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Noncanonical Configurational Case Assignment Strategies

Leonard H. Babby

1. Introduction

A comprehensive theory of case must account for both the universal and the language-specific aspects of case, i.e., it must, on the one hand, be based on universal principles of case assignment, and, on the other, it must account in a systematic way for the bewildering diversity and complexity of the morphological case systems that we encounter in the world's languages. The theory of case outlined in this paper, which is an elaboration of GB case theory, is based on a Universal Case Typology (each of the four types of case discussed below has its own syntactically relevant properties) and a relatively small number of universal principles of case assignment. While the various ways in which case systems can differ will be pointed out as the theory is presented, this article will focus on a particularly important source of cross-linguistic case variation, namely, Configurationally determined case (and its interaction with Lexically determined case). My hypothesis is that while all languages have Configurationally assigned cases, the structurally-based strategies for assigning them can differ from language to language, dialect to dialect, and from one historical stage of a language to another (e.g., NOM/ACC vs. ergative/absolute case assignment to the same structural positions).

After outlining our theory of case (with special attention to the ways in which Configurational case differs from Chomsky's notion of Structural case), we turn to the main topic of this paper, namely, the Configurational assignment of nominative (NOM) case to direct object NP's instead of canonical accusative (ACC) case in Icelandic finite
clauses and Old Russian nonfinite clauses.\(^1\) NOM case assignment to objects provides a particularly clear example of the interplay of universal and language-specific properties of Configurational case.

Comprehensive theories of case are typically either semantically oriented (e.g., see R. Jakobson's articles on case in Waugh and Halle, 1984) or syntactically oriented (see Chomsky 1981, 1986). The theory outlined here is primarily syntactic, but differs from standard versions of GB case theory in recognizing the existence of Semantic case, which, unlike Syntactic case, makes a direct contribution to the sentence's semantic interpretation.\(^2\) Semantic case can be adverbial (e.g., the inessive, elative, illative, adessive, etc. cases in Finnish) or it can be assigned to an NP argument of the verb instead of its canonical Configurational case (e.g., the partitive genitive (GEN) in Russian can be assigned to the direct object (DO) NP instead of the ACC or to the subject NP instead of the NOM to focus on quantity: \(V(\text{in}) \lesu(\text{forest}) \text{ gribov (mushrooms:GEN PL) byvaet(\text{be:SG})! 'What a lot of mushrooms there are in the forest' (see Svedova and Lopatin 1989)).\(^3\)

\(^1\) In this paper I clarify and extend some revisions of case theory that were first proposed in Babby 1980a and 1980b, and developed in subsequent articles (see bibliography). The most important alternative theory of case to emerge in the recent literature is Yip, Maling, and Jackendoff (1987); unfortunately, space does not permit me to respond systematically to all their proposals (see my forthcoming article Case without Tiers for discussion).

\(^2\) The theory of case I present here has much in common with the classification of case proposed in J. Kurylowicz 1962 (=1949) (see also Mel'čuk 1986); reference to Semantic case in the generative literature can be found in Haider (1985), Zaenen, Maling, and Thrainsson (1985), Larson (1985), and Yip et al. (1987).

\(^3\) This article deals primarily with the syntactic (grammatical) cases -- Lexical and Configurational case, which are determined by and predictable in terms of lexical items and syntactic configurations respectively, and therefore do not make a semantic contribution (for details of Semantic case in Russian see Babby (1986)). It should, however, be pointed out that languages can differ widely in their use of Semantic case. e.g., Turkish has only one adverbial case
It should be noted that, given the radically different case systems we find in natural languages, there can be no direct correlation between case and grammatical relations (functions), which are relatively uniform across language (see Timberlake 1974a:219). Thus we cannot simply associate NOM case with the subject of a finite clause, assuming that its assignment to topics, vocatives, direct objects (see below), predicate nominals, predicate adjuncts (e.g., in Russian On(he:NOM) vernulsja (returned) grustnyj (sad:NOM) 'He returned sad=He was sad upon his return') are all case-assignment aberrations. NOM is Configurational in the sense that it is assigned to any NP that meets certain general structural conditions defined in terms of X-bar structure; while subjecthood per se is not one of these conditions, subject NP's do happen to be the statistically most common grammatical function to meet these conditions (see section 8). Note too that subject NP's in finite clauses may be assigned an oblique Semantic case, like the partitive GEN in the Russian example above, or a Lexical case, which is selected by the main verb (see the Icelandic examples of Lexically determined oblique subject case marking in section 9). Thus not all subjects are assigned NOM case and not all NP's assigned NOM are subjects. This many-to-one, one-to-many relation between case and grammatical relations is characteristic of the other Configurational cases as well,

(locative), certain Lithuanian dialects have four locative cases (Musteikis 1972:48), and languages like Finnish and Hungarian make extensive use of spatial adverbial cases. English has Configurational case only. (Unless otherwise specified, this paper deals with abstract case)

In order to assimilate Semantic case phenomena to current GB case theory without altering it, it would be necessary to reduce all instances of Semantic case to case assignment under government by a null lexical category (preposition) that carries the meaning associated with the Semantic case. In the theory I am outlining in this article, Semantic case is assigned directly to the NP at D-structure; there is no case-assigning lexical category and, therefore, Semantic case is not assigned under government (cf. Larson 1985). Note that Lexical case is a selectional property of a lexical item specified in the lexicon (see section 4), Semantic case is assigned at D-structure, and Configuration case is assigned as S-structure.
and appears to be the rule rather than the exception in natural language.

2. GB Case Theory

Chomsky's conception of case theory is purely syntactic. Case assignment is presented in strictly structural terms, i.e., case is assigned to a NP by the lexical category $X^0$ that governs it. The function of case is also conceived of in strictly syntactic terms. For example, the obligatoriness of the movement of the DO NP to subject position in English passive sentences is explained in terms of case theory: passive morphology is said to "absorb" the transitive verb's ACC case, forcing the caseless DO NP to move to subject position, the nearest position where case can be marked. Thus GB case theory has been far more concerned with the syntactic effects of case than with the properties of case and case systems per se (see Sells 1985:53).

The details of GB case assignment can be summarized as follows: If $X^0$ governs NP, then NP becomes NOM if $X^0 = \text{INFL(TNS, AGR)}$, ACC if $X^0 = \text{V}$, and Oblique case if $X^0 = \text{P(reposition)}$; but NP is assigned GEN in the configuration $[\text{NP}--X']$ (Chomsky 1981:170,1986). A distinction is also made between abstract case and its morphological realization (cf. Chomsky1981:6). The Structural cases just discussed are abstract cases; they are assigned to the NP's maximal projection $N^m$ and percolate down to all the phrasal categories in the path of percolation -- to the head noun $N^0$, its modifiers (adjectives, determiners, quantifiers), and all the nodes that dominate them; abstract case cannot percolate into complements

4 According to Chomsky (1981:50), case is assigned to an NP by the category that governs it. A category "governs its complements in a construction of which it is the head (e.g., V governs its complements in VP, etc.)."

5 In addition to the Structural cases, which are assigned in S-structure, there is "inherent" case, which is assigned in D-structure (see Chomsky (1981)). We return to Inherent case in section 4, which is devoted to Lexical case.
of the head noun or into complements the head noun's modifiers (see Babby 1987). In addition to the abstract cases, there are morphological cases (Chomsky 1986:187), i.e., the phonologically realized inflectional case affixes of concrete lexical items. The relation between abstract case and morphological case is a common source of case diversity: In the unmarked situation, abstract case is realized by the corresponding morphological case (thus abstract NOM normally maps onto morphological nominative, etc.). But a language may permit certain idiosyncratic, noncanonical mappings, e.g., in Russian, abstract ACC case is mapped onto a morphological genitive case suffix in certain declensions when the head noun is animate (Jа(I) uvidel(saw) Иван-a:gen]NP:ACC 'I saw Ivan'. The DO NP in this example is assigned abstract ACC case, which is morphologically realized as the genitive case suffix -а.6

Chomsky's basic intuition is that, in the unmarked situation, a case-assigning lexical category X0 assigns a specific Structural case to the NP complement that it governs. Thus each Structural case is associated with a specific lexical category (ACC with V, NOM with INFL, etc.). However, the notion that a given Structural case is the

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6 Abstract case is given in capitals (e.g., ACC) and morphological case in lower case letters (acc). For additional discussion of the "animate genitive" in these terms, see Babby 1987. It is easy to demonstrate that these NP's really are assigned abstract ACC: If a masculine animate noun from the a-declension is selected, it will be realized by an acc case suffix, but an adjectival modifier, which agrees in Russian with the head noun in animacy as well as number and gender, must have a genitive case suffix (see Mel'čuk (1980)), e.g. Jа(I) uvidel(saw) svoego(my:gen) дядя (uncle:acc)]NP:ACC 'I saw my uncle'.

It has been suggested by Chomsky (1981) that perhaps case is an inherent property of words and is projected from the head of NP up to its maximal projection along with its other inherent features; syntactic case assignment rules would then have to be reinterpreted as "case checking" rules. While this suggestion has its merits (see section 4), it needlessly complicates the description of phenomena like the "animate genitive" and genitive marking in Russian NP's containing a quantifier, in which the abstract case marked on the head of the phrase (GEN) is assigned NP-internally and is different from the abstract case assigned NP-externally to its maximal projection (NOM or ACC) (Babby 1986, 1987).
property of a particular lexical category cannot be maintained in the
light of data from case-languages like Russian and Icelandic because
it makes a patently false prediction, namely: The cases in a given
sentence should be in complementary distribution since each is
assigned to the complement of a specific X^0 category; in other words,
there should be no more than one instance of a given Structural case
in each sentence -- one INFL licenses one NOM subject, one V licenses
one ACC object, etc. But the data from Icelandic and Old Russian to
be presented in sections 9 and 10 demonstrate that the Structural
cases are not "positional variants"; e.g., NOM as well as ACC can be
assigned to the DO NP despite the fact that V governs the object NP in
both cases. Sentences with multiple occurrences of the same
Structural case in different structural environments are quite
common, e.g., two occurrences of the NOM in sentences with both a
topic NP and a subject NP; two occurrences of the ACC in sentences
with both a direct object and a bare NP adverb of time, etc. (see
section 7 for examples with two occurrences of the adnominal GEN in
the same NP). We will return to these problems below.

There are other problems inherent in the notion of Structural
case as it is defined in standard GB case theory. For example: (i) The
assignment of adnominal GEN as formulated above does not involve
government by N^0 (it is "configurational" in a broader sense than
government by X^0). (ii) It is highly doubtful that the numerous
adverbial cases of Hungarian and Finnish are each associated with a
unique null governing category (see note 3). (iii) GEN case marking
on N^0 in NOM and ACC quantified NP's in Russian is assigned to the
non-maximal projection of N^0 that is C-commanded by the maximal
projection of the quantifier phrase (see Babby 1987 for details); this
kind of NP-internal case assignment cannot be accounted for in terms
of government by X^0. In the following sections I will outline a theory
of Syntactic case that preserves the fundamental insights of GB case
theory without running into the problems discussed above.
3. Universal Case Typology

The theory of case proposed in this article is built on the universal case typology which is summarized schematically in (1).7

(1)  
    Abstract Case  
    /              \  
  Syntactic       Semantic  
    /              \         \  
  Lexical Configurational Argument Adverbial

Each type of case has associated with it a unique property that determines the syntactic behavior of the NP to which it is assigned. Semantic case assignment is not predictable in terms of specific lexical items or syntactic configurations, and therefore makes a direct contribution to the sentence's semantic interpretation. The syntactic (grammatical) cases are assigned to an NP either by a specific lexical item (Lexical case) or in a specific syntactic configuration (Configurational case); since their occurrence and distribution in the sentence is predictable, they make no direct contribution to the sentence's semantic interpretation. In the following paragraphs we will look at the morphosyntactic properties of the cases in (1) and the resolution of the case conflicts they enter into (since only arguments are involved in case conflicts, we will have nothing further to say about adverbial Semantic case). I will also argue

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7 When a nominal category is in the domain of two or more case assigning strategies, there is a "case conflict". While the definition of structural case assumed in much of GB case theory requires that syntactic structures containing case conflicts be ill-formed, I will demonstrate below that case conflicts are a natural phenomenon in case-language and they result in ill-formed structures only when there is no principled means available to resolve them. For example, NP's containing internal case assigning categories invariably involve case conflicts, but are nevertheless well-formed; in Russian NP's like the following, the head noun knig 'book' (GEN PL) is in the path of percolation of the NOM case assigned to Nm and in the scope of the GEN-assigning quantifier pjat' 'five' (NOM): [pjat' knig]\text{NP:NOM} (see Babby (1984, 1987) for details of case-conflict resolution).
below that there are two types of Configurational case assignment strategies: local and nonlocal.\(^8\)

The case typology in (1) is universal in the sense that it is meant to be a complete inventory of the types of abstract case that can occur in natural language. It is not being claimed, however, that all languages are endowed with all these abstract cases and that they differ among themselves only with respect to which of the abstract cases are morphologically realized. Different languages may have different abstract cases: English has only Configurational case (see Chomsky 1981:172, 292), while Russian has all four of the case types proposed in (1). It should be emphasized here that a given morphological case may correspond to more than one type of abstract case. For example, the adnominal genitive is a Configurationally assigned case, the partitive genitive in Russian is a Semantic case, and the genitive case assigned to the complements of certain verbs and prepositions is a Lexical case.

4. Lexical Case

An oblique case is classified as a Lexical case if it is obligatorily assigned to the NP complement of a specific lexical item, e.g., the Russian verb *vladet* 'to own, control' requires that its object NP be marked with the instrumental (INST) case (*zavidovat* 'envy' requires DAT case, and *zasluživat* 'deserve' takes GEN). All lexical categories are potentially Lexical case assigners: in Russian, in addition to verbs and prepositions, adjectives (*dovolen* + INST 'satisfied') and derived nominals (*torgovlja* + INST 'trade') may assign Lexical case. Which members of these lexical categories do assign Lexical case and which

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\(^8\) Yip et al. (1987:227) suggest that there are also two types of Lexical case, "quirky" case and "lexical case that has been assigned by a regular lexical rule to a particular class of arguments." It is unfortunately not possible to pursue this interesting proposal here (but see section 4 for an example of a Lexical case in Lithuanian assigned by a productive verbal suffix).
do not appear to be arbitrary. Thus Lexical case is sometimes referred to "quirky case" because it is an unpredictable, idiosyncratic property of the word that assigns it; it is therefore a very common source of cross-linguistic case variation (e.g., the Russian preposition na 'on' assigns the locative case to its complement (Na stole lezat knigi 'On the table are books'), while ant, the corresponding preposition in Lithuanian, requires GEN case (Ant stalo yra knygos 'On the table are books').

Lexically assigned case has two unique syntactic properties:

(2) a. The Lexical case required by a case assigner must be assigned to its NP complement and it must be morphologically realized; it therefore does not alternate with any other type of case (e.g., the object of a Lexical case assigning verb cannot be assigned partitive GEN or GEN of negation, which are Semantic cases). Thus Lexical case is obligatory.

b. All the NP-internal lexical and phrasal categories in the path of percolation of a NP assigned Lexical case must have the Lexical case percolate to them. In other words, the internal case distribution of a NP assigned Lexical case must be homogeneous. If an NP is marked with Configurational case, its internal case distribution is heterogeneous if it contains a quantifier phrase QP (see note 7).

The property in (2a) follows from the fact that Lexical case is invariably an idiosyncratic property of a specific lexical item. Since the Lexical case that a verb assigns to its complement is not predictable, it must be specified in the verb's lexical entry as part of its subcategorization information, i.e., Lexical case is part of the case assigning category's Categorial Selection (see Chomsky 1986). Thus, in addition to specifying that the Russian verb vladet' 'possess' takes an NP complement, it must be further stipulated in its lexical entry that this complement must be marked with the INST case. Now, if Lexical case is specified in the verb's C-Selection, this means that it falls under the Projection Principle, which states that the head's selectional properties must be realized at all syntactic levels. Failure
to realize a Lexically specified case in the syntax produces an ill-formed structure because it involves a violation of the Projection Principle. This analysis also explains another of Lexical case's salient properties -- its ability to take precedence over all other types of case when they come into conflict (see Case Hierarchy in Babby 1987): If any other type of case were assigned to the NP complement of a Lexical case assigner (e.g., the GEN of negation in Russian), the resulting sentence would be ill-formed because it would necessarily entail a Projection Principle violation: *On(he) ne(not) vladect(know) nikakix (any:GEN) inostrannyx (foreign:GEN) jazykov (languages:GEN) 'He does not know (lit., possess) any foreign languages.'

\[9\] It is claimed in standard GB case theory that Inherent case, which corresponds to our Lexical case, is assigned at D-structure (while Structural case is assigned at S-structure). If Lexical case is "assigned" as an inherent feature of a verb's subcategorized complement, the Projection Principle will ensure that it is realized at both D- and S-structure. The Configurational cases in the theory being proposed here (and Structural case in GB case theory) are syntactic (grammatical) cases in the sense that their occurrence is determined by specific surface syntactic configurations rather than by specific lexical items.

\[10\] This sentence can be made grammatical either by replacing vladect with a "transitive" verb, i.e., a verb like znaet 'knows', which is subcategorized for an NP complement but not for a specific case, or by replacing the Semantic GEN with the lexically stipulated INST (see Yip et al. (1987) note 12).

Freidin and Babby (1984) account for this universal property of Lexical case by the Principle of Lexical Satisfaction (PLS), which states that lexical properties of heads must be satisfied. Explaining the syntactic behavior of Lexical case in terms of the Projection Principle has two advantages: (i) The Projection Principle is an independent principle of grammar that subsumes the PLS; (ii) The Projection Principle, but not the PLS, allows for the existence of morpholexical rules that can alter a word's subcategorization properties, more specifically, can remove Lexically specified case (the Projection Principle applies to the output of lexical rules). Assuming that passivization is a morpholexical rule that achieves its syntactic effects by the Projection Principle (see Babby (1990a)), we can explain the fact (pointed out to me by George Fowler) that in Russian certain Lexical case assigning verbs can be passivized (in Russian, passivization requires that the verb's object be made subject, which involves assigning NOM case to the erstwhile object NP). For example, although the verb upravljať' control, govern assigns Lexical case to its object NP in active sentences, it can nevertheless passivize; however, most Lexical case assigning verbs in Russian cannot do this (see Freidin and
The next question is why the NP-internal case distribution of Lexically marked NP's must be homogeneous (see (2b)) (cf. s (with) etimi(these:INST) pja't'ju(five:INST) knigami(books:INST)/*knig(GEN)) vs. the heterogeneous case distribution in NP's assigned Configurational case (cf. eti(these:NOM) pja't'(five:NOM) knig(books:GEN)/*knigi(NOM)); see Babby 1987 for argumentation that knig(GEN), not pja't' (NOM), is the head of NP.

It was proposed in Babby 1986 that the case homogeneity in NP's assigned case Lexically could be explained without adding any new principles to case theory by simply assuming that Lexical case is assigned to the head N⁰ of NP (rather than to its maximal projection, as in the case of Configurational case) and that this head feature obligatorily percolates (projects) up to Nᵐ and all the intermediate phrasal nodes along with the head noun's other syntactic and categorial features.¹¹ A case feature assigned to N⁰ must percolate to Nᵐ (thereby producing case homogeneity in the path of percolation) because: (i) a NP without case marking on Nᵐ is ill-formed since it does not satisfy the Case Filter (only the case feature associated with Nᵐ "counts" (is "visible") in the syntax; (ii) the Head Feature Convention requires that all features associated with a head X⁰ must be associated with the higher projections of X⁰ (see Larson 1985:601). Thus the homogeneity of NP-internal Lexical case distribution (2b) also follows from independently motivated principles of grammar (recall that (2a) follows from the Projection Principle). By contrast, Configurational case would be assigned to Nᵐ

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Sprouse (1991:12)). Thus passivization of a Lexical case assigning verb is itself an idiosyncratic property, which must be stipulated in the verb's lexical entry. In Icelandic, Lexical case assigning verbs regularly passivize because the object NP is able to preserve its oblique Lexical case when it is made the subject (see Freidin and Sprouse for an explanation of why Lexical case passives are possible in Icelandic but not in Russian).

¹¹ X⁰-to-Xᵐ (as opposed to Xᵐ-to-X⁰) percolation has been widely discussed in the literature, e.g., see Chomsky (1981:265-6), Williams (1981:252), Selkirk (1982:57), Marantz (1984:9), and Neidle (1988:94).
as a function of its syntactic configuration and percolate downward to the head $N$; but, as we shall see below, there is no principle requiring that it reach the head (cf. [eti (these:NOM) piat' (five:NOM) [knig (books:GEN) ]$_{N:GEN}$ ]$_{NP:NOM}$). This explanation of a Lexically case-marked noun phrase's internal homogeneity in the path of percolation is entirely consistent with the nature of selection: If Lexical case is assigned as a selectional property to the case assigner's NP complement, as proposed above, then we expect it to be assigned to the complement's head rather than its maximal projection since it is a well-known fact that selectional relations hold between heads. I am thus proposing that Lexical case is essentially a selectional property and is therefore naturally assigned by $X^0$ to $N^0$, the head of the complement NP (and percolated up to $N^m$). Configurational case (Structural case in GB case theory) is essentially a syntactic property and must therefore be assigned to $N^m$, the only projection of the head that is visible to and interacts with the rest of the sentence.

Freidin and Sprouse have recently offered an alternative explanation for the case homogeneity in Lexically case marked NP's. They too note that Lexical case involves head-to-head selection and reason that if Lexical case is assigned to $N^m$, it must obligatorily percolate down to the head noun to avoid a violation of selectional restrictions between the Lexical case assigner $X^0$ and the head of its lexically case marked complement NP. Complete $N^m$-to-$N^0$ percolation of the case feature ensures homogeneity of the NP-internal case distribution, just as complete $N^0$-to-$N^m$ percolation does in the explanation proposed in the preceding paragraph. While both proposals account for the facts, the latter seems preferable because: (i) it maintains uniform case assignment to $N^m$ (and, therefore, uniform $N^m$-to-$N^0$ case percolation); (ii) it provides a basis for treating (2a) and (2b) as a unitary phenomenon in terms of selectional restrictions.
The explanation of Lexical case's obligatoriness outlined above makes the following correct prediction: If a nominal category is in the domain of two Lexical case assigners, the structure in question is inherently ill-formed: no matter which of the two Lexical cases is assigned, the failure of the other to be assigned will result in a violation of the Projection Principle. (I am assuming of course that only one case feature can be assigned to each nominal category in Russian.) Consider the following Russian examples; the verb vladejut selects an INST complement; the prepositional quantifier po, which has a distributive meaning and can be glossed as 'each', requires DAT (see Babby 1985 for discussion of the morphosyntax of the small class of prepositions that have been reanalysed in modern Russian as NP-internal quantifiers). (3a) and (3b) are both ill-formed because each contains an irresolvable Lexical case conflict:

(3) a. *Oni vladejut [po inostrannomu jazyku]_{NP:INST} 
     they know each foreign:DAT language:DAT
     'They each know one foreign language'

     b. *Oni vladejut [po inostrannym jazykom]_{NP:INST} 
     they know each foreign:INST language:INST
     'They each know one foreign language'

     c. Oni znajut [po inostrannomu jazyku]_{NP:ACC} 
     they know each foreign:DAT language:DAT
     'They each know one foreign language'

The sentence in (3c) is well-formed because it contains only one Lexical case assigner, the prepositional quantifier po, and the Lexical DAT case it selects is realized. The verb znajut is "transitive", i.e., the object NP it selects has no inherent Lexical case associated with it. Abstract ACC is assigned to it in terms of its S-structure syntactic configuration (see section 6) and it percolates from N^m down as far as it can; it has no morphological realization in (3c) because prepositions in Russian are not themselves inflected for case and the head noun and its modifier are assigned Lexical DAT case NP-internally by the prepositional quantifier po. The object NP in (3c) is
well-formed (despite the fact that it contains a case conflict) because there is no principle requiring abstract Configurational case to percolate down to a lexical category and be morphologically realized; but, as we saw above, there is a principle requiring Lexical case to be realized (see the discussion of (5)).

There are two more facets of Lexical case assignment that should be mentioned since they are responsible for another kind of cross-linguistic variation: In some languages the verb can assign Lexical case externally (to its subject) as well as to its internal arguments (see Zaenen, Maling, and Thrainsson (1985:447) for Icelandic examples).\textsuperscript{12}

Lithuanian provides evidence that in some languages certain verbal suffixes can themselves assign Lexical case to the subject of the verb they are affixed to.\textsuperscript{13} For example, the suffix -\texttt{ant} can be affixed to any verb as part of a productive morpholexical operation whose function is to derive a nonfinite verbal form that heads a nonfinite clause which is semantically equivalent to a finite subordinate clause of time (see (4) below). The only alteration of the verb's argument structure to accompany affixation of -\texttt{ant} is that the verb's external NP argument must be assigned the DAT case. Since this DAT is assigned to the subject of any verb that -\texttt{ant} is affixed to (verbs in Lithuanian, unlike Icelandic, do not themselves assign Lexical case externally), we can safely conclude that the DAT case in

\textsuperscript{12} The fact that Icelandic verbs can assign Lexical case to subject position is important for another reason: It supports the argumentation in Babby (1990b) (which is based on the idiosyncratic nature of impersonal sentences in Slavic) that, at least in some languages, verbs require external as well as internal selection.

\textsuperscript{13} The Lithuanian facts support the hypothesis that certain affixes should be treated as lexical items that have their own selection properties, and are the head of the word they are contained in (see DiSciullo and Williams (1987), Marantz (1984)).
these constructions is a lexical property of the suffix, not the verb (-ant is uninflected for number, person, etc.); see Musteikis 1972. For example:

(4)  [Mums besneka], vaikai zaide.
    us:DAT talking children:NOM were-playing

'[While we were talking], the children were playing'

See section 10 for argumentation that infinitives in Russian assign DAT case to their subjects.

5. Configurational Case

The syntactic properties of Configurational case are radically different from those of Lexical case and they help explain many of the fundamental differences in the case systems of the world's languages. For example, the primary typological distinction between NOM/ACC-languages and ERG(ative)/ABSOL(ute)-languages can be accounted for in terms of identical X-bar structures and different syntactic strategies for assigning Syntactic case to the NP's in them (see Comrie 1973, Babby1980b, Yip et al. 1987).

The most common Configurational cases are NOM, ACC, and adnominal GEN. In GB case theory, NOM and ACC are defined in terms of the structural relation of government at S-structure by a specific lexical category. Recall, however, that GB case theory does not explain the assignment of adnominal GEN in these terms -- the syntactic environment in which it is assigned is presented in broader X-bar configurational terms (see [NP---X']). The hypothesis to be explored here is that a universal theory of Syntactic case requires that we abandon the narrow government-by-X^0 definitions of NOM and ACC current in the literature in favor of broader, more abstract syntactic configurations like the one proposed by Chomsky for assignment of the adnominal GEN (see Belletti and Rizzi 1981:118 for a similar suggestion). This approach allows us to capture the fact
that while all languages have Configurationally assigned case, the specific configurations -- and hence the cases' syntactic distribution-- may differ from language to language, and even from dialect to dialect.\textsuperscript{14}

The formulation of Configurational case proposed above predicts that (i) there can be more than one instance of a given syntactic case in a sentence, and (ii) the case assigned to a NP may not be exhaustively determined in its local X-bar configuration, i.e., if a NP is not assigned a Lexical case, a Semantic case, or some other more "dominant" Configurational case (e.g., assignment in Russian of GEN case to N\textsubscript{n} by Q\textsubscript{m} in a NP whose maximal projection is assigned NOM or ACC case), only then is it assigned the "default" Configurational case determined by its local X-bar configuration. This is particularly clear in ERG/ABOL languages (where the Syntactic case assigned to the subject depends on the main verb's transitivity) and in languages with split ergative case systems, in which NP's in the same X-bar structures (subject and direct object) are assigned Syntactic case according to either NOM/ACC or ERG/ ABSOL patterns depending on factors like tense, whether or not the NP's involved are pronouns, etc. It is not obvious how a theory that assigns Syntactic

\textsuperscript{14} Notice that we have claimed above that Lexical case is not assigned under government (in fact, it is not "assigned" at all) and Semantic case is not assigned by a governing category. If the hypothesis that Configurational case is not necessarily assigned by a governing lexical category is correct, then we must conclude that the association of case assignment with the structural relation of government cannot serve as the basis of a universal theory of abstract case.

The notion of Configurational (vs. Structural) case proposed in this article is entirely in accord with Chomsky's fundamental assumptions. For example, he notes that "...Case is assigned to NPs by virtue of the configuration in which they appear and percolates to the heads" (1981:49); "Structural Case is assigned in terms of S-structure position" (1986:296). As a matter of fact, the definition of Configuration case, which does not obligatorily involve government of a complement by its head, is closer to Chomsky's original conception of syntactically determined case than his later formal definition of Structural case in 1981 (e.g., see the Pisa lectures).
case exclusively in terms of $X^0$-government can account for phenomena of this kind.

Canonical Configuration case is assigned optionally to $N^m$ at S-structure by virtue of its position in the X-bar structure (only the assignment of Lexical case is obligatory). There is no principle requiring Configurational case to percolate from $N^m$ to $N^0$ if the head or the nodes immediately dominating it are assigned case in some other way. For example, in the following Russian sentence, the abstract NOM case assigned to the subject NP (we know it is the subject because it imposes plural agreement on the verb) cannot percolate down to any of the phrase's lexical constituents because they are all assigned Lexical case internally by the prepositional quantifiers $ot$+GEN and $do$+GEN (cf. (3c)).

(5) [Ot dvox do tres millionov chelovek]$_{NP}$:NOM peshechajut zoopark.  
from 2:GEN to 3:GEN million:GEN people:GEN visit:PL zoo:ACC  
'[From two to three million people] visit the zoo (each year).'

Configurational case can occur on any NP in the sentence which has not already been assigned a Lexical or Semantic case. It is obviously assigned after movement rules, e.g., DO NP's that are moved to subject position in passive sentences are marked NOM in their S-structure position rather than ACC in their base-generated object position.

First we will consider the distribution of the ACC case in Russian; I propose initially that abstract ACC case is assigned to $N^m$ in the local configuration specified in (6a) rather than in (6b) (the final version of the rule is given in section 6).

15 See Babby (1985) for argumentation that the subject in (5) does not have the internal structure of a prepositional phrase. Note too that if the subject NP in (5) were not assigned abstract NOM case, the sentence would violate Bowers' Nominative Case Principle (see sections 9 and 10 for discussion).
(6) a. $[X^0 N^m]_X$

b. $[V^0 N^m]_X$

The more abstract configuration in (6a) is needed to account for the fact that, in addition to being assigned to the DO of a transitive verb, ACC is regularly assigned in Russian to the NP complements of certain adjectives, prepositions, predicate words (which constitute a separate lexical category in Russian), and, in certain dialects, passive participles in impersonal sentences (see below).\textsuperscript{16} Note that while case assignment in (6a) involves government, it does not involve government by a specific lexical head (see section 2). (Recall that Lexical case is assigned by a specific lexical item.)

6. Canonical Accusative Case Assignment

It was proposed above that ACC case is Configurational in the sense that it is assigned at S-structure to any NP in the domain of S that is the complement of a lexical category $X^0$ (provided, of course, that $X^0$ is not a Lexical case assigner). Thus while ACC case assignment is not uniquely associated with a particular lexical category, it is, however, according to (6a), associated with a specific grammatical function, namely, complement.\textsuperscript{17} In Russian, for example, $X^0$ in (6a) can be a preposition (see discussion below), adjective (\textit{dolžen} in (7)), nonverbal predicate (as in (8)), or a passive

\textsuperscript{16} Note that GEN, not ACC, is assigned to the complements of nouns; Yip et al. account for this (correctly, I think) by claiming that case assignment in sentences and NP constitute entirely different case-assignment domains.

\textsuperscript{17} If case-assignment is closely related to government, and government is defined in terms of the structural relation (c-command) between a head and its complement in the domain of the head, then, strictly speaking, all the canonically assigned Structural cases function to mark the head-complement relation. I shall argue below that this view is far too restrictive for a universal theory of Syntactic case.
participle (provided that the sentence is impersonal, see (9)), as well as a verb.

(7) a. Ja dolžen emu [bol'suju summu]NP:ACC.
I:NOM owe him:DAT big:ACC sum:ACC
'I owe him a large sum (of money)'

b. Emu bol'no ruku.
to-him:DAT painful arm:ACC
'His arm hurts'

(8) Nam bylo žal' babušku.
to-us:DAT was sorry granny:ACC
'We felt sorry for granny'

(9) a. Brata vzjato v armiju i slyxu net.\^18
brother:ACC taken into army and news there-isn't
'My brother has been taken into the army and there is no news of him'

b. Korovu dado na tri sem'i.
cow:ACC given for three families
'One cow has been given for three families'

If we summarize the two criterial properties of GB Structural case in (10), then the distribution of ACC case in Russian leaves no doubt that (10a) is inadequate as a universal characterization of Syntactic case; we return to (10b) below.

(10) a. X⁰ must be a specific lexical category (V⁰ in the case of ACC).

b. X⁰ must govern NP (government being defined as a structural relation between a head and its complement).

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\^18 This construction is possible only in Russian dialects (examples from Kuz'mina and Nemčenko (1971:27); see Arvat (1984:130)). In standard Ukrainian, however, impersonal transitive passive constructions and canonical passive constructions are both possible (see Sobin (1985), Babby (1990b)).
In the discussion to follow we look at the distribution of the ACC in Russian in greater detail and propose the final version of the ACC Configuration in (14).

GB theory explains the obligatory movement of the DO NP to subject position in English passive sentences in terms of Case Absorption: The passive suffix -en, which is affixed to a transitive verb as part of passivization, is said to "absorb" the ACC case that the active verb assigns to its object. The caseless object NP in passive sentences must move to the nearest available theta-free position in order to receive case and satisfy the Case Filter; this is normally the subject position (but cf. There were five men killed [e]). This analysis makes the claim that the passive morpheme is in effect a detransitivizer and, accordingly, it predicts that passive sentences should exclude ACC DO arguments. But the Russian data in (9) above demonstrate that passive participles (V+en) do in fact cooccur with ACC DO NP's in some languages.19

The existence of passive participles with overt ACC objects is in perfect accord with the Configurational case hypothesis: ACC is assigned to the DO NP of a passive participle in precisely the same way that it is assigned to the DO of a finite transitive verb -- in terms of the configuration in (6a), where the head's lexical category is not specified (cf. (10a)).

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19 An ACC DO and passive participle cooccur in Russian and Ukrainian only in sentences that have no overt subject, i.e., in impersonal sentences (see Sobin (1985) for discussion of Ukrainian). This can be explained in two different ways: (i) The subject NP is filled with a null expletive which prevents the DO from moving; (ii) There is no subject NP for the DO NP to move to in Slavic impersonal sentences (see Babby (1990b) for details).

If it is true that English has only Configurational case (see Chomsky 1981), then English sentences like the following must also allow for the cooccurrence of a passive participle and ACC DO, further weakening the empirical support for Case Absorption: John [was given [a book]_NP:ACC]_VP (see Babby (1990b) for discussion).
This brings us to a rather subtle distinction: The Configurational analysis of syntactic case, unlike the GB Structural case analysis, does not claim that ACC case is assigned by the head $X^0$ in (6a); ACC is assigned to NP in terms of a broader syntactic configuration in which $X^0$ is a constituent. If this is correct, then (10b) too is wrong: If ACC is not assigned exclusively in terms of $X^0$, then the condition that case is assigned under government is to narrow. Additional evidence that (10b) is not a universal property of Syntactic case assignment is presented in the discussion below, where ACC assignment to bare NP adverbials is considered.\(^{20}\)

In case-languages like Russian, verbal complement NP's are assigned ACC, GEN, DAT, or INST case. Our claim that ACC is a Configurational case while the others are Lexically determined, is based on the fact that the syntactic behavior of NP's assigned ACC case is radically from that of verbal complement NP's assigned other cases.\(^{21}\) The following are the most important data supporting this distinction: passive, nominalization, prepositions with accusative complements, and genitive of negation; we turn next to a consideration of each of these pieces of evidence.

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\(^{20}\) If ACC case is not assigned to the DO NP by the verb that governs it, then we must reconsider the validity of Burzio's generalization; see Freidin and Sprouse, who discuss other problems with it; see Bowers (1990).

The existence of impersonal transitive verbs in Russian is also evidence against Burzio's generalization: these verbs assign a theta role to the ACC DO, but do not assign an external theta role; e.g. (see Babby (1990b)):

\[
\begin{align*}
\text{Ego} & \text{ tošnilo} \text{ ot} \text{ pišči.} \\
\text{him:ACC nauseated from food} \\
'\text{He felt nauseous from the food/the food made him feel nauseous}'
\end{align*}
\]

\(^{21}\) Bowers (1990) proposes a structural (X-bar) distinction between direct objects, which are treated as "secondary" subjects of VP, and verbal complements; I have claimed here that the most significant difference between ACC NP's and oblique verbal complements is one of case (Configurational vs. Lexical). Both proposals may be correct.
First, only verbs whose object is assigned ACC in active sentences are regularly passivized in Russian (see note 10 for exceptions). Verbs that assign DAT, INST, and GEN to their complements normally do not passivize because canonical passivization in Russian requires that the object NP be assigned NOM, which, in the case of object NP's with Lexical case, would involve a violation of the Projection Principle (see section 4).\(^{22}\)

Second, the oblique Lexical case assigned by a verb to its object is preserved in the corresponding derived nominal; ACC case, however, is never preserved under nominalization (see details in section 7).

Third, we are claiming that the ACC case assigned to the complement of a preposition is Configurational because it does not behave like a Lexical case. It was established above section 5 that the NP-internal case distribution in a quantified NP assigned a Lexical case must be homogeneous, i.e., GEN case assigned in the scope of the QP is excluded. But the case distribution in ACC complements of prepositions is heterogeneous: the quantative GEN must be assigned.

\[\text{(11) a. } [\text{PP na } \text{[NP:ACC } \text{pjal' knig/*knigi]}] \text{ onto} \text{ five:ACC books:GEN/books:ACC} \]

\[\text{b. } [\text{PP k } \text{[NP:DAT } \text{pjati knigam/*knig]}] \text{ to} \text{ five:DAT books:DAT/books:GEN} \]

\(^{22}\) A natural question to ask here is why Lexically case marked oblique objects do not become oblique subjects in Russian passive sentences the way they do in Icelandic (see section 9). Assuming that Russian, like English, has a subject position, Freidin and Sprouse propose the following explanation: Russian verbs do not assign Lexical case to their subjects in active sentences and, therefore, Lexically case marked subjects in passive sentences are "unlicensed". By contrast, active verbs in Icelandic can assign Lexical case to their subjects and, therefore, they permit Lexically case marked objects to become oblique subjects in the passive.
Thus the preposition na (like a transitive verb) selects an NP complement whose case is determined syntactically; k, in contrast, is a Lexical case assigner: It selects an NP complement with "inherent" DAT case.

There is another important piece of evidence that prepositions that take ACC complements are not Lexical case assigners. While it is very rare in Russian for a preposition to take a prepositional phrase as its complement (i.e., [PP P PP]), such structures do occur, but only if the matrix P normally has an ACC complement. Now, if the ACC case associated with the matrix preposition were Lexical, examples like (12) would involve a conflict of two Lexical cases and would therefore be ill-formed (see section 4; Krasil'nikova 1980:40).23

(12) Ja ostavil rabotu [PP na [PP posle [NP:GEN obedal]].
I left the-work for after dinner:GEN

If the preposition na is not a Lexical case assigner, then the well-formedness of (12) is easy to explain: The Configurational ACC case assigned to an NP complement of na is simply not assigned when its complement is a PP. Recall that a criterial property of Configurational case is that it is a "default" case in the sense that its assignment to X^m is not obligatory, and its failure to percolate to X^0 when it is assigned to X^m does not result in an ill-formed structure (e.g., see (3c) and (5)).

Lastly, a NP assigned ACC case in an affirmative sentence in Russian can be assigned the GEN of negation in the corresponding

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23 The argument holds even if posle obedal is interpreted as an adverb. Our hypothesis that ACC complements of prepositions are Configurational rather than Lexical case cannot by itself explain why these complements are not assigned GEN instead of ACC the way direct objects are when the sentence is negated. This fact may be accounted for in terms of the structure of the Russian verb phrase proposed in a recent paper by John Bailyn (1991).
negated sentence; but the INST and DAT cannot be replaced by the GEN in the scope of negation; this fact follows from the Projection Principle if INST and DAT are Lexical cases and ACC is Configurational.24

Bare NP adverbs are assigned ACC case in Russian (see (13a)), and ACC here too behaves like a Configurational case: It can alternate with the GEN in the scope of negation, just as the ACC DO of a transitive verb does; see (13b) (see Maling, where the alternation of ACC and NOM on bare NP adverbials in Finnish is discussed).

(13) a. Ty rabotaes' u nas uže [mesjac]NP:ACC
    you work for us already month:ACC
    'You have already been working for us for a month'

    b. Ty u nas ešše i [mesjac]NP:GEN ne rabotaes'.
    you for us yet even month:GEN not work
    'You haven't been working for us for even a month'

Since bare NP adverbs are not subcategorized complements of the verb, their ACC case cannot be assigned to them by V0 under government (see 10b). Examples like (13a) and the data in Maling's article also demonstrate that Configuration ACC cannot be associated with a particular grammatical function: It is assigned to adverbial NP's as well as to DO NP's (see sections 7 and 10 for additional evidence). This means that the syntactic configuration proposed in (6a) for the assignment of ACC case in Russian is still not abstract enough. Assuming that bare NP adverbs are not X' constituents, the configuration for ACC case assignment should be (14) (where Xn is equal to or greater than X0):

24 In Russian, the GEN of negation is optional and affects the overall meaning of the sentence; it is therefore a Semantic case. But in Polish and Lithuanian sentences the GEN of negation is like the quantitive GEN in Russian; it must be assigned if it can (i.e., if Lexical case has not been assigned) and it makes no semantic contribution; thus the GEN of negation in Polish Lithuanian is a Configurational case.
(14) \[X^n N^m]_{Xn+1}\]

As we shall see in the next section, relatively abstract configurations like the one in (14) appear to be the rule rather than the exception in case-languages.\(^25\)

7. **Oblique Configurational Case.**

In the version of case theory being presented here it is possible in principle for any oblique case to be assigned to an NP in terms of surface syntactic configuration. The most common example of an oblique Configurational case is the adnominal GEN, which is routinely assigned to (i) the NP complement of a head N that is not a Lexical case assigner, and (ii) to bare NP modifiers of N (e.g., the possessive GEN NP's in examples like tablica(NOM) Mendeleeva (GEN) 'Mendeleev's table').\(^26\)

A more complex question, which cannot be given the attention it deserves here, is whether oblique Configurational cases can occur in the domain of the sentence as well as in the domain of the NP.

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\(^25\) It is tempting to simply claim that an NP is assigned ACC case Configurationally if it is a constituent of VP at S-structure and has not already been assigned a Lexical case. While this would probably work for Modern Russian, it would not work for Icelandic and Old Russian, where DO NP's are assigned NOM as well as ACC (see sections 9-10) or for SerboCroatian, where ACC is assigned in subject NP's containing a quantifier (see Babby 1980a). It is in fact a mistake to attempt to define universal configurations for the Configurational cases: The only absolute universal here is that natural languages all have Configurational case; while there are cross-linguistic regularities, the fact that case systems differ from language to language must be attributed in large measure to the fact the configurations determining the Syntactic cases are patently language-specific.

\(^26\) The Russian data presented below supports the hypothesis in Yip et al. (1987) that the noun phrase and the sentence are separate case-assignment domains. I am using the term "oblique" here to refer to all cases other than nominative and accusative, which are traditionally referred to as the "direct" cases.

It will be argued later in this section that the INST case assigned to agentive NP's in Russian derived nominals is also a Configurational case.
Data from a number of different languages strongly suggest that VP-internal oblique Configurational cases do indeed occur. Perhaps the clearest example can be found in Turkish causative sentences: When a verb is causativized, a new subject NP (external argument) is added to its basic argument structure, and the erstwhile external argument is 'internalized', i.e., made an internal constituent of VP. When an intransitive verb is causativized, its basic subject occupies the DO position inside the VP, which is assigned ACC Configurationally, just as in basic transitive sentences. But when a basic transitive verb is causativized, its internalized subject is assigned the DAT: Since the DO position is already occupied, it appears that the internalized subject NP must occupy the indirect object position in VP where it is assigned DAT case. Note that we cannot associate the DAT case in causativized sentences with the operation of internalization itself since the internalized subject of an intransitive verb is assigned ACC, not DAT; we cannot associate the DAT with the causative suffix for the same reason; and it obviously cannot be claimed that the DAT is a lexical (selectional) property of the base verb. The only plausible explanation for the systematic occurrence of the DAT case in these causativized transitive sentences is Configurationally determined case assignment in the indirect object position.27

Below we will consider NP-internal case assignment in Russian in some detail because it provides a particularly clear example of a

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27 See Babby 1981 for relevant Turkish examples. Note that Chomsky (1981: 172) suggests that the DAT in French is a "structural case" assigned by V' to NP. Steve Franks has suggested that [V' NP]v'' is the configuration for DAT assignment to indirect objects in Russian (personal communication). Another example of an oblique Configurational case may be the predicate INST in Russian (see Bailyn and Rubin (this volume) for discussion). See also section 10 for a discussion of the DAT case assigned to null (PRO) and overt subjects of infinitives in Russian.
nonlocal Configurational case assignment strategy. First we briefly consider the local Configurational assignment of the adnominal GEN in derived nominals (Russian has no gerundive nominals; see Chomsky 1970), then the nonlocal assignment of the "adnominal instrumental" case.

It was noted above that if the NP complement of a verb is assigned Lexical case, the NP complement of the head noun in the corresponding nominalization in Russian preserves the verb's Lexical case assignment (e.g., torgovlia + INST 'trade' is the derived nominal of torgovat' + INST 'to trade'). But if a verb's NP complement is ACC, the NP complement of the corresponding derived nominal must be GEN (čtenie + GEN 'reading' is the derived nominal of čitat' + ACC 'to read'). We can conclude on the basis of this type of correspondence that the adnominal GEN is the NP-internal Configurational counterpart of the ACC case that is assigned to DO's in VP.

Possessive NP's are also assigned adnominal GEN and they freely cooccur with adnominal GEN complements:

28 Since assignment of Structural case in GB theory involves government by a specific lexical category, it is a maximally "local" case assignment strategy. The configurational definition of case proposed above does not mention government or a specific lexical category (see the ACC configuration in (14)), but is nevertheless also local since it is determined by a specific structural configuration, without reference to the case of other NP's in its domain. Case assignment can be characterized as nonlocal when its occurrence in a particular configuration depends on the case of another NP in its domain or its occurrence is not confined to a specific structure.

29 Note that if the ACC case assigned to the object of transitive verbs were Lexical, we would expect it to be preserved in nominalizations. The analysis of the adnominal GEN as a Configurational case also correctly predicts that adnominal complements can be optionally assigned partitive GEN (-u), which is a Semantic case, in place of adnominal GEN (-a): Semantic case alternates with Configurational case, never with Lexical case (cf. the alternation of partitive GEN with ACC on the DO of transitive verbs). The following is an example of partitive GEN -u assigned to an adnominal complement: [stakan [gorjačego ċaju]] 'a glass [of hot tea].
(15) tablica elementov Mendeleeva
table:NOM elements:GEN Mendeleev:GEN
'Mendeleev's table of elements' (lit.: 'the table of elements of M. ')

NP's like (15) suggest that the adnominal GEN is canonically assigned
to N^m in the following local configuration (N^n is equal to or greater
than N^0):

(16) [ N^n N^m ]_{n+1}

Since N^n is unspecified for bar level, it permits multiple occurrences
of the adnominal GEN inside the domain of the noun phrase.30

We can now turn to case assignment in NP's headed by a
derived nominal.31 If a verb is intransitive, the adnominal GEN NP
associated with its derived nominal is unambiguously interpreted as
subject (we will call it the "subjective GEN"), e.g., molčanie(NOM)
detej(GEN) 'the-silence of-the-children (cf. Deti molčat 'The-children
are-silent). But when a noun is derived from a transitive verb, its
adnominal GEN complement is ambiguous; it can be interpreted as
either subject or DO of the corresponding verb. Thus in the phrase
vozvrashčenie detej 'the-return of-the-
children', detej can have either
a "subjective" or "objective" GEN interpretation corresponding to
Detej(ACC/ANIM) vozvrashčajut '(they) return the children' or
Deti(NOM) vozvrashčajsja 'the children return' (see Vinogradov &

30 Compare (14) and (16). It should be stipulated in (14) that X cannot be N,
which fails to capture the complementary nature of ACC and adnominal GEN
case assignment. But (14) alone will suffice for both if we accept the
suggestion in Yip et al. 1987 that S and NP are separate case assignment
domains: the configuration in (14) produces GEN if X=N (i.e., in the case domain
of NP) and ACC elsewhere (in the case domain of S).

31 It is assumed below that derived nominals inherit the theta roles of the
verbs they are derived from and distribute them systematically to N-bar
positions.
The Lexical case assigned by a verb to its object NP is preserved under nominalization and, therefore, an adnominal GEN NP in this type of derived nominal is unambiguously interpreted as a subjective GEN (recall that Russian verbs do not assign Lexical case externally). For example, consider the derived nominal in (17) (the verb upravljat' 'govern' takes a NOM subject and selects INST for its object NP). (See Svedova and Lopatin 1989: 372-3):

(17) a. Upravlenie [datel'nym padežom]NP:INST
government:NOM dative case:INST
'government of the dative case'

b. Upravlenie [imen prilagatel'nyx]NP:GEN
government:NOM adjectives:GEN
'government of adjectives'

In (17a) the INST complement is unambiguously associated with the object of the verb upravljat' while in (17b) the GEN is unambiguously associated with its subject.32 Both NP's can coccur in the same NP. As we expect, the GEN NP has only the subjective reading and the INST only the objective reading ((18) is from Georgieva 1968:64). (Note the internal structure of the English gloss in (18).)

(18) Upravlenie [datel'nym padežom] [glagolov, oznacajuščix zabotu].
gov.:NOM dative case:INST verbs:GEN denoting anxiety
'The government of the dative case by verbs denoting anxiety'

32 Thus (17a) can be the title of a section in a grammar that deals with what can govern the dative case, while (17b) can be the title of a section dealing with the kind of government that adjectives have. Rukovodstvo 'leadership' is another derived nominal that assigns objective INST (cf. rukovodit' + INST). Thus in rukovodstvo partiej, partiej(INST) is unambiguously interpreted as the object and the NP can be glossed 'the leadership of the party'; in ruko-vodstvo partii, partii(GEN) is unambiguously interpreted as subject and the NP can be glossed 'the party's leadership' (see Raxmanova 1974).
(Cf. Glagoly (verbs:NOM), oznacajuščie (denoting:NOM) zabortu (anxiety:ACC), upravljať (govern) datel'nym (dative:INST) padežom (case:INST).)

Now, if a verb is transitive (i.e., selects an object NP but not its case), then, given what was said above, we would expect the corresponding nominalization to be able to have two adnominal GEN phrases, one with a subjective reading, the other with an objective reading. While derived nominal NP's with cooccurring GEN NP's do frequently occur in Russian (see (19a)), they are considered to be stylistically infelicitous and prescriptive grammars recommend that the subjective GEN in such phrases be replaced by the INST case (see (19b)).³³ (See the discussion of examples like (19) in Demidenko 1986:284.)

(19) a. podbor učaščixsja primerov
   analysis:NOM students:GEN examples:GEN
   'the-analysis of-the-examples by-the-students'
   (lit. 'the-analysis of-the-students of-the-examples')

³³ The INST case in Russian is assigned to agentive adjunct phrases in passive sentences; thus the use of INST in NP's like (19b) is parallel to the use of by-phrases in English nominalizations (e.g., the destruction of the city by the enemy).

The unacceptability of NP's like (19a) cannot simply be attributed to the co-occurrence of two GEN NP's in the same domain: NP's like (15) are perfectly well-formed. Since the word order in Russian derived nominal phrases is free (morphological case + theta roles license free word order), we can assume that the co-occurrence of subjective GEN and objective GEN in the same NP is potentially ambiguous and therefore judged to be stylistically infelicitous. Note that if the word order in (19a) were reversed, učascixsja could be interpreted as the adnominal complement of primerov, producing another type of ambiguity, i.e., [NP podbor [NP primerov [NP učasciixsja]]] 'the analysis of the student's examples.' Additional examples of cooccurring subjective and objective GEN phrases can be found in Bylinskij and Rozental' 1961:305 and Mamonov and Rozental' 1957:133.
b. podbor primerov uascimisja
   analysis:NOM examples:GEN students:INST
   'the-analysis of-the-examples by-the-students'

NP's like (19a) with two adnominal GEN phrases result from strictly local case assignment in terms of the configuration proposed above in (16), which allows for the multiple assignment of the same case (cf. (15)): Each occurrence of the GEN is assigned independently of the other. But the assignment of subjective INST case in the domain of derived nominal cannot be stated in local terms: Note first of all that subjective INST cannot be assigned to an adnominal complement NP bearing the theta role of the corresponding verb's subject if there is no objective NP present (see Padučeva 1984), e.g.:

(20) a. *ispolnenie Saljapiny
    performance:NOM Chaliapin:INST
    'Chaliapin's performance'

   b. ispolnenie Saljapina
      performance:NOM Chaliapin:GEN
      'Chaliapin's performance'

   c. ispolnenie arii Saljapiny
      performance:NOM arii:GEN Chaliapin:INST
      'Chaliapin's performance of the aria'

Note also that it is not sufficient to merely stipulate that the NP in a nominalization corresponding to the verb's subject is assigned INST rather than GEN if and only if an NP with object interpretation is present: A subjective NP in a Russian nominalization can be assigned INST rather than GEN only if there is an objective NP present and it has been assigned Configurational (GEN) case. As we saw above in (18), if a derived nominal assigns Lexical case to the objective NP, the subjective NP is assigned GEN, not INST; the following are additional examples of this crucial type of NP-internal case assignment.

(21) a. Deti zanimajutsja muzykoj.
    the-children:NOM are-studying music:INST
b. [ zanjatie detej muzykoj ]NP
   study:NOM children:GEN music:INST
   'the-study of-music by-the-children'

(22) a. Deti podražajut roditeljam.
    the-children:NOM imitate their-parents:DAT

b. [ podražanje detej roditeljam ]NP
   imitation:NOM children:GEN parents:DAT
   'the-imitation of-their-parents by-the-children'

These examples demonstrate that the Configurational assignment of the INST case to subjective NP's in Russian derived nominals is nonlocal in the sense that its occurrence is directly dependent on the presence of another NP with a specific type of case. (I am assuming of course that noun phrases like (18) and (20c) have the same X-bar structures and, therefore, that the different case patterns that distinguish them have an entirely case-theoretic explanation.) Below we will consider another instance of nonlocal case assignment when we consider NOM case and its noncanonical assignment to object NP's.

8. Canonical Assignment of Nominative Case

There appears to be general agreement that NOM case is assigned Configurationally in the domain of the sentence. GB case theory has by and large narrowly focused its attention on the assignment of NOM to subject NP's in finite clauses, where it can plausibly be claimed that NOM is assigned to the subject NP under government by INFL (see Chomsky 1981). But this analysis of NOM case turns out to be too narrow for an explicit, universal theory of Configurational case assignment: NOM case is regularly assigned to NP's other than subject, and subject NP's can be assigned cases other than NOM. For example, in Ergative-Absolute languages, the subject's case depends on the verb's transitivity (another example of a nonlocal configurational strategy; see note 28). In Russian, partitive GEN and the GEN of negation are regularly assigned to the subject NP instead of NOM (see Babby 1980a, Neidle 1988); and NOM case in
some languages is assigned to an object NP when the subject NP cannot be assigned NOM (see sections 9-10 below).

