

Semantic change across time and register:
much and *many* as Negative Polarity Items

Ji Won LEE
University at Buffalo
jiwonlee@buffalo.edu

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- Negative Polarity Items (NPIs): words or idioms which only appear in limited environments such as negative sentences, questions or in an *if* conditional and are unacceptable in the affirmative (Hoeksema 1997, Horn 1989, Israel 1996, Ladusaw 1997, Zwarts 1998, Giannakidou 1998)

1. I don't have *any* money.
2. Do you have *any* money?
3. If you have *any* money, lend me some.
4. *I have *any* money.

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- Positive Polarity Items (PPIs): items which are unacceptable in negative contexts (Israel 2011)

1. He *took a stab at* solving the puzzle.
2. * He *didn't take a stab at* solving the puzzle.
3. Hugh is *always* listening to the Grateful Dead.
4. * Hugh *isn't always* listening to the Grateful Dead.

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- In present day spoken English, *much* and *many* show polarity sensitivity (Quirk et al. 1985, Israel 1996).

1. Negation
 - a. We *haven't* talked *much* about the weather. (Switchboard)
 - b. ?We have talked *much* about the weather.
 - c. The other apple trees *didn't* have *many* blossoms that year.
2. Question
 - a. **Have** you all been able to do *much* as a family these days? (Switchboard)
 - b. ?We were able to do *much*.
 - c. **Are** there *many* of them?

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Licensing Environments

3. Unemployment hovers around 13 percent, and the **only** buildings that see *much* activity appear to be City Hall and the offices of the local paper, the Port Arthur News. (COCA, 2003)
4. But in the minds of **everyone** who has *much* to say in big league doings, these kids are urgently needed, and the hunt for them will be on with a vigor seldom seen before. (Baseball Digest, 1947)
5. Besides, she was **too** occupied with inventing thoughts **to** pay *much* attention to Mr. Poe. (COHA, 2000)
6. These folks spend so much time judging others during the week it **is surprising** they have *much* time left for anything else. (from Google)
7. It is **doubtful** if Morgan was able to take home *much* money to his wife and children. (Brown)

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Various negation types

- ➔ 1. Sentential
 - We haven't talked *much* about the weather. (Switchboard)
- 2. without
 - Both of these purposes exist side by side **without** *much* overt conflict under present conditions. (Brown)
- 3. Clausal
 - **I don't think** they are going to have *much* to talk about. (COCA, 2010)
- 4. Semantic
 - The space station has **failed** to deliver *much* science or enthusiasm and has been orphaned by the Bush administration. (AmE 06)
 - But experience **prevents** me from working up *much* enthusiasm over anyone who considers the human race as just so many clay pigeons. (COHA, 1936)

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- In present day **spoken** English, *much* and *many* show polarity sensitivity.

1. **Much** work on polarity has neglected this diversity, blinded, as it were, by the desire for universal principles of grammar. (Israel 1996)
2. We have learned **much** about interstellar drives since a hundred years ago. (Brown)

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- In **present day** spoken English, *much* and *many* show polarity sensitivity.

1. I take **much** content that I may hope to see your father and you within 2 months. (CEECs, 1641)
2. "Ha! ha! --ugh - I like that **much** - never saw that before - must remember that - good many young men of your profession here, I suppose, Mr. Bradshaw?" (COHA, 1835)

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LOT = (a) lot(s) (of)

1. Negation
 - We haven't talked *much* about the weather.
 - ?We have talked *much* about the weather.
 - We have talked a lot about the weather.
 - I don't watch *much* TV.
 - *I watch *much* TV.
 - I watch a lot of TV.
2. Question
 - **Have** you all been able to do *much* as a family these days? (Switchboard)
 - ?We were able to do *much*.
 - We were able to do a lot as a family.

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Oxford English Dictionary entry for LOT

9. *colloquial* A considerable number, quantity, or amount; a good deal, a great deal. Used in singular (**a lot**) and plural (**lots**);

- 1812 *Spirit Pub. Jrnls.* XVI. 191 Lots of our Senators have of late been subject to the awful visitation.
- 1816 *Grand Master II.* 47 Gallons of Arrack, lots of beer.

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Questions

1. How does the NPI behavior of *much* and *many* differ between the spoken and the written language?
2. How has the NPI behavior of *much* and *many* changed over time?
3. Is there a connection between changes in the frequency of paucity *little* and *few* and the NPI behavior of *much* and *many*?
4. Is there a difference in the NPI behavior of *much* and *many* by construction?

