

What can explain it?

The changing modals of York English

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Introduction

English Modal Auxiliaries

Modal auxiliaries form a small and well-defined syntactic class in English.

- MUST, MAY, MIGHT, SHALL, SHOULD, WILL, WOULD, CAN, COULD
(marginally: OUGHT, NEED, DARE)

United **syntactically**, **semantically**, and **morphologically**:

- **syntactically**: occur in a single high structural position
($\approx T$)
- **semantically**: express modal meanings.
- **morphologically**: lack non-finite and agreeing forms, and have irregular “past” forms.

Often seen as the **canonical** expression of modality in English.

Modals in decline

Some evidence that modals are **declining** in use, often being replaced by corresponding **semi-modals**:

- MUST > HAVE TO

(Tagliamonte and Smith, 2006; Tagliamonte and D'Arcy, 2007)

- WILL > BE GOING TO

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(And expanding SIMPLE PRESENT for future: Cowper et al., 2015, in prep.)

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Do we find a parallel change with CAN/BE ABLE TO?

No.

CAN appears to be charting a **very different course** from other modals.

A starting point

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Google Books corpus: CAN diverging from all other modals.

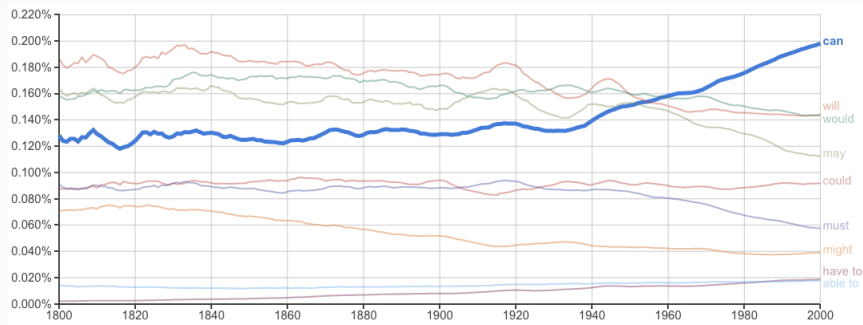


Table 1: modals and semi-modals from 1800–2000 (Michel et al., 2011)

Research questions

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- **What do the facts tell us?**

Do the changes in CAN reflect known paths of grammaticalization for deontic and epistemic modals?

Is the class of modal auxiliaries in English being reorganized, or perhaps lost?

Outline of today's talk

Introduction

The Study

Results

- Focus on dynamic modality

- Focus on epistemic modality

Discussion

- Grammaticalization

- The Modal System

Conclusions

The Study

The corpus

Analysis of the York English Corpus

(YEC: Tagliamonte, 1996-1998)

- Sociolinguistic interviews conducted in 1997
- Speakers range in age from 15–91 (Born 1906–1982)
- A variety of social, economic, and educational backgrounds represented

Extracted all tokens of modals and semi-modals expressing **possibility** (+ 60 characters preceding and following) using AntConc 3.4.3 (Anthony, 2014):

- CAN / CANNOT
- COULD
- BE ABLE TO
- MAY, MIGHT

All tokens coded for demographic properties of the speaker...

- Age
- Sex (M/F)
- Education (+/-)
- Job (blue collar, white collar, student)

...and for a range of grammatical properties.

- Subject type
- Subject animacy
- Clausal negation
- Question (question / statement / tag question / etc.)
- Modal interpretation / “flavour”
- Clause type (matrix / embedded / relative / etc.)
- Inflection (passive, progressive, perfect, other) 9/45

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Results

- Overall results
 - Use of modals by age
 - Significant interactions
 - Focus on effect of subject type: rise in **generic** subjects
- Dynamic (=ability) modality
 - Overall distribution of **CAN, COULD, BE ABLE TO**
 - Focus on effect of modal interpretation:
 - rise in **circumstantial** uses
- Epistemic modality
 - Overall distribution of **CAN, COULD, MAY, MIGHT**
 - Focus on effect of modal interpretation:
 - rise in **quantificational** uses

A caveat

Results presented here as though we are looking at a **sociolinguistic variable** (Labov, 1972).

(% CAN vs. % not-CAN)

But unlike traditional variants, modal auxiliaries are at best **semi**-overlapping in domains.