In standard Russian, NOM case is assigned to subject NP, topic NP, vocatives, predicate nominals (i.e., NP₂ in the configuration [NP₁-copula-NP₂]ₘ), and nouns that are outside the sentence's grammatical relations (e.g., exclamations like Пожар 'Fire!', titles, etc.). This distribution of NOM case cannot be accounted for in terms of government by X⁰ or any other single structural relation that holds between NP and X⁰ in Xₘ.³⁴

It is just as important when describing the distribution of the NOM case to note where it cannot occur as where it can: It is routinely noted in descriptions of Russian that NOM is the only case that cannot be assigned to the NP complement of a preposition. As a matter of fact, NOM case cannot be assigned to the complement of any lexical category in Russian. This suggest that the distribution of NOM case can be characterized as in (23).

(23) NOM in standard Russian is assigned to an NP that is not dominated by the maximal projection of a lexical head.

(23) captures the fact that NOM case is not exclusively associated with any one grammatical relation (e.g., subjecthood). It should be borne in mind that rules like (23) are not intended to be universals, i.e., while (23) can account for the distribution of NOM in NOM-ACC languages like modern Russian, it cannot account for the assignment of NOM to objects, which involves the assignment of NOM to the NP

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³⁴ I assume that NOM case is not locally assigned to predicate nominals in terms of their surface configuration, but is rather assigned in terms of agreement in case with the subject NP. Thus Nₘ-to-Nₘ case agreement in Russian takes precedence over local Configurational case assignment. NP-external case agreement is also needed to account for the NOM case marking on predicate adjuncts in sentences like Он лежал мертвый 'He lay dead', where the adjective мертвый (NOM, SING, MASC) agrees with the subject on 'he' in case as well as number and gender; see section 10 for further discussion.
complement of the lexical category V₀ (NOM DO's are found in Old Russian, Icelandic, Finnish, and Lithuanian). The following sections will be devoted to this noncanonical NOM case strategy and its consequences for the theory of Configurational case.

9. Nominative Direct Objects in Icelandic

Icelandic is a language in which verbs can select a subject NP with oblique Lexical case marking; this is in marked contrast to Russian, in which Lexical case is possible only on objects. When the subject NP of a transitive verb in Icelandic finite clauses is assigned Lexical case, its DO is systematically assigned NOM rather than canonical ACC case, which can be assigned to DO only when the subject is NOM. This NOM/ACC case alternation on the DO and its dependency on the subject’s case is particularly clear in the case of Icelandic ditransitive verbs whose case assignment pattern in active and passive sentences is schematically represented in (24a) and (24b) respectively (the NP to the left of V is the subject); (25) is a concrete example from Yip et al. (1987:226). Note that even though the DO NP remains in the verb phrase in passive sentences like (24b) (the object NP that becomes subject in these sentences is the one assigned DAT), its ACC case in the active sentence is nevertheless replaced by NOM case in the corresponding passive sentence.

   b. PASSIVE: NP₂:DAT - [[copula+participle] - NP₃:NOM (af 'by' NP₁)]ᵥₚ

    Jon:NOM gave child:DAT book:ACC
    'John gave the child a book'

   b. Barninu [var gefin bokin (af Joni)]ᵥₚ
      child:DAT was given book:NOM (by John)
      'The child was given a book (by John)'

No matter how we analyse the relation between (25a) and (25b), what is important to bear in mind is that there is a NP in the VP in
(25b) that is assigned NOM case despite the fact that it is dominated by the maximal projection of a lexical category (cf. the NOM rule proposed for Russian in (23)).

The case alternation illustrated in (25) obviously involves the alternative assignment of two different Configurational cases to the same position. Since the canonical local configuration for the assignment of ACC case ([Xn NP]Xn+1) is preserved under passivization, our task is to discover what has changed in (24b), i.e., we must determine what factor requires the Configurational assignment of NOM case to override the local Configurational assignment of the ACC in Icelandic passive sentences like (25b).35

Our explanation of this NOM-ACC alternation depends on the following crucial observation: A DO NP can be assigned NOM rather than ACC case in Icelandic only in those sentences in which the subject NP is not assigned NOM case (see Yip et al.). This can be stated in more general terms:

(26) The DO NP in Icelandic is assigned NOM instead of ACC only in sentences in which the subject NP is not available for Configurational case marking.

Thus assignment of NOM to the DO is not a strictly 'local' phenomenon since it depends on the case marking on another NP, namely, the subject. (The subject NP is not "available" for NOM case assignment if (i) it has been assigned a Lexical case; (ii) there is no subject NP in the clause.)

35 Assignment of the NOM case to the DO in Icelandic has nothing to do with the presence of the passive participle or with the alleged absorption of ACC case by the passive morpheme. Recall that in Ukrainian and Russian dialects, the passive participle freely cooccurs with an ACC DO in impersonal sentences; see section 6, Babby 1990b, Sobin, 1985. Note too that NOM DO's occur in active Icelandic sentences whose subject NPs are externally subcategorized for Lexical case.
Yip et al. (p.217) explain the existence of NOM DO's in Icelandic in terms of the following 'linear' theory of case: Configurational case forms a "tier" which is autonomous with respect to phrase structure. NOM and ACC, the clause-level Configurational cases, are assigned to ("associated with") the NP's in the domain of the sentence on a left-to-right, first-come-first-serve basis (NOM is assigned to the first NP, ACC to the second). Thus in canonical transitive structures, NOM is assigned to the subject, which is the left-most NP, and ACC is assigned to the next available NP, which is the DO. 36 But in sentences in which the subject NP has Lexical case marking, it is the DO NP which is the left-most available NP, and, therefore, it is the DO that receives NOM case marking (the ACC remains unassigned). Thus the Lexical case of the subject, which is assigned in the lexicon and is therefore "preassociated," is opaque with respect to Configurational case assignment strategies and is consequently "skipped" in the surface calculation of left-most NP availability.

The crucial insight in (26) can be easily captured in the theory of case being proposed in this article: All we need do is assume that in languages like Icelandic, NOM case assignment employs a structure-dependent Configurational strategy different from the one employed in languages like Modern Russian (where DO is never assigned NOM case (cf. (23)). This alternative strategy can be formulated as in (27) (cf. Zaenen, Maling, and Thrainsson 1985:466).

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36 Yip et al. point out that if the association of the two Syntactic cases proceeds in the suggested left-to-right manner, the classic NOM-ACC case system is the result; but if the association is from right-to-left, the classic Ergative-Absolute system results. This suggests that the two major case assignment strategies found in the world's languages may be the result of parameterizing the direction in which the Syntactic cases are assigned. Compare this to the attempt in Babby 1980a to capture these case relations in a theory in which Syntactic case assignment is nonlinear, i.e., depends on the sentence's phrase structure configurations. Both approaches share the conviction that different case systems are to be explained in terms of different strategies for assigning case to the subject and DO.
(27) NOM case is assigned in the domain of the sentence to the highest available NP.

The "highest" NP is simply the NP most immediately dominated by the S (IP) node (thus the subject NP is higher than the DO NP in all versions of X-bar theory). An NP is "available" at S-structure for Configurational case marking provided that it has not already been assigned a Lexical case. Thus in sentences in which the subject is not assigned Lexical case, the subject is the highest available NP and is assigned NOM; DO is assigned ACC. But when the subject NP carries Lexical case, the highest available NP is the DO NP, and it is consequently assigned NOM in the same local configuration in which ACC is assigned when the subject is NOM.

Note that the rule in (27) predicts that there should in theory be languages in which bare NP adverbs are assigned NOM case (rather than ACC) if neither the subject nor the direct object are "available". Maling (to appear) has recently pointed out that this is precisely what happens in Finnish: NOM vs. ACC case assignment to bare NP adverbs depends on whether NOM can be assigned elsewhere in the clause. (Note that if DAT is an oblique Configurational case assigned to the NP sister of V', as suggested above, then given (28) below, we would expect NOM to be assigned to [V' NP]_V'' in languages with the NOM case assignment strategy in (27) when no other NP is available; I am not aware of any languages in which this happens.)

The analysis of NOM objects proposed above involves the conflict of two Configurational case assignment strategies: local assignment of ACC to the DO in the [Xn Nm]_Xn+1 configuration (see (14)) and nonlocal assignment of NOM in the same configuration (see (27)). This analysis of NOM objects would be considerably strengthened if the resolution of this case conflict in favor of NOM could be shown to follow from some independent principle of grammar. Such a principle has in fact been proposed in the recent
literature: Entirely independent of the data and problems of case theory being considered here, Bowers (1990:34) has proposed the Nominative Case Principle (NCP), which can be formulated for our purposes as in (28) (cf. Taraldsen's NOM principle (1986:153)):

(28) NOM case must be assigned in a tensed sentence (while ACC case is assigned "freely").

Given the principle in (28), NOM case assignment to DO must take precedence over ACC in sentences in which the subject NP is not available for NOM case marking (and there are of course no other "available" NP's higher than the DO). (If the NCP proves to be wrong, then the following principle should be explored: Nonlocal Configurational case assignment strategies take precedence over local ones.)

The proposals made above can be summarized as follows: There are basically two configurational strategies for assigning NOM case in NOM/ACC-type languages: The relatively local strategy in (23), which excludes NOM assignment to all complement positions (including the DO of transitive verbs), and the nonlocal strategy in (27), which allows for the assignment of NOM to the DO NP of transitive verbs (and to bare NP adverbs).

It might plausibly be proposed that the NOM case strategy in (27) is in fact superfluous since the Nominative Case Principle itself would be sufficient to account for NOM objects in Icelandic finite clauses when the subject is unavailable for NOM case assignment: If NOM must be assigned, as Bowers proposes, then the only possible site for its assignment is the DO NP. But there are languages like Old Russian in which the assignment of NOM case to the DO occurs only in nonfinite clauses, a fact which, as we shall see below, can be explained quite naturally in terms of the NOM case strategy in (27),
which makes no reference to finiteness, but not in terms of the NCP in (28), which operates only in finite clauses.\textsuperscript{37}

It is crucial to bear in mind that in both Yip et al. and the analysis being proposed here, the occurrence of NOM objects in Icelandic finite clauses is directly dependent on the unavailability of the subject NP for NOM case assignment. In the next section we will explore the alternation of NOM vs. ACC case assignment to the DO NP in nonfinite clauses in Old Russian. I shall argue that while the Icelandic and Old Russian data are superficially quite different, the occurrence of NOM case instead of ACC on the DO of infinitives in Old Russian can be shown to depend directly on the case assigned to the infinitive's PRO subject and, therefore, that the occurrence of NOM

\textsuperscript{37} In all the languages we are considering here, nonfinite clauses are tenseless.

Bowers' NCP has a number of far-reaching consequences that need to be thoroughly explored. For example, if it is correct, then it must be the case that Russian finite impersonal sentences like the following, which can never have an overt subject of any kind, but have an ACC DO, must have a subject NP headed by a null (covert) expletive subject with NOM case marking: \textit{Menja(me;ACC) tošnilo (nauseated) ot(from) ryby (fish)} (lit.) 'Nauseated me from the fish'/ 'The fish nauseated me'. See Sobin (1985) where a null-subject analysis along these lines is proposed for Ukrainian impersonal passives, and Babby 1990b, where the properties of impersonal sentences are explored in a theory that allows for subjectless finite clauses. The relation between Bowers' NCP and the Extended Projection Principle (Chomsky 1981) must also be explored in connection with impersonal sentences.

Note too that Russian finite clauses in which the subject NP is analysed as being assigned abstract partitive GEN or the GEN of negation appear to be counterexamples: In order to maintain the NCP it would have to be demonstrated that these GEN NP's are objects rather than subjects, a suggestion which was made quite independently of the NCP by Catherine Chvany (personal communication). The fact that the partitive GEN and the GEN of negation appear to be assigned to the object NP of transitive verbs and the subject NP of intransitive verbs, but not to the subject of transitive verbs (see Babby 1980b), supports this "unaccusative" analysis: When the object NP in an "unaccusative" sentence is assigned abstract GEN case, it cannot move to the empty subject position, which must then be filled with a NOM null expletive. The failure of the GEN DO to move in these sentences can be explained in familiar terms: Subject position in Russian is not "licensed" for oblique subjects (see Freidin and Sprouse).
objects has the same explanation in both of these languages, and, presumably, in other NOM-object languages as well (see Timberlake 1974b, Taraldsen 1985, and Maling 1990 for discussion of NOM objects in other languages).

10. NOM Direct Object in Old Russian

In Old Russian and some modern Russian dialects there is a systematic alternation of NOM and ACC case assignment to the DO NP in infinitive clauses (but not in finite clauses).\(^{38}\) The following are examples:

(29) a. Zemlja paxat'.
    earth:NOM to-plow
    'It is necessary to plow the land'

b. Korolju bylo [ta ruxljad'] dati.
    king:DAT was:NEUT that:NOM FEM property:NOM FEM to-give
    'It was necessary for the king to give back that property'

c. Po kotoroj reke plyn', ta i voda pit'.
    on which river to-float, this:NOM prt water:NOM to-drink
    'You have to drink the water in the river you're swimming in'
    (see Borkovskij 1978:403)

The DO's of the transitive infinitives in (29) are assigned NOM case in clauses in which there is no overt subject NP.

One of the infinitive's most salient syntactic properties is that it normally excludes an overt subject. If we define a subject as

\(^{38}\) The data in this section come primarily from Timberlake 1974a and 1974b. It is important to bear in mind that another nonfinite form of the verb (verbal adverbs) can have NOM objects. This means that we can immediately exclude explanations of Old Russian NOM objects in terms of the infinitive per se. We concentrate on infinitive clauses with NOM DO's because they are the most numerous in the Old Russian texts. An obvious direction for future research must be a comparison of the properties of NOM objects in infinitive clauses in Icelandic (see Sprouse 1989) and Old Russian.
unavailable for NOM case assignment when it is either assigned a
Lexical case (as in Icelandic finite clauses) or simply missing, then,
given what we have established in section 9, we would in fact expect
infinitive clauses to have NOM DO's. But we cannot simply assume
that infinitives are subjectless verb forms heading subjectless clauses
because such an analysis makes the patently incorrect prediction
that all infinitives in a language like Old Russian should have NOM
DO's; as a matter of fact, the vast majority of transitive infinitival
clauses in Old Russian have ACC DO's.\(^{39}\) The standard GB analysis of
PRO as the caseless subject of an infinitive clause makes the same
wrong prediction: If the PRO subject is a null lexical category that
cannot be assigned case (see Chomsky 1981), then the subject of
infinitive clauses is inherently unavailable for NOM case assignment,
and, therefore, we would expect all infinitive clauses in languages
with NOM assignment strategies like (27) to have NOM DO's. We can
conclude from this brief discussion that if we are to demonstrate that
the occurrence of NOM (vs. ACC) objects in Old Russian nonfinite
clauses and Icelandic finite clauses is a unitary phenomenon, as
suggested above, then we must: (i) assume that infinitive clauses
have null PRO subjects, and (ii) demonstrate that the NOM/ACC
alternation on the DO NP in infinitive clauses correlates with the
availability/nonavailability of this PRO subject for NOM case
marking.\(^{40}\)

Our analysis of Configurational case assignment to DO's in Old
Russian infinitive clauses will focus on answering the following
questions:

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\(^{39}\) Note too that infinitive clauses in Old Russian and modern Russian can have
an overt subject NP (see below).

\(^{40}\) It has been suggested in a number of recent publications that PRO subjects
should be case marked; see Yip et al. (1987), Neidle (1988), Freidin and Sprouse
(to appear), Chomsky (1986:104). Russian provides a great deal of evidence
that PRO must be assigned case.
(30) a. Why is there a systematic NOM/ACC case alternation on the DO of Old Russian infinitives?

b. Why does Modern Standard Russian exclude NOM case assignment to DO's? How does it differ from Old Russian?

c. Why are NOM DO's not found in finite clauses in Old Russian?

We begin with (30c) because its answer is the most straightforward. There are no Lexically case marked subjects in Russian as there are in Icelandic (see Freidin and Sprouse for discussion), and, if we assume that impersonal sentences have a null expletive subject which is assigned NOM case (see note 37 and Bowers' NCP in (28)), then there are no finite sentences in Russian in which the subject NP is not available for NOM case marking (it is of course abstract NOM case that is essential, not morphological NOM, e.g., see sentences like (5)). To put it in slightly different terms, if finite clauses in Russian all have NOM subjects, it follows from the analysis proposed in section 9 that these clauses cannot also have NOM objects: We established above that NOM objects occur only in clauses in which the subject NP is not assigned NOM case.

We consider next the central question posed in (30a). Timberlake's (1974) explanation for the NOM/ACC alternation on the DO in Old Russian infinitives, which is based on the distinction between dependent and independent infinitive clauses, is essentially correct. An infinitive is defined as dependent when it is the complement of a personal verb, i.e., when the matrix verb has a grammatical (NOM) subject. An infinitive in any other syntactic configuration is defined as independent (e.g., an infinitive which is itself the subject of a matrix clause is independent); see the independent infinitives in (29). Timberlake's crucial observation can be summarized as follows: Dependent infinitives have ACC DO's; independent infinitives have NOM DO's. In other words:
(31) a. The DO in an infinitive clause is assigned ACC case if the infinitive is "dependent", i.e., controlled by a matrix verb that has a NOM subject.

b. The DO in an infinitive clause is assigned NOM case if the infinitive is "independent", i.e., not controlled by a matrix verb with a NOM subject.

Timberlake was on the right track when he associated NOM vs. ACC case assignment to the infinitive's DO with the matrix subject. But in order to demonstrate that NOM objects in Icelandic and Old Russian are a unitary phenomenon, we must link the case marking on the Old Russian infinitive's DO directly to the case assigned to the infinitive's subject.

Timberlake's findings can be expressed in terms of current GB theory in the following way. Assuming that infinitive clauses have PRO subjects and clausal structure (i.e., \([ \text{PRO}]_{\text{NP}} [\text{Vo NP}]_{\text{VP}} \)s, where V = infinitive), the NOM/ACC case alternation on the infinitive's DO can be shown to be predictable in terms of Control Theory.\(^{41}\) More specifically (cf. (31a-b):

(32) a. If the PRO subject of an infinitive clause is controlled by the NOM subject of the matrix verb, the infinitive's DO NP is assigned ACC case.

b. If PRO is not controlled by the matrix subject, the infinitive's DO NP is assigned NOM case (see examples in (29)).

\(^{41}\) Control theory deals with the relation between the PRO subject of an infinitive clause and its antecedent (controller) in the matrix clause. It is the matrix verb that normally determines PRO's antecedent; thus "grammatical" control is a lexical property of the verb. We need be concerned here only with whether or not the matrix subject controls PRO, since, as Neidle has so convincingly argued (1988: chap. 5), there is no grammatical object control in Russian. She demonstrates (1988:135) that sentences in which the object controls the infinitive complement are instances of "anaphoric" control, which is not a lexical property of the matrix verb and has properties which are quite different from grammatical control (see note 42).
The observations in (32) are only part of the explanation: We have now established that the case assigned to the infinitive's DO depends on whether or not its PRO subject is controlled by the matrix subject. What remains to be explained is precisely how control of an infinitive's PRO subject (or lack of control) can affect the case assigned to the its direct object. If we assume that PRO subjects can be assigned case, which has already been proposed in the literature (see note 40), then we can explain the Old Russian NOM/ACC case alternation on infinitival objects in familiar terms:

(33) a. Controlled PRO is assigned NOM case. When the PRO subject is assigned NOM, then the DO NP is assigned ACC in its local configuration, just as in finite clauses.42

b. Uncontrolled PRO is not assigned NOM case. It is either assigned no case at all (which is not a violation of the Case Filter since PRO has no phonological realization) or, more likely, is assigned DAT case (see discussion below). In either case, uncontrolled PRO is not available for NOM case assignment, and the DO is therefore assigned NOM case, since it is now the first (highest) available NP for Configurational case assignment of NOM by the strategy in (27).

We have argued above that assignment of NOM case to the DO NP in Icelandic finite clauses and in Old Russian nonfinite clauses is essentially the same phenomenon. If NOM case cannot be assigned to the clause's subject NP for any reason, it is assigned to the DO NP by the Configurational case assignment strategy in (27). There is,

42 The reason that PRO is assigned NOM when controlled by the NOM matrix subject is entirely straightforward, given Neidle's formulation of grammatical control: "Grammatical control entails the identity of all features (and, in particular, of case)" (Neidle 1988:131). In other words, in cases of grammatical control, the controller (PRO) agrees in case, number, and gender with the controller (NOM matrix subject). It should be pointed out that Neidle does not discuss the problem of NOM objects in her book; the fact that her formulation of control plays a key role in explaining this Old Russian case phenomenon should be interpreted as independent evidence that her treatment of control in Russian is correct.
however, an important difference between the syntactic environments in which (27) operates in the two languages under discussion. In Icelandic, (27) operates in finite (tensed) clauses. This means that if Bowers' Nominative Case Principle in (28) is correct, (27) must apply here: If local ACC case were assigned to the DO instead, a finite clause without NOM case would be the result. (The NCP makes an interesting prediction: all languages that license oblique case subjects should have NOM DO's in finite clauses.) But the Nominative Case Principle does not operate in non-finite (tenseless) clauses; this makes the following correct prediction: Non-finite clauses in which the PRO subject is not available for NOM case assignment should in principle be free to select either a NOM DO (when the strategy in (27) is employed) or an ACC DO (when the local NOM assignment strategy in (23) is employed). What appears to have occurred in the history of the Russian language is this (see question (30b)): the NOM assignment strategy in (27), which produced NOM DO's in Old Russian uncontrolled nonfinite clauses, was replaced by the strictly local NOM strategy in (23), which was used in finite clauses. This accounts for the fact that in Modern Russian, objects of infinitives are ACC, never NOM, just as in tensed clauses. Thus the syntactic structure of infinitive clauses and the principles of control have not changed in Russian; only the Configurational strategy for assignment of NOM case has. In other words, in Modern Russian infinitive clauses, the Configurational assignment of case to the PRO subject and to the DO are independent (strictly local) and, therefore, the DO is assigned ACC no matter what the case of PRO is. This change brings Russian in line with most other languages, in which Configurational case assignment strategies are the same in finite and non-finite clauses.

It was proposed above that there is a systematic correlation in Old Russian infinitive clauses between NOM/ACC case assignment to the DO, on the one hand, and whether or not the infinitive's PRO subject is controlled by the matrix verb's grammatical subject, on the
other. Thus our unitary explanation of NOM objects in Icelandic and Old Russian depends directly on the validity of the hypothesis that NOM case is assigned to the PRO subject of an infinitive clause only when it is controlled by the matrix subject. Below I will present independent evidence from Modern Russian supporting this crucial hypothesis; it involves alternate NOM/DAT case assignment to the predicate adjunct *sam*- 'by one's self' (= 'without the participation of others') in infinitive clauses. This section also provides evidence for the claim made above in (33b) that the default case of the PRO subject in Russian infinitive clauses is the DAT case.

*Sam*- has the following significant morphosyntactic properties: It agrees in number, gender, and case with the noun in the same clause that is its antecedent, but is not a constituent of the antecedent's maximal projection (we will be concerned below only with subject antecedents). It must be emphasized that *sam*- is not assigned case directly in terms of its syntactic configuration; it agrees in case with its antecedent in much the same way that predicate nominals agree in case with their subjects (see section 8). This property of *sam*- is crucial since it enables us to determine the case of the subject NP in those clauses in which the subject is PRO or pro and, therefore, has no phonological realization (see Babby 1979 for discussion of case assignment to *sam*- in verbal adverb clauses). In the following examples, *sam*- is coindexed with an overt subject antecedent in (34a-b); in (34c) its antecedent a feminine singular null pro-subject.

(34) a. Rebenok₁₁ uže odevaetsja sam₁₁.
    child:NOM SG MASC already gets-dressed himself:NOM SG MASC
    'The child already gets dressed by himself'

b. Dver'₁₁ otkrylas' sama₁₁.
    door:NOM SG FEM opened itself:NOM SG FEM
    'The door opened by itself'
c. (Kto razbil tarelku?) Sama razbila.
(who broke the-dish?) self:NOM FEM SG broke:FEM SG
'(Who broke the dish?) She broke it herself.

(Note that 'It (the dish) broke by itself' would be Sama razbilas'.)

Chapter 5 in Neidle's (1988) book is devoted to the systematic alternation of NOM and DAT case assignment to predicate adjuncts in Modern Russian infinitive complement clauses (see also Comrie 1974, Greenberg and Franks, to appear); the infinitive clauses in the following examples are enclosed in square brackets (čtoby is a complementizer):

(35) a. Ljud a priexala [pokupat' maslo sama/*samoj].
Ljud a came to-buy butter:ACC herself:NOM/*DAT
'Ljud a came to buy butter herself'

b. Ljud a priexala čtoby [pokupat' maslo samoj/*sama].
Ljud a came in-order to-buy butter:ACC herself:DAT/*NOM
'Ljud a came in order to buy butter herself'

(36) a. Sestra prosila ego₁ [samomu₁/*sam peredat' pis'mo Ivanu].
sister asked him:ACC himself:DAT/*NOM to-give letter to-Ivan
'My sister asked him to give the letter to Ivan himself₁'

b. Pavlik₁ počuvstvoval [sil'noe želanie [samomu₁ napisat']
Pavlik felt strong desire himself:DAT to-write
cto-nibud']VP]NP. (Saxmatov: 1941:336)
something:ACC

'Pavlik₁ felt a strong desire to write something himself₁'

Neidle's explanation for this NOM/DAT case alternation can be readily expressed in GB terms: The PRO subject of infinitive clauses is canonically assigned DAT case in Russian.\textsuperscript{43} Now, since predicate

\textsuperscript{43} There is a great deal of Old Russian and Modern Russian evidence for this claim, including relatively rare sentences like the following in which the
adjuncts like sam- agree in case with the subject of their clause, the DAT case on sam- in sentences like (36a) can be accounted for by normal agreement in case of sam- with its DAT PRO subject antecedent, just as in finite clauses like (34) (where, however, the agreement is with the NOM subject). Thus the full structure of the

infinitive's DAT subject is lexically realized (the infinitive clauses are enclosed in square brackets; tebe 'you' is the DAT subject of the first infinitive clause):

\[\text{[Tebe(you;DAT) ući (to go) na(on) pensiju(pension)] znacilo (mean) by modal [kapitulirovat'(to capitulate) pered(before) vragom (enemy)] 'lit.' [to you to retire] would mean [to capitulate to the enemy] = For you to retire would be tantamount to capitulating to the enemy' (example from I. Grekova, Porogi, 1986). See also Comrie 1974 for examples of overt DAT subjects in infinitive clauses.\]

Sentences like the following were still possible as recently as the first third of the XIX century (posażenu is a DAT passive participle):

...kotoryj prisudil ego, [byt' posażenu na kol].
who condemned him:ACC to-be placed:DAT on stake.
'who condemned him to be impaled' (Saxmatov:1941:336)

Our assumption is that predicate adjectives and participles agree in number, gender, and case with the subject of their clause, which here is the DAT PRO subject of the infinitive clause (see sec. 8). Thus the full internal structure of the infinitive clause is:

\[\text{[ PRO1;DAT byt' posażenu1;DAT na kol ]}\]

In contemporary Russian the DAT case assigned to posażenu by agreement with DAT PRO has been replaced by the predicate INST; only the predicate adjuncts sam 'alone', odin 'alone', and yes 'all' are still able to agree with PRO.

In the following Old Russian example, the infinitive complement byt' has an overt DAT subject (gradu) and a DAT predicate nominal (vzjatu) that agrees with it in case as well as number and gender, just as in finite clauses; the infinitive clause itself is the object complement of the matrix verb mnjajout' (this kind of syntactic structure is called an "accusativus cum infinitivo" construction in traditional grammar (see Georgieva 1968:71)):

\[\text{Pskovici mnjajout' [gradu vzjatu} bytij].
\text{thought city:DAT MASC SG taken:DAT MASC SG to-be}
\text{'The people of Pskov thought that the city had (already) been captured'}\]

A more literal translation would be: 'The people of Pskov thought the city to be taken'.
infinitive clause in (36a) is (37), which accounts for samoum (DAT) in now familiar terms.

(37) \[ \text{[PRO}\_1 \text{ peredat' pis'mo Ivanu samoum}\_1\text{]} \]
\[ \text{PRO}_1:\text{DAT to-give letter to-Ivan himself}_1:\text{DAT} \]

The natural question to ask at this point is why sam- is not DAT in all infinitive clauses. In other words, what remains to be explained is the occurrence of the NOM case on sam- in sentences like (35a). The most straightforward solution would be to justify (38) as the structure of the infinitive clause in (35a).

(38) \[ \text{[PRO}_1 \text{ pokupat' maslo sama}_1\text{]} \]
\[ \text{PRO}_1:\text{NOM to-buy butter:ACC herself:NOM} \]

This is precisely what Neidle does, explaining the NOM case instead of DAT in (35a) in terms of grammatical control: She demonstrates that the PRO subject of an infinitive complement clause must agree in case with the matrix subject in cases of subject control (see discussion above and note 42). This means that:

(39) a. PRO is NOM only when controlled by the matrix subject.
(There is a chain of case agreement in sentences like (35a): PRO agrees in case with the NOM matrix subject and sam- agrees with PRO.)

b. PRO is DAT when not controlled by the matrix subject. (Since sam- always agrees in case with the PRO subject of its clause, it is DAT in all infinitive clauses not involving matrix subject control.\(^{44}\))

\(^{44}\) Neidle explains the occurrence of the DAT in (35b) as follows: the complementizer čtoby blocks control of PRO by the matrix subject. In (36b) the infinitive is a complement of the DO želanie 'desire' and its PRO subject is therefore not grammatically controlled by the matrix subject.

Given the fact that NOM in cases of subject control takes precedence over the canonical assignment of the DAT case to the subject of infinitives, we can conclude that DAT cannot be Lexical case in Russian infinitive clauses. It must therefore be a Configuration case assigned in a local configuration.
Compare (39) to (33). The behavior of sam- provides particularly compelling independent evidence for the hypothesis that is crucial in the explanation of NOM DO's in Old Russian infinitive clauses: Subject controlled PRO is assigned NOM case, while PRO that is not controlled by the matrix subject is assigned DAT case. Thus (39) explains both the alternation of NOM/ACC on the DO in Old Russian infinitive clauses, and the alternation of NOM/DAT case on the predicate adjunct sam- in Modern Russian infinitive clauses in the same terms.

Conclusions

I have tried to demonstrate in this paper that what appear superficially to be unrelated, language-specific case phenomena can be to shown to be regular instantiations of a small set of universal principles of case theory. The term 'noncanonical case assignment' is useful when informally comparing case in different languages, but it is a thoroughly subjective notion, a synonym of 'exotic', and, therefore, is not appropriate in a universal theory of case. For example, assignment of NOM case to objects in Icelandic and Old Russian may be "noncanonical" with respect to English and Modern Russian, but not with respect to Lithuanian or Finnish. Perhaps the term "noncanonical" can be used to describe case phenomena that violate the canonical principles of case theory. However, if we adopt such a usage, none of the case assignment phenomena analysed in this paper can be characterized as noncanonical because they have all been shown to result from the regular interaction of the universal case typeology and principles proposed in the first part of this paper.

(Perhaps assigned to the subject of a tenseless clause just as NOM case is assigned to the subject in tensed clauses) and Nm-to-Nm case agreement of PRO with the NOM matrix subject in cases of subject control takes precedence over the local Configurational assignment of DAT. This is parallel to case assignment to predicate nominals: NOM agreement with the subject takes precedence over local (ACC) Configurational case assignment (cf. section 8). Greenberg and Franks propose a different explanation for the DAT case in infinitive clauses.
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The Configurationality of Case Assignment in Russian

John F. Bailyn

0. Introduction.

Highly case-inflecting languages like Russian with relatively "free" word order have long been of great interest to morphologists and historical linguists. Within the generative framework, however, case has only played a minor but crucial role as the requirement on nominal forms that forces movement in passive and raising structures. And because the generative framework focuses on structure at various levels of representation and constraints on derivations, free word order languages such as those in the Slavic family have been difficult to discuss within this framework because free word order greatly masks the distinction between underlying and surface forms. However, implicit in any generative theory of language knowledge is the universality of hierarchical structure, and such a theory is only strengthened by its successful application to languages that seem to defy strict hierarchical surface relations. The endeavor of investigating aspects of configurationality in Russian is relevant, therefore, both to theoretical linguists interested in the universality and acquisition of configurational structure and to Slavists inquiring into the internal workings of the grammar of those languages.

The purpose of this paper is to show the close connection between configurational structure and particular morphological case occurrences in Russian.1 In this respect, case

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1This paper assumes underlying configurational structures for Russian along the lines of work by Weibelhuth (1984) on German, Saito (1986) on Japanese, and Bailyn (1990a) on Russian. The essence of these arguments for Russian are summarized by the sentences below. (ia-b) shows that Russian has the same subject/object asymmetries in terms of extraction from embedded clauses that is well-known in English, indicating hierarchical base structures. I therefore assume underlying configurationality, but do not argue for it further. (The quantifier scope facts in part 2 and other ACC/DAT asymmetries, of course, can also be used as arguments in favor of underlying configurationality.)

i) a. *Kto xočetsja tòby tì videl Boris?
   who1-NOM wants(impers) that tì saw Boris-ACC
   "Who do (we) want to see Boris?"

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in a language like Russian can be considered as a bridge between surface forms and argument structure. With the exception of the lexically idiosyncratic case assigned by some verbs and prepositions (bojat'sja "to fear" + Genitive, k "to, toward" + Dative, etc.), each case occurrence will be shown to be the result of a particular configurational case assignment strategy. The resulting analysis has various strengths. First, it allows a strong view of the structural nature of case assignment for all morphological cases, a view in which previously proposed distinctions between configurational and non-configurational case are reduced to the distinction between case assigned to Spec positions (Nominative subjects, Accusative direct objects, Genitive specifiers in nominalizations) and case assigned by a head to its argument in complement position (here Dative, Instrumental, Genitive). Second, it permits the maintenance of fundamental principles of universal grammar such as binding theory, movement constraints and other modules with more obvious application to languages with highly fixed word order like English. Third, it provides morphological support for Chomsky's (1991) claim that D-structure "is a "pure" representation of theta-structure, expressing theta-relations through the medium of X-bar-theoretic conditions in accordance with the Projection Principle." (p. 419) In a language like Russian, with highly free word order, that direct relationship is mediated by invariant configurational case marking of the kind proposed in this paper. Without that mediation, Chomsky's statement will fail to hold for Russian, and therefore cannot be universal. My account of case-marking allows it to be maintained. It also provides explanation for various unexplained observations, such as Burzio's generalization, about the correlation between external theta-role assignment and accusative case assignment, and the fact that in many languages, the most common morphological case realized on non-nominative subjects is Dative.

b. Kogo_k xočetsja, čtoby Ivan_i videl_t_k?
   Whom_k-ACC wants (impers) that Ivan_i saw_t_k
   'Whom do (we) want Ivan to see?'

2 See Franks (1990) for a similar approach with configurational explanations for some of the phenomena covered in this paper. His account differs crucially with respect to the internal structure of the Verb Phrase, and the representation of small clauses. Those differences will be addressed in the course of the discussion.

3 Chomsky's original (1981) distinction between "structural" and "inherent" case must be revised in this light. Now we can identify two kinds of structural or configurational case: configurational case to Spec position, and configurational case assigned to complement position. There will also be lexical case assigned to complement position. See Section 4.3 for more discussion. See also Babby (this volume) for a different typology of case including Semantic Case which is not considered in this paper.
Of crucial importance in any such approach to Russian is explaining the major "quirky" case phenomenon that seem to defy configurational analysis: Genitive of negation (hereafter GEN-NEG), partitive Genitive, various uses of the Instrumental, Dative of experiencer (also called "dative subjects" -- hereafter DAT-EXP), Nominative non-agents (themes, patients etc. -- hereafter NOM-THM) and others. In other accounts of quirky case (e.g. Belletti and Rizzi, (1988), Franks (1990), Harbert and Toribio (this volume)), DAT-EXP are base-generated in SpecV, and then some kind of promotion or movement occurs to "subject" position. This paper will also use a promotion account of DAT-EXP constructions, but only after showing how the appearance of Dative on DAT-EXP and the other quirky cases in Russian are each the result of particular configurations, just as the more canonical case appearances are, such as nominative subjects, accusative direct objects.4

The structure of this paper is as follows: First, I will provide examples of canonical and seemingly non-canonical case occurrences in Russian. Then, I will give case assignment rules for assignment of Nominative, Accusative, and Dative case in terms of the configurational structure of the sentence and the verb phrase in Russian which is determined through an investigation of various surface case phenomena. In particular I will examine phenomena such as scope relations between case-marked arguments, case marking and control of small clauses, the distribution of GEN-NEG and control of infinitival PRO. Following Larson (1988, 1991) and Bowers (1990), I will propose a certain hierarchical internal structure for VP in Russian and show how distinct rules of configurational case assignment for Accusative and Dative will account for the phenomena discussed. GEN-NEG will also be shown to be restricted to a certain configuration under certain circumstances, further supporting the VP internal structure proposed above. Turning to non-canonical occurrences, I will then propose a unifying configurational rule for INSTR assignment in Russian following Bailyn and Rubin (this volume). The Accusative/Dative asymmetries will be further supported by the Instrumental data. Next, I will discuss the

4For general discussion of case in Russian and discussion in other frameworks, see Brecht and Levine (1986) and references therein, Jakobson (1936/1971), Neidle (1986), Freidin and Babby (1984), Freidin and Sprouse (1991), and Babby (this volume). For specific discussion of the cases, see Kilby (1986), Wierzbicka (1980) and Bailyn and Rubin (this volume) on Instrumental; Timberlake (1986) and references therein on GEN-NEG; on DAT-EXP and NOM-THM see Babby (this volume); see Nichols (1981), Rappaport (1986), Franks (1990), Greenberg and Franks (1991) and others on secondary predication with both Instrumental and case by agreement.
interaction of these configurations with DAT-Experiencer (DAT-EXP) and NOM-Theme (NOM-THM) constructions, showing that they too are the result of these same configurational case assignment rules. Subject-oriented and oblique control of reflexivization are then able to be united under a configurational approach to binding. Issues of hierarchical argument structure interact with these case assignment rules in predictable ways along the lines of Grimshaw (1990). Other Slavic languages with similar or differing case assignment rules and historical facts are discussed along the way where relevant.

1. The Data.

1.1 Canonical Case Occurrences.

(1a-f) below give canonical occurrences of Nominative (subject, agent), Accusative (direct object), Dative (indirect object), Genitive (adnominal complement), Instrumental (instrument of action), and Prepositional (object of preposition).

1) a. Saša    begaet.
    Sasha-NOM  runs
    "Sasha runs."

    b. Saša      vidit Boris.
    Sasha-NOM  sees  Boris-ACC
    "Sasha sees Boris."

    c. Saša     prodal gitaru Borisu.
    Sasha-NOM  sold  guitar-ACC Boris-DAT
    "Sasha sold the guitar to Boris."

    d. Kniga     moego professora
    book-NOM [my  professor]-GEN
    "the book of my professor"

    e. Saša      pišet karandašom
    Sasha-NOM  writes  pencil-INSTR
    "Sasha writes with a pencil."

    f. On        v restorane.
    He-NOM      in  restaurant-PREP
    "He is in the/a restaurant."
1.2 Non-canonical Case Occurrences.

(2-6) give productive non-canonical occurrences of Nominative (predicative constructions, existentials, NOM-THM, and the mysterious Nominative after the preposition za), Accusative (after certain 'transitive' adjectives), Dative (DAT-EXP constructions), Genitive of Negation (GEN-NEG) and partitive Genitive constructions, Instrumental (argument small clauses, after verbs of state or change of state, adjunct small clauses, and passive by-phrases).

1.2.1 Nominative.

2) a. Saša -- student.
   Sasha-NOM      student-NOM
   "Sasha is a student."

   b. Knigi  est'.
      Books-NOM are
      "There are books."

   c. Muzyka  nadoedaet.
      music-NOM  tires
      "Music is tiresome."

   d. Čto  on za čelovek?
      What he-NOM for person-NOM
      "What kind of person is he?"

1.2.2 Accusative.

3) a. Slyšno  pesnju.
    audible(-AGR)  song-ACC
    "A song is audible."

   b. Vrača  nužno.
      Doctor-ACC  necessary (-AGR)
      "A doctor is necessary."

1.2.3 Dative.

4) a. Borisu  xolodno.
    Boris-DAT  cold
    "Boris feels cold."

   b. Borisu  nравята  ryby.
      Boris-DAT  like (pl)  fish-NOM (pl)
      "Boris likes fish."
1.2.4 Genitive.

5) a. Knig net.  
books-GEN NEG
"There are no books."

b. Saša ne čitaet knig.  
Sasha-NOM NEG reads books-GEN
"Sasha doesn't read (any) books."

c. Kupi moloka!  
Buy (imperative) milk-GEN
"Buy some milk!"

1.2.5 Instrumental.

6) a. Ja ščitaju Sašu durakom.  
I1-NOM consider Sasha-ACC fool×-i-INTR
"I consider Sasha a fool."

b. Boris okazalsja durakom.  
Boris-NOM turned out fool-INTR
"Boris turned out to be a fool."

c. Saša stal muzykantom.  
Sasha-NOM became musician-INTR
"Sasha became a musician."

d. My nazvali ego Petrom.  
We-NOM named him-ACC Peter-INTR
"We named him Peter."

e. Ja našel ego p'janym.  
I1-NOM found him-ACC drunk×-i-INTR
"I found him drunk."

f. My tancevali golymi.  
We-NOM danced nude-INTR
"We danced nude."

g. Roman Voina i Mir byl napisan Tolstym.  
novel War and Peace was written Tolstoy-INTR
"The novel War and Peace was written by Tolstoy."

2. Canonical Case Assignment Rules.

In keeping with general case assignment strategies, we begin with Nominative case assignment to subjects, which is generally considered to be assigned by finite INFL to
SpecI (canonical subject) position. Russian adheres to the generalization that when there is Agreement, there is Nominative case, and we cannot have the one without the other.5

7) Configurational Case Assignment Rule 1: (Russian) (first version)
Assign nominative case to any case-bearing argument in SpecI.

Next, we consider the issue of case assignment to canonical direct objects and indirect objects. Traditionally, direct objects have been thought to be in the position of verbal complement, and are assigned accusative case by default when the verb does not assign lexical case. Dative indirect objects are often thought to be sisters to V' (as in Franks (1990) and Greenberg and Franks (1991), (where any X' node actually assigns Dative to its sister). However, following insights of Larson (1988) and Bowers (1990), and tests based on their work, we shall see that this is in fact the opposite of the English, Russian, and presumably universal structure of the Verb Phrase. The following section will demonstrate that Accusative internal arguments are systematically dominant with respect to Dative internal arguments, thus providing further support for the independently motivated structure given in Larson and Bowers.

2.1 The Internal Structure of VP.

In this section, I will show that there is quite substantial evidence of VP internal asymmetries in Russian. We will see that morphologically accusative objects (hereafter

5The best evidence for this is that subjects marked by Gen-Neg always fail to trigger Agr. although the Nominative counterparts always do. In my account, the agreement and Nominative case are mutually dependent. This differs crucially from the account in Greenberg and Franks (1991), in which Agr. is first generated optionally, and then assigns Nominative. In their account, when Agr. is not selected to assign case to SpecI, Dative is assigned to the same subject position. This fails to capture the generalizations provided in this paper for Gen-Neg assignment, and cannot account for Nom/Acc vs. Dat asymmetries discussed in detail below.

A possible counter-example to the generalization that Agr. and Nominative case are codependent can be found in the quantifier system, which, under some analyses (see Babby 1984, 1987) allows a subject to be marked genitive by the numeral, and yet still to trigger agreement as in (i) below:

i) 5 stakany ležat na stole.
5 glasses-GEN.PL. are lying (pl.) on table-PREP.
"5 glasses are lying on the table."

Other analyses, (Bailyn, 1990b) however, posit '5' as the head of a quantifier phrase which is itself Nominative and triggers the agreement. Under those accounts the strong two-way correlation between Nominative case and Agreement can be maintained.
ACC) behave differently with respect to various syntactic processes than do morphologically dative/oblique objects (hereafter DAT).\footnote{Freidin & Sprouse (1991) and Babby (this volume) note the systematic difference in behavior between ACC and DAT arguments. Two of Babby's four distinctions not otherwise mentioned in this paper are nominalization and the behavior of prepositions with ACC complements. The latter may be compatible with my account if we take the "subject" of prepositions approach taken by Harbert (1989) which allows ACC case assignment to remain something unique to Spec position. (Franks (1990) comes to a similar conclusion). As for nominalization, it is commonly agreed that in NP internal structure, Genitive is the case assigned to the specifier position, but case lexically assigned to the complement position can be maintained (see Babby (this volume) for discussion). The other two distinctions, passivization and genitive of negation, are discussed below. It should be clear that both accounts take as a starting point the clear distinction between ACC and DAT/OBL internal arguments. This paper claims that the distinction is configurational, as the hierarchical asymmetries indicate.} I will present one example of a relation in Russian that argues for a hierarchical structure internal to VP in which the ACC argument dominates the DAT and oblique arguments. Others will appear in the course of the discussion of non-canonical case occurrences. In particular, I will argue for a structure in which ACC arguments are base generated in SpecV position, and DAT arguments are VO complements following Larson (1988) and Bowers (1990).

2.1.1 Quantifier Scope.

It has often been claimed that quantifier relations are dependent on surface word order in free word order languages like Russian. Thus the single interpretation possible for both (8a-b) show that quantifier scope relations are apparently dependent on surface word order:

8) a. Kto-to \textsubscript{NOM} učitsja vsem jazykam.  
   someone-NOM studies [all languages]-DAT  
   "There is some person X such that for every language Y, X studies Y."  

   b. Vsem jazykam učitsja kto-to.  
   all languages-DAT studies someone-NOM  
   "For all languages Y there exists some person X such that X studies Y"

These facts are not in and of themselves an argument for or against configurationality. Kiss (1987), in presenting similar arguments for Hungarian, uses a partially non-configurational deep structure that observes the simple principle given in (9):

9) Every operator \textit{precedes} and c-commands its scope.
She claims that it is this principle that determines the structural organization of the Hungarian sentence. The data below show that (9) must be changed for Russian to eliminate the precedence relation, and I will present a significant subject/object asymmetry that cannot be accounted for without positing a verb phrase with internal structure of a particular kind.

What has not been noticed in the literature about Russian, to my knowledge, is that this linear account of scope relations does not hold when both of the arguments in question are internal. The verb *peredat*’ "to pass" above is a verb taking both a Dative and Accusative internal argument. Because of the relatively free word order, it is difficult to use word order tests to determine neutral (underlying) configurational order. Scope relations among the internal arguments, however, show that there is a significant asymmetry at work:

10) a. Ivan razdal vse vešči nekotorym studentam.
    Ivan passed [all things]-ACC [some students]-DAT
    "For all things X, Ivan passed those things out to (among) some students."

b. Ivan razdal nekotorym studentam vse vešči.
    Ivan passed [some students]-DAT [all things]-ACC
    **"Some students are such that Ivan passed out all the things to each of those students."
    "For all things X, Ivan passed those things out to (among) some students."**

(10b) is the same sentence as (10a) except that the internal arguments appear in opposite order. The only possible interpretation of (10b) is one in which *vse vešči* (all the things) has wide scope, just as it does in (10a). Thus accusative arguments always have wide scope over dative arguments if both are internal arguments regardless of their relative order. (9) will clearly not account for this.7

---

7This seems to hold with the following verbs: *dat*’ (to give’) and all verbs based on it (to pass, to pass around, to ask etc.), *podarit*’ (to give as a present), *ucit*, *ucit'sia* (to teach, to learn), and also with verbs that take direct objects and prepositional phrase arguments such as *klast*pološit’ (to put, place’) and many others. The true generalization seems to be that Accusative internal arguments have wide scope over Dative, oblique and preposition phrase arguments, which falls out from the configuration proposed, in which Accusative internal arguments alone occupy the SpecV position.
To account for the scope relations in (10), and for the other asymmetries that follow in this paper, I will assume the phrase structure proposed in Bowers (1990) in the spirit of Larson (1988), in which unergative subjects are generated in SpecPr, and direct objects and unaccusative subjects in SpecV.\textsuperscript{8} There is a functional category Pr(edication)P intermediate between IP and VP which serves the semantic function of creating propositional functions out of properties. Based on the scope facts above and the other ACC/DAT asymmetries that follow, I adopt for Russian the following internal structure for VP and rules of configurational case assignment to internal arguments:

11) a. Internal Structure of VP\textsuperscript{9}:

\[
\begin{array}{c}
\text{VP} \\
\text{Spec} \\
\text{NP}_{\text{acc}} \\
\text{V} \\
\text{ZP} \\
\text{dat/obl}
\end{array}
\]

b. Configurational Case Assignment Rule 2: (Russian)
Assign accusative case to any case-bearing argument in SpecV.

c. Configurational Case Assignment Rule 3: (Russian)
Assign dative case to any case-bearing argument that is sister to V\textsuperscript{0} which is not assigned lexical case by the verb.

Given a structure such as (11a), it should be easy to see how the data in (8-10) will fall out from a principle such as (12), which says that the scope relations of two arguments within

\textsuperscript{8}See Bowers (1990) and Larson (1988 and 1991) for many arguments from English in favor of such an analysis. Bowers' facts include quantifier float, the unification of "external" and "internal" subjects as arguments base-generated in Spec positions. Larson discusses subject and object control verbs such as persuade and promise in this framework, in order to maintain a strong theory of control that respects minimality.

\textsuperscript{9}It has often been argued that ACC-arguments in Russian can passivize into NOM whereas DAT arguments cannot because the Projection Principle requires that lexically assigned case such as DAT remain throughout a derivation. (See Freidin and Sprouse (1991)). Such an account would generate those internal arguments in the same position, presumably, dative case being assigned lexically in one case, and no lexical case appearing otherwise. Bowers (1990) argues for a simple restriction on movement, allowing only Spec-Spec, head-head movement and scrambling. Coupled with the structure in (11), this allows us to unify the ability to passivize demonstrated by ACC arguments, the ability to control small clause subjects, and the ability to have wide scope over other internal arguments. See footnote 14 and Section 4.3 for further discussion of the compatatability of my analysis with analyses based on the "configurational"/"lexical" distinction.
the same sentence will be determined by the same principle that determines scope relations for languages like English at LF:

12) a. Quantifier Interpretation Principle (Russian):
    A quantifier $\alpha$ has wide scope over $\beta$ iff $\alpha$ c-commands $\beta$ at LF.$^{10}$

b. C-Command:

    $\alpha$ c-commands $\beta$ iff the first branching node that dominates $\alpha$ dominates $\beta$.

In the case of (8), (12) says that an external argument will always have scope over arguments still inside VP. We can predict that without Focus Movement of some kind (see Bailyn (1990a) for an account), accusative internal arguments will always have wide scope over dative arguments, as the data in (9) indicate. This account claims that this system of canonical case assignment is universal in nature. Later sections will show how this allows a uniform account for Dative marking on experiencers.

2.1.2 Other Evidence of ACC/DAT Asymmetries.

The following chart, adopted from Bailyn (1990a), summarizes evidence for the structure given in (11). Each of the factors mentioned in (13) can be explained simply by the structure given in (11). In addition to Quantifier Scope, evidence is taken from the asymmetrical behavior of internal arguments with respect to Genitive of Negation, Partitive Genitive, control of Instrumentally-marked adjuncts, anaphor binding, ability to passivize and others. For further discussion, see sections 3.1, 3.2, 4.2 and 4.3.

$^{10}$That this principle applies at LF and not S-structure is demonstrated by the readings for sentences with heavy stress on the Dative argument, which enables it to have wide scope as if it had been scrambled in the syntax. See Bailyn (1990a) for an account that associates stressed items with a syntactic Focus position at LF.
13) VP internal asymmetries in Russian.

<table>
<thead>
<tr>
<th>Kind of Internal Argument</th>
<th>Accusative</th>
<th>Non-Accusative</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP-internal Wide Scope</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Binds Anaphor in Other internal arguments</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Genitive of Negation</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>First in Neutral Word Order</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Can Appear as Unaccusative</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Passivizes (into nom.)</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Controls subject of instr. small clause</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Generated in Spec\ V</td>
<td>+</td>
<td>-</td>
</tr>
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3. Russian-Specific Case Assignment Rules.

We now turn to the central issues of this paper which address the non-canonical case facts, some peculiar to Russian, given in 1.2. We shall see that although these facts seem to be unique to Russian, they are in fact simply the result of parameterized case assignment rules that are essentially configurational in nature. That is, these "non-canonical" sentences are non-standard only in the actual case assigned by the Russian rule, not in the configuration. This account has numerous advantages. First, it maintains a strong X'-theory which is compatible with current work on languages like English with fixed word order. Second, it sheds light on the relationship between morphology and structure in highly inflected languages, which have long defied configurational analysis, and it predicts parameterized differences in case realizations among languages to be limited to generalizations over underlying configurations. Third, it paves the way for a useful approach to free word order which is in keeping with the generative program.

3.1 Genitive of Negation and Partitives.

The structure and configurational case assignment rules given in (11) above now allow us a maximally simple account of the case marking in one of Russian's renowned constructions -- the genitive of negation (GEN-NEG). In fact, (11) will allow us to see GEN-NEG as one instance of a more general situation, also exemplified by partitive
constructions. (14) below illustrates the GEN-NEG phenomenon in which an accusative direct object or existential subject can be marked genitive under the scope of negation.\footnote{We shall shortly see that there is a remarkable optionality and variation to these constructions, which may indicate a period of historical change (see footnote 12), but in no ways diminishes the importance of the construction and its essentially syntactic basis.}

14) a. Saša kupil knigi.
Sasha-NOM bought books-ACC
"Sasha bought books."

b. Saša ne kupil knig.
Sasha-NOM NEG bought books-GEN
"Sasha didn't buy (any) books."

c. Knig net.
books-GEN NEG
"There are no books."

d. Saša podaril Slavke knigi.
Sasha-NOM gave Slavka-DAT books-ACC
"Sasha gave Slavka the books."

*e. Saša/*Saši ne podaril Slavke/*Slavki. knigi/knig.
Sasha-NOM/*GEN NEG gave Slavka-DAT/*GEN books-ACC/GEN
"Sasha didn't give Slavka books."

Notice that (14b) is grammatical if the direct object is still marked accusative, although then it carries an interpretation of definiteness, something like "there are books that Sasha didn't buy." Use of the accusative under the scope of negation in these constructions results in a presupposition of existence. (14b) with GEN-NEG has the more existential interpretation "Sasha didn't buy any books." Indeed, Timberlake (1986) has established that the optionality of GEN-NEG on direct objects can be described in terms of various hierarchies favoring in each case the less individuated and more quantificational argument.\footnote{Timberlake (1986) argues that such hierarchies can exist only when a syntactic rule is in a state of change. It is widely agreed that the phenomenon is dying on direct objects under the scope of negation, as evidenced by other Slavic languages such as Czech and Serbo-Croatian, in which the phenomenon is either rare or completely archaic with most transitive verbs. As shown in Townsend (1991), the more advanced colloquial Prague Czech, for example, is replacing genitive with accusative in "partitives, after negated transitive verbs and existentials, and after verbs which have traditionally taken a genitive complement." Note that this across-the-board change provides further evidence for a configurational rule of genitive assignment covering both GEN-NEG and PART-GEN. If these instances are to be considered Semantic Case as in Babby (this volume), then a generalization about this change in other areas of Slavic is lost.} (14c) shows that the negative verb "to be" in its existential meaning must take genitive
arguments, implying that whatever licenses GEN-NEG is obligatory with this verb, but optional with transitive verbs (and other existentials). (14d-e) show that unergative (transitive) subjects and Dative internal arguments cannot be assigned GEN-NEG.

Under the assumption that existential subjects are base-generated in a VP internal subject position, we can see that GEN-NEG is restricted to one configurational position. I therefore propose (15), which says GEN-NEG is assigned configurationally to the SpecV position, under the scope of negation, subject to the quantificational meaning of the verb (or predicate) in question.

15) Configurational Case Assignment Rule 4: (Russian)
Assign genitive case to any case-bearing argument in SpecV under the scope of negation whenever the higher PrO is associated with the quantificational feature [+q].

(15) allows us to account completely for the distribution of GEN-NEG in terms of configuration, while the feature [+q] allows transitive verbs to either assign GEN-NEG or not, determining their own interpretation as existential or not. (Notice that in sentences like (14c) [+q] will always be present, due to the existential nature of the predicate, and therefore GEN-NEG is mandatory.)

