

# 英語 名詞化

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## On Nominalization in English

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### 英語의 名詞化에 대하여

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#### 국문 요약

본 연구에서는 Chomsky의 “Remarks on Nominalization” 이후 名詞化에 대하여 크게 論難을 일으킨 語彙論的 立場과 變形論的 立場의 理論을 비교 검토하고, 이 두 立場에서도 설명되지 못했던 派生名詞形에 관련된 内部構造의 非文法的인 경우를 해결할 가능성을 찾아보았다.

일반적으로 지금까지 생각해 왔던 命題와는 또 다르게, 否定, 樣相助動詞 등을 “指標的命題”라고 가정했을 때, 派生名詞의 内部構造가 非文法的인 경우를 설명할 수 있는 일반화된 개념을 얻을 수 있었다.

또한, 名詞化에 관련시켜 생각할 때, 특히 동사의 경우에 두드러진 현상인데, 문장에서이든 명사화된 명사구에서이든 어휘적 특성은 그 관련된 구조의 문법성에 결정적 역할을 한다. 따라서, 소유격, 부사, 그리고 指標的 命題에 관한 좀더 넓은 理論의 전개가 필요하다는 부수적 문제가 제기된다.

#### Introduction

This paper is part of a large endeavor in which we attempt to look into the tendency to least effort for language economy. And the goal of this paper is to review Chomsky's nominalization

(1970) and to make a proposal for the ungrammaticality of some internal structure of derived nominals.

The earlier theory of Chomsky (1957: 72 and 1958) for ‘nominalizing transformation’ is abandoned by Chomsky himself (1970) through the lexicalist hypothesis (LH), which is against derived nominals based on transformational rules. In LH, nominalization is accounted for by the lexicon rather than the transformational component, and derived nominals are not sentences at any level of syntactic representation. And the lexical entry involving certain Boolean conditions on features specifies that semantic features are in part dependent on the choice of one or another of categorical features, with redundancy rules in the lexicon expressing regularities.

On the other hand, Newmeyer (1970, 1971, 1976, and 1980) refutes LH acutely, speaking highly of Lees’s analyses (1968) for the details of the embedding transformations involved in the derivation of the various complement and relational structures. Anyhow, it seems to be clear that the issue between lexicalists and transformationalists reveals fundamental aspects of linguistic theory.

Concerning LH, Jackendoff (1977: 11) points:

“Whichever formalism one chooses, there is an important innovation in this theory the relations among surface lexical formatives can be expressed by other than transformational means.”

Presenting two types of nominalization, gerundive nominal and derived nominal, Chomsky (1970: 187) refers to the productivity of process, the generality of the relation between the nominal and the associated structure, and the internal structure of the nominal phrase, and says that gerundive nominals can be formed fairly freely from structures of subject-predicate form. But gerundive nominals are not dealt with in this paper.

## 1. On the Restricted Productivity

Let us begin with Chomsky’s restricted productivity of process (1970), which means the limitations on underlying structures with respect to nominalization. Consider the following.

- (1) a. John’s eagerness to please
- b. \*John’s easiness to please
- c. \*John’s certainty to win the prize
- d. \*John’s amusement of the children with his stories

In LH, the ungrammaticality of (1, b-d) is caused by the fact that derived nominals (1, b-d) cannot be formed corresponding to the sentences (2) and that sentences (2) and sentence *John is eager to please* do not correspond to base structures, respectively.

- (2) a. John is easy to please.  
 b. John is certain to win the prize.  
 c. John amused the children with his stories.

