

# Possessive *Have* and Adverb Placement in the History of late Modern American English

Richard Zimmermann

University of Geneva  
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# Outline

## Possessive *Have* in American English

The Change

Analysis

Prediction about Adverbs

## Adverb Placement

The Adverb Change

Different rate of change

Explanation

## Hypothesis Testing

Hypothesis 1

Hypothesis 2

Hypothesis 3

## Conclusion

## Direct and *do*-supported negation - No contraction

- (1) a. *conservative variant: direct negation*

A savage who **has not the capacity to construct a hut**, may nevertheless demolish a temple.

*The History of the Loco-Foco*, 1842

- b. *innovative variant: do-support*

The scientist who **does not have the inspiration of frequent contact with young and active minds of students** is likely to become self-absorbed.

*Popular Science*, 1908

## Direct and *do*-supported negation - Contraction

- (2) a. *conservative variant: direct negation*

There, now, add the salt and pepper fixings, and the king himself **hasn't a slicker supper**.

*A Romance of the Mohawk, 1840*

- b. *innovative variant: do-support*

The farming community of 900 people **doesn't have a single fast-food restaurant**.

*Weight loss x 2, 2005*

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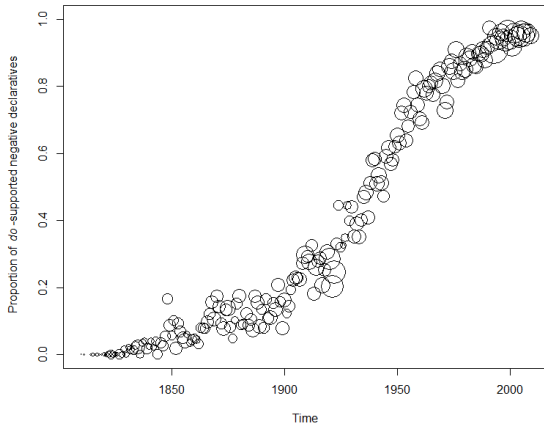
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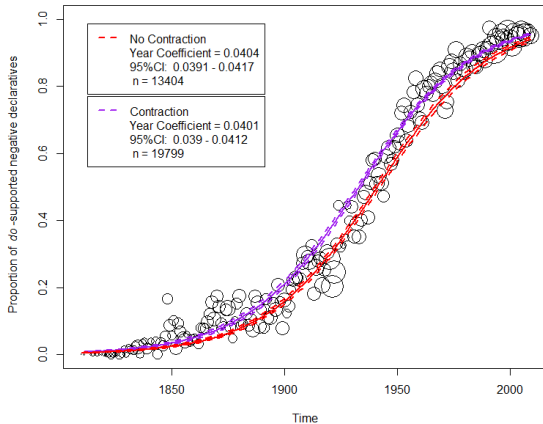
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# The development of negative possessive *have*



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## Auxiliaries and Full lexical verbs

- (3) a. The children [Auxiliary will not [Verb sleep ] ]  
b. \* The children [Auxiliary  $\emptyset$  not [Verb sleep ] ]  
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- (4) 'have' changes from an auxiliary to a full lexical verb  
[conservative—have have → [innovative—have have ] ]

## Prediction: Relative order between *have* and adverbs

- (5) *adverbs intervene between auxiliaries and full lexical verbs*  
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(6) *change in possessive 'have' should be reflected with adverbs*

a. [conservative—have have never/certainly [ ... ] ]

b. [ never/certainly [innovative—have have ... ] ]



## Pre-and-Post-Aux position - temporal adverb

- (7) a. *conservative variant: 'have'-adverb*  
The preacher **had** **always** **a belief in witchcraft**  
*RachelDyerANorth, 1828*
- b. *innovative variant: adverb-'have'*  
My father **always** **had** **a serene philosophy**  
*Atlantic, 1946*

## Pre-and-Post-Aux position - epistemic adverb

- (8) a. *conservative variant: 'have'-adverb*

A period of war, moreover, **has necessarily** a tendency to strengthen the governmental action.

*USDemRev*, 1838

- b. *innovative variant: adverb-'have'*

The government, in any argument over facts, **necessarily has** the last word, since it can claim to have more facts.

