

# Motivating movement: The case of negative inversion in West Texas English\*

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The status of head movement:

- At the beginning: syntactic operations such as Affix Hopping (Chomsky, 1957)
- In Government and Binding: head movement formed a class of operations subject to certain constraints (Koopman, 1983; Travis, 1984; Baker, 1985)
- In Minimalism: proposals to place head movement outside of the domain of syntax (Chomsky, 2000, 2001; Boeckx & Stjepanović, 2001; Harley, 2004; Brody, 2000)
  - head movement appeared to not have semantic effects
  - head movement satisfied the morphological needs of lexical items which appeared to be independent of syntax
- More recently: head movement must be in syntax (Lechner, 2007; Szabolcsi, 2010; Roberts, 2010)
  - evidence for semantic effect of head movement

- This paper:
  - provides further evidence that head movement must be in the syntactic component of grammar
  - head movement in negative inversion (a phenomenon present in some varieties of North American English) has an effect on interpretation
  - overt movement of a head has the effect of disambiguation

## Roadmap:

- The properties of negative inversion<sup>1</sup>
- The syntax of negative inversion and analysis
- Interaction with negative concord

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<sup>1</sup>Green (in press) refers to this phenomenon as Declarative Negative Auxiliary Inversion in order to distinguish it from a phenomenon available in Standard English which is also referred to as negative inversion. Some examples of negative inversion in Standard English are sentences such as *With no job would Marry be happy, Not a word did he say, Never would he marry another.*

# 1 Negative inversion

(1) Didn't everybody go to the party. (WTE; Foreman, 1999)<sup>2</sup>

- Clause-initial negated auxiliary or modal, followed by a quantificational subject
- Declarative, receives the falling intonation of a declarative

The corresponding non-inverted construction is often also possible:

(2) Everybody didn't go to the party. (WTE; Foreman)

Attested in:

- African American English (AAE)
- Appalachian English (AppE)
- West Texas English (WTE)

Attested examples exhibiting negative inversion in varieties of white speakers:



Map credit: Yale Grammatical Diversity Project (<http://microsyntax.sites.yale.edu>)

<sup>2</sup>With each documented example, I cite the variety of English it is associated with and the original source of the example. In the case in which no source is provided, the examples are from original fieldwork. Abbreviations: AAE – African American English, AppE – Appalachian English, SE – Standard English, WTE – West Texas English.

## 1.1 Properties of negative inversion

### 1.1.1 Negation is necessary to license negative inversion

- Sentential negation must be inflected morpheme *n't*

- (3) a. \*Will everybody fit in that car. (WTE)  
b. \*Will none of the students go to the party. (WTE; Foreman)  
c. \*Will none of the students not go to the party. (WTE)  
d. \*Will not none of the students go to the party. (WTE; Foreman)  
e. Won't everybody fit in that car. (WTE)

### 1.1.2 Can be embedded

- Possible in embedded clauses with overt complementizer

- (4) She loves the fact (that) don't nobody like her. (WTE & AAE; Foreman, 1999)

### 1.1.3 Occurs only in varieties which also have negative concord

All varieties that exhibit negative inversion also exhibit negative concord.<sup>3</sup>

- (5) Mary *won't* go on a date with *nobody*. (WTE; Foreman, 2001)
- clause contains multiple elements which bear negative morphology (sentential negation and *n-words* (Laka, 1990))
  - clause interpreted as having a single instance of logical negation

<sup>3</sup>Although all varieties that exhibit negative inversion also exhibit negative concord, not all varieties that exhibit negative concord also exhibit negative inversion. Negative inversion is not attested in British varieties of English. Belfast English and Bristol English, for example, both exhibit negative concord but neither variety exhibits negative inversion (Henry, Maclaren, Wilson, & Finlay, 1997).

### 1.1.4 Subject restriction

- It is typically observed in the literature that definite subjects are not possible

- (6) a. \*Didn't Jack go to the party. (WTE)  
 b. \*Wouldn't I do that. (WTE; Foreman, 1999)  
 c. \*Didn't the teachers go to the party. (WTE; Foreman, 1999)

- The restriction is more subtle, at least for West Texas English
  - A definite subject like *both of 'em* (Barwise & Cooper, 2002) is a possible subject.

