

An integrated quantitative approach to the phonology and morphology of ING

Meredith Tamminga

Introduction

ING: Alternation between unstressed **ɪŋ** and **ɪn**

Extensively-studied variable (Houston 1985, Labov 2001, Campbell-Kibler 2006)

Unsolved problem:

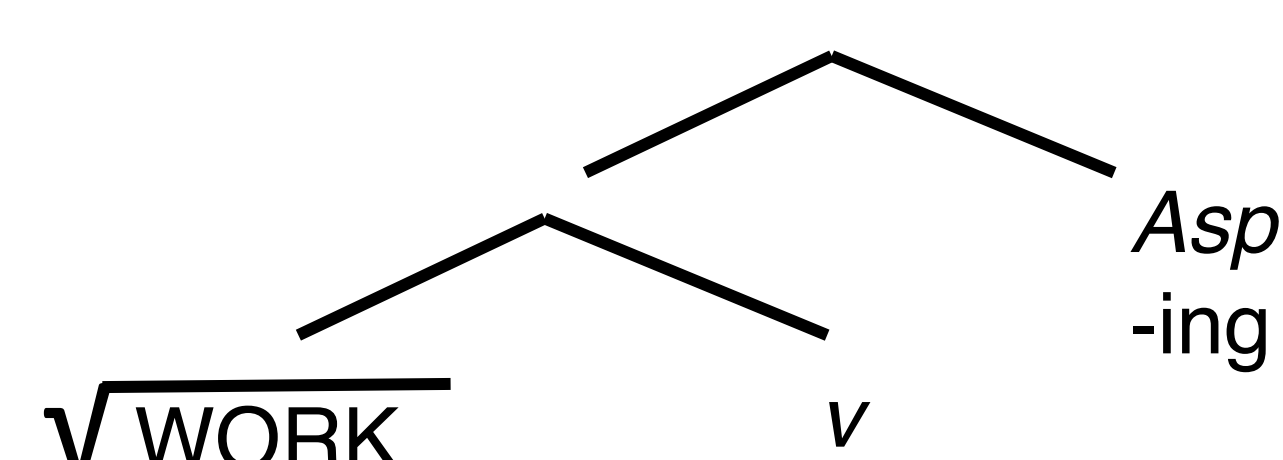
- Is this alternation **morphological** or **phonological**?

$\eta \rightarrow n / \text{ɪ} _ _$ [asp] \longleftrightarrow $\begin{cases} /ɪŋ/ \\ /ɪn/ \end{cases}$

Proposal: Use **persistence effect** (tendency to repeat variants) as evidence for grammatical process(es) underlying ING

A new coding scheme for ING

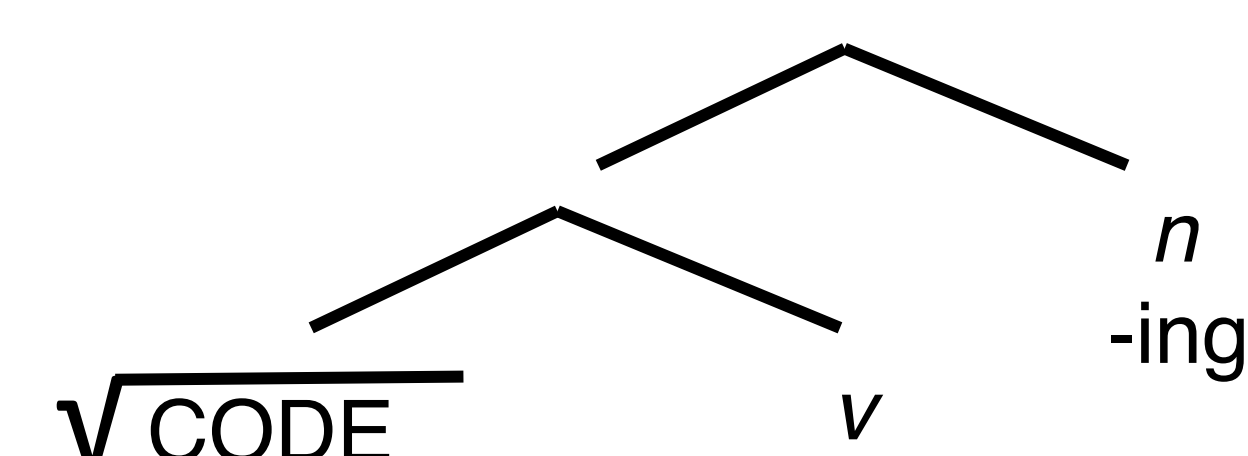
Generally robust observation: more **ɪŋ** with more verb-like uses