In LH, *eager* must be introduced into the lexicon with a strict subcategorization feature indicating that it can take a sentential complement, while *easy* cannot be introduced by lexical insertion into the noun position with sentential complements. The ungrammaticality of (1, c) is also predicted, because the strict subcategorization feature has been violated. *Certainty* is followed by a sentential complement despite the fact that it is not predicated of *John*. Concerning (1, d), Chomsky (1970: 191) argues that if derived nominals are formed by transformation there is no reason why (1, d) should not be formed from the structure that underlies the gerundive nominal *John's amusing the children with his stories*, just as *John's amusement at the children's antics* would be derived from the structure that underlies the gerundive nominal *John's being amused at the children's antics*. But Newmeyer (1971) points out that such a prediction can follow from the fact that the transformations performing derivation are ordered before all other transformations performing derivation are ordered before all other transformations. If a precyclic rule of nominalization converts embedded sentences into non-sentential NPs, then the data are accounted for without recourse to LH. Newmeyer (1971: 788-790) argues for monimalization preceding all the cyclic rules and for the transformational derivation of derived nominal in the passivization. Once *easy*, *certain*, etc. have nominalized, the structural description of Subject-Raising cannot be met. However, Chomsky (1977: 109-110) brings forth a counterargument that the distinction between (3, a) and (3, b) must be formulable without reference to ordering of transformations, on the assumption that *eagerness*, *difficulty*, etc., are drawn from the lexicon. On his assumption, the underlined NPs of (3) have the underlying structures (4, a-b).

- (3) a. *John's eagerness to please* – surprised me.  
 b. \**John's difficulty to please* – surprised me.
- (4) a. [<sub>NP</sub> *John's* [<sub>N</sub> *eagerness* [<sub>S</sub> *for himself to please* ]]]  
 b. [<sub>NP</sub> *John's* [<sub>N</sub> *difficulty* [<sub>S</sub> (*who*) for PRO to please t ]]]

Returning to (1, d), the ungrammaticality could be accounted for, differently from Chomsky, from the fact that the choice of preposition is determined by subcategorization relations and the semantic class of the noun. Anderson (1978: 18) observes that the lexical preposition in NPs like *enjoyment of the play* will block NP pre-posing and prepositions in general prevent NP pre-posing

in NPs. *Of* is said to be the only preposition which allows NP pre-posing:

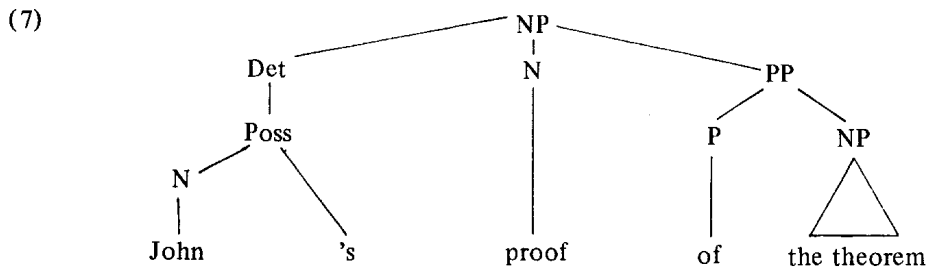
- (5) a. The knife's concealment: Concealment of the knife  
 b. \*The president's admiration for: Admiration for the president  
 c. \*Panama's accord with: Accord with Panama

There seem to be grounds (Hornstein and Lightfoot, 1981: 19-22) for distinguishing two classes of prepositional complements: those which modify an N, and those which modify an N-bar. But of course this distinction presupposes the existence of intermediate categories.

- (6) a. a student of physics with long hair  
 b. \*a student with long hair of physics

Chomsky (1970: 195) presents that an extensive range of complements should be introduced to such phrases as *eagerness (for John) to please*, *refusal of the offer*, and *belief in a supreme being*. Moreover, regarding *house in the woods* in *John's house in the woods* as some sort of nominal, differently from a true reduced relative such as *that book on the table*, Chomsky assumes a main constituent break before *house*.

Since constructions such as *\*the weather which is in 1986* are ungrammatical, base rules may be expanded to permit certain PPs to be generated under NP, such as. (cf. Jackendoff, 1977. 10 ff.)



The above (7) is the base structure of (8)

- (8) John's proof of the theorem

Let us review Chomsky's observation about (8). The item *prove* appears in the lexicon with the choice items appearing in the associated phrases in the range of complements accepted. However, the possessive noun phrase *John's* and its relation to the head noun *proof* are in question. The source of (8) might be thought to be (9), as in the case of (10)

- (9) the proof of the theorem that John has  
 (10) a. John's table  
 b. the table [<sub>S</sub> John has a table]

This approach runs into difficulties with the phrases *John's refusal to leave* and *John's invention of a better mousetrap*. Referring to the notion of inalienable possession,<sup>1)</sup> Chomsky argues

1) The notion of alienable and inalienable relationship was also proposed by Lyons (1968. 301).

that words *John* and *proof* are the heads of the related phrases in the phrase (8) and that the selectional relation of the possessive noun phrase of the determiner to the 'verbal' head of the derived nominal is the same as that of the subject of the verb of the associated verb phrase. In LH, the possibility has been explored that complex noun phrases, which ultimately will be possessivized if not removed from the determiner by a transformation, are derived directly by a base rule.

