

# Some Remarks on Roeper's Remarks on Chomsky's 'Remarks'

A comment on Tom Roeper: *Chomsky's Remarks and the transformationalist hypothesis*

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In his 1970 paper 'Remarks on nominalization', Noam Chomsky provided several arguments for the lexicalist hypothesis, namely the idea that nouns like *refusal*, *rejection*, *growth*, and so on are nouns throughout the entire syntactic derivation. Tom Roeper's paper 'Chomsky's Remarks and the transformationalist hypothesis' challenges the lexicalist hypothesis, arguing that such nouns are syntactically deverbal. However, Roeper's challenge is not successful — the lexicalist hypothesis can be retained in its 1970 version.

## 1. Introduction

I was thrilled for two reasons to be asked to comment on a paper (Roeper 2005) that takes 'Remarks on Nominalization' (Chomsky 1970) as point of departure. First, because no other work was as instrumental to my own development as a linguist as was Chomsky's. I was trained at the University of Illinois as a generative semanticist, but had the opportunity to spend my last year as a student at MIT, where the 'Remarks' paper was all the rage. While my experience at MIT did not deter me from generative semantics, at least not for a while, it did provide me with a more open mind about how to do things than most generative semanticists had at that time. Second, there is a delicious irony to be asked to comment on a paper by Tom Roeper that deals with nominalizations. My first published debate ever was with Roeper (and his coauthor Tom Wasow – Newmeyer 1970; Wasow and Roeper 1972). I took the generative semantic position that nominalizations are all deverbal, while Roeper defended the lexicalist approach in Chomsky's 'Remarks' paper. Now the roles are completely reversed. I will be defending the Chomsky of the 1970s against Roeper's attempt to revive a version of the generative semantic analysis!

## 2. Chomsky's lexicalist hypothesis

Before 1970, all generative grammarians assumed that all nominalizations were both deverbal and desentential. Such an analysis was taken for granted in Lees 1960, and defended and given a generative semantic spin in Lakoff 1965/1970. In the rest of this paper, I call such an approach the 'Lees-Lakoff analysis'. Things began to change with Chomsky's 'Remarks' paper, circulated in 1967 and published in 1970. Chomsky argued that an important class of nominalizations — what he called 'derived nominals' — were listed in the lexicon as such, that is, they did not occur underlyingly in full sentences, nor were they derived

transformationally from verbs. In that paper, Chomsky distinguished three types of nominalizations in English. First, he called attention to gerundive nominals, as in (1):

- (1) a. John's riding his bicycle rapidly (surprised me).
- b. Mary's not being eager to please (was unexpected).
- c. Sue's having solved the problem (made life easy for us).

Second, he pointed to derived nominals, as in (2):

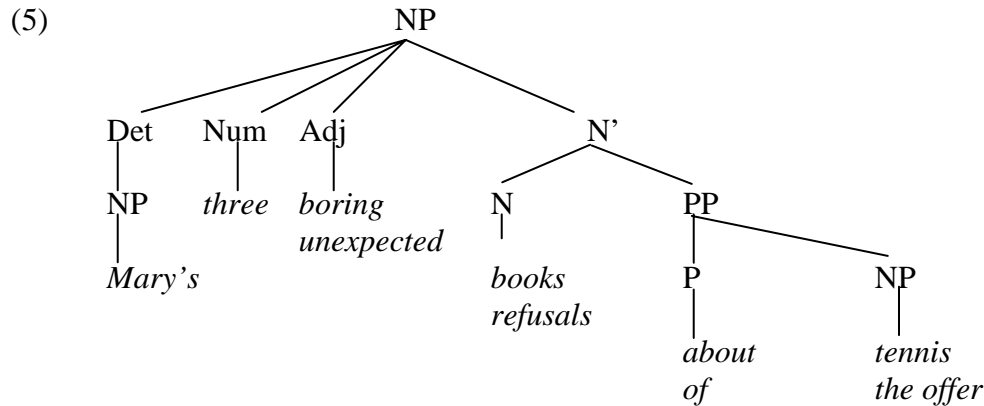
- (2) a. John's decision to leave (surprised me).
- b. Mary's eagerness to please (was unexpected).
- c. Sue's help (was much appreciated).