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13 Note that in fact Neidle (1986) comes to an almost identical conclusion in a different framework, where case is described as a conglomeration of Jakobsonian case "features". Addition of the feature [+Q] under the scope of negation in her account also leads to the appearance of genitive case.

14 Other accounts have resorted to the projection principle and the distinction between lexical (Dative) and structural (Accusative) case to explain the impossibility of GEN-NEG (and passivization) for Dative arguments. In particular, Babby (1980) proposes an account in which the scope of negation, in the hierarchical sense, determines what can become genitive under genitive of negation. He disallows GEN-NEG on dative arguments, because DAT is said to be lexically assigned, and therefore assignment of GEN-NEG would violate the Projection Principle. Such accounts have two weaknesses: 1) They must consider Dative a lexical case and thereby lose the generalization that there is anything predictable about the appearance of Dative case on experiencers or indirect objects. 2) These accounts cannot unify those restrictions on Dative arguments appearing in GEN-NEG with restrictions on transitive subjects appearing in GEN-NEG. Under my account, both are out because neither of the arguments in question is associated with the proper configurational position. The two accounts overlap in accounting for these particular facts, but my account provides greater generality, accounts for the scope facts provided above, and allows extremely productive occurrences of the dative case in experiencer constructions (see Part Three) to be treated uniformly.
PART-GEN assignment in Russian, exemplified by (16) below, is also limited configurationally in the same way as GEN-NEG is, i.e. that is it can appear only on direct objects, unaccusative subjects and subjects of existential verbs.

16) a. Saša dal Slavke nodeždu.
   Sasha-NOM gave Slavka-DAT hope-ACC
   "Sasha gave Slavka hope."

   b. Saša dal Slavke čaju.
   Sasha-NOM gave Slavka-DAT tea-PART-GEN
   "Sasha gave Slavka some tea."

Again, we can reduce it to a rule that can only assign PART-GEN to arguments generated in SpecV, thus explaining its non-occurrence on other internal arguments or subjects of transitive verbs. This is not to say that the two rules are identical, they are merely associated with the same position, and the necessary existence of some semantic feature.

17) Configurational Case Assignment Rule 5: (Russian)
   Assign partitive genitive case to any case-bearing argument in SpecV whenever
   the higher PrO is associated with the quantificational partitive feature [+"p"].

3.2 Instrumental Case and Secondary Predication.

    Crucial to any discussion of case in Russian is an explanation of the instrumental
    case marking paradigms repeated in (18) below:

18) a. Ja ščitaju Sašu durakom.
    /I/-NOM consider Sasha-ACC foolk/*-I-INSTR
    "I consider Sasha a fool."

    b. Boris okazalsja durakom.
    Boris-NOM turned out fool-INSTR
    "Boris turned out to be a fool."

    c. Saša stal muzykantom.
    Sasha-NOM became musician-INSTR
    "Sasha became a musician."

    d. My nazvali ego Petrom.
    We-NOM named him-ACC Peter-INSTR
    "We named him Peter."

    e. Ja našel ego p'janym.
    /I/-NOM found him-ACC drunk/*-I-INSTR
    "I found him drunk."
f. My 
   tancovali 
   golymi.
   We-NOM danced 
   nude-INSTR
   "We danced nude."

   g. Roman Voina Mir 
      byl napisan Tolstym.
      novel War and Peace was written Tolstoy-INSTR
      "The novel War and Peace was written by Tolstoy."

Bailyn and Rubin (this volume) analyze small clause constructions in Russian within the theory of predication given in Bowers (1990). In particular, they adopt Bowers' (1990) Predication Phrase (PrP) as an intermediary category between IP and VP, which is also the maximal projection of all small clauses. The elements marked instrumental in Russian are simply complements of a secondary PrP, which itself can be either an adjunct or an argument. In (18a-c) we have argument small clauses (PrP selected by the verb), with Raising. (18d-g) are various kinds of small clause adjuncts. Bailyn and Rubin therefore propose the following Russian-specific rule of configurational case assignment to account for all productive occurrences of instrumental case marking in Russian:

19) Configurational Case Assignment Rule 6 "Rule R" (Russian): (first version)
   Assign instrumental case to the complement of Pr0.

(20) gives the relevant structure for (18a) (as well as for the English equivalent, see Bowers (1990)).

20) Structure of argument small clause (=18a)

\begin{center}
\begin{tikzpicture}

\node (IP) at (0,0) {IP};
\node (PrP) at (-2,-2) {PrP};
\node (Spec) at (-4,-4) {Spec};
\node (Ja) at (-6,-6) {Ja};
\node (Spec') at (-4,-8) {Spec'};
\node (V') at (-2,-8) {V'};
\node (NPacc) at (-4,-10) {NPacc};
\node (V) at (-2,-10) {V};
\node (NPnom) at (0,-1) {NPnom};
\node (NPinstr) at (0,-11) {NPinstr};
\node (N) at (0,-13) {N};
\node (I) at (-4,-13) {I};
\node (consider) at (-4,-15) {consider};
\node (Sasha) at (-4,-16) {Sasha};
\node (a) at (-4,-17) {a};
\node (fool) at (-4,-18) {fool};
\node (INSTR) at (-4,-19) {INSTR};
\node (durakom) at (-4,-21) {durakom};

\draw[->] (IP) -- (PrP);
\draw[->] (PrP) -- (Spec);
\draw[->] (Spec) -- (Ja);
\draw[->] (Spec') -- (V');
\draw[->] (V') -- (NPacc);
\draw[->] (NPacc) -- (V);
\draw[->] (V) -- (PrP);
\draw[->] (PrP) -- (Pr0);
\draw[->] (Pr0) -- (NPnom);
\draw[->] (NPnom) -- (I);
\draw[->] (I) -- (consider);
\draw[->] (consider) -- (Sasha);
\draw[->] (Sasha) -- (a);
\draw[->] (a) -- (fool);
\draw[->] (fool) -- (INSTR);
\draw[->] (INSTR) -- (durakom);
\end{tikzpicture}
\end{center}
This account goes on to unite the instrumental case marking found within argument and adjunct small clauses with passive by-phrases and real instrument phrases.

Adjunct small clauses such as those in (18e-f) will prove to be crucial in testing between my account and accounts such as Franks (1990) and Greenberg and Franks (1991) for the internal structure of VP. Under my account, the structure of (18e) is (21):

21) Structure of adjunct small clause (=18e)

Now we can see that the VP internal structure proposed in (11a), together with the rule of instrumental case assignment given in (19), predicts that a small clause adjunct attached at the V' level will be low enough to be controlled by an Accusative internal argument but too high for a Dative argument. (Note that the accounts that posit DAT as configurationally assigned to SpecV are forced into the opposite prediction). The facts in (22) not only support the structure in (11), but indicate a consistent difference between ACC arguments and all other internal arguments (including DAT objects as well as clearly lexically assigned cases). Indeed, only in (22a) below can the subject not corefer with the adjective because of the presence of the intervening ACC argument. All of the other sentences, (22b-e), are out on the reading where the Instrumental adjective goľym is coreferent with the internal (non-Accusative) argument. These facts fall out from the structure and rules given above.
22) a. Boris našel Sašu golyom.
   Boris_{1}-NOM found Sasha_{1}-ACC nude_{1}/\text{k}-INSTR
   "Boris found Sasha nude."

   b. Boris pomogal Saše golyom.
   Boris_{1}-NOM helped Sasha_{1}-DAT nude_{1}/\text{k}-INSTR
   "Boris helped Sasha nude."

   c. Boris pozvonil Saše golyom.
   Boris_{1}-NOM telephoned Sasha_{1}-DAT nude_{1}/\text{k}-INSTR
   "Boris telephoned Sasha nude."

   d. Boris bojitsja Saši golyom.
   Boris_{1}-NOM fears Sasha_{1}-GEN nude_{1}/\text{k}-INSTR
   "Boris fears Sasha nude."

   e. Boris gorditsja Sašej golyom.
   Boris_{1}-NOM is proud of Sasha_{1}-INSTR nude_{1}/\text{k}-INSTR
   "Boris is proud of Sasha nude."

Furthermore, in sentences with both an ACC and a DAT internal argument, my account predicts that the ACC argument will control the small clause, and the DAT will not. (23) shows this to be exactly the case in Russian. (Note the same obtains for English, as in the gloss of (23)).

23) Gubernator prodal raba Borisu golyom.
   The governor_{1} sold slave_{1}-ACC Boris_{1}-DAT nude_{1}/\text{i}/\text{k}-INSTR
   "The governor_{1} sold the slave to Boris_{1} nude_{1}/\text{i}/\text{k} - ."

(23) shows that the dative internal argument cannot control the small clause subject because it is too low to c-command the V'-adjoined PrP. Again, this is predicted by the VP internal structure in (11a) and the c-command account of control of small clauses given in Bailyn and Rubin (this volume) and Bowers (1990). We have seen in (22) that the subject can control the PRO subject of the small clause only if there is no animate ACC argument. Similarly, this account predicts that even if the ACC argument is inanimate, the DAT argument should never control PRO. Some speakers allow the subject to control PRO in such cases, despite the closer ACC potential controller, but most find it awkward at best. None accept control by the DAT argument, as predicted:
24) Saša podaril knigi Slavke golym. 
Sasha_i gave books-ACC Slavka_k-DAT nude_i/*k-INSTR
"Sasha_i gave the books to Slavka_k nude_i/*k."

(25) gives the appropriate structure for (24) (and parallel to that of (23)):

25) V'-adjoined small clause in Russian with DAT argument (=24))

\[\text{Sasha}_i\text{-NOM gave books-ACC Slavka}_k\text{-DAT nude}_i/*k}\]

It should be clear that standard accounts of internal VP structure that analyze all internal arguments as complements to V^0 with differing case assignment cannot possibly account for the scope asymmetries or these control facts. Accounts such as Franks (1990) and Greenberg and Franks (1991) which do distinguish configurationally between DAT and ACC, analyze the Dative argument as sister to V' and Accusative as verbal complement and therefore have no explanation for the paradigms given above. Any account that does not distinguish structurally between ACC internal arguments and all other internal arguments in such a way that ACC is configurationally dominant, will also be at a loss to explain the data in this section.

3.2.1 Secondary Predication Elsewhere in Slavic, and in Old Russian.

In order to further understand the workings of Rule R in modern Russian, and the true significance of the behavior of the "semipredicates" odin ("alone") and sam
("himsclf" (emphatic)), it is important to examine the situation in related languages, and in
the history of Russian. This perspective illuminates the strengths of my account and the
weaknesses of accounts such as that of Nichols (1981), Franks (1990) and Greenberg and
Franks (1991) for secondary predication in Modern Russian.

Rule R is not found in either of the case marking South Slavic languages (Slovenian
and Serbo-Croatian), their parent language Old Church Slavonic (OCS), or in Old Russian
(OR). Czech and Slovak share most of the case assigning properties of the South Slavic
group, although there seems to be a limited distribution of instrumental case assigned in
copula sentences, possibly under the influence of Polish. These certainly warrant further
investigation. Of the West Slavic languages, Polish demonstrates similar instrumental
paradigms to Russian, and Rule R can be assumed to be at work there. Significantly, all of
the languages that do not demonstrate something like Rule R at work assign case to small
clause adjuncts in the same way. In particular, they assign case by some sort of agreement
rule. Descriptively, this rule assigns to the small clause adjective ("drunk" in "I found him
drunk") the case of its antecedent. Modern Serbo-Croatian will be used for the examples.

26) (Serbo-Croatian)

a. Citam nagi/*nagim.
   [pro] read(1st sg) nude-NOM/*INSTR
   "I read nude."

b. Našel sam ga pijanog/*pijanim
   found aux him-ACC drunk-ACC/*INSTR
   "I found him drunk"

The case-assignment rule by agreement can be initially formulated as follows:

27) Rule A (Serbo-Croatian): Pr₀ assigns case A to its complement, where A is
    the case assigned to the controller of the PRO, or binder of the trace, in its
    specifier (subject) position.

This rule immediately accounts for the case assigned in (26a-b).

Let us look now at other paradigms in which Rule A is at work. First, we turn to
Old Russian, where the paradigms are essentially identical to modern Serbo-Croatian.
Lomtev's (1956) book on historical Russian syntax refers to such second case occurrences
as "vторые косвенные падежи" (second indirect cases). In Old Russian as in Serbo-
Croatian, all secondary predicates display a case already existent or implicit in the sentence:
28) a. (OR) Bē Khînʼ variant, a Avelʼ pástu variant -
was Cain-NOM ploughman-NOM and Abel-NOM shepherd-NOM

 i lisca variant ix světla variant běsta.
and faces-NOM their bright-NOM were

"Cain was a ploughman and Abel a shepherd, and their faces were bright."

b. (OR) Postavi Methodiusion epískopa
set Methodius-ACC bishop-ACC

"He made Methodius Bishop."
Example from Lomtev (1956), p. 212 (arg. small clause, for MR cf. (6a/18a))

c. (OR) Eretika mene nazvyajújú.
heretic-ACC me-ACC they call

"They call me a heretic."
Example from Lomtev (1956), p. 214. (adjunct small clause, for MR cf. (6d/18d))

d. (OR) vidéli sú Aůx-3.pl. Volodímera naga
saw AUX-3.pl. Volodimer-ACC nude-ACC

"They saw Volodimer nude."
Example from Lomtev (1956), p. 220. (adjunct small clause, for MR cf. (6e/18e))

e. (OCS) Simona, egože imenova petra
Simon-ACC whom-ACC named Peter-ACC

"...Simon, whom [he] named Peter..."
Example from Lunt (1974), p. 126. (adjunct small clause, for MR cf. (6d/18d))

This difference between Old Russian and Modern Russian, especially in light of the parallel
Serbo-Croatian data, allows a maximally simple account for the historical change that took
place on the way to modern Russian and the relationship between modern Serbo-Croatian
and Old Russian (also OCS). Simply stated, Rule A is still active in those languages where
Rule R did not take over. The diachronic change is given in (29):

29) Diachronic Rule R: (from Old Russian to Modern Russian) (first version)
Replace Rule A with Rule R (reinterpret Pr0 as an instrumental case assigner)

We are now in a position to discuss the account given in Greenberg and Franks
(1991) of "second dative" in Slavic. In their paper, Greenberg and Franks focus on the
structure of secondary predication involving the traditionally, but falsely named "semi-
predicatives" odin ("alone") and sam ("himself" (emphatic)) whose case properties differ
from all other adjectives in secondary predicates in a systematic way. In particular, these
two forms follow the case assignment rule by agreement found in Old Russian and modern Serbo-Croatian. These two predicate adjectives are assigned case by agreement, as all secondary predicates were in Old Russian. (30) gives one of multiple examples:

30) a. (Russian)
    Ja našel ego odnogo / *odnim
    I-NOM found him-ACC alone-ACC/ *INSTR
    "I found him alone."

Under my analysis of the diachronic situation we can see how the "second dative" (and other cases) found with Odin and sam is just a historical remnant. See Franks (1990) for a detailed discussion of when and why the "second dative" appears on Odin and sam in certain embedded infinitival structures.\(^{15}\) We can absorb his account into this one by saying that Rule A accounts for the case assigned for these two forms as a historical remnant, just as English demonstrates remnant V2 structures with negative polarity adverbs such as rarely and never. Greenberg and Franks (1991) follow Nichols (1980) and others in distinguishing these secondary predicates from all others in semantic terms, and accounting for their case properties this way.\(^{16}\) This is partially correct, although the role of the semantic distinction is misplaced. That is, the semantic distinctions which seem to distinguish these two secondary predicates from all others account for their resistance to the historical change. Other accounts, however, imply a different structure for these elements from all other secondary predicates, which seems highly unlikely in and of itself, and is compounded by the necessity of positing an unlikely coincidence, namely that the case assignment properties of Odin and sam are accidentally the same as all secondary predicates in Old Russian, modern Serbo-Croatian and so on. Nichols (1981) identifies the distinction as one of Complement vs. Adjunct status, which in addition to the lack of

\(^{15}\) Further evidence for my general approach to secondary predication is found in the simple fact that all other adjectives except Odin and sam appear in the instrumental in parallel infinitival constructions despite different control properties. This indicates again that these elements are exceptions to a greater generalization.

\(^{16}\) Greenberg and Franks correctly point out that these adjectives are only used predicatively, a description equivalent to calling them exclusively short form adjectives. Sam does have a long form partner samyj, which is used in superlative constructions, and follows Rule R. Furthermore, there are other adjectives that only appear predicatively, such as zanjat (busy), which nevertheless obeys Rule R and not Rule A. Clearly, therefore, we must conclude that these two items must be marked as exceptions to the general case assignment rule in the lexicon. Such exceptionality is exactly what we would expect to find in historical remnants, just as negative polarity adverbs in English still show V2 effects.
generality about the historical and cross-Slavic data, has the additional drawback that it makes little semantic sense, raising the question of what the evidence is that these elements are actually subcategorized for by any predicate, and why they are not consistently marked as different in other languages. The preoccupation in the literature with these two elements rather than the general phenomenon of secondary predication to which these two elements are merely an exception, reflects the previous inability to find a satisfying general syntactic account for modern Russian and its historical development.

In fact, Rule A is active elsewhere in Modern Russian than with just these two historical remnants. See Bailyn and Rubin (this volume) for discussion of the case assignment properties of Pr^0 when it is syntactically filled where Rule A is in effect. (30b) exemplifies these constructions (cf. (30a) with odin).

30) b. My ščitaeM ego kak našego /*našim.
   We-NOM consider him-ACC as ours-ACC /*INSTR
   "We consider him ours (one of us)"

Bailyn and Rubin therefore give the final version of Rule R and diachronic Rule R:

31) Configurational Case Assignment Rule 6 "Rule R" (Russian): (final version)
   Assign instrumental case to the complement of syntactically empty Pr^0.17

17Notice that the application of Rule A in modern Russian when Pr^0 is filled also allows us finally to account for Russian's mysterious za + Nominative construction which seemed to be the only case of Nominative being assigned by a preposition. If za is seen as a head of Pr^0, just as English 'as' is analyzed in Bowers (1990), then we can see that the application of Rule A would apply to assign Nominative in sentences like (i), repeated below:

i) Cto on za čelovek?
   What he-NOM for person-NOM
   "What kind of person is he?"

Notice that this rule will also account for double nominative constructions such as (ii) because matrix Pr^0 is always incorporated with the tense features of f^0 (here phonetically null, but syntactically present as in any matrix PrP, here [+present]).

ii) a. Saša — student.
    Sasha-NOM student-NOM
    "Sasha is a student."
Diachronic Rule R: (from Old Russian to Modern Russian) (final version)
Replace Rule A with Rule R (reinterpret null Pr^0 as an instrumental case assigner)

These rules set this issue in its proper perspective, and further support the VP internal structure proposed in (11).

In concluding this section on Russian specific rules, we should realize that the configurational generality of these rules accounts simply for the across-the-board change Russian witnessed in its historical development in which all "secondary cases" were replaced by the instrumental. All of the structures in question contained secondary predicates, and therefore under the Bowers framework, we can finally see how simple the change was. Furthermore, we predict that a null category like Pr^0 is a likely target for historical change of this kind, due to its structural universality, and the tendency to create surface manifestations for functional categories that are phonetically null. Rule R is a good example of such a change. Similarly, the complete loss of GEN-NEG and GEN-PART constructions in modern spoken Prague Czech (see Townsend (1991)) indicates that there too, one configuration was subject to an across-the-board case-assignment change. In the next section, we will turn to DAT-experiencer constructions and see how configurational case assignment rules are at work in these constructions as well.

For further discussion of double nominative constructions, and especially on their relation in [+past] structure to the predicative instrumental, see Bailyn and Rubin (this volume) and Nichols (1981).

In the next section of this paper, I will investigate constructions with so-called dative "subjects". In particular we will see that the morphological case marking on DAT-EXP and NOM-THM can be accounted for in the same way as Dative and Accusative internal arguments, namely by virtue of their base-generated configurational position.

4.1 Dative "subject" constructions.

In this section, I will show that DAT-EXP and NOM-THM arguments also demonstrate asymmetries with respect to syntactic "subject" properties such as Subject-Verb Agreement, Genitive of Negation, Reflexivization, control of Small Clause PRO (and control of infinitival PRO). In particular, we shall see that traditional "subject" properties, including subject-verb agreement, the ability to antecede reflexives and control PRO, are associated with the NOM-THM and not with the DAT-EXP. These facts indicate some kind of dominance of NOM-THM over DAT-EXP, allowing it to acquire the subject properties. At first glance, of course, there is nothing surprising in this view. These properties are typically associated with NOM arguments. Cross-linguistically, however, languages demonstrate wide variation in these constructions as to which argument has the subject properties.\(^{18}\) In the case of Russian, however, the only possible subject properties to be associated with the DAT-EXP are a tendency to come first in the word order, and the related fact that DAT-EXPs are usually prominent arguments in a given sentence, allowing them to be the only systematic oblique controllers of reflexivization.

Syntactically, I will show that no new rules of case assignment in Russian are necessary to account for these morphological case realizations.

4.1.1 The Data.

The constructions under consideration are exemplified in (32a-f) below:

32) i: "to like" (with NOM-THM)
   a. Saše
      nравится
      knigi.
      Sasha-DAT  like (3 pl-AGR)  books-NOM
      "Sasha likes books."

\(^{18}\)See Harbert and Toribio (this volume) for an overview of this diversity.
ii: DAT-EXP—the only argument:

   Boris-DAT [is] happy / cold / bored / bad  
   "Boris is happy/cold/bored/not well."

iii: adjectivals: necessary, audible, visible, sorry for: (with NOM/ACC-THM)

c. Saše nužen vrač  
   Sasha-DAT need (+AGR) doctor-NOM (masc. sg.)  
   "Sasha needs a doctor."

d. Saše nužno vrača  
   Sasha-DAT needs (-AGR) doctor-ACC (masc. sg.)  
   "Sasha needs a doctor." (=c))

e. Saše slyšna pesnja  
   Sasha-DAT audible (+AGR) song-NOM (fem. sg.)  
   "Sasha hears a song."

f. Saše slyšno pesnju  
   Sasha-DAT audible (-AGR) song-ACC (fem. sg.)  
   "Sasha hears a song." (=e))

The constructions can be classified morphologically into three groups as exemplified in (33a-c) below (word order free):

33)  a. DAT. EXP. VERB: like, need

      [+AGR] ---------------- NOM-THM  
      [-AGR] ---------------- INFIN. (theme)  

      e.g.: Sasha-DAT likes/needs  
              [+AGR] ---------------- books-NOM  
              [-AGR] ---------------- to play-INFIN

      b. DAT. EXP. PREDICATE: [-AGR] happy, cold, bored, bad

      e.g.: Boris-DAT happy

      c. i. DAT. EXP. ADJ: audible, necessary

      e.g.: Sasha-DAT audible [+AGR]

      ii. DAT. EXP. ADJ: audible, necessary

      e.g.: Sasha-DAT audible [-AGR]

Notice that constructions of type (33c-ii) have a DAT-EXP and an ACC-THM. These sentences alternate with those of type (33c-i) containing a NOM-THM.
4.2 Analysis.

My proposal for these constructions is simple: The predicate in all these constructions with a NOM-THM argument simply does not assign accusative case to the SpecV position. (We will return shortly to the question of why this is so). (Predicates of type (33c) optionally assign case.) If ACC is not assigned, the THM argument must receive either GEN-NEG as described above, or NOM from INFL, in a manner to be described below. DAT is assigned configurationally just as it is to indirect objects.

In the following sections, I will provide syntactic evidence in favor of the hypothesis that the DAT-EXP in these constructions is base generated in the canonical Dative position (complement of V₀), and the NOM/ACC-THM argument is base generated in the canonical THM position (SpecV). Case assignment proceeds as given in (11b-c) above.

4.2.1 NOM-THMs and Genitive of Negation.

The first piece of evidence that NOM-THMs are generated in the canonical direct object position (SpecV), is that they also go into the GEN-NEG as in (34a):

34) a. Saše ne nužno medsestry
    Sasha-DAT NEG need (-AGR) nurse-GEN
    "Sasha does not need a nurse."

    b. Saše ne slyšno pesnji
    Sasha-DAT NEG audible (-AGR) song-GEN (fem. sg.)
    "Sasha does not hear the song."

(Notice that agreement does not occur in (34a), because the theme is marked with GEN-NEG in SpecV position, and does not raise into a high enough position to achieve Spec-head agreement of features.) (34b) shows that the DAT-EXP, however, never goes into GEN-NEG, just as we saw for Dative internal arguments above. In both situations, this has often been associated with its "lexical" case. The claim here is that both the Dative case marking (which is in fact not lexical) and the inability to participate in GEN-NEG fall out from the underlying configurational position of this argument being the complement of V₀. More evidence for this claim is given in the next section.
4.2.2 Evidence from Secondary Predication.

4.2.2.1 Control by NOM-THM.

(35a) below shows the predicted relationship between DAT-EXP and NOM-THM with respect to small clause subjects.

35) a. Saše  nužen      vrač       p'jany*m_i/k
Sasha_i-DAT needs (+AGR) doctor_k-NOM drunk_i/k-INST
"Sasha needs a doctor drunk." (doctor=drunk)

Like other VP internal arguments, the DAT-EXP argument cannot control the small clause subject, as shown in (35a). If we assume that the DAT-EXP is base-generated as complement to V0, it is clear that it cannot move to a closer c-commanding position of the V'-adjointed small clause than that occupied by the argument in SpecV (NOM-THM). (35b) gives the structure of (35a):

35) b. Structure of (35a)
It should be clear from (35) that the DAT-EXP is predicted to never control a small clause subject if there is a NOM-THM present.\(^{19}\) (36a) shows that this is the case even when the NOM-THM is inanimate, resulting in an infelicitous sentence, ungrammatical on the intended reading of coreference between the DAT-EXP and the instrumental small clause. (36b) shows that word order does not affect the ungrammaticality of this sentence.

36) *a. Saše nравятся книги голым.
     "Sasha likes books nude."

     *b. Книги nравятся Saše голым.
     "Sasha likes books nude."

Thus far we have shown that the underlying position of internal arguments determines their case and their ability to participate in various syntactic processes. In particular, we have seen that the asymmetrical relationship between NOM-THM and DAT-EXP is parallel to that between ACC direct objects on the one hand and DAT internal arguments on the other. The SpecV argument c-commands the entire rest of VP, and is therefore the minimal controller high enough to control the small clause subject. Even if the DAT argument moves to a higher position, enabling it to obtain wide scope, it can never be the minimal controller of these small clauses.

We have seen ACC direct objects control small clauses. We therefore predict that arguments base-generated in this position in DAT-EXP constructions can control small clause subjects even if they do not raise to receive NOM case marking. (37a-b) show that this is exactly the situation with ACC internal arguments and GEN-NEG arguments in DAT-EXP constructions:

37) a. Saše нужен врач пьяным
     "Sasha needs a doctor drunk."

     b. doctor\(_k\)-ACC drunk\(_i\) / k-INSTR
     (Doctor=drunk)

\(^{19}\)Note that the DAT-EXP is raised to Spec\(_I\) which serves as the Prominence Position (but not the NOM-case position). This analysis will be supported by its ability to anteced e reflexives, something that is a "subject" property in Russian, and therefore associated with a base-generated position and not an adjunct position.
b. Saše ne nužno medsestry p'janoj
    Søshåj-DAT NEG needs nuršek-GEN drunk*_{i}/k-INST
    "Sasha doesn't need a nurse drunk." (Nurse=drunk)

The ability to control a V' adjoined instrumental small clause in these constructions is thus
associated with arguments that are base-generated in SpecV position. DAT internal
arguments are predicted never to control small clauses in the presence of an internal
argument in the SpecV position. The judgements strongly confirm this conclusion.

4.2.2.1 Control by DAT-EXP

Notice, however, the facts in DAT-EXP constructions without any THM
argument. These are of two types: a) bare DAT-EXP constructions like (32b) above.

b) DAT-EXP / INFIN constructions like (32a) above.
In these constructions, where there is no argument base-generated in SpecV, we notice that
DAT-EXP can freely control small clause and infinitival subjects:

38) a. Borisu nравitsja играт' музыку голым.
    Borisj-DAT likes (3 sg) [PRO_{i} to play music-ACC nude_{i}-INST]
    "Boris likes to play music nude."

b. Borisu veselo голым.
    Borisj-DAT happy nude_{i}-INST
    "Boris is happy nude."

The obvious question arises: How is the DAT-EXP in these constructions able to control
PRO? My proposal is that movement allows (and in fact forces--see discussion below) the
DAT-EXP argument to be associated with a position high in the tree (SpecI), from where it
can c-command and thus control PRO, providing there is no lower possible controller.
Assuming a theory of control in which minimality is strictly observed, we can see how a
scrambled DAT-EXP will control PRO just in case there is no SpecV argument.

The next question is more complicated: Why must the DAT-EXP scramble into this
higher position? Notice that control is not optional, which it should be if scrambling is
optional. Chomsky's Extended Projection Principle states that languages consistently must
have a subject on some level of representation. (See Babby (1989) for evidence against
this principle from Russian.) A reformulation of that principle will require that every
sentences must have an argument associated with SpecI (canonical subject position). For
Russian, we can state this generalization as follows:
39) (Russian) SpecI Must be Filled by a Prominent Argument.

We will return to the details of the thematic nature of "prominence" with respect to SpecI position in the section on Reflexivization below. In all DAT-EXP construction, the DAT-EXP will be forced to raise to satisfy (39). This allows the DAT-EXP to control adjunct small clause PRO just in case there is no argument base-generated in SpecV. This corresponds exactly to the data given above.

4.2.3. Interaction with Reflexivization

The ability to antecede reflexives is a well-known subject property in many languages. Klenin (1974): "The antecedent of any reflexive pronoun sebja/svoj is the subject of the simplex S in which the antecedent and the reflexive appear (p. 137)." In Russian, as opposed to English, only the "subject" NP can antecede the reflexive:

40) a. Boris sprosil Slavku o sebe.
    Boris_i-NOM asked Slavka_k-ACC about self_i/*_k-PREP
    "Boris asked Slavka about himself_i/*_k"

b. Bob_i asked Sam_k about himself_i/*_k.

However, we find that DAT arguments in experiencer constructions antecede reflexives when there is no NOM-THM present, just as they can control small clauses:

41) a. Vanja nrovitsja rabotat' u sebja.
    Vanya_i-DAT likes [PRO_i to work [at self_i-GEN ]
    "Vanya likes to work at his own place."

b. Mne xolodno u sebja.
    me_i-DAT cold [at self_i-GEN]
    "I am cold at my place."

However, in constructions with a DAT-EXP and a NOM-THM, where the DAT-EXP has moved to fill the prominence position, it is the DAT argument that antecedes the reflexive, although the NOM argument still controls the small clause. Compare (42a) and (42b):

42) a. Saše ponravilsja vrac p'janym
    Sasha_i-DAT liked [+AGR] doctor_k-NOM drunk_i/*_k-INSTR
    "Sasha liked the doctor drunk." (doctor=drunk)
b. Saše ponravilsja vrač u sebja
Sasha-DAT liked [+AGR] doctor-NOM at selfi */k*-OBL
"Sasha liked the doctor at his [Sasha's] place."

This contrast is crucial to understanding the structure of the Russian sentence. Certainly it is not enough to say that controlling PRO and anteceding reflexives are both "subject" properties, because in otherwise identical structures, the NOM-THM and the DAT-EXP fill the "subject" role respectively. We have seen that control of PRO depends on minimal c-control relations. With respect to Reflexivization, "subject" must be defined differently. In an attempt to formulate this subject condition on reflexives, I will hypothesize that the position that an argument must be associated with in order to antecede reflexives in Russian is the canonical subject position for English, SpecI. 20 This position is distinguished, however, from SpecPr, where NOM case is assigned. (I will return to the issue of case assignment below). The "subject" condition on reflexivization can therefore be simply stated as (43):

43) Prominence/Subject Condition on Reflexives (Russian):
To antecede a reflexive, an argument must bind it and be in SpecI position.

Recall that SpecI was given in the last section as the Prominence Position into which DAT-experiencers move. 21

It is important, however, to distinguish this base-generated prominent position (SpecI) from more general adjunction spots used for later syntactic operations such as Topicalization and so on. The difference between Prominence and Topicalization is, in short, that any argument can be Topicalized and is marked as such by word order, case properties and intonation. Prominence is predetermined by the argument structure of the predicate and some argument hierarchy along the lines of Grimshaw (1990). (44) shows that Topicalized DAT indirect arguments do not fill the Prominence Position, and therefore do not antecede reflexives.

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20 See Cole, Hermon and Sung (1990) for arguments that certain reflexives move to 10 at LF, and therefore the only possible antecedents are arguments in SpecI.

21 I assume that a hierarchy of theta-roles is at play, along the lines of Grimshaw (1990), which determines what argument of a particular predicate will end up in the Prominence Position.
44) Saše Ivan podaril knigu u sebja.
Sashaĭ-DAT Ivank-NOM gave book-ACC at self*ijk-OBL
"It was to Sasha that Ivan gave the book at [self's] home."

It should also be noted that the NOM-THM can occasionally antecede reflexives for some speakers even when there is a DAT-experiencer, but only when the NOM-THM is first in word order, and when it is accompanied by Focus intonation. When the argument is marked GEN-NEG, thereby quantifying it, and lowering it on the argument hierarchy, it is predicted never to be able to antecede reflexives. These facts are shown in (45):

45) a. Vrač nužen Ivan u sebja.
Doctork-NOM necessary[+AGR] Ivank-DAT at self*ijk
"Ivan needs a doctor at [self's] home."

b. Vrača ne nužno Ivan u sebja.
Doctork-GEN NEG necessary[-AGR] Ivank-DAT at self*ijk
"Ivan doesn't need a doctor at [self's] home."

The account given above allows us to treat an entire class of productive instances of morphological DAT and NOM case to be configurational, just as we have seen can be done for internal arguments and productive uses of INSTR and GEN. This claim allows there to be a much more transparent mapping between morphological case realizations and underlying configurational relations than is commonly envisioned for these constructions. Any theory that generates all internal arguments as complements of V⁰ has to employ some mechanism of movement or coindexation to account for NOM marking on themes in a fashion unified with configurational NOM assignment to subjects. In particular, my account obviates the need for a notion of abstract "case" as crucially used in Harbert and Toribio (this volume). Furthermore, such a theory has to consider DAT a lexical case, both canonically and in "quirky" case situations such as this one. (See Harbert and Toribio (this volume) for an exhaustive treatment across languages of NOM objects). Accounts such as Franks (1990) and Greenberg and Franks (1991), who distinguish DAT from ACC by proposing that DAT is assigned to the complement of V' and ACC to the complement of V⁰, will have no account for the scope facts, and no way to associate unaccusative subjects and direct objects as distinct from datives in terms of control of PRO and GEN-NEG.
4.3 Remarks on Case Assignment.

4.3.1 On "Configurational" vs. "Lexical" Case.

We have seen two kinds of configurational case assignment in this paper. First, there is case assigned by heads to their complements (V₀ assigns DAT, Pᵢ₀ assigns INSTR, and lexically specified V₀, P₀ and perhaps other categories assign lexical case.) Second, there is the assignment of NOM and ACC to Spec positions. NOM and ACC have often been distinguished in work on case going back to Chomsky (1981) as somehow different. For Russian, various accounts (Baboj 1987, this volume), Freidin and Sprouse (1991)) have called NOM and ACC "configurational" where all others are thought to be either "semantic" or "lexical". Not much explanation is given of why such a distinction

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22Baboj's (1987) chief evidence is the behavior of quantifier phrases, which assign genitive plural when the quantifier phrase is itself assigned structural case (ACC), but which do not do so when the quantifier phrase itself is assigned lexical case. Examples from Freidin and Sprouse (1991) are given in (i-iii):

i) Ivan poceloval pjad' krasivyx devašek.
   Ivan kissed [five-ACC [pretty girls]-GEN ]
   "Ivan kissed five pretty girls."

ii) Ivan pomog pjad' krasivym devaškam.
    Ivan kissed [five-DAT [pretty girls]-DAT ]
    "Ivan helped five pretty girls."

*iii) Ivan pomog pjad' krasivyx devašek.
    Ivan helped [five-DAT [pretty girls]-GEN ]
    "Ivan helped five pretty girls."

(i) shows that when the Q-phrase is the direct object of a transitive verb, the numeral appears in the ACC and assigns GEN-PL to the NP 'pretty girls'. (ii) and (iii) show that when DAT is assigned to the Q-phrase argument, only DAT can appear on the NP 'pretty girls.' Both Freidin and Sprouse (1991) and Baboj (1987) argue that some form of their Projection Principle demands that the lexical DAT assigned by pomog 'to help' must be present at all levels of representation, and therefore (iii) is impossible. Certainly it is correct to state that the distinction between type of case assignment to the Q-phrase differentiates (i) from (ii). I argue that the distinction originates from a configurational difference, however, and this in turn leads to the difference in case marking, and eventually to the morphology of the Q phrase. I support this claim further in Bailoj (1990a/b). Here I would like to give one simple piece of evidence that the two case occurrences are associated with distinct positions. The analysis of secondary predication given above predicts that the Q-phrase in (i) should be able to antecedes the PRO subject of a small clause, but the DAT marked Q-phrase in (ii) should not. (iv-v) show that this prediction holds:

iv) Ivan našel pjad' krasivyx devašek p'janymi.
   Ivan found [five-ACC [pretty girls]-GEN ] drunk-INSTR
   "Ivan found five pretty girls drunk." (girls=drunk)
should exist, other than the generally accepted observation that no particular lexical item is involved in assigning Nominative and Accusative, as opposed to some (or all) of the other cases. Under my account, this distinction suddenly has a further explanation. What has previously been termed "structural" or "configurational" case, can now be seen simply as case assigned configurationally to Spec position. Lexical case, as before, must be assigned idiosyncratically under government to the complement of a lexical item (verb, preposition or other) and the Projection Principle leads to the resistance to other case operations as analyzed in Freidin and Sprouse (1991). Under my analysis, however, there are two other instances of configurational case in Russian that are assigned under the same lexical conditions as true lexical case, except that they are not specified by particular lexical items. One is Dative assigned to verbal complements which do not otherwise assign lexical case, and the other is Instrumental assigned by Pr₀ to its complement. (The latter is perhaps better known as Functional Case, the former as configurational Dative.) That Dative case canonically appears on experiencers and indirect objects across languages is generally known. Under my analysis, this finally has a configurational explanation which is absent in accounts like that of Freidin and Sprouse (1991). The resistance of these Dative and Instrumental arguments to certain other case processes can still be explained, however, since these arguments are assigned case by a lexical (or functional) head to its complement, presumably at D-structure, and not solely by their configurational position at S-structure.

By assumption, Nominative and Accusative are assigned at S-structure, just as they are imagined to be under other analyses, and this provides for the distribution of case marked NPs discussed in Babby (1987), Franks (1990) and Freiden and Sprouse (1991), while maintaining the strong account of the configurational nature of Dative, Genitive and Instrumental case assignment.²³

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²³Further, I have speculated that all case in Russian may be assigned by an X₀ head, including Nominative and Accusative, under the assumption that Nominative is assigned to SpecPr by 1⁰ and that Accusative is assigned to SpecV by a raised V₀. This reduces the "configurational"/"lexical" distinction to
4.3.2 On Case Assigned to Spec Position and Nominative Case.

Traditionally, NOM case has been thought to be assigned to Spec position, by the Spec-Head agreement mechanism. In more recent work, however, the possibility of case to Spec position being assigned by a higher head has received more attention. In particular, Whitman (1990) shows that in Japanese NOM is assigned to the SpecI position by a higher (raised) head. This analysis is extended to DAT-EXP, NOM-THM constructions in Yoshida (this volume). This allows for the possibility of two interacting binary parameters that could account for many of the distinctions in word order and case facts found among languages. The first would be whether NOM is assigned to SpecI or SpecPr position, and the second would be whether NOM is assigned only by a governing higher head, or whether it can be assigned by Spec-Head agreement. In Whitman's account the second parameter is eliminated allowing only case assignment under government, and that can at least be maintained for the Russian situation. In my account of Russian SpecI is a Prominence Position and I0 assigns NOM under government to SpecPr. Thus we have sentences with a DAT-EXP in SpecI (from where it antecedes reflexives) and a NOM-THM receiving NOM case in SpecPr, to which it has raised from SpecV. This argument will control the small clause PRO subject. Languages such as English do not have two distinct positions for NOM case and Prominence, and thus combine the "subject" properties within one argument position.

4.3.3. On Accusative Case Assignment and Burzio's Generalization.

Taken in its entirety, the system of Case given in this paper has the added advantage of providing a reasonable explanation of Burzio's generalization, which is an unexplained given (and even parameterized) in other systems such as Harbert and Toribio (this volume). Burzio's generalization associates the assignment of Accusative case to an internal argument with assignment of a theta role to the external argument. In my configurational approach to case, based on X' structure as envisioned by Bowers (1990), we can suddenly see Burzio's generalization as a slight configurational side effect of the interaction between compositional theta-role assignment and case assignment under government. Let us
assume that all case is assigned under government. Accusative case must therefore be assigned by a higher head. We have seen that Pr⁰ assigns INSTR (Rule R) or case by agreement (Rule A). It must therefore be the raised verb that assigns accusative case to the argument in SpecV. Let us assume further, as Bowers does, that V⁰ must raise to Pr⁰ to assign an external theta role to the external argument base-generated in SpecPr. The relationship between ACC case and external theta-role assignment then becomes transparent. Both are associated exclusively with the verb being in Pr⁰ after raising. If we add the further natural assumption that a verb which subcategorizes lexically for no external argument does not raise to Pr⁰, we derive Burzio's generalization: it cannot assign ACC to SpecV. If a verb has an external argument in SpecPr, and an internal argument in SpecV, we have a canonical transitive sentence with the external argument receiving its theta-role from V⁰ after it raises, and the argument in SpecV receiving ACC case from the raised verb after movement. The relevant configuration is given in (46):

46) Configuration for Burzio's Generalization (transitive sentence):

```
\[ PrP \]
\[ \text{EXT. \, \theta-role} \]
\[ Pr \]
\[ V \]
\[ ACC \]
\[ NP \]
\[ \text{DAT} \]
\[ NP \]
```

If there is no external argument, with a passive verb for example, there is no verb movement, and no ACC case assignment. The argument in SpecV raises to get case and the derivation is complete. We have explained Burzio's generalization in simple, configurational terms as a side effect of an independently motivated analysis of sentence structure for Russian.²⁴

²⁴ What remains to be done in this regard it to examine apparent counterexamples (such as the Ukrainian passive with ACC argument), and certain of the Russian modal expressions, which all seem to be able to
5. Conclusion.

The term NOM-THM in Section 3 is of course a misnomer, because the position such themes are base-generated in is the canonical position for Accusative case assignment with transitive verbs and adjectivals. Furthermore, arguments base-generated in this position are subject to the GEN-NEG or GEN-PART. Therefore, this spot can be thought of as THEME position, realized systematically as ACC direct object of transitives, as NOM unaccusative and passive subject, as NOM theme in DAT-EXP constructions and as GEN of negation or partitive. This gives my account one additional advantage; it points towards significant reduction of the distinction between semantic roles and syntactic positions. In short, it indicates that in Russian, SpecV position is the position of THEME (and PATIENT), SpecPr is the base-generated position of canonical AGENT, (and also the position to which an external theta-role must be assigned in order to have ACC case assignment), and complement of V₀ position is the position of GOAL and EXPERIENCER arguments which are configurationally Dative. This is in keeping with current notions of argument structure such as those found in Grimshaw (1990), in which at least one argument hierarchy involves level of causation, and would predict that Experiencers and Goals could be closests to the verb in structure, and furthest from the Causer (Agent) in SpecPr.

Thus we have seen that Russian demonstrates significant asymmetries between internal arguments. On the other hand, by carefully studying the interaction of case-marked arguments, we have been able to account configurationally for many instances of morphological case in Russian. In particular, we have shown that Nominative case is assigned by I⁰ to SpecPr position. Accusative case is assigned to SpecV by a raised verb. Genitive case (of negation and partitive) is also assigned to the SpecV position by a higher head bearing the feature [+q] or [+p]. Dative is assigned to the complement of V₀ in the absence of lexical case being assigned. Instrumental is assigned to the complement of empty Pr⁰ not associated with INFL (secondary predication). Case by agreement is assigned to the complement of filled Pr⁰. If we assume that Prepositional case is the configurational case assigned to the complement of prepositions, then we can see that each

assign ACC without assigning an external theta-role. Here the task is more accessible then before, however, because all we need is to find another reason for the verb to raise to a position from which it can assign ACC, such as having to support some kind of operator in IP. At very least a conceptual and configurational underpinning of Burzio's generalization has finally been identified.
of the cases in Russian has some configurational instantiation. This is an extremely welcome result in that it indicates a strong connection between morphological case and underlying configurations, something that greatly facilitates the child’s language learning task and the linguist's task of understanding the linguistic knowledge hidden behind morphological form.

6. Appendix: Configurational Case Assignment in Russian.

a. Nominative.

\[
\begin{align*}
I' &
\rightarrow J^0 \rightarrow \text{SpecPr} \\
& \rightarrow \text{PrP} \\
& \rightarrow \text{[NOM]}
\end{align*}
\]

b. Accusative.

\[
\begin{align*}
Pr' &
\rightarrow Pr^0 \rightarrow \text{SpecV} \\
& \rightarrow \text{VP} \\
& \rightarrow \text{[ACC]}
\end{align*}
\]

c. Dative.

\[
\begin{align*}
V' &
\rightarrow V^0 \rightarrow \text{XP} \\
& \rightarrow \text{[DAT]}
\end{align*}
\]

d. Instrumental (Rule R).

\[
\begin{align*}
Pr' &
\rightarrow Pr^0 \rightarrow \text{XP} \\
& \rightarrow \text{[INSTR]}
\end{align*}
\]

e. Rule A.

\[
\begin{align*}
\text{NP}_1 &
\rightarrow \text{[Case A]} \\
& \rightarrow \text{\{PRO}_i \text{\}} \\
& \rightarrow \text{PrP} \\
& \rightarrow \text{Pr}' \\
& \rightarrow \text{Pr}^0 \rightarrow \text{XP} \\
& \rightarrow \text{[Case A]} \\
& \rightarrow X
\end{align*}
\]

f. Genitive of Negation.

\[
\begin{align*}
\text{scope of neg:} &
\rightarrow \text{Pr}' \\
& \rightarrow Pr^0 \rightarrow \text{XP} \\
& \rightarrow \text{[+q]} \\
& \rightarrow \text{SpecX} \\
& \rightarrow \text{[GEN]}
\end{align*}
\]
Bibliography


The Unification of Instrumental Case Assignment in Russian

John F. Bailyn and Edward J. Rubin

There has never been a characterization of instrumental case assignment in Russian that has been able to unify all its productive synchronic uses under one account.\(^1\) Indeed, in the introduction to her book on Russian predicate nominals, Nichols (1981) states the following:

There is a great deal we do not know about grammar. As an example, consider the question of morphological forms in which predicate nominals may appear -- the instrumental case, [case by] agreement, the short form of the adjective, prepositional phrases etc. ... we do not know just what it is that the rules assigning morphological forms do, or how they do it.

In this paper an account is developed which structurally unifies the predicate nominal use of the instrumental case with all its other productive occurrences in Russian under a simple general rule.\(^2\)

We will begin by presenting the constructions in which instrumental case appears productively in Russian. We will then consider those constructions that involve what are

\(^1\)There have been various attempts to characterize the *semantics* of the productive uses of the Russian instrumental, notably Wierzbicka (1980), Kilby (1986) and others. Our proposal will also indicate a semantic unity, but will do so in conjunction with a syntactic characterization of the environment necessary for instrumental to be realized.

\(^2\)Instances like (i) and (ii), in which instrumental case is arbitrarily assigned by a lexical item (verb or preposition) to its object, will not fall under our analysis.

\[\begin{align*}
\text{i) } & \quad \text{Saša xorøo} \quad \text{vlateet} \quad \text{russkim} \quad \text{jazykom.} \\
& \quad \text{Sasha-NOM} \quad \text{well} \quad \text{commands} \quad \text{[Russian language]-INSTR} \\
& \quad \text{"Sasha has a good command of the Russian language"}
\\
\text{ii) } & \quad \text{Saša} \quad \text{igraet} \quad \text{so} \quad \text{Slavkoj.} \\
& \quad \text{Sasha-NOM} \quad \text{is playing} \quad \text{with} \quad \text{Slavka-INSTR} \\
& \quad \text{"Sasha is playing with Slavka."}
\end{align*}\]

Case assignment in such situations is lexically specified by the verb *vlateet* 'to have command of' and the preposition *s* 'with' respectively, and is distinguished from structural case assignment by Babby (1985, this volume) and others. We claim that instrumental is assigned both structurally and lexically, as are other cases in Russian. This paper is primarily concerned with structural instrumental case.

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traditionally called small clauses and adopt a framework that handles small clauses within a broad theory of predication. This theory, motivated on independent grounds, places the predicates of all these small clauses in a position which can be shown to receive structural instrumental case in Russian. We will then propose that the other constructions in which instrumental case appears can also be considered instances of secondary predication. Next, we will demonstrate that Old Russian employed a different case assignment strategy in the structures containing instrumental case-marking in Modern Russian. A simple diachronic change will be shown to be responsible for the advent of the Modern Russian instrumental case-assignment rule. In conclusion, we will provide an explanation for the Russian double nominative construction and expose its relation to the other phenomena considered.

1.0 The Data.

Russian has a wide variety of constructions in which instrumental case appears. The following are equivalent to what have traditionally been treated as small clauses (Williams (1975), Chomsky (1981), Stowell (1981), among many others):

1) *Ja sčitaju Sašu durakom*  
   I-NOM consider Sasha1-ACC fool1-INSTR  
   "I consider Sasha a fool."

2) *Saša kažetsja durakom*  
   Sasha1-NOM seems fool1-INSTR  
   "Sasha seems to be a fool."

3) *Oni nazvali ego Petrom.*  
   They1-NOM named himk-ACC Peterk-INSTR  
   "They named him Peter."

4) *Ja našel ego p’janym.*  
   I1-NOM found himk-ACC drunkk-INSTR  
   "I found him drunk."

5) *My tancovali golymi.*  
   we1-NOM danced nude1-INSTR  
   "We danced nude."

6) *On rabotaet vračom.*  
   he1-NOM works doctor1-INSTR  
   "He works as a doctor."

Pesetsky (1982) characterizes the descriptive state of affairs exemplified in (1-6) as in (7):
7) “[Russian] [+N] categories bear instrumental case when they are secondary predicates.”

We will return to an explanation of the generalization in (7).

Instrumental case also appears on ‘real instruments’ or phrases denoting the manner or means by which some action or event is achieved:

8) Saša pišet karandašom.
   "Sasha writes with a pencil."

Instrumental also appears on passive ‘by-phrases’ as seen in (9):

9) Večerinka byla ustrojena studentami.
   "The party was organized by the students."

Finally consider the following uses of instrumental case which denote a state, a change of state, or an appearance as in (10-13):

10) Saša stal vračom.
    "Sasha became a doctor."

---

3There are two modern Russian adjectival forms that do not conform to this generalization. They are exemplified in (i) and (ii) below:

i) Ja našel ego odnogo / *odnim.
   I found him-ACC alone-ACC / *INSTR
   "I found him alone."

ii) Nadja pokrasila dom sama / *samoj
    Nadja-NOM painted house-ACC [her]self-NOM / *INSTR
    "Nadja painted the house by herself."

We shall see in section 3 that these are historical remnants, reflecting a more general rule that existed in Old Russian. Synchronically, there must be a lexical generalization that marks these two adjectives in much the same way as the adverbs in remnant English V-2 expressions such as "never have I heard such nonsense" and "only under an analysis with such an internal VP structure can a configurational account of genitive of negation be maintained" are marked. Thus, in the same way that such English adverbs reflect what was previously a productive rule in Germanic, these two Russian adjectives reflect what was previously a productive rule in Old Russian. (See section 3 for details, and Greenberg and Franks (1991) for an alternative account of these two lexical items.)
2.0 The Synchronic Analysis.

2.1 Background: The PredP Hypothesis and VP Internal Structure in Russian.

Based on sentences (1-6), we maintain the descriptive generalization that predicates of small clauses in Russian are always marked with the instrumental case. A natural hypothesis is that such a predicate is in an instrumental case position. In analyzing the structural relations of this position, we will adopt the framework developed in Bowers (1990), who argues for the existence of a functional category Pr(edication) whose maximal projection will be referred to as PrP. This analysis allows Bowers to give a structural unification of primary and secondary predication, while maintaining a version of the VP internal subject hypothesis (see Koopman and Sportiche (1988) among others for arguments in favor of this hypothesis), and a uniform X-bar theory in the tradition of Jackendoff (1977) and Kayne (1984).

---

4Some such predicates may not be case-inflecting, such as infinitives and prepositional phrases, yet still may occupy a structural instrumental position. Examples are given below:

i) On stal rabotat' he began [to work]-no case
   "He began to work."

ii) Ja ščitaju ego v xorosix rukax.
    I consider him-acc [in good hands]-no case
    "I consider him in good hands."
The PredP analysis has some non-standard aspects, however. For example, in the spirit of Larson (1988), this analysis has the direct object of a verb base-generated in SpecV and the indirect object (or some other internal argument) base-generated as sister of V0. Bailyn (1990) supports this analysis for Russian, showing that in fact accusatives are in SpecV and datives in complement position in Russian, supporting this with evidence from the relative scope of internal arguments and genitive of negation. Thus in (14a-b) below, we see that the accusative internal argument has wide scope over other internal arguments. (15a-b) show that these facts remain, regardless of their relative order, despite the fact that surface word order often fixes quantifier scope in Russian.

14) a. Ivan dal kakie-to knigi vsem studentam.  
   Ivan-NOM gave [some books]-ACC [all the students]-DAT  
   "There are some books such that Ivan gave those books to every student."

   b. Ivan dal vse knigi kakim-to studentam.  
   Ivan-NOM gave [all books]-ACC [some students]-DAT  
   "Every book is such that Ivan gave it to some of the students."

15) a. Ivan dal vsem studentam kakie-to knigi  
   Ivan-NOM gave [all students]-DAT [some books]-ACC  
   "There are some books such that Ivan gave those books to every student."  
   *"Every student is such that Ivan gave him some books."

   b. Ivan dal kakim-to studentam vse knigi  
   Ivan-NOM gave [some students]-DAT [all the books]-ACC  
   "Every book is such that Ivan gave it to some of the students."  
   *"Some students are such that Ivan gave them every book."

Furthermore, Bailyn demonstrates that only under an analysis with an internal VP structure where ACC is assigned to SpecV and DAT is assigned to complement position can a configurational account of genitive of negation (GEN-NEG) and partitive genitive (GEN-PART) be maintained. The sentences in (16a-f) show that GEN-NEG can appear with negated verbs on ACC direct objects and unaccusative subjects (base-generated under our account in SpecV), but not on DAT or oblique arguments (base-generated as complement to V0):

16) a. Sasha kupil knigi.  
   Sasha-NOM bought books-ACC  
   "Sasha bought books."

   b. Sasa ne kupil knigi.  
   Sasha-NOM NEG bought books-GEN  
   "Sasha didn't buy any books."
c. Edinarogi suščestvujut.
unicorns-NOM exist (3 pl.)
"Unicorns exist."

d. Edinorogov ne suščestvujet.
unicorns-GEN NEG exist (3 sg.)
"Unicorns don't exist."

e. Saša pozvonil Slavke.
Sasha-NOM telephoned Slavka-DAT
"Sasha phoned Slavka."

f.* Saša ne pozvonil Slavki.
Sasha-NOM NEG telephoned Slavka-GEN
"Sasha didn't phone Slavka."

Bailyn demonstrates that GEN-NEG is simply one case of Exceptional Case Marking (ECM) to the SpecV position under the scope of negation. GEN-PART is shown to be another such example. The inability of GEN-NEG and GEN-PART to appear on unergative subjects, indirect objects and oblique objects falls out from such an account.

Bailyn therefore concludes that Russian accusatives are base-generated in SpecV, and Russian datives as the sister of V, a conclusion which exactly parallels the conclusions in Bowers (1990). Both accounts analyze the internal structure of VP in Russian as in (17).