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Conclusions

1. How does the NPI behavior of *much* and *many* differ between the spoken and the written language?
 - **The spoken language shows a stronger NPI behavior.**
2. How has the NPI behavior of *much* and *many* changed over time?
 - **There was an abrupt change in the NPI behavior of *much* and *many* in the spoken language.**
 - **The change in *much* in the written language, however, is more gradual.**

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Corpora

- Corpus of Early English Correspondences Sampler (CEECS)
 - Size: 0.45 million words
 - Period covered: **1418-1680**
- Corpus of Historical American English (COHA)
 - Size: 400 million words
 - Both written and "**spoken**"
 - Period covered: **1810-2009**
- Late Modern English Prose
 - Size: 99,000 words
 - Period covered: **1861-1919**

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Corpora

- Corpus of Historical American English (COHA)
 - Size: 400 million words
 - Both written and "**spoken**"
 - Period covered: **1810-2009**
- "**Spoken**" COHA
 - Size: 172 million words
 - Movie scripts and plays
 - Period covered: **1810-2009**

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Corpora

- Brown Corpus
 - Size: 1 million words
 - Present Day English of **1961**
- Frown Corpus
 - Size: 1 million words
 - Present Day English of **1991**
- AmE06
 - Size: 1 million words
 - Present Day English of **2006**

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Corpora

- Corpus of Contemporary American English (COCA)
 - Size: 425 million words
 - Both written and **spoken**
 - Period covered: **1990-2011**
- Switchboard Corpus
 - Size: 1 million words
 - Spoken** Present Day English of **1990s**
- Santa Barbara Corpus of Spoken American English
 - Size: 0.25 million words
 - Spoken** Present Day English of **1990s**

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much, many and alternative expressions

	<i>much</i>	<i>many</i>
much and many	I don't go out <i>much</i> . (Switchboard)	Look, you don't reach <i>many</i> people that way. (COHA)
LOT <i>a lot of</i> <i>lots of</i> <i>a lot, lots</i>	You have done <i>a lot</i> for me. (COHA)	She has <i>a lot of</i> boyfriends. (COHA)
a great deal He means <i>a great deal</i> to you. (COHA) a good deal I've seen <i>a good deal of</i> improvement both at school and the home situation. (Switchboard)		quite a few If you wouldn't mind, I have <i>quite a few</i> phone calls to make. (COHA)

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Measure of NPI tendency

***much* in NPI contexts**
all expressions in NPI contexts

***much* in non – NPI contexts**
all expressions in non – NPI contexts

much
all expressions: *much, LOT, a, great deal, a good deal, deal*

many
all expressions: *many, LOT, quite a few*

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Measure of NPI tendency

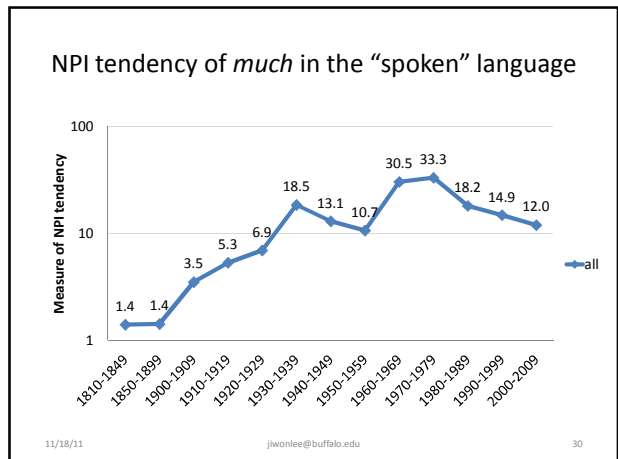
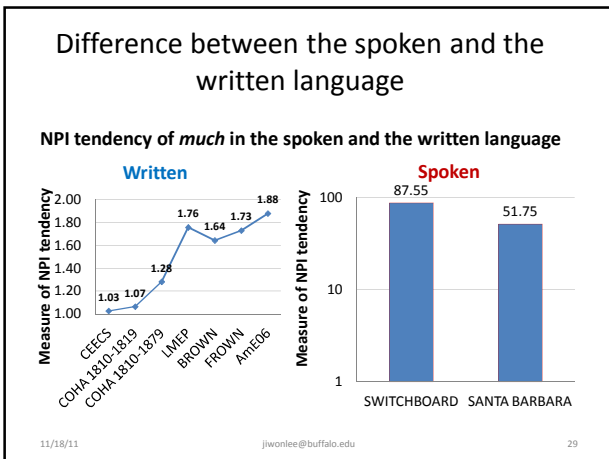
	NPI	non-NPI
<i>much</i>	83	10
others	10	128
	0.89	0.072
		12.31