And he referred to an intermediate class, as in (3), all of whose members have the suffix *-ing* like gerundive nominals, but which share many properties with derived nominals:

- (3) a. John's refusing of the offer
- b. John's proving of the theorem
- c. the growing of tomatoes

Chomsky had no problem with the idea that gerundive nominals are desentential, given that they exhibit all of the hallmarks of full sentences. As can be seen in (1), they allow aspect, negation, and adverbs. His lexicalist hypothesis, however, posited that derived nominals (DNs) are simply listed as nouns in the lexicon. So (4a) and (4b) were attributed essentially the same deep structure, something like (5):

- (4) a. Mary's three boring books about tennis
- b. Mary's three unexpected refusals of the offer



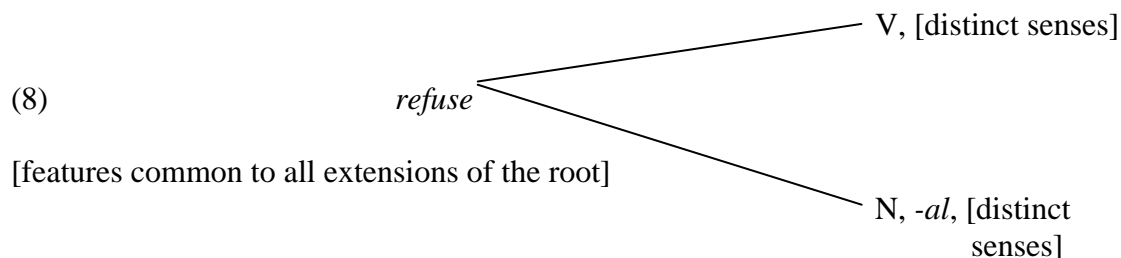
Chomsky gave three arguments for lexicalist hypothesis. The first I call the ‘Idiosyncrasy Argument’. It was well accepted at the time that a transformational rule should capture a regular productive relationship. But, as Chomsky noted, the relationship between DNs and their corresponding verbs is highly irregular. For one thing, not every DN has a corresponding verb:

- (6) motion, but \*mote; usher, but \*ush; tangible, but \*tange; etc.

In those cases in which no verb corresponding to a DN exists, a transformational account would have to invent an abstract verb whose only function would be to undergo the nominalization transformation. Furthermore, the meaning relation between verbs and DNs is an idiosyncratic one:

- (7) a. profess (‘declare openly’) — professor (‘university teacher’) — profession (‘career’)  
 b. ignore (‘pay no attention to’) — ignorance (‘lack of knowledge’)  
 c. do (‘carry out some act’) — deed (‘a very significant act’; ‘a document of property ownership’)

Chomsky argued that a lexicalist treatment of DNs could allow their irregularity to be captured in a natural manner. So he suggested that the verb *refuse* and the noun *refusal* share a neutral lexical entry that lists those features common to both. This neutral entry would lead to a N branch and a V branch, as in (8):



Hence, it would seem that both the regular features and the irregular features of the *refuse/refusal* relation could be adequately characterized.

I call Chomsky’s second argument for the lexicalist hypothesis the ‘Internal Structure Argument’. Its point of departure is that fact that the structures in which DNs occur resemble noun phrases in every way. They can contain determiners, prenominal adjectives, and prepositional phrase complements (as in 9a), but not adverbs, negation, aspect, nor tense (9b-d):

- (9) a. the stupid refusal of the offer  
 b. \*the refusal stupidly of the offer

- c. \*the not refusal of the offer
- d. \*the have refusal of the offer

Such facts follow automatically if DNs are nouns in the lexicon and are inserted as such in deep structure. That is, a lexicalist treatment predicts them to have the same distribution as ordinary nouns. A transformational analysis, on the other hand, would be forced to posit ad hoc conditions on the nominalization transformation to ensure that the underlying sentences end up looking like surface noun phrases.