17)  
\[ \text{VP} \]
\[ \text{Spec} \]
\[ \text{NPacc} \]
\[ \text{V} \]
\[ \text{ZP} \]
\[ \text{dat/obl} \]

2.2 Instances of "small clauses".

2.2.1 Argument small clauses

Bowers analyzes the English sentence in (18) as in the structure in (19) given below:

18)  
\[ \text{I [consider}_i [\text{John}_k [\text{V}_v [\text{ti}_t [\text{PrP}_P t_k [\text{Fr}_F \text{e [a fool] } ] ] ] ] ] ] \]
19)  
\[
\begin{array}{c}
\text{NP}_{\text{nom}} \\
\text{PrP} \\
\text{Spec} \\
\text{Pr} \\
\text{VP} \\
\text{NP}_{\text{acc}} \\
\text{V} \\
\text{Spec} \\
\text{Pr} \\
\text{NP} \\
\end{array}
\]
\[
\begin{array}{c}
t_i \\
t_j \\
\text{consider}_k \\
\text{John}_j \\
t_k \\
t_j \\
a \text{fool}
\end{array}
\]

As seen in the tree above, 'consider' is a verb which subcategorizes for a small clause complement (PrP), and the subject of this small clause 'John', raises to SpecV to get accusative case. The structure for the parallel Russian sentence (1) will be exactly the same, except that Russian obeys Rule R given in (20) below:

20)  **Rule R** (Russian) (first version):
\[ \text{Pr}^0 \text{ assigns instrumental case to its complement.} \]

Thus the NP *durakom* 'a fool' in (1), which is the predicate of a small clause, will receive instrumental case as shown in (21) below:

21)  \[
\begin{array}{c}
\text{NP}_{\text{nom}} \\
\text{PrP} \\
\text{Spec} \\
\text{Pr} \\
\text{VP} \\
\text{NP}_{\text{acc}} \\
\text{V} \\
\text{Spec} \\
\text{Pr} \\
\text{NP}_{\text{instr}} \\
\text{N} \\
\end{array}
\]
\[
\begin{array}{c}
t_i \\
t_j \\
\text{ščitaju}_k \\
\text{Sašu}_j \\
t_k \\
t_j \\
durakom \\
\end{array}
\]
\[
\begin{array}{c}
\text{I-NOM} \\
\text{consider Sasha-ACC} \\
\text{[a] fool-INSTR} \\
\end{array}
\]

Note that the structure in (21) is parallel to the structure in (19). The verb *ščitat* ‘to consider’ takes a small clause complement whose subject, 'Sasha', raises to SpecV (here a θ-bar position) to get accusative case.
In (2) the subject of the small clause has undergone raising to the \( \theta \)-bar subject position of the main clause, where it receives nominative case. The structure of (2) will be as in (22):

\[ 22) \]

```
NP
  ^
  |  
  I
  |  
Spec
  |  
PrP
  |  
Pr
  |  
VP
  |  
Spec
  |  
V
  |  
PrP
  |  
Pr
  |  
NP
  |  
N
  |  
N

Sasha-NOM seems [a fool-INSTR]
```

2.2.2 Adjunct small clauses

In (3-6) instrumental case appears in the predicate of an adjunct small clause. The small clauses considered in this section are traditionally posited to be adjuncts because they

\[ 5 \] Note that there are structures that seem parallel to sentences (3-6) where a nominative-marked nominal modifies the subject NP. Compare (i) to (ii):

\[ i) \]

My tancovali golymi
We\(i\) danced nude-\(i\)-INSTR
"We danced nude."

\[ ii) \]

My tancovali golye
We\(i\) danced nude-\(i\)-NOM
"We danced nude."

It is our claim that these two sentences have different structures. In particular, (i) contains a small clause, and therefore instrumental case, whereas (ii) contains an appositive modifier, and is related to (iii):

\[ iii) \]

Golye, my tancovali
dude, we\(i\) danced
"Nude, we danced."

Notice that (iv) shows that (i) is not an appositive structure, indicating the existence of a small clause which is absent in (ii) and (iii):
are optional and do not receive a \( \theta \)-role from the verb. In Russian as well these INSTR phrases do not receive a \( \theta \)-role directly from the verb, and are optional. In addition, this type of small clause may co-occur with both internal arguments of a ditransitive verb, again indicating adjunct status.

Following Bowers (1990) and others, we will assume that the subject of this type of small clause is PRO, which, following standard Control Theory, must be bound by a c-commanding nominal. In particular, with object control sentences such as (3) and (4), the small clause adjunct (and its subject) must be in a position adjoined to \( V' \) which is c-commanded by Spec\( V \), the position for direct objects. The structure of (3) can therefore be represented as (23):

\[
\begin{align*}
23) & \quad \text{They} \quad \text{named him} \quad \text{Peter} \\
\text{They} & \quad \text{named him} \quad \text{Peter}
\end{align*}
\]

Notice that a sentence like (4) with two potential binders is not ambiguous. Thus, we may adopt a strong theory of control which includes considerations of minimality along the lines of Rizzi 1990. Under such a theory, the controller of PRO must be the closest possible c-commanding antecedent. This correctly predicts that subject control in sentences like (4) is impossible. The structure of sentence (4) is given in (24), equivalent to (23).

---

*iv) Golymy, my tancovali.  
duo i, wej danced  
"Nude, we danced."

We therefore acknowledge the existence of NOM-marked appositives such as (ii). However, they are not examples of small-clause predication in which INSTR is not assigned, and therefore do not present a counter-example to Rule R.
In (5), the PRO subject of the small clause is unambiguously controlled by the subject of the verb tancovat' 'to dance'. Its S-Structure representation is as in (25):

Our analysis predicts that DAT indirect objects and other oblique internal arguments should never be able to control the PRO subject of such adjunct small clauses, because they are too low in the structure to c-command the PRO subject of an adjunct small clause. (26) shows that this is exactly the case:

26) *Nadja pozvonila Saše golym
    Nadja-FEM-NOM telephoned (to) Sasha-MASC-DAT naked-MASC-INSTR
    "Nadja telephoned Sasha nude." (Sasha nude)
In (6), there is an unergative verb, *rabotat’* 'to work', whose semantics can license a nominal small clause. There is no violation of Principle C of the Binding Theory since the nominal, *vračom* 'a doctor', is acting as a predicate, and not as an individual. The S-Structure of this sentence is as in (27):

![S-Structure Diagram]

Section 2.2 has provided a uniform account of the instrumental case marking in (1-6) above, each instance being a case of secondary predication where traditional analyses have posited small clauses, either in argument or adjunct position. By Rule R, the head of this secondary PrP assigns instrumental case to its complement in each of these structures. (Case assigning properties of matrix Pr⁰ are discussed in section 2.4 below.) The analysis here has thus provided an explanation for Pesetsky's generalization in (7). In the next section we will show how this analysis can be extended to the cases in (8-13) as well.

2.3 Secondary predication extended.

2.3.1 Real instruments.

Another productive use of the instrumental case in Russian is the so-called 'real instrument' from which the name of the case is derived, as shown in (8) below:

8) Saša pišet karandašom.
Sasha-NOM writes with a pencil-INSTR
"Sasha writes with a pencil."
As mentioned above, this instrumentally-marked nominal denotes the manner or means by which an action or event is accomplished. Like (3-6) it does not receive a \( \theta \)-role directly from the verb, nor is it obligatory, and therefore is treated as an adjunct. Our hypothesis is that such instruments are also predicates of (adjunct) small clauses despite apparent semantic and syntactic differences from the secondary predicates in (3-6). Syntactically, only the matrix subject may control the PRO subject of such instrument small clauses. Crucially, it is impossible to get a reading of (28) in which the instrument is in any way associated with the direct object:

28) Saša ubil Borisa nožom.
    Sasha-NOM killed Boris-ACC knife-INSTR
    "Sasha killed Boris with a knife."

Furthermore, such small clauses differ semantically from those in sentences (1-6) in a consistent way. In particular, the predication in sentences like (8) is an operator-tool relationship. Finally, in this usage of secondary predication as 'real instrument' APs cannot appear, whereas NP, AP, or PP can all act as the predicate in the cases discussed in Section 2.2.

We propose that the differences mentioned above might be explained with an argument similar to the one used in Bowers (1990) to explain some differences between certain types of adverbs in English. Evidence from possible word orders leads Bowers to propose that different classes of adverbs are licensed by different \( X^0 \) heads. In particular, \( V^0 \) licenses adverbs such as ‘perfectly’, \( Pr^0 \) licenses adverbs such as ‘quickly’ and \( I^0 \) licenses adverbs such as ‘probably’. Along similar lines, we propose that “real instruments” are in small clauses licensed by \( Pr^0 \) and adjoined to \( Pr' \), as shown in the structure of (8), given as (29), as opposed to the small clauses in (3-6) which, as we have shown, are licensed by \( V^0 \).
Once again the phrase marked with instrumental case is a complement of Pr^0. Instrumental case in these structures is assigned by Rule R in the same fashion as in (1-6) above. Under the assumption that such ‘real instrument’ small clauses are Pr^0 adjuncts, the fact that only sentential subjects can bind the PRO subject of real instrument small clauses falls out, since direct objects, in SpecV, are too low to control the subject of this type of small clause.

Notice that because ‘real instrument’ small clauses are licensed by an Pr^0 head, it is also possible to explain why the type of predication involved is different from the predication involved in the small clauses discussed in section 2.2. In fact, the predication relationship within the real instrument small clauses is the “use” relation, indicative of a manner or means, whereas in the other small clauses it is the “be” relation, indicative of equational or identificational sentences. This semantic distinction parallels the structural difference in level of attachment provided by our analysis. Thus our structure provides an explanation for the interpretation of sentences like (8) whereby the subject is always understood as the user of the tool which the instrumentally case-marked nominal denotes. As to the restriction against APs in real instrument small clauses, they are presumably

---

6We can make a further distinction based on the the manner of θ-role assignment. In equational small clauses discussed above the subject of the small clause receives a θ-role directly from the XP predicate, or its head. In the predication involved in (8), the subject of the small clause appears to get its θ-role from the Pr^0, and in fact, the predicate NP, acting like an individual rather than as a property, appears to require a θ-role as well.
semantically anomalous in such structures, since APs cannot denote individuals, a
denotation which is necessary to obtain the proper operator/tool relationship.

2.3.2 Passive "by-phrases"

Now consider the passive sentence (9) repeated as (30):

30) Večerinka byla ustrojena (studentami).
    party-NOM was organized (students-INSTR)
    "The party was organized (by the students)."

Once again our hypothesis is that the instrumentally case-marked NP is the complement of
a small clause. Again it is an adjunct small clause, given both the optionality of its
realization, and the indirect θ-role assignment usually assumed for passive "by-phrases".
The S-structure of (30) is represented in (31) below:

31)

These ‘by-phrases’ are attached at the Pr' level for the same reasons discussed for the real
instruments above.

2.3.3 More instances of argument small clauses.

Finally there are the instances of instrumental case exemplified in (10-13), repeated
below:

10) Saša stal vračom.
    Sasha-NOM became doctor1-INSTR.
    "Sasha became a doctor."
11) Saša okazalsja durakom.
Sasha-NOM turned out fool-INSTR
"Sasha turned out to be a fool."

12) Kogda noč' byla devočkoj, i každyj den' byl
when night-NOM was girl-INSTR and [each day]-NOM was
okeanskoj volnoj...
[ocean wave]-NOM
"When night was a little girl and each day was an ocean wave..."
--B. Grebenshikov

13) Nekrasov vstal v svoix stixax i poemax
Nekrasov-NOM arose in [self's verses and poems]-PREP
velikim masterom slova.
[great master]-NOM word-GEN
"In his verses and poems, Nekrasov arose (as) a great master of the word."

We propose that the verbs in (10-13) are raising verbs exactly like kazat'sja
'to seem' in sentence (2). Such verbs are subcategorized to take either a CP complement
or a PrP small clause. In those cases where a CP is selected, the complementizer čto 'that'
heads an embedded CP. If a PrP is selected, these sentences will be structurally identical to
sentences like (2), with Pr^0 as secondary predicator assigning instrumental case to its
complement. The structure of (10) is given in tree (32):

![Tree diagram]

Sasha-NOM became [a] doctor-INSTR

Section 2.3 has extended the secondary predication analysis of traditional small
clauses to account for all productive uses of instrumental case in Russian as given in
(1-13). Section 3 addresses the issue of the diachronic origin of Rule R.
3.0 Diachronic Origins.

3.1 Secondary Predication before Modern Russian.

In Old Russian, (henceforth OR), Old Church Slavonic (henceforth OCS), and presumably, therefore, their parent language Common Slavic, the case-assignment situation in the above-structures was quite different. Neither in OR, of which modern Russian is a direct descendent, nor in OCS (the parent language of the modern South Slavic languages) do we find instrumental case assigned to the predicate of adjunct small clauses whose subjects are controlled by either nominative or accusative arguments. Rather, these predicates are marked with the case of the argument that control the subject of their small clauses. We also do not find instrumental case assigned to the complements of verbs denoting change of state, appearance, or being, rather we find nominative case. Finally, we do not find instrumental assigned to the predicative object of infinitival 'to be', rather we find dative. We can discern no difference in case-assigning strategy in these constructions among OR, OCS, and modern Serbo-Croatian, a south Slavic language that maintains the case-assignment strategies found in the older Slavic languages.\(^7\) Examples are therefore from OR, and from OCS and modern Serbo-Croatian, when no relevant examples could be found in OR. Phrases in boldface represent old forms whose Modern Russian counterparts demonstrate instrumental case:

33) a. (OR) Bë Kainь rotei, a Abelь pastuğa-
   was Cain-NOM ploughman-NOM and Abel-NOM shepherd-NOM
   i lica ix svěľa běsta,
   and faces-NOM their bright-NOM were
   "Cain was a ploughman and Abel a shepherd, and their faces were bright."

\(^7\)Certainly it is true that these languages differ in lexical ways, tangential to the strategy of configurational case-assignment in these structures. Thus Serbo-Croatian does not have agentive passive by-phrases in the instrumental, and each of the languages has replaced some of the instrumental constructions with lexically-marked prepositional phrases, as Modern Russian has replaced many instances of Wierzbicka's instrumental of time and space with prepositional phrases. Such lexical idiosyncracies must be allowed in all languages, and in no way detract from the structural unity of this account. The PP in such instances appears in the same Pr\(^0\) complement position, but is not marked for instrumental case (cf footnote 4).
b. (OR) Postavi Mefodija episkopa
    set Methodius-ACC bishop-ACC
    "He made Methodius Bishop." Example from Lomtev (1956), p. 212
    (=argument small clause, for MR cf (1))

c. (OCS) Simone, egože imenova petra
    Simon-ACC whom-ACC named Peter-ACC
    "...Simon, whom [he] named Peter..." Example from Lunt, p. 126. (=small
    clause, for MR cf. (3))

d. (OR) viděli sútb Volodimera naga
    saw aux-3rd.pl. Volodimer-ACC nude-ACC
    "They saw Volodimer nude." Example from Lomtev, p. 220. (=adjunct small
    clause, for MR cf. (4))

3.2 The Older Case Assignment Rule

(33a-d) are instances of what are known in traditional literature on the history of
Slavic as 'second indirect case' (Russian vtorye kosvennye padeži see Lomtev (1956),
Borkovskii (1978), (1983) and many others). In OR these include double-NOM (33a),
double-ACC (33b-d), and double-DAT (see below). We assume that the syntactic
structures of these sentences are identical to their MR counterpart despite the morphological
difference in case-marking. Certainly there is no semantic distinction between the Modern
Russian and Serbo-Croatian (parallel to OR and OCS) given in (34):

34) a. (Russian)
    Marina našla Sašu p'janym.
    Marina-NOM found Sashai-ACC drunkj-INSTR
    "Marina found Sashai drunkj."

b. (Serbo-Croatian (cf. OR (33d)))
    Marina je našla Sašu pijanog.
    Marina-NOM aux found Sashai-ACC pijnog-ACC
    "Marina found Sashai drunkj."

Consequently, we assume that the distinction is a purely morphosyntactic one:
instrumental case is assigned in MR in exactly those structures that demonstrate case
'duplication' in OR, OCS, and SC. In fact, this kind of case 'duplication' is in itself the
case assignment strategy of OR, OCS, SC and presumably many languages of the world.
This strategy is given as Rule A:
35) **Rule A** (Old Russian, Old Church Slavonic, Serbo-Croatian, English?...):\(^8\)

Pr\(^0\) assigns case A to its complement, where A is the case assigned to the controller of the PRO, or binder of the trace, in its specifier (subject) position.

Under the structural analysis of such contexts given in this paper, we are able to unify these occurrences of 'second cases' as structurally identical. They are all instances of secondary predication. Modern Russian's Rule R is the simple product of one across-the-board diachronic change in case-assignment. Let the title of Chapter VI of Lomtev's 1956 book suffice as an example of the accepted existence of such a change: "The end of the use of secondary indirect cases and the spreading, in their place, of the instrumental predicative (Lomtev, Ch 6)." Under the present analysis, this change is simply reduced to (36):

36) **Diachronic Rule R** (In the development of Modern Russian) (first version):

Reinterpret Pr\(^0\) as an instrumental case assigner (replace Rule A with Rule R)

It is widely accepted that the instrumental began to replace all other secondary predicates at roughly the same time, and that the two cases were used interchangeably for a time before the instrumental took over (see Lomtev and Kamynina for discussion). Under our account, this is explained by Diachronic Rule R. It is unclear how this could be explained by any diachronic analysis that does not explicitly assume the structures argued for in this paper. How would such an account explain the fact that all the double-indirect cases become INSTR simultaneously? Under our account, it is simply that Pr\(^0\) is finally acquiring a means of making itself felt on the surface.

As a further illustration, let us consider the situation with sentences containing embedded infinitival 'to be'. As we have seen, in Modern Russian the secondary predicate is always instrumental by Rule R:

37) (MR)  

\begin{align*}
\text{Ona} & \quad \text{naučila} \quad \text{syna} \quad \text{byt'} \quad \text{xristianinom} \\
\text{she-NOM} & \quad \text{taught} \quad \text{son} \quad \text{to be} \quad \text{christian-INSTR} \\
\text{"She taught her son to be a Christian."}
\end{align*}

---

\(^8\)Modern Russian 'odin' and 'sam' behave according to this rule, and are therefore treated as historical remnants (see footnote 3). Notice that the control status of PRO subjects will affect Rule A for these two lexical items. These effects are discussed in detail in Babby (this volume) and Greenberg and Franks (1991). The control distinction they discuss determines what case is associated with PRO and, in the case of these two secondary predicates, Rule A allows that case to be assigned to 'odin' and 'sam'. With all other lexical items, of course, the secondary predicate is marked instrumental.
What case should we expect in these structures in OR? By Rule A we should expect the case of the controller of the PRO subject of the secondary predicate. Notice, however, that in (38) it is DAT case that appears on the Pr⁰ complement.

38) (OR) Ōna že učeše syna svoega byti xristijanu
   She-NOM emph. taught [son own]-ACC to be Christian-DAT

It is well established that PRO subjects of infinitives in MR and OR are themselves associated with DAT case (see Franks and Greenberg (1991), Greenberg (1985) among others). Therefore Rule A will account for the DAT case marking in (38), because the dative PRO subject of the infinitive will be the controller of the PRO subject of the small clause complement. In MR, as predicted, this is an INSTR position as shown by (37).

3.3 Possible Sources of Analogy: Categorial Change of X⁰ Heads.

We may speculate about the source of the change Diachronic Rule R. Certainly it is clear that if the structures in questions were in fact all headed by null and identical heads, then the simplest possible change would affect all and only those structures. And the facts given above show that this is exactly what occurred. But why instrumental case? One possible source of analogy involves structures that already had structural INSTR in the older languages. Thus OCS, which obeys Rule A for all the situations discussed for OR above, does demonstrate INSTR for ‘real instruments’ and passive ‘by-phrases’:

39) (OCS)
   a. biti i žilami sourovami
      to beat him-ACC [raw thongs]-INSTR
      ‘...to beat him with raw thongs...’ Example from Lunt, p. 132

   b. iskušam by sotonoj
      being tempted-NOM Satan-INSTR
      ‘...being tempted by Satan...’ Example from Lunt, p. 133

Recall that these two classes are examples of Pr⁰-adjuncts in MR, whereas all the others are V⁰-adjuncts. In particular, we can identify two possibilities:

1) The Operator-Tool relationship that exists for this kind of predication (see above) involved a prepositional phrase in OR and OCS with a null head, p⁰, assigning INSTR. (English and many other languages express ‘real instrument’ with prepositional phrases, and we are all familiar with the passive ‘by-phrase’.) Diachronically, the PP
disappeared leaving an outer PrP. This involved reanalysis of Pr⁰ as an INSTR assigner. This ability then spread to Pr⁰ in all other structures.

2) The source of the analogy was raising verbs of the 'seem' or 'consider' type. We could not find examples of these in OR or OCS, and we therefore assume the case-marking in Serbo-Croatian to be a reasonable guide, since it behaves identically to OR and OCS in all other cases considered in this paper. In Serbo-Croatian, these raising verbs take instrumental complements as given in (40a-b) below:

40) (Serbo-Croatian)
   a. Smatram ga budalom.
      consider (1st sg) him-ACC fool-INSTR
      "I consider him a fool."
   b. Izgleda mi budalom.
      seems (3rd sg) me-DAT fool-INSTR
      "He seems to me to be a fool."

Given the working of Rule A for Serbo-Croatian, we can see that these verbs must assign INSTR lexically, or select a null preposition to do that job. In the latter case, analogy with that null preposition derives our first possible source for the change given above. If in OR and OCS (and SC), INSTR is lexically assigned by these verbs, or if the head of the selected PrP acquires from the verb the ability to assign INSTR, then what was previously a lexical case was reanalysed in MR as structural, and then spread to all parallel structures.

Although much more diachronic work would be necessary to determine the exact source of the instrumental case that Pr⁰ came to assign in the history of Russian, we hypothesize that (1) is the most likely explanation. Null Pr⁰ became an instrumental case assigner by analogy with null prepositions in real instrument phrases and passive ‘by-phrases’. There is, in fact, some evidence from Modern Russian that this change affected null heads specifically. In particular, Russian retains Rule A when Pr⁰ is filled by the predicator kak ‘as’, (which Bowers claims for independent reasons to be a surface manifestation of Pr⁰ in English.) Thus (41a-d) shows that if kak ‘as’ appears in these structures, Rule A and not Rule R applies:

41) (Russian)
   a. Saša rabotaet vračom.
      Sasha-NOM works doctor-INSTR
      "Sasha works as a doctor."
b. Saša rabotaet kak vrač /*vračom
Sasha-NOM works as [a] doctor-NOM /*INSTR
"Sasha works like a doctor."

c. My ščitajem ego našim
We consider him-ACC our-INSTR
"We consider him one of us."

d. My ščitajem ego kak našego /*našim
We consider him-ACC as our-ACC /*INSTR
"We consider him as one of us."

Notice that the meaning of the secondary predication differs between the two sentences in that *kak* 'as' gives a comparative reading.9 Diachronic Rule R and its result, Rule R, must therefore be reformulated as given in (42) and (43) below, and our analysis of instrumental case assignment in Russian remains intact.

42) **Diachronic Rule R** (In the development of Modern Russian) (final version):
Reinterpret null Pr0 as an instrumental case assigner (replace Rule A with Rule R)

43) **Rule R** (Russian) (final version):
Null-Pr0 assigns instrumental case to its complement.

Notice that (42-43) imply that Rule A is still active in Modern Russian just in case Pr0 is filled. In the next section we will show that Rule A can account for the double nominative construction in Modern Russian.

4.0 **Null-copula Sentences and the Double Nominative with *byt''* 'to be'.

Our analysis thus far posits Pr0 as an instrumental case assigner in sentences like (1-6) and (8-13). This would predict that any case-bearing maximal projection selected as the complement of Pr0 should appear in the instrumental case in Russian. In this section, we shall show that an independently motivated structural relationship between matrix Pr0 and 10 accounts for an apparent counter-example to this prediction, the famous double nominative construction, given in (44):

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9See Rappaport (1986) for an analysis of *kak* constructions which is essentially compatible with Rule A.
44) Saša -- student.
Saša-NOM student-NOM
'Sasha is a student.'

(45) demonstrates that double nominative constructions may also appear with past forms of *byť* 'to be' (a), in addition to the much more common instrumental usage given in (b) (examples from Kamynina (1973):

45) a. Brat byl učitel'.
brother-NOM was teacher-NOM
'[My] brother was a teacher.'

b. Brat byl učitelem'.
brother-NOM was teacher-INST
'[My] brother was a teacher.'

However, (45a) is not semantically equivalent to (45b) (case marking on the predicate nominal being the only surface difference between them.) Kamynina (1973) identifies the double NOM (a) sentences in (45) and (46) as inherently 'nominative' or 'naming', which contrast with the corresponding (b) sentences, in that the latter demonstrate a temporary, or not necessarily equational relationship between the subject and predicate:

46) a. Tatjana Iljnična Ovšjanikova byla ženščina vysokogo rosta.
Tatjana Ilinichna Ovšjanikova-NOM was woman-NOM [tall height]-GEN
'Tatjana Ilinichna Ovšjanikova was a tall woman.'

b. V prošlom godu Tatjana byla studentkoj.
in (last year)-PREP Tatjana-NOM was [student-INST
'Last year Tatjana was a student.'

The semantic distinctions that Kamynina observes are treated in our analysis as the absence of secondary predication in (45a) and (46a) as opposed to its presence in (45b) and (46b). Similarly, Wierzbicka (1980), following Jakobson, says that "the nominative case is used when the predicate nominal denotes a property seen as essential and inalienable; the instrumental case is used when the predicate nominal denotes a property which is seen as transient and inessential (p. 121)." Indeed, she characterizes instrumentally-marked predicate nominals as 'instrumental of additional characteristics' which is explained by our claim that these constructions are cases of secondary predication, syntactically.
We claim, therefore, that in double nominative constructions like (44), (45a) and (46a) the second nominative XP is the primary predicate of the sentence and there is no secondary predication. The double-nominative structures, in fact, contain no verb and only one instance of predication, as represented by tree (47):\textsuperscript{10,11}

\textsuperscript{10}Furthermore, Babby (personal communication) has pointed out that instrumentally case-marked predicates are possible with the null present copula, as in (i), below:

\begin{enumerate}
\item[i)] \begin{tabular}{l}
Sa\text{\textsc{s}a} \quad z\text{\textsc{des}} \quad studentom \\
Sasha-NOM \quad here \quad student-INSTR \\
\end{tabular} \\
"Sasha is here as a student."
\end{enumerate}

However, because such examples are only good when there is some kind of predicative adverb such as 'here', and because of the optionality of such predicates as studentom we propose that the instrumental case in (i) is again a case of secondary predication. Notice that without z\text{\textsc{des}} (i) is impossible, as shown by (ii):

\begin{enumerate}
\item[ii)] \begin{tabular}{l}
*Sa\text{\textsc{s}a} \quad studentom \\
Sasha-NOM \quad student-INSTR \\
"Sasha is a student."
\end{tabular}
\end{enumerate}

The impossibility of sentences like (ii) demonstrates again that instrumentally marked NPs can never occur as the primary predicate of a clause. (i) will have the same structure as given in tree (47) except that there is an adjunct small clause.

\textsuperscript{11}In some dialects, double nominative is found with other verbs than the verb 'to be' in the past. Thus stat', 'to become', is usually found with the instrumental, as in (i), but is possible with the nominative as in (ii):

\begin{enumerate}
\item[i)] \begin{tabular}{l}
Sa\text{\textsc{s}a} \quad stal \quad delovym. \\
Sasha-NOM \quad became \quad business-like-INSTR \\
\end{tabular}
\end{enumerate}

\begin{enumerate}
\item[ii)] \begin{tabular}{l}
Sa\text{\textsc{s}a} \quad stal \quad delovoj. \\
Sasha-NOM \quad became \quad business-like-NOM \\
\end{tabular}
\end{enumerate}

As opposed to (i), which indicates a true change in Sasha's state, (ii) implies that the world around has changed in such a way that Sasha is now inherently business-like. Note that the possible discourse continuation "then he changed" is infelicitous after (ii), presumably because it contradicts his new, permanent state:

\begin{enumerate}
\item[iii)] \begin{tabular}{l}
(# after (ii)) \quad Potom \quad on \quad izmenil\text{\textsc{s}ja}. \\
Then \quad he-NOM \quad changed \\
\end{tabular}
\end{enumerate}

We can account for sentences such as (ii) under the account presented in this paper by proposing that stat' in (ii) is acting as a modal operator, rather than a matrix verb. Thus (ii) is related to (iv), but (i) is not:

\begin{enumerate}
\item[iv)] \begin{tabular}{l}
Stalo, \quad cto \quad Sa\text{\textsc{s}a} \quad delovoj. \\
It occurred, that \quad Sasha-NOM \quad business-like-NOM \\
\end{tabular}
\end{enumerate}

As predicted, (iv) is an acceptable paraphrase for (ii), but not for (i).
In (45b) and (46b) however, the structure is identical to the one given in tree (32) in that the matrix verb (here, byr') selects a secondary PrP whose head assigns instrumental case to its predicate by Rule R.

We now turn to the issue of nominative case assignment to the predicate in structures like (47). It has been widely assumed (see Pollock (1989), among others) that although languages may vary as to the nature of the process unifying verbal morphology generated in \( V^0 \) with the Tense (and Aspect) morphology generated in \( I^0 \) (\( V^0\cdot I^0 \) raising for languages like French versus affix hopping for English) the verbal and inflectional morphology must meet at some point in the derivation to produce the correct PF forms. The actual nature of the process uniting \( Pr^0 \) and \( I^0 \) in Russian is not crucial to our analysis. It is sufficient to say that any theory that posits \( V^0 \) raising to \( I^0 \) or affix hopping will necessarily assume that a matrix \( Pr^0 \), between IP and VP, must become associated with \( I^0 \) for morphological purposes. We claim that matrix \( Pr^0 \), therefore, is always filled by virtue of its association with \( I^0 \), and therefore Rule A applies in these cases. Notice that this situation will always occur in the case of matrix \( Pr^0 \). This is therefore another way of saying that matrix \( Pr^0 \), being filled with features from \( I^0 \), can never assign instrumental case whereas a \( Pr^0 \) which is not the complement of \( I^0 \) (and which is empty) will always assign instrumental to any case-bearing complement.

We will now provide some syntactic evidence that a double nominative construction like (47), with past or present INFL morphology, is in fact structurally different from (45b) and (46b) in the way outlined above. Recall that the double nominative constructions are said to be verbless, and therefore cannot have a selected secondary instance of PrP assigning instrumental case. (48a), (like 10-13), is a case of a raising verb that selects a PrP complement. (48a-b) provide a minimal pair that differ only in the case assigned to the predicate:
48) a. Saša byl muzykantom  
Sasha-NOM was musician-INSTR  
"Sasha was a musician (temporarily, at some point)."

b. Saša byl muzykant.  
Sasha-NOM was musician-NOM  
"Sasha was a musician (by nature)."

Recall the proposed structures for (48a-b). These are given in (49a-b).

49) a. [IPSaša-NOM [PrP byli [VP ti [PrP Pr0 [NP-INSTR muzykantom]]]]]

b. [IPSaša-NOM byl [NP-NOM muzykant]]

Notice that the secondary PrP containing muzykantom ‘musician’ in (49a) is the complement of the verb, and thus is properly governed by a lexical head. Extraction from this position in an embedded clause should therefore be possible. In (49b), however, the NP muzykant ‘musician’ is the complement of a functional category, PrP, and therefore is not lexically governed. Extraction out of embedded clauses should therefore be impossible for (49b). (50a-d) demonstrate that this is exactly the case. (This is for speakers for whom this kind of extraction is in general possible. Some speakers do not accept extraction out of čto-complements. Crucial here is the sharp distinction made by those speakers who do allow extraction).

50) a. Ja znaju, čto Saša byl muzykantom.  
I know that Sasha1-NOM was musician1-INSTR  

b. Kem/čem ty znaeš’, čto Saša byl ?  
Who/what1-INSTR you know that Sasha1-NOM was ti ?  
'Who/what do you know that Sasha was?'

c. Ja znaju, čto Saša byl muzykant.  
I know that Sasha1-NOM was musician1-NOM  

(=49b embedded)

d. *Kto/čto ty znaeš’, čto Sasa byl ?  
Who/what1-NOM you know that Sasha1-NOM was ti ?  
'Who/what do you know that Sasha was?'

This section has provided evidence, both semantic and syntactic, that Russian double nominative constructions, in past as well as present tense, crucially differ from constructions with instrumentally marked predicates, in that they lack secondary predication. The primary predicator Pr0 fails to assign instrumental case because Rule R
does not apply to any Pr⁰ which is not empty. The simple case assigning strategy of Rule R is thus maintained for all productive occurrences of instrumental in modern Russian.¹²

5.0 Conclusion.

In this paper, we have provided a unified account of instrumental case assignment in Russian. By Rule R, null Pr⁰ assigns instrumental case to its complement whenever possible. We conclude that all productive occurrences of instrumental case in Russian are instances of small-clause predication. Furthermore we have shown how an earlier case-assignment strategy that accounted for so-called ‘secondary cases’ developed into the modern situation as the result of simple reanalysis through analogy.

¹²See Wierzbicka (1980) for a detailed description of subtle semantic differences among the various instrumentally-marked constructions in Russian with interesting comparisons to Polish.
References


Nominative Objects

Wayne E. Harbert and Almeida J. Toribio

In this paper, we will be concerned with NPs like those underscored in the examples in (1) and (2).

1.  Mér líka þessir bílar
    Me-Dat like-Pl. those cars-Nom
    ‘I like those cars’ (Icelandic, Andrews 1976)

2.  a.  daß meinem Onkel die Urne geschenkt worden ist
    that my uncle-Dat the urn-Nom given been has
    ‘That my uncle has been given the urn’
    (German, den Besten 1985)

    b.  honum voru seldir drengirnr
        him-Dat were sold boys-the-Nom
        ‘The boys were sold to him’ (Icelandic, Andrews 1976)

The particular interest of such NPs lies in the fact that, while they are in object position in derived structure (cf., for example, den Besten (1985) and Webelhuth (1985) with respect to (2a), and Cole et al. (1980) with respect to (1)), they nonetheless exhibit certain properties characteristic of NPs in subject position (i.e., SpecI). For instance, they all exhibit nominative case, the canonical subject case, and control agreement, as if they were subjects.

Our primary concern here will be the question of how this apparent paradox—subject-like behavior on the part of object NPs—can be resolved. We will review a number of alternative accounts advanced in the literature, contrasting in particular two types of account. Under the first of these, the NPs in question, while in situ within the VP, are assigned nominative case directly by INFL (e.g., as licensed by an extended or ‘relativized’ version of government). Under the second type of account, nominative case is held not to be
assigned directly to the object NP, but rather to a higher position with which that NP is coindexed, and with which it forms a chain, as in, e.g., the "cosuperscription" account of Chomsky (1981) (cf. also Hermon 1985). We will produce new evidence in support of an account of the latter type. We will also claim that the chains formed by this indexing share the properties of movement chains.

Second, we address the problem posed by the fact that the nominative objects under consideration do not exhibit a uniform range of subject properties. Thus, for example, while both of the passive objects in (2) have nominative case and control agreement, the German one, but not the Icelandic one, behaves in other ways as a subject, e.g., with respect to control. We propose that these differences do not argue against a unitary treatment of nominative case assignment in the two cases, but follow from independent considerations. We argue in particular that the difference here is indirectly linked to a different choice for a parameter value involving case absorption.

1. The Domain of Case Marking: Some Preliminary Considerations

Before considering the nature of nominative objects, it is necessary for us to make explicit our assumptions about the general conditions under which case is assigned. We will assume, along with Rizzi (1989), that government requires a c-command, rather than an m-command, relation between the governing head and the governed XP. Thus, case assignment under government is possible to direct complements but not to Specs. Among other merits, this, plus the assumption of binary branching, obviates the need for stipulating an adjacency condition on case assignment in examples like (3):

3. a. *He put on the table the book
b. *the student with long hair of physics

If this is true, however, then subjects, such as the one in (4a), cannot get their case under government by INFL, since INFL does not govern the subject position, under this definition.

4. a. The boy reads books.

We maintain that this is correct, and that subjects get their case through a second mechanism of case assignment involving the abstract relation of Spec-head agreement (cf. Koopman and Sportiche 1988 and Sportiche 1988). Case may be assigned to an NP either through government by a case assigning X*, in the case of complements, or through coindexation with such a head, in the case of Specs. Evidence in favor of such a two-part theory of case assignment is provided by the fact that the adjacency condition holding on assignment of case to direct objects (case assignment under government) does not hold in instances of nominative case assignment to subjects (case assignment under agreement, under the current hypothesis), as shown by (4b), where the subject is not adjacent to the INFL, the presumed source of nominative case. (4c,d) show that the adjacency requirement does hold for subjects which

\[ \text{Contrary to, e.g., Radford (1988), we claim that the ill-formedness of this example involves a Case Theory violation (where \textit{of} is assumed to be a case marker licensed by N), rather than a restriction on relative order of complements and adjuncts. Note that when the complement is headed by a lexical preposition, no such ordering restriction holds:}
\]

(i) his request at the party for more support surprised everyone
(ii) his interest as a youth in poetry faded when he grew older
(iii) Our seminars on Fridays on Chomsky’s latest theories (J. Maling, p.c.)

We assume that the underscored phrases are complements since (a) the head selects for the particular prepositions introducing them, and (b), they behave like complements, not adjuncts, in admitting wh-extraction (cf. Radford p.191).
get their case under government, by a prepositional complementizer, or by the main verb in ECM constructions: 2

4. b. He probably will leave/ We think that probably he will leave

c. *I expect for probably him to leave

d. *I believe probably him to have left

Further evidence for this assumption of two distinct mechanisms of case assignment will be introduced below.

1.1 INF as the source for Nominative Case on Object NPs

The claim that the nominative NPs in (1) and (2b) are nonsubjects—i.e., not in Spec1—is supported by a range of evidence from word order, control and binding, as discussed in, e.g., Andrews (1976), Cole et al., (1980), Zaenen, Maling and Thráinsson (1985), and elsewhere. Arguments to the same effect for (2a) have been made by den Besten (1985) and Webelhuth (1985), which we will review below. We argue here that nonetheless the nominative case of the underscored NPs in (1) and (2) is in fact a subject-like property—i.e., that these NPs receive their nominative case from INF, as do subjects. In this claim we follow Hermon (1985), Woolford (1989), Cowper (1988), Webelhuth (1985), den Besten

2We are grateful to Vicki Carstens for pointing out that there is one apparent adjacency effect between subjects and complementizers in finite clauses, as illustrated in (i):

(i) *Will probably he come?

We believe, however, that this cannot reflect an adjacency requirement between COMP and NP for case purposes (a claim which is incompatible with (4b)); rather we believe that it has to do with with a violation of the head movement constraint, resulting from barriers induced by IP-adjunction.
(1985) and Sigurðsson (1989), though the mechanisms responsible for achieving this result in our analysis differ from the ones proposed by these investigators, as we will see below.

We note, however, that the claim is not entirely uncontroversial. Other investigators, including Sprouse (1989) and Everaert (1984, 1988) have claimed that INFL is not the source for nominative case on objects in Icelandic experiencer constructions. Sprouse (1989:280) concludes that nominative objects do not get their case from INFL, on the basis of such Icelandic examples as (5), in which a nominative object appears in an infinitival control complement. (cf. Zaejen et al. 1985:462).

5. a. [PRO að vera gefnir hestar] var mikill heiður to be given horses-NOM was great honor 'To be given horses was a great honor'

       b. Ég vónast til að [PRO líka þessir bílar] I hope to like the cars-Nom 'I hope to like those cars'

(Significantly, nominative NPs in German passive constructions, unlike these Icelandic constructions, cannot occur in infinitival clauses, as illustrated in (6). We return to this and other differences between the two languages below.)

6. *[PRO (ihm) die Urne gegeben zu werden] wäre eine große Ehre (him) the Urn given to be would-be a great honor '(him) to be given the urn would be a great honor'

Sprouse adopts the standard assumption that only finite INFL assigns nominative case. Under this assumption, the nonfinite INFL in (5a) cannot be the source of the nominative case. He proposes, accordingly, that the source for this Case is not INFL, but the verb (Sprouse, 1989: 286), which, because it is passive, cannot assign the 'strong' accusative, but is still capable of assigning the 'weaker' nominative, given the modified version of Burzio's Generalization which he assumes. Everaert (1988) adopts the position that these
nominative objects are not assigned case at all, and that the nominative morphology signals the absence of case. (cf. Everaert and the references cited there for discussion.)

We believe nonetheless that the argument that INFL must be the source for case in these constructions, contrary to the claims of these investigators, is quite straightforward. This is the only approach that allows a coherent account of the fact that the nominative objects in question control subject-INFL agreement in finite clauses. If there were no kind of relationship between INFL and these objects, with the objects instead getting their case from the verb, or by default, then there would be no basis for accounting for such agreement. These NPs must be related to INFL in some way which is sufficient to allow them to control agreement morphology, and whatever mechanism is involved in establishing this relationship is most plausibly what is responsible for their nominative case as well.

Sprouse's objection to this position, based on examples like (5), is valid only if we assume the standard view that infinitival INFL cannot assign case. As argued in Harbert and Weibelhuth (in preparation), however, there are reasons for thinking that this is not correct. Aside from the occurrence of nominative objects in infinitival complements in Icelandic and elsewhere, there are at

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3 In an earlier account (Everaert 1984), Everaert proposed that nominative objects as in (2a) are governed by and receive nominative case from a nonlexical preposition.

4 Note, in particular, that it would not suffice to state that INFL agrees with any nominative NP in its clause. See the discussion in Koopman and Sprott (1988) of Arabic, where subjects agree just in case they are preposed to SpecI. Typically, agreement is a locally determined phenomenon—i.e., a morphological manifestation of a Spec-head (or perhaps head-Complement) relationship.
least three other pieces of evidence suggesting that infinitival INFL can assign nominative case. The first of these was noted by Rizzi (1982). In Italian, it is possible for the subject of an infinitive to appear in nominative case in certain infinitival constructions, as in (7) and (8), though only if INFL (and the verb contained in it) is moved to COMP. This shows that INFL is at least sometimes capable of assigning nominative case even when it is nonfinite. We return shortly to a discussion of the reasons for the contrast between (7a) and (7b).

7.  a. *Mario avendo accettato di aiutarci
    Mario having accepted to help us

    b. Avendo Mario accettato di aiutarci
    ‘Having Mario accepted to help’

8.  Il giudice è stato sospeso per (avere suo figlio commesso una
    the judge has been suspended for to have his son made a
    grave imprudenza)
    heavy imprudence
    ‘The judge has been suspended for his son’s having made a
    heavy imprudence’

A second argument for INFL as an assigner of nominative case involves predicate adjective agreement in Icelandic control constructions. Case on predicate adjectives in many languages, including Icelandic, is determined by agreement with the subject. In (9a) the predicate adjective appears in nominative case in agreement with the nominative subject. In (9b) it is accusative, in agreement with the accusative subject. The PRO subject of the infinitival complement in such sentences as (9c) must be nominative, and we conclude, along with Sigurðsson (1989), that
infinitival INFL therefore must be able to assign case to its Specifier.\textsuperscript{5}

9. a. Hann var vinsæll
   He was popular-Nom
   'He was popular'

   b. Ég tel hann hafa verið vinsælan
      I believe him-Acc to have been popular-Acc
      'I believe him to have been popular'

   c. Hann Satan bæð honum [PRO að verða vinsæll]
      the devil offered him-Dat to become popular-Nom
      'The devil offered him to become popular' (Andrews 1976)

A third piece of evidence, from Caribbean Spanish, that infinitival INFL can assign nominative case will be introduced shortly. Finally, the Icelandic nominative object constructions themselves argue for this result. If the source for nominative case is in fact INFL, as is strongly suggested by the agreement facts, and if that nominative case can appear in infinitival clauses, as in (5b), then it follows that infinitival INFL must be capable of assigning case.

If nonfinite INFL is capable of assigning case, however, it remains to be determined why (10) is ill-formed; the explanation can no longer be a case-theoretical one:

10. *[He to win the race] would be good.

In Harbert and Webelhuth (in preparation) it is proposed that (10) is out because of an independent principle requiring that (non-PRO)

\textsuperscript{5}In fact, our account of these constructions is different from Sigurðsson's. Sigurðsson claims that case is assigned directly to the predicate adjective by INFL, under a relativized definition of government to be discussed below, rather than through agreement with the subject. We will argue that this is not correct.
arguments be identified, where identification can be accomplished either by lexical government or by coindexation with overt agreement morphology (cf. Freidin and Sprouse (1990) for what appears to be a similar proposal). In (10), the subject of the infinitival clause has a source for case, but cannot satisfy the identification requirement in either of these ways; the result is ill-formedness. This principle also accounts for the difference between (7a) and (7b) in Italian. (7b) is well-formed because INFL/V is moved to a position (C°) from which it can govern the subject in SpecI, thereby identifying it.6

The assumption that there is a requirement on subjects of infinitives which is independent of case is further supported by the behavior of nominative subjects of prepositional infinitival constructions in Caribbean Spanish, as discussed in Suñer (1986); an example is given in (11):7

11. Ellos quieren hacer eso para [yo poder ganar]
    they want to-do that for I to-be-able to-win

Here, the infinitive has an overt subject. This is possible only when the infinitival construction is introduced by a preposition, which we take to be a prepositional complementizer. The role of the obligatory preposition here cannot be as a case assigner, however, since the subject appears in nominative case, not in the accusative case typically assigned by prepositions. This type of example can be

6Again, we assume that government involves strict c-command, so that Specifiers are not governed by in situ INFL. Identification by agreement is not possible since infinitival INFL lacks agreement features.

7In other dialects of Spanish verb-preposing applies in these cases, yielding (i):

(i) ... para [poder yo ganar]

The account for these dialects is presumably the one offered for Italian.
straightforwardly accounted for if we assume that the nominative case is in fact assigned by the infinitival INFL, and that the role played by the preposition is satisfaction of the separate identification requirement; the preposition governs, hence identifies, the subject NP.\(^8\)

1.2 Nominative Objects Receive their Case in Situ

Having established that nominative objects get their case from INFL, we must next attempt to determine how this is accomplished, given that those objects, as complements of verbs, are (at least in their original positions) in the domain of a closer governor and separated from INFL by a maximal projection boundary. How do they come to be assigned nominative case? Clearly, at least, they cannot have done so in the most obvious way, i.e., through syntactic movement to the subject position (Spec\(I\)). This is demonstrated for German by Weibelhuth (1985, 1986), for example, who shows, among other things, that passive (and unaccusative) 'subjects' in such constructions as (2a) can be fronted along with the nonfinite verb by VP topicalization. That is, they seem to form a constituent with the V. Consider (12):

12. [Ein Buch geschenkt] wurde den Kindern noch nie  
A book–Nom given was to–the children yet never  
‘A book was never given to the children yet’  
(Webelhuth 1985)

Weibelhuth provides other arguments leading to the same conclusion, as does den Besten (1985), one of whose arguments involves the behavior of these NPs with respect to the phenomenon of ‘\textit{was-für} split’. \textit{Was-für} split is possible from NPs in direct

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\(^8\)We can assume, perhaps, that in Spanish prepositions cannot assign case to NPs for which they do not directly subcategorize, along the lines suggested in Kayne (1981).
object position (13a) and predicative nominative position (13b), but not from indirect object position (13c), or subject position (13d). Den Besten concludes that this extraction is possible only from positions governed by lexical Xs—a restriction which he derives from the ECP.9

13. a. Was hast du in Italien für Museen besucht?  
    What have you in Italy for museums visited  
    ‘What kinds of museums did you visit in Italy?’

    b. Was ist er für ein Mensch?  
    What is he for a person  
    ‘What kind of a person is he?’

    c. *Was hast du für Leuten deinen Aufsatz geschickt?  
    What have you for people your essay sent?  
    ‘To what kind of people did you send your essay?’

    d. *Was haben für Leute deine Mutter besucht?  
    What have for people your mother visited?  
    ‘What kind of people visited your mother?’

9 We note also, as den Besten does, that it is not possible to extract was from the specifier of a sole dative object, as in (i):

(i)    *Was hat er für Männern geholfen  
    what did he for men-Dat help  
    ‘What kind of men did he help?’

We interpret this as evidence that these dative objects are really indirect objects—not sisters of the verb. This will account as well for the fact that they cannot move to SpecI in passive sentences, but must remain in situ, as in (ii). (cf also Zaenen et al. 1985:479). Under assumptions to be outlined below, this is because the domain of ‘case absorption’ in passives in German is V-bar. Sole dative objects, being outside of V-bar, do not lose their structural case, and therefore may not be moved to SpecI.

(ii)   Es wurde ihm geholfen  
    it was him helped
Passive subjects which appear in front of dative objects in passivized bitransitive clauses behave just like other subjects: they do not allow was-für split, as (14a) shows.

14. a. ?*Was wurden für Bücher deinem Vater geschenkt?
   What were for books your father given?

This is exactly as expected. The fact that the nominative NPs precede the dative here indicates that they have been moved to subject position (SpecI), where they get nominative case from INFL in the usual way. Since they are in the ungoverned subject position, they disallow was-für split. Significantly, however, when the nominative passive 'subject' follows the dative object, it does allow was-für split, as shown in (14b). That is, it behaves as if it were in the properly governed direct object position.

14. b. Was wurden deinem Vater für Bücher geschenkt?
   What were your father for books given?

Den Besten concludes, correctly, we believe, that the nominative NP here is still in object position at the late level of representation at which the ECP applies. For arguments that the 'nominative objects' in the Icelandic examples are similarly not subjects, see, e.g., Cole et al. (1980) and Zaenen et al. (1985), where it is demonstrated that they (and their counterparts in other languages) do not exhibit the behavior expected of subjects with respect to control, binding, conjunction reduction, etc. These facts are sufficiently widely known that we will not review them here. Thus, we conclude, along with all other investigators of these facts, that some NPs, such as the ones in (1) and (2), get nominative case while remaining within VP (at least at S-structure).

In the following, we consider several classes of proposed solutions to this problem of how nominative objects get their case. The individual proposals are too numerous to allow for extensive discussion of each of them in the present paper, and the reader is referred to the individual works cited for details.
The first type of account holds that while the NP has not been moved to subject position, it has been moved to a VP internal position which is sufficiently local to INFL to receive case from INFL through 'Exceptional Case Marking', down into VP. Such a claim has been made, for example, by Cowper (1988), who contends that nominative objects such as those in (1) are moved from object position to Spec\textsc{V}, where they receive nominative case under direct government by INFL (cf. also Woolford (1989) and Belletti and Rizzi (1988:339), for approximately similar accounts of nominative nonsubjects in other constructions).

Some initial evidence that this type of account at least will not suffice as a general explanation for the occurrence of nominative nonsubjects is provided by the order of such nominative objects relative to other constituents of the VP. As noted by den Besten (1985), the unmarked order of arguments in sentences like (2a), repeated, is one in which the dative object precedes the passive 'subject'.

2. a. daß [\textsc{VP} meinem Onkel die Urne geschenkt worden] ist
   that my uncle-Dat the urn-Nom given been has
   'That my uncle has been given the urn'
   (German, den Besten 1985)

Here, it would seem that the nominative NP cannot be in Spec\textsc{V}, since it is not on either periphery of VP. It cannot be on the left periphery, since it is preceded by the indirect object. Since this is an embedded clause, and lacks a possible Spec\textsc{C} landing site for topicalization, the dative object cannot be assumed to have been moved out of VP to topic position. Nor can the dative have been moved to Spec\textsc{I}, since (unlike its counterpart in Icelandic constructions, to be discussed below) it lacks all subject properties, including control properties. The dative must, therefore, be within the VP. The nominative NP cannot be on the right periphery of VP since it is bracketed on the right by the nonfinite
verb (which also must be in VP--it can't have been moved to INFL, which is occupied by the auxiliary.

It appears, moreover, that this initial argument can be duplicated for Icelandic as well. In (15), the nominative object is not on the left periphery of VP, as we would expect of an element in SpecV, but is preceded by another constituent of VP.

15. Mér myndi líka hljóðkerfisfræði
Me should like phonology-Nom
'I should like phonology'

Here again, the nominative NP cannot be in SpecV, since it occurs to the right of the lexical verb (which itself cannot be in INFL, since INFL is occupied by an auxiliary). We return to further arguments for the insufficiency of this account.

A second class of proposed solutions for the problem of nominative objects holds that they receive their case directly from INFL, but do so 'in situ', i.e., without having been moved from their underlying object positions. According to one version of this type of account, this is possible because INFL occurs inside of the VP, by base generation (Wezelhuth 1985, 1986), or lowering (Borer 1986), and is therefore not separated by a major phrasal boundary from the object NP. Under another version, it is possible because case assignment is not effected under rigid government, but under a looser relationship between case assigner and case recipient. So, for example, den Besten claims that in some languages, including German, if a verb (or other head) is incapable of assigning case to its object, as in the case of passive and unaccusative verbs, the governor of the projection of that verb, e.g., INFL, may 'inherit' the ability to assign case to the object of its complement, since, as governor of the projection of the governor of that object, it is related to the object by "Chain Government". The object NP will be assigned case by the most local chain-governing head associated with case features. (Den Besten does not make explicit what
assumptions about agreement are needed to insure that in the cases of concern here the nominative NP and INFL will be related by agreement as well as case. We note that his relatively non-local account of case assignment will apparently have to be supplemented by a non-local account of agreement in order to capture this correlation.

An idea similar to den Besten's is expressed in Sigurðsson (1989), in terms of relativized minimalism government; Sigurðsson claims that only case assigning heads count as closer governors for purposes of case assignment. Hence, if a verb does not assign case to its object, it also does not block INFL from governing that object in the relevant sense, and therefore assigning nominative case to it.

What all of the solutions mentioned above have in common is that they all hold that (a) the nominative case in question is assigned by INFL, and (b) that it is assigned to a position within VP, rather than to SpecI, the canonical position for nominative case assignment. In fact, some of these investigators, including Borer, Sigurðsson and Webelhuth, claim that in nominative object constructions of the type found in German 'non-movement' passives, the SpecI position is not even generated.\footnote{In fact, these investigators differ with respect to the question of whether the subject position in such cases as (1) is simply optionally absent or whether it is obligatorily missing when not filled by NP movement. Webelhuth (1985) states that the position is optional. Borer (1986), and Sigurðsson (1989), on the other hand, prohibit it from being present in such cases, since it is not filled by movement.}

In the following, we wish to contrast this view with an alternative position, according to which INFL does not discharge its nominative case to objects in VP in German non-movement passives, but rather assigns it to SpecI; nominative objects receive their case
indirectly, through the mediation of the SpecI position, with which those objects are related by some mechanism. There are again multiple versions of this proposal. In the version which we advocate, the relationship in question is established by coindexation of the object and SpecI in the syntax, as proposed by Hermon (1985). We return to compare this with an alternative view, under which it is established by movement at LF, i.e., by LF raising of the nominative object into the position of the expletive SpecI. First, however, we wish to turn to some facts indicating that the hypotheses of Cowper, Borer, Sigurdsson, Wehnhuth and den Besten, under which nominative case is simply assigned directly to a position within VP, are inadequate to account for the full range of subject-like properties of at least some nominative objects. Accordingly, some version of the hypothesis that nominative case assignment involves SpecI is to be preferred at least in these cases.

Consider again example (2a), repeated.

2. a. daß meinem Onkel die Urne geschenkt worden ist
   that my uncle-Dat the urn-Nom given been has
   'That my uncle has been given the urn'
   (German, den Besten 1985)

We have established that it has the following properties. First, the underscored NP is within the VP—apparently, in direct object position. Second, that object appears in nominative case. Finally, it most likely receives its nominative case in some way from INFL, since it controls INFL-agreement. We have reviewed a number of possible accounts for one or more of the last two properties. All of these accounts have in common the claim that nominative case is assigned by INFL to some position within VP. However, while they provide an account for two of the subject-like properties of nominative objects in German in situ passive constructions—nominative case and control of agreement, all of these analyses fail to predict another type of subject-like behavior on the part of those
objects, involving control of the subjects of certain types of adverbial clauses. The facts are as follows.

Subjects are capable of controlling PRO in, e.g., ‘without’ clauses, while (direct and indirect) objects are not, as shown in (16).

