

DOKTORI ÉRTEKEZÉS TÉZISEI

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A SEMANTIC APPROACH TO MOOD CHOICE IN COMPLEMENT CLAUSES WITH SPECIAL REFERENCE TO HUNGARIAN



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1. Aims and objectives

The fundamental purpose of the dissertation is to investigate mood choice and mood variation in complement clauses in Hungarian and to argue that semantic factors play a crucial role in mood selection. This stand is well-represented by various authors in relevant literature on mood choice in several languages. However, apart from a pioneering study on mood choice in Hungarian (cf. Farkas 1992b), previous works related to Hungarian mood phenomena do not provide a satisfying treatment of mood choice in complement clauses. The present analysis focusses on the indicative/non-indicative opposition, where the latter category includes the subjunctive, the imperative and the conditional. However, since mood choice always means rejection of all the other possibilities, this cannot be done without taking into account the other individual moods as well.

Traditionally the notion of mood is restricted to a category expressed in verbal morphology; as Palmer (1986) observes, mood is formally a morphosyntactic category of the verb, but it has certain semantic functions that affect the meaning of the whole sentence. It has also been widely acknowledged in the literature that the meaning of the matrix predicate plays an important part in determining the mood of the complement clause. The aim of the dissertation is to explore various semantic parameters related to the embedding predicate that may have an effect upon mood choice in complement clauses.

The phenomena addressed can be summarized in the tables below, which represent mood choice under various groups of predicates both in affirmative and negated matrix clauses. The classification of predicates presented here is based on the work of Terrell and Hooper (1974), Hooper (1975) and Haverkate's (2002) paper on mood distribution in Spanish. Table 1 and Table 2 show indicative and non-indicative licensing in complement clauses in Hungarian. Rows representing the mood selection properties of assertives, epistemics and fiction verbs are marked since, as we will see later, these groups exhibit rather interesting behaviour with respect to mood choice, i.e. under matrix negation mood variation occurs. Consider the following examples:

- (1) Peti nem hiszi, hogy Mari
 Peti not believes that Mari
 meggyógyul/meggyógyulna/*meggyógyuljon holnap-ra.
 get well.PRES.IND/COND/*SUBJ tomorrow-BY
 ‘Peti does not believe that Mari will get well by tomorrow.’
- (2) Peti nem állítja, hogy tegnap mozi-ban volt/lett volna.
 Peti NEG claims that yesterday cinema-IN be.PAST.IND/COND
 ‘Peti doesn’t claim that he had gone to the cinema yesterday.’
- (3) Peti nem is álmodott ar-ról, hogy eljut/eljusson Ameriká-ba.
 Peti NEG even dreamt that-ABOUT that go.IND/SUBJ America-TO
 ‘Peti has never dreamt about going to America.’

The data given in Table 1 and 2 makes it clear that the traditional realis/irrealis view of mood choice – namely that the indicative is licensed in clauses representing reality, while non-indicative moods are restricted to non-realis clauses (cf. Klemm 1931; Tompa 1962; Pataki 1984) – does not explain mood choice under predicates belonging to groups 3, 4 and 5: the predicates in question do not embed clauses describing real state of affairs, however, in case of affirmative matrix clauses the indicative is licensed in their subordinate clause. Moreover, under negated matrix predicates often mood variation occurs, as it is indicated by examples (1) – (3) above.

Matrix predicates	Example	Affirmative	Negative
1. True factives	<i>örül</i> ‘be glad’	+	+
2. Semifactives	<i>emlékszik</i> ‘remember’	+	+
3. Epistemics	<i>hisz</i> ‘believe’	+	+
4. Assertives	<i>mond</i> ‘say’	+	+
5. Fiction verbs	<i>álmodik</i> ‘dream’	+	+
6. Directives	<i>parancsol</i> ‘order’	-	-
7. Permissives	<i>megenged</i> ‘allow’	-	-
8. Purposives	<i>törekszik</i> ‘strive’	-	-
9. Desideratives	<i>kíván</i> ‘wish’	-	-

Table 1 – Indicative licensing in complement clauses

Matrix predicates	Example	Affirmative	Negative
1. True factives	<i>örül</i> ‘be glad’	-	-
2. Semifactives	<i>emlékszik</i> ‘remember’	-	+?
3. Epistemics	<i>hisz</i> ‘believe’	-	+
4. Assertives	<i>mond</i> ‘say’	-	+
5. Fiction verbs	<i>álmodik</i> ‘dream’	-	+
6. Directives	<i>parancsol</i> ‘order’	+	+
7. Permissives	<i>megenged</i> ‘allow’	+	+
8. Purposives	<i>törekszik</i> ‘strive’	+	+
9. Desideratives	<i>kíván</i> ‘wish’	+	+

Table 2 – Non-indicative licensing in complement clauses

Hence, the following *questions* arise:

- (i) What kinds of factors influence mood choice in complement clauses?
- (ii) How can we explain the effect of matrix negation upon mood choice?