- Some meanings expressible only by some modals.
- Some syntactic contexts allow some modals but not others. (e.g. sequence of tense, counterfactuals)

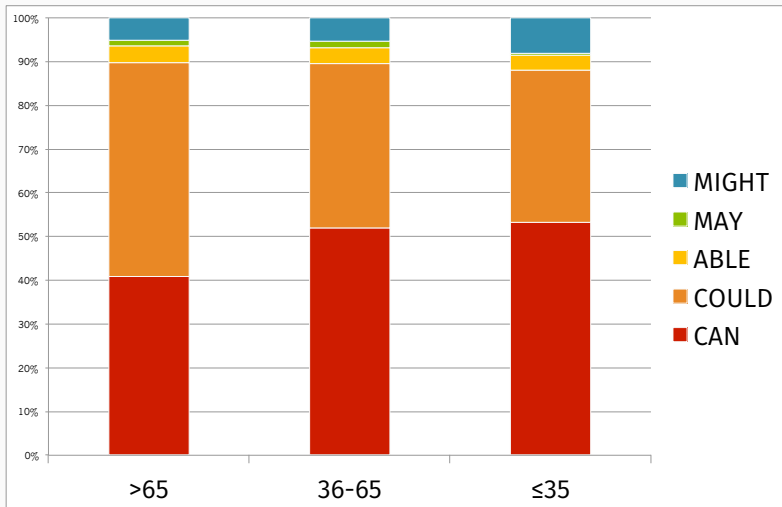
Further, not all ways of expressing semantic possibility were included. (*maybe, it is possible that*, etc.)

3875 tokens for analysis.

- 4015 tokens overall.
- Removed tag questions, and clauses followed by tags.

Tokens analyzed using Goldvarb (Sankoff et al., 2005)

Overall results: distribution of possibility modals by age



Overall results: significant interactions

Significant interactions, predicting the rate of CAN vs. all alternatives.

- Age x Sex
- Age x Subject type
- Negation x Questions
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Subject Type: 1st person / 2nd person / 3rd person / generic

- Generic *you* and non-specific / indefinite / generic *they*:
 - [Y]ou can trace all sorts of history- different things in York.
 - [P]eople you-see, **they** can 't even learn to disagree without falling out[.]

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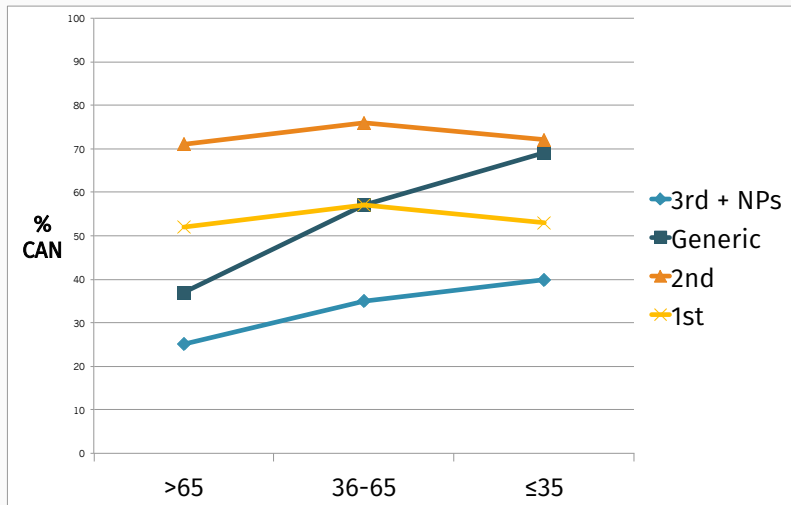
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Overall results: interaction of Age x Subject Type



Overall results: increase with generic subjects

CAN is increasing with **generic** subjects:

- *generic you*
 - But now **you** can 't even see into the river because all the trees have grown[.]
 - **[Y]ou** can trace all sorts of history- different things in York.
- *generic / indefinite / nonspecific they*
 - [P]eople you-see, **they** can 't even learn to disagree without falling out[.]

...and (to a lesser extent) with **third person** subjects.

- *referential pronouns: he, she, it, they*
- *NP/DP subjects*
 - [T]eachers can never ever work videos.