Chomsky's third argument, the 'Frozen Structure Argument', was more complex. The problem in need of explanation is that DNs occur in NPs corresponding to base structures, but not to transformationally derived structures (consider the contrast between the (b) phrases and the (a) phrases in 10-15):

- (10) a. Harry was certain to win the prize.  
b. \*Harry's certainty to win the prize (no Raising within NP)
- (11) a. Mary gave Peter the book.  
b. \*Mary's gift of Peter of the book (no Dative Movement within NP)
- (12) a. There appeared to be no hope.  
b. \*there's appearance to be no hope (no There-Insertion within NP)
- (13) a. I believed Bill to be a fool.  
b. \*my belief of Bill to be a fool (no Raising-to-Object within NP)
- (14) a. John interested the children with his stories.  
b. \*John's interest of the children with his stories (no Psych-Movement within NP)
- (15) a. Lee is easy to please.  
b. \*Lee's easiness to please (no Tough-Movement within NP)

Chomsky argued that the data in (10-15) follow automatically from the treatment of DNs as deep structure nouns. If one assumes that the domain of movement is S, but not NP, then the ungrammatical (b) phrases are simply underivable.

Unfortunately, the rule of Passive appeared to be a glaring counterexample to the claim that transformations do not apply in the NP domain. It does appear as if Passive applies internally to NP, since (16b) is unexpectedly grammatical:

- (16) a. John was rejected by the committee.  
b. John's rejection by the committee (Passive seems to apply within NP)

Chomsky – somewhat inconsistently – hypothesized that Passive *does* apply in a NP domain. (I return to this problem below.)

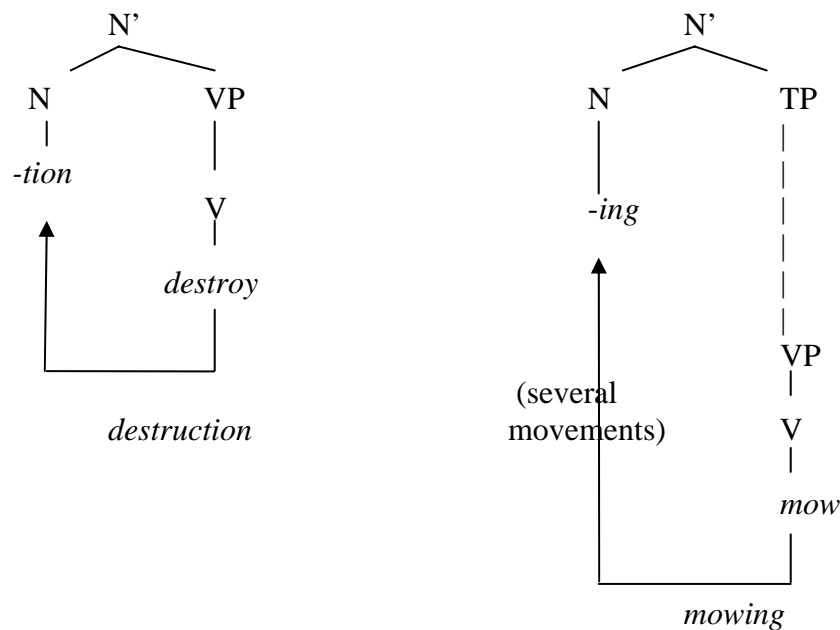
In the remainder of this paper, I have nothing to say about gerundive nominals. Their desentential nature is too uncontroversial to devote time to discussing. And also, following Roeper, I refer to derived nominals and the third type simply as ‘nominalizations’.

### 3. Roeper’s updated generative semantic analysis

Roeper 2005 presents an updated version of the Lees-Lakoff analysis — ‘Neo-Generative Semantics’, if you will. I argue in the remainder of this paper that it suffers from all of the same problems that plague the Lees-Lakoff analysis, problems that can be avoided if we follow the analysis that Chomsky argued for in his ‘Remarks’ paper.

Space limitations do not permit the details of Roeper’s analysis to be repeated here, but the points in (17) are the most important:

- (17) a. As the trees representing the words *destruction* and *mowing* indicate, nominalizations have an internal V node:



- b. Projections have semantic relevance and particular types of nominalizations are associated with particular projections (e. g. for Event nominalizations,  $N'$  immediately dominates  $VP$ , for bare Result nominals like *help* and *advice*,  $N'$  immediately dominates a bare  $V$  stem, etc.).



