Sentential Negation in Middle High German
A Variationist Approach

James Stratton

Purdue University

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jstratt@purdue.edu

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Sentential Negation

Jespersen's Cycle (1917):

Sentential negation reportedly goes through three diachronic stages

> Stage I: **Preverbal Negator** (OE *ic **ne** secge*)

  preverbal negator gets weakened phonologically

> Stage II: **Bipartite Negation particle** (ME *I **ne** seye **not***)

  preverbal negator becomes optional

> Stage III: **Postverbal Negator** (EMoDE *I say **not***)

Jespersen's Cycle
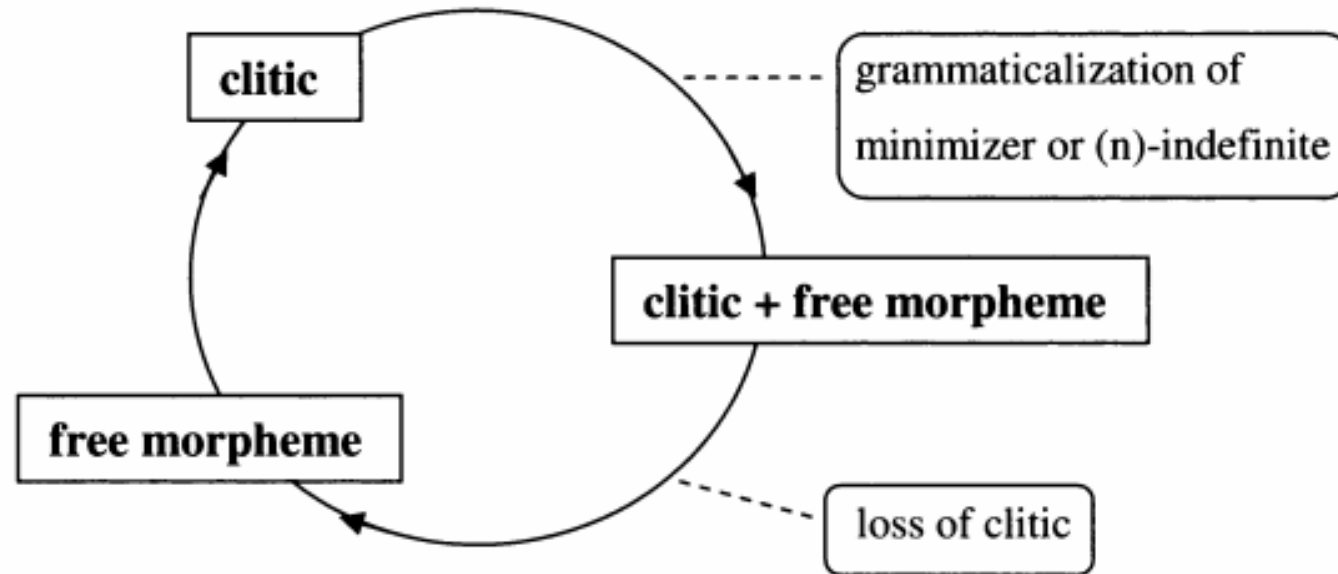
As depicted in Jäger (2008: 15)
adapted
by Elspaß & Langer (2012)

History of German

- Traditional view describes German as following Jespersen's Cycle

Stage I: Old High German (OHG 750-1050CE)

ik **ni** *weiz* 'I don't know'

Stage II: Middle High German (MHG 1050-1350CE)

ih **ne** *weiz* **niht** 'I don't know'

Stage III: Modern Standard German

ich weiß **nicht** 'I don't know'

Clitic Negation Particles

> MHG has clitic variability

> The variants are functionally equivalent in meaning (i.e., weak complementarity)

- **Middle High German** (MHG 1050-1350CE)
  ih **ne** *weiz* **niht**
  ih **en***weiz* **niht** (proclitic)
  *i***n** *weiz* **niht** (enclitic)

- **Clitic Variability**
  (a) *ne….niht*
  (b) *n….niht*
  (c) *en…niht*

Jespersen's Cycle in MHG

- All three stages of Jespersen's Cycle are attested in MHG

- All three stages exist in the same contexts:

Nibelungenlied **'Lay of Nibelungen'** Jäger (2008)

- *des*   hab   ich   **niht**   vernomen   (Manuscript A): Stage III
'that-GEN   have   I   not   heard'

- *des**n***   hab   ich   **niht**   vernomen   (Manuscript B): Stage II
'that-GEN   have   I   not   heard'

- des   **en**hab   ich   **nicht** vernomen   (Manuscript C): Stage II
'that-GEN   have   I   not   heard'

Previous Research

- Since **the three negation variants** co-exist during the same time period, this has led some researchers to believe that they are in "freie Variation" '**free variation**' (Müller 2001: 248)

- Behagel (1918: 231) suggests that *ne* occurs more frequently with **specific types of verbs** such as *wizzen* 'to know', *ruochen* 'to take care of' and *wænnen* 'to think'

Previous Research

- Other researchers suggest that **certain types of negation** are more frequent with **modal verbs** (Bergmann, Moulin & Ruge 2011: 166).