- (7) Didn't both of 'em sleep. (WTE)

- There are also indefinite subjects that are impossible such as *some* and *few*.

- (8) a. \*Didn't some people come. (WTE)  
 b. \*Didn't few people live there then. (WTE)

Possible subjects	everybody all the NP five NP both of them a NP many NP
Impossible subjects	Jack (proper names) you (pronouns) the NP their NP some NP few NP

Figure 1: The subject distribution for negative inversion in WTE

## 2 The syntax of negative inversion: Movement vs non-movement analyses

The types of analyses proposed to negative inversion can be categorized into two groups:

- Non-movement analyses: Labov, Cohen, Robins, and Lewis (1968), Labov (1972), Martin (1992, 1993), Sells, Rickford, and Wasow (1996), Parrott (2000), and White-Sustaita (2010) for African American English
- Movement analyses: Labov et al. (1968), Labov (1972), Martin (1993), and Green (2008, 2011, in press) for African American English and Foreman (1999, 2001) for West Texas English
- I will defend a movement analysis – better able to account for the subject restriction

### 2.1 Non-movement analyses

Parallelism to existential expletive constructions in SE:

- (9) a. Canonical subject movement:  
 [TP nobody is ~~nobody~~ doin' anythin' wrong]

- b. Existential:  
 [TP there is nobody doin' anythin' wrong]

- (10) a. Non-inverted:  
 [TP nobody ain't ~~nobody~~ doin' nothin' wrong]

- b. Inverted:  
 [TP  $\emptyset$  ain't nobody doin' nothin' wrong]

**Advantage:**

- Assimilation to existential expletive constructions explains the definiteness restriction on subjects

- (11) Existentials in SE  
 a. There's a person/nobody in the hall. (SE)  
 b. \*There's the man/Jack in the hall. (SE)
- (12) Negative inversion  
 a. Can't a person/nobody get in the hall. (WTE)  
 b. \*Can't the man/Jack get in the hall. (WTE)

**Disadvantages:**

- Assimilation is not perfect:
  - Existentials in SE are incompatible with universally quantifying noun phrases and with partitive phrases

- (13) a. \*There's every student here yet. (SE)  
 b. \*There are both of them outside. (SE)
- Negative inversion is compatible with those types of subjects
- (14) a. Ain't every student here yet. (WTE; Foreman, 1999)  
 b. Didn't both of 'em sleep. (WTE)

	Subject	Exist.	Neg. Inv.
Uniform distribution	a NP	✓	✓
	no NP	✓	✓
	the NP	✗	✗
	Jack	✗	✗
Different distribution	every NP	✗	✓
	both of them	✗	✓

Figure 2: Comparing the subject distribution

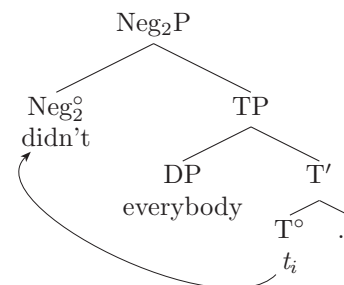
- Difficult to explain why it is that inversion only occurs in sentences containing sentential negation morpheme *n't*

### 3 Analysis: Movement sensitive to scope economy principles

Parallelism to T-to-C movement in SE:

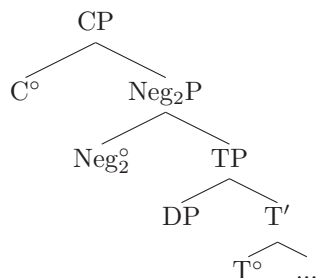
- (15) a. Canonical subject movement:  
 [TP nobody is nobody doin' anythin' wrong]  
 b. Yes-no question:  
 is [TP anybody is anybody doin' anythin' wrong]
- (16) a. Non-inverted:  
 [TP nobody ain't nobody doin' nothin' wrong]  
 b. Inverted:  
 ain't [TP nobody ain't nobody doin' nothin' wrong]