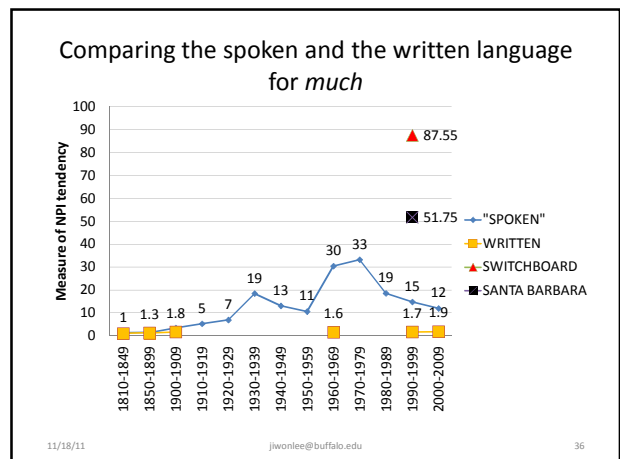
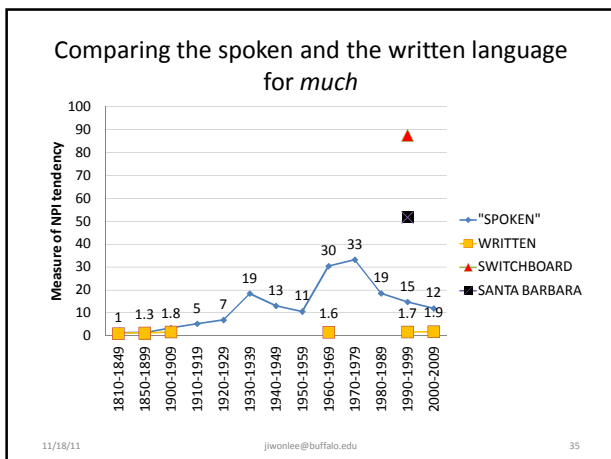
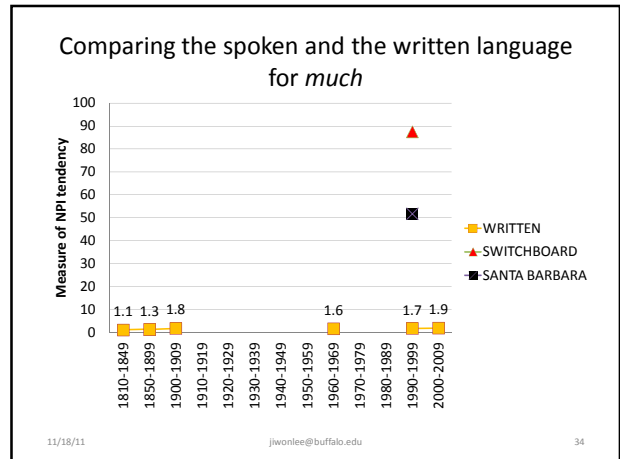
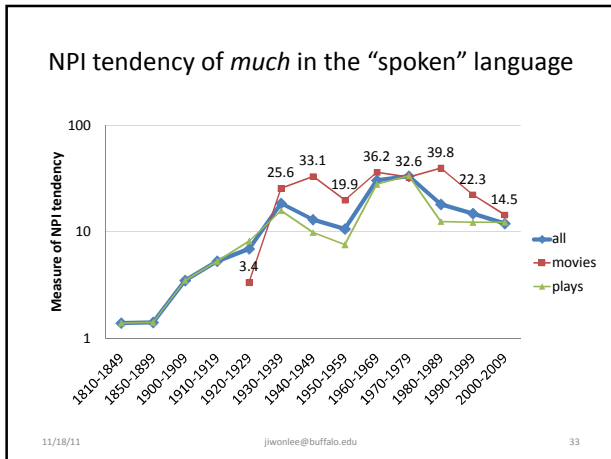
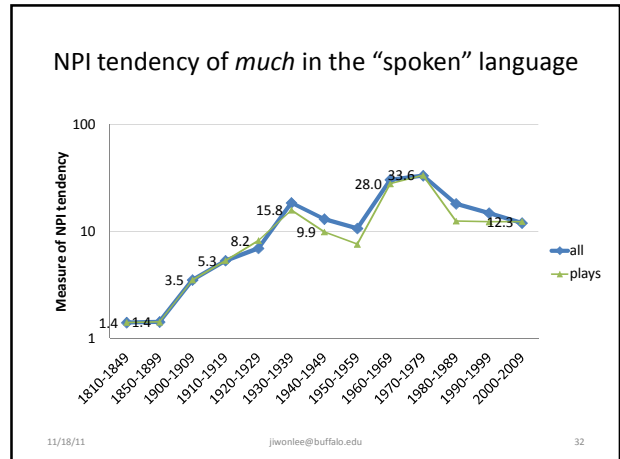
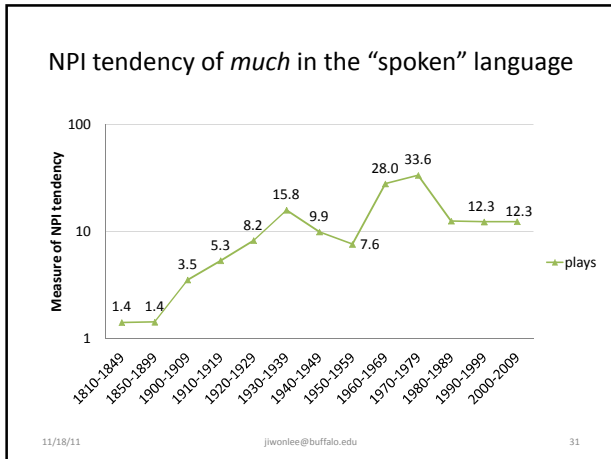
	NPI	non-NPI
<i>many</i>	15	136
others	10	159
	0.6	0.461
		1.301

