ON A SURFACE STRUCTURE CONSTRAINT IN HUNGARIAN

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This paper was read at the first annual conference of the New England Linguistic Society (now known as the Northeastern Linguistic Society) in November 1970, at M.I.T.; it appeared in report no. 3 of the Language Research Foundation, February 1971. It presents a strong contender for the title of the clearest known case of an output constraint and one of the most striking examples of how a morphological idiosyncrasy, because of its interaction with an output constraint, can be reflected in bizarre syntactic facts. Further work on the subject matter of this constraint, the definite-indefinite distinction in Hungarian conjugation, is presented in Szamosi (1974).

This paper deals with the verb-object agreement rule and the wh-movement rule in Hungarian.* The results of the interaction of these rules suggest the conclusion that there exists

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a surface structure constraint that restricts the cooccurence of noun phrases and verbs in a clause. It is this constraint that renders some expressions ungrammatical.

First, some facts: Hungarian transitive verbs have two forms of conjugation. One, the <u>indefinite conjugation</u>, is used for intransitive verbs: verbs without an object, or i.e., a noun with an indefinite article egy (a, one), plurals without article, etc. This conjugation is also used for intransitive verbs; verbs without an object, or with an object in a nonaccusative case. The other, the <u>definite conjugation</u>, is used with syntactically definite <u>direct objects</u>, i.e., with the definite article a, az ("the"), with possessive forms, proper names, etc. Thus,

- (1) a. Akart egy könyvet. He wanted $_{Ind}$ a book $_{Acc}$ He wanted a book.
 - b. Akarta a könyvet. He wanted $_{Def}$ the $_{Acc}$ He wanted the book.
 - c. *Akarta egy könyvet. He wanted Def a book Acc
 - d. *Akart a könyvet. He wanted $_{Ind}$ the book $_{Acc}$

It is reasonable to suppose, then, that there exists a rule of verb-object agreement in Hungarian. The exact mechanics of the rule will not concern us here.

Sentential (direct object) complements are syntactically definite. That is, a verb that has a tensed *that-clause* as its direct object, is definite:

- (2) a. János akarta, hogy (el)hozzak egy könyvet. 1 John wanted Def that I bring Ind a book Acc

 John wanted me to bring a book.

In ordinary relative clauses, where the relativized NP is a direct object (Accusative), 2 the verb always shows up in

its indefinite form, regardless of the definiteness of the head noun.

- (3) a. Egy könyv amit akart.
 - A book which he wanted Ind

A book which he wanted.

b. A könyv amit akart.

The book which he wanted Ind

The book which he wanted.

c. *Eqy könyv amit akarta.

he wanted Def

d. *A könyv amit akarta.

he wanted Def

Similarly, in wh-questions where the questioned element is a direct object NP, the verb is always indefinite:

(4) Mit akart/*akarta János?

What he wanted Ind/Def John

What did John want?

In addition to the wh-words mit (what-Acc?) and amit (which-Acc), Hungarian also has melyik(et) (which-Acc?) and amelyiket (which₂-Acc, the one which). When these are used in a question or a relative clause, the verb shows up as definite:

- (5) Melyik könyvet akarta/*akart?

 Which book he wanted Def/Ind

 Which book did he want?
- (6) Ez az a könyv amelyiket akarta/*akart.

 This that the book which 2 Acc he wanted Def/Ind

 This is that book which he wanted, or
 This book is the one which he wanted.

The facts of (3)-(6) can be captured by postulating that the wh-words mit and amit are syntactically indefinite, while melyik(et) and amelyiket are definite, at least at that point in the derivation where the verb-object agreement

rule applies. 3 Note, incidentally, that it is not the case that the verbs in (3)-(6) just agree with the accusative NP in their clause.

Consider:

(7) Ez az a könyv amelyiket János akarta

This that the book which John wanted Def

hogy elhozzam.

that I bring Def

This is the book which John wanted me to bring.

Here, akarta is definite for the same reason it is definite in (2): it has a sentential direct object. Elhozzam is also definite, but this has to be attributed to amelyiket. Since it is unlikely that elhozzam in the embedded clause is agreeing with amelyiket in the matrix sentence, (7) suggests that verb-object agreement precedes wh-movement.