- In his analysis of the *Nibelungenlied*, Jäger (2008: 141) found **no preference for modals** to occur with the mono-negative particles *en/ne*.

Previous Research

- Jäger (2008: 149) found the **bipartite negation particle** to be **less frequent** in MHG than the literature suggests

- Jäger (2008: 143-144, 150) suggests that **Middle High German** (1050-1350) was already **predominantly** a stage-III language with *niht* as the principal negator, but her corpus is too small for regional comparisons

Gaps

- **Previous analyses** are mostly **qualitative**

- Previous studies which were quantitative mostly used **descriptive statistics** [no inferential statistics]

- **Samples sizes** are usually **small** (Jäger 2008)

Research Questions

Can this variability be explained by examining internal and external factors?

RQ1: Can the **negation variant** be explained through the **examination** of **internal** and **external factors**?

RQ2: Can the **clitic variability** be explained through the examination of **internal** and **external** factors?

Variationist Sociolinguistics

- Linguistic variability is structured systematically –

  "**orderly heterogeneity**" (Weinreich et al. 1968)

- We can analyze **external** (e.g., social factors) and **internal** (linguistic)

  to examine the **conditioning of variation**

Variationist Sociolinguistics

(1) **Define the linguistic variable:** finding the alternate ways of saying 'the same thing'

> following the **principle of accountability** (Labov 1972: 188)

> circumscribing **the variable context**   (Poplack & Tagliamonte 1989: 60)

This study:

> **all functionally equivalent variants** were collected (all three stages and clitics)

> functionally invariable contexts were removed

  (e.g., *ne…noch* 'neither...nor') - cannot compare *niht..ne* with same functional equivalence

  MHG Example: *er ne dranc bier noh win* 'he drank neither beer nor wine'

Variationist Sociolinguistics

(2) **Use Rigorous Statistical Modelling** (regression modeling)

> **fixed effects** regression models were the standard in variationist analyses

> **mixed effects** regression models are the norm today

> mixed/random effect model allows you to add 'speaker'

This study:

> 'text' is added as a random/mixed effect

Methodology: Corpus

Referenzkorpus Mittelhochdeutsch (henceforth, ReM)

> consists of approximately **2.5 million words** from **approx. 400 manuscripts**

(Petran et al. 2016: 2-3)

> original manuscripts (unedited)

> the corpus provides links to the digitalized copies of the manuscripts

> took **a sample of 56 texts** (ca. 100,000 words)

Methodology: Query

- **Data Collection:**

  > Ran a search query for the lemmata "**ne**" and "**niht**" (39 texts)

- **Circumscription of variable context:**

  > Removed non-sentential negation contexts, negator of AdjP removed

- **Coding:**

  > Coded for negation type (dependent variable *[1, 2, 3]*)
  > Coded for extralinguistic factors:

  external: geography, date of composition
  internal: type of verb, clause (embedded vs main)

  > Coded for text (included as mixed/random effect)

  these are categorical not linear

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Statistical Modeling

- Ran a mixed effects multinomial logistic regression:

  Dependent: RQ1**:** Type of Negation (Stage I, Stage II, Stage III)

  RQ2: Preverbal Clitic (absence, enclitic, proclitic)

  Independent: Geography (external)

  Date (external)

  Verb (internal)

  Clause (internal)

Preliminary Results: Descriptive Statistics

Table 1. Distribution of Negation Variants

	Frequency	Percent	Valid %	Cumulat. %
Stage I	346	64.6	64.6	64.6
Stage II	165	30.8	30.8	95.3
Stage III	25	4.7	4.7	100
Total	536	100	100	

Descriptive statistics reflect the diachronic trend but show

change is not instantaenous

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Preliminary Results: Descriptive Statistics

Table 2. Crosstabulation of Type of Negation with Clause Type

		Negation Stage			
		Stage I	Stage II	Stage III	Total
Clause	main	228	65	8	301
	embedded	66	40	12	118
Total		294	105	20	419

Potential preference for Stage I in main clauses

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Preliminary Results: Descriptive Statistics

Table 3. Distributional Analysis of Negation Type

	Stage I	Stage II	Stage III	Total
main	75%	22%	3%	100%
embedded	56%	34%	10%	100%

Table 3 compares Negation Type by Clause Type out of the total number of main and embedded clauses possible.

