Indeterminacy and the interpretation patterns for modal

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Interpreting Modal Utterances in English and Swedish

Modal interpretation
Modal Indeterminacy
Usage-based approach to language study
The data
The method
The results
Summary
You must go to the doctor.

You must have a fever.
De kan väl åka ut till Marsvinsholm när de får Marsvinsholm when they get-PRES tid? (HM)

‘They can drive out to Marsvinsholm when they have time, can’t they?’
"The recurring problem for linguistic analyses of the modals has been the lack of a principled account of how we arrive at an explicit interpretation of a sentence containing a modal" (Klinge 1993: 318).
Usage-Based Approach to Language Study

“The model of language proposed by Cognitive Linguists is so completely simple that it places the emphasis squarely on method and data. Rather than simplifying the object of study by carving off its complexities with hypothetical modules of language structure, it lands the linguist in the midst of a chaotic phenomenon that is the nature of all socially structured systems” (Glynn 2010: 2).
Usage-Based Approach to Language Study

Meaning as “a process of sense creation” (Geeraerts 1993: 260)

Empirical data

Multifactorial feature analysis
The Data

- Ca 3,000 examples of utterances containing *must*, *may*, *måste* and *kan*
- The English-Swedish Parallel Corpus
- Originals only
- Both fiction and non-fiction
- Co-text of 5 sentences before and after
The Questions

(a) What cognitive-functional features are present in the collected data?

(b) Is there a systematic relationship between the presence of these features and the modal interpretation?
21 nominal attributes for a data mining analysis:

- **Interpretation**: epistemic/deontic/dynamic/indeterminate
- **Adverbial particle**: yes/no
- **Subject**: animate/specific/generic/introductory
- **Control**: yes/no
- **Person**: 1\textsuperscript{st}/2\textsuperscript{nd}/3\textsuperscript{rd}
- **Verb**: event/state
- **Aspect**: simple/perfective/progressive
- **Time reference for modality**: past/present/future
- **Time reference for proposition**: ant/sim/post
- **Situation**: telic/atelic
- **Negation**: of modality/of proposition
- **Voice**: active/passive
- **Condition**: explicit/implicit
- **Type of utterance**: assertive/non-assertive/exclamation

The Method
The Result: *Must and Måste*

- 1,461 examples
- 1,388 examples, or 95% of the data, are correctly predicted
- 73 examples, or 5% of the data, are incorrectly predicted
The Result:

*Must and Måste*

--- Confusion Matrix ---

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The Results: *May*

- 361 examples are correctly predicted.
- 280 examples, or 77.6% of the data, are correctly predicted.
- 81 examples, or 22.4% of the data, are incorrectly predicted.
The Results: *May*

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The Results:

*Kan*

1,001 examples

662 examples, or 66.1% of the data, are correctly predicted

339 examples, or 33.9% of the data, are incorrectly predicted
The Results: Kan

--- Confusion Matrix ---

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Semantic structures for the modals *must*, *måste* and *may* successfully revealed through multifactorial analysis

No discernible patternning in indeterminate utterances
References