In the following, we shall not be concerned with melyiket and amelyiket. They were brought in to illustrate the above ordering, which would have been harder using mit and amit.

I will now turn to constructions using mit and amit, in which the NPs represented by these (i.e., the questioned or relativized NPs) originate in an embedded sentence. Some of these are grammatical, while others are not. First, consider a subject-embedding matrix verb kell (is necessary).

(8) Az, hogy elhozzam a könyvet, kell. It that I bring the book $_{Acc}$ is necessary.

It is necessary that I bring the book.

The fact that the embedded clause 'that I bring the book' precedes the verb, and the fact that the expletive az (see the *it* of Rosenbaum, 1967) is nominative, indicate that *kell* is a subject-embedding verb. (8) is grammatical if the sentence 'that I bring the book' is emphasized. Usually, however, this clause is extraposed:

- (9) (Az) kell, hogy elhozzam a könyvet.
 - (It) is necessary that I bring the book.

Once this happens, the accusative NP, könyvet, can be freely questioned, or relativized:

(10) Mit kell, hogy elhozzak? What is necessary that I bring $_{Ind}$

What is it necessary for me to bring?

(11) A/egy könyv, amit kell, hogy elhozzak. The/a book which is necessary that I bring $_{Ind}$

The/A book which it is necessary for me to bring. So, we have no problem with wh-words pulled out of a subject complement.

Consider next clauses embedded under a NP that is in an oblique case. The verb $f\acute{e}l$ (be afraid of) is an intransitive whose object is in a nonaccusative case. Thus, we have:

(12) Félsz a kutyától.

You are afraid the dog-of.

You are afraid of the dog.

Now, if instead of *kutya* (dog) we have a sentential object, we get

(13) Félsz, hogy ellopom a $k\ddot{o}$ nyvet⁴.

You are afraid that I steal the book Acc

You are afraid that I will steal the book.

Again, relativization and questioning of the object of the embedded sentence is quite free:

- (14) Mit félsz hogy ellopok?

 What Acc you are afraid that I steal Ind?

 What are you afraid that I'll steal?
- (15) A/Egy könyv amit félsz hogy ellopok. The/A book which $_{Acc}$ you are afraid that I steal $_{Ind}$ The/A book which you are afraid that I'll steal.

We begin to get into problems with the regular, direct-object-embedding verbs, like <code>akar</code> (want). Given a sentence:

(16) Akarta hogy elhozzam a könyvet. He wanted that I bring the book Acc

He wanted me to bring the book.

We find that the object of the embedded sentence cannot be relativized or questioned with amit or mit. So, in

opposition to (7) we have:

- (17) *A/Egy könyv amit akarta, hogy elhozzak.

 The/A book which he wanted Def that I bring Ind

 The/A book which he wanted me to bring.
- (18) *Mit akarta hogy elhozzak?

 What he wanted Def that I bring Ind?

 What did he want me to bring?

An indefinite matrix verb in (17), (18) is also ungrammatical, which is predictable, since we know from (2) that sentential direct objects require a definite matrix verb:

(19) *A/Egy könyv amit akart, hogy elhozzak.

wanted Ind

(20) *Mit akart, hogy elhozzak?⁵

wanted Ind

We have to explain, then, why (17) and (18) are ungrammatical. Before jumping to premature conclusions, let us examine one more type of embedding, which will give us a clue to what is going on. The verb $k\acute{e}r$ [or $megk\acute{e}r$ (see footnote 1.)] (ask) appears in the following construction $(meg)\,k\acute{e}r$ NP [that S]_{NP}. The NP dominating the complement sentence is in a nonaccusative case, which shows up if the expletive shows up, but we will be concerned with forms without an expletive for the reason explained in footnote 4. The important thing to note is that it is the lexical NP (NP above) that the matrix verb agrees with in definiteness (i.e., its direct object). Thus, we have the following alternation:

- (21) Megkérte o t, hogy hozza el a $k {}^o$ nyvet. He asked o Def o Acc He asked her to bring the book.
- (22) Megkért engem, hogy hozzam el a könyvet.

 He asked I that I bring D the book.

 He asked me to bring the book.