I was **working** ~ I was **workin'**

PROGRESSIVE

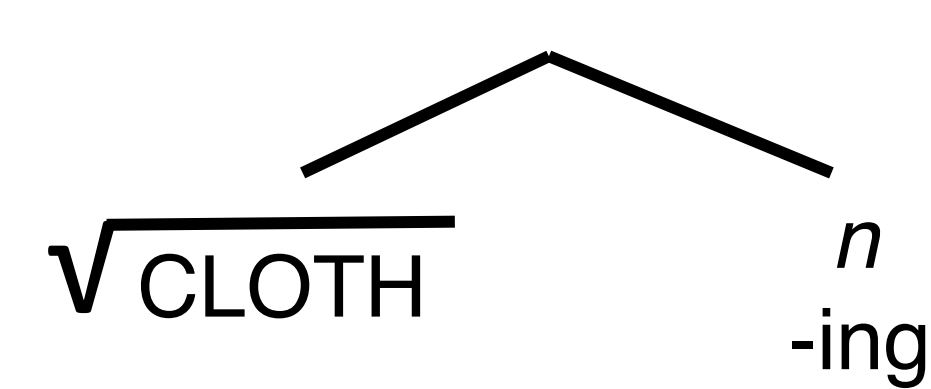
- complement of "be"
- may have null subj.
- non-stative



She does computer **coding** ~ **codin'**

GERUND

- substitute noun
- if trans, acc. object
- may have null subj.