#### 3.1 Restricting negative inversion to negative context

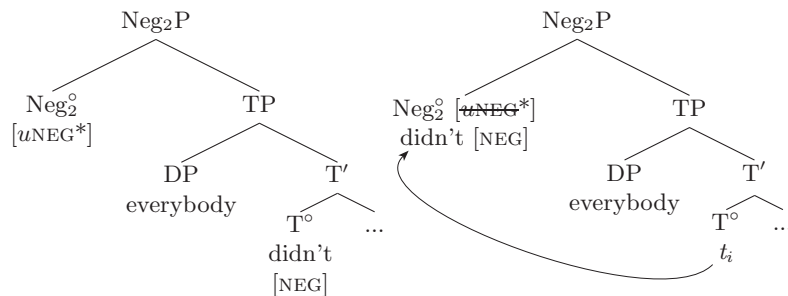


- I follow Foreman (1999, 2001) in assuming that the position to which the modal or auxiliary raises is Neg<sub>2</sub>
  - Neg<sub>2</sub> is a higher position for negation available in all varieties which allow negative inversion

- it is above T° and below C°



- Movement is triggered by a feature [ $u\text{NEG}^*$ ], this feature attracts a head which bears a [NEG] feature



### 3.2 Accounting for the subject restriction

#### A scope fact:

- Foreman (1999, 2001) observes for West Texas English that sentences containing negative inversion are unambiguous, the negative modal or auxiliary has wide scope over the subject

(17) Didn't everybody go to the party. ( $\neg\forall, *\forall\neg$ )

Its non-inverted counterpart is ambiguous

(18) Everybody didn't go to the party. ( $\neg\forall, \forall\neg$ )

- The lack of ambiguity in negative inversion constructions is the key to accounting for the subject restriction and to understanding why head movement is semantically active.<sup>4</sup>

Empirical observations concerning the interpretation of negative inversion and their non-inverted counterparts:

	Subject	Interpretation	
		Noninv. constr.	NAI
Possible subjects	everybody	ambiguous	$\neg$ high
	all the NP	ambiguous	$\neg$ high
	five NP	ambiguous <sup>a</sup>	$\neg$ high
	many NP	ambiguous	$\neg$ high
	a NP	ambiguous <sup>b</sup>	$\neg$ high
	both of them	ambiguous	$\neg$ high
Impossible subjects	Jack (proper names)	unambiguous	*
	you (pronouns)	unambiguous	*
	the NP	unambiguous	*
	their NP	unambiguous	*
	some NP	unamb. ( $\neg$ low)	*
	few NP	unamb. ( $\neg$ high)	*

<sup>a</sup>Speakers report that the interpretation in which negation scopes over the numeral *five* receives an idiomatic interpretation.

<sup>b</sup>The determiner *a* can be specific. Ambiguity is present only when *a* has a non-specific reading.

Figure 3: The interpretation of subjects

- **Correlation** of negative inversion with presence of ambiguity in non-inverted counterparts:

- the types of subjects that give rise to ambiguity in a non-inverted sentence are the types of subjects that are possible in negative inversion
- the types of subjects that do not give rise to ambiguity in a non-inverted sentence are incompatible with negative inversion

<sup>4</sup>I assume that the same interpretation facts hold for negative inversion in other varieties but further research needs to be done.

- Negative auxiliary inversion disambiguates; one of the interpretations from the non-inverted counterpart is available, always the one in which negation has **wide scope**

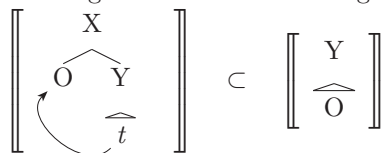
A way to account for the subject restriction:

- Compare post-movement structure to pre-movement structure
- Rule out post-movement structure if movement does not result in a less ambiguous structure
- Appeal to principles of scope economy

### 3.2.1 Principle of Scope Economy in the spirit of Fox (2000)

(19) *Principle of Scope Economy*<sup>5</sup>

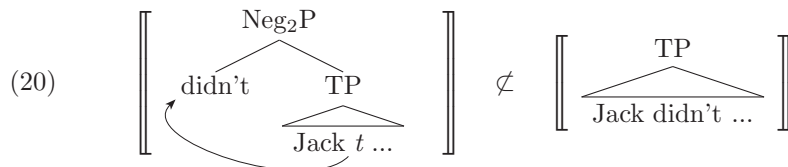
A scope-shifting operation can move an operator  $O$  overtly only if the resulting structure is less ambiguous than its source, i.e.