Chomsky (1970) obtains the rule (12, Chomsky's 42) from the examples (11):

- (11) a. the picture of Mary by John  
 b. a picture of Mary by John  
 c. several pictures of Mary by John  
 d. one of the pictures of Mary by John

(12) Article  $\rightarrow$  [ $\pm$ def, (NP)]<sup>2)</sup>

Chomsky argues that such an analysis as (12) would hold for derived nominals, giving such phrases as (13):

- (13) a. (several of) the proofs of the theorem by John  
 b. several proofs of the theorem by John

However, Newmeyer (1980: 116) points out the problem of the similarity of co-occurrence restrictions holding within sentences and those holding within noun phrases. He gives the following:

- (14) a. [<sub>NP</sub> John] [<sub>V</sub> proved] [<sub>NP</sub> the theorem]  
 b. Several of [<sub>NP</sub> John]'s [<sub>N</sub> proofs] of [<sub>NP</sub> the theorem]

Newmeyer argues that the transformationalist account does capture the fact that the noun phrase subject of *prove* corresponds to the nounphrase in the determiner of *proof*, and the noun phrase object of *prove* corresponds to the noun phrase in the prepositional phrase following *proof*, by deriving phrases like (14, b) from full sentences.

On the other hand, Emonds (1976: 100) proposes the possibility of formulating a general condition of the following (15) for the principle of derived nominal structure as a special case for English under LH:

- (15) Transformations that move material to the left in English cannot apply in the domain of both NP's and S's.

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2) Chomsky's explanation is that the article can be either definite or indefinite, or can be a full noun phrase with the associated feature [+definite] or [-definite]. When the noun phrase is removed from the determiner by a transformation, the feature [ $\pm$ definite] will remain, much as the feature [+PRO] remains in certain positions when a noun phrase is removed.

It should be noted that Emonds (1976: 97-98) presents four pieces of evidence in favour of the possessive transformation different from NP preposing. But, as quoted above, Anderson (1978: 14) points that NP preposing applies in both NP and S nodes regularly, with some nouns taking bare NP complements as in *the criminal's rehabilitation* and *rehabilitation of the criminal* and with others taking prepositional phrases with lexical preposition as in *admiration for the president* (cf., *\*the president's admiration for*). Anderson argues for the choice of preposition determined by the semantic distinction in terms of the notion of 'affected.'<sup>3)</sup>

Chomsky (1970: 203 ff.) presents the base structure (16, a) for (16, b-d):

- (16) a. the enemy's – [destroy, +N] – the city – by  $\Delta$   
 b. the enemy's destruction of the city  
 c. the destruction of the city by the enemy  
 d. the city's destruction by the enemy

Phrases (16, c and d) are not nominals derived transformationally from the passive, but passives of base-generated derived nominals, by independently motivated transformation, in LH.

In this connection, Covington (1981: 355) points that such a treatment becomes implausible in view of the variety of abstract verbs that would be needed to cover the following (18). Covington's view is that the assumption (16, b-d) derived from active and passive versions of a deep structure containing *destroy* would lead to the generalization that (16, b-d) and (17) are parallel. If so, (17) would come from a deep structure containing an abstract verb that nominalizes as *portrait*.

- (17) a. John's portrait of Henry IV  
 b. the portrait of Henry IV by John  
 c. Henry IV's portrait by John  
 (18) a. John's houses: houses by John  
 b. John's book about habbits: the book about habbits by John  
 c. John's blue jeans: blue jeans by John

Covington points:

"Do we really want an abstract verb that nominalizes as *blue jeans*? It seems much more reasonable to propose that certain classes of English nouns, including words for artistic creations and also most derived nominals, can take agent phrases within the NP, and that the sets of phrases above are related by one or more transformations. Once such transformations are available for (17, Covington's 1.1-8) and (18, Covington's 1.1-9), they can also be used to relate 'active' and 'passive' derived nominals as in (16, Covington's 1.1-7), and it is not necessary to invoke sentential Passive."