This alternation is due to the difference between <code>ot</code> (she and engem (me Acc). It is just one of those crazy facts about Hungarian, that the third person accusative form of the pronoun is syntactically definite, while the others are indefinite. So the alternation in (21), (22) is the same in

- (23) Akarta őt. He wanted her
- (24) Akart engem.

 He wanted me

 He wanted me.

He wanted her.

which, of course, is the same as that exhibited in (1). The reason I introduced the minor wrinkle of using pronouns instead of nouns is that, for completely irrelevant reasons, (21) and (22) cannot be used for my purposes if they contain an overt direct object in the matrix clause. This can be gotten around by using pronouns, which are deletable:

- (25) Megkerte, hogy hozza el a könyvet. He asked $_{Def}$ (her) that she bring $_{Def}$ the book. He asked her to bring the book.
- (26) Megkért, hogy hozzam el a könyvet. He asked $_{Ind}$ (me) that I $_{Def}$ the book. Acc
- (25) and (26) are completely synonymous with (21) and (22), respectively; they contain no overt direct object, so we can proceed with illustrating the point. Consider now what happens when the direct object of the embedded clause is wh-fronted. From a structure parallel to (25), we get:
 - (27) *A/Egy könyv amit megkérte, hogy

 *The/A book which
 Acc he asked
 Def (her) that
 hozzon el.
 she bring
 Ind

*The/A book which he asked her to bring.

and

(28) *Mit kerte meg, hogy hozzon el?

What $_{Acc}$ he asked $_{Def}$ (her) that she bring?

What did he ask her to bring?

and from (26):

- (29) A/Egy könyv amit megkért, hogy hozzak el.

 The/A book which he asked $_{Ind}$ (me) that I bring $_{Ind}$ The/A book which he asked me to bring.
- (30) Mit kert meg, hogy hozzak el?

 What he asked Ind (me) that I bring Ind

 What did he ask me to bring?

Now, if we look at (17), (18), (27), and (28), which are all ungrammatical, as opposed to (29) and (30), which are fine, we find a very simple generalization: wh-fronting involving the wh-words mit and amit from an embedded clause results in an ungrammatical sentence if the matrix verb (the verb that is in the same clause as the head noun) is definite. This generalization will also account for the grammaticality of all the cases shown previously - (10), (11), (14), and (15). The matrix verbs in these sentences are intransitive; i.e., they lack a direct object, and consequently, they "take" the indefinite forms only. The generalization also reflects, to some extent, the native speaker's intuition about the ungrammatical sentences; the wrongness is "felt" to be centered, somehow, on the matrix verb--one doesn't quite know whether it should be definite or indefinite.

Having arrived at a generalization, our next problem is to represent it in the grammar. A rather ad hoc way of doing it would be to place a restriction on wh-movement.

(A) Wh-movement of a direct object from an embedded clause involving indefinite wh-words is blocked if the verb of the clause that contains the head noun is definite.

This, of course, is just a restatement of the generalization. Another point which shows up the ad hoc nature of this proposal is that wh-fronting is not the only rule that needs a condition like this. There exists in Hungarian a rule that I will call emph-movement, which takes any emphasized NP in a string and moves it to a position just in front of the main verb. So, from (31) we get (32).

- (31) János akarta, hogy menjek a moziba.

 John wanted that I go the cinema-to.

 John wanted me to go to the movies.
- (32) A moziba akarta János, hogy menjek. The cinema-to wanted $_{\mathrm{Def}}$ John that I go.

It was to the movies that John wanted me to go.

This transformation, when applied to direct objects of embedded clauses, will have results similar to that of wh-movement. Operating on the structures underlying (9), (13), and (26), it will give (33), (34), and (35), respectively, which are grammatical.

- (33) A könyvet kell, hogy elhozzam.

 The book is necessary that I bring.

 It is the book that it is necessary for me to bring.
- (34) A könyvet félsz, hogy ellopom.

 The book you are afraid that I steal.

 It is the book that you're afraid that I'll steal.
- (35) A könyvet kért meg, hogy hozzam el.

 The book $_{Acc}$ he asked (me) that I bring.

It was the book that he asked me to bring.