Breakdown by modal interpretation

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Overall analysis used 3 standard categories of interpretation:

- **Epistemic:** possible based on **what we know**

(1) She **might** be home.

- **Deontic:** possible based on **rules**, i.e. **permitted**

(2) You **may** have a cookie.

- **Dynamic:** possible based on **abilities** or **circumstances**

(3) She **can** walk.

(also “other”: rhetorical, fixed expressions, sufficiency modals)

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Next: Looking for patterns *within* these categories.

Results

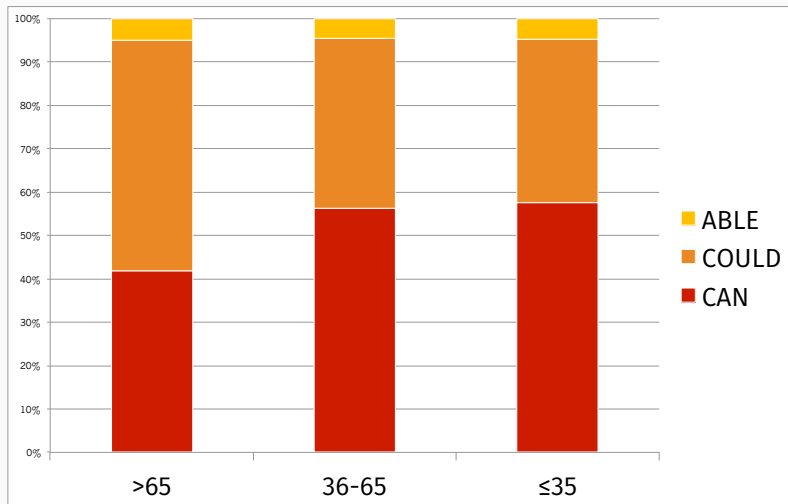
Focus on dynamic modality

Relevant forms: CAN, COULD, BE ABLE TO

Tokens: 2940

- **Physical ability:**
 - I **can** still play piano 'cos I play it up with the chapel.
- **Mental ability:**
 - And I **can** understand why they get bored.
- **Circumstantial:**
 - You **can** go to York and you can get a job at the railway.
 - They **can** basically charge what they like.
- **Desire:**
 - I **can't** listen to myself on tape.

Ability: overall distribution by age



Ability: significant interactions

- Age x Modal interpretation
- Age x Subject type
- Age x Questions
- Age x Sex

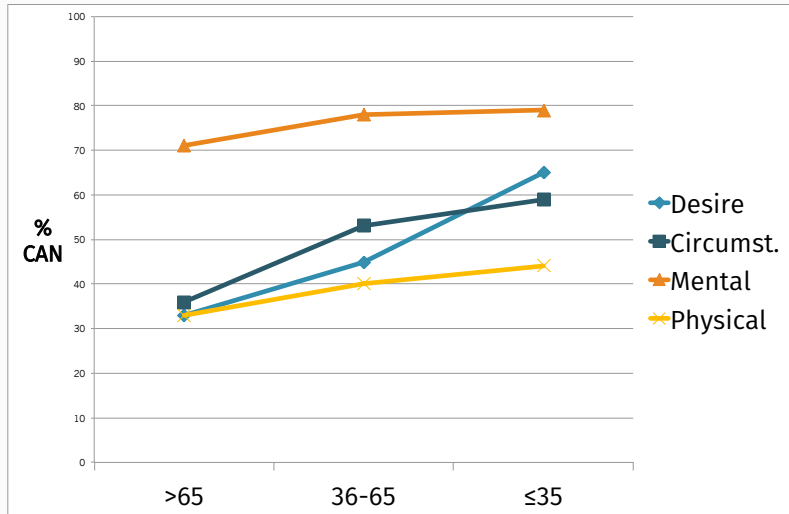
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Ability: Age x Modal interpretation



CAN increases most in **circumstantial** uses:

- **Circumstantial**
 - You **can** go to York and you can get a job at the railway.
 - They **can** basically charge what they like.
 - And of course, now she 's in York, I **can** see her any time.
 - They **can** go in the microwave, warm them up.
- Parallel increases for all other interpretive categories.
(Desire appears to increase most sharply, but only 68 tokens)

Effect of **subject type** mirrors the overall results.