16. a. Ich habe ihm die Bücher gegeben, ohne PROj,∗ j sie gelesen
   I have to-him the books given without them read
   zu haben
to have
   ‘I have given him the books without having read them’

   b. Ich habe sie verlassen, ohne PROj,∗ j mit ihr zu sprechen
   I have her left without with her to speak
   ‘I left her without speaking to her’

We can account for this by assuming that ‘without’-clauses are IP modifiers, and that control requires c-command of PRO by a controller in argument position. Of all of the arguments in these sentences, only the subject of the main clause satisfies this c-command requirement.

Now, consider the behavior of passive subjects with respect to this type of control. As (17a) shows, passive subjects which have undergone NP-movement (and therefore precede the indirect object) can control ‘without’-clause PRO. This is, of course, as expected, since movement is to SpecI. However, (17b) shows that the nominative NP is a possible controller for such PROs even when it remains in situ, occurring after the dative object.

17. a. weil die Bücher ihm zugeschickt wurden, ohne PROi
   because the books to-him sent were without
   bestellen worden zu sein
   ordered been to have

   b. weil ihm die Bücher zugeschickt wurden, ohne PROi
   because to-him the books sent were without
   bestellen worden zu sein
ordered been to have
'Because the books were sent him without having been ordered'

In fact, it is possible to construct examples in which post-
dative nominative object NPs behave as subjects with respect to
this type of control while at the same time hosting was-für split,
which we argued above, following den Besten, is a diagnostic for
direct objects.

17. c. Was wurden ihm für Bücher, zugeschickt, ohne PRO, bestellt
What were to-him for books sent without ordered
worden zu sein?
to have been

Example (17c) is striking, since it seems to require that the
nominative NP be at once a subject (Spec1), since it exhibits the
control privileges of that position, and an object ([NP, V-bar]) since
it behaves as an object with respect to was-für split. We propose
that this apparent paradox can be resolved in the following way: we
will suppose (contrary to, e.g., Borer and Sigurðsson) that there is a
θ-bar Spec1 position in such cases, and that the object NP can in
some way pass its index to thatSpecifier position, where that index
comes to c-command the 'without'-clause, and therefore becomes
available as a controller.11

11 Subsequent to the completion of this paper, we discovered that essentially the
same argument for coindexation between an in situ nominative and the Spec1
position, based on control, was advanced in Grewendorf (1990). A possible
alternative characterization of control would seem to be possible, under which the
in situ nominative NP is not the actual controller of purpose clause PRO. Rather,
that nominative NP is coindexed with Agreement, which is the actual controller of
the PRO (cf. Borer (1986)). This will not work, however, as will be seen in the
discussion of Icelandic and other experiencer constructions. It appears that not
all nominative objects coindexed with agreement are possible controllers; rather,
The analysis to which we are led by these considerations generally resembles the account suggested in Chomsky (1981) for postverbal NPs in Romance unaccusative constructions and in situ passive constructions, such as (18):

18. NP* fu arrestato Giovanni
    was arrested Giovanni

Under this account, the postverbal NP is "cosuperscripted" with Specl, and inherits nominative case through this relationship of cosuperscripting. Chomsky claims (1981:218) that the superscripts involved here must be distinct from the indices (subscripts) involved in binding (and therefore distinct from those involved in the NP, trace relations which he relates to binding—cf. p. 230, note 71). The Specl position and the postverbal NP in (18) are cosuperscripted, though not cosubscripted, and therefore form a chain as defined (p. 333), since the NP, while A-free, is A-BOUND by Specl, where BOUND covers both cosuperscripting and cosubscripting with a c-commanding argument.

In fact, however, the control facts just discussed for counterparts of (18) in German suggest that it must be the subscript—the referential index involved in control—which is passed to Specl, from which position it c-commands, and therefore can bind, the PRO in question. Thus, we agree with Borer (1986) that superscripting and subscripting should not be distinguished in such cases. Chomsky's original motivation for separating them seems to have been the need to prevent such examples as (18) from violating Principle C, as would happen were NP* and the postverbal NP to share subscripts. Borer's solution for this problem is to claim that

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only those in situ object nominatives which cooccur with an empty Specl exhibit these properties. Where Specl is filled by another nominal, the nominative NP is not a possible controller. This suggests strongly that control here is in fact mediated by coindexation with the Specl position.
no SpecI position is generated in such cases, and the postverbal NP is related directly to AGR, without the mediation of such a position. We have argued, however, that this will not work. There must be a SpecI position to which the index can be transferred, so that the requisite c-command condition on control can be satisfied in such cases as (17c). Why, then, is there no Principle C violation in such cases, in which a full NP is coindexed (cosubscripted) with a c-commanding argument? We will adopt the proposal of Chomsky (1986b:144) given in (19):

19. A binding relation between an argument and a Case-Marked nonargument is not subject to Binding Theory.
(=Chomsky ex.189)\(^{12}\)

Thus, for example, while the passive object in (17c) is bound by the null subject expletive, with which it therefore shares its index, this relationship does not violate Principle C because Binding Theory does not apply to this pair. Or, perhaps more generally, Binding Theory regulates only relationships between chains—not chain-internal relationships.

In any case, the assumption that the nominative object NP forms a chain at some level with the with the SpecI position is required to account for the facts of control. Moreover, the relationship between SpecI and [NP, V-bar] required to account for this subject property automatically yields the remaining subject properties, i.e., case and agreement, without requiring any loosening of our assumptions about the conditions on these processes, or modification of our assumptions about phrase structure; nominative case in these instances, as elsewhere, is assigned to SpecI through agreement with INFL. The nominative object is associated with

\(^{12}\)Chomsky states (1986b:144), "This makes intuitive sense, given the core sense of binding in terms of referential dependence."
nominate case indirectly, by way of chain coindexation with Spec1 (cf. Hermon (1985)).

In summary, therefore, we maintain that in German, at least, INFL does not assign nominative case to the in situ passive object directly, either by some extension of government or by way of INFL lowering into VP. Rather, nominative case is assigned to Spec1, under Spec-head agreement, only. Objects may receive nominative case because they can be coindexed with, hence form a chain with, an expletive Spec1. This indexing results at the same time in other types of 'subject-like' behavior on the part of the object, e.g., control of adverb-clause PRO, since the index in Spec1 c-commands such PROs, as required. The agreement properties of such objects also follow in the usual way: the expletive head of the chain, and therefore the whole chain, participates in Spec-head agreement with INFL. In the following, we refer to this as the coindexation account. (In fact, one might go so far as to refer to it as the 'index raising' account, since, as we argue below, the chains resulting from this coindexing exhibit the properties of movement chains.)

1.3 Coindexing vs. Expletive Replacement at LF

Raposo and Uriagareka (1989) propose an analysis of postverbal 'subjects' in Romance unaccusative constructions which could serve as a basis for an alternative account to the one proposed here. Following Belletti (1988), these investigators claim that such NPs do not get nominative case by coindexation with an expletive in Spec1; rather, unaccusative verbs assign partitive case to their complements. The assumption of partitive case assignment is held to account for the definiteness effect observed in these

\[\text{We assume that the expletive must be null. Thus, we do not think that such coindexation is involved in English there-insertion constructions. We return to this point below.}\]
constructions, a property which is, importantly, not shared by the nominative objects under discussion in the present paper, i.e., in situ passive objects and nominative objects of experience. Since partitive case is presumed to satisfy the Case Filter, there is no case-theoretical motivation for a relation between the postverbal position and SpecI, and in fact Raposo and Uriagareka reject the claim that such pairs of elements ever form chains at S-structure (cf. also Lasnik (1989), Schlosky (1989) for a comparable claim about English there-insertion constructions). However, Raposo and Uriagareka claim that the partitive object does come to be related to SpecI through another mechanism—raising at LF. Since the object is case-marked independently of this relationship, this movement cannot have a case-theoretic motivation. Rather, the raising of the partitive object is forced by the Principle of Full Interpretation (Chomsky 1986a) which requires that all expletives be eliminated at LF (cf. also Lasnik (1989)). This is accomplished here by replacing the expletive SpecI with the object argument.

Suppose we were to adopt an account along these lines for the constructions under consideration in the present paper. It would share with the coindexation account a key feature which distinguishes them from the case-within-VP accounts reviewed above—namely, at some level the object would be associated with the SpecI position. This property is again desirable, since it is necessary to account for the control (and agreement) properties of that object. The LF-Movement and the coindexation accounts would differ from each other in the following three respects. First, the former would claim that the relation between the postverbal NP and SpecI is established not at S-structure, but at LF. Second, it would claim that this relationship does not involve simply coindexing, but movement of the full NP. Finally, this relationship would be claimed to be motivated by the need to eliminate expletives at LF, not by Case Theory, since partitive case would have to be assumed to have been assigned by S-Structure in order to satisfy the Case Filter. We will consider each of these differences in turn.
Recall the discussion of the contrast in German between (14a) and (14b) above. The restrictions on was-für split, presumably derived from the ECP, suggest that the nominative NP in sentence (14a), with the order NOM-DAT, has been moved by NP-movement to Spec\(_1\), and therefore is not properly governed, whereas the nominative NP in (14b), with the order DAT-NOM, is properly governed, and therefore still occupies a properly governed position at the level at which the ECP applies.\(^\text{14}\) Both the nominative NP in (14a) and the nominative NP in (14b), however, behave as if they were 'in' Spec\(_1\), for control and agreement purposes. Under an analysis like that of Raposo and Uriagereka, this would have to be accounted for by assuming that, while the former was moved to Spec\(_1\) in the syntax, the latter was moved into that position at LF, replacing the expletive Spec\(_1\). Note, however, that the consequence of this raising is that the LF representations of the two sentences would be identical. It is not clear, then, how the ECP, if assumed to apply at LF, could distinguish them in the indicated way. No such problem arises under the coindexation analysis. The nominative NP in (14b) can be presumed to remain in situ, hence be properly governed, at both S-Structure and LF, with its apparent subject properties arising through the fact that it participates in a CHAIN with Spec\(_1\). This argument loses its force, however, under the assumption of one of the recent versions of the ECP which maintain

\(^{14}\)Or, more accurately, is not in a non-properly governed argument position at the level at which the ECP applies. There is a contrast between A-movement (e.g., passive) and A-bar movement (e.g., scrambling) with respect to their interaction with the was-für split restriction. If an object is moved to subject position, it cannot serve as the host for was-für split. However, was-für split is possible from a direct object which has been scrambled out of its base position. We assume that this has to do with differences in the treatment of A and A-bar movement by reconstruction. A-bar movement undergoes reconstruction, and the ECP evaluates the reconstructed position of the trace of was.
that the head-government requirement holds at S-structure, since the two structures would differ in the required way at that level even under the expletive replacement account.

With respect to the second difference between the two accounts, involving the motivation for coindexation with raising to LF, we note the following. First, it would be problematic to claim that the object in, e.g., (2a) receives partitive from the verb at S-structure, since (a) it appears in a case non-distinct from nominative, and (b) there is no definiteness effect.\textsuperscript{15} Second, given that the motivation for movement under the LF raising account does not involve case, but only the requirement that the expletive be replaced, it is not clear why precisely the in situ nominative (partitive) object in such sentences as (2a) should have to be moved into that position, rather than, say, the indirect object. The expletive replacement account of Raposo and Uriagereka also fails to extend to account for the properties of the other types of nominative objects considered here—namely, those occurring in Icelandic bitransitive passive and experiencer constructions. In these constructions, as in German, the object appears in nominative case and controls agreement, but, unlike German, Spec\text{\small I} is not occupied by

\textsuperscript{15}Similarly, non-movement passives are possible in Icelandic even when the object is definite:

(i) \begin{tabular}{l}
\textit{Henni var gefinn laxinn} \\
\textit{Her was given salmon-the}
\end{tabular}

However, as pointed out by Freidin and Sprouse (1990), a definiteness effect does arise in cases of non-movement passives in which the passive object is the sole NP argument:

(ii) \begin{tabular}{l}
\textit{Igæ gr var hjálpað barni/*barninu} \\
\textit{yesterday was helped a child/*child-the}
\end{tabular}

See note (32) for discussion.
an expletive; rather, the dative experiencer or indirect object argument appears in SpecI, as can be shown by word order, binding and control. (This fact will be illustrated below; cf. also Andrews (1976), Cole et al. (1980) for discussion.)

1. Mér líka þessir bílar
   Me-Dat like-Pl. those cars-Nom
   ‘I like those cars’

2. b. honum voru seldir drengirnir
   him-Dat were sold boys-the-Nom
   ‘The boys were sold to him’ (Icelandic, Andrews 1976)

Again, the crucial property of these examples is that the nominative object controls agreement, suggesting that there must be a relationship between that object and INFL at some level of representation. However, the expletive replacement account of this property is inapplicable here. SpecI in (1) is not occupied by an expletive, but by a full lexical argument (the experiencer). Therefore, the apparent relationship between INFL and the nominative object cannot be motivated by expletive replacement, and in fact, LF movement to SpecI is not even possible here, given that SpecI is already occupied by another argument. Therefore, it is not clear under such an account why INFL should agree with nominative objects in these cases.

In the following section, we attempt to show that the S-structure coindexation account fares better with these constructions. We will contrast the Icelandic and German facts in greater detail, and show that there is a plausible extension of the coindexation account which yields the relevant properties of both languages, under the assumption of a single parametric difference between them.

We do not wish to suggest, however, that the expletive replacement account is incorrect for English there-insertion constructions. There are a number of differences between these
constructions and German in situ passives which converge to suggest that the two should be treated differently. First, the object in a *there* -insertion construction must be indefinite—a fact attributed by Belletti (1988) and, following her, Schlonsky (1989) and others, to the assignment of partitive case. As we have noted, this definiteness effect is absent with, e.g., German in situ passives, suggesting that partitive has not been assigned here. Second, the relationship between *there* and the postverbal NP in *there*-insertion constructions is clause-bounded, as shown by (20)—a fact which has been cited as evidence against a chain-formation analysis (cf. Schlonsky 1989). In German, however, the relationship between the postverbal NP and the expletive of in situ passives/unaccusatives is not similarly clause-bounded.

20.  *There were believed [three men to be on the lawn]*

21.  das [e] [dem Karl dein Buch zu gefallen] scheint that the-Carl-Dat your book-Nom to please seems 'that your book seems to please Carl' (den Besten 1985)

Third, in English *there*-insertion constructions, agreement with the postverbal NP is optional for many speakers—a fact that could be attributed to variability in whether agreement is licensed at S-structure or at LF, under an expletive replacement analysis. In German in situ passives, however, agreement with the nominative NP is obligatory. We conclude, therefore, that it is likely that different mechanisms are involved in the two cases. Finally, both positions involved in *there*-insertion constructions have phonological content. We note that the typology of chains developed at the end of this paper allows only for two types of NP-chains—one in which the phonological content of the chain is associated with the head (the normal move-alpha chain), and one in which it is associated with the tail (the expletive-argument chain). No provision is made for a chain with phonological content in both positions. Thus, we conclude, as have others, that postverbal NPs in *there*-insertion constructions do not get their case through chain-coindexation with *there*. 
2. Nominative Objects in Icelandic Passive and Experiencer Constructions

As noted earlier, passive constructions of the type represented in (2a) from German are not the only constructions in which nominative objects are found. Among the others are experiencer constructions such as, e.g., the Icelandic example in (1). As noted, considerations of word order, control and binding, among other things, show that in Icelandic the oblique experiencer in such constructions occupies the SpecI position (cf. Andrews 1976, Cole et al. 1980, Zaenen et al. 1985 and Cowper 1988). These 'oblique subject' constructions have been discussed extensively in the literature, and it is universally concluded that the oblique NP is a (derived) subject, while the nominative NP is an object.\(^{16}\) In these constructions, as in the German in situ passive constructions just considered, the object appears in nominative case and controls

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\(^{16}\) See Andrews (1976), Cole et al. (1980), Belletti and Rizzi (1988), Cowper (1988), Woolford (1988) and references cited therein. Hermon (1985) proposes that the nominative case on the object arises from coindexation with SpecI at S-Structure, and that the experiencer acquires its subject properties at LF, through movement by way of a process of 'reanalysis' into SpecI, just in case that position is not occupied by a moved argument. That is, her account of the split of 'subject properties' is a derivational one: through S-structure, the subject is a pleonastic, coindexed with the nominative object. At LF, the experiencer becomes the subject, and behaves as such for LF processes. Under our account, on the other hand, the experiencer is moved to SpecI at S-structure, and the nominative NP is not coindexed with SpecI at all. Our account is, we believe, more compatible with the \(\Theta\)-criterion, and it accounts better for the distribution of experiencers in Icelandic experiencer constructions. These behave like other subjects in the syntax in that they undergo subject raising, subject-aux inversion, and so on (See the references cited above.), which indicates that they must be subjects prior to PF (and therefore LF).
agreement (optionally in Icelandic, a point to which we return in Section 3.2).

We will be concerned with the question of whether agreement and nominative case assignment are effected here by the same mechanisms responsible for agreement and case assignment in the German passive constructions—i.e., through linking of the nominative objects with a higher position by S-structure coindexation. On the one hand, considerations of parsimony dictate that it is reasonable to assume the existence of only a single means by which objects can get nominative case and control agreement. On the other hand, there are some significant differences between nominative objects of the German type and nominative objects of the Icelandic type, which make an extension of the index raising analysis to Icelandic less that straightforward. First, Icelandic nominative objects like those in (1) lack the other ‘subject’ properties that were crucial to the establishment of the expletive chain analysis in German. Unlike German in situ passive objects, they do not behave as subjects with respect to binding properties. This is shown, for example, in (22), where the nominative NP behaves in a non-subject-like way in that it fails to trigger an obligatory disjoint reference interpretation on a co-occurring pronoun.17

22. Mér batnaði veikinn á en venjulegra aukaverkana 1-Dat got better the-diseasei-Nom without usual hennar1 side-effects its1 ʻI recovered from the disease without its usual side effectsʻ

17Note that in Icelandic, unlike English, genitive pronouns in NPs are required to be disjoint in reference from tautoclusal subjects. Thus, the equivalent of: Hei went to church with his wife is ill-formed in Icelandic.
Crucially, these nominatives are subject-like only with respect to case and agreement. In such constructions, the other subject properties reside with the oblique experiencer, as has been frequently noted.

Second, as noted, these nominative objects differ from German in situ passive objects in that they can appear in infinitival complements (cf. Zaenen et al. (1985) and Sprouse (1989)). Compare (23a) with (23b):

23. a. Haraldur vonast til að [PRO batna veikin]
   Harold hopes to get better—from the disease—Nom
   ‘Harold hopes to get better from the disease’
   (Sprouse 1989)

   b. *[Him) Pferde gegeben zu werden] wäre unwahrscheinlich
   (Him) horses—Nom given to be would—be unlikely
   ‘He would be unlikely to be given horses’

We argue nonetheless that nominative case is acquired in the same way in these Icelandic experiencer constructions as in German in situ passives, i.e., through coindexation with a higher position in the structure, and that the differences between the two cases derive from independent differences between the two languages, involving a parameterization of Burzio’s Generalization. The account will be based extensively on the work of previous investigators, in particular, Cowper (1988) and Hermon (1985).18 We then turn to additional evidence from Spanish and Japanese experiencer

18 Davison (1988) also notices that dative marked NPs in Hindi behave like subjects in passive and dative experiencer constructions. She proposes that at S-structure, these predicates have no external argument; the subject position is coindexed with one of the verbal arguments, which then undergoes movement at LF to the subject position. Not clear, however, is what motivation there is for the indexing and movement of the NP. As the movement is not case-driven, Davison must stipulate which NP is to be indexed with the subject position.
constructions supporting the claim that the coindexation account is indeed the correct one for these constructions too.

We begin by noting that the differences in question between German nominative objects and Icelandic nominative objects are not limited to experiencer constructions in the latter language. Rather, passivized bitransitive clauses in Icelandic, such as (24a), differ from those in German in essentially the same ways. First, passivized bitransitive clauses with in situ nominatives can occur as infinitival clauses in Icelandic, unlike German; compare the German (23b) with the Icelandic (5a), repeated (cf. Zænen et al. (1985)).

5. a. [PRO að vera gefnir hestar] var mikill heiður
to be given horses-NOM was great honor
‘To be given horses was a great honor’ (Sprouse 1989)

Second, unlike German, the underlying indirect object in such constructions as (24a) behaves for a variety of diagnostics, including word order, as if it were in SpecI, the clausal subject position in derived structure.

24. a. konunginum voru gefnar ambáttir
king-the-Dat were given maidservants-Nom
‘Maidservants were given to the king’ (Zænen et al. 1985)

(We note that this is only one of two possibilities in these passive bitransitive constructions in Icelandic. At least with some verbs, as pointed out by Zænen et al. (1985) and Freidin and Sprouse (1990), it is possible to apply passive movement to either the (apparent) direct object or the indirect object in such sentences, yielding alternations such as (24b) and (24c). We will return to a consideration of how these alternations are accounted for).

24. b. Billinn var síndur henni (Freidin and Sprouse 1990)
car-the-Nom was shown her-Dat

c. Henni var síndur billinn (Freidin and Sprouse 1990)
Her-Dat was shown car-the-Nom
Note that this underlying indirect object in (5a) is realized as PRO—further evidence that it is the derived subject (SpecI).19

19It is to be expected that since it is a derived subject, the dative in such sentences, unlike German, can control an adverb clause PRO. The judgments we have collected suggest that this is the case, though there appears to be some variability here. Our informants were given a written list of sentences representing all possible types of control in such sentences—viz., control by the preposed dative, control by the unpreposed dative, control by the preposed nominative NP and control by the unpreposed nominative NP—with Icelandic instructions asking them to label them as good (√), marginal (?) or bad (*). Their judgments for representative sentences are indicated in the following:

(i) Honum, voru senvar bækumar til þess að [PROi lesa þær].(√/?/√/√) Him-Dat were sent books—the in order to read them 'The books were sent him in order to read them'
(ii) Henni var svýndur bíllinn til þess að kóupa hann (√/√/√/√) Her-Dat was shown car—the in order to buy it
(iii) Henni var gefinn lax(inn) til þess að borða hann (√/√/√/√) Her-Dat was given salmon(-the) in order to buy it

As these examples show, our informants consistently found examples with control by preposed dative objects to be relatively well-formed, though Joan Maling informs us that native speakers she has consulted do not accept (i)-(iii). For some reason, control of purpose clause PRO by passivized personal objects of the verb skila ‘return’, whose other object is also in the dative, yielded less positive results. An example is given in (iv), along with judgments.

(iv) Honum var skilð bókunum til þess að lesa þær (*/*/?/√) Him was returned books—the in order to read them.

We do not know why this example should be different.

Our informants' judgments on sentences like (i)-(iii) were in strong contrast to those obtained when it was attempted to link the purpose clause to an indirect object that had not undergone NP movement. Compare (i) with (v), which all of them found to be ill-formed:
The two languages also differ with respect to the possibility of control of adverbial clause PRO by nominative objects. Control by the nominative object is fine in German, as in (25b), but not in Icelandic, as illustrated by (25a), where the judgments of our informants are provided in parentheses.28

(v) Þeillinn var sýndur henni til þess að kaupa hann (*/*/*/*)
car-the was shown her in order to buy it

If the preposed dative objects in (i)–(iii) are in fact preposed to SpecI, then such a contrast is expected, under the assumptions outlined in connection with examples (16) and (17) about the control of adverbial clause PRO. Thus, while sentences like (i) are apparently not well-formed for all speakers, the sharp contrast for our informants between (i) and (v) would seem to converge with the numerous other arguments in the literature for the subjecthood of preposed dative nominals in bitransitive passive constructions. To the extent that sentences like (i) are judged less than wholly well-formed by some speakers, it may be that additional, nonstructural factors are at work. By contrast, in German, where preposed datives in bitransitive passives exhibit no other subject properties, attempted control of a purpose clause PRO by a preposed dative, as in (vi), results in sharp ill-formedness.

(vi) *weil ihm1 die Bücher zugeschickt worden sind, um PRO1 sie zu lesen because to-him the books sent been have in order them to read 'Because the books were sent him in order to read them'

We are grateful to Guðrún Pórhallsdóttir for constructing the Icelandic examples for us, and helping us to collect the judgments.

28 Judgments of other sentences like (25a) are represented in (i)–(ii):

(i) Honum voru sender bækurnar til þess að vera lesnar (*/*/ok/?)
   Him were sent books-the in order to be read

(ii) Henni var sýndur Þeillinn til þess að vera keyptur (*/*/*/*)
   Her was shown car-the in order to be bought

In all cases, our informants found control by the non-fronted nominative NP to be markedly worse than control by the fronted dative NP.
25. a. *Henni var gefinna laks til þess að PRO₁ vera börðaður (*/*/*/?)
   Her-Dat was given salmon in order to be eaten
   'She was given salmon in order to be eaten.'

   b. ob dem Studenten die Bücher, gegeben wurden, um PRO₁
   if the student-Dat the books-Nom given were in order
   gelesen zu werden
   read to be
   'If the student was given books in order to be read'

   Thus, the German and Icelandic constructions differ in that in
Icelandic, the dative appears to be in Spec₁ and accordingly exhibits
the properties of subjects, and the in situ nominative NP does not
exhibit subject properties, including control. In German, the dative
does not exhibit subject properties, while the nominative NP does
exhibit such properties, including control. In both languages,
however, the nominative case on the object goes along with
agreement, suggesting, again, that it is assigned by INFL. Let us
consider each of these differences in turn, starting with the
difference in status of the dative NP in the two constructions.

   We assume that in both German and Icelandic the direct object
originates as complement of the verb, while the indirect object
starts out as an outer object—sister of V-bar. This is schematized
in (26):

   26.
   \[ \text{VP} \]
   \[ \text{NP} \]
   \[ \text{V} \]
   \[ \text{NP} \]
   \[ \text{V} \]
   \[ \text{(direct object)} \]
   \[ \text{(passive)} \]
   \[ \text{(indirect object)} \]

   In both cases, the passive verb, lacks the ability to assign
(structural) case to its direct object, due to Burzio's Generalization,
since it does not assign an external Θ-role. We wish to suggest,
however, that there is possible parametric variation with respect to
Burzio's Generalization, with German and Icelandic reflecting
distinct values, and that this difference interacts with chain
coindexation in such a way as to produce the other differences observed. We would like to suggest that in some languages, like German, Burzio's Generalization affects only the verb's ability to assign structural case to its direct complement, while in others, such as Icelandic, it also affects the ability of structural case to be assigned anywhere within the projection of the verb. The parameter in question is informally stated in (27):

27. If a verb, V, does not assign an external θ-role, then

   a. its direct complement is not a structural; case position, or,

   b. no position within its projection is a structural case position.

We note that a version of Burzio's Generalization roughly like (27b) is suggested by Cowper for Icelandic (cf. also Woolford (1989)).21 Let us assume that this is the basic difference between German and Icelandic, and trace its consequences. In German, in a configuration like (26), only the direct object is without a source for structural case. Given the choice of (27a), the indirect object can still get structural dative from V-bar. The direct object may acquire the required structural case from INFL, either by moving to SpecI or by remaining in situ, but having its index assigned to SpecI.

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21Both of these investigators attribute the idea to Belletti and Rizzi (1988). We note that this generalized version of Burzio's Generalization may be useful in accounting for the oddity of the sentence in (i) (cf. Kurtzman 1989):

(i)  *The book was given him

The ill-formedness of the sentence might be accounted for by assuming that English observes (27a); no NP in the projection of a passive verb can receive structural case within that projection. If the inner object is moved to SpecI, the outer object remains without a source for structural case. (See below for further relevant discussion).
In either case, the chain containing the object will include SpecI, and the control, case and agreement properties characteristic of that position will follow. In the Icelandic sentence (24a), however, given the choice of (27b), both the indirect object and the direct object lose the structural case they would exhibit in the corresponding active sentence, and must find a source for structural case, in order to satisfy the Case Filter, which, following Cowper (1988), we assume can be satisfied only by structural case. Since the verb cannot assign such case, only INFL comes into consideration. Thus, both objects must receive case from INFL.\(^{22}\) This requirement is satisfied in a straightforward fashion for the dative NP: it is moved into SpecI, where it receives (abstract) nominative case under Spec-head Agreement. It appears as a dative because it received morphological dative case in its original position as an indirect object, but no structural case, the latter having been ‘absorbed’. We assume that morphological case is preserved through derivations, as a consequence of the Projection Principle, along the lines suggested in Freidin and Babby (1984).

Sigurðsson (1989:237) claims that nominative case is not assigned to an oblique NP moved to SpecI, since prohibited from being assigned by a universal ban on double case assignment, and he derives the obligatory movement of the dative to SpecI not from case-theoretic considerations, but from another principle (the Subject Command Condition). We believe that the claimed prohibition against multiple case assignment is argued against by the fact, reported in Gerdts and Youn (1988), that in languages such as Korean, where multiple realization of multiply assigned case is possible, oblique subject NPs in comparable constructions do appear.

\(^{22}\)We conceive of ‘structural case’ not as a feature but as a label for a structural relationship between an NP and an element of a particular category. (cf. note 34). Thus, there is no limit to the number of NPs which can ‘receive structural case’ from a head, so long as they are in the appropriate relationship.
with both dative and nominative case marking, as a double case marking analysis would predict.

28. k+ai-eykey-ka kae-ka muse-wet-ta
    the child-DAT-NOM dog-NOM be-afraid-of-past-indic
    ’The child was afraid of the dog’
    (Gerdts and Youn 1989)

In fact, however, our position is not as far from Sigurðsson’s as it may seem. In note (34), we propose a reinterpretation of ‘structural case’, under which it is to be viewed as simply a label for a type of configurational relationship between an NP and an appropriate head, which needn’t (and in non-case-stacking languages can’t) be encoded as an actual morphological feature on the NP if that NP already has lexical case marking. Thus, dative subjects in Icelandic, while they occur in a ‘structural case position’, Spec1, and thereby satisfy the Case Filter, have only dative morphological case features.

Let us turn now to the nominative NP. We have established in preceding sections that it gets its case from INFL, but without moving from its base position. We have also established that in some languages, e.g., the German passive constructions, the assignment of nominative case to in situ objects must involve the coindexing of those objects with Spec1, since alternative proposals provide no basis for accounting for the control properties of those nominals. In the case of the Icelandic passive constructions under consideration, where the nominative NP does not behave as a subject with respect to control, we could claim either that a different mechanism is involved or that chain coindexation applies here too, although in a manner sufficiently different to account for the failure of the nominative NP to behave as a subject with respect to control and binding. We claim that the latter is the case. The object NP in (2b) must get structural case from INFL, there being no other structural case assigner. It cannot get that case in situ, because the verb creates a minimality barrier. It cannot get it by movement to
or coindexation with SpecI, since that position is already occupied, by the moved indirect object. We would like to suggest that in such cases the index, since it cannot be assigned to the SpecI position, where it would be associated with nominative case through agreement, is forced to be assigned to another position sufficiently local to INFL to receive the required structural case from INFL in the only other way possible—through government under strict c-command. Grammatical theory makes available such a position, as demonstrated by INFL-adjointed clitics that occur, e.g., in the Romance languages. We claim therefore that in Icelandic constructions like (24a,c) the index of the direct object is assigned to an abstract expletive in INFL-adjunction position. The resultant structure is represented in (29):

```
29.  
     IP
     Spec
     l'
     I
     VP
     pro
     expletive
```

Thus, while coindexation in German in situ passives yields a chain analogous to an NP movement chain, in Icelandic it yields one analogous to a clitic chain. Let us see how this hypothesis accounts for the similarities and differences between in situ nominative objects in Icelandic passive constructions and in situ nominative objects in German passive constructions. In both cases, the index of the object is assigned to an expletive in some higher structural position. We argue that the motivation for this coindexation is case-theoretic in both instances: in its absence, the object NP would have no source for case, so the index must be assigned to a position sufficiently local to INFL, the only structural case assigner in the sentence, that it can get case from INFL. This also places the index in both cases in a position sufficiently local to INFL to be able to control agreement on INFL. We will return to a more detailed
consideration of these properties momentarily, after considering how chain formation in the two cases differs.

We claim that, while both German and Icelandic in situ passive constructions involve assignment of the index of the caseless NP to a higher position, forming a chain, the position in question is different in the two cases. In German, the index is assigned to Spec\(l\). In Icelandic, Spec\(l\) is already taken by the indirect object NP, which also needs structural case, due to the more general operation of 'case absorption' in that language (and which cannot acquire structural case through index raising, for reasons to be discussed). Therefore the object's index cannot be assigned to Spec\(l\), but must be assigned to abstract INFL-joined clitic position. This yields the following differences. First, in the German case, but not the Icelandic one, the index is a possible controller for purpose clause PRO (and a possible binder for reflexives) under the well-founded assumption that control and binding are privileges of arguments; the INFL-adjunction position is a non-argument (A-bar) position. Thus, an index in that position cannot control PRO nor bind reflexives.\(^{23}\)

Second, the difference with respect to occurrence in infinitival constructions is accounted for: in German, (6), repeated, is bad.

6. *[PRO\(_i\) (ihm) die Urne\(_i\) gegeben zu werden] wäre eine große Ehre him the Urn given to be would-be a great honor 'Him to be given the urn would be a great honor'

We argued above that (6) is ill-formed because the subject position occupied by the 'raised' index is ungoverned, in violation of the requirement, introduced earlier, that (heads of) overt argument

\(^{23}\)Note that the fronted phrases in A-bar positions in the following are not possible binders/controllers, even though they c-command the relevant elements.

(i) *Who\(_i\) did pictures of himself\(_i\) fall on?

(ii) *John\(_i\), I talked to without PRO\(_i\) having consulted Mary
chains be licensed by lexical government when not alternatively licensed by coindexation with overt agreement (cf. Harbert and Webelhuth (in prep.)). Government, as noted, is assumed to obtain only under strict c-command by an X°. Hence, INFL does not govern the SpecI position (cf. also Rizzi (1989)). In the Icelandic construction in (5b), repeated, on the other hand, the index of the nominative NP appears in a position governed by INFL—namely, the INFL-adjunction position of (29). It is not in the ungoverned position of Specifier of the infinitival IP, since that position is occupied by the indirect object argument, PRO.24,25 The identification

24 PRO here, like other experiencers, presumably originates in the VP. There is evidence, however, that it is raised out of VP, and into the SpecI position, as are other experiencers. For one thing, PRO as subject of experiencer clauses can control adjunct clause PRO. One problem that arises is how to motivate movement in this instance. We have argued above that experiencer movement in general is motivated by Case Theory—that experiencers must raise to structural case positions. Here, however, such a motivation is lacking if we adopt the standard view that PRO does not need case. One solution to this problem is to claim that this view is incorrect, and that PRO in fact, like all other NP arguments, does need case. It can get case in infinitival subject position, under the assumptions of this paper, since we argue that (a) infinitival INFL does assign case, and (b) case can be assigned to ungoverned Specifier positions through Spec-head agreement. (See Section 1.1 above for arguments that PRO can in fact have nominative case.) We note that this claim removes a major obstacle to the characterization of the Case Filter in terms of visibility of arguments, since no special exemption is required for PRO. The fact that PRO, even though (obligatorily) case-marked, cannot be replaced by a lexical NP in these contexts is due to an independent requirement that the latter be identified.

25 This predicts that nominative objects should be possible in infinitival constructions whenever there is another argument (e.g., an experiencer) occupying the ungoverned SpecI position, but not when the SpecI position is empty. John Whitman has pointed out to us that in Japanese, this prediction seems not to hold
requirement is therefore satisfied. As noted above, we hold that infinitival INFL is capable of assigning nominative case. Thus, all of the observed differences between the two languages with respect to these constructions follow.

5. b. Ég vonast til að [PRO líka þessir bílar]
   I hope to like the cars-Nom
   'I hope to like the cars'

Further evidence that the case of nominative objects in Icelandic is not acquired through the mediation of the Speci position is provided by the pattern of case-marking found when these constructions are embedded in ECM contexts, as in (30):

30. Ég tel [barninu háfa verið gefin bókin]
    I believe child-the-Dat to-have been given book-the-Nom
    'I believe the child to have been given the book'
    (Sprouse 1989)

The matrix verb here is an ECM verb, as evidenced by the fact that non-lexically case-marked subjects of its infinitival complements appear obligatorily in accusative. We are led to assume therefore that the dative subject in (30) is also assigned accusative case, which, however, remains unrealized because it is 'overridden' by the morphological dative case. That is, Speci in these cases is

true: nominative objects cannot appear in infinitival constructions with dative experencer subjects there, unlike Icelandic, as in (i):

(i)  "Hansako-ge Tarooi-ni [PROi monda-ge wakat-te] morat-ta.
     Hansako-NOM Taroo-DAT PRO problem-NOM understand-ing receive-PERF
     'Hansako had Taroo understand the problem.'

One possible account for this is that the bracketed phrases here are really not IPs at all --that is, that verbs like morau subcategorize for non-clausal complements (VPs, or PredPs of the type proposed in Bowers (1990)), and that there is simply no INFL here which could assign them nominative case.
associated with accusative case. Even under these circumstances, however, the nominative object remains nominative. This is accounted for, under the present analysis, in the following way. Although that nominative NP gets its case through coindexation with a higher position, coindexation is not with Specl, since that position is occupied by the moved indirect object, but with the adjunction position within I-bar. The index, therefore, can get nominative case from INFL, but it is outside of the domain of the higher verb, since INFL creates a minimality barrier for case assignment. It therefore cannot be assigned accusative case.26

We note that the mechanisms just developed for accounting for the properties of bitransitive passive constructions in Icelandic, including similarities and differences between those constructions and their German counterparts, also yield, without significant modification, the properties of Icelandic experiencer constructions with oblique subjects and nominative objects. In particular, let us assume that Icelandic constructions like (1), repeated, have a structure of the form in (31), with the dative experiencer originating as an ‘outer object’, and the nominative object originating as the complement of V.

1. Mér líka bessir bílar
   Me-Dat like-Pl. those cars-Nom
   ‘I like those cars’ (Icelandic, Andrews 1976)

26As noted by Andrews (1976), the passive participle in such ECM constructions in Icelandic is inflected for accusative case. We maintain that this is not an instance of case-assignment down into VP, but involves a separate mechanism of agreement in case (as well as other phi-features, such as number and gender) between the subject and inflectable elements of the predicate.
This structure is essentially the one proposed by Cowper, and reflects a generally held view of the underlying position of experiencer subjects. Compare, for example, Belletti and Rizzi (1988), Sigurðsson (1989), Hermon (1985) and Sprouse (1989). A structural argument in favor of this analysis is that it allows for the derivation of the failure of the verb to assign accusative case to its object from Burzio's Generalization: since the verb fails to assign an external θ-role, it cannot assign structural case to its complement.27

27Icelandic does have verbs which take accusative subject experiencers and accusative theme objects. Here, the experiencer argument, even though it is lexically case-marked, must have originated as an external argument. Otherwise, Burzio's Generalization would block the verb from assigning its accusative case to the theme. (An alternative account, under which the accusative assigned to the theme is a lexical case, seems unattractive to us, since we know of no instances in which accusative case on objects of certain verbs in a given language behaves as a lexical case, e.g., in being preserved under passivization.) Icelandic has no verbs, though, which take dative experiencers and assign accusative to their theme objects (cf. Yip, Maling and Jackendoff 1987). This allows us to maintain at least that in Icelandic, dative is never assigned as a lexical case to an external argument. This holds for other languages, e.g., Japanese, as well. As noted by Hermon, though, others, including Telegu, Malayalam and colloquial Hebrew, do have dative subject verbs which take accusative objects. We conclude, therefore, that even experiencers which have lexical dative case may be generated under
As noted, the dative experiencer in such Icelandic sentences is nonetheless clearly in 'subject position' (SpecI) in derived structure, as illustrated, e.g., by the fact that it can be instantiated as PRO in infinitival constructions, as in (5b) above. We adopt the idea of Cowper and others that movement to SpecI is forced by the fact that the experiencer, though lexically case marked, is not assigned structural case in situ, and must move to a structural case position to satisfy the Case Filter, just as was the case with indirect objects in passive sentences. Just as in the passive constructions, the nominative object also gets its case from INFL, through coindexation with the INFL-adjunction position. Thus, both NPs have structural nominative case. This case shows up as a morphological case only on the direct object, however, since the experiencer object has morphological oblique case, which 'overrides' the nominative case. We note that in Japanese, some experiencer constructions do have two instances of nominative case-marking, as in (32), in which both the experiencer and the theme are so marked:

32. Taroo-ga eigo-ga wakar-u (koto)  
    Taroo-NOM English-NOM understand-IMP (that)  
    '(That) Taroo understood English'

In these cases, the experiencer is again the one that behaves as a subject with respect, e.g., to reflexive binding and control of (honorific) agreement. The difference between Japanese and Icelandic here could be that in Japanese the experiencer is simply not assigned lexical oblique case in its original position.

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SpecI sometimes, rather than within VP, and that they may therefore cooccur with accusative objects. Hermon notes, moreover, that in some of these languages the accusative object can control verb agreement—a particularly problematic fact for our characterization of the conditions on agreement with INFL, to be outlined below.
In German experiencer constructions such as (33), on the other hand, the nominative object of experience, not the dative experiencer, exhibits the control and binding properties of subjects.

33. a. weil mir das Mädchen gefiel, anstatt PRO₁ mich zu überwältigen because me the girl pleased instead of me to overpower

b. *weil mir₁ das Mädchen gefiel, ohne PRO₁ es zu wollen because me the girl pleased without it to want

Compare these examples with (33c,d) from Icelandic.

33. c. *af því að mér líkaði stúlkan, í stað þess að PRO₁ þreyta mig because me-DAT liked girl-the instead of to tire me

d. ?af því að mér₁ líkaði stúlkan án þess að PRO₁ vilja það because me-DAT liked girl-the without of to want it

The German facts are once again the inverse of the Icelandic. This is because in German, when no external θ-role is assigned, only the direct object, not the outer object, loses its structural case, since German observes version (27a) of Burzio’s Generalization. Thus, the indirect object does not move to Spec₁ to get structural case. Accordingly, the index of the direct object can be assigned to Spec₁, (and therefore must be assigned to that position, for reasons to be outlined below) and the direct object will exhibit all subject properties.

In summary, then, in both bitransitive passive constructions and experiencer constructions, we claim that the extent to which the in situ nominative object exhibits the full range of subject properties depends on whether or not the outer object (indirect object or experiencer object) must externalize in order to get structural case. If the outer object remains in situ Spec₁ is available to receive the index of the direct object, and the direct object exhibits all subject properties. If the outer object fills Spec₁, then the index of the direct object can be assigned only to the
INFL-adjunction position, the only other position in which it can be associated with the required case, and the direct object will exhibit only case and agreement properties of subjects. The same mechanism is involved in both cases. The position to which the index is assigned is determined solely by the presence or absence of another nominal needing structural case.

The correctness of this claim is rather strikingly confirmed by the behavior of Spanish experiencer constructions. In Spanish, as in Icelandic, in experiencer constructions such as (34), the object appears in nominative case and controls agreement. However, other 'subject' properties, i.e., control of adjunct-clause PRO, resides with the dative experiencer, as in Icelandic.

34. A los chicos les gusta esa música sin PRO entenderla
to the boys DAT-cl. pleases that music without understand it

This is because, as we have hypothesized, the experiencer is raised to Spec1 to get structural case, and the index of the object must accordingly be associated with the abstract clitic position adjoined to INFL, allowing that object to get nominative case, but not allowing it to acquire any of the 'subject' properties which require argument status.

The important property of these Spanish constructions is that the experiencer argument is omissible, as in (35):

35. Molesta esa música sin PRO ser ofensiva
bothers that music without be offensive
'That music is bothersome without being offensive'

We hypothesize that in such cases, the experiencer Θ-role is represented in the lexical structure, but not linked to a syntactic
argument position. In such cases, our account makes the following prediction: the object NP will still get its case through coindexation with (or movement to) a position local to INFL. However, the SpecI position is no longer occupied by another argument, and is therefore available for chain formation. Chain formation (including movement) is by hypothesis structure-preserving where possible, i.e., exploits independently required structure where possible. This claim may be linked to considerations of economy; SpecI is required independently by the Extended Projection Principle, and therefore, where possible, the caseless NP will form a chain with that position, rather than with the INFL-adjunction position, since the presence of the latter is not independently required. Accordingly, in these cases, the object should be associated with SpecI, and therefore acquire all subject properties (except possibly position)\(^{29}\), including the ability to control adjunct clause PRO. As (35) demonstrates, this is in fact the case. In other words, our analysis correctly predicts that in the absence of an experiencer, nominative objects of experiencer verbs exhibit the full range of subject properties.

\(^{28}\)It could be argued that the experiencer theta-role is associated with a null pronoun. However, several considerations make this alternative untenable. First, we would expect that a null pronoun in the position of outer object would move to SpecI for case-theoretic reasons. Yet this proposed pronoun does not demonstrate any subject properties. Second, if present, this null pronoun does not have a specific interpretation, indicating that it is not associated with an argument theta-role. Third, if there were a null pronoun associated with the experiencer theta-role, it would remain unexplained why, unlike other pro objects, it needn't be identified by an agreement clitic, as in (1).

(1) pro \(_{lej}\) molesta la música.

\(^{29}\)Our account allows the NP either to be coindexed with SpecI or to 'move' there.
It appears that this argument can be duplicated in Japanese, where, as the following examples show, when the experiencer is present, only it controls adjunct clause PRO and antecedes anaphors, while the nominative object has these properties when the experiencer is absent.\(^3\)

36. a. Itiban usiro-no seito-ni sensei-ga mie-mas-en
   most back-gen. pupil-dat. teacher-nom. visible-pol.-not
   ‘Teacher was not visible to the students farthest back’

   b. *Seito-ni sensei-ga PRO\(_i\) zyosyu-to hanasi-nagara pupil-det.
      teacher-nom. assistant-with talk-while
      mie-masi-ta
      visible-pol.-not
      ‘Teacher was visible to the students talking to her assistant’

   c. *Itiban usiro-no seito-ni sensei-ga o-mie-ni
      most back-gen. pupil-dat. teacher-nom. hon.-visible-dat.
      nari-mas-en
      become-pol.-not
      ‘Teacher was not visible to the students farthest back’

   d. Sensei-ga PRO\(_i\) zyosyu-to hanasi-nagara om-mie-n
      teacher-nom. assistant-with talk-while hon.-visible-dat.
      nari-masi-ta
      become-pol.-perf.
      ‘Teacher appeared talking with her assistant’
      (Whitman 1989)

When the experiencer is present, the object cannot serve as the controller of PRO (36b) or subject honorific agreement (36c). When the experiencer argument is missing, as in (36d) the predicate

\(^3\)We are grateful to John Whitman for bringing these Japanese examples to our attention. It is worth noting here that the predicate **mie\(_u\)** in (36a–d) above has two distinct, but semantically related meanings --‘be visible’ and ‘appear’. This is not surprising given the fact that these predicates differ precisely in the absence/presence of an experiencer argument.
receives an unaccusative interpretation, and the nominative object serves to control PRO and subject honorification.

In summary, the index of caseless in situ objects is assigned either to Spec₁, where that position is not otherwise occupied (e.g., by a raised experiencer) or to the INFL-adjunction position. In fact, when the Spec₁ position is empty, the index must be assigned to Spec₁. It cannot alternatively be assigned to the INFL-adjunction position, given the proposed preference for 'structure preserving' chain formation.

3. The Syntax of Chain Coindexation

3.1 Chain Coindexation as the Analogue of Move α

In this section, we consider some questions of the formalization of the proposed coindexation process. We claim that it involves the copying of the referential index of the complement (in a Θ-position) into a Θ-bar Specifier position. The two elements are associated with a single Θ-role, and they are in an asymmetrical c-command relationship; the expletive c-commands the NP in complement position, but not the converse. This does not, however, result in a Principle C violation, since, as noted above, we assume that the raised index and the remnant NP form a chain, and that Principle C constrains relations between chains, not chain-internal relationships.

We note also that the relationship between the two elements in these chains mirrors that of the chains created by constituent movement, at least insofar as they involve coindexation between a c-commanding Θ-bar position and a c-commanded Θ-position. We believe that there is some evidence in favor of a still more specific identification between the two—in particular, that the NP in constructions of the type [...pleonastic pronoun₁...NP₁...] has the status of a trace with phonological content, and that its distribution is restricted accordingly. (If this is true, then traces can be defined
simply as non-head links in a chain, and are not necessarily empty categories.) We note that the coindexation process appears to be constrained in that it can take place from direct object position but not from experiencer position in Icelandic. As we have argued, in experiencer constructions, the dative experiencer and the nominative theme argument are both in need of structural case. Both get structural case from INFL—the dative NP through movement into SpecI, the nominative NP through coindexation with the INFL-clitic position. Why couldn’t the structural case requirement here be satisfied in the opposite way? That is, why couldn’t the theme NP in an Icelandic experiencer construction be raised into SpecI to get case, while the index of the experiencer argument was assigned to the INFL-clitic position, leaving the phonological content of the experiencer behind? This alternative derivation is clearly not available, as evidenced, e.g., by word order. How is it ruled out? If we assume that the ‘remnant NP’ left by this coindexation process does in fact have the status of a trace, this asymmetry can be made to follow from the ECP.31

Consider again the configuration in (37).

31 We assume that the ECP may be satisfied by antecedent government or by head government, or both. Movement of the experiencer to SpecI will create a chain in which the trace of movement (not head-governed, since not a sister to INFL) is licensed by a c-commanding antecedent. Assignment of the index of that experiencer NP to the INFL-adjunction position, on the other hand, will create a structure in which the antecedent (contained in a branching phrase) does not c-command the trace, and therefore does not license it by antecedent government. (See also Gair 1989.)
37. 

```
  IP
   Spec
    l
     VP
      NP
        V
          NP
```

We assume, again, that experiencers originate in an 'outer object' position. Movement from the inner object position is allowed because the trace is properly governed by the verb. The outer object is not head-governed, under the strict c-command definition of government assumed here. However, government of the trace of the outer object can be accomplished, following the assumptions of Chomsky (1986b), by adjoining the NP to VP, which permits antecedent government of the trace. Suppose that coindexation of an argument with a c-commanding null expletive position is construed as an analogue of movement, leaving behind a remnant NP which functions as a trace with phonological content. Such coindexation can take place between direct object position and the clitic INFL-adjunction position, since the non-null 'trace' left behind is head-governed by the verb. The experiencer object, however, while it can be moved to SpecI, cannot get case by coindexation with this position, and this is the fact to be explained. \(^{32}\)

\(^{32}\)Hermon (1985:228) proposes that chains between SpecI and oblique experiencers are never formed because this would lead to a case conflict. We reject this account, however, since, as we have proposed, no principle prevents an NP from simultaneously bearing lexical case and occurring in a structural case position. In fact, because the Case Filter recognizes only structural case, all lexically case-marked arguments must also 'have' structural case. Consider especially the Korean example in (28), where, because of the possibility of case stacking, both may be realized.
Our account incorporates the claim of Baltin (1982) that maximal phrases adjoin to maximal phrases and that $X^*$s adjoin to $X^*$s, but that adjunction of $X^*$s to maximal phrases is not possible. Clitics, we claim, including the expletive clitics associated with 'raised' indices, behave as $X^*$s with respect to this restriction, as evidenced by the fact that they adjoin to INFL and other heads. The categorial status of the head of a chain, moreover, determines the categorial status of the chain, including its intermediate links. A chain headed by a clitic, therefore, cannot contain intermediate links in $X$-max adjoinment positions, e.g., in VP-adjunction position. Thus, a chain of the following form is ruled out:

37.  *[clitic$_i$ [INFL] [a$_i$ [VP ...NP$_i$...]]]

In the case where NP$_i$ is an inner object, this has no consequences, since the original trace is head-governed and no such intermediate link is required in order to establish antecedent government. In the case where NP$_i$ is an outer object, which is not head-governed, however, the intermediate adjunction position would be required to establish antecedent government, but would be ruled out by the restriction against clitic chains containing links in $X$-max-adjunction positions, and the non-null trace would fail to satisfy the ECP. (On the other hand, outer objects can form chains, through movement or coindexation, with Spec$_i$, since the chain so formed is an XP argument chain, and therefore does allow such intermediate links.) Thus, interpreting chain formation through coindexation as like movement in that it leaves behind an overt 'trace' allows us to derive the asymmetry between inner and outer objects in experiencer constructions from the ECP.

This account is confronted with one apparent problem, however, in that there is no similar asymmetry between indirect objects and direct objects in ditransitive passives involving such verbs as *gefa 'give' and *syne 'show', as the possibility of both (24b) and (24c) shows. These examples show that either the indirect object or the direct object can remain in situ, getting its structural
case through chain coindexation with the clitic position adjoined to INFL, while the other argument moves to SpecI.33 Why should there be this difference between experiencer objects and indirect objects? While we have no detailed account, we would like to suggest a possible solution under which true 'recipient' indirect objects, but not experiencers objects, count as lexically governed by the verb. This idea could be implemented by claiming that they are attached at different levels, and defining head government in such a way that only direct and indirect objects, but not higher objects, satisfy it, or, alternatively, we could claim that whether or not an argument counts as lexically governed is partially dependent on the theta role assigned to it. At this point, we are not in a position to decide between these alternatives.

Consider, though, how the former proposal might be applied to the behavior of yet another class of ditransitive verb in Icelandic, discussed by Zaenen et al. (1985), and Freidin and Sprouse (1990). The verb skila 'return' differs from gefer 'give' in three respects, apparently. First, its 'inner' (theme) object appears not in the accusative typical of direct objects, but in the dative. Second, its 'outer object', unlike normal indirect objects with verbs like gefer, alternates with a prepositional phrase with the preposition til, as in

33 As Freidin and Sprouse note, sole dative objects, like dative objects in ditransitive passive sentences, can remain in situ, as in (i).

(i)  í gær var hjálpð barni
    yesterday was helped (a) child

However, this is possible only when the object is indefinite. At present, we do not know whether this is because these objects (unlike indirect objects) are for some reason incapable of getting case from INFL through coindexation with a higher position, and must therefore depend on partitive case assignment as in English there-insertion constructions, or whether the definiteness effect derives from theme-rheme considerations.
Finally, unlike gefa, skila does not allow NP-movement of the theme object, leaving the outer object in place, as in (38a). Such movement is possible, however, if the outer object is replaced by a til PP, as in (38b).

38  a. *Peningunum var skilað henni
    Money-the was returned to/her-Dat
  
b. Peningunum var skilað til hennar
    Money-the was returned to her-Gen
  
c. Henni var skilað peningunum
    (Zaenen et al. 1985)

Why should skila differ from gefa in these three respects? We advance a possible account along these lines: Suppose that the theme role is, with this verb, exceptionally not associated with the direct object position but with the indirect object position, and that this is reflected in the non-accusative case of the theme object. The personal object, then, could not be a true indirect object, but would have to be attached at a higher level within VP. Note again that, unlike true indirect objects, it can be replaced by a PP. As an outer object, therefore, it would not count as lexically governed. In order to get case under such circumstances, this outer object can form a chain (by movement) with SpecI (38c), since such an XP chain could include the VP-adjunction link required for antecedent government. If SpecI is occupied by theme object, however, as in (38a), then in order to get case the outer object would have to form a chain with the INFL-adjunction position— an impossibility, for reasons outlined. The only option then is to replace it with a PP, as in (38b), thus eliminating the need for case from INFL, since PPs are not required to have structural case.

3.2 Chain Coindexation and Agreement

In oblique experiencer constructions with nominative objects, 'subject agreement', where it occurs at all, is invariably with the
nominative object. Oblique experiencer subjects, even though in Spec₁, do not control agreement. To account for these facts, we assume as a first approximation the agreement principles in (39).

39. a. A head may agree with one (or more) of its [+N] arguments.

b. NPs with lexical case features do not control agreement.³⁴

We assume further that the expletive in a configuration of the form [INFL pro [INFL]]—that is, an expletive pronoun in the INFL-adjunction position—satisfies the definition of argument of INFL, since it is a sister of an X* head.