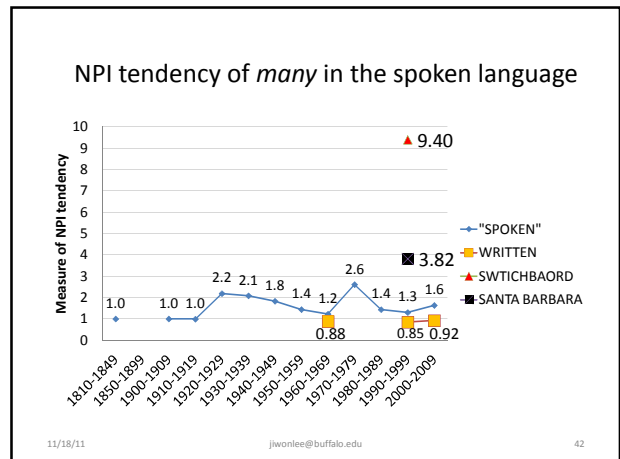
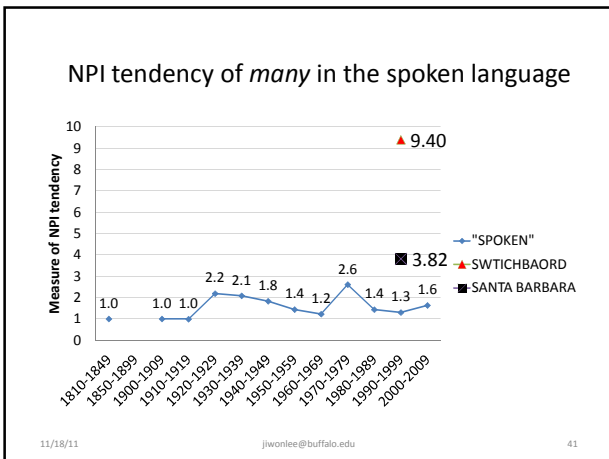
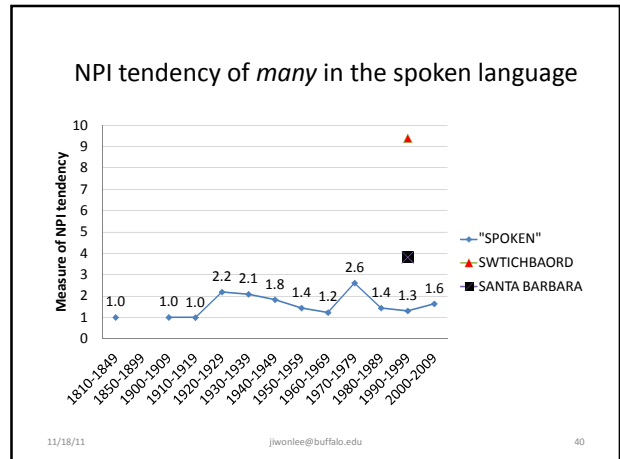
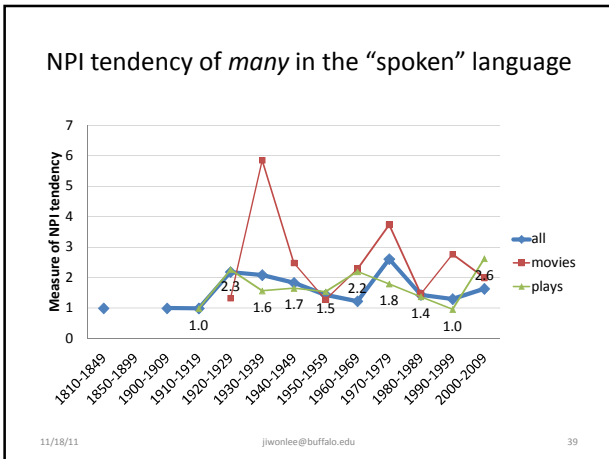
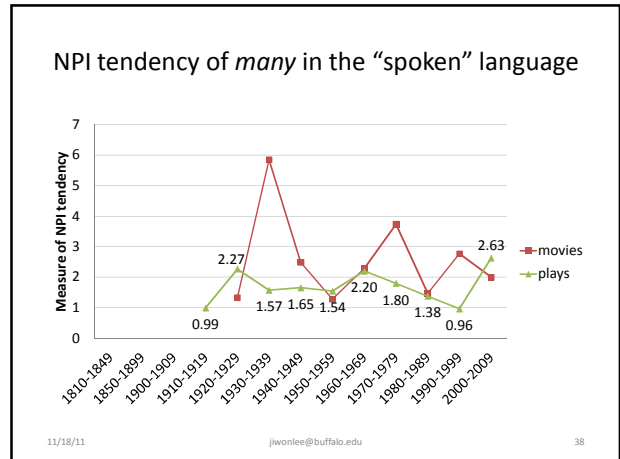
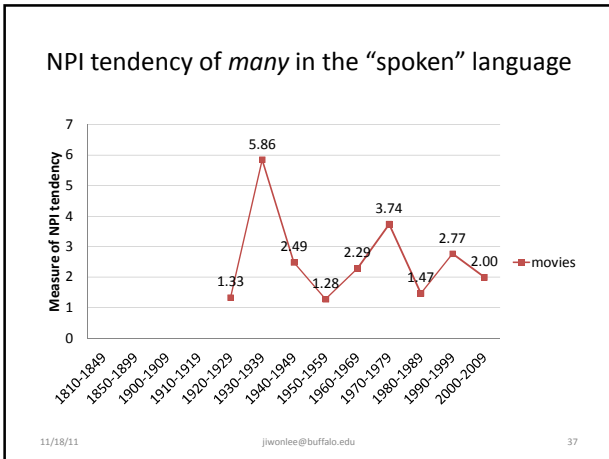
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Conclusions