Results

Epistemic

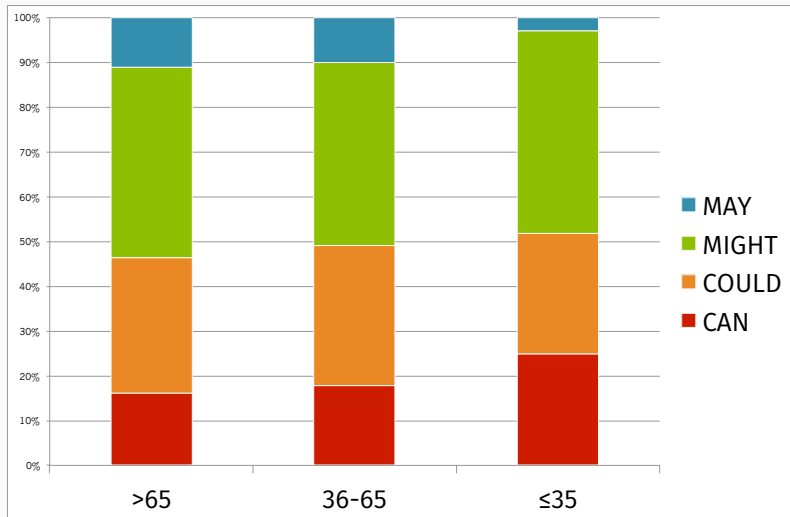
Epistemic subsystem

Relevant forms: CAN, COULD, MAY, MIGHT

Tokens: 477

- Pure epistemic:
 - It must have been murder for my mother. **Can't** have been so good for me now I come to think of it.
- Quantificational (“sometimes”):
 - [the North Sea] **can** be so rough it sort of goes along sideways
 - So that **can** be really tedious, marking. I don't like marking.
- Potential:
 - [the northern premier league] is about the best league you **can** be in.
 - But never know, **might** go back to it sometime.

Epistemic: overall distribution by age



Epistemic: significant interactions

- Age x Modal interpretation
- Age x Subject type
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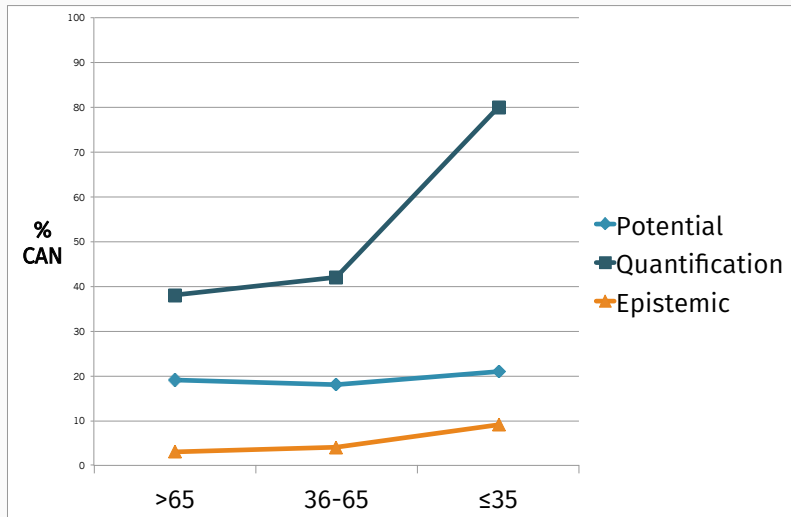
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Epistemic: Age x Modal interpretation



CAN increases most in **quantificational** uses:

- Quantificational (“sometimes”) (n = 87)
 - [the North Sea] can be so rough it sort of goes along sideways
 - So that **can** be really tedious, marking. I don ’t like marking.
 - Sometimes they’re alright but other times you **can** go and there’s nothing you fancy.
 - Yes well, overtime was available, you could do, two or three hours before or after your shift

Other interpretive categories show no significant change.

(only 11 epistemic uses of CAN in YEC overall)

Summary of results

In the York English Corpus:

- Use of CAN is **increasing** in apparent time.
- Overall: increasing with **third person** and **generic** subjects.
- Ability: increasing **circumstantial** uses
- Epistemic: increasing **quantificational** uses

Change towards more **impersonal** meanings.