³⁴We propose that agreement with INFL requires case-matching between the morphological nominative features of INFL and the NP with which it is to agree. Lexical case-marked NPs are not nominative, since, following Freidin and Babby (1984), they are required to appear with non-nominative case morphology, and therefore cannot agree with INFL. There is no conflict between this claim and the claim that lexically case-marked subjects 'get structural case' from INFL, if structural case is properly conceptualized. We claim, in particular, that 'structural case' is the name for a relationship (Specifier of/Complement of) between an argument and a head of a particular type. Thus, to say that an NP 'gets structural nominative' from INFL is simply to say that it appears in such a relationship with INFL. Where possible, this relationship is encoded in the case morphology of the NP. Thus, non-lexically case-marked NPs in Spec₁, or lexically marked NPs in that position in languages with case-stacking, will be assigned morphological nominative case. Lexically case-marked subjects in non-stacking languages, on the other hand, can have only one morphological case, and that must be the lexical case required by the Projection Principle. They satisfy the Case Filter by virtue of being in an appropriate relationship (Specifier) with an appropriate head (INFL), but, being already case-marked, they cannot receive the morphological nominative feature which encodes that relationship. Therefore, they cannot trigger agreement, which requires matching of morphological case.
The claim made here that agreement features on INFL may be controlled by an element adjoined to INFL—i.e., a ‘cliticized’ expletive—finds some possible support in the distribution of subject agreement in such languages as Welsh. In Welsh, auxiliaries, modals, and verbs raised to INFL fail to agree with a subject where that subject is a full NP, as in (40):

40. Mae yr plant yn garddio
    is the children 'on' gardening
    'The children are gardening'

However, when the subject is pronominal, the auxiliary agrees with it in person/number, as in (41):

41. Mae nhw yn garddio
    Are they 'on' gardening
    'They are gardening'

We can account for this by assuming that full subjects in Welsh do not control agreement because they are in a lower projection (e.g., within the VP), and are therefore not arguments of INFL. Pronominal subjects, however, cliticize to INFL, and therefore count as arguments of INFL, in the same way that we claim expletive INFL-clitics do in the case of in situ nominative object constructions. They therefore control agreement.

Thus, we have answered the first of the questions posed by these constructions: why is agreement with the nominative NP? (39b) provides the answer to the second—why agreement is not with the experiencer argument in SpecI. Since in experiencer constructions of the sort we have been considering the experiencer
is associated with lexical case, while the theme argument is typically not, agreement will only be with the latter, given (39b).\textsuperscript{35}

One final property of agreement in experiencer constructions remains to be accounted for, however; namely, that in some languages with such constructions the nominative object, unlike canonical nominative subjects, can (and sometimes must) fail to control agreement. Thus, for example, in (42), from Icelandic, the auxiliary can either agree with the experiencee object or not; where it does not, default agreement occurs. (It is worth noting that the lack of agreement is acceptable only in colloquial speech.)

42. Mér líka/líkar þessir bílar
   Me like-3pl/like-3sg the cars
   'I like cars'

Similar failure of the nominative NP to control agreement is found in Kannada, as noted in Hermon (1985) and shown in (43).

43. Asha-Lige navu gott-ittu
    Asha-DAT us-NOM know-past-3sg.neuter
    'Asha knew us' (Hermon 1985)

Following Hermon, we may suppose that this reflects crosslinguistic variation with respect to which features of a chain are associated with the position of the head. We would like, therefore, to propose the following provisional typology of chains— an extension of Hermon's proposal to include 'move-α'.

\textsuperscript{35} In Hindi, when both arguments in experiencer constructions have lexical case, as in (i), agreement is with neither argument, but rather assumes third person singular by default.

(i) Larklya-ne Sitaa-ko dekh-aa
    girls-erg Sita-ko look-perf
    FPL FSG MSG
    The girls looked at Sita (Gair and Wall, 1989)
44. a. In some languages, e.g., English, all of the features of the chain, including its phonological features, are associated with the head of that chain. This special case of chain formation constitutes what is referred to generally as 'move-α'.

b. In other languages, e.g., German, it is possible for the head of a chain to be associated with only the referential index and phi-features of the chain, while the phonological features are associated with the tail alone. The non-phonological head of the chain serves as a possible controller for, e.g., adjunct clause PRO, and its phi-features induce agreement on INFL.

c. Finally, in some languages, e.g., Kannada, it is possible to associate only the index of the chain with the head of a chain, leaving both the phonological content and the phi-features associated with the position of the tail alone. In such languages, the control properties will be as in English and German, since the referential index of the object NP will be associated with SpecI, but since the phi-features are not associated with SpecI, they will not trigger agreement on INFL.

We assume that (44c) represents the minimal case, since if the R-index is not associated with the head, binding of the trace will not be possible, and the chain cannot be established.\textsuperscript{36} In fact, however, attempting to account for the optionality of agreement in

\textsuperscript{36} Hermon proposes yet another possible value, under which the case assigned to the head of a chain may optionally not be shared with the tail of the chain. When it is not, the tail may have its own case, without a 'case conflict'. This is intended to account for, e.g., experiencer constructions in Hebrew, in which an accusative experiencer object must form a chain with a position local to INFL because it controls agreement on INFL. The problem, under her account, is how to prevent the assignment of both nominative and accusative case to the chain from creating a case conflict. We note that under our account, in which the prohibition against case conflicts has no status, the problem does not arise, though these constructions remain problematic in other ways.
Icelandic experiencer constructions in terms of a choice between values (44b) and (44c) on the proposed chain typology encounters one major problem. As pointed out to us by Joan Maling, control of agreement by in situ nominative objects in bitransitive passive constructions is not similarly optional. At present, we do not have any account for this difference.

Finally, we note that there is a difference in chain formation between an object and SpecI and chain formation between an object and the INFL-joined position with respect to whether ‘non-movement’ chain formation alternates with overt movement of the argument into that position. In all cases that we know of where SpecI is not required to be occupied by another argument, the nominative object, instead of receiving its case in situ through coindexation may be ‘moved’ into SpecI (i.e., have its phonological content realized in that position). This is true, for example, of German passives and Romance unaccusatives. On the other hand, arguments which are required to receive their nominative case through coindexation with the INFL-joined position (because SpecI is occupied) do not seem to be able to ‘move’ into that position. We attribute this to restrictions on the types of elements that can occur in clitic positions.

4. Some extensions

In this section, we simply list some predictions and possible extensions of the analysis developed here.

4.1 The Distribution of Overt Traces

Our analysis involves the claim that a language will have nominative objects just in case it allows the association of the phonological features of the chain with the tail rather than the head of an ‘NP movement’ chain. If a language has this type of chain formation, then it should also be able to make use of it in other constructions. Therefore, if a language has nominative objects in
experiencer constructions, it should also be expected to have in situ passive and unaccusative constructions.

4.2 Extension to Ergative/Absolutive Languages

In the experiencer constructions we have considered, the object NP, while appearing in object position and behaving like an object with respect to control and binding processes, behaves in a subject-like way with respect to case and agreement. In this respect, it these constructions resemble the 'ergative/absolutive' case and agreement patterns found in such languages as Hindi:

45. larkee-ne kitaabee uthaaii hai
    boy-Erg books-Abs lift-Perf be-3pl.

Based on this similarity, we would like to suggest that Chain Coin dexation may be the mechanism responsible for 'absolutive' case. Suppose, in particular, that the special property of ergative languages/constructions is that they exceptionally allow the assignment of the agent Θ-role within the VP, to an outer object position (perhaps the same position as occupied by experiencer objects in DS), rather than to an external argument position. The exceptionality of this Θ-role assignment is encoded in the morphology by a special lexical case, the ergative case. Suppose further that ergative case is only a lexical case, forcing the agent nominal to move to SpecI, to get structural case, in the same way as experiencers in experiencer subject constructions. By Burzio's generalization, the verb in such cases will also not be able to assign structural case to the direct object. This object will, as in experiencer constructions, be able to get nominative case by coindexation with an expletive adjoined to INFL. Absolutive case, in other words, is simply nominative case, assigned to a chain whose lexical content is in object position. (Subsequent to the completion of the first draft of this paper, we learned that a suggestion quite similar to this is also made in Bok-Bennema and Groos (1984)).
4.3 Chain Coindexation, A-bar Positions and Head Positions

We have claimed that, through Chain Coindexation, a nominal may occur in one position at S-structure while seeming for some purposes to behave as if it were in another, higher position. The examples involve sharing of features with expletives in A-positions. We would like to speculate, however, that the sharing of selected features by Chain Coindexation might also be possible with expletives in A-bar positions, and that such an assumption might be useful in accounting for internally headed relative constructions. (We are grateful to John Whitman for bringing this possibility to our attention). This possibility must be left for future research. We also note a potential extension to Head-Movement, in accounting for the difference between English, where association of V with the features of INFL does not involve movement of the verb to INFL, and languages like French, in which it does. It is possible that in the former case, the verb is associated with INFL through simple coindexation, with the phonological content of the resultant chain being realized on its tail.

4.4 On the Crosslinguistic Distribution of Chain Coindexation

In (44), we have proposed a typology of chain formation under which, in some languages, not all of the features of an argument chain are associated with the head. We have not yet said anything, however, about why some languages (e.g., German, Icelandic, Hindi and Spanish) but not others (e.g., English) allow this possibility. The possibility is apparently connected with the pro-drop parameter. All of the languages in which we have identified Chain Coindexation also have pro-drop of some sort. We note that there is some possible diachronic evidence for the connection between the two, in the history of English. This evidence is discussed in Harbert (in preparation). We forego further discussion of this issue here.
5. On the Overlap of Identification and Case Theory

In this final section, we hope to demonstrate that given the assumptions of the proposal put forward here, it is possible to abandon the conception of structural case-assignment as an independent requirement in the grammar, i.e., we can do away with the Case Filter.\textsuperscript{37}

As we have claimed, it is structural case which is relevant for the Case Filter (cf. also Freidin and Sprouse 1990). Structural, or configurational, case designates a case-marking which is licensed solely in terms of a specific syntactic configuration. The configurational relations under which structural case is assigned, on our account, are strict (minimality) government and Specifier-head agreement. But these domains are largely coextensive with those of the independent identification requirement—the requirement that non-PRO arguments must be identified by either lexical government or coindexation with overt agreement morphology. There is one context in which case assignment is possible without identification; Specifiers of, e.g., INFL, we have claimed, can get case from INFL through Spec-head agreement, even where there is no overt agreement morphology, as in infinitival clauses. Even here, however, those NPs must still find some way of satisfying the stricter identification requirement—for example, by INFL preposing, as in the Italian case. It is clear, then, that the effect of the Case Filter becomes superfluous for such positions. The instances of overt infinitival subjects which were once ruled out by the Case Filter can now be ruled out by the identification requirement. Similarly, object complements of verbs are identified through lexical government, in addition to receiving case from those verbs. Subjects of tensed clauses are identified by agreement features in

\textsuperscript{37}We are grateful to Mario Montalbetti for bringing this to our attention.
INFL, in addition to receiving case from INFL. In both cases, it is possible to claim that the identification, not the case assignment, is what is important.

There is one residual context in which it appears that the Case Filter must be satisfied independently of the identification requirement, under the assumptions made to this point. In passive and unaccusative sentences, for example, it is standardly assumed that Burzio's generalization affects the case assigning properties of the predicate. The objects of such a predicate must therefore find another source for case, even though they are governed (and therefore identified) by the predicate. We propose that in these constructions too the Case Filter can be reduced to the identification requirement simply by assuming that Burzio's Generalization does not affect the case assigning properties of the verb but alters its identification properties. For instance, as we saw above, verbs which do not assign an external theta-role cannot license internal objects. This is explained by proposing a reformulation of Burzio's Generalization by which a predicate which does not assign an external theta-role fails to identify its direct object (or, under the second value of the parameter proposed earlier, fails to identify any of the NPs in its projection). In such constructions, in order for identification to be satisfied, the heads of the chains containing the object NP(s) must be licensed by the only available alternative, namely, agreement with INFL, either by movement or by chain coindexation.

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References


Case and the Finnish Object

Erika Mitchell

Previous studies in Finnish syntax have shown that it is extremely difficult to formulate an analysis for object case assignment in Finnish that is at the same time both descriptively correct and consistent with any formal theory of Case assignment. The major problem that Finnish presents is that objects in the language alternate between morphologically nominative forms and morphologically genitive forms. An algorithm for determining the Case alternation in Finnish objects has proven extremely elusive. Also, as will be discussed below, it can readily be shown that the objects appearing in the morphologically nominative Case are not true Nominative Objects in the usual sense of the term.

This paper will review some of the most significant recent theories of Finnish object case assignment and show that none of the theories proposed in the literature to date is able to accurately predict the object case form in all constructions. On the basis of the discussion presented here, an alternative analysis will be proposed that departs minimally from the standard GB framework, while having the advantage that it more accurately predicts the data than any of the previous theories. It will be argued that the object depends not on the presence of a nominative-marked subject as in most accounts, but rather on the presence of a subject in the specifier position of a new functional projection, Predication Phrase (Bowers 1990).

1. Previous analyses

1.1 Standard GB Theory (Chomsky 1981)

In Lectures on Government and Binding Chomsky presents several theory internal arguments for making the claim that

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universally, all lexical NPs must have Case in order to be realized in a sentence. This is stated in the Case Filter:

1) Case Filter: (Chomsky 1981)
   *NP if NP has phonetic content and no Case

The Case Filter can be used to explain why the subject of an infinitive usually cannot be lexical, and that the object of a passive verb must move to the subject position in most languages, provided one also assumes that [+Tense] is needed to assign Case to subjects and that [+Passive] absorbs object Case assignment. If one does not accept the assumption that the Case Filter is a language universal (as has, in fact, been suggested in some analyses of Finnish Case assignment), one must propose alternatives for each of the Case Filter's many instantiations in the theory.

Chomsky (1981) divides Case into two types: structural Case and inherent Case. The structural cases (nominative, objective, genitive and oblique governed by a preposition) are structural properties of formal syntactic configurations. In contrast, the inherent cases are not dependent on any particular structural positions, but are closely linked with a θ-role. In particular, Object case is a structural case that is assigned to an NP governed by a transitive verb (Chomsky 1981, p.170-1). Nominative case is assigned to an NP governed by [+Tense] AGR.

The theory of Case presented in LGB was intended to solve some specific problems in English and other languages with relatively limited Case systems. However, as originally conceived, it is not detailed enough to explain all facets of morphological Case assignment in languages with vastly more complicated Case systems, such as Finnish.

1.2 Finnish and levels of Case

Due to a historical process of phonological levelling, Finnish has lost its accusative morpheme, except in the personal pronouns. In
place of an accusative morpheme, a case paradigm composed of several morphological cases is used to realize object case. Objects that are personal pronouns always appear in the accusative case in positive sentences:

2) Hän tapasi ____: (He/she met ____):
   minu-t (me)  meidä-t (us)
   sinu-t (you)  teidä-t (you)
   häne-t (him/her)  heidä-t (them)

3) Häne-t tavattiin.
   He/she-ACC was met
   He/she was met.

All other nouns have two sub-paradigms for the realization of Case, the choice of which depends on the type of construction that the noun appears in.

   Singular count nouns appear in either the genitive or the nominative case:

4) Hän tapasi poja-n.
   he/she met boy-GEN
   He/she met the boy.

5) Poika tavattiin.
   boy-NOM was met.
   The boy was met.

It is this class of nouns that gives the two sub-paradigms the names commonly found in the literature. The accusative in (4) is usually referred to as the 'genitive' accusative, and the accusative in (5) is referred to as the 'nominative' accusative. This class of nouns also includes the numeral 'one':

6) Hän tapasi yhde-n poja-n.
   he/she met one-GEN boy-GEN
   He/she met one boy.
7) Yksi poika tavattiin.
   one-NOM boy-NOM was met.
   One boy was met.

   Plural count nouns appear in the morphological nominative case in both of the sub-paradigms:

8) Hän tapasi poja-t.
    he/she met boy-PL-NOM
    He/she met the boys.

9) Poja-t tavattiin.
    boy-PL-NOM met
    The boys were met.

Numerals greater than one are members of this class also (when they appear in the morphologically nominative case, they assign partitive to their arguments):

10) Hän tapasi viisi poikaa.
    he/she met five-NOM boy-PT
    He/she met five boys.

11) Viisi poikaa tavattiin.
    five-NOM boy-PT met
    Five boys were met.

Thus, object case can be morphologically realized by the accusative, genitive or nominative forms.

Although nominative case is one of the options for morphological realization of accusative case, this 'nominative' accusative is not syntactically the same as the ordinary nominative case assigned to subjects. Finnish also has a phenomenon of Operator Case assignment which assigns partitive case to any object in the scope of certain operators, regardless of the morphological case one usually would expect the object to appear in. The operators that can assign partitive case include negation, indefiniteness, and imperfective aspect:
12) Hän ei lukenut kirja-a.
   he/she not read book-PT
   He/she didn't read the book.

13) Hän luki kirjo-j-a.
   he/she read book-PL-PT
   He/she read some books.

14 a) Hän luki kirja-n.
   he/she read book-GEN
   He/she read the book (and finished it).
   b) Hän luki kirja-a.
      he/she read book-PT
      He/she read the book (for a while).
   c) Kirja luettiin.
      book-NOM was read
      The book was read (and finished).
   d) Kirja-a luettiin.
      book-PT was read
      The book was read (for a while).

This Operator Case assignment is not dependent on there being a
lexical operator in the sentence; it is purely semantic:

15) Oletko tavannut Mauno-n?
    have-you met Mauno-GEN
    Have you met Mauno? (I think you have.)

16) Oletko tavannut Mauno-a?
    have-you met Mauno-PT
    Have you met Mauno? (I doubt you have.)

The most important aspect of Operator Case assignment is that
all objects are affected by it, but no subjects show its effects:

17 a) Poika tavattiin.
    boy-NOM was met
    The boy was met.
   b) Poika-a ei tavattu.
      boy-PT not was met
      The boy was not met.
18 a) Poika söi.
   boy-NOM ate
   The boy ate
b) Poika ei syönyt.
   boy-NOM not ate
   The boy did not eat.

For this reason, the nominative-accusative case should not be treated as being identical to the true nominative case, as has been done in many of the recent analyses of Finnish object case. If an argument appears in the morphological nominative case, we can use both Operator Case assignment and substitution of personal pronouns as tests to determine its underlying syntactic case.

1.3 Specific proposals for Finnish

It has long been noted by Finnish syntacticians that the choice between the genitive-accusative and the nominative-accusative cases seems to be dependent in some way on the case of the subject. Most recent analyses of Finnish case assignment have focused on trying to formalize this notion of dependency. Some researchers have proposed that the subject determines the case of the object, either directly (Vainikka 1989, Maling 1990), or indirectly, via the verb (Taraldsen 1985, Milsark 1985). Others would make both the case of the object and the presence of a nominative subject dependent on properties of the verb (Mitchell 1989).

1.3.1 Nominative as a Default Case (Taraldsen 1985, Milsark 1985)

Taraldsen (1985) makes the following proposal for Finnish Case assignment: nominative case is a default case (hence, the Case Filter is non-operative in Finnish). A subject in the nominative case assigns the feature [+AGR] to the verb. In turn, the [+AGR] feature on the verb assigns accusative Case to the object. If there is no nominative subject present in the phrase, then the object remains in the default case, the nominative:
19) Häne-n täytyy maalata auto.
    he/she-GEN must to paint car-NOM
    He or she must paint the car.

20) Hän haluaa maalata auto.
    He/she wants to paint car-NOM
    He/she wants to paint the car.

This analysis thus predicts that 'nominative' objects are dependent (indirectly) on the lack of nominative subjects.

Although this proposal does achieve partial success in predicting accusative case realization, some constructions remain unexplained, namely constructions in which the verb agrees with a nominative subject, but the object still appears in the nominative, as in imperatives:

21) Maala-k-aa te auto!
    paint-IMP-PL you-PL-NOM car-NOM
    You (PL) paint the car!

This analysis also does not recognize the differences between nominative subjects and 'nominative' objects, as discussed above.

Furthermore, both Taraldsen's analysis, and a similar one proposed by Milsark (1985) that is based on some earlier work by Taraldsen, reject the Case Filter as a linguistic universal by claiming that nominative case is a 'non-Case' in Finnish. Neither Taraldsen nor Milsark explore the ramifications of denying the Case Filter for the remainder of the Grammar. They do not suggest any alternatives to the Case Filter that would address the problems that originally led syntacticians to formulate the constraint. They do not make any suggestions as to what other kinds of phenomena might be linked with a Case Filter parameter, should one be needed. If we are to seriously consider giving up the Case Filter as a universal, these questions must be addressed.
1.2.2 Genitive Case as a Feature (Vainikka 1989)

Vainikka (1989) also presents a theory which rejects the Case Filter, but unlike Taraldsen and Milsark, she does show that the theory of grammar can still operate satisfactorily without this important constraint. Thus, her theory is preferable to Taraldsen's and Milsark's on purely theoretical grounds.

In Vainikka's analysis of Case assignment, a [+Genitive] feature is generated in the subject position (spec of VP). If the subject becomes co-indexed with inflectional features in I₁, it cannot realize the [+Genitive] feature, so [+Genitive] percolates down to the object and is realized there.

\[
22) \quad \text{IP} \\
\quad / \backslash \\
\quad \text{NP} \quad \text{I'} \\
\quad \quad / \backslash \\
\quad \text{Hän} \quad \text{I}^0 \quad \text{VP} \\
\quad \quad / \backslash \\
\quad \text{luki} \quad \text{tij} \quad \text{V}' \\
\quad \quad / \backslash \\
\quad [\text{GEN}] \quad \text{V} \quad \text{NP} \\
\quad \quad \text{tj} \quad \text{kirja} \\
\quad \text{Hän} \quad \text{luk-i} \quad \text{kirja-n.} \\
\quad \text{he/she-NOM} \quad \text{read-Pst-3SG} \quad \text{book-GEN} \\
\quad \text{He/she read the book.}
\]

If, instead, the subject does not become co-indexed with inflectional features in I₁, it keeps the [+Genitive] feature and the object shows up in the default nominative case:
23)  
   IP
       / \ 
    Hänen  T'
       / \ 
    [GEN]  l° VP
          / \ 
     täytyj NP V'
          / \ 
     t\ V  VP
          / \ 
     tj  V  NP
        lukea kirja

Häne-n  täyty-y lukea kirja.  
he/she-GEN must-3SG read book-NOM 
He/she has to read the book.

In this theory, the occurrence of a 'nominative' object is directly dependent on the absence of a nominative subject, and indirectly dependent on inflectional properties of the verb.

Overall, Vainikka's analysis has a number of theoretical and empirical advantages over Taraldsen's and Milsark's proposals. She recognizes that the nominative-accusative is not identical to the nominative case and she presents several proposals concerning Operator case assignment. However, her analysis is no more successful than Taraldsen's and Milsark's at explaining why imperatives can have both nominative subjects and 'nominative' objects. (See 21) above.) Vainikka notes this fact in a footnote (Ch. 2 #18), but does not present any suggestions as to how she would solve this problem, other than stating that the imperative sentences behave as if they did not have nominative subjects, at least for case assignment purposes.

Aside from this minor problem, Vainikka is able to achieve complete descriptive accuracy for the data presented so far, and she does so in a way that either maintains other parts of the standard
theory that are needed for independent reasons, or shows that in rejecting certain assumptions of the standard theory she does not lose results crucial to other parts of the grammar.

1.2.3 Inflectional Categories and Case Assignment (Mitchell 1989)

In a previous attempt to explain Finnish object Case assignment (Mitchell 1989) I proposed that the assignment of 'genitive' accusative is dependent on the verb being sufficiently 'strong' inflectionally. In this analysis, all complements of verbs are assigned the nominative-accusative, the default syntactic accusative case, but if a verb should become co-indexed with both the inflectional features of [+Tense] and [+AGR] through verb movement, it becomes capable of assigning the special accusative - the genitive-accusative - to its complements:

24) AGRP
   / \  
  NP AGRP'  
     / \  
    Hän[+AGR] NegP  
          / \  
         lukij ti NegP'  
               / \  
              [-Neg] TP  
                    / \  
                   tj ti T'  
                        / \  
                       [+P] VoiceP  
                             / \  
                            tj ti Voice'  
                                 / \  
                                [+ACT] VP  
                                    / \  
                                   tj ti V'  
                                        / \  
                                       tj NP  
                                          kirja-ACCg
Hän luk-i kirja-n.
he/she read-Pst-3SG book-GEN
He/she read the book.

If, however, either [+Tense] or [+AGR] are lacking, only the weaker, default accusative, the nominative-accusative, can be assigned. Sentences containing the obligational auxiliaries 'lähtyy' or 'pitää' have [+Tense], but [-AGR], and their objects are thus in the nominative-accusative:

25) AGRP
   / \   
  NP AGRP'
  / \   
 Hänen[-AGR] NegP
  / \   
 tähtyyj t_j NegP'
  / \   
 [-Neg] TP
  / \   
 t_j t_i T
  / \   
 [+Pr] VoiceP
  / \   
 t_j t_i Voice'
  / \   
 [+ACT] VP
  / \   
 t_j t_i V'
  / \   
 t_j VP
  / \   
 t_i V'
  / \   
 V NP
 lukea kirja-NOM

Häne-n tähtyy lukea kirja.
he/she-GEN must-3SG read book-NOM
He/she must read the book.
Conversely, imperative sentences have the features [+AGR] and [-Tense]. As predicted by this analysis, objects of imperative verbs are also in the nominative case:

\[
\text{Luke-k-aa te kirja!}
\]
\[
\text{read-IMP-2PL you-NOM book-NOM}
\]
\[
\text{You (PL) read the book!}
\]

Subject case is also dependent on the verbal properties under this analysis. A subject can only be in the nominative case if the verb has agreement morphology and has not been assigned (an oblique) case. Tense morphology, however, is not required for
nominative case assignment to the subject. Since the lack of a nominative subject often is correlated with a lack of [+AGR], whose presence is required for genitive-accusative case assignment, a 'nominative' object is the most common expectation if there is no nominative subject present. However, there is no a priori reason why we shouldn't be able to get both a nominative subject and a nominative object in the same sentence, if the right combinations of [Tense] and [AGR] are present.

This proposal makes essentially the same predictions as Vainikka's for all of the data considered so far. The main difference between the two analyses is that Vainikka's requires an extra parameter in the Grammar to determine whether or not the Case Filter operates in the langueage. She explains that the reason why objects can appear in the nominative case in Finnish is that the nominative is a non-case in the language, but that the option of having lexical arguments appear in a sentence without case is not available in every language. The question of whether such a parameter should be adopted must be examined further before one can choose either of these analyses on theoretical grounds.

All of the proposals reviewed so far share a major conceptual problem, that is, the nominative-accusative is assumed to be the default or ordinary accusative and the genitive-accusative is somehow more marked in that it is only assignable under a special set of circumstances. This runs counter to the intuitions of native speakers, who feel that there is something special about the nominative-accusative, as opposed to the genitive accusative. Frequency facts, both in speech and in literature, show that the genitive accusative is used far more often than the nominative accusative. Ordinarily, marked forms are expected to occur with lower frequency, so it seems somewhat odd to posit that the 'usual' accusative form in the langueage should be the marked one. However, all of the logical possibilities for case assignment theories based strictly on properties of the subject or verb require this assumption.
1.2.4 Evidence from time adverbials

Maling (1990) draws attention to the fact that time adverbials in Finnish that express the duration of a given action also appear in the Object Case, as shown by the fact that they fall into the same accusative paradigms as ordinary direct objects. Following positive verbs that have both the features of [+Tense] and [+AGR] these time adverbials appear in the morphological genitive case:

27) Hän asui siellä yhde-n vuode-n.  
    he/she lived there one-GEN year-GEN
    He/she lived there one year.

Time adverbials in negative sentences are in the partitive case:

28) Hän ei asunut siellä yh-tä vuot-ta.  
    he/she no lived there one-PT year-PT
    He/she didn't live there a single year.

Verbs that are positive but lack either [+Tense] or [+AGR] take time adverbials in the nominative case:

29) Hänen täytyy asua siellä yksi vuosi.  
    he/she must live there one-NOM year-NOM
    He/she must live there one year.

Since these adverbials appear in the same object case paradigm as other direct objects, any theory of object case assignment should be able to explain their case assignment as well. Furthermore, since time adverbials behave essentially the same for case assignment purposes as direct objects, one can use them to test the validity of the various proposals for case assignment.

In all of the proposals reviewed above there is a binary-valued decision process for Case assignment, determined either by the presence of an appropriate verb or an appropriately cased subject. All objects in a sentence should appear in the same syntactic case, regardless of how many objects there might actually be.
Unfortunately for these binary-valued theories, this is not what actually happens, as discussed in Maling's recent paper (1990).

In sentences where we would ordinarily expect the genitive-accusative to be assigned to direct objects, we do find that all the 'direct objects' appear in the genitive-accusative:

30) Hän luki kirja-n yhde-n kerra-n
    he/she read book-GEN one-GEN time-GEN
    He/she read the book one time.

However, when more than one 'direct object' appears in a typical 'nominative' object construction (passive or imperative, for instance), only the first direct object appears in the nominative-accusative; any others appear in the genitive-accusative:

31) Kirja luettiin yhde-n kerra-n.
    book-NOM was read one-GEN time-GEN
    He/she didn't read the book (even) once.

Such data completely contradict the predictions of the proposals described above. If the object case assignment in such a construction depends on either subject or verbal properties, then the same case should be assigned to every 'object' in the sentence; variation in object case should not be possible since all of the 'objects' are presumably assigned case by the same verb and subject.

To account for these data, Maling presents an analysis of object case assignment in Finnish that is quite reminiscent of non-linear phonology. She represents the arguments of the sentence on a hierarchical Grammatical Function tier, and has a separate tier for Case:

32) Subjt > Objt > Adv
    NOM   GEN
Case assignment process proceeds as a left-to-right association of Cases to arguments on the Grammatical Function tier. If there are any arguments remaining unlinked to a Case after the Cases have all been associated, then they become associated with GEN by spreading of the Case feature from the last item in the Case tier:

33) Subj > Obj > Adv
   \|\|\
  NOM GEN

Hence, 'nominative' objects are directly dependent on the absence of nominative subjects in this analysis, just as in Vainikka's analysis. The crucial difference between this theory and its predecessors is that this one specifically provides for the possibility of having one and only one nominative argument per sentence.

According to Maling's analysis, in an ordinary sentence a subject is present and is represented on the Grammatical Function tier. Being the first item in the Grammatical Function tier, it becomes associated with the single nominative Case on the Case tier, and hence any other arguments on the Grammatical Function tier become associated with the GEN Case:

34) Hän luki kirja-n yhde-n kerra-n.
    Sbjt  Objt  Adv
    \|   \|\
   NOM GEN
   he/she read book GEN one GEN time GEN
   He/she read the book one time.

In passive or 'must' sentences, there is no subject present, so the NOM in the Case Tier is associated with the first object in the Grammatical Function tier; any remaining objects receive the GEN Case:
35) Kirja luettiin yhde-n kerra-n.
   Objt   Adv
   |       |
   NOM   GEN
   book was read one-GEN time-GEN
   The book was read one time.

Although Maling's theory of Case assignment is the only one that readily constrains the occurrence of 'nominative' objects to one per sentence, it is not without problems. As discussed above, 'nominative' objects in Finnish are not really in the nominative case, since they have different case alternations than nominative subjects. In Maling's theory there is no explanation for why a NOM associated with an object can be overridden by Operator case assignment, while a NOM associated with a subject cannot:

36) Kirja-a ei luettu.
    book-PT no was read
    The book was not read.

37) Poika ei lukenut.
    boy-NOM no read
    The boy did not read.

Another problem for Maling's analysis is that not all sentences with 'nominative' objects lack nominative subjects, although the lack of a nominative subject is supposed to be a necessary condition for an object to become associated with the nominative case:

38) Lue sinä kirja!
    read you-NOM book-NOM
    You read the book!

In addition to these problems, Maling is also forced to stipulate that case assignment works differently with personal pronouns than with other types of NPs in order to make her system work, since the personal pronouns in object roles always appear in the special accusative form, not a genitive or nominative form.
1.3 Evaluation of the proposals

None of the Case assignment analyses presented so far is able to achieve even the minimum requirement of full descriptive adequacy. All of the approaches in the GB framework fail whenever there is more than one 'object' (canonical direct object or time adverbial) present and the conditions for nominative-accusative assignment are met. In such a situation they wrongly predict that there will be no variation in the case of these objects. The Case Tier approach fails when nominative subjects are present in constructions that also take 'nominative' objects, since only one nominative argument per sentence is allowed in this analysis. In general, as long as there is only one 'object' present, both Vainikka (1990) and Mitchell (1989) are able to achieve descriptive accuracy, but they fail to limit the possibility of 'nominative objects' to one per phrase if there is more than one 'object'. Maling's proposal correctly limits the occurrence of 'nominative' objects to one per phrase in these contexts, but does not allow for the possibility of two arguments appearing in the nominative case in a single sentence.

2. A Structural Alternative

The studies discussed above have shown that the occurrence of a 'nominative' object is correlated with, but not entirely dependent on, the presence of a nominatively cased subject. A relation of nearly complementary distribution does seem to exist between subjects and direct objects. If one examines the kinds of subjects that can co-occur with 'nominative' objects more closely, it is found that these subjects all seem to be associated with the semantic feature of obligation. With this important generalization in mind, we might be able to make the traditional notion that the case of the object depends on the subject work after all. Perhaps 'canonical' subjects are truly in complementary distribution with 'nominative' objects, and the subjects that can co-occur with 'nominative' objects form a separate class and should be treated differently.
When two items are in complementary distribution it is often found that they either are separate instances of some unified phenomenon, or that they share some common features. When two items never occur together in a sentence and thus seem to be in syntactic complementary distribution, an obvious way to explain this behavior is to propose that the items share a single position at some point in the derivation. If the common position is filled by either of the items that may occupy that position, the other can neither be base-generated there nor come to reside there by means of movement, and hence is prevented from occurring.

Such an explanation can be used to solve the Finnish 'nominative' object problem. Namely, we might propose that there is some unique syntactic position that is assigned the nominative Case and that either a subject or an object may occupy that position.

In his recent theory of predication, Bowers (1990) proposes a tree structure that would be quite amenable to having a single position that can be filled with either a subject or an object. To provide an analysis of double object constructions, direct objects are not base-generated in the complement position of the verb, but rather in the specifier position. Subjects are base-generated in the specifier position of an intermediate functional category called PredP:

```
39)    IP
     / \  
    /   
   I'  
    / \  
   I   PredP  
    / \  
  Sbjt Pred'  
    / \  
  Pred VP  
    / \  
  Objt V'  
    / \  
       V Objt
```
In this structure a single direct object could conceivably move into the subject position without violating any movement constraints, if that position were to be empty.

We can now solve the Finnish object case assignment problem in the following manner: suppose that in Finnish nominative case is assigned structurally to the specifier of PredP, regardless of the argument that appears in that position:

40) Assign Nominative Case to Spec(Pred).

If a subject is present in the sentence, it will be base-generated in PredP, receive nominative case there, and no 'nominative' object will be possible, since even if the subject should subsequently move from its base-generated position, it will presumably leave behind a trace that will prevent the object from moving up into the specifier of Pred position:

41)

```
IP
   / \  
 NP I'  
    | \  
 Hän I PredP  
    | \  
lukij t\ Pred'  
       / \  
t VP  
    / \  
 NP V'  
    | \  
kirja t AdvP  
       yksi kerta
```

a) Hän luki kirjan yhde-n kerra-n.
   he/she-NOM read book-GEN one-GEN time-GEN
   He/she read the book one time.

b) *Hän luki kirja yhde-n kerra-n.
   he/she-NOM read book-NOM one-GEN time-GEN
   He/she read the book(-NOM) one time.
If, however, a subject is not present, one direct object can move up and occupy the specifier of PredP and hence be assigned the nominative Case. All other 'objects' present will then be blocked from moving to the specifier of PredP by the presence of either the first object itself or by the first object's trace:

42) \begin{align*}
\text{IP} & \\
& \text{NP} \quad \text{I} \\
& \quad \text{Kirja} \quad \text{PredP} \\
& \quad \text{luettiinj} \quad \text{tj} \quad \text{Pred'} \\
& \quad \text{tj} \quad \text{VP} \\
& \quad \text{tj} \quad \text{AdvP} \quad \text{yksi kerta}
\end{align*}

a) Kirja luettiin yhde-n kerra-n.  
book-NOM was read one-GEN time-GEN  
The book was read one time.

b) *Kirja luettiin yksi kerta.  
book-NOM was read one-NOM time-NOM  
The book was read one time(-NOM).

If we assume that whatever argument that comes to occupy the specifier of PredP is assigned the nominative case, then the fact that only 'nominative' objects but not nominative subjects are sensitive to Operator Case assignment again becomes problematic:

43) Kirja-a ei luettu.  
book-PT no was read  
The book was not read.

44) Poika ei lukenu.  
boy-NOM no read  
The boy did not read.
One solution to this problem is to propose that the nominative case might be a complex case in Finnish with two possible morphological realizations -- the nominative-nominative and the nominative-accusative. The case assignment rule in (40) is responsible for one component of this case, the initial nominative. If nothing else happens, then the morphological realization will be the nominative-accusative case, by virtue of the fact that the NP binds a trace in an object position. The usual object case phenomena apply, i.e. personal pronouns appear in the accusative case and the NP is sensitive to Operator Case assignment. If, however, the NP becomes co-indexed with [+AGR], nominative-case assignment is strengthened (re-affirmed) and the morphological case is nominative-nominative (in fact, this is how we ordinarily assume that nominative case is assigned (Chomsky 1981)). An NP in the nominative-nominative case is immune to Operator Case assignment.

2.1 Details of the analysis

2.1.2 Passives and Unaccusatives

We now have a straightforward explanation for how case assignment operates in passive sentences. In Finnish passive sentences one cannot express the agent, even with a by-phrase. For this reason, we can assume that nothing is base-generated in the specifier of PredP in passives, and hence that that position is available for a single object to move into it and receive the nominative case:
Nothing prevents the object from subsequently continuing on to the specifier of AGR, which it often does. However, since passive verbs in Finnish are always [-AGR] as a result of the choice of inflectional categories, their subjects are unable to trigger agreement and hence the final case that they receive is the nominative-accusative. For this reason, the subject of a passive sentence is always affected by Operator Case assignment, even when it precedes the verb:

49) Kirja-a ei luettu. (=43)
book-PT no was read
The book was not read.

The structure of sentences with unaccusative verbs is similar to that of passive sentences. The single subcategorized argument is base-generated in the spec of V0 and moves to the spec of Pred, since no other argument or trace occupies that position. There it is assigned the nominative case:
However, case assignment in unaccusative contrasts in one important respect with case assignment in passives. With unaccusative verbs there is no prohibition on [+AGR], so a subject that appears in the spec of AGR will trigger agreement and consequently be assigned the nominative-nominative case. Once assigned the nominative-nominative case it is immune to Operator Case assignment:

50) Autot eivät tullee-t.  
car-NOM no-3PL came-PL  
The cars didn't come.

On the other hand, if the subject of an unaccusative does not trigger agreement, it is assigned the nominative-accusative case by virtue of its governing a trace in the VP and it is then affected by Operator Case assignment:

51) Ei tullut auto-j-a  
no-3SG come-SG car-PL-PT  
There didn't come some cars.
The determining factor of whether or not the subject of an unaccusative can move to AGR and trigger agreement is definiteness. Agreement can only be triggered by a definite argument. If an argument is definite it moves up to spec AGR, triggers agreement and is assigned the nominative-nominative case. If the argument is not definite then it is not able to trigger agreement and it is assigned the nominative-accusative case.

Further evidence for the importance of agreement for case assignment in unaccusatives can be found in sentences using the personal pronouns. As predicted by the present analysis, if the subject of an unaccusative verb is a personal pronoun, it appears in the nominative case in pre-verbal position (52) and the accusative case in post-verbal position (53):

52) Sinä olet autossa.
    you-NOM be-2SG in the car.
    You are in the car.

53) Minu-Illa on sinu-t. (Nevis 1981 (102))
    I-ALL be-3SG you-ACC
    I have you.

Thus, we are able to explain the choice of object case in passive and unaccusative sentences without having to make any major modifications to the standard theory. However, the situation becomes a little more complicated when we examine sentences with 'non-canonical' subjects.

2.1.2 Obligation

In addition to the above constructions, Finnish also has a few constructions in which a lexical subject and a 'nominative' object can co-occur, contrary to what the present analysis would seem to predict. These constructions include imperatives, phrases containing the words 'täytyy' or 'pitää' 'must', and phrases in which the verb is in the present passive participle form:
56)  Lue sinä kirja!
    read-2SG you-NOM book-NOM
    Read the book!

57)  Sinu-n täyty-y/pitä-ä lukea kirja.
    you-GEN must/must-3SG read book-NOM
    You must read the book.

58)  Sinu-n on lue-ttava kirja.
    you-GEN be-3SG read-PstPssPrt book-NOM
    'You are to read the book.'

In all of these constructions we find that if there are any direct objects present, one of them will appear in the nominative-accusative form. The subjects appear in either the nominative case (in imperatives), or the genitive case (in the other constructions).

If we assume that all subjects must be generated in the specifier of PredP as suggested above, then it should be impossible to have a 'nominative' object in these constructions, since the object would be prevented from moving into the specifier of PredP by the presence of the subject or its trace. Since, in fact, 'nominative' objects do appear, we must modify the proposal in some way. Rather than give up the case assignment analysis that works quite satisfactorily for passives and unaccusatives, we might question the assumption that all subjects must be generated in the specifier of Pred.

Proposing that there may be more than one position for the base-generation of subjects is not an unprecedented step. Recently, evidence from several other languages has been discussed in the literature that suggests that restricting the base-generation of subjects to one position in the tree seems to be too strong a constraint (Diesing 1990, Bowers 1990, Sumangala 1990).

If we are willing to relax the constraint on what may serve as a possible subject position, we must also provide some way to assure
that only one subject may actually appear in a sentence. One way to do this would be to use the Theta-Criterion:

59) Theta-Criterion: (Chomsky 1981, p.36)
Each argument bears one and only one theta-role, and each theta-role is assigned to one and only one argument.

In order to assure that a subject gets its obligatory theta-role, we must assume that subjects can only be generated in a position where they can receive a theta-role. Any structural position capable of receiving or transmitting a 'subject-type' theta-role (agent/experiencer) might then conceivably be a potential base-generation position for subjects.

All of the construction types in standard Finnish that allow both subjects and 'nominative' objects share a particular semantic feature, namely they all express some form of obligation on the part of the subject. Also, they never co-occur. These two observations suggest that all of these constructions may include a special inflectional node, say Obligation, and represent the realization of different feature values for that node.

Suppose that subjects are ordinarily base-generated in Finnish in the specifier position of PredP, where they can receive a theta-role directly from the verb. However, the presence of some inflectional morphology such as might be found in obligation could conceivably block direct theta-role assignment to the spec of PredP and/or add some additional thematic information. The subject theta-role assigned by the verb would then have to be transmitted up to the relevant inflectional category and joined with any thematic information carried by that category before being assigned to the specifier of that category. In this manner, the subject theta-role would be a combined theta-role.

As to where this Obligation node might be located in the tree, morphological evidence from the imperatives and lexical auxiliaries suggests that it should be generated between Negation and
Agreement. The imperative is one type of obligation, and it has its own set of agreement morphemes:

60) lukea: to read

<table>
<thead>
<tr>
<th>Indicative</th>
<th>Imperative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SG PL</td>
<td>SG PL</td>
</tr>
<tr>
<td>1: lue-n</td>
<td>luke-k-aamme</td>
</tr>
<tr>
<td>2: lue-t</td>
<td>luke-k-aa</td>
</tr>
<tr>
<td>3: luke-e</td>
<td>luke-k-oon</td>
</tr>
<tr>
<td></td>
<td>luke-k-oot</td>
</tr>
</tbody>
</table>

This demonstrates that the imperative differs from the moods and tenses, which are base-generated in T/MP (Mitchell 1991). This alone is not enough to show us where the [Obligation] node should be. However, this, combined with evidence from negative sentences, narrows the possibilities considerably.

In negative sentences, movement of the verb is always arrested by the presence of the negative auxiliary, which takes the place of the main verb in subsequent movement through the inflectional categories in the tree, as demonstrated by the fact that Neg picks up the agreement affixes in AGR, while the main verb holds the tense affix:

61) lukea, past tense, negative

<table>
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<th></th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG PL</td>
<td></td>
</tr>
<tr>
<td>1: e-n</td>
<td>e-mme luke-neet</td>
</tr>
<tr>
<td>2: e-t</td>
<td>e-tte luke-neet</td>
</tr>
<tr>
<td>3: e-i</td>
<td>e-iivät luke-neet</td>
</tr>
</tbody>
</table>

Negative imperatives differ from ordinary negative sentences by using both a different root for Neg and the special imperative agreement affixes. Also, the imperative morpheme -k- appears within the imperative negative auxiliary:

62) lukea, imperative, negative

<table>
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<th></th>
<th>PL</th>
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</thead>
<tbody>
<tr>
<td>SG PL</td>
<td></td>
</tr>
<tr>
<td>1:</td>
<td>äl-k-äämme lue-ko</td>
</tr>
<tr>
<td>2: älä lue</td>
<td>äl-k-ää lue-ko</td>
</tr>
<tr>
<td>3: äl-k-öön lue-ko</td>
<td>äl-k-äät lue-ko</td>
</tr>
</tbody>
</table>
To achieve the correct ordering and selection of morphemes via verb movement, we must assume that the node containing the imperative inflection is located somewhere above Negation and no higher than AGR:

63) \[\begin{array}{c}
\text{AGRP} \\
/ \ \\
\text{AGR'} \\
/ \ \\
[+AGR] \text{OblP} \\
/ \ \\
\text{Obl'} \\
/ \ \\
[+IMP] \text{NegP} \\
/ \ \\
k \quad \text{Neg'} \\
/ \ \\
\text{Neg} & \text{TP} \\
/ \ \\
\end{array}\]

Further evidence for the existence of a phrase located above Negation that expresses semantic obligation is found in sentences containing the obligational auxiliaries täytyy and pitää which are entirely synonymous and mean 'must'.

64) Sinu-n täyty-y lukea.  
you-GEN must-3SG read  
You must read.

These sentences cannot be negated in the usual manner:

65) *Sinu-n e-i täydy lukea. 
you-GEN no-3SG must read  
*You don’t must read.

If we assume that täytyy/pitää 'must' is generated in an Obligation node located above Negation this is easily explained. A lexical obligation auxiliary (täytyy/pitää) is a free morpheme and hence blocks the expected movement of the negative auxiliary e- to
Agreement. If the negative auxiliary cannot move to Agreement, it will be expressed as a bare root, as other verbs whose movement is blocked by the presence of intervening free morphemes are expressed. However, this option is not available for this particular root (e-) because, although it can function as a free morpheme syntactically, Finnish phonotactics require all free-standing syllables to be composed of at least two timing units, making it impossible for e- to appear un-affixed. Because of this, negation cannot be expressed in a sentence containing a lexical obligation auxiliary, and an alternative construction must be used.

In fact, negation of obligation is expressed by paraphrasing the construction, making use of either the verb *tarvita* 'need' or the noun *pakko* 'obligation':

66) Sinun e-i tarvitse lukea.
    you-GEN no-3SG need to read
    You don't need to read.

67) Sinu-lla e-i ole pakko lukea.
    you-ALL no-3SG be obligation to read
    'You aren't under obligation to read.'

In these constructions, the subject is still base-generated in the specifier of Obl0, but there is no overt obligational auxiliary, so negation is free to move through Obl0 and on to AGR0 where it picks up its needed phonological material.

This brings us to the third possible instantiation of [+Obl]. This is to have [+Obl] but not specify any special morphology. In such a situation the main verb is nominalized and appears in the present passive participle form, making it necessary to insert the auxiliary verb *olla* 'to be' to provide a host for the bound tense and agreement morphemes:

68) Sinu-n on lue-ttava.
    you-GEN be-3SG read-PstPssPrt
    You have to read.
In general, it seems that if no free morpheme is capable of raising to pick up the bound morphology in the tree, the bound morphology raises by itself as far as possible and then the copula 'olla' is inserted to act as a host. Allowing bound morphemes to ascend the tree on their own if no free morpheme is capable of carrying them also explains how the tense morpheme can appear on the obligation auxiliary, even though the auxiliary is base-generated above [Tense] and hence would not have been able to pick up its tense morphology be moving up the tree through Tense:

69) AGRP
   / \ 
  AGR' / \ 
  [-AGR] OP / \ 
      O' / \ 
  [+Aux] NegP / \ 
      täyty Neg' / \ 
  [-Neg] TP / \ 
      T / \ 
  [+Pst] 
       -i-

70) Sinu-n täyty-i lukea.
    you-GEN must-Pst-3SG read
    'You had to read.'

For further details concerning verb movement in Finnish, see Mitchell (1991).

If we adopt OblP and the proposal that [+Obl] is capable of assigning a special combined theta-role, the analysis for case
assignment in obligatory sentence becomes straightforward. In all obligatory sentences, the subject is base-generated in spec Obl, leaving spec Pred available for an 'object' to occupy. The subject of the sentence moves to spec AGR. If AGR is [+AGR] (as in imperatives) then it is assigned the nominative case. If AGR is [-AGR], then the subject is assigned the genitive, the default case for specs (Vainikka 1985). An 'object' that has moved to spec Pred receives the nominative-accusative case in that position, as discussed above. Other 'objects', if present, are assigned the regular, 'genitive-accusative' case.

Several people have recently proposed that perhaps the internal structure of INFL is not language particular as originally claimed by Pollock (1989), but rather universal (Carstens 1989, Speas 1990). If sufficient evidence can be found to support such a hypothesis or an alternative in which there are only a few orderings possible for inflectional functional categories, we should not posit a new inflectional category on the basis of evidence from a single language. In fact, although there have not been other proposals to date specifically dealing with an obligatory category, evidence has surfaced from several languages that suggests that there is a general modal phrase located below AGR (Whitman 1990, Bahloul p.c.). Perhaps the Finnish ObIP is a specific instantiation of the possibility for a universal Modal Phrase and would be more aptly named ModalP. Whether this will actually be found to reflect Universal Grammar depends upon the findings of future research.

2.2 Remaining problems

Although we have shown how the present proposal for Finnish case assignment is able to explain more constructions than any of the previous proposals, a few un-resolved problems still remain. The first of these problems concerns what is commonly called the colloquial we-form of verbs. In spoken Finnish, the first person plural agreement morpheme is very rarely used; instead, speakers
use the passive form of the verb with a first person plural subject in the nominative case:

71) Me  lue-tt-iin.
    we-NOM  read-Pss-Pst
    We read.

As with other passive verbs, objects are in the nominative-accusative case in this construction:

72) Me  lue-tt-iin  kirja.
    we-NOM  read-Pss-Pst  book-NOM
    We read the book.

This problem is not unique to the present analysis - it is also shared by all of the previous analyses. Perhaps it is simply an example of exceptional behavior that lacks a principled explanation. In any case, the phenomenon is very difficult to study due to the reluctance of native speakers to give grammaticality judgments for these non-standard utterances.

A second problem for the present analysis is the behavior of third person imperatives. The objects of imperative verbs with third person subjects are in the regular 'genitive' accusative, not the 'nominative' accusative:

74) Lue-k-oon  hän  kirja-n!
    read-IMP-3SG  he/she-NOM  book-GEN
    May he/she read the book!

Although the morphology of these verbs parallels other imperatives, the meaning of the construction is slightly different in the third person than in the first and second person imperatives - 'let' or 'may', rather than 'must'. Since the third person imperative does not carry the force of obligation, perhaps these subjects do not receive the special obligational theta-role in Obl (Modal), and hence must be generated in spec Pred after all.
3. Conclusions

In this paper it has been shown that any successful theory for Finnish object case assignment must both recognize the difference between the so-called 'nominative' objects and real nominative subjects, and at the same time restrict the assignment of nominative-accusative to only one object per phrase. The simplest way to achieve this numerical restriction in a GB framework is to allow only one structural position the possibility of nominative-accusative case assignment. In the present analysis, the hypothesis that 'nominative' object constructions lack 'canonical' subjects (subjects generated in the specifier of PredP) enables us to make the occurrence of a 'nominative' object depend entirely on the absence of a 'canonical' subject. However, since it is not the case that subjects are absent all together from 'nominative' object constructions, a separate position must be found in which one can base generate these special subjects. Positing a new functional category for Obligation (Modal) will provide us with the needed position and hence allow for a unified description of object case assignment in Finnish. Positing a new functional category (Modal) to support Obligation also receives independent support from several other areas, including morphology and cross-linguistic data.

By allowing subjects to be base-generated outside PredP we are forced to give up the attractive proposal that all subjects are base-generated within VP or at least PredP, but perhaps this move will not be entirely without merit, especially since evidence from several other languages suggests that we may have to give up that assumption anyway.

The present proposal for Finnish Case assignment also has a number of conceptual advantages. The idea that object case assignment is directly dependent on the presence of a subject is in full accord with claims made by the traditional Finnish grammarians. In this proposal, the genitive-accusative is the unmarked syntactic case for objects, which is the initial 'gut feeling' for speakers of the
language. At the same time, the behavior of subjects is directly tied to semantic properties of the verb and its inflectional categories, which captures the intuition that the inflectional categories of the verb are ultimately responsible for the choice of syntactic object case.

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"Inner" and "Outer" Subjects in Sinhala

Leiwala Sumangala

1. Introduction

This paper is concerned with two types of subjects in Sinhala which show distinct syntactic and semantic properties. These will be referred to as "inner" and "outer" subjects. I will argue that "inner" subjects differ from "outer" ones in that the former are generated in a theta-position and receive a theta-role from the verb, while the latter are generated outside of the theta-domain, a theta-bar position, and are merely predicated of a non-theta-assigning predicate. I will claim that the position for "inner" subjects is the SpecPr posited in Bowers (1990), while "outer" subjects are generated in the SpecI position.

What is instructive about assuming two types of subjects in Sinhala is that it explains in a straightforward manner several important facts concerning Case and theta-assignment, extraction and embedding, which are otherwise highly unpredictable in the language. For example, the present analysis explains the distinct properties of sentences in which the predicate is an NP/PP, as opposed to those in which it is a VP; the clauses of the latter type, but not the former type, allow embedding in small clause contexts. Second, only the subjects of VP predicates, but not of NP/PP predicates, can be extracted. Third, subjects of VP predicates, but not of NP/PP ones, allow quantifier-stranding. Lastly, the subjects of non-verbal sentences have an optional Topic interpretation which is absent in the subjects of VP predicates. All of these properties will be shown to be

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derivable from the hypothesis that the subjects in the two constructions occupy different positions.

Moreover, I will show that the present account provides a plausible way of characterizing the distinct properties of nominative and dative subjects: while both are controllers of PRO in sentential adjunct clauses, only nominative subjects (that appear in theta-positions) have canonical subject properties, as shown by the facts of nominalization. This asymmetry will once again be claimed to follow from a positional difference. In addition, I will point out that this analysis provides a syntactic account for, among other things, (in)volitionality, which has hitherto been unexplained.

The paper is organized as follows. Section 2 is an exposition of the distinct properties of the two types of subjects in Sinhala. Section 3 outlines the theoretical assumptions. Section 4 is a discussion on the theta-properties of these subjects. Section 5 introduces a third type of sentence, the dative construction, which presents further support to the theory outlined in section 3. In section 6, I will discuss the structure of IP in Sinhala under the theory proposed in section 3. In particular, following the lead of Rivero (1990) and Mitchell (1991), I will assume a new functional category, namely, Voice, which heads its own projection. In conclusion, section 7 will summarize the main points of the paper.

2. Two Subjects

Sinhala has two types of sentences, one with a verb inflected for Tense and the other without any lexically realized verbal element. These two types are illustrated in (1)–(2):

(1) gunapaalə sinduvak kivva
gunapaalə–NOM song–INDEF sing–PAST
‘Gunapala sang a song’

(2) gunapaalə guruvarayek
gunapaalə–NOM teacher–INDEF
‘Gunapala is a teacher’

Languages such as Russian (Babby 1980), Hebrew (Borer 1986, Rappaport 1987) and Arabic (Bahloul 1990) also demonstrate the absence of copula, although
largely restricted to the present tense. In spoken Sinhala\(^1\), the copula is never realized, I will claim, because it is altogether absent.

