

MODAL VERBS IN COMPLEMENT CLAUSES – INTERPRETABLE OR NOT?

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This paper is concerned with modal markers in complement clauses under certain matrix predicates. It discusses two approaches, one by Fabricius-Hansen and Stechow 1982, the other by Geurts and Huitink 2006, and examines whether overt modal auxiliaries in complement clauses are interpreted or not. This depends on the complement type: Finite complements are marked modally either overtly or covertly. Infinitival complements are inherently modal and do not allow overt deontic modals.

1. Introduction

Comparing (1) and (2), we find that both have the same meaning.

- (1) Er zwingt sie dazu, dass sie arbeitet.
He forces her PART that she works.
- (2) Er zwingt sie dazu, dass sie arbeiten muss.
He forces her PART that she work-INF must.

This means that the modal verb in (2) does not contribute any additional meaning to the clause. How are these modal verbs distributed and why do they occur?

The distribution of modals in complement clauses depends on the complement type. Finite complement clauses will be investigated first, and two approaches concerned with "superfluous" modal auxiliaries will be examined. Second, the approaches will be examined with regard to infinitival complements.

2. Finite complement clauses

In the preferred reading, both complement clauses in (1) and (2) are modally marked. The question is where the modality comes from and why absence and presence of the modal lead to the same meaning of the complement clause. Two answers have been given: Either we assume a (covert) presence of a modal in both cases or we assume the complement clause to be inherently modal and consider the overt modal in (2) as an agreement phenomenon. The first position is associated with an early paper by Fabricius-Hansen and Stechow 1982 in which the authors show that subject clauses

in certain contexts must be interpreted modally, no matter whether they contain an overt modal or not.

The second position could be argued for in the light of modal concord (Geurts and Huitink 2006). In their view, the modal verb is not interpreted because it merely doubles the modality of the embedded clause.

2.1. Transmitted modals

According to Fabricius-Hansen and Stechow 1982, the modal has to be inserted when not present in order to assure interpretability. They argue that (3) and (4) are semantic equivalents. As a consequence, the interpretation of (4) should be *It is possible that it is possible that Ede becomes a professor*, which is not the case. One of the modal markers must not be interpreted – but which of them is redundant?

- (3) Dass Ede Professor wird, ist eine Möglichkeit.
That Ede a professor becomes, is a possibility.
- (4) Dass Ede Professor werden könnte, ist eine Möglichkeit.
That Ede a professor become-INF can, is a possibility.

The minimal pair in (5) and (6) can clarify this.

- (5) Dass Ede Professor werden könnte, ist eine erfreuliche Möglichkeit.
That Ede a professor become-INF could, is a pleasing possibility.
- (6) Dass Ede Professor werden könnte, ist erfreulich.
That Ede a professor become-INF could, is pleasing.

Again, both clauses are semantically equivalent. As there is no modality marker in the matrix clause in (6), it must be the modality marker in the complement which is relevant. Fabricius-Hansen and Stechow 1982 conclude that the complement clause has to be interpreted modally in all similar cases. When there is no overt modal it has to be "transmitted" (p. 189) from the matrix clause into the complement for a correct interpretation.

2.2. Modal concord

Geurts and Huitink 2006 suggested that apart from negative concord we can assume modal concord as well. A good example is modal concord of adverbials and auxiliaries as in (7). A cumulative meaning as in (8) does not seem to be intended, so the doubling in (7) must be a concord effect.

- (7) You may possibly have read my little monograph upon the subject.
- (8) It is possible that it is possible that you have read my little monograph upon the subject.

Applying this idea to complement clauses this means that the complement clause itself is modally marked and that the modal merely indicates modal agreement. When interpreting the sentence, the modal has to be ignored because modality is present covertly and independently of the modal. Considering (9) and (10), it could be triggered by the matrix predicate with regard to modal type as well as quantificational force.

(9) Er ermöglicht ihr, dass sie arbeiten kann.
 He enables her that she work-INF can.
 (10) Er befiehlt ihr, dass sie arbeiten soll.
 He orders her that she work-INF should.

Considering only finite complement clauses, both positions are equally well. The complement clause is to be interpreted modally and it does not matter in this case whether we transmit modality via a covert modal or assume inherent modality because of an agreeing element. A finite complement clause can be modalized covertly.

3. Infinitival complement clauses

Let us turn to infinitive complements. Both examples are semantically equivalent. Under the modal transition view, the modal in (12) has to be interpreted. Under the modal concord view, it must *not* be interpreted.

(11) Er zwingt sie zu arbeiten.
 He forces her to work.
 (12) Er zwingt sie, arbeiten zu müssen.
 He forces her work-INF to must.

To decide which view is right, let us have a look at infinitival complement clauses embedded under a deontic predicate:

(13) Er befiehlt ihr zu arbeiten.
 He commands her to work.
 (14) *Er befiehlt ihr arbeiten zu sollen.
 He commands her work-INF to should.

(14) shows that the modal *is* interpreted, leading to ungrammaticality. If considering modal auxiliaries as modal concord markers, (14) should be grammatical analogous to (12).¹ The ungrammaticality of (14) is a strong argument against the modal concord approach in this case.

Why is (14) not well-formed? Castañeda 1970 shows that iteration of modality is not allowed in the case of "sollen" while it is possible – even though redundant – for other modality types (cf. (15) and (16)).

¹ Note that in the finite complement in (10) the deontic auxiliary is grammatical.

(15) *Er soll arbeiten sollen.
He should work-INF should-INF.
(16) Er muss arbeiten müssen.
He must work-INF must-INF.

Hence, the ungrammaticality of (14) is evidence of an underlying modality in the infinite complement clause. The modal transition approach is not satisfactory either because the modal is not allowed to mark the modality of the complement clause. Non-deontic modals can be added but they are redundant. This redundancy, though, must be of another type than the one of concord elements because it does not contribute semantic content although the modal is interpreted.

4. Conclusion

Concerning modal auxiliaries in complements of certain predicates, we have to distinguish between finite and infinite complement clauses. In finite clauses, modality can be covert or overt, so both approaches presented in the paper cope with the facts.

In infinitival complements, modality is present covertly. When we assume that deontic and non-deontic modality can be treated similarly², modal auxiliaries in infinitival complements cannot be modal concord elements. The modal transition approach does not provide better results because modal auxiliaries should be grammatical for all modality types which is not the case.

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²Another way out is to distinguish between deontic and other modality types. But Geurts and Huitink 2006 explicitly include deontic modality which is correct for concord between adverbials and deontic auxiliaries (see above).