3) Anderson specifies 'moved or changed' to make the notion of 'affected' clearer.

In effect, we can find examples which share a lexical property, such as that of causative verbs. Consider the following:

- (19) a.  $\left. \begin{array}{l} \text{John} \\ \text{NP} \end{array} \right\}$  grows tomatoes  
 b. Tomatoes grow.  
 c. the growing of tomatoes  
 d. the growth of tomatoes

Chomsky notices that (19, c) is structurally ambiguous, and (19, d) is unambiguous, since it has the interpretation of (19, b), but not of (19, a). The transitive use of *grow in* (19, a) might be derived from (20).

- (20) John [+cause] [<sub>S</sub> tomatoes grow]<sub>S</sub>

If (19, a) is derived from (20), the corresponding derived nominal is excluded, though not the corresponding nominalization (19, c). It follows that (21, a) is grammatical, but not (21, b):

- (21) a. the tomatoes's growth  
 b. \*John's growth of tomatoes

Arguing for LH, Chomsky (1970: 192) asserts:

“Hence the lack of ambiguity (that of (19, d)) offers empirical support for a combination of the lexicalist hypothesis with the causative analysis, ....”

In this connection, I propose that the ungrammaticality of (21, b) is due to the fact that the feature [+cause] in (20) is one proposition and [<sub>S</sub> tomatoes grow]<sub>S</sub> the other. We will return to this proposal later.

Smith (1972: 136-138) presents examples, all of which share a morphological property: their nominals are formed with suffixes of Latin origin, usually the suffix *-tion* such as *the priest's conversion of Robert* and *Robert's conversions*. Most causative verbs of Anglo-Saxon type have the  $\phi$  nominal suffix: *ring*, *turn*, *change*, *raise*, and so forth, and both *-th* and *-ness* are also Anglo-Saxon suffixes. Smith presents the following:

- (22) a. the light's dimness  
 b. \*John's dimness of the lights

Smith argues that the Anglo-Saxon type verbs do not take the nominalizing suffix of Latin origin (*-tion*, *-al*, *-ment*), and have only intransitive derived nominals, while the Latin type verbs such as *alter* and *rotate* take Latin nominalizing suffixes and have both transitive and intransitive derived nominals.



Smith concludes:

“Thus the grammar must distinguish at least two classes of ‘causative’ verbs: those that do and do not have transitive derived nominals. Evidently, either the lexicalist position or the transformational derivation of causatives position or the transformational derivation of causatives must be given up.”

However, this solution is thought to be too limited to morphological property.

Moreover, there seems to be a distinction between derived nominals and non-derived nominals. This distinction is clear in the forms of ‘NP’s N’ and ‘the N of NP.’ Chomsky (1970) notices that *John’s picture* can have the three ambiguous readings (23):

- (23) a. the picture that John has (the picture belonging to John)  
 b. the picture of John (the picture depicting John)  
 c. the picture that John painted (the picture painted by John)

To explain this phenomenon, Chomsky proposes three base sources:

- (24, Chomsky’s 37) X-the-Y picture that John has ⇒ X-John’s-picture  
 (25, Chomsky’s 38) X-John’s-Y picture ⇒ X-the-Y picture of John’s  
 (26, Chomsky’s 39) X-the-Y picture of John ⇒ X-John’s-picture

X and Y are pre-and post-article (including the demonstrative element), respectively.

(25) will be obligatory when Y contains a demonstrative element, producing (27):

- (27) a. that picture of John’s  
 b. several of those pictures of John’s.

When the phrase contains a relative clause, (28) is ungrammatical:

- (28) \* John’s picture that Bill painted.