While the verbal sentences such as (i) must have tense expressed by verbal morphology, in sentences such as (2), Tense is expressed by a time adverb, confirming the absence of Tense morphology. This is illustrated by (3):\(^2\)

(3) a. giya avurudde gunapaala guruvarayek  
  last year-LOC Gunapala-NOM teacher-INDEF  
  '(lit.) Last year, Gunapala (was) a teacher.'

b. labana avurudde gunapaala guruvarayek
  next year-LOC Gunapala-NOM teacher-INDEF
  '(lit.) Next year, Gunapala (going to be) a teacher'

If the sentences in (3) had a copula underlyingly, it would be expected to be inflected for tense, tense being a basic property of the verb. \(^3\) If the claim that the sentences in (2)-(3) are without any verb is correct, then, this must be reflected in the syntax and semantics of (2) and (3). Below, I will demonstrate such significant differences between the two. Henceforth, I will refer to the sentence

\(^1\)Literary Sinhala is excluded from the discussion here since that variety differs from colloquial Sinhala in number of ways. Literary Sinhala has not only copula, but also many other features such as agreement and related phenomena which makes that variety different from the colloquial variety (see Gair 1989, Paolillo 1989, in prep.).

\(^2\)Not surprisingly, if the verb venava 'become' is used in this sentence, it can be inflected for Tense. Fernando (1973), among others, incorrectly identifies venava 'become' as a realization of copula. The semantic difference between the sentences in (2) and the ones in (i) are thus not predicted by the researchers who assume state changing verbs such as venava and existential verbs such as innava 'to exist (animate)' and, tivenova 'to exist' (inanimate) as realizations of copula.

(i) a. giya avurudde gunapaala guruvarayek unaa
  last year-LOC Gunapala-NOM teacher-INDEF become-PAST
  'Last year, Gunapala became a teacher'

b. labana avurudde gunapaala guruvarayek venava
  next year-LOC Gunapala-NOM teacher-INDEF become-NON-PAST
  'Next year, Gunapala will become a teacher'

\(^3\)Further evidence confirming the absence of copula in Sinhala is found in the negation and relativization facts discussed in Gair and Paolillo (1989) and Sumangala (in prep.).
type in (1), as verbal sentences (VS) and the type in (2) as non-verbal sentences (NVS) following Gair and Paolillo (1989). Before going onto distinguishing between the VS and NVSs proper, a further point of clarification is in order. Namely, how do sentences such as (2) differ from Small Clause complements. The next section will be devoted to a brief discussion of this.

2.1 Main Clause Small Clauses?

The NVSs such as (2) recall the Small Clauses (SCs) of languages such as English.

(4)  
   a. John considers [sc Bill a fool]

   b. We elected [sc John president]

The SCs Bill a fool and John president in (4) are possible without a verb since they have been selected by the ECM verbs consider, elect as their complements respectively. SCs, however, may not occur as main clauses, as shown in (5).

(5)  
    "Bill a fool

While the NVSs such as (2) resemble SCs in not having a verb, they cannot be treated as SCs for the following reasons: (a) NVSs, unlike SCs, are possible as main clauses as shown in (2); (b) the subjects of SCs, but not the subjects NVSs, are case marked by a higher verb that selects them; and (c) NVSs, but not SC complements, take complementizers as indicated by (6):

(6)  
   a. mamo gunapaala guruvaryek bava/kiyla dannava
      I-NOM Gunapala-NOM teacher-INDEF that know-Ø
      'I know that Gunapala is a teacher'

   b. siripala [sc gunapaala (va) guruvaryek] *bava/kiyla keruva
      Siripala-NOM Gunapala-ACC teacher-INDEF make
      'Siripala made Gunapala a teacher'

In sum, NVSs are independent clauses which are internally satisfied. SC complements, on the other hand, are not. Having observed that the NVSs are indeed structurally distinct from SC complements, in what follows, I will show that they are also structurally different from VSs in certain crucial respects. In particular, subjects of NVSs and VSs behave differently in embedding and ECM
contexts, extraction, Quantifier-stranding and Topic interpretation. These will be briefly discussed below.

2.2. Embedding and ECM

As illustrated by (7) both VSs and NVSs can be embedded as subordinate clauses using the complementizer bavə/kiyala. However, VSs, but not NVS, can be embedded as small clauses under the perception verbs such as dannəva 'to know,' as shown by (8).

(7)  
a. mama gunəpaala aavə bavə/aava kiyala dannəva
    I-NOM Gunapala-NOM come-PAST that know-Ø
    'I know that Gunapala came'

b. mama gunəpaala guruvərayek bavə/kiyala dannəva
    I-NOM Gunapala-NOM teacher-INDEF that know-Ø
    'I know that Gunapala is a teacher'

(8)  
a. mama gunəpaala (va) aava dannəva
    I-NOM Gunapala-ACC come-PAST know-Ø
    (lit. 'I know Gunapala came')

b. *mama gunəpaala(va) guruvərayek dannəva
    I-NOM Gunapala-ACC teacher-INDEF know-Ø
    (lit. 'I know Gunapala a teacher')

Moreover, it has been established in the literature that the subject of an ECM complement clause can be exceptionally Case marked by the ECM verb that subcategorizes for the clause (see Massam 1985). The sentences in (8) show that the subject of VSs, can be exceptionally Case marked by perception verbs such as dannəva. The subjects of NVSs, on the other hand, cannot be ECMed by the

4This sentence becomes grammatical with vidiya-Tə 'as' in the predicate nominal as shown in (i):

(i)  
mama gunəpaala(va) guruvərayek vidiya-Tə dannəva
    I-NOM teacher-ACC teacher-NOM-INDEF as know-Ø
    (lit. 'I know Gunapala as a teacher')

Following Bowers (1990), one may assume that vidiyaTə 'as' is a realization of PrØ, in which case it becomes a lexical governor and Case assigner patternning with other verbs as in VSs.
same verbs, as illustrated by (8b). This difference can be accounted for if we assume that: (a) the complement of verbs such as danna\textsuperscript{wa} 'to know' is smaller than IP; i.e., such verbs subcategorize for PrPs, but not for "full IPs;" and (b) the subjects of VSs, but not the subjects of NVSs, are subject to ECM (the details of these structures will be discussed in Section 3).

2.3. Extraction

A further striking fact about subjects of NVSs is that they cannot be extracted out of their base position, while subjects of VSs can be. Consider in this respect the sentences in (9)–(10).

Wh-questions:

(9) a. oyaa hitan\textsuperscript{wa} kauru aava da\textsuperscript{r} (S-Structure)
    you-NOM think-PRES who come-PAST Q
    (lit. 'You think who came')

    b. kaud\textsuperscript{a} oyaa hitanne [ t\textsubscript{i} aave] (LF-structure)
    who-Q you-NOM think-PRES come-PAST

(10) a. oyaa hitan\textsuperscript{wa} kauru guruv\textsuperscript{ar\textsuperscript{ay}ek} da (S-structure)
    you-NOM know-PRES who-NOM teacher-NOM-INDEF Q
    (lit. 'You know who a teacher')

    b. "kaud\textsuperscript{a} oyaa hitanne [ t\textsubscript{i} guruv\textsuperscript{ar\textsuperscript{ay}ek}] (LF-structure)
    who-Q you think-PRES a teacher-NOM-INDEF

\textsuperscript{5}If the nominal predicate here were to be definite, the sentence becomes significantly well-formed. Such definite structures differ from predicate nominals such as (10b) in a number of ways. Crucially, definite statements may freely inverse their order but predicate nominals may not. Consider (i)–(ii):

(i) a. mee mahatteya apee iskoole mulguruv\textsuperscript{ar\textsuperscript{ay}a}
    this gentleman-NOM-DEF our school-GEN head master-DEF
    'This gentleman is the head master of our school'

    b. apee iskoole mulguruv\textsuperscript{ar\textsuperscript{ay}a} mee mahatteya
    our school-GEN head master-NOM-DEF this gentleman
    'Our school head master is this gentleman'

(ii) a. mee mahatteya guruv\textsuperscript{ar\textsuperscript{ay}ek}
    this gentleman-NOM teacher-NOM-INDEF
"INNER" AND "OUTER" SUBJECTS IN SINGHALA

Notice that in (9), the subject can be extracted when the predicate is verbal, while it is not possible when the predicate is non-verbal. Similar facts obtain in relative clause extraposition, as illustrated by (11) and (12).

Relative Clause extraposition:

(11) a. [oyaa danna lamaea\NP iiye aava]]
   you know-REL child yesterday come-PAST
   'The child you know came yesterday'

b. [ \emptyset lamaea\NP iiye aava ]] oyaa danna
   child-NOM yesterday come-PAST you know-REL

(12) a. [oyaa danna lamaea\NP ho\nd\a si\si y\ayek]]]
   you know-REL child good student-INDEF
   'The child you know is a good student'

b. *[ lamaea\NP ho\nd\a si\si y\ayek]]] oyaa danna
   child good student-INDEF you know-REL

In (11b) the relative clause extraction from a VS is allowed presumably because the extraction, in this case, is from a theta-position. In (12b), however, such extraction is not allowed because extraction, this time, is from a theta-bar position (cf. Koopman and Sportiche 1988).

In sum, sections 2.2–2.3 establish a distinction between VSs and NVSs. The subject of VSs can be embedded under perception verbs, ECMed and extracted, none of which is possible with subjects of NVSs. Further differences between the two types of subjects is also found in Quantifier-stranding, and Topic-interpretation, to which we return below.

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'This gentleman-NOM-DEF is a teacher'

b. *guru\v\a\yek mee maahatteya
   teacher-INDEF this gentleman-NOM-DEF

See Sumangala (in prep.) for further details.

---

Subject extraction here is a reflexion of Wh- and Focus movement at LF since Sinhala is a Wh-in-situ language (see Sumangala 1989 for details of the nature of Focus and Wh-movement in Sinhala; also see Gair 1983 for a S-structure movement analysis of Focus in Sinhala).
2.4. Quantifier-Stranding

The different behavior of subjects of VSs and NVSs is found in quantifier-split contexts such as (13)–(15).

(13) a. yaaluvo okkomə(-la) apiTə udav-keruva
friend-PL all us help-PAST
'All the friends helped us'

b. yaaluvo apita okkomə(-la) udav-keruva
friends us all help-PAST
'As for friends, all helped us'

(14) a. sirii-ge yaaluvo okkomə(-la) vaDuvo
Sirii-POSS friends-PL all carpenter-PL
'Siri's all the friends are carpenters'

b. ??yaaluvo sirii-ge okkomə(-la) vaDuvo
friends-PL Sirii-POSS all carpenter-PL

(15) a. mee pot dekə amma-gen duuTə tææggak
this book two mother-GEN daughter present-INDEF
'These two books are a present from the mother to the daughter'

b. ??pot mee dekə amma-gen duuTə tææggak
this book two mother-GEN daughter present-INDEF

(13b) is well-formed when the subject strands the quantifier from the subject position of VS. The (b) sentences of (14) and (15), however, are ill-formed, when the NP strands its quantifier from the subject position of NVSs.

2.5. Topic Interpretation

Generally, Topics in Sinhala are marked by a Topic marker -nan as shown in (16):

(16) a. gunəpaalə nan sinduvak kivva
Gunapala-NOM TOPIC song-INDEF sing-PAST
'As for Gunapala, he sang a song' or
'Gunapala sang a song (but Siripala didn't)
b. gunəpala nan guruvərayek
Gunəpala-NOM TOPIC teacher-NOM-INDEF
'As for Gunəpala, he is a teacher or
Gunəpala is a teacher (but Siripala is not)'

Notice that when Topicality is expressed by a morphological Topic marker, the sentence has Topic and Contrastive readings. Even when the Topic marker is absent, however, subjects of NVSs give an optional Topic reading which is absent in the subjects of VSSs.\(^7\) This is shown in (17):

(17) a. gunəpala guruvərayek
Gunapa-NOM teacher-INDEF
'Gunapala is a teacher or
As for Gunapala, he is a teacher'

b. gunəpala sinduvaq kivva
Gunapala-NOM song-INDEF sing-PAST
'Gunapala sang a song'
( cannot mean: * gunəpala nan sinduvaq kivva
'As for Gunapala, he sang a song')

3. *Inner* vs. *Outer* Subjects

The different behavior of subjects of VSSs and NVSs that we observed so far can be captured if we assume that these two subjects occupy two distinct structural positions. Specifically, assume, as illustrated by (18), that subjects of VSSs are "inner" subjects generated in the SpecPr posited in Bowers (1990), and subjects of NVSSs are "outer" subjects generated outside the theta-domain of the verb in SpecI as illustrated by (18b).\(^8\)

\(^7\)Not surprisingly, intonation can convert a subject into a topic irrespective of predicate types.

\(^8\)It is worth mentioning that this 'inner/outer' distinction of subjects in Sinhala is independent of the individual/stage level contrast posited by Diesing (1989) and Kratzer (1989). Diesing (1989) and Kratzer (1989), among others, observe that subjects of stage-level predicates such as the one in (1a) have either the Nuclear Scope or the Restrictive Clause interpretation, while the individual-level predicates such as the one in (1b) have the Restrictive Clause interpretation only. Subjects of stage-level predicates are bound by Existential Closure, hence they can have the existential reading given in (2a); subjects of Individual-level predicates, on the other hand, are either bound
by the abstract Generic quantifier or an adverb of Quantification, but not by Existential Closure, hence they cannot have existential reading as indicated in (2b).

(1)  
   a. Firemen are available  
   b. Firemen are intelligent

(2)  
   a. There are firemen available (in the local fire brigade)  
   b. "There are firemen intelligent (in the local fire brigade)

Furthermore, Diesing (1989) claims that this stage/individual contrast can be derived from the syntax by assuming that these two subjects are base-generated in distinct syntactic positions. As shown in (3), the "inner" subjects that are generated in the Spec V position can receive either Nuclear Scope reading or the Restrictive Clause reading depending on whether it stays in-situ or move to the Spec I position. The "outer" subjects, however, are limited to the Restrictive Clause reading since they are generated outside of the theta-array of verb.

(3)  

 Diesing (1989) motivates this "double-subject" hypothesis by a number of cross-linguistic constructions. In German 'was-fur' split and quantifier-split facts, focus projection in Japanese and English, and generic and existential readings of bare plurals in English are argued to follow from these two structural positions of subjects. The "inner"/"outer" subject distinction that we recognized above for Sinhala is not, however, consonant with Diesing-Kratzer double-subject hypothesis. Consider, for example, the postpositional NVSs given in (4).

(4)  
   a. giyə satiyema, gunapala kaamaree (PP pred. with animate sub.)  
      Last week-EMP, Gunapala-NOM room-LOC-PP  
      'Last week, Gunapala was in the room'  
   b. liye raæe, pota meese uDa (PP pred. with inanim.subj.)  
      Last night, book-DEF table on-PP  
      'Last night, the book was on the table'

The sentences in (4) pattern with other NVSs in lacking the copula verb. Their subjects thus show the same properties of the subjects of predicate nominals with regard to extraction (5-6), embedding (7-8), Q-stranding (9-10).

(5)  
   a. oyaa dannova kauru kaamaree də (S-structure)  
      You-NOM know-PRES who in the room Q  
      'lit. You know who in the room'  
   b. *kauða oyaa dannə t kamaree 8 (LF-structure)  
      who you know-PRES Q room-LOC
Although syntactically the post positional predicates in (5)-(10) pattern with predicate nominals, they obviously have a Stage-level interpretation (thanks to Gennaro Chierchia for pointing this out to me), unlike predicate nominals such as (2) in the text, which have Individual-level interpretation. Sinhala NVSs thus do not conform to the Individual/Stage contrast that Diesing-Kratzer make. I will therefore maintain that the 'inner/outer' contrast made here is independent of Individual/Stage-level distinction that Diesing and Kratzer make.
Further assume that the [+V] predicate of VSs assign a theta-role to its subject, while the [-V] predicates of NVSs do not. This essentially means that the subject position of VSs, but not NVS, is theta-dependent.

The assumption that subjects of VSs are indeed "inner" subjects appearing in a theta-dependent position will explain the extraction and embedding facts. "Inner" subjects which occur in the theta-domain of the verb are theta-marked by verbal predicates. Hence they allow extraction. Extractability of theta-marked subjects has been discussed extensively in the literature (cf. Koopman and Sportiche 1988, Rizzi 1982). In accounting for the Sinhala facts, I will thus assume the condition on extraction proposed by Koopman and Sportiche, stated in (19):

(19) a. Condition on Long Extraction
Long extraction is possible iff from a theta-position.

b. Theta Dependence
A position is theta-dependent if it is theta-marked, or if it is a specifier of a theta-marked category

(Koopman and Sportiche 1988: 43)

Assuming that the theta-assignment is subject to a locality requirement and the argument structure of a given predicate is saturated within its PrP (see Bowers 1990), the condition in (19) dictates that "outer" subjects, which are outside of the theta-domain of the verb, must disallow extraction. This is empirically borne out by the extraction facts illustrated by (10b) and (12b). Second, the difference in embedding could be explained if we assume that ECM complements of the sort illustrated in (8a) are PrPs. The subjects of NVSs, on the other hand, which are outside of PrP, cannot occur in such contexts because they are "bigger" clauses than PrPs; namely they are IPs. The facts about Q-
strand and Topic interpretation also follow from the positional difference of subjects. "Outer" subjects do not allow Q-stranding since there is no landing site for "outer" NPs to move to. Finally, Topic interpretation is possible with "outer" subjects, but not with "inner" ones, since the former are outside of the theta-domain of the verb, i.e., Topic position.

Having established that the distinct properties of the two types of subjects can be derived from the positional distinction illustrated in (18), in what follows, I will discuss the theta-properties of the two.

4. Theta-assignment to Subjects

The standard assumption of theta-assignment to a subject is that V assigns the external theta-role to the subject with the mediation of VP. This is an "indirect" theta-marking compared to the "direct" theta-marking of the object by a governing head, i.e., verb (see Chomsky 1986b). If our conception of two types of subjects posited in (18) is correct, then the standard assumption of theta-assignment to subjects must be modified to account for Sinhala. In other words, if the double-subject hypothesis proposed here is correct, then "inner" subjects in Sinhala are simply theta-elements, while the "outer" ones are not. I will thus assume that the external argument is always generated in the SpecPr position and the subject theta-role is assigned to this position.

4.1. Thematic Status of the "Outer" Subjects

If the extraction facts follow from the hypothesis that the "inner" subject position is a theta-position, then the facts about the "outer" subjects suggest that the "outer" subject position is a theta-bar position, parallel to the S-structure subject position in languages such as English. In English type languages there is an increasing amount of evidence that the subject is raised to the SpecPr position at S-structure for Case-theoretic reasons. This, however, cannot be true in Sinhala for the distinct behavior of two types of subjects we observed. More specifically, the facts on embedding (see 2.2) strongly suggest that subjects of [-V] predicates must be outside the argument-domain of the predicate. The optional topic interpretation of subjects of [-V] predicates also suggests that such subjects are
base-generated in the topic position, which is standardly assumed to be the SpecI position.

If "outer" subjects are generated in the SpecI position, then the following question arises: what is their thematic status? Are they thematic-arguments? I will claim that they are non-thematic arguments of which a [-V] category is predicated. This claim is justified by the fact that: (a) these subjects are base-generated in SpecI which is an A/A' position (see Diesing 1988); and (b) the predicates of these sentences are non theta-assigners. I will thus assume that the predicates get co-indexed with their subjects without any involvement of theta-assignment.

The fact that the subject-predicate relation in NVS sentences is established solely by predication but not by theta-assignment should not come as a surprise since similar phenomena are found in other contexts. Two such contexts are: non-gap topic-comment structures and relativization contexts each of which does not involve movement (see Perlmutter 1972, Kuno 1973, Saito 1985). I will not go into the details of these constructions here, rather, I will note that topic-comment sentences and relative clause contexts in Sinhala, both of which do not involve syntactic movement, are other instances of predication without theta-assignment. Consider the sentences in (20)–(21):

**Topic-comment:**

(20) gunapala, kaurut eyaa gænæ kataa kəranəva
    Gunapala-NOM, everybody-NOM he about talk-PRES
    'As for Gunapala, everybody speaks about him'

**Relative clause:**

(21) eyaa taman gænə(mə) nitəræmə kataakərænə mahatteya
    he self about (EMP) always talk gentleman
    'the gentleman (he) who always speak about himself'

Notice the topic *gunapala* and relative clause head *mahatteya* in (20)–(21) are not moved from their respective clauses since the gap position is filled by the resumptive pronouns *eyaa gænæ* and *eyaa* in the respective clauses. The topic in (20) and the relative clause head in (21) thus have to be base-generated in the
positions they appear in these sentences. If it is correct that these elements are base-generated in their respective positions, the relation between these elements and their respective clauses must be something like the "aboutness" relation. I will claim that NVSs are instances of predication without theta-assignment.

One apparent problem with analyzing NVSs purely in terms of predication without theta-assignment arises regarding so called "Action-nominal" sentences:

(22) miniha kattaa-ʋə
man-NOM talk-NOMINAL
'The man is at talk'

"Action nominal" sentences are so named because they pattern with NVSs in every respect except for the fact that the predicate denotes an action. Gair and Paolillo (1988) point out that the characteristic feature of these clauses is that their predicates have the referential characteristics of verbs rather than nouns. Further, they claim that these differ from regular predicate nominals in two ways:9

1. There is no co-reference, identity or class inclusion relation between subject and predicate. Put simply, there is no 'is' relation.

2. The interpretation is 'do' rather than 'is', 'NP do the action of N'.

(Gair and Paolillo 1988:65)

The puzzle that these sentences presents then, as Gair and Paolillo (1988) observe, is why there is 'action involvement' between the subject and predicate if they are syntactically pattern with NVSs. The answer seems to be that the 'action' interpretation comes in this case not from a theta-role assigned by the predicate but from the verb that has been nominalized. These Sinhala sentences are similar to such English sentences as the ones in (23):

(23) a. John is at work

b. Tom is in a meeting

---

9See Gair and Paolillo 1988 and Sumangala in Prep. for a detailed discussion of these sentences.
In these sentences, while the predicates *at work*, *in a meeting*, are derived from their respective verbs *work*, *meet*, once they are nominalized they syntactically pattern with predicate nominals.

Notice also that these "action nominal" sentences in Sinhala are parallel to those in (23) in denoting progressive tense without exception. The implicit agent reading in these, therefore, comes from the lexical semantics of the verb. I will thus conclude that these sentences do not involve theta-assignment.

Finally, "inner" subjects differ from "outer" subjects in that the former get their theta-role from the verbal predicate, while the latter get no theta-role but are structurally co-indexed with the Spec as an instance of Spec–head agreement. The prediction of this analysis is that only "inner" subjects can be affected by lexical rules such as nominalization because "inner" subjects are part of the argument structure of the head, whereas "outer" subjects, on the other hand, are outside of the argument domain of the head and hence must not be subject to lexical rules. In other words, only arguments of a head are mentioned (and may therefore be manipulated) in its lexical entry. This is indeed borne out in the nominalization facts in Sinhala, as shown by (24)–(25):

(24) a. gunapala sinduvak kivva
    Gunapala–NOM song–INDEF sing–PAST
    ‘Gunapala sang a song’

    b. gunapala–ge sindu kimmə
    Gunapala–GEN song–PL singing
    ‘Gunapala’s singing songs’

(25) a. gunapala guruvərəyek
    Gunapala–NOM teacher–INDEF
    ‘Gunapala is a teacher’

    b. *gunapala–ge guruvərəyek
    Gunapala–GEN teacher–INDEF
    ‘Gunapala’s being a teacher’

10Similar facts seem to obtain in some subjects in English too, as shown by (i) and (ii).
Summarizing, I have argued so far that the distinct properties of the subjects of VSs and NVSs in Sinhala can be explained in a straightforward manner if we assume that the former are generated in SpecPr, a theta position, and the latter are generated in SpecI, a theta-bar position. I also claimed that there is no theta-assignment to "outer" subjects, instead they are structurally licensed by predication. This is supported by the fact that while "inner" subjects, which are arguments of a head in the D-structure subject position, can be genitive marked under nominalization, "outer" subjects cannot be. In the next section, I will extend the proposed analysis to dative subjects in Sinhala.

5. Double-subject Constructions

So far, the discussion of the "inner/outer"-subject contrast was limited to nominative subjects. In this section, I will extend this analysis to dative subjects showing that both the dative NP and the "object" NP in dative constructions have subject properties. There is, however, a complementarity between the two, which I claim, may follow from the theory outlined above.

5.1. Dative Subjects

There are two kind of dative subjects (DS) in Sinhala: subjects of psych predicates and the subjects of "involuntary" sentences, exemplified in (26)–(27) respectively:

(26) a. lameya-Ta nidimata-y/nidimata tiyenava
    child-DAT sleepy/sleepiness has-PRES
    'The child is sleepy/has sleepiness'

    b. lamea-Ta kaar-eka-Ta aasa-y/aasaavə tiyenəva
    child-DAT car-one-DEF-DAT like-y liking exist-PRES
    'The child likes the car/has liking to the car'

(i) a. a man is in the garden
    b. a man's being in the garden

(ii) a. In the garden is a man
    b. In the garden's being a man

(Thanks to John Whitman for pointing this out to me).
(27) a. lamea-Tə diuna  
    child-DAT-DEF run-PAST-INVOLUNTARY  
    'The child ran (involuntarily)'

  b. gunee-Tə sirii (-və) tallu–una  
     Gunee-DAT Siri-ACC push-PAST-INVOL  
     'Gunee pushed Siri (involuntarily)'

The sentences in (26)-(27) take experiencer subjects which are morphologically marked by dative case. Below, I will demonstrate that DSs share some features of the subjects of VSSs and of NVSSs, thereby differentiating themselves from both types.

5.1.1. Properties of Dative Subjects

A widely observed property of subjects across languages is their ability to control PRO in adverbial clauses (cf. Cowper 1988, Davison 1989, Gerdts and Youn 1989, Harbert and Toribio 1991, among others). In (28), only the subject can be the controller of PRO in adverb clauses. The sentence in (29) shows that even in a c-commanding position, non-subjects cannot be controllers of PRO.

(28) a. PROi/ŋ væDa kərana gaman, guneeqi siri(-və)j viveecaneee kəruva  
    work do-while, Gunee-NOM Siri-ACC criticize-PAST  
    'While PROi/ŋ working, Guneei criticized Siri'

b. PROi/ŋ nuvarə inna kaale, guneeqi lipi-karuvek  
   Nuvarə live-REL time, Gunee-NOM clerk-INDEF  
   'When (hei/ŋ) was living in Nuvara, Guneeq was a clerk'

(29) siri(-və)j, PROi/ŋ væDa kərana gaman, guneeqi viveecaneee kəruva\[\[  
     Siri-ACC work do-while, Gunee-NOM criticize-PAST  
     'As for Siri, while PROi/ŋ working, Guneeq criticized (him)j'

Furthermore, recall that we observed in (24) and (25) above that subjects (more precisely "inner subjects"), can be genitive marked under nominalization in Sinhala. DSs are controllers of PRO, but they cannot be genitive marked under

\[\[Thanks to Wayne Harbert for pointing this out to me.
nominalization unlike nominative subjects; that is, they show some, but not all, of
the subject properties, as illustrated by (30)–(31) respectively.

(30) a. PRO₁ udeēTə kææve nātuva, lameaTə₁ læn hunγak baDɔgini-y
   morning eat-PAST not, child-DAT now very hungry-Y
   'The child₁ is very hungry now, for PRO₁ not eating in the morning'

   b. PRO₁ gedərə yanə gaman lamea-Tə₁ diuña
   home go-when, the child-DAT run-PAST
   'While PRO₁ going home, the child₁ ran (involuntarily)

   c. PRO₁,₁ ee gænə hītanne nātuva, guneec-Tə₁ sirii (-və)₁ talku-keruna
   that about think-PRES not, Gunee-DAT Siri-ACC push-PAST-INVOL
   'Without PRO₁,₁ thinking about it, Gunee₁ pushed Siri₁
   (involuntarily)'

(31) a. ranjanii-Tə sita(-və) talku-una
   Ranjani-DAT Sita(-ACC) push-PASS
   'Sita was pushed by Ranjani'  

   b. *ranjanii-ge sita(-və) talku-viimə
   Ranjani-GEN Sita(-ACC) push-PASS

   c. sita-ge talku-viimə/ talku-venə-ekə
   'Sita's being pushed'

While DSs, unlike VSs, do not undergo nominalization, they allow embedding,
extraction and Q-stranding on a par with VSs as illustrated by (32)–(34)
respectively.¹²

¹²Gerdt and Youn (1988) have demonstrated that this is not possible in Korean.

(i)  a. Tu haksaeng-i ecey hakkyo-ey o-at-ta
   two student-NOM yesterday school-to come-pst-ind
   'Two students came to school yesterday'

   b. Haksaeng-i ecey hakkyo-ey tuil (-i) o-at-ta

(ii) a. Sey ai-ekey k+ tʰl-γ sensaengnim-i muse-wet-ta
   three child-DAT their-GEN teacher HON-NOM afraid-pst-ind
   'The three children were afraid of their teacher'

   b. *Ai-ekey k*t +l-γ sensaengnim-i seys-(ekey) muse-wet-ta.

   (Gerdt & Youn 1988; 11)
(32) a. guneeta anawə baŋ̪ə-Tə badəginə tyenəva
    Guneet-NOM know-PRES Siri-DAT hungər exist-INANIM-PRES
    'Guneet knows (when) Siri had hunger'

b. guneeta anawə sii-Tə divenəva
    Guneet-NOM know-PRES Siri-DAT run-PAST-INVOL
    'Guneet knows (when) Siri ran (involuntarily)'

(33) a. kaaTə də guneet hitanne tə baŋ̪əginə tyenne
    who-DAT Guneet-NOM think-FOC hungər exist-INANIM-PRES
    'Who does Guneet think has hunger'

b. kaaTə də guneet hitanne tə diune
    who-DAT Guneet-NOM think-FOC run-PAST-INVOL
    'Who does Guneet think ran (involuntarily)'

(34) a. ada iskoolede lamay okko-Tə-mə diuna
    today in school-DEF, all children-DAT-EMP run-PAST-INVOL
    'Today in school, all the children ran (involuntarily)'

b. lamayə ada iskoolede okko-(Tə)-mə tə diuna
    children-DAT today school-LOC all-EMP run-PAST-INVOL

5.2. Objects of Dative Constructions

Another striking fact about dative constructions is that their "objects" have
the properties of "inner" subjects, as confirmed by nominalization facts given in
(31c). Note that only subjects, but not objects, can be genitive marked under
nominalization as shown by (35).

I will suggest that this oddity is due to the fact that lexical Case cannot be split between the Q and
NP. In Sinhala, since Q always follow the NP unlike in Korean, the sentences are well-formed as
shown by (34) in the text.

Moreover, Gerdt and Youn (1988) refer to this phenomena as Quantifier-float. Following Sportiche (1988) and Bowers (1990), however, I will refer to this as Quantifier-stranding,
meaning that the relevant quantifiers have been stranded by the NP. (I will simply refer the reader
to Sportiche 1988 for the relevant arguments).

I will assume that -y ending psych verbs also are underlyingly [+V] since (a) all of them take
innawa "exist-INANIM, tyenəva "exist-ANIM" optionally. (b) Even in the absence of these verbs,
dative subject and the predicate has a 'has' relation but never an 'is' relation.
(35) a. gunəpaalə siri(ʋə) tallu-keruva
    Gunapala-NOM Siri-ACC push
    'Gunapala pushed Siri'

b. gunəpaalə-ge siri(ʋə) tallu-keriimə
    Gunapala-GEN Siri-ACC push-NOMINALIZER
    'Gunapala's pushing of Siri'

c. *gunəpaalə siri-ge tallu-kiriimə
    Gunapala-NOM Siri-GEN push-NOMINALIZER

Surprisingly, however, in the DS construction (DSC), the dative NP (even though a subject for other purposes, i.e., control), does not behave like one with regard to nominalization, as indicated in (31b). The objects of DSCs, (even though they are non-subjects for other purposes, i.e., control in subject oriented adverbial clauses),\(^{14}\) behave like a subject for nominalization as shown in (31c). This leads us to the conclusion that such objects indeed occur in the "inner" subject position because all and only "inner" subjects in canonical subject position can be genitive marked under nominalization in Sinhala (see 4.1). Moreover, DSs differ from the subjects of NVSs in that the former, but not the latter, allow embedding and extraction.

Dative subjects thus have some properties of the subjects of VSs and other properties of the subjects of NVSs. The summary of distinct subject properties of NPs in question are illustrated below (GMN - Genitive marking under nominalization). Although both VS and DSs are verbal sentences, I will use the same notation to distinguish one from the other).

\(^{14}\)Although "objects" of DSCs cannot control the subject oriented adverbial clauses, they can be controlled by the subject position as indicated in (i):

(i) gunapaala-Te øi peni peni, Siriij divva
    Gunapala-DAT see-PART, Siri-NOM run-PAST
    'While being seen by Gunapala, Siri ran'
According to the "inner-outer" distinction of subjects that we made in section 3, subjects of DSs are "inner" subjects with regard to embedding, extraction, Q-stranding and Topic interpretation facts, although they are "outer" ones with regard to GMN facts. The objects of DSs, unlike the objects of regular sentences, also have some subject properties as indicated in (36).

Now, the task is to identify the structural positions of subjects and objects of DSs so that their shared subject properties may follow. If we assume that the position for the objects of DSs is SpecPr, it explains why these NPs mostly pattern with the "inner" subjects (i.e., subject of VSs). It is also consistent with the natural word order: they occur adjacent to verb. The objects of DSs thus seem to be D-structure objects moved to the "inner" subject position at S-structure, patterning with the derived subjects of passives. If the assumption that the objects of DSs occupy the "inner" subject position is correct, then the subjects of DSs, the dative marked NPs, must occupy a higher position than the object NPs because they have the properties of external arguments, i.e., control. These NPs, on the other hand, cannot be theta-bar subjects on a par with the subjects of NVSs because they pattern with "inner" subjects with respect to extraction, embedding and Q-stranding. In the following section, I will argue for an intermediate category under which DSs are generated.
6. Projection of VoiceP

What is common to both types of DSCs in Sinhala is the absence of a volitive agent-actor who is responsible for the event that takes place. It is thus the "involitionality or involuntariness" on the part of the subject that makes these sentences different from the regular agentive ones. One way of encoding this word meaning to phrase structure is to assume a functional head, i.e., "involuntariness (Invol)" which heads its own projection. One immediate advantage of this new category is that it explains the mixed properies of DSs that both "inner" and "outer" subjects have.

One crucial piece of evidence for Invol in Sinhala comes from verbal morphology. As Inman (1990) and Sumangala (in prep.) point out, "involuntariness" in this language, for the most part, is associated with a specific morphology. For example, verbal morphology indicates whether the subject of a given clause is an Agent or Experiencer. As shown by (37), if the subject is an Agent, then the verb indicates that by a stem-final thematic vowel -a/-ə/i, in the present tense or suffix -(u)aa in the past. If the subject is Experiencer, on the other hand, as in (38), the verb-stem final thematic vowel becomes-e in the present tense or -una in the past tense along with the application of a morphophonemic rule of [-back] harmony.

(37) seena vaDuvaDa kara-nava/ker-uva
    Sena-NOM carpentry do-PRES/do-PAST
    'Sena does/did carpentry'

(38) seena-Ta vaDuvaDa teere-nava/teer-una
    Sena-DAT carpentry understand-PRES /understand-PAST
    'Sena understands/understood carpentry'

Now, consider how this new category can account for the facts summarized in (37). Consider the structure of a transitive DSC given in (39):
In (39), assume that the dative NP is base-generated in the Spec(In)vol position. Direct objects thus have to move up to the SpecPr since VP predicates of transitive verbs must have an NP in the "inner" subject position. The subject properties of this NP were evidenced by the nominalization facts. Assume also that DSs are generated in the SpecInvol and structural Case marked under government by INFL. DS thus receive the theta-role of the external argument from the verb through this special morpheme which heads this new projection. This explains (a) why dative subjects have both subject and non-subject properties. They are subjects for the purpose of control, but non-subjects for the purpose of GMN. GMN is limited to canonical subjects only. DS is not a canonical subject because it is projected in special contexts: psych predicates and "involuntary" construction.

The syntax of (39) also explains why "objects" of dative subject constructions behave like subjects for the purpose of GMN but not for the purpose of control. Namely, assume that subject oriented adverbial clauses can be controlled by external arguments only. In the DSC the external argument is a DS and subject oriented adverbial clauses must be adjoined to VoiceP or Voice'. The "inner" subject of DSCs thus does not c-command PRO in adverbiai clauses. These NPs cannot be raised to the outer subject position either, since such movement has to cross over the dative NP in violation of Specified Subject Condition. In the case of non-dative constructions, however, the "inner" subjects are potential controllers of PRO in adverbiai clauses, as in (28), since "inner"
subjects in this case are external arguments. Subject oriented adverbial clauses in such instances must be adjoined to PrP or Pr'.

In sum, the syntax of DSCs proposed in (39) may account for both subject and non-subject properties of DSs. Since DSs are outside of the canonical subject position they disallow GMN. Dative subjects, however, are controllers of PRO since they receive an external argument from the verb via a special morpheme. They undergo extraction, embedding and Q-stranding since they occur in a theta-position. DSs do not have a topic interpretation since their predicates are always verbal.

Further crosslinguistic justification for positing InvolP is found in Rivero (1990) and Mitchell (1991) in which they propose a VoiceP in order to account for locative phrases in Albanian and Modern Greek and, obligation constructions in Finnish respectively. I will claim that (In)vol is another realization of the projection of Voice. In regular (voluntary) sentences SpecVoice is empty, since there is no argument generated in the Voice position. Now the augmented structure of (39) is as in (40);

$$\text{(40)}$$

\[
\begin{array}{c}
\text{TP} \\
\text{Spec} \\
\text{VoiceP} \\
\text{T} \\
\text{To} \\
\text{gunapala}-\text{T} \\
\text{Voice'} \\
\text{PrP} \\
\text{Voice}^{0}-\text{una} \quad \text{(involuntary)} \\
\text{ballek(-və)j} \\
\text{Pr'} \\
\text{a dog'} \\
\text{VP} \\
\text{Pr}^{0} \\
\text{siri-\text{T}} \\
\text{V'} \\
\text{tj} \\
\text{VO}_i \\
\text{de-'give'}
\end{array}
\]

The structure in (40) correctly predicts the properties of dative experiencers (and passives) in Sinhala. In particular, it explains (a) why there is a one-to-one map between involuntary morphology and dative subjects (mismatches aside, (cf. Sumangala in prep.)); (b) why dative subjects pattern with the subjects of NVSs with regard to GMN facts but not others; and (c) why the objects of dative constructions (and passives) behave like subjects with regard to GMN.
Furthermore, (40) correctly predicts that dative experiencers and passives have identical structures with distinct interpretations distinguished by the respective verbal morphology. For example, compare (41) with (42):

(41) ranjanii-Ta sita(-va) tallu-una  
     Ranjani-DAT Sita(-ACC) push-PASS  
     'Sita was pushed by Ranjanii (involuntarily)'

(42) ranjanii-atin/gen sita(-va) tallu-keruna  
     Ranjani-atin /-gen Sita(-ACC) push-PASS  
     'Sita was pushed by Ranjanii'

The only syntactic difference between (41) and (42) is the subject Case/postposition and the corresponding verbal morphology. In (41), the subject is an Experiencer, while the subject of the passive in (42) is a passive Agent. This difference in interpretation is achieved by the nature of the theta-role assigned by the verb in conjunction with "dative morpheme". Moreover, both passives and involuntary sentences have identical syntactic representations. This is a desired result because passives cannot be further "involuntarized," nor can involuntary sentences be passivized.

7. Summary and Conclusions

In this paper, I hope to have motivated a basic distinction between "inner" and "outer" subjects. "Inner" subjects are generated inside the argument-domain of the verb (i.e., within PrP) and "outer" subjects are generated outside of the argument-domain of the verb. While "inner" subjects are always generated in or moved to the SpecPr "outer" subjects may be generated either in SpecT (in the case of NVSs) or in SpecVoice (in the case of passive/Involitivies). Empirical support for this analysis is found in extraction, Q-stranding, embedding and topic interpretation. Lastly, the theta-properties of the two types of subjects are distinguished by nominalization facts.
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Case-Marking and Verb-Movement in Japanese*  
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1. Introduction

Case-marking is one of the classic topics in Japanese linguistics. In recent years, Saito (1982, 85), Takezawa (1987), Morikawa (1989), among others, have tried to account for Japanese Case-marking in terms of Case Theory within the Government and Binding (GB) framework. This paper is another proposal to explain Japanese Case-marking of certain experiencer constructions in terms of Case Theory.

In particular, the discussions that follow mainly concern Case alternations in such sentences as those illustrated in (1).

(1) a. John-ga nihongo-o hanas-e-ru (koto)\(^1\)
   John-NOM Japanese-ACC speak-can-PRES (fact)
   '(the fact that) John can speak Japanese'

b. John-ni nihongo-ga hanas-e-ru (koto)
   John-DAT Japanese-NOM speak-can-PRES (fact)
   '(the fact that) John can speak Japanese'

c. John-ga nihongo-ga hanas-e-ru (koto)
   John-NOM Japanese-NOM speak-can-PRES (fact)
   '(the fact that) it is John who can speak Japanese'

(1a) takes a regular transitive pattern; the subject is marked nominative and the object is marked accusative. (1b) shows a different Case pattern, which, henceforth, I will call the dative-nominative pattern. Here, John is marked by the dative-marker ni and nihongo is

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\(^1\)To make sentences sound more natural, koto 'the fact that' is required at the end of the sentence. However, I will ommit it henceforth to save space.
marked by the nominative ga. As shown in (1c), Japanese allows sentences with more than one nominative-marked NP. Let us call this pattern the double nominative pattern. The patterns in (1b) and (1c) can be found in some experiencer constructions. Therefore, John in (1b-c) obtains an experiencer reading, with either the nominative ga or dative ni. Notice also that John receives a focus interpretation when it is marked by ga as indicated by the translation of the sentence (1c).

Nominative-marking in Japanese in general has engaged the interest of linguists for a long time. It indeed has some peculiar characteristics distinct from many other well-studied languages. For instance, it appears to be allowed on non-arguments in some cases, as the following examples show.

(2) a. aki-ga yama-ga ki-ga kirei-da
    fall-NOM mountains-NOM tree-NOM beautiful-COP
    'It is fall that mountains, trees are pretty in'

b. bunmeikoku-ga dansci-ga heikin-zyumyoo-ga mizika-i
    civilized countries-NOM male-NOM average-lifespan-NOM short-PRES
    'It is civilized countries that men, their average lifespan is short in'

It has been proposed that multiple nominative-marking to non-arguments is possible as long as there holds the so-called "aboutness relation" between the non-arguments and the rest of the sentence. In fact, it is sometimes claimed that Japanese nominative-marking involves a mechanism that is completely independent of Case Theory (cf. Kuroda 1986 and Saito 1982). However, this paper argues that Japanese nominative-marking must receive a straightforward account from Case Theory.

The purpose of this paper is to provide a unified account of the Case alternations shown in (1a-c). The next two sections provide a basic understanding of the properties of the dative-nominative pattern. Sections 4 and 5 discuss some of the possible approaches previously proposed; the INFL-lowering analysis of Takezawa (1987) and the NP-movement analysis of Kim & Larson (1989). In Section 6, I propose an alternative analysis, which utilizes Verb-movement to account for nominative-marking in the dative-nominative and double nominative patterns. It will also be pointed out that Japanese provides some evidence for the VP-internal subject hypothesis on the basis of facts from the VP-preposing phenomenon.
2. Subjecthood and Objecthood

This section, based on Takezawa (1987), demonstrates that the dative NP in the dative-nominative pattern exhibits subject properties, and further that the nominative NP in this pattern has object properties.

It has been pointed out that the dative NP in the dative-nominative pattern exhibits subject properties with respect to "reflexivization" and "subject honorification." (cf. Shibatani 1977; 78 and Takezawa 1987) In general, only the subject serves as the antecedent of zibun 'self,' and triggers the subject honorification; attachment of the discontinuous morpheme o... ni na-ru to the infinitive form of the verb when the speaker wants to show that subject refers to a person who is "socially superior to the speaker" (cf. Harada 1976). (3) below illustrates that the dative ni-marked NP, but not the nominative-marked NP, serves as the antecedent of zibun. The contrast in (4) shows that the dative-marked Smith-sensei 'Prof. Smith' but not the nominative-marked John triggers the subject honorification.

(3) Johni-ni kodomo-ga [zibun/*i-no oya]-no mae-de siker-e-na-i
   'John cannot scold (his) child; in front of self's parents'

    Smith-Prof-DAT John-NOM understand/recognized-PAST
    'Prof. Smith understood/recognized John'

       John-DAT Smith-Prof-NOM understand/recognized-PAST
       'John understood/recognized Prof. Smith'

These two tests therefore convincingly show that the dative-marked NP in this pattern functions as the subject, and that the nominative-marked NP does not exhibit the relevant subject properties.

In fact, there is some evidence that the nominative-marked NP in this pattern behaves more like an object. Takezawa (1987) observes some parallelism between the regular object in a transitive sentence and the nominative NP in the dative-nominative pattern. For instance, the contrast in (5) below shows that no intervening NP is allowed...
between the subject and the quantifier that it is associated with, while an intervening NP is allowed between the object and the numeral quantifier (NQ).\(^2\)

(5) a. *gakusei\(\text{-}ga\) sake-o san-nin motte-ki-ta  
student-NOM sake-ACC 3-CL carry-come-PAST  
'Three students brought sake'

   b. sake-o John-ga san-bon motte-ki-ta  
sake-ACC John-NOM 3-CL carry-come-PAST  
'Three bottles of sake, John brought'

Takezawa shows that an intervening NP is also allowed between the nominative NP and the NQ in the dative-nominative pattern as shown in (6).

(6) gaikokugo\(\text{-}ga\) John-ni mit-tu hanas-e-ru  
foreign lang.-NOM John-DAT 3-CL speak-can-PRES  
'Three foreign languages, John can speak'

The second parallelism between the regular object and the nominative NP in the dative-nominative pattern can be found in the so-called "Case-marker drop" phenomenon. Saito (1983) points out that the nominative \(\text{ga}\) cannot be dropped while the accusative \(\text{o}\) can be in the accusative pattern such as shown in the following.

(7) a. dare-ga nani-o yondei-ru no  
who-NOM what-ACC reading-PRES Q  
'who is reading what'

   b. *dare nani-o yondei-ru no  
who what-ACC reading-PRES Q

   c. dare-ga nani yondei-ru no  
who-NOM what reading-PRES Q

Saito claims that nominative \(\text{ga}\) cannot be dropped at all. It has been pointed out, however, that some instances of nominative \(\text{ga}\) may more readily be dropped than others. (cf. Masunaga 1988 and Tateishi 1989) The nominative NP in the dative-nominative pattern appears to allow \(\text{ga}\) to be dropped as shown in (8) below. (cf. Kuno 1973, Shibatani 1986, and Takezawa 1987)

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\(^2\)Japanese uses a "numeral quantifier", a numeral together with a classifier, to count objects. Different classifiers are used depending on what kinds of objects are referred to.
(8) a. kimi-ni(-wa) anna ookina oto-ga kiko-e-nakat-ta no you-DAT(-TOP) such big sound-NOM hear-can-not-PAST Q 'Couldn't you hear such a big sound?'

b. kimi-ni(-wa) anna ookina oto kiko-e-nakat-ta no you-DAT(-TOP) such big sound hear-can-not-PAST Q

To the extent this judgment holds, it can be argued that the nominative ga in the dative-nominative pattern and the accusative q behave similarly with respect to the "Case-marker drop" phenomenon as well.

Finally, the relevant nominative NP and the regular accusative object both can undergo long distance scrambling. Saito (1985) claims that the subject cannot be scrambled at all while the regular accusative object can undergo long distance scrambling, as shown in the following contrast.

(9) a. *sono okasi-ga\textsubscript{i} John-ga [s'\textsubscript{t}\textsubscript{i} oisii to] omottei-ru that candy-NOM John-NOM tasty COMP thinking-PRES 'John thinks that that candy is tasty'

b. sono hon-o\textsubscript{i} John-ga [s'\textsubscript{t} Mary-ga ti yonda to] it-ta that book-ACC John-NOM Mary-NOM read COMP say-PAST 'John said that Mary read that book'

However, Takezawa claims that the nominative NP in the dative-nominative pattern can also undergo long distance scrambling as in the following.

(10) nihongo-ga\textsubscript{i} John-ga [s'\textsubscript{t} Mary-ni ti wakaru to] it-ta Japanese-NOM John-NOM Mary-DAT understand COMP say-PAST 'John said that Mary understands Japanese'

So far, based on Takezawa (1987), it has been demonstrated that the dative NP has subject properties, and the nominative NP has object properties in sentences with the dative-nominative pattern. It seems appropriate then to call these NPs the dative subject and nominative object, respectively. In the next section, I will argue that the dative subject must precede and asymmetrically c-command the nominative object at S-structure.
3. S-Structure Configurationality and the Direct Passive

It has been argued that Japanese is a configurational language. (cf. Kuroda 1980; 83, Whitman 1982; 86, Saito 1985, and Fukui 1986 among others) This section shows that the dative-nominative pattern also must have configurational structure at S-structure.

Although Takezawa (1987) claims that the dative subject precedes and asymmetrically c-commands the nominative object at D-structure, rather than at S-structure, it will become clear, in the discussion that follows, that the relevant level that he is referring to is not D-structure, but pre-scrambling S-structure. The crucial evidence is drawn from the behavior of the direct passive construction. There are three arguments that Takezawa (1987) provides for his claim. Let us examine them one by one.

First of all, Takezawa's claim that the dative subject precedes the nominative object at D-structure rests on the scope interactions of quantifiers. Consider first Hoji's (1985: p. 66) examples.

(11) a. san-nin-no onna-ga huta-ri-no otoko-o seme-ta
   3-CL-GEN women-NOM 2-CL-GEN men-ACC criticize-PAST
   'Three women criticized two men'

   b. huta-ri-no otoko-o san-nin-no onna-ga seme-ta
   2-CL-GEN men-ACC 3-CL-GEN women-NOM criticize-PAST
   'Two men, three women criticized'

(11b) is presumably derived from (11a) by scrambling, as Saito (1985) argues. Hoji claims that (11a) is unambiguous; only san-nin-no onna '3 women' takes wide scope, whereas (11b) is ambiguous; either huta-ri-no otoko '2 men' or san-nin-no onna can take the wide scope over the other. Hoji provides the following generalizations based on Kuroda (1970).

(12) a. When two quantified NPs are in their D-structure positions at S-structure, the quantified NP that c-commands the other takes wide scope with respect to the other.

   b. When a quantified NP is preposed over the other quantified NP, the scope interpretation is ambiguous.

Takezawa points out that (13a) below is not ambiguous; only san-nin-no gakusei '3 students' takes wide scope, while (13b) is ambiguous; either huta-tu-ri no gaikokugo '2 foreign languages' or san-nin-no gakusei '3 students' can take the wide scope over the
other. Based solely on (12a-b), he concludes that NP-\textit{ni} NP-\textit{ga} is the D-structure word order.

(13) a. san-nin-no gakusei-ni huta-tu-no gaikokugo-ga hanas-e-ru  
  3-CL-GEN student-DAT 2-CL-GEN f. lang.-NOM speak-can-PRES  
  'Three students can speak two foreign languages'

b. huta-tu-no gaikokugo-ga san-nin-no gakusei-ni hanas-e-ru  
  2-CL-GEN f. lang.-NOM 3-CL-GEN student-DAT speak-can-PRES  
  'Two foreign languages, three students can speak'

Comparison of these facts with data provided by the direct passive construction reveals that the relevant scope ambiguity in (13b) is created by scrambling, not by NP-movement. Notice that it is generally assumed that scrambling is an S-structure IP-adjunction movement (cf. Saito 1985) while NP-movement such as passive or raising is a movement to the IP SPEC position.\(^3\) It must be noted that there is much debate on whether Japanese passives involve movement or not. Recently, however, Miyagawa (1989) has provided evidence for the movement analysis of the direct passive in Japanese. Let us briefly look at Miyagawa's analysis.

According to Miyagawa (also Kuroda 1980, 1983 and Saito 1985), the numeral quantifier (NQ) and the NP that the NQ modifies must be in a mutual c-command relation (or some similar kind of local relationship). To illustrate the point, (14a) below satisfies this condition directly, but (14b) does not, hence the ungrammaticality of the latter. In the case of a scrambled sentence such as (14c), the mutual c-command condition is satisfied by the NQ and the trace of the scrambled object NP \textit{kuruma-o} 'car'.

(14) a. doroboo-ga kuruma-o san-dai nusun-da  
  thief-NOM car-ACC 3-CL steal-PAST  
  'A thief stole three cars'

b. *doroboo-ga kuruma-o san-nin nusun-da  
  thief-NOM car-ACC 3-CL steal-PAST  
  'Three thieves stole a car'

c. kuruma-o [§ doroboo-ga ⚫ san-dai nusun-da]  
  car-ACC thief-NOM 3-CL steal-PAST  
  'Lit. (As for) cars, a thief stole three'

The direct passive version of (14a) is also grammatical as shown in (15a). However, on the face of it (15a) does not appear to satisfy the mutual c-command condition. Miyagawa claims that there must be a trace left in the direct object position by the movement of the underlying object kuruma 'car' as illustrated in (15b) so that the mutual c-command condition is satisfied.

(15) a. kuruma-ga doroboo-ni san-dai nusum-are-ta
    car-NOM thief-by 3-CL steal-PASS-PAST
    'Three cars were stolen by a thief'

     b. kuruma-ga doroboo-ni ti san-dai nusum-are-ta

Miyagawa further suggests that the object NP in the direct passive in Japanese must move to a position where it can receive Case. Hence the Japanese direct passive movement is an NP-movement mapping D-structure onto S-structure, just as in English passive in a standard GB analysis (cf. Chomsky 1981).

Bearing Miyagawa’s analysis of the direct passive in mind, consider the following sentence (Hoji 1985: p. 66).

(16) huta-ri-no otoko-ga san-nin-no onna-ni seme-rare-ta
    2-CL-GEN men-NOM 3-CL-GEN women-by criticize-PASS-PAST
    'Two men were criticized by three women'

Both Kuno (1973) and Hoji (1985) claim that this sentence is unambiguous; only hutari-no otoko '2 men' takes wide scope. Given Miyagawa’s NP-movement analysis of the direct passive, the lack of the relevant scope ambiguity in (16) strongly suggests that NP-movement does not change the scope relation of quantifiers in Japanese.\(^4\) Scrambling, on the other hand, creates scope ambiguity as Hoji points out in (11) above. If this is the case, then, Hoji’s generalizations in (12) must be modified as in (17) below.

(17) a. When two quantified NPs are in their S-structure positions without any application of scrambling, the quantified NP that c-commands the other takes wide scope with respect to the other.

\(^4\)This claim is not consistent with the claim for Chinese made by Aoun & Li (1989). Huang (1990), however, proposes an analysis for Chinese similar to the present analysis. See also Hoji, Miyagawa and Tada (1989) for the claim that the Japanese passive and unaccusative movements induce the relevant quantifier scope interactions. Throughout this paper, I assume that NP-movement induces no quantifier scope interactions.
b. When a quantified NP is preposed over the other quantified NP by scrambling, the scope interpretation is ambiguous.

Notice that, given this analysis, the sentence (13b), having the relevant scope ambiguity, must be derived from (13a) by scrambling. In other words, in the dative-nominative pattern, the dative subject must precede the nominative object at pre-scrambling S-structure.

The second argument that Takezawa proposes for his claim that the dative subject precedes the nominative object at D-structure has to do with the "crossover" phenomenon. Observe the following contrast.

(18) a. Johni-no sensei-ga karei-o syookaisi-ta
    John-GEN teacher-NOM he-ACC introduce-PAST
    'Johni's teacher introduced himi'

b. ?*Johni-no sensei-o karei-ga syookaisi-ta5
    John-GEN teacher-ACC he-NOM introduce-PAST
    'Johni's teacher, hei introduced'

Saito (1985) suggests that the contrast in (18) is explained in terms of strong crossover (SCO). The accusative-marked John-no sensei 'John's teacher' in (18b) is moved by scrambling from the object position to an A-bar position adjoined to the sentence, crossing over the pronoun kare. Thus, the relevant structural representation of (18b) is something like (18c) below.