Trajectory towards increased **epistemic** use, but of atypical kind (quantificational).

Discussion

Do the observed changes in CAN match known grammaticalization paths for modals?

What does this tell us about the organization of the modal system as a whole?

Discussion

Grammaticalization

Grammaticalization in modal systems

Well established trajectories of grammaticalization:

- **Ability** → **Permission**

- Confirmed here: CAN has fully displaced MAY to express permission in the YEC.
- By contrast, no evidence that BE ABLE TO is grammaticalizing.

- **Root** → **Epistemic**

(Traugott, 1989, Hopper and Traugott 1993, Bybee et al. 1994, a.o.)

- CAN not obviously moving *directly* from deontic → epistemic

A new path for CAN?

- **Ability** → **Epistemic** (Quantificational)

Explaining grammaticalization

Several different types of explanation for grammaticalization:

- **Abstraction** of meanings; loss of **thematicity**
 - Semantic “bleaching” → loss of thematic arguments
 - Well established for CAN in transition from Old English *cunnan* “to know how”
- **“Moving up the tree”**
(e.g. Roberts and Roussou, 2003; Cournane, 2015)
 - Root modality associated with **lower** position than epistemic modality (Hacquard, 2006)
 - Maps on to paths of modal change, via trends in acquisition (Cournane, 2015)
- From lower to higher **semantic types** (e.g. von Stechow, 1995)

Ability → Epistemic: Upwards Reanalysis?

CAN differs from **all** other modals in resisting epistemic interpretations *...except when negative.*

- Confirmed in YEC: only 11 epistemic uses for CAN, all negative.
 - ...we thought “This can ’t be it, this can’t be it.”
 - ...to be on the receiving end of that, you-know, it can’t be comfortable for them at all.
- But also uncovers a separate class of **quantificational** epistemic uses (Brennan, 1997), which are increasing sharply for CAN:
 - the North-Sea [...] it can be so rough it sort-of goes along sideways
 - some of the service can be a big dodgy sometimes
 - They can be quite expensive, can’t they?

Ability → Circumstantial: Loss of Thematicity

The **impersonalization** of CAN is **ongoing** in the YEC:

- Ability subsystem: increase in **Circumstantial** meanings
 - Circumstantial meanings reflect what is possible based on **external facts**, not the abilities of any specific person.
 - You **can** go to York and you can get a job at the railway.
 - Not subject-oriented in the same way physical/mental ability are: **impersonal**.
- Overall: increase in CAN with **Generic** subjects
 - Reflects same trend: without syntactic reanalysis, uses of CAN that are not about the abilities of any specific person.

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Do the observed changes in CAN match known grammaticalization paths for modals?

Yes.

But with complications:

- Not all changes are obviously part of upwards reanalysis.
- Development of epistemic meanings, but of an unusual type.

Discussion

The Modal System

The exceptionality of CAN

Among modals, CAN has long been **exceptional**:

- **Semantically**

- CAN is the only **dynamic** modal, and lagged behind other modals in the development of deontic and epistemic uses.

- **Morphosyntactically**

- CAN is the only modal with a transparent past tense equivalent (COULD)
 - WOULD is past tense, but no longer means “was going to”
 - SHOULD not transparently past tense (SHALL in decline)
- CANNOT is the only non-contracted negative form.
- CAN exceptionally lacks so-called “British *do*” in the YEC
 - But if I wanted to come home in the evening I **could do**.

From exceptionality to a split?

The current study adds another exceptional property:

- While other modals are in decline, the frequency of CAN is **increasing**.

What does this tell us about the organization of the modal system as a whole?

An intriguing possibility: CAN's marginal status in the modal system as a whole is preserving it from an otherwise general decline in the system.

Speculation: CAN is increasingly **not treated as part of the modal auxiliary system**.

Conclusions

Conclusions and Future Directions

- CAN is **not** declining in favour of BE ABLE TO.
...despite what we might expect based on changes in MUST and WILL.
- Instead CAN is **increasing** in apparent time. Focus today:
 - Increase with **generic** subjects
 - Increase in **circumstantial** uses
 - Increase in **quantificational** uses
- Overall, these reflect known trends in the grammaticalization of modals, but with some new detail.
- Suggesting a split in the English modal system as a whole.

Thank you!

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