The fundamental aim of the dissertation was to address these questions.

2. Methods

After introducing the category of mood (notional mood vs. grammatical mood) and providing crosslinguistic data about the syntactic distribution of mood, the dissertation gives a critical overview of earlier approaches on mood choice and mood variation, in each case focussing on the question whether the given theory can adequately account for mood phenomena in Hungarian. As it turns out, the analyses based on various classifications of matrix predicates, the traditional realis/irrealis opposition or direction of fit are not entirely satisfying when applied to Hungarian data. As opposed to that, the approach exploring the relation between mood and modality – which assumes a Stalnakerian model of conversation (Stalnaker 1979, 2002) – proves to be fruitful. Within that framework two hypotheses are presented investigating the relation between various semantic characteristics of the matrix predicate and the mood selected in the embedded clause.

The first hypothesis about indicative licensing is based on the notion of veridicality (Giannakidou 1998).

Definition 1: veridicality

Let $c = \langle \text{common ground: } P, \text{ context set: } C(P), M, s, h, w_0, f, \dots \rangle$ be a context.

- (i) A monadic propositional operator F is **veridical** just in case $F(p) \rightarrow p$ is logically valid.
- (ii) A monadic propositional operator G is **relative veridical** if and only if it holds that $[[G(p)]]_c = 1 \rightarrow [[p]] = 1$ in some epistemic model $M(x) \in c$.

Epistemic models are: belief models, dream models, models of reported conversation, and nothing else.

(iv) Monadic propositional operators that do not satisfy (i) or (ii) are **nonveridical**.

True factive predicates and semifactives are typical veridical operators, epistemics, assertives and fiction verbs are relative veridical, while for instance directives and desideratives are nonveridical operators, since they do not entail the truth of their embedded proposition.

The first hypothesis states that veridicality is an essential factor that influences mood selection in Hungarian complement clauses.

Hypothesis 1: indicative licensing

- (i) the indicative is licensed under veridical and relative veridical predicates
- (ii) the indicative is never licensed under nonveridical predicates

Under affirmative matrices the hypothesis accurately predicts the mood of the complement. Thus, we have gained natural classes of predicates with respect to indicative-licensing that can correctly capture the mood selecting properties of the matrices. The classes in question are the following:

Class 1: veridicals: true factives and semifactives

Class 2: relative veridicals: epistemics, assertives and fiction verbs

Class 3: nonveridicals: directives, permissives, purposives and desideratives

Moreover, if we consider data about discourse anaphora (cf. Roberts 1989, 1997; Farkas 1992a) independent evidence is provided to differentiate the classes above. In the case of the elements of Class 1, *veridicals*, discourse anaphora is always possible:

- (4) Peti örül, hogy Mari vett egy ház-at_i.
 Peti is glad that Mari buy.PAST.IND a house-ACC
 A ház_i szép és nagy.
 the house beautiful and big.
 ‘Peti is glad that Mari bought a house. The house is beautiful and big.’

Turning to relative veridicals (Class 2) we find that discourse anaphora is not as straightforward as in the case of veridicals, but the construction can be rescued somehow (accommodation, iterating the matrix predicate):

- (5) Peti az-t mondta, hogy Mari vett egy ház-at_i.
 Peti it-ACC say.PAST that Mari buy.PAST.IND a house-ACC
 ‘Peti said that Mary had bought a house.’
 (5) a. A ház_i szép és nagy.
 the house beautiful and big
 ‘The house is beautiful and big.’
 (5) b. Peti az-t is mondta, hogy a ház_i szép.
 Peti it-ACC also say.PAST that the house beautiful
 ‘Peti also said that the house is beautiful.’

Nonveridical predicates (Class 3) behave quite differently, an explicit modal or an opacifying predicate is required to be present in the second utterance in order to establish the anaphoric relation, otherwise the construction is not acceptable.

