

琉球大学学術リポジトリ

最適性統語論における論証法について：
Legendreによるルーマニア語動詞接語の分析

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A Remark on Argumentation in OT Syntax: Legendre's Analysis of Romanian Verbal Clitics*

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1 Introduction

Since 1993, when Prince and Smolensky's epoch-making technical report was distributed in the form of Xerox copy, the effect of Optimality Theory (OT) has widely and rapidly spread in the world of generative linguistics. The original focus of OT was put on phonology, morphology and learnability theory, but now the approach is observed in the other areas such as syntax, semantics, and pragmatics (see Barbosa, et. al. (1998) and Dekkers, et. al. (2000) among others for OT theoretic contributions to theoretical linguistics). The early 90's is also the time when the Chomskyan approach began to pay more attention to the notions of economy and competition in syntax, along the same line with OT, and it has now been developing as the Minimalist Program (Chomsky 1995). The emergence of OT and the shift from the Government-and-Binding Theory to the Minimalist Program is probably not a coincidental event in the history of generative linguistics, for the two approaches share some core ideas, but it is also true that each approach assumes ideas unacceptable in the other.

OT's central claims are as follows, which make the theory distinctive from the Minimalist Program.

- (1) a. Constraints are violable.
- b. Constraints are ranked.
- c. Language variations are results of different rankings of constraints.

OT assumes that constraints are innate and universal, as the Minimalist Program does, but they are assumed to be violable, and consequently, even if a sentence *S* violates constraint *A*, it can be regarded as a grammatical output, if other competitors violate other constraints which are ranked higher than *A*.

Once the OT approach is taken, the linguist's task is to find constraints and their ranking. In the literature of OT syntax, while some very simple constraints are proposed such as *STAY*, which says "Don't move", and *OB-HD*, which requires a head to have a lexical item (Grimshaw 1997), some constraints are "inherited" from the pre-OT syntax. For instance, Hendriks and de Hoop (2001) adopt Binding Principle B, which is an inviolable principle in GB theory, as a violable constraint. As far as empirical data can be accounted for, shifting from

* This is a revised version of my presentation given as comment to Gérardine Legendre's talk entitled 'What are Clitics? Evidence from Balkan Languages' at the Meikai Optimality Theory Workshop held at Meikai University, 2001. I would like to thank Gérardine Legendre for her reply and suggestions.

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inviolable principles into violable constraints is harmless. However, we have to be careful about adopting the results obtained through non-OT argumentation in OT. As linguists, we have to try to find independent evidence for the structure that we want to be a winner in a competition. But in some case, what is thought to be independent evidence is actually obtained through non-OT approaches. So, the point is this: Is it possible to determine an optimal output only through purely Optimality Theoretic approaches? I would like to show the difficulty by shedding light on Legendre's analysis of Romanian verbal clitics and argue that the structure of Romanian verbal clitics she proposes is not supported if an OT approach is taken.

2 Legendre's Analysis of Romanian Verbal Clitics

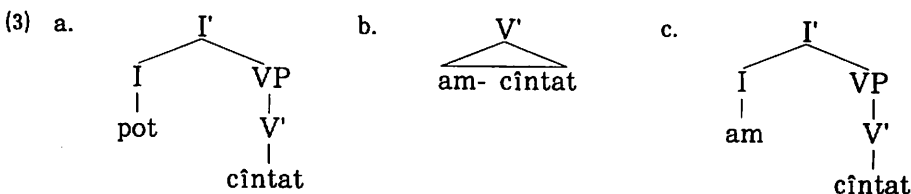
Clitics exhibit complicated but intriguing properties in the connecting area of syntax, morphology and phonology. In her series of papers (Legendre 1998, 1999, 2000, in press), Legendre tries to capture cross-linguistic variation of clitics, with special attention to Romance and Balkan languages, in the framework of OT. This section will introduce her analysis of Romanian verbal clitics.

Legendre's (2000) main claim can be summarized as follows: (i) Romanian verbal clitics are syntactically inert and do not head their own X' theoretic projections; they are just PF realization of features, and (ii) The distribution of clitics is accounted for by interaction of violable constraints. The latter claim is mainly based on the distribution of clitic pronouns and she does not discuss the case of verbal clitics. So, the present paper mainly focuses on the former point.