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 - **The spoken language shows a stronger NPI behavior.**
2. How has the NPI behavior of *much* and *many* changed over time?
 - **There was an abrupt change in the NPI behavior of *much* and *many* in the spoken language.**
 - **The change in *much* in the written language, however, is more gradual.**

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Questions

3. Is there a connection between changes in the frequency of paucity *little* and *few* and the NPI behavior of *much* and *many*?
4. Is there a difference in the NPI behavior of *much* and *many* by construction?

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3. Is there a connection between changes in the frequency of paucity *little* and *few* and the NPI behavior of *much* and *many*?
 - **NEG *much* (*many*) replaces *little* (*few*)**
 - **LOT is used in non-NPI contexts**
4. Is there a difference in the NPI behavior of *much* and *many* by construction?
 - ***Much* (*many*) of + definite NP behaves like a PPI (Positive Polarity Item).**
 - **Adverbial *much* shows the strongest NPI tendency in the written language.**

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Horn (1989)

- A, I and often E values lexicalize, O almost never does.
- O → E drift : expressions associated with O corner of the square move towards E

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Horn (1989)

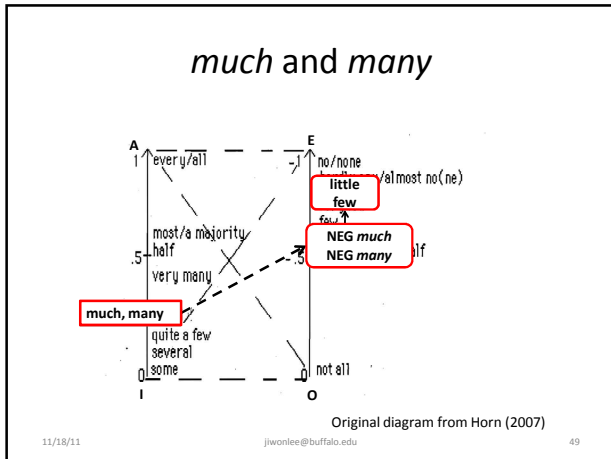
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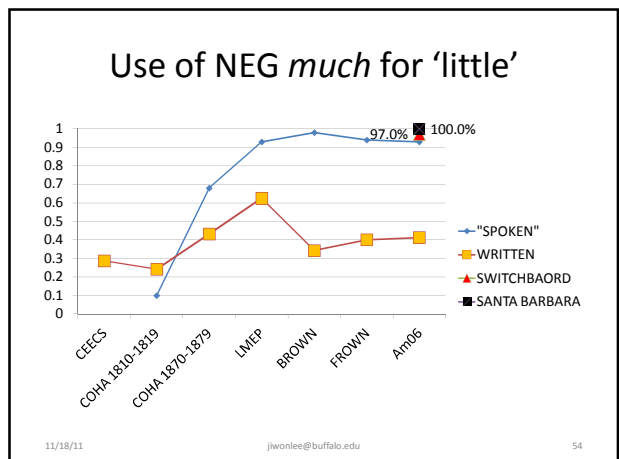
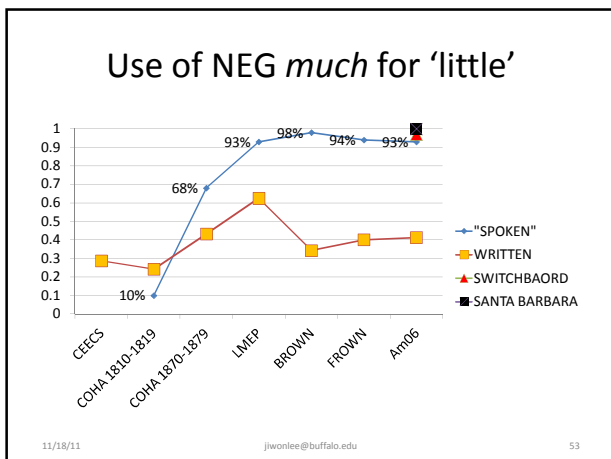
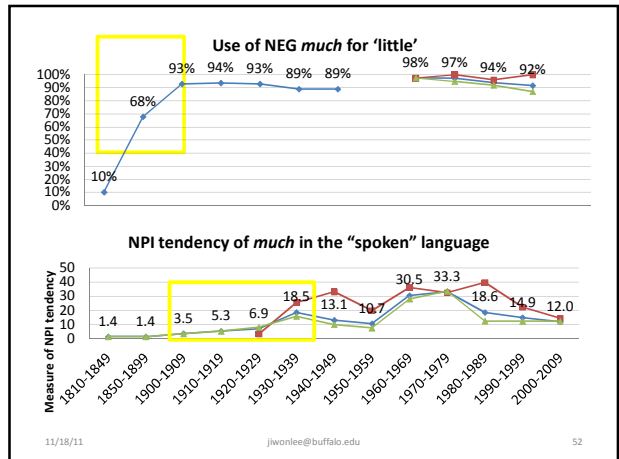
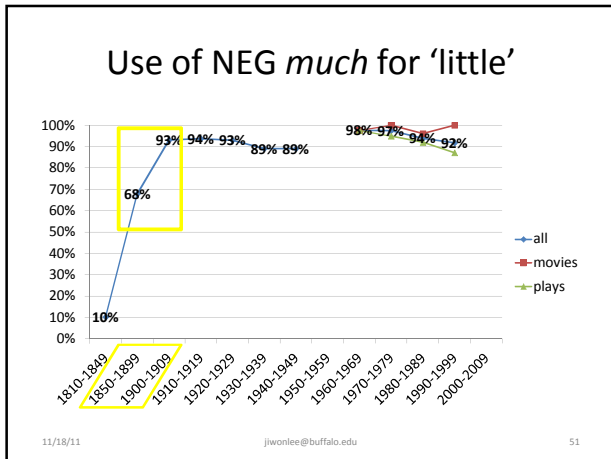
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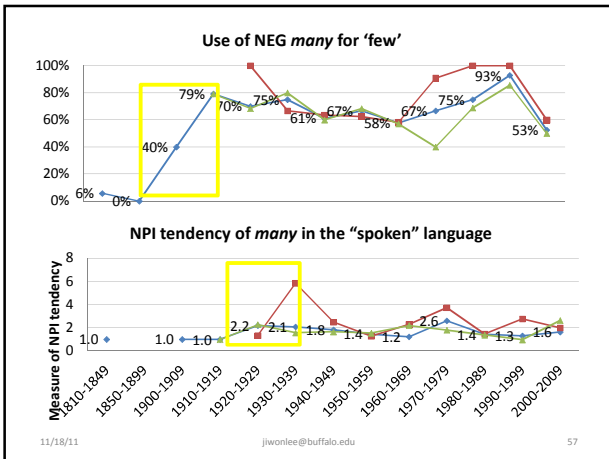
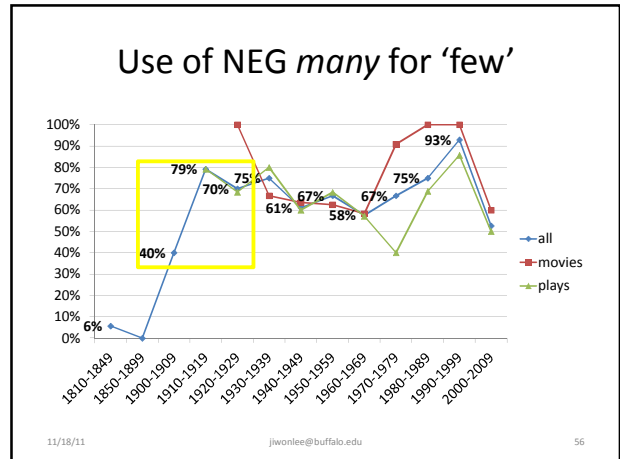
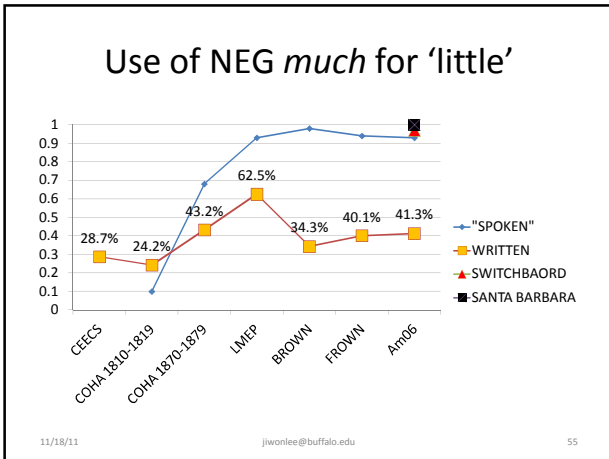