- (6) Peti utasította Mari-t, hogy írjon egy esszé-t.
 Peti order.PAST Mari-ACC that write.SUBJ a essay-ACC
 ‘Peti ordered Mari to write a composition.’
- (6) a. #Az esszé_i öt oldalas lesz.
 the essay five pages will be.IND
 ‘The composition will be of five pages.’
- (6) b. Az esszé-nek_i öt oldalas-nak kell len-ni-e.
 the essay-DAT five pages-DAT must be-INF-3SG
 ‘The essay will have to be of five pages.’

Hence, the first question has been answered appropriately, Hypothesis 1 accounts for the phenomena depicted by the affirmative columns of Tables 1 and 2.

Similar results can be obtained adopting Farkas’s study of mood choice (cf. Farkas 2003) – which is outlined in an OT framework – to Hungarian. The analysis is concerned only with mood choice under affirmative matrices, however, it is extremely appealing, since crosslinguistic differences with respect to the distribution of moods can be captured straightforwardly, due to the different rankings of the constraints. More specifically, mood distribution both in Romance languages and in Hungarian can be motivated relying on various CCP characteristics of complement clauses (Heim 1992).

The second question concerned the issue of matrix negation. The first hypothesis can predict the mood selected under negated matrices only in the case of true factive and nonveridical predicates (directives, permissives, purposives and desideratives). As it was pointed out above, matrix negation may influence the mood of the embedded clause in the case of epistemics, assertives and fiction verbs. This phenomenon cannot be explained relying on the notion of veridicality only, since these predicates do not differ with respect to veridicality. Hypothesis 2 examines the relation between mood choice and modality assuming Kratzer’s theory of modality (Kratzer 1981, 1991).

In this framework two functions are essential for the interpretation of modalised sentences besides the force of the modal operator: the modal base and the ordering source. These are the following:

Definition 2:

- (i) the **modal base**, $m: W \rightarrow P(P(W))$
 the modal base determines the set of worlds where all propositions of $m(w)$ are true: $\cap m(w)$. This set of worlds is called the **derived context set**.
- (ii) the **ordering source**, $o: W \rightarrow P(P(W))$
 the ordering source induces an ordering on $\cap m(w)$, as a result, only those worlds that are closest to the ideal given by the ordering source will be in the domain of the modal operator.

Giorgi and Pianesi (1997) differentiate three kinds of modal bases in their study of Italian (assuming a Stalnakerian framework):

Definition 3:

given a common ground P and its context set $C(P)$ a modal base m is

- (i) **totally realistic** if and only if $m(w) = P$ for every $w \in C(P)$
 (ii) **realistic** if and only if $m(w) \subseteq P$ for every $w \in C(P)$
 (iii) **weakly realistic** if and only if $m(w) \cap P \neq \emptyset$ for every $w \in C(P)$.

Besides these, we also have to introduce non-realistic modal bases:

Definition 4:

Given a common ground P and its context set $C(P)$, a modal base m is non-realistic if and only if $m(w) \cap P = \emptyset$ for at least one $w \in C(P)$.

Based on the notions above the second hypothesis about mood choice is the following:

Hypothesis 2: non-indicative licensing

- (i) predicates with a nonempty ordering source license non-indicative moods
- (ii) in the case of predicates with an empty ordering source the reality of the modal base is decisive:
 - totally realistic and realistic modal bases: non-indicative moods are not allowed
 - weakly realistic modal bases: there is a tendency for non-indicative moods besides the indicative
 - non-realistic modal bases: mostly non-indicative moods are licensed

The first part of the second hypothesis predicts mood choice in complement clauses of nonveridical predicates both under affirmative and negated matrices in a satisfactory manner, non-indicative moods are expected when the ordering source is not empty. In the case of predicates with an empty ordering source mood choice under true factive predicates has been accounted for properly: the indicative is licensed in both kinds of contexts. However, mood choice under negated semifactive and relative veridical predicates has been explained only partially, it was shown that the nature of the modal base is a crucial factor in determining mood choice. However, the predictions here are less clear, and the observed tendency is somewhat vague.

3. Results

The essential results of the dissertation are listed below:

1. Based on the criteria suggested by Quer (1998) to differentiate the intensional and the polarity subjunctive in Catalan it is argued that there is an important difference between the subjunctive and the conditional in Hungarian, i.e. the former is lexically selected, whereas the latter is operator licensed, namely the conditional is licensed by an inherent or explicit negative feature in the matrix clause.
2. The distribution of the indicative and the subjunctive in Spanish can be motivated on the basis of the following:
 - the indicative is licensed in asserted complements, for instance under assertive predicates
 - there are two kinds of non-assertiveness that result in selecting the subjunctive:
 - (i) the subjunctive surfaces in presupposed complements
 - (ii) the subjunctive appears in the complements of directive and desiderative verbs, where the speaker is not committed to the truth of the complement.
 Providing a more detailed analysis of the indicative and subjunctive opposition in Spanish is the task of future research.
3. There is a remarkable relation between the veridicality of matrix predicates (Giannakidou 1998) and mood selection under affirmative matrices:
 - the indicative is licensed under veridical and relative veridical predicates
 - the indicative is never licensed under nonveridical predicates.