Romanian has modal verbs such as *a putea* 'can, may', which is followed by a subjunctive clause or a lexical verb, as in (2a). This class of modal verbs are called semi-auxiliaries. The language also uses clitic auxiliaries in compound tenses such as perfect and future/conditional. The perfect auxiliary *avera* 'have' is combined with a past participle form of a lexical verb, and the future auxiliary *voi* 'will' and the conditional auxiliary *as* 'would' are used with an infinitival form of a lexical verb. An example is given in (2b).

- (2) a. **Pot** cîntat b. **Am** cîntat.
 can1S sing have1S sing
 'I can sing.' 'I have sung.'

Legendre argues that the semi-auxiliaries head their own projection I, as in (3a), while the clitic auxiliaries are syntactically inert and depend on a lexical verb, as represented in (3b), not project their own categories, like (3c).



Here I introduce three pieces of evidence that she provides.¹ First in Romanian *wh*-question sentences, the I-position is occupied by an inflected verb, as shown in (4a), and when a semi-auxiliary is used in a sentence, it moves to I, as in (4b). A clitic auxiliary, on the contrary, does not undergo movement itself as in (4c), but it moves to I with a lexical verb as in (4d).

(4) Subject-Aux Inversion

- | | |
|---|---|
| <p>a. Cînd vine Ion?
when come3S John
'When is John coming?'</p> | <p>b. Cînd poate Ion veni mîine?
when can3S John come tomorrow
'When can John come tomorrow?'</p> |
| <p>c. *Ce a Ion spus?
what have3S John said
'What has John said?'</p> | <p>d. Ce a spus Ion?
what have3S said John
'What has John said?'</p> |

A second piece of evidence comes from adverb position. In Romanian, VP adverbs appear between a lexical verb and direct object, as shown in (5a). Following the standard assumption that VP adverbs adjoin to VP, this fact indicates that the inflected lexical verb moves to I out of VP. The verb movement does not take place when a semi-auxiliary is used as in (5b). In the case of clitic auxiliaries, it does not show up to the left of VP adverb as in (5c), but the clitic-verb complex moves out of the VP, as in (5d).

(5) Adverb Position

- | | |
|--|---|
| <p>a. Elevii mei vad adesea filme bune.
students my see3P often films good
'My students often see good films.'</p> | <p>b. Ion poate adesea veni luna.
John can3S often come Monday
'John can often come on Monday.'</p> |
| <p>c. *Am adesea vazut filme bune.
have1S often seen films good
'I have often seen good films.'</p> | <p>d. Am vazut adesea filme bune.
have1S seen often films good
'I have often seen good films.'</p> |

A third piece of evidence is that the aux-V cluster can be coordinated as shown in (6a), but it is impossible to coordinate two clitic auxiliaries, as in (6b).

(6) Coordination

- | | |
|--|---|
| <p>a. Ion [va veni] sau [ar veni].
John fut3S come or cond3S come
'John will or would come.'</p> | <p>b. *Ion [va] sau [ar] veni.
John fut3S or cond3S come
'John will or would come.'</p> |
|--|---|

In languages where auxiliaries head their syntactic projection like English and French, two auxiliaries can be coordinated as shown in (7).

¹ Legendre (2000: 226) also uses an argument based on inverted conjugations, which I omit here.

- (7) a. I can and will go out tonight.
 b. Pierre est et sera sans aucun doute réélu sénateur.
 'Peter is and will without any rouble be reelected senator.'

Therefore, the ungrammaticality of (6b) suggests that Romanian clitic auxiliaries are not syntactically independent elements. These three pieces of evidence show that Romanian clitic auxiliaries are different from semi-auxiliaries, and the syntactic structure for the former is not the one in (3c), where they head their own projection. Legendre thus concludes that Romanian clitic auxiliaries are syntactically inert, which means that they do not exist in syntax but they are PF realization of features.

Notice that the argumentation so far does not say anything about the internal structure of the aux-V complex. If only X^0 elements can move to a head, then it must be the case that the clitic auxiliaries adjoin to V, constituting another V. Legendre does not discuss this point in detail, but she regards Romanian verbal clitics as PF realization of features, so that the precise internal structure of the complex does not matter. Just for the sake of convenience, I represent the structure of the aux-V complex like (3b).