*Nation*, 1965

## Adverb data collection

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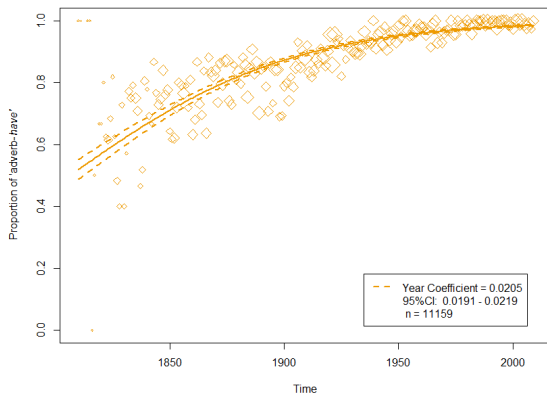
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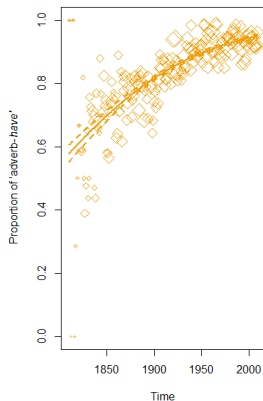
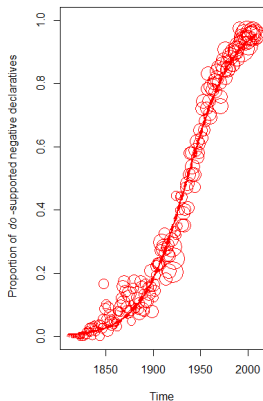
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- ▶ only positive polarity
- ▶ manual correction of precision errors
- ▶ total of 11,159 examples



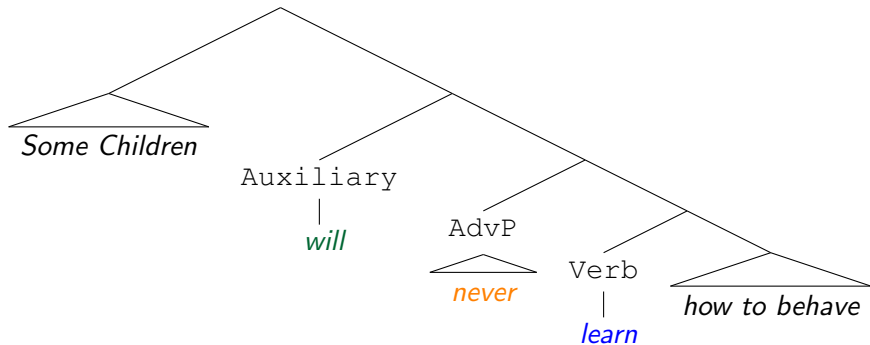
# The development of adverbs and possessive *have*



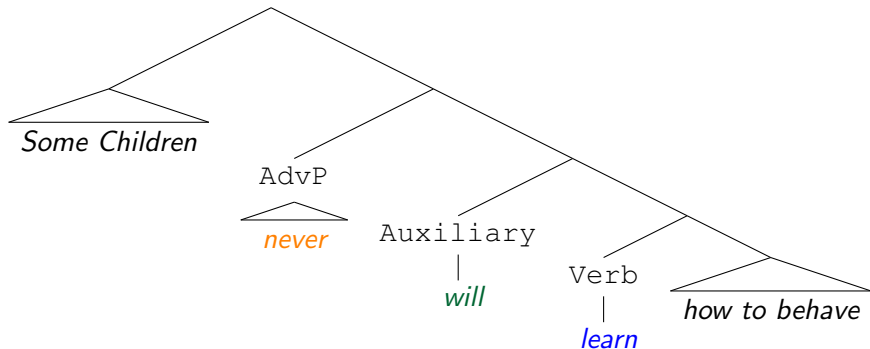
## Comparison between negation and adverb data