Accordingly, three natural classes of predicates can be distinguished with respect to mood choice, moreover, there is independent evidence motivating the introduction of the classes in question.

4. Under matrix predicates with a nonempty ordering source non-indicative moods are selected consistently (in the case of both affirmative and negated matrices).

5. In the case of predicates with an empty ordering source another factor becomes relevant, i.e. the degree of reality of the modal base influences mood choice to a remarkable extent:

- true factives have totally realistic modal bases, and accordingly, the indicative is licensed both under affirmative and negated matrices.

- modal bases of semifactives are also totally realistic, however, that may change under matrix negation, and the following relation holds:

when the conditional is licensed under a negated semifactive, factivity is lost. As opposed to that, indicative licensing is compatible both with preserving and losing factivity.

- within the group of epistemics, mood choice depends on the degree of reality of the modal base, in other words on the compatibility of those worlds where the embedded proposition is true with the actual world. Compatibility can be defined with the help of a partial ordering:

Definition 5:

Let $A \subseteq w_a$ be a set of propositions in the actual world ($w_a \in W$), this set induces a partial ordering $\leq$ on the derived context set of the speech act such that $\forall w, w': w \leq w'$ if and only if $\{p: p \in A \text{ and } w' \in p\} \subseteq \{p: p \in A \text{ and } w \in p\}$.

Thus, a world w is at least as compatible with a set of propositions in the actual world as a world w' if and only if all propositions of the given set of propositions, which are true in w' are true in w as well. The indicative is licensed when the worlds relevant to the interpretation are compatible with the actual world; while non-indicative moods can be related to less compatible worlds.

- modal bases of assertives are realistic, hence, the indicative is expected in subordinate clauses.

- modal bases of fiction predicates are non-realistic, however, such predicates under affirmative matrices license the indicative in their embedded clauses thereby refuting the second hypothesis. Thus, fiction predicates are problematic for the present analysis.

6. In an optimality theory framework mood choice in Hungarian can be predicted under the hypothesis that the constraints are ranked as follows (Farkas 2003):

*NON-IND/+Decided » *IND/-Assert,

where relevant characteristics of complements are the type of CCP characterising them:

- a complement is + Assert if and only if its CCP is assertive

- a complement φ with propositional content p is +Decided if and only if

$C(P) \subset p$ or $C(P) \cap p = \emptyset$.

Accordingly, the constraints can be read as:

- *IND/-Assert: do not use the indicative in a complement that is -Assert.

- *NON-IND/+Decided: do not use non-indicative moods in a complement that is +Decided.

Mood choice under various classes of matrix predicates is given by the tableaux below:

Factives/Semifactives	*NON-IND/+Decided	*IND/-Assert
φ -Assert, +Decided: IND		*
-Assert, +Decided: NON-IND	*!	

Epistemics/Assertives/Fiction predicates	*NON-IND/+Decided	*IND/–Assert
☞+Assert, +Decided: IND		
+Assert, +Decided: NON-IND	*!	

Directives/Permissives/Purposives/ Desideratives	*NON-IND/+Decided	*IND/–Assert
–Assert, –Decided: IND		*!
☞–Assert, – Decided: NON-IND		

7. The results of an empirical study support the claim that the subjunctive proper and the imperative need to be distinguished in Hungarian, these are individual moods. The statistical analysis partly confirmed the hypothesis stating that semantic factors determine the distribution of the moods in question. Namely, the imperative is licensed in clauses expressing strong manipulation, while the subjunctive proper in clauses designating weak manipulation. Weak and strong manipulation can be characterised by the following properties:

strong manipulation	weak manipulation
future oriented (posterior)	
non-implicative	
strong deontic force	weak deontic force
directly manipulative	indirectly manipulative
the outcome is always possible	the outcome is not always possible

Table 3 – Weak and strong manipulation

8. On the whole it has been proved that mood distribution in Hungarian complement clauses can be given a semantic characterisation. However, the analysis presented above concentrated on the indicative/non-indicative opposition. It is left for future research to provide a detailed analysis of the individual moods, and to extend the observation to complement clauses that are not lexically selected.

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