

## WHY THERE CAN BE NO RULE OF INVERSION IN EST

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In this paper, I will discuss the status of a structural analog of a relation-changing rule called *Inversion*, which has been formulated within Relational Grammar (RG), in the framework of the Extended Standard Theory as advanced by e.g. Chomsky (1980), Zabrocki (1981).

The Extended Standard Theory (EST) offers two possibilities of formulating such a rule: (i) it can be a transformation or (ii) it can be a lexical redundancy rule. Zabrocki (1981) argues convincingly against the former showing that *Inversion*, which would have to be a subcase of NP movement, would then violate most of constraints on transformational rules. It would, *inter alia*, violate Jackendoff's (1972) assumption that transformations cannot change category labels. Zabrocki seems to be right in claiming that within EST, *Inversion* can be formulated only as a lexical rule. I will argue, however, that *Inversion* formulated in such a way cannot handle in a natural way the facts accounted for by *Inversion* formulated as a relation-changing rule, which indicates the weakness of the EST framework.

Within RG, *Inversion* is a rule which demotes Subject to Indirect Object. Oversimplifying things a bit, we can say that *Inversion* is a rule which sanctions the final Indirect Objecthood of the underscored nominals in the following Polish sentences:

1. Brak *mi* ciebie.  
lack me/DAT you/GEN  
"I miss you."
2. Wydaje *mi* się, że gdzieś już to widziałem.  
appears me/DAT REFL that somewhere already it/ACC I-saw  
"It appears to me that I've already seen it somewhere".

3. Ta książka jest *dla mnie* za nudna do czytania.  
this book/NOM is for me/GEN too boring to reading/GEN  
"This book is too boring for me to read".
4. Trudno *mi* to zrozumieć.  
hard me/DAT it/ACC to-understand  
"It's hard for me to understand it."
5. Zimno *mi*.  
cold me/DAT  
"I'm cold."

Of course, examples like the above can be multiplied. I have shown elsewhere (Dyła 1981) that Polish employs over twenty nontrivially distinct types of Inversion constructions, which shows how productive this rule is.

Evidence for Inversion can be found in as diverse languages as Georgian, Udi (Harris, to appear a, b), Russian, Italian, Japanese, Kannada, and Quechua (Perlmutter 1979, to appear a, b). It usually takes the form of showing that a given nominal behaves like a non-Subject with respect to rules which reference final Subject and like a Subject with respect to rules which reference Subjecthood at any stratum.<sup>1</sup>

I lack space to present evidence for the final Indirect Objecthood of the underscored nominals in (1—5). I will simply refer the reader to Chapter Three of my doctoral dissertation (Dyła 1981). For the sake of discussion, we may assume that the morphological marking on the nominals in question is sufficient to show that they are final Indirect Objects.

What I am going to show now is that the nominals in question are non-final (presumably initial) Subjects. That this is indeed the case can be seen in the fact that they can serve as Equi controllers in the following type of construction:

6. Podczas oglądania meczu zacheiało *mi* się spać.  
while watching/GEN game/GEN it-wanted me/DAT REFL to-sleep  
"While watching the game, I began to feel sleepy."
7. Po wypiciu wódki zrobiło *mu* się niedobrze.  
after PERF-drinking/GEN vodka/GEN it-made him/DAT sick  
"Having drunk some vodka, he felt sick."
8. Podczas czekania na ciebie strasznie *mi* się nudziło.  
while waiting/GEN for you/ACC awfully me/DAT REFL it-bored  
"I was awfully bored while waiting for you."

The intended controllers are underscored. What remains to be demonstrated is that final Subjects can also be controllers in such constructions. Consider the following examples:

<sup>1</sup> The terms "initial stratum" and "final stratum" correspond roughly to deep structure and shallow structure in transformational grammar.

9. Podczas oglądania meczu zasnąłem.  
while watching/GEN game/GEN I-fell-asleep  
"While watching the game, I fell asleep."
10. Po przyjściu do domu zjadłem kolację.  
after PERF-coming/GEN to home/GEN I-ate supper/ACC  
"Having come home, I had my supper."

Final Direct Objects and final Indirect Objects cannot control Equi in such constructions, which is illustrated by

11. \*Po przyjściu do domu Adam zobaczył Ewę i Karola.  
after PERF-coming/GEN to home/GEN NOM saw  
ACC and ACC  
"Ewa and Karol having come home, Adam saw them."
12. \*Po przyjściu do domu Anna dała Michałowi kolację.  
after PERF-coming/GEN to home/GEN NOM gave DAT supper/ACC  
"Michał having come home, Anna gave him supper."

In passive sentences, both final Subjects and initial Subjects can be controllers, a fact exemplified in (13) and (14), respectively.

13. Podczas robienia zakupów Basia została zauważona przez Tomasza.  
while doing/GEN shopping/GEN Pl. NOM got noticed by ACC  
"While doing shopping, Basia was noticed by Tomasz."
14. Szczegół ten został zauważony przeze mnie dopiero  
detail/NOM this got noticed by me/ACC as-late-as  
podczas czytania tej książki po raz drugi.  
while reading/GEN this book/GEN for time second  
"The detail was noticed by me as late as I read the book for the second time."

Since the fact that the final Indirect Objects in (6—8) can be Equi controllers in such constructions is exceptional when compared with the inability to do so of most of final Indirect Objects, which follow the pattern of the Indirect Object in (12), and since nominals which are initial Subjects and final Chomeurs can also control Equi in the construction under consideration, as shown in (14), the ability of the final Indirect Objects to be Equi controllers can be accounted for by assuming that such final Indirect Objects are Subjects at some non-final, presumably initial, stratum. In order to account for the change of grammatical relation, it is assumed that sentences like (1—5) involve Inversion.