(25) will be blocked when Y is null, excluding (29):

- (29) a. \*the picture of John’s.  
 b. \*several of the pictures of John’s

From the above observation by Chomsky, extrinsic ordering is captured by Hawkins (1981: 253):

- (30) \*the picture of John ⇒ John’s picture ⇒ the picture of John’s

Hawkins points that the derivational sequence is an ad hoc imposition on the rules. Moreover, in connection with LH that derived nominals have the internal structure of ordinary NPs, Hawkins argues that the only base source for such a phrase as *the ship’s funnel* should be the form *the funnel of the ship* and that, for example, *a mountain* and *the foot of the mountain* is intrinsically

connected in spite of the fact that semantic component only defines 'intrinsic connection' on the base form 'NP's N', not on the form 'the N of NP'. Chomsky's distinction between the reading 'possession' for (24) *John's picture* and the reading 'intrinsic connection's' for (26) is rejected by Hawkins (1981: 254).<sup>4)</sup>

From various pieces of evidence, Hawkins obtains the following semantic hierarchy (31, Hawkins's 26<sup>'''</sup>) determining the order of precedence of constituents in the frames 'NP's N' and 'the N of NP.'

- (31) [HUMAN < [HUMAN ATTRIBUTE]] <  $\begin{bmatrix} \text{NON-HUMAN} \\ \text{ANIMATE} \end{bmatrix}$  <  $\begin{bmatrix} \text{NON-HUMAN} \\ \text{INANIMATE} \end{bmatrix}$  <sup>5)</sup>

Distinguishing nouns that have a functional structure, the derived nominals, and those which do not, Hawkins proposes that where grammatical functions are defined, the semantic hierarchy (31) does not apply. Thus the reason why *the picture of John* is an acceptable string is that *picture* displays the characteristics of a derived nominal – it accepts complements: *John's picture of Harry*.

On the other hand, Ross (1973: 230) argues that lexicalism seems to provide no explanation for the reason why *Equi* and *PP Shift* do work inside derived nominals, while *Object Deletion* and *Dative* do not. Ross assumes that *Equi* converts (32, a) to (32, b) and what he calls *Object Deletion*, which resembles *Equi*, (33, a) to (33, b). But (34, b) is ungrammatical.

(32) a. Thom is ready for [for Thom to operate on Sue]

b. Thom is ready to operate on Sue.

(33) a. Thom is ready for [for Sue to operate on Thom]

b. Thom is ready for Sue to operate on.

(34) a. Thom's readiness to operate on Sue

b. \*Thom's readiness for Sue to operate on

*Dative*, which resembles *PP Shift*, does not apply to (35, d):

(35) a. The message from Aix to Ghent

b. The message from Ghent to Aix

c. The letter of hope to Mary

d. \*The letter Mary of hope

Ross (1973: 214) proposes the generalization (36, Ross's 3-67) and says that there seems to be

4) Hawkins points out two distinct readings for *John's belief*, one where *John* and *belief* are intrinsically connected in some way, and another where *John* is in possession of a belief, and says that the prediction of such ambiguity does not match intuition.

5) It is interpreted as [HUMAN] has precedence over [NON-HUMAN]. And human body-part terms are assigned a feature in the lexicon like [HUMAN ATTRIBUTE].

no reason to prefer a lexicalist treatment of nominalization to a transformationalist one.

- (36) The rules which apply to NPs whose head noun is morphologically complex will not differ from those that apply within NPs whose head noun is morphologically simple.

In this respect, Covington (1981: 356) states:

- (37) "Ross's point is that NPs are not exempt from ALL sentential transformations, only SOME of them; ....

Lexicalism predicts that derived nominals will behave exactly like NPs throughout the syntactic derivation, whereas the transformational account predicts that they will behave like sentences before Nominalization and like NPs afterward. The import of (36) is that morphologically complex nouns (e.g., derived nominals) always act like simple nouns, not like sentences. So if (36) is upheld, the predictions of lexicalism are borne out."

It seems that the difference of view between lexicalists and transformationalists implies essential parts of linguistic theory, including rules with respect to the cycle, the place of derivational morphology, and semantic relationships. The literature for this subject provides many arguments and counterarguments.

## 2. On 'tendency'

Now, let us review some of observations of *tendency*, which has been the subject of considerable controversy.

Postal (1974) argues against Comsky's LH and for Raising analyses of *tend* or *estimate*, of which the parallelism of the syntax with that of the corresponding nominalization shows that the nominalizations likewise involve Raising. Postal (1974: 331) argues that Equi analysis is inappropriate for nominalization involving *tendency*, *likelihood*, *continuation*, and *persistence*. To be concrete, Postal claims that the following (38, b) is derived by Raising followed by nominalization:

- (38) a. Melvin tends to lie about his age.  
b. Melvin's tendency to lie about his age

An Equi analysis, which would be the only alternative to the Raising analysis, is rejected on the ground of the ungrammaticality of (39).