Children's **clothing** ~ **clothin'**

ROOT-ATTACHED

- noun or adjective
- non-compositionality



Ceiling ~ **ceilin'** fan

ROOT

- not segmentable

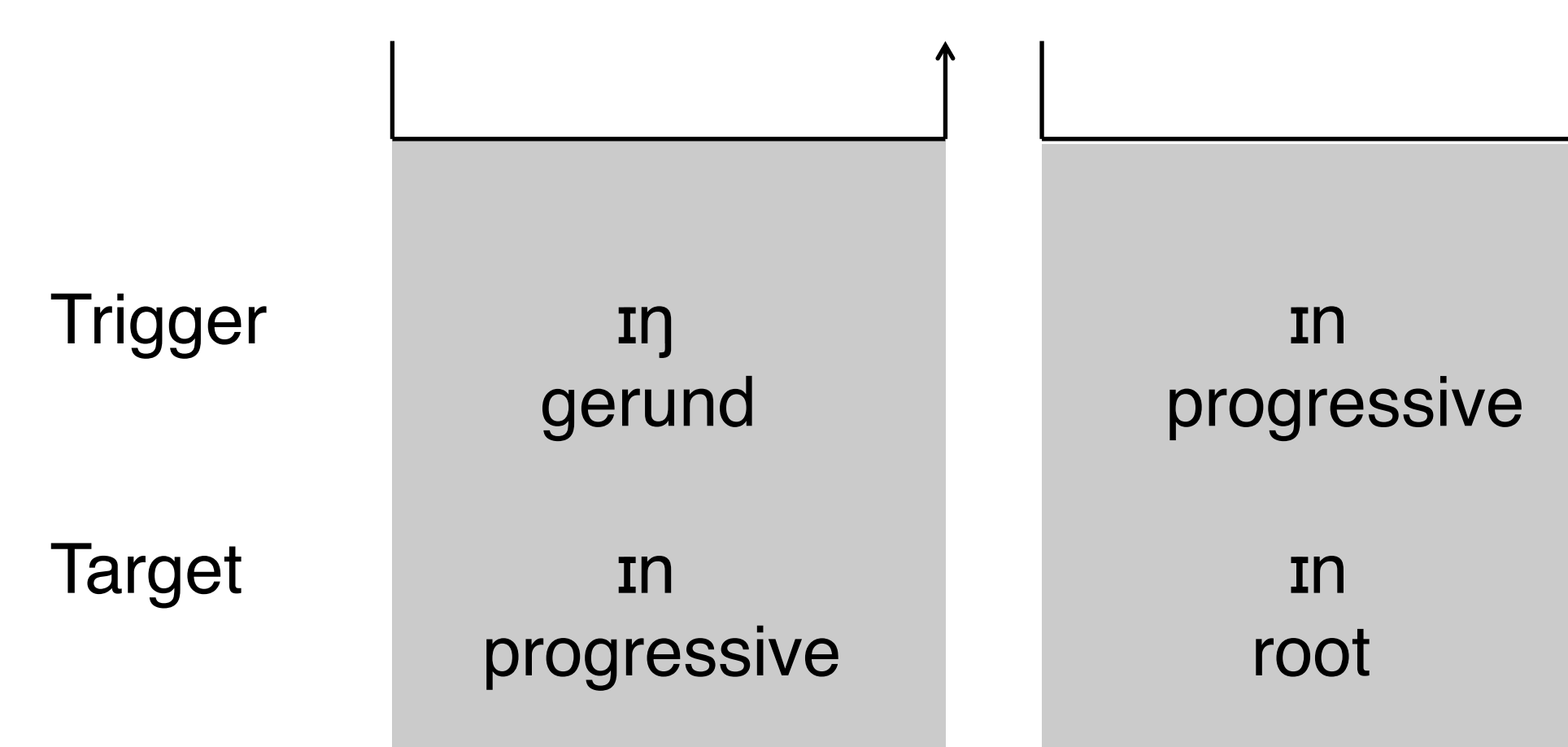
Data and methodology

Conversational sociolinguistic interviews with 122 speakers from the Philadelphia Neighborhood Corpus (53 male, 69 female)

Praat script for auditory coding of tokens as /ɪŋ/ or /ɪn/

Coding for persistence:

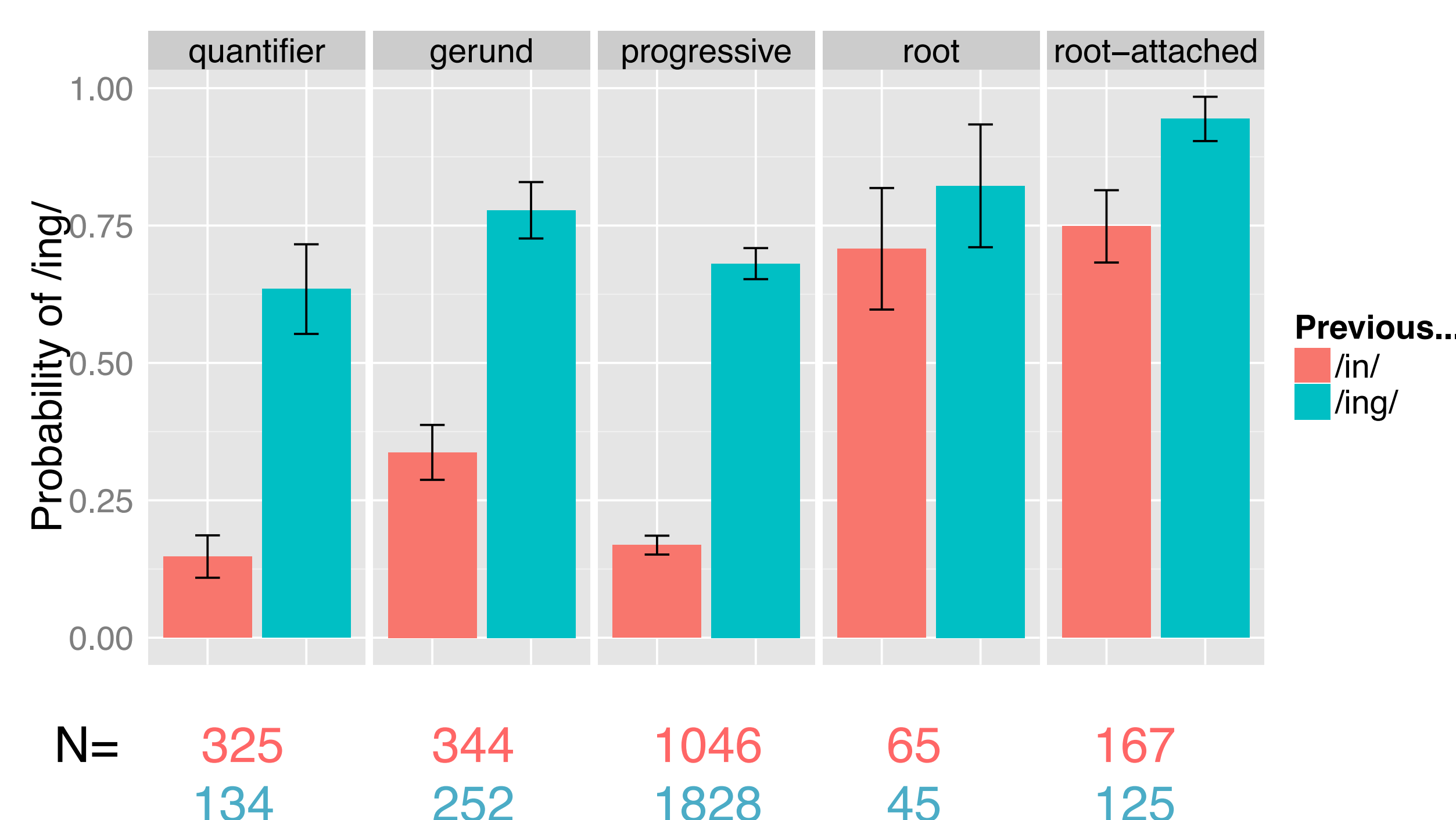
"I hate **working** past 5 but I was **runnin'** late in the **mornin'** yesterday."



Descriptive results

Best-represented category is progressives

What is the effect of a progressive trigger on different targets?



Statistical results

Generalized linear mixed effects regression (lme4 in R)

- By-speaker random intercept
- Preceding & following segment and speech rate also signif.

	Estimate	Std. Error	z-value
Previous = /ɪŋ/	0.83	0.09	9.46
Target gerund	0.66	0.11	5.73
Target root	1.52	0.24	6.25
Target root-attached	2.66	0.18	15.00
Target quantifier	-0.72	0.15	-4.76
/ɪŋ/ : gerund	0.11	0.17	0.63
/ɪŋ/ : root	-0.91	0.36	-2.53
/ɪŋ/ : root-attached	-0.49	0.29	-1.66
/ɪŋ/ : quantifier	0.19	0.21	0.90

Discussion

Evidence in favor of morphological variation:

- Strong persistence from progressives to progressives & gerunds
- Weak or no persistence from progressives to roots & root-attached

Evidence in favor of phonological variation:

- Strong persistence from progressives to quantifiers

Possibilities for reconciling this evidence:

- Phonological variation with persistence mediated by stylistic salience?
- Variables for sociolinguistic purpose defined on different level: two sources of morphological variability (verbal & quantifier) united as single sociolinguistic variable?

Selected references

Houston. 1985. Continuity & change in English morphology: The variable (ING). Penn diss.
 Campbell-Kibler. 2006. Listener perceptions of sociolinguistic variables: The case of (ING). Stanford diss.
 Embick & Marantz. 2008. Architecture and blocking. *Linguistic Inquiry* 39(1):1-53.