Semantization through invited inference (Traugott and Dasher 2002)

1. *Little* in the quantity (paucity) sense
 - Well, they didn't have *much* choice. (Switchboard)
 - There can be *little* doubt that there was a conspiracy in Washington. (Brown)
2. *Few* in the quantity (paucity) sense
 - I haven't been to *many* places. (Switchboard)
 - *Few* records are available concerning the subject prior to 1940. (Brown)

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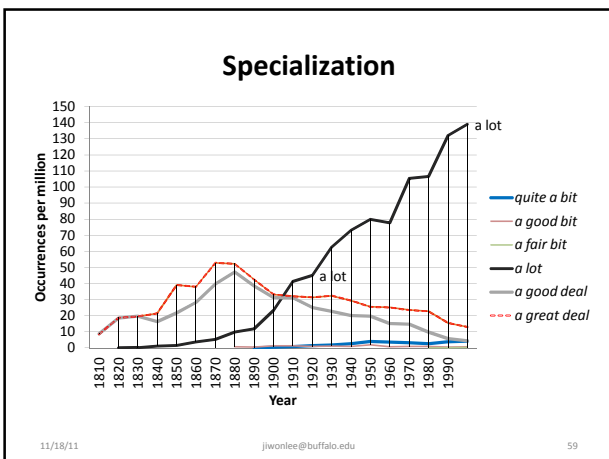