Finally let me briefly reproduce Legendre's OT approach to the position of a verbal clitic within a cluster. In OT, an order of elements in a domain is determined by a family of alignment constraints. In general, they are schematized as EDGEMOST (X, LEFT; D, LEFT), where X stands for any feature, D for domain of alignment, and as a whole this means that feature X is realized at the left edge of D. Another relevant constraint is NONINITIAL (X, LEFT; D, LEFT), which says that feature X is not at the left edge of domain D. The distribution of the Romanian verbal clitics can be accounted for by constraint ranking such as EDGEMOST ([perfect], LEFT; V', LEFT) >> NONINITIAL ([perfect], LEFT; V', LEFT).

- (8) Input: [perfect], V,

	EDGEMOST ([perfect]; V')	NONINITIAL ([perfect]; V')
☞ a. [V' am-cintat]		
b. [V' cintat-am]	*!	

In candidate a, the [perfect] feature is aligned at the left edge of V', satisfying EDGEMOST ([perfect], LEFT; V', LEFT) while in candidate b, the [perfect] feature is realized at the non-initial position of V'. So, the former wins the competition.

3 Another Interpretation of the Facts

As we have seen so far, Legendre's analysis uses OT only for positioning of verbal clitics, but the syntactic status of them are not analyzed in OT. In fact, her claim that Romanian verbal clitics are syntactically inert is reached through the "standard," Principles-and-Parameters approach, regarded as the "independently established" fact. Her OT analysis of the distribution of verbal clitics depends on this non-OT syntactic analysis. Here we face an interesting conceptual problem or question: Is it possible for an OT analysis to presuppose a

conclusion obtained by a non-OT approach? Is such a syntactic argumentation logically sound? I would like to argue that such an argumentation is not complete nor sound by showing that another OT analysis can account for the syntactic behavior of Romanian verbal clitics with the assumption that they head their projection.

Let us review Legendre's syntactic argumentation again. In the discussion of Subject-Aux inversion, she claims that the perfect auxiliary and V make a cluster, based on the fact that the aux-V complex moves to C as in (9b), just like a lexical semi-auxiliary in (9a).

(9) Subject-Aux Inversion

- a. Cînd poate [_{IP} Ion t veni mîine]?
 when can3S John come tomorrow
- b. Ce a spus [_{IP} Ion t]?
 what have3S said John
-

The logic goes as follows: If *a* in (9b) is a head of Infl and undergoes I-to-C movement like *poate* in (9a), there is no position where *spus* moves to. Here a (hidden) assumption is: Only one verbal element in I moves to C. This assumption is widely adopted in pre- or non-OT approaches. However, in OT, nothing prevents us from assuming that even this constraint is violable. The same criticism applies to the discussion of adverb position. Legendre says: In Romanian, V moves out of VP, crossing the VP adverb, as in (10a), and the perfect auxiliary *a/am* and the past participle V also appear to the left of the VP adverb, as in (10b). If *a/am* is the head of Infl, there is no room for the moved verb. Therefore, the perfect auxiliary and the V constitute a complex.

(10) Adverb Position

- a. Elevii mei vad adesea [_{VP} t filme bune].
 students my see3P often films good
- d. Am vazut adesea [_{VP} t filme bune].
 have1S seen often films good
-

Again, a (hidden) assumption is that only one verbal element in V moves to I, which also should be regarded as a violable constraint in the OT approach.

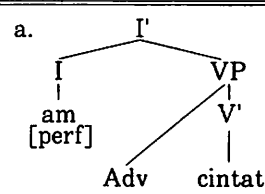
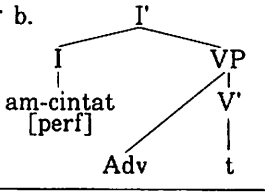
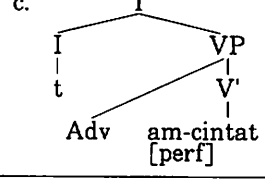
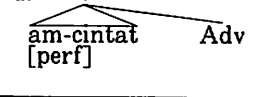
Now suppose that these constraints are violable. Then, it becomes possible to make (3c) win over (3b), which means that perfect/conditional auxiliaries do head their own syntactic projection. Let us assume the following constraints, all of which are quite natural and

reasonable.

- (11) [perf]-V: [perfect] is adjacent to a lexical V.
- PROJECTION: A lexical item heads a projection.
- STAY: Don't move.
- *MULTIPLE HEAD: A head hosts only one lexical item.
- PROPER BINDING: A trace is co-commanded by its antecedent.