- (33), (34), and (35) are also grammatical if we replace the definite NP a $k\ddot{o}nyvet$ (the book $_{Acc}$) with the indefinite NP egy $k\ddot{o}nyvet$ (a book $_{Acc}$). Now, when emph-movement operates on the structures underlying (16) and (25) we still have grammatical sentences:
 - (36) A könyvet akarta, hogy elhozzam. The book $_{Acc}$ he wanted $_{Def}$ that I bring $_{Def}$ It was the book that he wanted me to bring.

(37) A könyvet kérte meg, hogy hozza el.

The book he asked Def (her) that she bring Def

It was the book that he asked her to bring.

But here, if we replace a könyvet by egy könyvet, we get ungrammatical sentences:

(38) *Egy könyvet akarta hogy elhozzak.

A book he wanted Def that I bring Ind

It was a book that he wanted me to bring.

- (39) *Egy könyvet kérte meg, hogy hozzon el.
 - A book he asked (her) that she bring Ind

It was a book that he asked her to bring.

Although, if the matrix verb is indefinite, as in (29) or (30), the sentences are again grammatical:

- (40) Egy könyvet kért meg hogy hozzak el.
 - A $book_{Acc}$ he asked Ind (me) that I $bring_{Ind}$

It was a book that he asked me to bring.

Thus, the situation is exactly analogous to that of the indefinite wh-words.

One could, of course, just as easily place a condition on emph-movement:

(A') Emph-movement of an indefinite direct object from an embedded clause is blocked if the main verb is definite.

It is obvious that the two conditions, (A) and (A'), are the same and that we are missing a generalization. The generalization seems to be that an indefinite accusative NP cannot end up in the same clause with a definite verb. One could argue, then, that what is needed is a general condition on movement rules which will prevent indefinite direct objects from being moved into a clause containing a definite verb. It can be shown, however, that such a constraint will not work unless we put a completely unmotivated condition on the constraint itself.

There is a consistent class of exceptions to the above generalization. It consists of those sentences in which the matrix verb is in the first person singular of the past indicative or in the first person plural of the present conditional. Sentences (17), (18), (27), (28), (38), (39),

which were ungrammatical above, turn out to be grammatical if their matrix verb is in one of the above forms. For example, to take just the counterparts of (17) and (38):

(41) A könyv amit akarnánk, hogy elhozzon. The book which $_{\!\!\!ACC}$ we would want that he bring.

The book which we would want him to bring.

(42) Egy könyvet akartam hogy elhozzon.

A book I wanted that he bring.

It was a book that I wanted him to bring.

At first this seems like a totally crazy fact. However, it is not an accident that it is these forms and only these forms that are grammatical. It is exactly in these cases, namely, in the first person singular of the past indicative and the first person plural of the present conditional, that the definite and indefinite conjugations collapse—they exhibit phonologically identical shapes. So, in (40) and (41), the forms akarnánk and akartam, belong to both the definite and the indefinite conjugations.

In order to save the proposal for placing the conditions (A) and (A') on wh-movement and emph-movement, respectively, we have to put an identical exception clause on both:

the rules block under the circumstances indicated in the conditions, <u>unless</u> the matrix verb is in the first person singular of the past indicative or in the first person plural of the present conditional.

It should be clear that something obvious is being missed. The exception clause is the same in both (A) and (A'), it is totally unmotivated, and it fails to connect up in any way the fact that the very forms mentioned in it are the ones that exhibit no difference in the two conjugations.

This line of thought seems to have two consequences. First, it seems that the generalization that we are trying to express in the grammar has been somewhat loosely stated. Above, I stated that the generalization following from the two separate conditions seems to be that an indefinite accusative NP cannot end up in the same clasue with a definite verb. But, given the class of exceptions that we have considered, it seems that they can be incorporated into a more correct generalization, namely, that an indefinite accusative NP cannot be in the same clause with a verb which is not in the indefinite conjugation. This formulation covers

the cases covered by the earlier generalization, and the sentences that were exceptions to the latter are no longer exceptions, since the verbal forms in them are in the indefinite conjugation (as well as in the definite one).