E.g., **301** negated main clauses

228 negated by Stage I

228/301 $= 75 - $ **75%**

Preliminary Results: Descriptive Statistics

Table 3. Distributional Analysis of Negation Type

	Stage I	Stage II	Stage III	Total
main	75%	22%	3%	100%
embedded	56%	34%	10%	100%

Future suggestion (?)

More accountable would be to extract **all main and embedded clauses** regardless of whether they were negated or not and code them for negation type
(not sure…)

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Preliminary Results: Descriptive Statistics

Table 3. Distributional Analysis of Negation Type

	Stage I	Stage II	Stage III	Total
main	75%	22%	3%	100%
embedded	56%	34%	10%	100%

- **Main** clauses and **embedded** clauses typically **negated** by **Stage I and II**

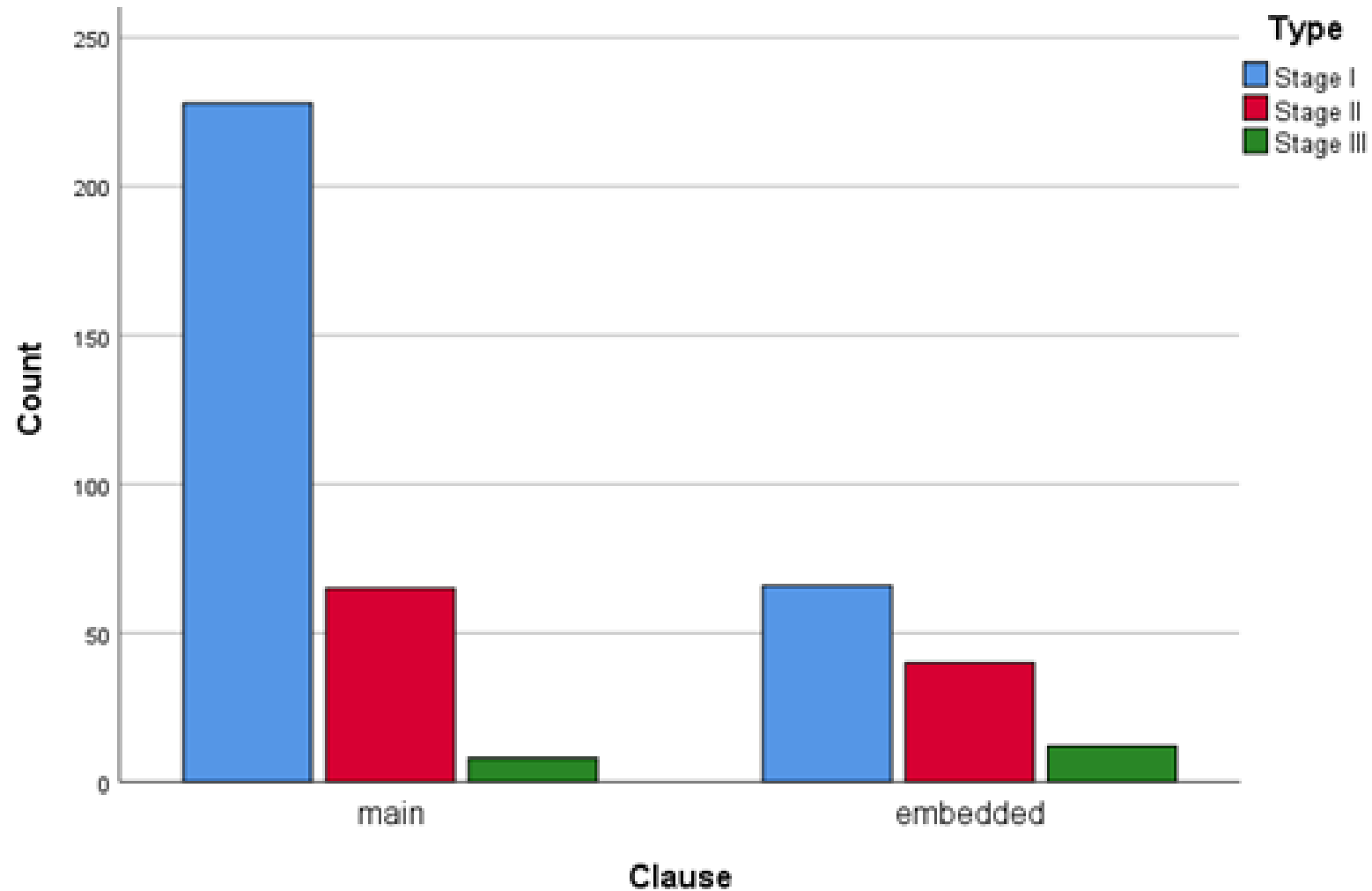- **Stage III** potentially **less frequent** in **main** clauses