## Why is the rate of change different?



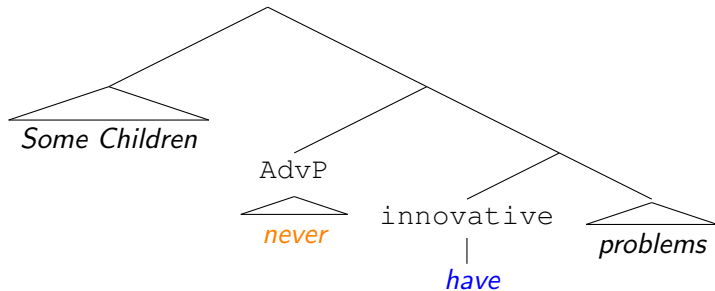
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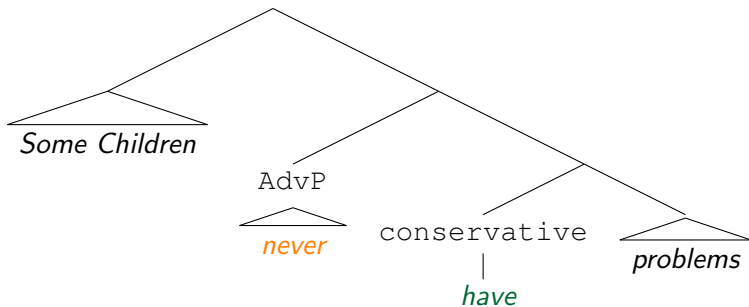
## Example of high-adjoined adverbs

- (9) a. Apparently a shock that has been experienced  
**often will lose** effectiveness as a reinforcer.  
BNC, APH W\_ac\_soc\_science
- b. I found that the story they tell  
**sometimes has changed** dramatically  
BNC, F71 S\_speech\_unscripted
- c. if he was not prepared to take a risk with his money, he  
**most certainly was not prepared** to take a risk which  
might lose him the one person he valued most.  
BNC, FPK W\_fict\_prose

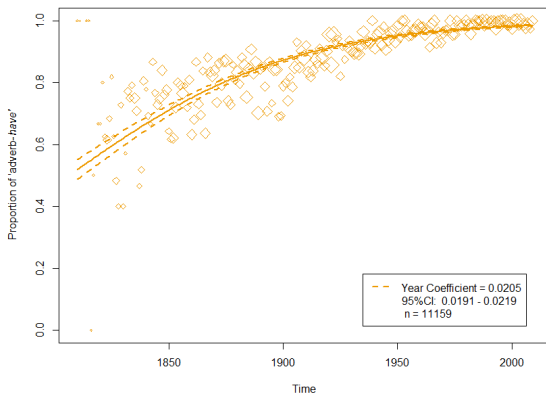
Adverb can indicate innovative usage of *have*...



... but adverbs also work with conservative *have*

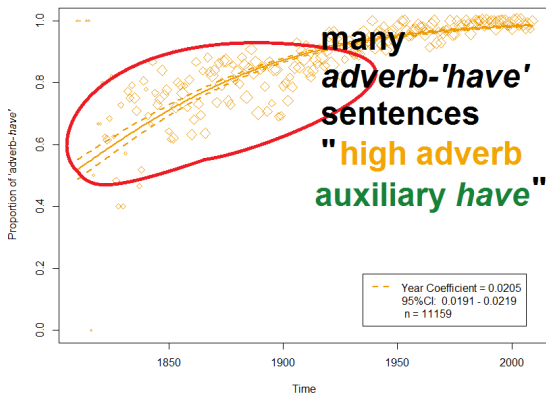


## High adjunction may cause “flatter” change





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## Origin of negation-adverb difference

- ▶ The surplus of expected *adverb-'have'* orders is caused by frequent high adjunction of adverbs.

# Anecdotal evidence

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- ▶ H1: If conservative possessive *have* can occur with adverbs in pre-auxiliary position at all, then, there should be at least some sentences where an unambiguously conservative *have* co-occurs with high adverbs

## Conservative *have* and high adverbs

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- c. *parallel adverb+modal suggests conservative have + high adverb:*  
a woman **never can** obtain rank by merit, therefore  
**never has reason** to be proud of it.  
LoversVows 1814



## Correlation between *have* and other auxiliaries

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- ▶ H2: If a substantial number of *adverb-'have'* sentences involve the conservative variant of possessive *have*, then, the frequency of adverbs positioned before possessive *have* should correlate with their propensity to be used in front of other auxiliaries.