One reason for claiming that there can be no rule of Inversion in EST is the fact that the above data cannot be handled by the structural analog of Inversion. Assuming the validity of Zabrocki's (1981) claim that within

EST Inversion is a lexical redundancy rule, one can formulate such a rule in two entirely different ways: either in terms of grammatical relations, as suggested by Wasow (1977), or in terms of thematic relations, as suggested by Anderson (1977).

Wasow's lexical rule cannot account for the ungrammaticality of (12) vis-à-vis the well-formedness of (6—8) because being structure-preserving, it operates on final grammatical relations only. More precisely, such a rule is formulated in terms of final grammatical relations which are identical with initial grammatical relations. It follows from the above that such a rule would predict that either (12) is well-formed or (6—8) ill-formed. There would not be any motivation for the well-formedness of (14) either.

At first sight, Anderson's proposal to formulate lexical rules in terms of thematic relations seems to have more initial plausibility. That is, unlike Wasow's proposal, it can account for the ill-formedness of (12) vis-à-vis the well-formedness of (6—8) under the condition that /i/ this variety of Equi, which in EST would be an instance of non-lexical control construction, can be controlled by nominals which are semantically Experiencers. Since the dative-marked nominal in (12) is not an Experiencer but rather a Recipient, small wonder that (12) is ill-formed. Needless to say, Agent nominals would also be possible controllers.

Note, however, that such a proposal would run into trouble when faced with the following quadruple:<sup>2</sup>

15. Podczas czekania na Marię Tomasz zauważył Ewę.  
while waiting/GEN for ACC NOM noticed ACC  
"While waiting for Maria, Tomasz noticed Ewa."
16. \*Podczas czekania na Marię Tomasz zauważył Ewę.  
"Tomasz noticed Ewa while she was waiting for Maria."
17. Podczas czekania na Marię Ewa została zauważona przez Tomasza.  
while waiting/GEN for ACC NOM got noticed by ACC  
"While waiting for Maria, Ewa was noticed by Tomasz."
18. ?Podczas czekania na Marię Ewa została zauważona przez Tomasza.  
"Ewa was noticed by Tomasz while he was waiting for Maria."

Surprisingly enough, in spite of the fact that *Ewa* in (16) and *Ewa* in (17) are both Patients, the former cannot be an Equi controller, while the latter can.

It seems quite clear that the condition on Equi-controllers in this type of construction is not stateable in terms of thematic relations.

<sup>2</sup> The questionable status of (18) disappears when the *podczas* clause is placed at the end of the sentence.

It is tempting to try to combine the two approaches to lexical rules and assume that (i) the nominals involved in a lexical rule bear grammatical relations to the item with which the rule is associated in the lexicon, as suggested by Wasow (1977), and (ii) the nominals in question are assigned thematic relations by a lexical rule of interpretation (LRI) specific to the item "governing" the rule (cf. Zabrocki 1981).

Seen in this light, the principle that governs the controller choice in the type of construction under consideration could then be stated as follows:

19. Given the set of grammatical relations: Subject, Direct Object, Indirect Object, and the set of thematic relations: Agent, Experiencer, Cognizer, Patient, Goal, etc, a nominal can be a controller if and only if
  - a. it bears the Subject relation to its verb and is assigned any thematic relation, or
  - b. it bears any grammatical relation to its verb and is assigned any of the following thematic relations: Agent, Experiencer, Cognizer, or
  - c. it bears no grammatical relation to its verb and is assigned any of the thematic relations called out in (b) above.

Given the above principle, one can account for the well-formedness of (9—10) as well as (13) (cf. Condition (19.a.). Examples (6—8) are well-formed because they do not violate Condition (19.b.), in contrast with examples (11—12). And finally, Condition (19.c.) accounts for the well-formedness of (14).

One might ask why Conditions (19.b.) and (19.c.) call out Agent, Experiencer, and Cognizer and not, for instance, Patient or Goal. No non-arbitrary solution to this problem can be provided within the EST framework. I imagine that one might propose that thematic relations form a hierarchy with Agent, Experiencer, and Cognizer on the top and suggest that only the highest ranking relations assigned to nominals can make them controllers in the type of construction under consideration. The criterion adopted might be, for example, animacy or humanness of the referent of the nominal which is assigned one of the three thematic relations. Such a proposal would run into trouble when faced with the question of the status of Theme, which is a fairly abstract relation, and thus might resist any non-ad hoc treatment.

In RG, it is assumed that initial central grammatical relations like Subject, Direct Object, and Indirect Object are predictable from semantic relations (Perlmutter, to appear a). Hence the exceptional status of Agent, Experiencer, and Cognizer disappears — nominals which bear these semantic relations are simply always initial Subjects. Patient nominals are always Direct Objects at the initial stratum. That is why they cannot control Equi in the type of construction under consideration.

In the light of the above, the condition on Equi controllers can be stated as such:

20. A nominal can be a controller if and only if it bears the Subject relation to its verb at some stratum.

Comparison of the two approaches reveals that RG offers a more natural explanation for the deletion phenomena which serve as evidence for Inversion. Thus, it may be concluded that the relation-changing rule of Inversion is better motivated than its EST analog, which happens to be a lexical redundancy rule.

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