- (39) a. \*Melvin tends for Lucy to lie about his age.  
b. \*Melvin's tendency for Lucy to lie about his age.

Postal proceeds to present one of his arguments for Raising, giving the following.

- (40, Postal's 15) a. the servant's tendency to praise the queen

- b. ?the queen's tendency to be praised by the servant
- (41, Postal's 16) a. the servant's wish to praise the queen  
b. the queen's wish to be praised by the servant

Postal states:

- (42) "While (15) b is possibly a bit weird on semantic grounds, there is no difficulty in perceiving its truth-functional equivalence to (15)a. That is, if the tendency in (15)a exists, so must that in (15)b. In (16), however, the two wishes are completely independent. This is just what we have seen is to be expected from Raising and Equi structures, respectively."

In this respect, Arimoto (1977: 697 ff.) criticizes the generation of such a semantically odd sentence as (40, b), subscribing to Chomsky's view (1977).<sup>6</sup> Arimoto argues that (40, b) is odd because it is derived from a phrase containing *?the queen has a tendency to be praised by the servant*, the reason of whose odd expression is that:

"In order for someone to have a tendency, what he tends towards must be something that he does or can do, and to be praised by others is not something one does, or can do." (p. 699)

Arimoto adds that if *NP's tendency to VP* is to be derived from *a tendency for NP to VP*, the semantically odd (40, b) cannot be explained, because Postal's formulation suggests that the possessive form of (40, b) is not related to *have*.

However, the fact that the possessive form in nominalization should be related to *have* remains to be explored.

On the other hand, Covington (1981: 358) points that Postal's argument on the generalization (1974: 333 and 348) that only subject NPs can end in *alone* does not discriminate between Equi and Raising. Postal gives the following, in which *Kronzheim* is a subject in (43), but not in (44).

- (43) a. the tendency for Kronzheim alone to make all the decisions  
b. his estimate that Bob's weight alone was 200 pounds
- (44) a. \*the tendency of Kronzheim alone to make all the decisions  
b. \*his estimate of Bob's weight alone as 200 pounds

Covington (1981: 359 ff.) poses questions about rule ordering and the application of Raising. Covington points that if Raising applies before nominalization lexicallism is indeed done for, and, if after, Raising merely joins the list of transformations. And he cites the following (45), which

6) Chomsky (1977, fn. 47) assumes that the noun *tendency* must have a different source, as in "John's tendency towards violence," where there can be no raising, saying that there is an NP of the form "NP's tendency..." wherever there is a structure "NP has a tendency..."

he thinks presents difficulties for the Raising analysis :

- (45) a. John has a tendency to sleep late.  
 b. John has John's tendency to sleep late.

Covington's explanation is that (45, a) may be from (45, b) by some sort of Equi, and such an analysis might gain independent support from the fact that *have* and the possessive convey similar meanings. Covington proposes that, when such a noun as *tendency* or *beauty*, which signifies an attribute, is used in a sentence, the semantic interpretation determines who or what the attribute is being ascribed to, doing the work of Raising. Covington concludes:

- (46) "Postal's arguments about Raising provide no real evidence against the Lexicalist Hypothesis, for even if a syntactic rule of Raising does apply to *tendency* and the like, there is no evidence that it precedes Nominalization." (p. 361)

### 3. On Proposition

Before examining the notion of *proposition*, let us see the internal structure of the nominal phrase. Chomsky (1970) proposes that derived nominals do not behave like regular sentences. Derived nominals do not occur with aspectual verbs, modals, or negation. Nor can they take a range of adverbials:

- (47) a. \*John's have(ing) criticism of the book  
 b. \*John's can criticism of the book  
 c. \*John's not criticism of the book  
 d. \*John's criticism of the book stupidly

Newmeyer (1971, 795) says that the phrases such as (47, a-d) can be blocked by requiring the embedded subject to directly precede the embedded verb in order for nominalization to take place, but (47, d) is more difficult for the transformational approach to handle.

Moreover, the following (48) and (49) are problems that should be worked out somehow or other:

- (48) a. John died young.  
 b. \*John's death young  
 c. \*the death of John young  
 (49) a. John arrived dead.  
 b. \*John's arrival dead  
 c. \*the arrival of John dead

As stated by Chomsky (1970: 195), a number of problems concerning adjectives in derived nominal can be controversial.