[perf]-V requires that an element with the [perfect] feature be adjacent to a lexical verb. This does the same job as *EDGEMOST* ([perfect], LEFT; V', LEFT), although the former is looser than the latter. *PROJECTION* is a key constraint in the present competition. This requires a lexical item to project. *STAY* is a familiar constraint in the OT literature such as Grimshaw (1997). **MULTIPLE HEAD* prohibits a head from having two lexical items or more. This corresponds to the principle that Legendre implicitly assumes in (9) and (10). Incidentally note that what we need in this context is either *STAY* or **MH*, but I put both in tableau just for the sake of exposition. *PROPER BINDING* is a principle proposed in a pre-OT approach but is taken as a violable constraint by Vikner (2001). Suppose further that in Romanian, these constraints are ranked as {[perf]-V, PROJ} >> {STAY, *MH, PB}. Then a structure like (3c) becomes the optimal output, as in (12), where the case of the placement of VP adverb is illustrated.

(12)

	[perf]-V	PROJ	STAY	*MH	PB
a. 	*!				
b. 			*	*	
c. 			*	*	*!
d. 		*!			

In candidates a, b, and c, the perfect auxiliary *am* is regarded as an independent lexical item while in candidate d, it is part of a lexical verb à la Legendre. This difference is reflected as the satisfaction/violation of PROJ. The former three candidates satisfy this constraint but candidate d violates it, which is a fatal violation for it. In candidate a, the [perf] feature of *am* is not adjacent to *cînt* due to the intervention of the adverb, which causes the violation of [perf]-V. Candidate b and candidate c each have one violation of STAY since in the former, V raises to I and in the latter I lowers to V. At the same time, both candidates violate *MH. The most crucial is the violation of PB that candidate c has. So, candidate b is the winner of this competition.

The case of I-to-C movement observed in (4) also can be accounted for in the same way with additional constraints such as OB-HD, which requires a head to have a lexical item, and we can still make a candidate like (12b) the optimal output. The coordination fact in (6) also might be accounted for by this constraint ranking, in particular, due to the constraint [perf]-V. A case like (6), however, needs more investigation, for it is not clear what the input form is and whether candidates like (6a) and (6b) can be compared with each other in the same competition. Probably faithfulness type of constraints will be taken into consideration.

Notice that I am not saying that Legendre's claim that Romanian verbal clitics are syntactically inert is wrong. What I would like to show with this competition is that the syntactic facts that Legendre uses do not necessarily support her claim, if an OT approach is taken. We can make those facts compatible with the claim that the Romanian perfect auxiliaries do head their projection. And as far as these data are concerned, we cannot say which analysis is correct. In order to support Legendre's analysis, either STAY >> PROJ or *HB >> PROJ must be independently established, or another constraint must be assumed which is ranked higher than [perf]-V and satisfied by (12d) but violated by (12b). Then a candidate like (12d) becomes the optimal output and it will be concluded that Romanian verbal clitics are syntactically inert.

4 Summary

In this short note, I have shown that the "standard" syntactic argumentation based on the assumptions of pre- or non-OT frameworks cannot be used in OT syntax, by exhibiting Legendre's analysis of Romanian verbal clitics. She claims that Romanian verbal clitic are syntactically inert, but once an OT approach is taken, analyzing them as independent lexical heads is compatible with the facts that she provides. Through this discussion it has been shown that in some cases it is difficult to find independent evidence for the structure that we want to be the optimal output, and probably what needs in OT syntax is not just independently motivated constraints and/or structures, but independently motivated rankings.

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<要 旨>

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最適性理論は、それ以前の他の理論とは相容れない理論的仮説に立脚している。特に、「制約は違反可能である」という仮説は、1980年代のチョムスキーによる原理とパラメータの理論では仮定されておらず、90年代半ばから現在にいたる極小主義アプローチでも取り入れられていない。従って、最適性理論の枠組みで統語論を扱う場合には、最適性理論以前の枠組みで得られた成果をそのまま利用できない場合もある。この点は、残念ながら、研究者の間で十分認識されているとは言えない。このような現況を踏まえ、本稿では、Legendre (1998, 1999, 2000, in press) によるルーマニア語動詞接語の分析を例にとり、純粹に最適性理論的な考えのみで分析すれば、異なる結果が導かれる可能性があることを示し、最適性統語論を行う際の論証に必要なのは、独立に動機付けられた構造や制約というよりは、むしろ、独立に動機付けられた制約の順序であることを主張する。