## Position of adverbs in COHA

aux	[pp*]   [nn*]	[pp*]   [nn*]	% before aux
	never aux	aux never	
<i>may</i>	42	1,414	2.9
<i>might</i>	9	1,044	0.9
<i>can</i>	1,480	5,617	20.9
<i>could</i>	2,687	6,809	28.3
<i>shall</i>	614	4,155	12.9
<i>should</i>	580	3,387	14.6
<i>will</i>	1,322	8,151	14.0
<i>would</i>	2,008	11,643	14.7
<i>is</i>	139	2,923	4.5
<i>are</i>	94	1,674	5.3
<i>was</i>	1,824	7,921	18.7
<i>were</i>	324	2,459	11.6
<b>TOTAL</b>	<b>11,123</b>	<b>57,197</b>	<b>16.3</b>

**Table 1:** Position of *never* relative to auxiliaries in COHA

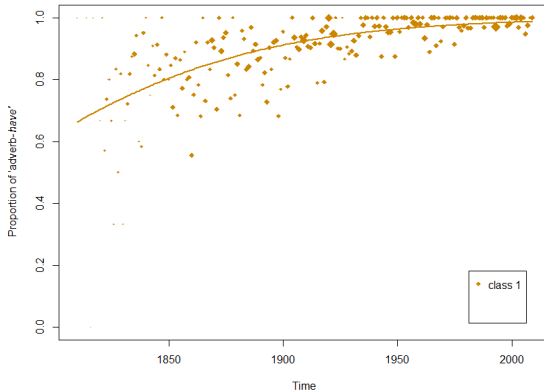
## Propensity of different adverbs to adjoin high

adverb	% before aux	<i>n</i>	
<i>certainly</i>	31.4	773	
<i>probably</i>	23.0	755	class 1
<i>apparently</i>	20.8	321	>15% before aux
<i>never</i>	16.3	3,607	<i>n</i> =5,456
<i>possibly</i>	13.7	28	
<i>obviously</i>	12.2	208	class 2
<i>ever</i>	11.9	955	10-15% before aux
<i>always</i>	10.8	2,403	<i>n</i> =3,594
<i>usually</i>	9.4	576	
<i>often</i>	6.0	722	
<i>seldom</i>	5.9	196	class 3
<i>sometimes</i>	5.7	321	<10% before aux
<i>frequently</i>	5.6	108	<i>n</i> =2,109
<i>rarely</i>	5.1	147	
<i>necessarily</i>	3.4	39	

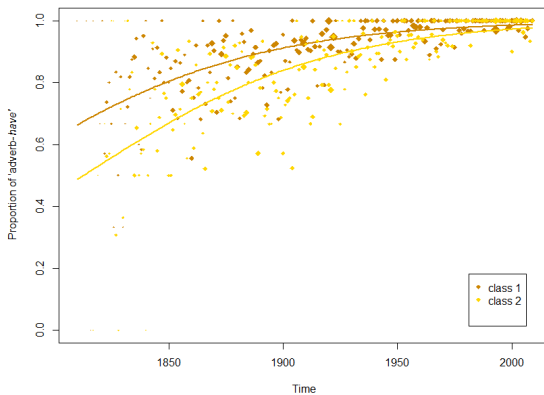
Table 2: Three adverb classes based on relative order with auxiliaries

## Adverb data divided by adverb class

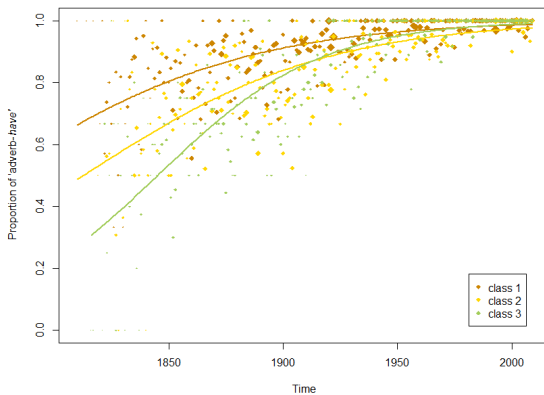
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## Necessary diagnostics

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- ▶ H3: If an adverb could be found that is
  - ▶ (i) necessarily placed after an auxiliary (<5% before aux)  
[*conservative—have* **have** **adverb-only-here** [*innovative—have* **have** ] ]
  - ▶ (ii) frequent ( $\approx$  100 occurrences pmw)
  - ▶ (iii) plausible with possessive have,

then, the rate of change measured with this adverb should be identical to the rate of change found with negation.

