people are likely to win the lottery.

- *Likely* is able to outscope *not many people*
  - *Not* adjoined to the DP in the embedded clause
  - *Not many people* moved up to the matrix clause; feature-driven movement
  - Reconstruction is possible to derive the *likely* » *not* interpretation
- The interpretation of *not* and *many* is fixed; *not* outscoops *many*

#### 3.1 Unambiguous

- Negation has unambiguous wide scope in these constructions

- (26) a. Not every student did the reading. [ $\neg$  » *every*, \**every* »  $\neg$ ]  
 b. Not many people lived there then. [ $\neg$  » *many*, \**many* »  $\neg$ ]

##### 3.1.1 Blocking inverse scope

Inverse scope is unattested but two ways in which it could be derived

- Negation could reconstruct:

(27) ~~Not~~ every student not did the assigned reading

- The subject could QR above negation:

(28) every student not ~~every student not~~ did the assigned reading

Given an interpretation containing movement, Bobaljik and Wurmbrand (2012) provide a way in which to determine which copies to pronounce

- Scope transparency (ScoT) is preferred; copies should be pronounced where they are interpreted
- ScoT holds for *Not*-initial constructions:

(29) LF: not every student ~~not~~ ...  
 PF: not every student ~~not~~ ...

– Negation is both interpreted high and pronounced high

- Inverse scope is ruled out: whenever the subject is interpreted higher, it will surface higher. ScoT interacts with a constraint on canonical word order (CWO).

(30) LF1: [not] every student [~~not~~] did the assigned reading

✓?	LF/PF	EPP	ScoT	CWO
a. ✓	LF1: [not] every student [ <del>not</del> ] ... PF1: [not] every student [ <del>not</del> ] ...	✓	✓	✗
b. ✓	LF1: [not] every student [ <del>not</del> ] ... PF2: [ <del>not</del> ] every student [not] ...	✓	✗	✓

(31) LF2: [~~not~~] every student [not] did the assigned reading

✓?	LF/PF	EPP	ScoT	CWO
a. ✓	LF2: [ <del>not</del> ] every student [not] ... PF2: [ <del>not</del> ] every student [not] ...	✓	✓	✓
b. ✗	LF2: [ <del>not</del> ] every student [not] ... PF1: [not] every student [ <del>not</del> ] ...	✓	✗	✗

## 3.2 More on the subject restriction

### 3.2.1 Polarity-sensitive quantifiers

Many quantifiers elements are possible, but some quantifiers are ruled out even though they are not specific. The following polarity-sensitive subjects are not possible

- (32) a. \*Not some people came to my party.  
 b. \*Not few people lived there then.  
 c. \*Not several students saw the fight.  
 d. \*Not anybody saw the fight.

### 3.2.2 ✗ some

(33) \*Not some people came to my party.

- As a PPI, *some* cannot be in the immediate scope of negation

(34) ✗ Not some people<sub>+</sub> not come]

- The Revised principle of Scope Economy allows the derivation but the derivation does not surface because it induces a more general violation by trapping a PPI in its scope

### 3.2.3 ✗ few

(35) \*Not few people lived there then.

- As a downward entailing element itself, *few* cannot be in the immediate scope of negation

(36) ✗ Not few people<sub>↓</sub> not lived there then]

- The derivations containing these subjects are ruled out due to incompatibility of negation with these polarity-sensitive subjects

### 3.2.4 Indefinites

Indefinites are possible but only if they have a scalar minimization effect

- (37) a. Not a damn thing has changed.  
b. Not a single man in this place can say he's happy about it.  
c. \*Not a man can say he's happy about it.  
d. \*Not a dog can do that trick.  
e. Not even a man can say he's happy about it.  
f. Not even a dog can do that trick.

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