Consider the following:

- (50) a. John's uncanny resemblance to Bill  
       b. \*John resembled Bill uncannily.
- (51) a. Lincoln's untimely death  
       b. \*Lincoln died untimely.

To account for occurrences of *uncanny* and *untimely* in nominalized phrases or in nominalized phrases like *uncanny phenomena* and *untimely misfortunes*, Covington (1981: 364) considers a lexicalist apparatus of redundancy rules to relate the adverbs to the adjectives. And he argues that the adjective-adverb correspondences provide no argument for a nominalization transformation, positing that *uncanny* and *untimely* get into nominalizations the same way they get into ordinary NPs.

In fact, the contrast between adjectives and adverbs has been noticeable. It seems to be undeniable that most of adverbs, if not all, in nominalization are transformationally related to adjectives, as in *a rapid movement*, *move rapidly*, and *be rapid in his movement* (cf. Lyons, 1966: 220).

Though we may adopt the transformational proposal by Lyons (1966: 219) that 'adverbs' are positional variants of the corresponding 'adjectives,' this simple adoption could not lead us to the satisfactory solution of the difficulties of nominalization related to adverbs as in (47, d). Problems of nominalization might be approached from a different angle.

There are independent dimensions of the grammatical structure of sentences. Sentences can be used to inform people of something and the *something* should have content to convey the ideas which an important function of sentences specifies. These ideas are conveyed by the *propositional content*. Proposition is said to be the unit of meaning constituting the subject-matter of a statement in the form of a simple declarative sentence. And the 'meaning' of the sentence might be thought to be confined to the propositional content of the sentence.

Pollock (1982: 1 ff.) states that, when a speaker assertively utters a sentence, what he asserts is a proposition, and that propositions have been supposed to be, in one way, objects of belief and vehicles of thought and, in the other way, products of asserts. Pollock says.

- (52) "It is the conceptual role of propositions as objects of belief or vehicles of thought which enables them to provide content for linguistic assertions – what gets asserted is something which can be believed or otherwise entertained in thought. . . . Concepts are supposed to be constituents of propositions, . . . ." (p. 2)

On the other hand, Lyons (1966: 218 ff.) argues that such 'secondary grammatical categories'

as case, number, tense, etc., are derived from different levels of constituent-structure, and that, in general syntactic theory, tense and mood are features of the sentence. Lyons proceeds to say that grammatical categories relevant for the analysis of the deep structure of simple, non-passive, declarative sentences of English include Negative, Tense, Modal, Perfect Aspect, Progressive Aspect, Number and Definiteness, with Negative, Tense and Modal associated directly with the Theme. Perfect and Progressive Aspect are regarded as categories of the Predicate, and Number and Definiteness as categories of the Noun. In this respect, it seems to be unnatural to think of Number and Definiteness of the Noun as *proposition* for the ideas specified by the function of sentences, unlike *Negation*, *Aspect*, and *Modal*. While Chomsky (1965: 225) defines propositions as base Phrase-Markers, Fillmore (1968: 23), from a point of view for case grammar, formulates a definition that *proposition* is a tenseless set of relationship involving verbs and nouns, separated from the *modality constituent*, which contains such elements as tense, negation, and question. The notion of proposition is used as one of the two main underlying constituents of sentences and each proposition is analysed in terms of a *predicate* and its associated *arguments*. Thus, Fillmore proposes:

$$(53) S \rightarrow M + \text{Prop}$$

$$\text{Prop} \rightarrow \text{Pred} + C_1 \dots C_n$$

It should be noted that the propositional predicates are either indivisible or not analyzable in any way that would reintroduce names of propositions.

Lyons (1981: 120 ff.) argues that sentences have the same propositional content if and only if they have the same truth-conditions and identifies the propositional content of a sentence with its sense and with its descriptive meaning. Concerning the degree of the inclusion of the meaning of a sentence within its propositional content, Lyons uses the term of *thematic meaning*,<sup>7)</sup> which means one part of the meaning of a sentence that is definitely not part of its propositional content.