## Looking for the ideal adverbial diagnostic

adverb	% before aux	frequency pmw	plausible with <i>have</i>
<i>now</i>	9.7	1764.2	✓
<i>also</i>	12.7	640.3	✓
<i>again</i>	7.7	773.6	✓

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**no longer**

**2.2**

**106.9**

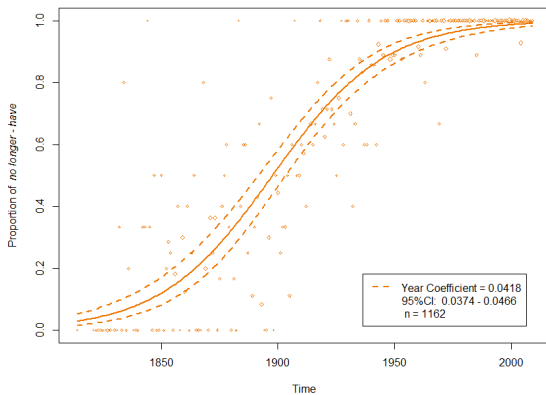
✓

## Variation with *no longer*

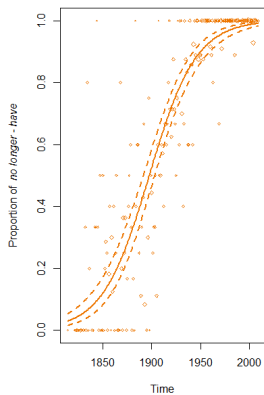
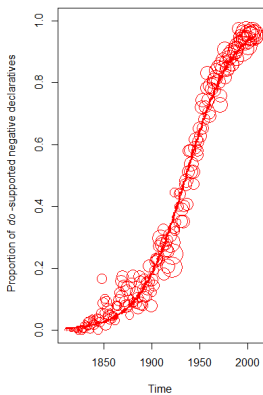
- (11) a. she **had no longer** a desire to live  
RachelDyerANorth 1828
- b. he **no longer had** the desire to join them  
NomadsNorth 1919
- (12) a. France **has no longer** any regard for the rights of  
Prussia or the Confederation  
NYT-Reg 1860
- b. Great Britain **no longer has** the strongest fleet  
Atlantic 1921
- ▶ total of 1,162 examples



# Development of relative order *no longer* - *have*



## Comparison negation - *no longer*



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Model 1:

InnovativeHave ~ Year + Context

Model 2:

InnovativeHave ~ Year + Context + Year\*Context

Model	Resid.	Df	Resid.	Dev	Df	Deviance	Pr(>Chi)
1	34361		28090				
2	34360		28090		1	0.03672	0.848

**Table 3:** Analysis of Deviance table for combined model

- ▶ interaction term does not significantly reduce deviance
- ▶ there is no good reason to assume that the rates of change are significantly different between negation and *no longer*

## Summary and outlook

- ▶ Possessive *have* develops *do*-support with negation in 19<sup>th</sup> - 21<sup>st</sup> century American English. This can be analyzed as a change in the category of *have* (from I to V).

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- ▶ This analysis predicts that there should also be a change in the relative order of adverbs and possessive *have*. However, the rate of change is steeper in the negation than in the adverb data. This can be explained by assuming that adverbs can adjoin high.

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  - ▶ There are unambiguous sentences with conservative *have* and high adverbs.
  - ▶ Correlation between frequency adverbs in pre-auxiliary position and the rate of change in the adverb data.
  - ▶ The adverb phrase *no longer* is a reliable diagnostic of innovative *have*. It does in fact reveal the same rate of change as with negation.



Thank you for your attention!

Possession can be hard...



# Appendix

## Floating quantifiers - *each, all, both*

- (13) a. Fichte, Schelling, Hegel, **had each** his own system,  
though they have been called transcendentalists.  
NewEngYaleRev 1843
- b. His mother, Fraulein Schlote and Miss Letitia Lamb  
**each had** her own accent and intonation  
LastPuritan 1936
- (14) a. the red limit and the violet limit **have both** the same  
luminous intensity  
TreatiseOnForces 1845
- b. Arcturus and Capella **both have** the same magnitude  
ExploringDistant 1956

► total of 595 examples