Chain Shift

- NEG *much* (*many*) replaces *little* (*few*) in the paucity sense

- LOT replaces *much* (*many*) in non-NPI contexts



- NEG *much* (*many*) replaces *little* (*few*) (a.k.a. *little* and *few* fall out of use)
- NPI tendency of *much* (*many*) strengthens
- Is not an isolated incident but a manifestation of a broader trend in the language processing

no-negation versus not-negation

The combination of *not*-(*n't*) and the “any” word is more colloquial and idiomatic than the “no” variant (Quirk et al. 1985) .

1. *no* vs. *not ... any*
 - We haven't had **any** lunch. (more colloquial)
 - We've had *no* lunch. (less colloquial)
2. *no one* vs. *not ... anyone*
 - I **wasn't** speaking to **anyone**. (more colloquial)
 - I was speaking to **no one**. (less colloquial)
3. Switchboard
 - Well they **didn't** have **much** choice. (more colloquial)
 - I see that even he was met with **little** success, even though I guess quite a bit of money and other, uh, planning efforts went into that. (less colloquial)

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NPI behavior by construction

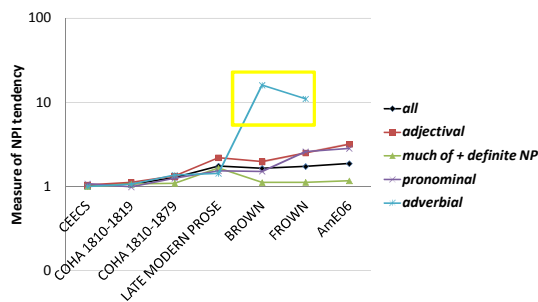
- Adjectival
 - I haven't been watching *much* TV lately. (Switchboard)
- *much of* + definite NP
 - *Much of* the tonal analysis can be done without any study of intonation. (Brown)
- Pronominal
 - There is not *much* between us and the North Pole. (Switchboard)
- *much* used as an adverb
 - She doesn't enjoy it *much*. (Brown)
 - I don't *much* care for them. (Switchboard)
 - We just don't wear coats *much*. (Switchboard)

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NPI tendency of *much* by construction in the written language

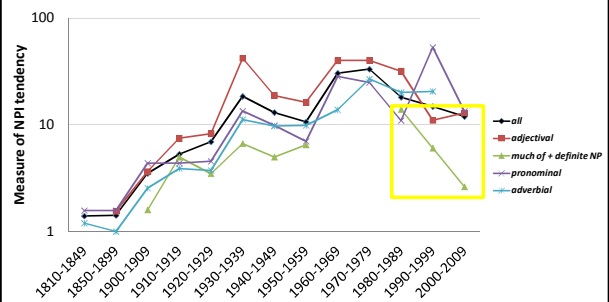


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NPI tendency of *much* by construction in the “spoken” language

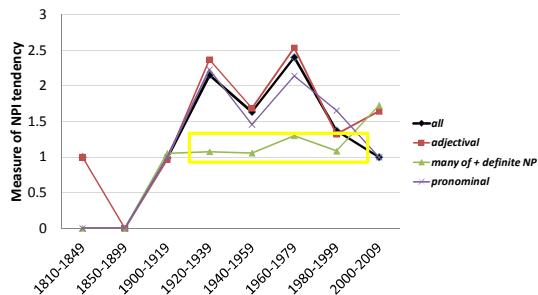


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 - **The change in *much* in the written language, however, is more gradual.**

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jjwonlee@buffalo.edu

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Conclusions

3. Is there a connection between changes in the frequency of paucity *little* and *few* and the NPI behavior of *much* and *many*?
 - **NEG *much (many)* replaces *little (few)***
 - **LOT is used in non-NPI contexts**
4. Is there a difference in the NPI behavior of *much* and *many* by construction?
 - ***Much (many)* of + definite NP behaves like a PPI (Positive Polarity Item).**
 - **Adverbial *much* shows the strongest NPI tendency in the written language.**

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jiwonlee@buffalo.edu

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jiwonlee@buffalo.edu

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Questions?

- jiwonlee@buffalo.edu

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jiwonlee@buffalo.edu

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jiwonlee@buffalo.edu

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jiwonlee@buffalo.edu

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