Thus, one important property of semantic representations is that the meaning of many if not all semantic representations can be decomposed into more than one component proposition. The way in which these component propositions combine with one another is an important aspect of

7) The following sentences differ in thematic meaning, all having the same truth-conditions and the same propositional content:

- a. I have not read this book.
- b. This book I have not read.
- c. It is this book that I have not read.
- d. This book has not been read by me.

Agreeing to the distinction between thematic meaning and propositional content, I will ignore in this paper the thematically significant variation in the prosodic structure of utterances.

the semantic representations of sentences. Langacker (1972: 95) gives the following.

- (54) a. Donkeys bray, seals bark, and elephants trumpet.  
 b. Unfortunately, lettuce is wholesome.

Sentence (54, a) can be decomposed semantically into at least three component propositions, one concerning donkeys, one concerning seals, and one concerning elephants. Sentence (54, b) contains at least two component propositions. one is that the lettuce is wholesome and the other is that the state of affairs is unfortunate.

For the notion of proposition, I have turned to Chomsky (1965), Fillmore (1968), Lyons (1966, 1981), Langacker (1972), and Pollock (1982). Now, let us explain the ungrammaticality of (48, b-c) and (49, b-c). Sentence (48, a) and (49, a) can be decomposed into two component propositions respectively. The examples are given again for convenience:

(48) a. John died young.

(49) a. John arrived dead.

Consider the following combinations (55) for (48, a) and (56) for (49, a).

(55) (John<sub>i</sub> died) (John<sub>i</sub> was young)

(56) (John<sub>i</sub> arrived) (John<sub>i</sub> was dead)

The following generalization with be derived from the above fact, comparing (55) and (56) with the ungrammaticality of (48, b-c) and (49, b-c)

- (57) A nominalization of a sentence can not be formed, where the sentence contains two component propositions.

This generalization would apply to (47) to account for the ungrammaticality of (47).

It is believed that there must be an extension of the notion of proposition to underlying constituents such as negation, aspect, and modal, which are closely related to verbs. The possibility remains, of course, that this extension might be rejected or replaced by a detailed development, including clear solutions of the difficulties.

However, it would not seem to be implausible that the category of negation, modal, and aspect, inclusive of causative as in (20), subclassifies proposition. The category might be termed 'indexical proposition.'<sup>8)</sup> If this proposal could be acceptable, then the ungrammaticality of (21, b) and (47, a-c) is settled through the generalization (57).

The difficulty of adverbs as in (47, d) seems to come from the fact that the grammaticality of a sentence might be subject to the precise position of adverbs within the sentence and to the relationship between the distribution and sense in adverbs. As seen in (54, b), *stupidly* may be

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8) It is felt that, for the justification of term *indexical proposition*, it is necessary to present more detailed explanations. However, this problem will, for the present, be left open.



regarded as a proposition: *it is stupid of John ...*. In effect, there have been many attempts by linguists at adverbs classification. Especially, McConnel-Ginet (1982) argues for the existence of Ad-Sentences in contrast with Ad-Verbs. But the problem of adverbs in the internal structure of the nominal phrase is left unsettled.

#### 4. Conclusion

I have attempted to show that the lexical property, whether in NPs or in sentences, and the notion of proposition are decisive for nominalization or phrase formation. Discussing the restricted productivity of process, I refer to the importance of the structure of NPs, whether of derived nominals or of ordinary NPs, and to the rule ordering of NP pre-posing dependent upon preposition, which a constituent break before a noun is related to. The point is that the selectional relation of the possessive noun phrase of the determiner to the verbal head of the derived nominal is an important key to the discrimination between lexicalists and transformationalists. It follows that such lexical properties as derived nominals, causatives, and morphological ones should not be ignored. And it is thought that *tendency* is typical of the lexical property.

The proposal of which I wish to make a point is the generalization that a nominalization of a sentence is impossible where the sentence has more than two component propositions. The extension of the notion of proposition to constituents such as negation, modal, and aspect, including causative, is requisite for the generalization.

It will be necessary that various proposals for analyses of possessive forms and adverbs connected with nominalization should be further sought. Moreover, it may be a matter of debate that elements such as negation and modal are in this paper defined as 'indexical proposition.' At the same time, the subject of how much bearing 'indexical proposition' has on verbs in a sentence is thought to demand further investigation.

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