Assumption:

- The interpretation of a structure is a set of meanings (May, 1985)

Ruling out definite subjects:

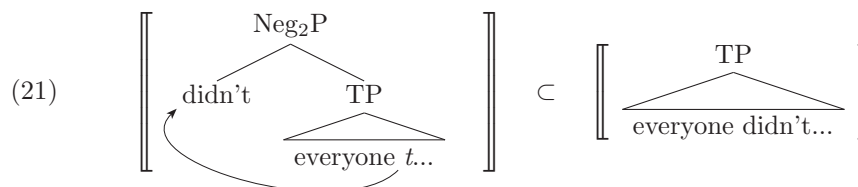


- suppose  $Neg_2^o$  is merged into a structure that doesn't have a quantificational subject

<sup>5</sup>This proposal is in the spirit of Fox's (2000) Principle of Scope Economy which rules out movement if post-movement interpretation is the same as pre-movement interpretation.

- its  $[uNEG^*]$  feature needs to be checked, so movement of the negative auxiliary is triggered
- there is only one scope-bearing element – scopally uninformative; unambiguous
- interpretation of post-movement and pre-movement structures is identical
- derivation is ruled out by the principle of scope economy

Allowing quantificational subjects:



- $Neg_2^o$  is merged
- its  $[uNEG^*]$  feature needs to be checked, so movement of the negative auxiliary is triggered
- there are two scope-bearing elements which can outscope each other in the non-inverted construction – ambiguity
- interpretation of post-movement structure is a proper subset of the interpretation of pre-movement structure
- derivation is allowed by the principle of scope economy

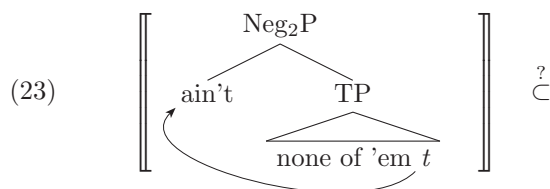
## 4 Apparent counterexample: Negative indefinites

Negative indefinites are possible subjects in sentences containing negative inversion

- (22) a. Ain't none of the students done their homework. (WTE; Foreman, 1999)

b. \*None of the students ain't done their homework. (WTE; Foreman, 1999)

- In construction exhibiting negative concord, there is only one instance of logical negation
- Non-inverted counterpart is not ambiguous
- In fact, non-inverted counterpart is not possible
- How are we able to derive the structure containing negative inversion if its non-inverted counterpart is out?



Contrast in (22) is similar to Italian:

- (24) a. \**Nessuno non* ha visto Mario. (Italian; Zanuttini, 1991)  
 n-person NEG has seen Mario  
 'Nobody saw Mario.'
- b. Gianni *non* ha visto *niente*. (Italian; Giannakidou, 2006)  
 Gianni NEG have.3sg seen n-thing  
 'John didn't see anything.'

- Difference between preverbal and postverbal n-words
  - Preverbal n-words cannot co-occur with sentential negation
  - Postverbal n-words must be licensed by sentential negation

Motivation for head movement being syntactic:

- Head movement licenses negative polarity items in subject position of interrogatives by subject-auxiliary inversion (Roberts, 2010)

- (25) a. \*Anyone didn't see John. (SE; Roberts, 2010)  
 b. Did(n't) anyone see John? (SE)

In the case of negative indefinites:

- Head movement of the negation may not disambiguate
- Instead, head movement raises in order to license the *none of 'em*
- The availability of negative indefinites in negative inversion is not a counterexample
- Instead, it provides us with more evidence that head movement has a semantic effect

## 5 Conclusion

In this paper, I showed that negative inversion in West Texas English and possibly other varieties is an instance of semantically-active head movement

- Negative inversion is head movement that disambiguates
  - It provides an unambiguous interpretation for one of the meanings available in its non-inverted counterpart
- It is only licensed when it has an effect on interpretation and it is ruled out by scope economy when it does not
  - The principle of scope economy accounts for the subject restriction

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