Let us turn now to (17b), the idea that projections have semantic relevance and that different affixes line up in different projections. On this point, Roeper writes that ‘we expect a node to capture a semantic difference’ (Roeper 2005: 15). That is probably correct. However, in reality Roeper goes a lot farther than that. The position that he defends is the idea that each semantic difference should be captured by a different node, an idea that generative semantics attempted and failed to execute. So part of Roeper’s program is to try to find a unique meaning — and therefore a unique projection — for each affix. I do not think that he has been successful. For example, Roeper argues that the *-tion* suffix refers to the notion of EVENT. Sometimes that is the case, but more often than not, it is not. In fact, I would estimate that at most 10% of *-tion* nominalizations refer exclusively to events. Some non-event examples are listed below:

- (20) abbreviation, absorption, acceleration, addiction, addition, adoration, agglutination, ambition, annotation, augmentation, bijection, causation, citation, coalition, compensation, conception, confederation, contention, corruption, decoration, desperation, devotion, direction, duration, emotion, exception, faction, fiction, generalization, hesitation, imagination, indiscretion, inflation, isolation, jurisdiction, limitation, malnutrition, misconception, navigation, nutrition, obligation, option, overproduction, perfection, petition, preposition, qualification, recollection, reflection, relation, salvation, separation, sophistication, suggestion, toleration, utilization, ventilation

Roeper refers to ‘semantic drift’ to explain the existence of items like (20), but underestimates the extent of it (if drift is what really happened), and does not discuss any formal mechanism for handling the drifted items.

One could make the same point about bare nominals, which Roeper says encode results. Again, I would say that well under half of them do. Some non-result bare nominals are listed below:

- (21) advice, cry, drink, hate, help, look, love, nap, run, shoot, shout, sleep, step, talk, trap, try, walk

The lynchpin of generative grammar for 50 years, and that which distinguishes it from all other approaches to language, is the autonomy of syntax, namely, the idea that syntactic generalizations do not map smoothly onto semantic ones. I do not feel that Roeper’s attempt to subvert autonomy has been successful.

#### 4.2 *The Internal Structure Argument*

Recall that for Roeper, phrases (22a-b) have very different derivations:

- (22) a. Mary’s three boring books about tennis  
b. Mary’s three unexpected refusals of the offer

Yet their surface structures are essentially identical. The question is how this near identity follows from Roeper's approach in a natural way. That is, we need something explicit that tells us what the structure of an NP is and why the structures of (22a-b) are essentially identical. But we are not told what that device is. Roeper's one explicit tree showing derivational steps is of an *-ing* nominalization, namely, (23):

(23) the mowing of the lawn

Recall that *-ing* nominalizations are the third 'mixed' type that Chomsky discussed. But there is no other nominalization type that is as unsystematic and problematic. As Chomsky noted: '... there is an artificiality to the construction that makes it quite resistant to systematic investigation' (Chomsky 1970: 214). For example, passives forms are impossible:

- (24) a. \*the lawn's mowing by Mary  
b. \*the offer's refusing by John

Roeper handles this ungrammaticality by hypothesizing that *-ing* is purely transitive, but this stipulation does not *follow* from anything intrinsic to his approach. Even so, that stipulation would appear to make the wrong prediction about unaccusatives, since (25) is fine:

(25) Mary's arriving on time surprised us.

Assuming that *arrive* is an unaccusative verb and that *Mary* originates in object position, (25) should be underivable, given Roeper's assumptions.

In many respects, *-ing* nominalizations do in fact behave like the rest of what Chomsky calls 'derived nominals'. For example, they forbid internal aspect and negation and they demand a preposition after the head:

- (26) a. \*the having mowed of the lawn  
b. \*the not mowing of the lawn  
c. \*the mowing the lawn

It's not at all clear to me how Roeper would explain the ungrammaticality of (26a-c), since the suffix is generated as the sister of TP and TP's contain negation, aspect, and bare objects.

Roeper does attempt to motivate an internal VP for *-tion* nominalizations by giving examples of where they occur with *do so* (presumptively a VP anaphor) and adverbs (the question marks are those assigned in Roeper's paper):

(27) John's destruction of the city and Bill's doing so too



- (28) a. While the removal of evidence *purposefully* (is a crime), the removal of evidence *unintentionally* (is not).  
 b. ?His explanation of the problem *immediately* to the tenants (did not prevent a riot).  
 c. ?Protection of children *completely* from bad influence (is unrealistic).  
 d. His resignation so *suddenly* gave rise to wild speculation.