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Figure 1. Negation Type by Clause Type

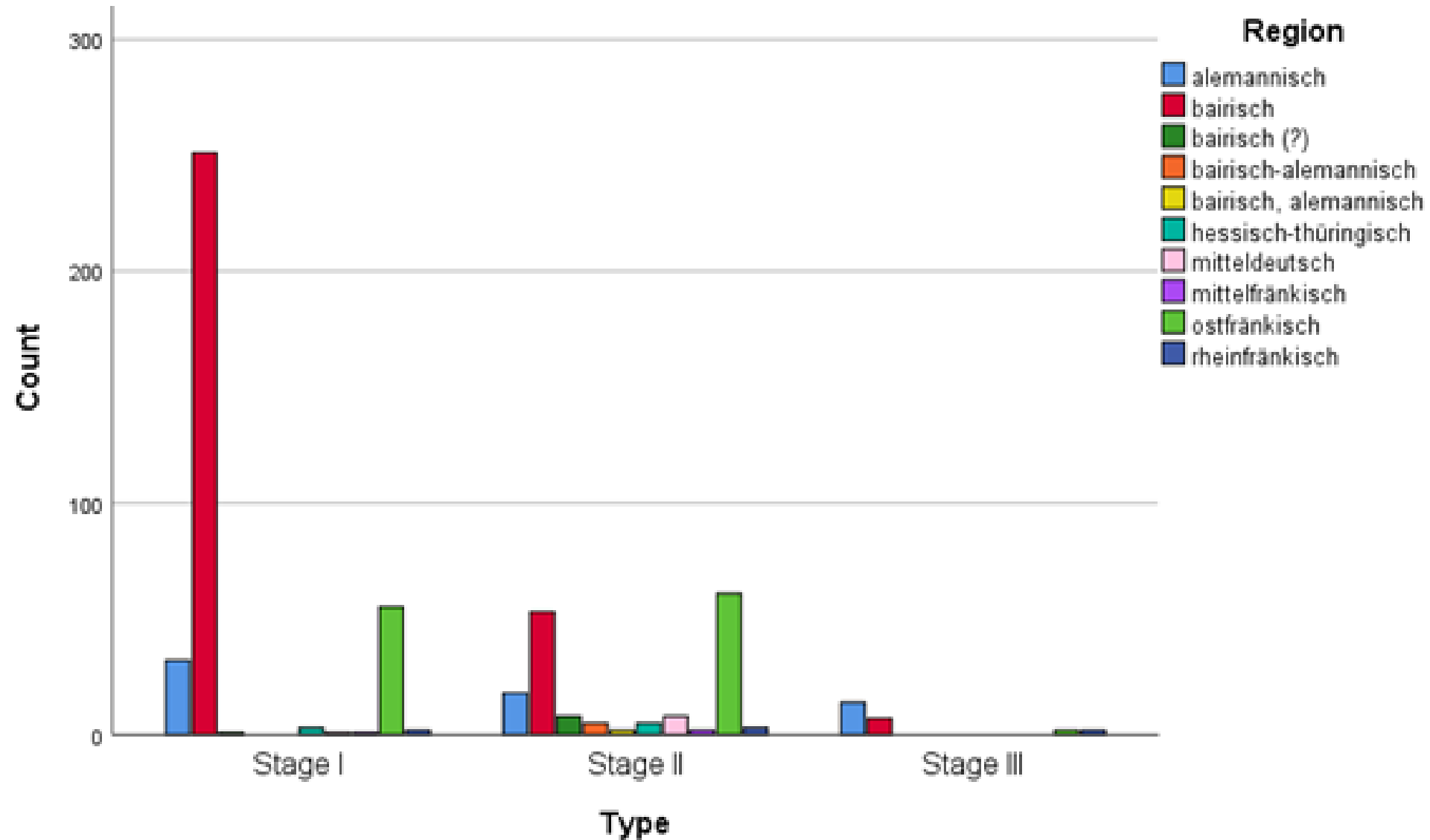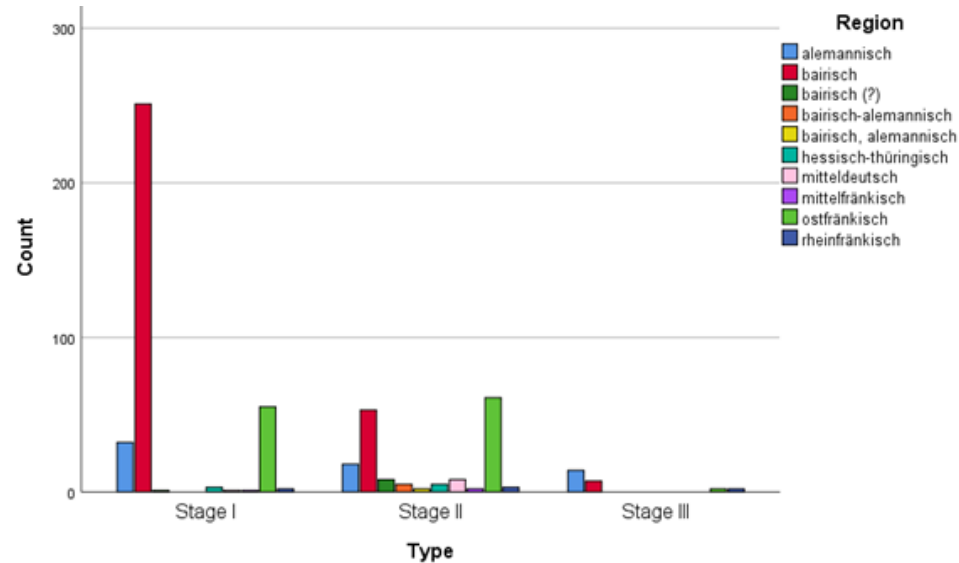# **Figure 2.** Negation Type by Region