Second, if this is indeed the right generalization, then it is impossible to state it in the way that was suggested earlier. The generalization is a statement about a surface phenomenon; it makes crucial use of the accidental phonological collapsing of certain distinct forms. Since verb-object agreement precedes wh-movement, we expect that all verbal forms, including the first person singular of the past indicative, and the first person plural of the present conditional, are, in some way, marked as definite by the time wh-movement applies. Thus, there is no way to constrain wh-movement or emph-movement except in the highly unnatural way outlined above. In fact, the generalization cannot be stated on a transformational level, since the transformation cannot "know" about the surface form of the verb.

What I propose, then, is that there exists in Hungarian, a surface structure constraint, in the sense of Perlmutter (1968). The constraint states that:

(43) If a clause contains an indefinite NP in the accusative case and a finite verb, the verb has to be in the indefinite conjugation.

Perlmutter's conception of a surface structure constraint, for which he has argued extensively, is that of a template that serves as a filter. In other words, at some level after the transformational component (in this case after the input to the phonological component), the surface phrase marker is matched against such a template. If it meets the conditions of the template, the sentence will be grammatical. If it doesn't, it won't. Applied in this way, (43) will correctly prevent (17), (18), (27), (28), (38) and (39) from being generated, while allowing (41) and (42), because the verbs in (41) and (42) are in the indefinite conjugation, which is what matters for "passing through" (43), regardless of the fact that they happen to be in the definite conjugation as well.

There is one more point that illustrates this proposal; a conjoined sentence is usually ungrammatical if either conjunct is. Thus;

(44) *János elhozta azt a könyvet amit

John brought $_{Def}$ that $_{Acc}$ the book $_{Acc}$ which $_{Acc}$ én akartam, hogy elhozzon, de nem azt

I wanted, that he bring $_{Ind}$ but not that $_{Acc}$ amit te akartad, hogy elhozzon.

which $_{Acc}$ you wanted $_{Def}$ that he bring $_{Ind}$

John brought the book which I wanted him to bring, but not the one which you wanted him to bring.

This ungrammaticality can be accounted for both by the "condition-on-the-rule" hypothesis and by the surface structure constraint. (44) is rather redundant. In Hungarian, as in many other languages, it is possible to delete parts of a conjunct that are identical to parts of the other conjunct(s). Unlike English, however, Hungarian permits the deletion of the verb. Thus, we get

(45) János elhozta azt a könyvet amit

John brought Def that Acc the book Acc which Acc

én akartam hogy elhozzon, de nem azt

I wanted that he bring, but not that Acc

amit te.

which Acc you.

John brought the book which I wanted him to bring, but not the one that you (wanted him to).

In this sentence, the matrix verb, along with its complement, has been deleted in the second conjunct. (45) is grammatical, which is not predicted by the "condition-on-the-rule" hypothesis. Deletion in the derivation of (45) occurs after wh-movement, i.e., after the stage illustrated by (44). So there is nothing to "correct" the ungrammaticality of (44) in passing on to (45). According to that hypothesis, then (45) should be as ungrammatical as (44). The surface structure condition, on the other hand, predicts that (45) will be grammatical while (44) will not. The reason is that in deleting the verb of the second conjunct, we have eliminated the "offending element". There being no verb, the clause cannot run afoul of the surface structure constraint, so it

is grammatical.

It seems, then, that we can do away with the straw-man "condition-on-the-rule" hypothesis and accept the proposed surface structure constraint. The statement of the constraint is far from exact, and its scope of operation is not quite clear. It seems that the greater the distance between the indefinite accusative NP and the verb, the less powerful the constraint. For example,

(46) ?*Itt van a könyv amit pentek este

Here is the book which Friday evening

megkérte hogy hozzon el.

he asked (her) of that she bring Ind

Here is the book which on Friday evening he asked her to bring.

Assuming 'Friday evening' modifies 'ask', this sentence sounds much better than (27), in which there was no "material" intervening between amit and megkérte. Obviously, the foregoing discussion only touches the tip of the iceberg; it is a tug at one little corner of the tangled mess of Hungarian grammar.