I would be inclined to attribute sentences like (27) to performance error or to a recency effect. But if (27) argues for a VP node with event nominalizations, then the equal acceptability of (29) should argue for a VP node with *bare* nominalizations:

- (29) America's attack on Iraq was even less justified than the latter's doing so to Kuwait.

Yet, these are just the nominalizations for which Roeper argues that there *is no* VP node. (28a-d) do not support the idea of a VP node either. In (28a) we have subject-oriented adverbs and in (28b-c) the adverb forms a unit with the following PP. (28d) is an example of a *so*-phrase modifying a Noun, analogously to (30):

- (30) With a heart so pure he will never go astray.

#### 4.3 *The Frozen Structure Argument and the problem of Passive*

Let us turn now to the almost airtight generalization that movement does not apply internally to NP (examples 10-15). Without additional stipulations, this generalization does not follow from Roeper's approach and I am not sure what he could do in the way of revision to capture it. Ideally, we would expect a blanket prohibition against movement internal to NP, but the problematic case again is Passive, represented by examples like the following:

- (31) John's rejection by the committee

In fact, I think that a strong case can be made against movement of *John* from object position to what one might call the 'subject position' of *rejection*. First of all, the movement would have to be endowed with a strange structural restriction. It would have to be blocked from applying if the noun has a determiner:

- (32) \*the/that John's rejection by the committee

Another structural restriction that would need to be placed on movement is its blocking if the noun is followed by a preposition, as (33a-b) illustrate (Emonds 1976):

- (33) a. The strike was briefly referred to in the newspaper.  
 b. \*I saw the strike's brief reference to in the newspaper.

But most seriously, putative movement within NP has all of the thematic restrictions that are characteristic of a lexical process, rather than a movement process. For example, time NPs are allowed in subject position, but not manner NPs:

- (34) a. Last week's discussion about Chicago  
b. \*That way's refusal (shocked us all)

And as Roeper notes, citing Anderson 1983, movement is impossible if the object is not affected (35a) or if the nominalization is suffixless (35b):

- (35) a. \*Algebra's knowledge by high school students  
b. \*Mary's love, \*Cuba's attack

In fact, Grimshaw 1990 has whole chapter on how nominals do not behave thematically like their corresponding verbs.

All of the above facts lead me to speculate tentatively that NP-internal movements should be excluded entirely.

#### 4.4 *The problem of control and anaphora in NP*

A corollary to the idea that movement in NPs is impossible is the outright impossibility of empty elements within NP. Roeper devotes quite a bit of space to arguing for the idea that nominalizations always have subjects. When they are not overt, he posits an empty element PRO, as in (36):

- (36) the PRO destruction of the city

That analysis has the immediate problematic aspect that PRO is posited to occur where a NP can never occur. For example, sentences like (37) are contrary to basic English phrasal organization:

- (37) \*the [the awful destruction] destruction of the city

(36) should be impossible for the same reason that (37) is impossible.

I devote the remainder of this section to rebutting Roeper's arguments for obligatory subjects within NP. He provides four arguments (actually five, but one of which he acknowledges is not very strong), which I discuss in turn.

First, Roeper calls attention to the contrast in (38):

- (38) a. John was in PRO control of the army => John controls  
b. John was in the PRO control of the army => the army controls

He argues that the definite article has the power to block outside control, a circumstance that he feels can be achieved if the noun *control* is provided with a PRO subject. But it seems to me that these examples simply point to idiosyncratic properties of the noun *control*. In both (39a) and (39b), it is the FBI that ‘surveilles’, not John:

- (39) a. John was under surveillance by the FBI.  
b. John was under the surveillance of the FBI.

And in (40a) and (40b), it is John who ‘infatuates’:

- (40) a. John has gotten over infatuations for film starlets.  
b. John has gotten over those silly infatuations for film starlets.

Note also that the definite article along with a putative PRO in (41) does not block John from being interpreted as the dictator:

- (41) John was the PRO dictator.