Figure 2. Negation Type by Region

> **Potential preference** for **Stage I** in **Bavarian texts**

> **Potential** for **NO preference (Stage I, II)** for **East Franconian texts**

BUT

> Need to account for the size of the Bavarian texts

proportionally to the size of other texts

Multinomial Regression Analysis

Source	F	df1	df2	Sig.
Corrected Model ▼	0.604	52	365	.986
Clause	0.000	2	365	1.000
Verb_Type	0.000	4	365	1.000
Geography*Clause	0.324	12	365	.985
Clause*Verb_Type	1.053	4	365	.380
Geography*Clause*Verb_Type	3.123	2	365	.045

* 'text' was run as a random factor

Future Directions

- Analyze **more** texts – (currently only analyzed a small sample of the possible number of available texts)

- Include **social factors** (but little to no available sociolinguistic information)

- Run **date** as an **external factor** (might explain some of the variation with Bavarian texts)

- Potentially include zero variants (occurrence vs absence)

  ich ne weiz 'I don't know'   VS   *ich ∅ weiz* 'I know'

Tentative Conclusion

- If no predictors are found, a possible argument against "**free variation**" is that **the lack of social information** prevents one from finding structured heterogeneity even if it is present underlyingly

- As Donhauser (1996) and Elspaß & Langer (2012) have suggested, t**he traditional textbook view** of Jespersen's Cycle might **not be adequate** for the history of German

Thank you for listening!

James Stratton

jstratt@purdue.edu

Purdue University

Purdue Linguistics Program

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APPENDIX OF EXAMPLES

Examples from the Corpus: **Modal Verbs**

- ir **ne** schulit in dero chirichun sprechun (Stage I)

  'you should not speak in this church'

- er **ne** wolde **niwit** langer ledich ſitzen (Stage II)

  'he simply did not want to sit any longer'

- ih **ne** wil mich **niwit** langer ſparen (Stage II)

  'I did not want [save?] any longer'

- die **ne** wellen **niht** werden gotes kint (Stage II)

  'they did not want become God's child'

Qualitative Hypothesis:

Potential preference for Modal Verbs to be negated using Stage II in main clauses and Stage I in embedded clauses

Examples from the Corpus: **Omitted Examples**

Circumscription of the variable context

NP - n*echeinen tac* 'no day'   *nienecheinē man* 'no man'

AdjP *si wirt niet swanger*
    'she is not becoming pregnant'
    ter man ter ist niwit wise
    'the man is not wise'