There remain a couple of interesting side issues worth remarking. As noted in footnote 5, (19) and (20), which have indefinite matrix verbs, sound somewhat better than (17) and (18). In fact, when a speaker starts to say a relative clause like (19) or (17), he will usually come out with the (19) version of it, although, if later confronted with (19), he will say that it is ungrammatical. The ungrammaticality of (19) stems from the fact, as noted above, that the verbobject agreement rule has been violated. The sentence fits the surface structure constraint, however, while in (17), it is the constraint that is violated. It seems that given the choice between violating a rule and conforming to the constraint, on the one hand, and conforming to the rule and violating the constraint, on the other, the speaker will opt for the former. What makes this interesting is that the same thing seems to be true in English. Perlmutter (1968) has argued for the existence of a surface structure constraint in English, that throws out any tensed clause that does not have a subject. This accounts for the ungrammaticality of (47):

(47) *I used this butter, which I don't know whether
 is good.

Here the NP butter appears, in deep structure, as the subject of the clause whether this butter is good. After wh-movement, this NP appears only as the wh-word which, which is moved into the matrix clause; the clause is left without a subject, and is thrown out by the constraint. Note that wh-movement in English does not leave a pronominal copy of the relativized NP in the relative clause. We have the book which I read, but not *the book which I read it.

Nevertheless, when someone starts to say the sentence that is approximated by (47), he will almost invariably come out with

(48) *I used this butter which I don't know whether it's good.

This is also ungrammatical, but to most speakers it sounds better than (47). Thus, when an English speaker is faced with the same choice, he will make the same decision.

Lastly, I would like to point out the peculiar nature of this surface structure constraint. What is interesting is that Hungarian has this constraint in addition to the verb-object agreement rule. The constraint seems to be checking up on the rule, but in one direction only. That is, this constraint refers only to indefinite NPs--it has no counterpart saying that definite NPs have to cooccur with verbs in the definite conjugation. I have a feeling that something is lurking behind this asymmetry, but I have no idea what it is.

NOTES

¹In (2), the form *el*, in parentheses, is a verbal affix, denoting aspect (more or less). The presence or absence of this affix and its position with respect to the verb are irrelevant and will not concern us. The same goes for the affix meg in (21).

In the following, all references to relative clauses and wh-questions will be to forms in which the relativized or questioned NP is a direct object (accusative). These are the only type that I'm concerned with in this paper.

³On the definiteness versus indefiniteness of wh-words, see Browne (1970a,b).

The NP dominating the clause, that I will steal the

book in (13) is indeed in the same oblique case as kutya in (12). This can be seen in the (near) variant of (13):

Attol felsz, hogy ellopom a könyvet. Attol is the surface form of az + tol, where az is the same expletive that occurs in (8), and tol is the same case-marker as the one on kutya in (12). In fact, most embedded sentences have such an expletive, which is deleted under certain conditions. Obviously, I am interested only in the cases where it is deleted; otherwise, the embedded clauses considered here will be complex noun phrases, in which case wh-movement can't apply.

 5 (19) and (20) are somewhat better than (12) and (18) and, in some dialects, they are even grammatical. I will return to this point later.

It has been pointed out to me by Stephen Anderson that, in Robert Vago's treatment of the morphology and phonology of Hungarian verbal endings (Vago, 1970), it was necessary to set up two ad hoc rules: (i) that the indefinite form of the first person singular in the past indicative takes an ending that in other tenses is taken only by the definite form; (ii) that the same goes for the first person plural of the present conditional. If the proper endings were taken, the resulting surface forms would be akartak and akarnák. These forms, however, exist already for the third person plural of the above tenses. Anderson has suggested that, in order to avoid ambiguity of person, Hungarian has opted to endure ambiguity of definiteness.

Although I have not explicitly pointed it out, it is obvious that the verb-object agreement rule also precedes emph-movement. It is enough to note that we have a definite form of the embedded verb in (36) and (37) corresponding to the definite NP a könyvet, as opposed to an indefinite form in (40), corresponding to the indefinite NP eqy könyvet.

⁸It can't even be stated as a derivational constraint. None of the proponents of this device have, to my knowledge, suggested the existence of "transcomponential constraints", which need to refer to both the syntactic and the phonological components. Even with such an unwarranted extension of the concept to account for the phenomena discussed above by a derivational constraint would be missing the point—these are surface phenomena. David Perlmutter has brought to my

attention the existence of other cases in which the syntactic well formedness of an utterance depends on phonological information.

This last argument is essentially the same in form as one of the arguments given in Perlmutter (1968) to establish the existence of a surface structure constraint on the order of clitic pronouns in Spanish.