Second, Roeper points to the contrast in (42) to argue for a PRO subject for NP:

- (42) a. ?The PRO<sub>i</sub> dressing of himself<sub>i</sub> thrilled [the little boy]<sub>i</sub>.  
b. The PRO<sub>i</sub> dressing of [the little boy]<sub>j</sub> thrilled him<sub>j</sub>.

He notes that the person doing the dressing has to be the little boy in (42a), but someone else in (42b). But (42a) argues for a PRO subject for *dressing* only if we can explain why that PRO, *himself*, and *that boy* have to have the same index. It is not at all obvious, since *the little boy* is a direct object and the putative PRO and the anaphor are part of the subject.

Roeper’s third argument is that we need a hidden agent subject to act as controller in sentences like (43):

- (43) a. the PRO<sub>i</sub> destruction of the city [PRO<sub>i</sub> to prove a point]  
b. the PRO<sub>i</sub> use of drugs [PRO<sub>i</sub> to go to sleep]  
c. the PRO<sub>i</sub> opening of the side door [PRO<sub>i</sub> to enter the room]

But if there is a PRO in higher NP subject position, we would predict the grammaticality of the sentences in (44), all of which seem pretty dubious to me:

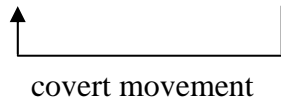
- (44) a. \*the PRO<sub>i</sub> destruction of the city [PRO<sub>i</sub> to make myself<sub>i</sub> a feared general]  
b. \*the PRO<sub>i</sub> use of drugs [PRO<sub>i</sub> to put myself<sub>i</sub> to sleep]  
c. \*the PRO<sub>i</sub> opening of the side door [PRO<sub>i</sub> to let myself<sub>i</sub> in]

Roeper’s fourth argument for a subject position in nominalizations comes from contrasts like in (45):

- (45) a. the learnability of grammar by children  
 b. the heritability of IQ by children  
 c. \*children's learnability of grammar  
 d. \*children's heritability of IQ

He argues that (45c-d) can be blocked if there is covert movement of the object to subject position, thereby blocking preposing of the agent, as in (46):

- (46) the [obj] learnability of grammar



I did not really understand the supporting evidence for this covert movement. But surely the ungrammaticality of (45c-d) is a function of the ungrammaticality of (47a-b), however that might be formalized:

- (47) a. \*children are learnable  
 b. \*children are heritable

And the ungrammaticality of (47a-b) in turn is an automatic consequence of the ungrammaticality of (48a-b):

- (48) a. \*NP learns children  
 b. \*NP inherits children

In other words, I do understand see why one would need to resort to positing an empty subject to block (45c-d).

## 5. Conclusion

To conclude, I have long believed that Chomsky was on the right track in his 1970 paper 'Remarks on Nominalization'. In short, nothing in Roeper 2005 has led me away from the idea that Chomsky was indeed on the right track.

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## References

- Anderson, Mona. 1983. "Prenominal Genitive NPs." *Linguistic Review* 3, 1-24.
- Chomsky, Noam. 1970. "Remarks on Nominalization." In: R. Jacobs and P. Rosenbaum (eds.), *Readings in English Transformational Grammar*, Ginn, Waltham, MA, 184-221.
- Emonds, Joseph E. 1976. *A Transformational Approach to English Syntax*, Academic Press, New York.
- Grimshaw, Jane. 1990. *Argument Structure*, MIT Press, Cambridge, MA.
- Lakoff, George. 1965/1970. *Irregularity in Syntax*, Holt, Rinehart, and Winston, New York.
- Lees, Robert B. 1960. *The Grammar of English Nominalizations*, Mouton, The Hague.
- Newmeyer, Frederick J. 1970. "The Derivation of the English Action Nominalization." *Chicago Linguistic Society* 6, 408-419.
- Roeper, Thomas. 2005. "Chomsky's Remarks and the Transformationalist Hypothesis." In: R. Lieber and P. Stekauer (eds.), *Handbook of English Word-Formation*, Kluwer, Dordrecht, 125-146.
- Wasow, Thomas and Roeper, Thomas. 1972. "On the Subject of Gerunds." *Foundations of Language* 8, 44-61.