(18) c. ?*[Johni-no sensei]-o [S karei-ga 1j syookaisi-ta]
    John-GEN teacher-ACC he-NOM introduce-PAST

Note that Saito introduced this analysis to support his claim that scrambling is an instance of syntactic movement to an A-bar position.

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5There is a difference between topicalization and scrambling with respect to the "pronominal coreference" (John Whitman p.c.). While (18b) is degraded in acceptability, the following sentence with the topic marker on John-no sensei 'John's teacher' is good. In other words, there is no crossover effect with topicalization.

(i). Johni-no sensei-wa karei-ga syookaisi-ta
    John-GEN teacher-TOP he-NOM introduce-PAST
    'Johni's teacher, hei introduced'

The English sentence corresponding to (i) is acceptable with contrastive stress on John's teacher.
Takezawa observes the same effect in the dative-nominative pattern as in (19) below, and applies Saito's account from the SCO to explain the ungrammaticality of (19b). That is, the nominative NP *Mary-no hahaoya* 'Mary's mother' is moved from a position that is c-commanded by the pronoun to an A-bar position by scrambling. Again, a rough structural representation of (19b) is given in (19c).

(19) a. Maryi-no hahaoya-ni kanozyoi-ga ais-e-na-i
    Mary-GEN mother-DAT she-NOM love-can-not-PRES
    'Mary's mother cannot love heri'

b. ?*Maryi-no hahaoya-ga kanozyoi-ni ais-e-na-i6
    Mary-GEN mother-NOM she-DAT love-can-not-PRES
    'Maryi's mother, shi cannot love'

c. ?*[Maryi-no hahaoya]j-ga [§ kanozyoi-ni i]j ais-e-na-i]

Takezawa immediately concludes, from this, that the dative-nominative order is the D-structure word order. However, this analysis only shows that the dative subject precedes the nominative object in pre-scrambling S-structure, and further that scrambling has applied when the nominative precedes the dative subject.7

Takezawa's final argument for the claim that the dative subject asymmetrically c-commands the nominative object at D-structure comes from the "pronominal coreference" phenomenon. The grammaticality of (20a), for instance, follows immediately, as Takezawa argues, if the nominative object does not c-command the intended antecedent, and the ungrammaticality of (20b) is straightforwardly accounted for if the pronoun kare c-command the antecedent.

(20) a. Johni-no tomodati-ni [karei-ga but-e-ru] kana
    John-GEN friend-DAT he-NOM hit-can-PRES Q
    'Johni's friend can hit himi, can't he?'

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6While (18b) improves to be good if the "proposed" NP is marked by the topic marker, (19b) does not improve even if Mary-no hahaoya'Mary's mother' is marked by the topic marker for some reason.

(ii) ?*Maryi-no hahaoya-wa kanozyoi-ni ais-e-na-i
    Mary-GEN mother-TOP she-DAT love-can-not-PRES
    'Maryi's mother, shei cannot love'

7I will come back to this point in Section 4.
b. *karei-ni [Johni-no tomodati-ga but-e-ru] kana
   he-DAT John-GEN friend-NOM hit-can-PRES Q
   '*Hei can hit John's friend, can't he?'

This, however, only shows that the dative subject must asymmetrically c-command the
nominative object at the level of representation where condition C of the Binding Theory
applies. Whitman (1986), for example, shows that condition C indeed applies at
S-structure.\(^8\) Hence, the contrast in (20) does not necessarily mean that the asymmetrical
c-command relation at stake must obtain at D-structure. In fact, there is evidence that
suggests that condition C does not apply at D-structure. Consider the following
pronounal coreference pattern for the direct passive.

(21) a. [Johni-ga]j karei-no sensei-ni \(\_j\) syookai-sare-ta
    John-NOM he-GEN teacher-DAT introduce-PASS-PAST
    'Johni was introduced to his teacher'

b. *karei-ga]j Johni-no sensei-ni \(\_j\) syookai-sare-ta
    he-NOM John-GEN teacher-DAT introduce-PASS-PAST
    '*Hei was introduced to Johni's teacher'

c. [Johni-no sensei-ga]j karei-ni \(\_j\) syookai-sare-ta
    John-GEN teacher-NOM he-DAT introduce-PASS-PAST
    'Johni's teacher was introduced to himi'

d. *[karei-no sensei-ga]j] Johni-ni \(\_j\) syookai-sare-ta
    he-GEN teacher-NOM John-DAT introduce-PASS-PAST
    'His teacher was introduced to Johni'

Notice here that the dative NP is an argument of the ditransitive verb syookai-suru
'introduce.' Following Miyagawa (1989), I assume that the argument dative phrase does
not have a PP projection, but just is an NP with a dative-marker.\(^9\) Now, the

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\(^8\) Whitman (1986: p.354) cites the following example.

(i) *karei-ga Johni-no dono hon-ga itiban suki ka (wakar-ana-i)
    he-NOM John-GEN which book-NOM most like Q know-NEG-PRES
    '(I don't know) he likes which of John's books'

He argues that the fact that the intended coreference is impossible shows that condition C
must apply at the level distinct from LF, i.e., S-structure.

\(^9\) Basically, the difference between argument and non-argument dative phrases is
that numeral quantifier floating is allowed only from an argument dative phrase, not from a
non-argument dative phrase. Miyagawa argues that this difference is due to the structural
difference between the two dative phrases: an argument dative phrase is an NP and a non-
argument dative phrase is a PP.
ungrammaticality of (21b) suggests that condition C applies at S-structure, and further that the nominative NP c-commands the dative NP at S-structure. The grammaticality of (21c) shows that condition C does not apply at D-structure, given that the dative phrase is an NP, not a PP. It also indicates that, in the direct passive, the dative NP does not c-command the nominative NP at S-structure. Hence, from (21b) and (21c), we can conclude that the nominative NP precedes and asymmetrically c-commands the dative NP in the direct passive at S-structure. (21a) and (21d) follow directly from this analysis, although for some reason (21d) is somewhat degraded. It can be concluded, then, from the binding facts observed in (20), that the fact reported in (20) shows that the dative subject asymmetrically c-commands the nominative object at S-structure.

To summarize this section, I argued that in the dative-nominative pattern, the dative subject must precede and asymmetrically c-command the nominative object at S-structure. In the course of my discussion, some properties of the direct passive construction also became clear. Miyagawa's (1989) interesting analysis of NQ suggests that the direct passive involves NP-movement. Given this, I pointed out that NP-movement does not create the kind of scope ambiguity that scrambling creates. Also, facts from the lack of quantifier scope ambiguity and pronominal coreference suggest that, in the direct passive construction, the nominative NP must precede and c-command the dative NP.

Now that it has become clear that there exist dative subjects and nominative objects in Japanese, the next question that must be answered is how these Cases are assigned. Nominative Case, for instance, is normally associated with the subject, and it is generally assumed, in GB Theory, that it is assigned by INFL (cf. Chomsky 1981) or under some kind of agreement between INFL and its SPEC (cf. Fukui 1986). If certain objects can get nominative Case, the mechanism for assigning nominative to them must be made explicit. The fact that certain subjects can be marked by the dative Case-marker is also somewhat surprising since subjects normally get marked by nominative Case as mentioned. It would be theoretically attractive if any proposed Case-marking mechanism could account for all the Case patterns, not just for the dative-nominative pattern.

In the next two sections, I will examine analyses recently proposed for the dative-nominative experiencer construction.
4. An INFL-Lowering Analysis

Let us first look at an analysis proposed by Takezawa (1987), which crucially utilizes a rule that lowers INFL to the verb to account for the dative-nominative pattern.

Takezawa's basic claims are: (a) nominative Case is assigned to an NP by INFL[+Tense] under government,\(^{10}\) (b) dative Case is assigned to the subject if it is not governed by INFL[+Tense]\(^{11}\), and (c) lowered INFL (by Rule R in the sense of Chomsky 1981) is responsible for the assignment of nominative Case to the object of the double nominative and dative-nominative patterns. The first claim is based on the following examples.

(22) a. *John-wa [s [Mary-no yokogao]-ga totemo utukusiku] omot-ta
     John-TOP Mary-GEN profile-NOM very beautiful think-PAST
     'John thought [Mary's profile (to be) very beautiful'

     b. John-wa [s [Mary-no yokogao]-o totemo utukusiku] omot-ta
        John-TOP Mary-GEN profile-ACC very beautiful think-PAST
        'same as above'

(23) a. *John-wa [sMary-ga sushi-o tabe]-sase-ta
     John-TOP Mary-NOM sushi-ACC eat-CAUSE-PAST
     'John made Mary eat sushi'

     b. John-wa [s Mary-ni sushi-o tabe]-sase-ta
        John-TOP Mary-DAT sushi-ACC eat-CAUSE-PAST
        'same as above'

The embedded predicates utukusiku 'beautiful' in (22) and tabe 'eat' in (23) do not have tensed inflectional endings, and neither case allows nominative-marking, hence Takezawa's claim that nominative Case is assigned by INFL[+Tense]. The multiple nominative pattern is explained in the following fashion: INFL[+Tense] is assumed to govern the SPEC of IP and all the IP adjoined NPs. Nominative-Case is assigned to these positions

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\(^{10}\)The definition that Takezawa employs is that of Chomsky 1981.

\(^{11}\)Takezawa revises this condition later. Since his revision is not important to the present discussion, this formulation suffices for our purposes.
under government together with the assumption that Japanese INFL[+Tense] is exceptional in being able to assign more than one nominative Case.

Let us now look at how Takezawa's system accounts for the dative-nominative and double nominative patterns such as (24a) and (24b).

(24) a. John-ni nihongo-ga wakar-u
   John-DAT Japanese-NOM understand-PRES
   'John understands Japanese'

b. John-ga nihongo-ga wakar-u
   John-NOM Japanese-NOM understand-PRES
   'It is John who understands Japanese'

According to Takezawa, stative predicates such as wakar-u take two arguments but lack Case-assigning ability, and movement of the object to the subject position is impossible due to the θ-Theory, thus the lowering of INFL is obligatory. This structural change is illustrated as in the following.

(25)

\[
\begin{array}{c}
\text{IP} \\
\text{NP} \quad \text{I'} \\
\qquad \text{VP} \\
\qquad \quad \text{I} \\
\qquad \quad \text{u} \\
\quad \text{nihongo} \quad \text{wakar} \\
\end{array}
\rightarrow
\begin{array}{c}
\text{IP} \\
\text{NP} \quad \text{V+I} \\
\quad \text{NP} \\
\quad \text{V} \\
\quad \text{nihongo} \quad \text{wakar+u} \\
\end{array}
\]

The object NP nihongo 'Japanese' in both (24a) and (24b), after the lowering of INFL to V, is governed by INFL and assigned nominative Case (cf. T's claim (c)). Now the ni-ga alternation on the subject in (24) is accounted for by assuming that the lowered INFL[+Tense] may or may not govern the subject (Takezawa's optional "VP-transparency"): when the subject is not governed by the lowered INFL[+Tense] (in

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12 Takezawa assumes that the subject position of the dative-nominative pattern is a theta-position, hence, if the object is moved to the subject position, it violates the theta-criterion. I will return to this point in discussing Belletti&Rizzi (1988)'s analysis of psych-verb constructions.
this case, the VP is not transparent), it is marked by **ni** (cf. T's claim (b)), and when it is governed due to the transparent VP, **ga**-marking takes place.

Takezawa's analysis is important in that it is one of the first attempts to relate Japanese nominative Case assignment to INFL, as in standard GB theory. It is an improvement over an analysis that attempts to account for Japanese nominative-marking by postulating some mechanism specifically designed for this language. However, further clarification is required for certain claims that Takezawa makes.\(^{13}\)

First, the exact nature of INFL lowering in this case is not clear. Lowering operations in general are problematic in GB theory. Chomsky (1981), for instance, claims that this movement does not leave a trace behind so that there should not be any ECP violation. The obvious question that arises immediately is why this should be the case. One might claim, with Chomsky (1988), that even if the lowering of INFL leaves a trace behind, LF-raising of the lowered INFL would repair a possible ECP violation. In any case, some further stipulation is needed with this lowering mechanism.

Secondly, postulating the lowering of INFL has another negative required feature, namely the optional VP-transparency. For instance, he accounts for the **ni-ga** alternation in (24a-b) by saying that VP can be "transparent" to government; when it is "transparent," the double nominative pattern (24b) obtains since the lowered INFL can govern the subject position. On the other hand, when it is not "transparent," the dative-nominative pattern (24a) results, because the nominative Case assignment is blocked by the non-transparent VP. Therefore, the dative **ni** insertion rule applies to the subject NP. Although Takezawa seems to assume that this VP-transparency is optional, the following sentences, however, suggest that the VP-transparency in some cases is obligatory or application of the dative insertion rule is not as general as he assumes.

\[
(26) \begin{align*}
\text{a. John-ga/*-ni} & \quad \text{Mary-ga} & \quad \text{suki-da} \\
\text{John-NOM/*DAT} & \quad \text{Mary-NOM} & \quad \text{like-COP} \\
\text{'John likes Mary, or It is John who likes Mary'}
\end{align*}
\]

\[
\begin{align*}
\text{b. John-ga/*-ni} & \quad \text{biiru-ga} & \quad \text{nomi-ta-i} \\
\text{John-NOM/*DAT} & \quad \text{beer-NOM} & \quad \text{drink-want-PRES} \\
\text{'John wants to drink beer, or It is John who wants to drink beer'}
\end{align*}
\]

\(^{13}\) Morikawa (1989) also independently provides a critique of Takezawa's analysis.
Moreover, although Takezawa uses the following contrast (27a-b) as support to his VP-transparency analysis, further examination reveals that VP-transparency alone may not account for the wider range of data of this sort.

    John-NOM son-NOM French-NOM speak-can-PRES
    Lit. 'It is John that it is (his) son who can speak French'

    b. *John-ga musuko-ni huransugo-ga hanas-e-ru
        John-NOM son-DAT French-NOM speak-can-PRES

According to Takezawa, the lowered INFL governs and assigns nominative Case to all the NPs in (27a) due to VP-transparency. He claims the ungrammaticality of (27b) is follows automatically from his system. That is, the fact that the dative ni is assigned to the subject NP musuko 'son' in (27b) indicates that the VP in this case is no longer transparent, therefore the lowered INFL in (27b) cannot assign nominative Case to John. However, in some cases, dative-marking does not block further nominative-marking. The following sentences, for example, appear to be grammatical.

(28) a. John-ga musuko-ni gaaruforendo-ga deki-ta
    John-NOM son-DAT girlfriend-NOM get-PAST
    'It is John that (his) son got a girlfriend'

    b. John-ga musuko-ni okane-ga hituyoo-da
        John-NOM son-DAT money-NOM need-COP
        'It is John that (his) son needs money'

(28a) and (29a), which correspond to the degraded (27b), appear to be perfect. In both (28a) and (29a), the dative-marking on musuko does not appear to block the nominative marking on John. One might argue that the dative-marker in (28a) might have different status from the regular dative subject; it is more like a locative postposition. However, the dative phrases in (28a-b) behave exactly the same as the regular dative subject with respect to the ni-ga alternation. Only the dative ni in the dative-nominative pattern, but not in other

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14 Morikawa (1989) points out that the following sentence is a problem to Takezawa's system, but in fact it is not.

(i) *John-ni musuko-ni huransugo-ga hanas-e-ru
    John-NOM son-DAT French-NOM speak-can-PRES

Notice that Takezawa's dative insertion rule is specifically designed for the ungoverned "subject" NP. Hence, the ungrammaticality of this sentence is presumably accounted for by saying that John in (i) above is not the subject.
dative-marked phrases, can be replaced by the nominative ga.\textsuperscript{15} Contrast (29) with (30) below.

(29) a. John-ga Mary-ni/*ga hon-o age-ta
John-NOM Mary-DAT/*NOM book-ACC give-PAST
'John gave a book to Mary'

b. John-ga Mary-ni/*ga at-ta
John-NOM Mary-DAT/*NOM meet-PAST
'John met Mary'

c. John-ga Mary-ni/*ga nagur-are-ta
John-NOM Mary-DAT/*NOM hit-PASS-PAST
'John was hit by Mary'

(30) a. John-ga musuko-ga gaarufurendo-ga deki-ta
John-NOM son-NOM girlfriend-NOM get-PAST
Lit. 'It is John that it is (his) son who got a girlfriend'

b. John-ga musuko-ga okane-ga hituyoo-da
John-NOM son-NOM money-NOM need-COP
Lit. 'It is John that it is (his) son who needs money'

It must be concluded then that the ungrammaticality of (27b) cannot be explained by referring to the VP-transparency alone.\textsuperscript{16}

So far, I have shown that postulating a rule that lowers INFL to V has some negative consequences. It is also clear now that Takezawa's dative insertion rule must be modified. However, the idea that nominative Case is uniformly assigned by INFL to NPs under government is an attractive one. In the next section, I will examine an analysis that moves the nominative object to a position where INFL is able to assign nominative Case to it.

5. An NP-Movement Analysis

One of the crucial reasons why Takezawa (1987) argues that the nominative object must get Case in the object position is the assumption that the subject position is a θ-position; the object NP receives its θ-role from the verb directly, hence, if it moves to

\textsuperscript{15}I will come back to this point in Section 5.

\textsuperscript{16}I do not have any principled account for (27b) at the moment.
another θ-position, it gets another θ-role, resulting in a θ-criterion violation. Thus, an analysis that claims the object NP moves to a position where it can receive nominative Case must make sure that the position to which the object NP moves is a non-θ position.

Belletti & Rizzi (B&R) (1988) propose an analysis of the Italian experiencer constructions that provides a solution to this problem. The basic idea is that experiencer constructions such as (31) are similar to the unaccusative construction: the underlying object NP undergoes movement to the IP SPEC position as shown in (32).

(31) a. **Questo preoccupa Gianni**
   this worries Gianni

   b. **Questo piace a Gianni**
   this pleases to Gianni

(32)
```
     IP
    /   \   
   NP   I'
    \   /  
     quedo	I
     \  /  
      V  VP
       \ /  
        V NP
         |  Gianni
        tį
```

According to B&R, Italian experiencer verbs such as *preoccupare 'to worry* take two internal arguments. The verb assigns a Theme θ-role to the innermost NP *questo 'this* and the verb and the innermost NP together compositionally assign an Experiencer θ-role to the outer object. However, there is no external θ-role, which is normally assigned to the IP SPEC position under standard GB Theory. Just like unaccusative verbs, the verbs of experiencer constructions fail to assign Case to the innermost NP; thus, to get nominative Case, the innermost NP is forced to move to the IP SPEC position, which is crucially a non-θ position. The outer object receives inherent Case, which is lexically specified; the designated Case of *preoccupare is accusative (cf. (31a)) and that of *piacere is dative (cf. (31b)).
Kim & Larson (K&L) (1989) basically adopt B&R's analysis for Korean experiencer constructions. In particular, K&L claim that the dative-nominative pattern in Korean should be analyzed so as to derive the nominative-dative order by NP-movement.\textsuperscript{17} Since Japanese and Korean behave exactly the same with respect to the relevant data, I will use Japanese examples. For instance, the (33a) below, K&L argue, will have the derivation illustrated in (33b).

(33) a. okane-ga John-ni hituyoo-da
    money-NOM John-DAT need-COPULA

    'John needs money'

b.\[
\begin{array}{c}
\text{IP} \\
\text{NP} \\
\text{okanei-ga} \\
\text{VP} \\
\text{I} \\
\text{NP} \\
\text{V} \\
\text{da} \\
\text{John-ni} \\
\text{NP} \\
\text{V} \\
\text{tj} \\
\text{hituyoo}
\end{array}
\]

Just as do B&R, K&L claim that the sentence in (33a) above is derived by movement of the innermost argument to the IP SPEC position. This movement, again, is claimed to be an instance of NP-movement, just as in the unaccusative construction. There are, however, some problems in assuming that sentences such as (33a) are derived by typical NP-movement, hence A-movement. In fact, there is compelling evidence that suggests that (33a) is derived by scrambling, hence A-bar movement. The first three arguments, in the following, are based on Takezawa (1987), and the last one is my own.

First of all, in Section 2.2 above, on the basis of behavior of the direct passive construction, I argued that NP-movement, unlike scrambling, does not create scope ambiguity of the sort discussed in Hoji (1985). If the nominative-dative order is derived by unaccusative movement, hence NP-movement, as argued by K&L, then, scope ambiguity

\textsuperscript{17}K&L apply B&R's analysis to Korean psych constructions primarily to account for some scope ambiguities of quantifiers. The focus of their discussion is not on Case-marking per se.
should not be obtained in that order. But, in fact this is not the case. I repeat the relevant
eamples again.

(34) a. san-nin-no gakusei-ni huta-tu-no gaikokugo-ga hanas-e-ru
    3-CL-GEN student-DAT 2-CL-GEN f. lang.-NOM speak-can-PRES
    'Three students can speak two foreign languages'

    b. huta-tu-no gaikokugo-ga san-nin-no gakusei-ni hanas-e-ru
    2-CL-GEN f. lang.-NOM 3-CL-GEN student-DAT speak-can-PRES
    'Two foreign languages, three students can speak'

With respect to NQ scope interpretation, (34a) is claimed to be unambiguous but (34b) is
considered ambiguous (cf. Takezawa 1987). The fact that (34b) is ambiguous suggests
that this sentence is derived by scrambling but not by NP-movement. Moreover, in K&L’s
analysis, to obtain the dative-nominative order (34a), the dative subject must presumably be
scrambled to an IP adjoined position.\(^\text{18}\) Therefore, K&L’s analysis predicts that (34a) is
ambiguous with respect to scope interpretation. However, as pointed out above, it does
not have the predicted scope ambiguity.

Second, the SCO phenomenon discussed again in Section 2.2 also shows that the
nominative-dative order is derived by scrambling, but not by NP-movement as K&L claim.
It has been pointed out that SCO effects can only be invoked by scrambling (or A-bar
movement), but not by NP-movement (or A-movement). Thus, the direct passive sentence
(35a) is perfect with no SCO effect ensuing. The marginality of (35b), on the other hand,
is presumably due to the SCO effect, suggesting that (35b) is derived by scrambling.

(35) a. [John\(_j\)-no sensei-ga]\(_j\) kare\(_j\)-ni \(_i\) syookai-sare-ta
    John-GEN teacher-NOM he-DAT introduce-PASS-PAST
    'John\(_j\)'s teacher was introduced to him\(_i\')

    b. *[John\(_j\)-no sensei-ni]\(_j\) kare-ga \(_i\) syookai-sare-ta
    John-GEN teacher-DAT he-NOM introduce-PASS-PAST
    'To John\(_j\)'s teacher, he\(_i\) was introduced'

Now let us look at the dative-nominative pattern with respect to the SCO phenomenon.
The relevant examples are repeated here.

\(^{18}\)To be fair with K&L, the dative-nominative order does not have to be derived in
their analysis if we assume that the proposed psych-movement is optional, unlike other
standard instances of NP-movement.
(36) a. Maryi-no hahaoya-ni kanozyoi-ga ais-e-na-i
    Mary-GEN mother-DAT she-NOM love-can-not-PRES
    'Maryi's mother cannot love heri'

   b. *Maryi-no hahaoya-ga kanozyoi-ni ais-e-na-i
    Mary-GEN mother-NOM she-DAT love-can-not-PRES
    'Maryi's mother, she cannot love'

As discussed in Section 2.2, the marginal status of (36b) suggests that it is derived by scrambling, which triggered the SCO effect. In K&L's analysis, the marginality of (36b) must be accounted for by some means other than SCO. Moreover, K&L's account, with a standard assumption that NP-movement is obligatory, wrongly predicts that (36a) would have the SCO effect, since, again, to obtain the order in (36a), the dative subject must be moved to the sentence initial position by scrambling.

Third, it is well-known that scrambling exhibits some reconstruction effects whereas the direct passive movement and NP movement in general do not. More specifically, the grammaticality of the scrambled sentence (37a) suggests that there is some kind of mechanism which in effect "puts back" the reflexive zibun to the position where the antecedent NP John can presumably bind it at LF. This is not allowed in the case of direct passive as shown in (37b).

(37) a. zibun-i-o Maryi-ga ti nagut-ta
    self-ACC Maryi-NOM ti hit-PAST
    'Lit. Selfi hit Maryi'

   b. *zibun-i-ga Maryi-ni ti nagur-are-ta
    self-NOM Maryi-by ti hit-PASS-PAST
    'Lit. Selfi was hit by Maryi'

When the nominative object precedes the dative subject, the reconstruction effect obtains:

(38) a. zibun-i-ga Maryi-ni kowa-i
    self-NOM Maryi-DAT afraid-PRES
    'Lit. Selfi, Maryi is afraid of'

   b. zibun-i-ga Maryi-ni (itiban) taisetu-da
    self-NOM Maryi-DAT (most) important-COP
    'Selfi is (the most) important to Maryi'

19 The question whether or not reconstruction literally takes place is outside the scope of this paper. What is important to the present discussion is the effect itself.
The well-formedness of (38a) and (38b) strongly suggests that the kind of movement that K&L propose is scrambling rather than NP-movement.

The final piece of evidence that indicates sentences like (33a) involve scrambling has to do with weak crossover (WCO) effects. Hoji (1985) and Saito (1985) observe that the WCO effect disappears when scrambling takes place. Consider the following contrast.

(39) a. ?*[e_j e_i katta] hitoj]-ga nani_i-o suteta no bought person-NOM what-ACC threw away Q
   'Lit. The man who bought e_i threw away what_i?'

b. nani_i-o [[e_j e_i katta] hitoj]-ga ti suteta no  
   what-ACC bought person-NOM threw away Q

In (39a), nani 'what' is moved crossing over e_i at LF, resulting in a WCO violation. However, as in (39b), scrambling of nani appears to "fix up" the WCO violation. Whatever the correct analysis of this phenomenon turns out to be, what is important to the present discussion is the fact that scrambling "remedies" the WCO violation. Now let us look at the dative-nominative pattern in this context.

(40) a. ?*[e_j e_i katteita] hitoj]-ni nani_i-ga kowai no  
   kept person-DAT what-NOM afraid Q
   'Lit. The man who kept e_i is afraid of what_i?'

b. nani_i-ga [[e_j e_i katteita] hitoj]-ni ti kowai no  
   what-NOM kept person-DAT afraid Q

With the dative-nominative word order, the sentence is marginal as illustrated in (40a), presumably because raising of the WH-element at LF creates a WCO violation, just like (39a) above. However, the WCO effect is remedied in (40b). This fact is straightforwardly explained if we assume that (40b) involves scrambling.

---

20For details of the WCO phenomenon in Japanese, see Saito & Hoji (1983) and Farmer & Tsujimura (1986).

21(39b) has been considered an instance of parasitic gap (cf. Saito 1985 and Hoji 1985). However, Saito (1990), following Mahajan (1989), claims that the fact that (39b) is good can be accounted for if scrambling has properties of A-movement. See Saito (1990) for his argument against a parasitic gap analysis of (39a). In this paper, however, I will assume that scrambling involves A-bar movement.
To sum up, I have shown that the kind of movement that K&L proposes for the experiencer constructions has properties of scrambling. It should also be clear that the dative-nominative order is not obtained by scrambling.

6. A Verb-Movement Analysis

In the last two sections, we looked at two proposed analyses of Case-marking of the experiencer constructions, Takezawa (1987) and Kim & Larson (1989). It was demonstrated that both of these analyses have serious problems. Takezawa's problems are associated with his INFL-lowering mechanism. Kim & Larson's problem is that contrary to their claim, movement of the nominative Theme NP to the position preceding the dative Experiencer NP (their psych-movement) exhibits properties of scrambling, rather than NP-movement.

This section discusses a possibility of utilizing V-movement to account for the Case patterns at issue. What I want to propose is to elaborate the notion of den Besten's Chain Government (cf. den Besten 1984). Before going into my proposal, however, I want to discuss first some issues that are pertinent to the present proposal.

6.1. VP-Preposing in Japanese

In this subsection, I argue that there exists a phenomenon called VP-preposing in Japanese, just as in English. It has been claimed that Japanese lacks VP-preposing completely (cf. Inoue 1978). However, the fact that sentences such as (41) below can be constructed shows that this observation is not correct.

(41) a. ?John-o naguri-wa, Mary-ga si-ta
    John-ACC hit-TOP Mary-NOM do-PAST
    'Lit. Hit John, Mary did'

b. John-o naguri-wa, Mary-wa si-nakat-ta
    John-ACC hit-TOP Mary-TOP do-not-PAST
    'Lit. Hit John, Mary didn't do'

---

22To the best of my knowledge, Hoji (1989) is probably the first, who discussed this phenomenon in Japanese within the GB framework.
As shown, VP-preposing in Japanese is similar to contrastive topicalization in this language, which is generally assumed to involve A-bar movement (cf. Hoji 1985 and Saito 1985). The preposed VP is marked by the topic-marker *wa*, and renders a strong contrastive reading. (41a) sounds a little bit odd, but with the topic-marker on the subject and the negation in the predicate as in (41b), the sentence becomes perfectly grammatical.\(^{23}\) What appears to happen is that the VP is preposed and the dummy verb *su-ru* 'do' is inserted to carry the tense marker. While the fronted VP in (41) above is marked by the topic *wa* as mentioned, other adverb-like particles can also be used as shown in (42).

(42) a. sushi-o tabe-sae, John-wa si-taku-nakat-ta  
sushi-ACC eat-every John-TOP do-want-not-PAST  
'Lit. Even eat sushi, John didn't want to do'

b. Mary-ni hanasi-mo, John-wa si-nakat-ta  
Mary-DAT speak-also John-TOP do-not-PAST  
'Lit. Even speak to Mary, John didn't do'

Japanese VP-preposing must move the whole VP. For instance, the indirect object cannot be left behind in the context of VP-preposing as shown in (43).

(43) a. *?hon-o age-wa, John-wa Mary-ni si-nakat-ta  
book-ACC give-TOP John-TOP Mary-DAT do-not-PAST  
'Lit. Give a book, John didn't do to Mary'

b. *tegami-o oki-wa, John-wa tukue-ni si-nakat-ta  
letter-ACC put-TOP John-TOP desk-DAT do-not-PAST  
'Lit. Put a letter, John didn't do on the desk'

Japanese VP-preposing appears to observe subadjacency effects, suggesting that it involves movement. First, as examples in (44) show, the fronted VP can be "put back" to the position immediately preceding the dummy verb *su-ru*.

(44) a. Mary-wa John-o naguri-wa si-nakat-ta  
Mary-TOP John-ACC hit-TOP do-not-PAST  
'Mary did not hit hit John'

\(^{23}\)Incidentally, in Korean the subject can only be marked by the nominative-marker, but not by the topic-marker. Also, in Korean, instead of inserting a dummy verb just like English 'do'-support, the fronted verb can be copied, replacing the dummy verb. This option is not available in Japanese.
b. John-wa sushi-o tabe-sae si-taku-nakat-ta
   John-TOP sushi-ACC eat-even do-want-not-PAST
   'John didn't even want to eat sushi'

c. John-wa Mary-ni hanasi-mo si-nakat-ta
   John-TOP Mary-DAT speak-even do-not-PAST
   'John didn't even (or also) speak to Mary'

It is natural to assume then that movement, if exists, takes place from the positions illustrated in (44). Given this hypothesis, VP-preposing shows some subjacency effects. While successive cyclic long distance VP-preposing is grammatical (45c), extraction of the VP out of a complex NP (45a) and a Wh-Island (45b) is not allowed.

(45) a. *[manga-o yomi-wa], John-wa [NP[5 Mary-ga 1 suru] zikan-o] sittei-ru
   comics-ACC read-TOP John-TOP Mary-NOM do time-ACC know-PRES
   Lit. Read Comics, John know the time that Mary does 1'

b. *[manga-o yomi-wa], John-wa [NP[5 Mary-ga 1 suru] kadooka]
   comics-ACC read-TOP John-TOP Mary-NOM do whether
   sir-ana-i
   know-not-PRES

   'Read comics, John doesn't know whether Mary does 1'

c. [manga-o yomi-wa], John-wa [NP[5 Mary-ga 1 suru] to]
   comics-ACC read-TOP John-TOP Mary-NOM do COMP
   omow-ana-katta
   think-not-PAST

   'Read comics, John didn't think that Mary does t'

The grammatical status of (45b) is reminiscent of the English sentence (46) below, which is presented in Chomsky (1986b).

(46) ?fix the car, I wonder whether he will 1

(45b) and (46) are both cases of extraction out of Wh-Island. They suggest that the trace of VP-preposing is properly governed both in Japanese and English, hence resulted in just a weak subjacency violation, not an ECP violation (cf. Chomsky 1986b). To sum up the discussion so far, I demonstrated that there exists VP-preposing in Japanese, and further that this phenomenon involves syntactic movement.
6.2. The VP-Internal Subject Hypothesis and VP-Preposing

This subsection discusses the VP-internal subject hypothesis (VPISH) in light of Japanese VP-preposing. The VPISH has been put forth, for instance, by Fukui (1986), Huang (1990), Kitagawa (1986), Koopman & Sportiche (1988), Kuroda (1988), etc. Although these works are different from one another in some technical details, the essential insight of the VPISH is that the subject is base-generated inside the projection of the verb. I argue that some facts of VP-preposing can be most naturally explained under a version of the VPISH.

In his recent paper, Huang (1990) proposes an analysis of VP-preposing, and provides some evidence for the VPISH from some reconstruction effects illustrated by the contrast in (47) below. What concerns us here is the reconstruction effect itself, but not the actual mechanism involved in this phenomenon.

(47) a. Which pictures of himself\(i\)\(j\) did John\(i\) think Bill\(j\) liked?

b. Criticize himself\(i\)\(j\), John\(i\) thinks Bill\(j\) never will

(47a) is ambiguous; the reflexive can be bound either by John or Bill. (47b), on the other hand, is unambiguous with respect to the binding of the reflexive; only Bill can be the antecedent.\(^24\) Suppose that (47a) allows an abstract "putting-back-of-anaphor" effect so

\(^{24}\)Huang points out that Chinese exhibits exactly the same contrast.

(i) a. taziji\(i\) de shi, Zhangsan\(i\) xiwang Lisij neng guan-yi-guan himself's matter Zhangsan hope Lisij will care-a-little 'His\(i\)\(j\) own business, Zhangsan\(i\) hopes Lisij will care-for-a-bit'

b. piping taziji*\(i\)\(j\), Zhangsan\(i\) zhidao Lisij juedui bu hui criticize himself Zhangsan knows Lisij definitely not will 'Criticize himself*\(i\)\(j\), Zhangsan\(i\) knows Lisij definitely will not'

Japanese appear to have some complicated factors that prevent us from applying Huang's analysis to this language directly, thus judgments of the binding possibilities are not entirely clear. I find the following sentences both ambiguous.

(ii) a. karezisini\(i\)\(j\)-no ronbun-sae, John\(i\)-wa Bill\(j\)-ga home-ta to itta himself-GEN paper-even John-TOP Bill-NOM admire-PAST COMP said 'Lit. Himself\(i\)\(j\)'s paper, Johni said that Bill\(j\) admired'

b. karezisini\(i\)\(j\)-no ronbun-o home-sae, John\(i\)-wa Bill\(j\)-ga sita to itta himself-GEN paper-ACC admire-even John-TOP Bill-NOM did COMP said 'Lit. Even dmire himself\(i\)\(j\)'s paper, Johni said that Bill did'
that both the matrix and embedded subjects can bind the anaphor; the question is why this "putting-back-of-anaphor" effect must be blocked for the matrix subject in the case of VP-proposing in (47b). Huang argues that the lack of the possibility for the matrix subject John to be an antecedent of the anaphor in (47b) can be naturally accounted for under the VPISH. According to his analysis, as illustrated in (48) below, the fronted VP contains a trace of the subject of the embedded clause, which binds the reflexive within the VP, hence there is no way for the matrix subject to bind the anaphor.25

(48)  \[\text{VP} I_j \text{ criticize himself}, \text{John}_i \text{ think Bill}_j \text{ never will } 1\]

Huang further points out that, under a conjunctive formulation of the ECP, the trace of the subject must be both identified by antecedent-government and licensed by proper head-government (cf. Rizzi 1990). The requirement of antecedent-government can be satisfied derivationally (cf. Lasnik & Saito 1984, 1990) while the proper head-government requirement must be considered as a condition on representation (at least at S-structure). Therefore, the head-government requirement must be satisfied at the structure after the application of the VP-fronting. If the VP is assumed to be what has been fronted, there is no X^0 element that licenses the subject trace. To solve this problem, adopting Chomsky's suggestion, Huang proposes that what is actually preposed is a projection of some kind of functional category, but not the VP itself, hence the subject trace is properly head-governed by the functional category.26 Based on these considerations, he claims that (49), rather than (48), is the correct S-structure representation of the sentence.27

(49)  \[\text{FP } F^0 [\text{VP } I_j \text{ criticize himself}], \text{John}_i \text{ think Bill}_j \text{ never will } 1\]

25This binding within VP is made possible by the notion of Chomsky's (1986a) Complete Functional Complex (CFC). Kitagawa (p.c.) independently points out this possibility as well.

26Huang points out that this functional category at issue could be AGR-O of Chomsky (1988), Predicate Phrase of Bowers (1989), or Larson's (1988) higher VP. I will use FP for this functional category to keep it theoretically neutral.

27An interesting question arises here. That is, "what licenses this empty F^0 in this case?" Incidentally, CPs with empty C^0 cannot be preposed (John Whitman p.c.). It is not clear then why FP can be preposed with empty F^0.
If Huang’s approach is on the right track, what is traditionally called VP-preposing (or VP-fronting) is actually FP-preposing. For the sake of convenience, however, let us continue to use the term VP-preposing.

Although this analysis of English VP-preposing cannot be directly applied to Japanese for independent reasons (cf. Huang 1990 and footnote 21), it should be pointed out here that Japanese presents some other supporting evidence for the analysis Huang proposes. As we will see, Japanese VP-preposing has some peculiar behavior, which is not found in English, for example. That is, subjects can appear in the preposed VP. I want to claim that, in Japanese, the proposed functional head F₀ has a lexical realization, and further that it must be able to assign nominative Case to the NP that it governs.

Let us consider the morphology of the verbal endings first. The morphological form of the verb that is used in the case of VP-preposing has been generally identified as an infinitive form. However, more careful examination reveals that the verbal form at issue arguably consists of the verb stem and some kind of functional category. Thus, the claim here is that the correct morphological segmentation of the verbs in VP-preposing construction must be as follows.²⁸

| (50) | a. John-o nagur-i-wa, | Mary-wa si-nakat-ta |
|      | John-ACC hit-NML-TOP | Mary-TOP do-not-PAST |
| 'Lit. Hit John, Mary didn't do' |
| b. sushi-o tabe-ø-sae, | John-wa si-taku-nakat-ta |
| sushi-ACC eat-NML-even | John-TOP do-want-not-PAST |
| 'Lit. Even eat sushi, John didn't want to do' |
| c. Mary-ni hanas-i-mo, | John-wa si-nakat-ta |
| Mary-DAT speak-NML-also | John-TOP do-not-PAST |
| 'Lit. Even speak to Mary, John didn't do' |

In these examples, the stems of the fronted verbs are nagur, tabe, and hanas. The morpheme -i appears when the verb stem ends with a consonant (50a) and (50c), but with the verb stem ending with a vowel (50b), a zero morpheme occurs. This morpheme is not considered a tense morpheme. The function of this functional category is to "nominalize" a verb in some sense. It does not nominalize the verb completely as in derivational

²⁸Following Yoon (1989), I use NML for this functional element.
nominalization, since the verbs in (50a-b) are still able to assign accusative Case to their object. Also, (50c) contains the subcategorized dative NP. If it were the case that the verb is completely nominalized by the morpheme -i, we would expect all of these arguments to be marked by the genitive no. Hence, it is similar to English gerundive -ing. John Whitman (p.c.) points out to me that a typologically similar language, Korean, presents a clearer evidence for this claim. Korean uses the morpheme -ki in this situation, which has been analyzed as a nominalizer (cf. Yoon 1989). At any rate, it is highly plausible that the -i morpheme in Japanese and -ki morpheme in Korean are the realization of the relevant functional head.

It should be pointed out here that this functional head and the tense-maker appear to be in complementary distribution on the surface level as shown in (51a) below. However, I want to suggest that this has something to do with a morphophonemic restriction in this language. In fact, as shown in (51b), the -i morpheme does cooccur with the tense-marker in the polite speech form of the sentence. That is, when the polite speech marker masu for present (or imperfect) tense and masita for past (or perfect) tense are attached to the verb, the -i morpheme shows up.

(51) a. *wakar-i-u
understand-NML-PRES
(cf. wakar-u)

*wakar-i-ta
understand-NML-PAST
(cf. wakar-ta --> wakat-ta)

b. wakar-i-masu
understand-NML-POLITE PRES

wakar-i-masita
understand-NML-POLITE PAST

Determining the relevant morphophonemic restriction is outside the scope of this paper. In what follows, therefore, I assume that there is a syntactic slot for the functional head F0 in the basic sentence structure. However, for simplicity, I will omit this in the gloss unless it is relevant to our discussion. The correct representation of examples in (51a), therefore, are wakar-o-ru (understand-NML-PRES) and wakat-o-ta (understand-NML-PAST), respectively.

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29 I tentatively assume here that masu and masita as a whole are the tense-markers.
Let us now turn to my second claim that the functional head at stake can assign nominative Case to the NP that it governs in Japanese. This claim is based on the fact that the passivized VP can be preposed by VP-preposing. Consider the following example.

(52) syorui-ga ofisu-ni okur-are-ο-sae, John-wa sitei-nai-to itta paper-NOM office-DAT send-PASS-NML-even John-TOP do-not-COMP said 'John said that papers were not even sent to the office.'

As discussed in Section 3, Miyagawa argues that the Japanese direct passive involves NP-movement. One possible account of the acceptability of this sentence is to analyze the direct passive in Japanese as movement of NP to the VP SPEC position, where the moved underlying object gets nominative Case under head-government by F0. Incidentally, Koopman & Sportiche (K&S) (1988) suggest that in a Japanese/Chinese type of language, subjects can stay within the VP while in an English type of language, subjects must move to the IP SPEC position. (See also Fukui 1986 and Kuroda 1988.) The difference between the two types of languages is accounted for by the assumption that nominative Case is assigned by INFL in a Chinese/Japanese type of language under head-government while an English type of language assigns nominative Case under SPEC-head agreement, but not under head-government. If this is on the right track, the preposed FP in (52), looks like (53) below.

(53) [F0 [VP syorui-ga [VP ofisu-ni  isSuccess]-are-ο]-sae

I assume here that the passive morpheme *are is a verb taking a VP as its complement. I assume also that head-government requires c-command, but not m-command (cf. Rizzi 1990). In (53) above, the moved NP must be in the higher VP SPEC position to be governed by F0. Given the assumption that nominative Case is assigned under head-government in Japanese as K&S suggest, it may be claimed, then, that Japanese allows F0 to assign nominative Case to the derived subject within the VP.

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Some speakers might find (52) and (54) below slightly hard to process. However, there is a clear contrast between acceptable (52)/(54) on the one hand and unacceptetable examples such as (43)/(45a) on the other. Notice also that the English examples corresponding to (52) and (54) are completely ungrammatical.

(i) *Papers sent to the office, John said never will be.
(ii) *Mary read newspaper, John said never did.
The second piece of evidence that indicates that $F^0$ in Japanese must be able to assign nominative Case comes from sentences such as the following.

(54) (John-wa (kessite) Mary-ga sinbun-o yom-i-wa, Mary-NOM newspaper-ACC read-NML-TOP, John-TOP (never)

si-nakat-ta-to it-ta
do-not-PAST-COMP say-PAST

'John said that Mary never read newspaper'

In this sentence, it appears that the preposed phrase contains the subject of the embedded clause. Under the widely-accepted assumption that the subject may not be scrambled (cf. Saito 1985), therefore, (54) cannot be considered to involve two successive applications of movement; movement of the VP first and separate movement of the subject. The sentence (54), then, presumably has the following structure.

(55) [[Mary-ga sinbun-o yom]-i]-wa, [John-wa [ t̓ ] (kessite) Mary-NOM newspaper-ACC read-NML-TOP, John-TOP (never)

si-nakat-ta]-to it-ta
do-not-PAST-COMP say-PAST

But, the question then is what kind of phrase is moved in this case. It cannot be an IP since the preposed phrase does not contain tense; the tense-marker appears with the dummy verb su-ru. As we saw in the previous subsection, the fronted predicate phrase must contain the whole VP. I propose that (55) is straightforwardly accounted for if we assume: (a) Japanese subjects are base-generated under the projection of V, e.g. SPEC VP (the VPISH), and (b) VP-preposing involves movement of FP, as argued by Huang (1990), and (c) unlike English, $F^0$ can assign nominative Case under head-government in Japanese. If this analysis of (55) is correct, it follows that the preposed phrase takes the following form.

(56)

```
(SPEC) FP
     | F'
     | VP
     | F
     | V'
     | i
   NP Mary-ga
   | sinbun-o
   | yom
```
Under the assumption that nominative Case assignment takes place under head-government, the subject cannot be in the SPEC FP position, since F₀ does not head-govern this position (cf. the c-command requirement for head-government). Therefore, the fact that the subject can appear within the preposed FP provides a piece of evidence for the VPISH.

To sum up the above discussions, Huang (1990) suggests that the VP-preposing involves movement of a higher functional category projection (our FP) so that the subject trace in the preposed phrase can be licensed by head-government from this functional head. I claimed that Japanese has a lexical realization of this functional category F₀. I also argued that this F₀ has the ability of assigning nominative Case in Japanese, which in turn allows the derived subject NP in the direct passive and the regular subject NP to appear in the preposed phrase in the VP-preposing context.

It should also be pointed out here that multiple nominative Case assignment in Japanese receives a natural explanation by extending the analysis presented here. If we assume that Japanese allows all the functional categories, not just F₀, to be able to assign nominative Case, multiple nominative Case assignment in sentences such as (57) is made possible under head-government by the functional categories.

(57) a. aki-ga yama-ga ki-ga kirei-da
fall-NOM mountains-NOM tree-NOM beautiful-COP
'It is fall that mountains, trees are pretty in'

b. bunmeikoku-ga dansei-ga heikin-zyumyoo-ga mizika-i
civilized countries-NOM male-NOM average-lifespan-NOM short-PRES
'It is civilized countries that men, their average lifespan is short in'

To make this claim more specific, let us consider the basic clausal structure in this language. Japanese is a strict head-final and SPEC-initial language. Given the basic X-bar schema and the present analysis, the basic schematic structure of the sentence in Japanese is something like the following.
It was argued above that the VP SPEC is the position where the subject is base-generated, and the subject in Japanese is assigned nominative Case in that position by F₀ under head-government. Given the hypothesis that all the functional categories in Japanese can assign nominative Case, I₀ may assign nominative Case to the FP SPEC position, and likewise C₀ to the IP SPEC position. Hence, all the nominative Case assignment in (57) above are accounted for, provided that the non-argument NPs in (57) are located in the SPEC position of FP and IP. This analysis claims, then, that the peculiar behavior of multiple nominative-marking in Japanese follows from the claim that all the functional categories in this language can assign nominative Case.³¹

The question that remains is how the nominative object gets its Case. Under the assumption that all the functional categories in Japanese can assign nominative Case, it will be nice if it can be argued that nominative-marking on the nominative object is also somehow assigned by a functional category.

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³¹If we postulate a similarly layered structure with corresponding functional categories in the structure of Japanese noun phrase, then, multiple genitive-marking may be accounted for similarly by claiming that all the nominal functional categories assign genitive Case under head-government.
6.3. Verb-Movement and the Dative-Nominative Pattern

In the previous subsection, we saw that nominative Case assignment takes place under (a) SPEC-head agreement (e.g. English), (b) head-government (e.g. Japanese), as K&S argue. In this section, it will be suggested that there is another way of assigning nominative Case. More specifically, I will argue that nominative Case can be assigned by a functional category through a chain formed by V-movement to that functional category. This analysis is similar to den Besten's (1984) idea of Chain Government. My claim here is that Chain Government is possible through an actual chain formed by V-movement.

Let us first consider examples of the dative-nominative pattern with a single morphemic verb. Remember that I assume that there is a syntactic slot available for F₀ in spite of the fact that the -i morpheme does not appear with the non-polite tense-marker.

(59) a. John-ni nihongo-ga wakar-ø-u
    John-DAT Japanese-NOM understand-NML-PRES
    'John understands Japanese'

b. John-ga nihongo-ga wakar-ø-u
    John-NOM Japanese-NOM understand-NML-PRES
    'It is John who understands Japanese'

Let us assume, with Takezawa (1987), that the verb wakar-ø-u takes two arguments; an external argument in the SPEC of VP and an internal argument in the complement position. The verb, however, lacks Case-assigning ability to its internal argument. The VP SPEC position is occupied by the base-generated subject, hence movement of the object is not available, as Takezawa argues. Therefore, to save the sentence, the verb moves up to F₀, and [F₀ V₀+F₀] assigns nominative Case through the chain formed by the V-movement. This is illustrated in (60).

(60) [IP [FP [VP John-ni [v' nihongo-ga [v₀ i]]] [F₀ wakar-i-ø]] [F₀ u]]

Incidentally, movement of the object NP to the FP SPEC or IP SPEC position is also blocked given Rizzi's (1990) Relativized Minimality. The basic idea of Relativized Minimality is that antecedent-government is blocked if there is a potential antecedent-governor between the trace and its actual antecedent. Thus, in an A-chain, the moved NP (the antecedent) can only antecedent-govern its trace if there is no A specifier (a
potential antecedent governor) c-commanding the trace. The movement of the object NP to the FP or IP SPEC position is presumably an A-movement (triggered by Case Theory), the subject in the VP SPEC position is an A specifier, hence antecedent-government from any higher SPEC position to the original object position is blocked. It follows then that Case assignment through a chain formed by the V-movement is the only way to save the sentence.

The dative-nominative Case alternation on the subject can be accounted for if we assume, with B&R, that the dative Case is lexical Case specified by the verb. It is usually assumed that lexical Case is associated with some particular θ-role. In this case, then, dative Case is associated with Experiencer θ-role. The experiencer dative-marked subject is in the SPEC VP position in accordance with the VPISH. The dative subject optionally appears in nominative as in (59b) above and in the paradigm in (1) at the very beginning of this paper. In this case, I suggest that the subject is moved to the next higher SPEC position, i.e., the FP SPEC position, and thereby it gets nominative Case assigned by Ι₀ under head-government. Hence, the S-structure representation of (59b) is something like (61) below.

(61)  [IP [FP John-j-ga [VP ɪj [v nihongo-ga [v₀ ɪj]]] [P₀ wakar-i-0]] [ϊ₀ u]]

Since this movement of the subject does observe Relativized Minimality in the sense of Rizzi (1990), there is nothing that prevents it from taking place.

There is evidence that seems to support the idea that the nominative Case is assigned to the dative NP in a higher SPEC position such as the FP SPEC in (61). First, it seems that only the dative NP in the dative-nominative pattern can be changed to nominative. Hence, the examples in (62), but not the ones in (63), allow the dative-nominative Case alternation.

(62)  a. John-ni/ga kodomo-ga i-ru
      John-DAT/NOM child-NOM exist-PRES
      'John has a child'

   b. New York-ni/ga takusii-ga takusan hasitte-iru
      New York-DAT/NOM taxi-NOM many running-PRES
      'There are many taxis in New York City'

(63)  a. John-ga Mary-ni/#ga hon-o age-ta
      John-NOM Mary-DAT/#NOM book-ACC give-PAST
      'John gave a book to Mary'
b. John-ga Mary-ni/*ga at-ta
   John-NOM Mary-DAT/*NOM meet-PAST
   'John met Mary'

c. John-ga gakkoo-ni/*ga hon-o wasure-ta
   John-NOM school-DAT/*NOM book-ACC forget-PAST
   'John left behind a book at school'

But, why should this be the case? The ungrammaticality of the nominative versions in (63) is readily accounted for by the claim that the dative NP can be changed to nominative only if it moves to a higher SPEC position; the datives in (63) cannot be changed to nominatives since there is no SPEC position available in these cases. (It is occupied by the subject or its trace.) Second, scrambling of the underlined NPs in (63) does not improve the grammatical status of these sentences with nominative-marker as shown below.

(64) a. Mary-ni/*ga, John-ga hon-o age-ta
       Mary-DAT/*NOM John-NOM book-ACC give-PAST

b. Mary-ni/*ga, John-ga at-ta
   Mary-DAT/*NOM John-NOM meet-PAST

c. gakkoo-ni/*ga, John-ga hon-o wasure-ta
   school-DAT/*NOM John-NOM book-ACC forget-PAST

Given the usual assumption that scrambling is an adjunction operation, the examples in (64) indicate that adjoined positions are not eligible for receiving nominative Case. Hence, the fact that the dative-nominative Case alternation is allowed in the dative-nominative pattern suggests that, if there is movement at all, it must be movement to a SPEC position.

As discussed in Section 4, there are some experiencer predicates that cannot mark their subject with the dative ni as shown in (65).

(65) a. John-ga/*-ni Mary-ga suki-da
       John-NOM/*DAT Mary-NOM like-COP
       'John likes Mary, or It is John who likes Mary'

b. John-ga/*-ni kuruma-ga hosi-i
   John-NOM/*DAT car-NOM want-PRES
   'John wants a car, or It is John who wants a car'

c. John-ga/*-ni biiru-ga nomi-ta-i
   John-NOM/*DAT beer-NOM drink-want-PRES
   'John wants to drink beer, or It is John who wants to drink beer'
I claim that these predicates do not have the lexical dative Case specification. Since the experiencer subject does not have a designated lexical Case, nominative Case will be assigned by $\Phi^0$ in the base-generated position, i.e., the VP SPEC position. The difference between those predicates that allow dative-marking on the subject (66a) and those do not (66b) can be shown in the lexicon in the following manner.

(66) a. wakar-u:  
    $\emptyset$-grid  
    |  
    Case-grid  
    [DAT,  -- ]  
    [EXP, THEME]  

b. suki-da:  
    $\emptyset$-grid  
    Case-grid  
    [ -- , -- ]  
    [EXP, THEME]  

Let us now turn to the case of potential construction, which exhibits three different Case patterns as noted at the beginning of this paper.

(67) a. John-ga nihongo-o  
    John-NOM Japanese-ACC  
    hanas-e-ru  
    speak-can-PRES  
    'John can speak Japanese'  

b. John-ni nihongo-ga  
    John-DAT Japanese-NOM  
    hanas-e-ru  
    speak-can-PRES  
    'John can speak Japanese'  

c. John-ga nihongo-ga  
    John-NOM Japanese-NOM  
    hanas-e-ru  
    speak-can-PRES  
    'It is John who can speak Japanese'  

The possibility of (67b) indicates that the potential morpheme has a lexical specification of dative Case for the experiencer subject. The dative-nominative Case alternation on the subject, therefore, is accounted for in the manner discussed above. What concerns us here, then, is the accusative-nominative Case alternation on the object. This Case alternation has been explained as some kind of reanalysis, illustrated in (68) below (cf. Kuno 1973 and Sugioka 1984).

(68) a.  
    [[ nihongo-o  hanas]-e-ru]  

b.  
    [ nihongo-ga  [hanas-e-ru]]  

According to Sugioka, for instance, in (68a) the potential suffix attaches to the V', and since the verb is transitive, accusative Case is assigned to the object. In (68b), on the other hand, the potential morpheme attaches to the verb, forming a complex predicate, which in turn assigns nominative Case to the object NP. In this approach, however, it is not clear
why exactly the Case that is assigned to the object must be nominative Case in (68b). The stativity of the potential suffix is claimed to be responsible for this nominative-marking, but the question is why that should be the case at all.

In the present approach, it is possible to provide an answer to this question. The lexical reanalysis illustrated in (68b) does not change any grammatical relations. Assuming that the relevant reanalysis takes place in the lexicon, the verb and the potential morpheme together form a $V^0$ in syntax. Let us assume further that the potential suffix, when there is no lexical reanalysis taking place, is a verbal head itself taking a VP as its complement. The difference in (68a) and (68b) then can be represented as in the following, with the lexical reanalysis in (69b) and without it in (69a).

\[ (69) \]
\[ \begin{array}{c}
\text{a. } [\text{IP[FP[VP John-ga [v' nihongo-o [v^0 hanas]]] [v^0 e]] [r^0 \emptyset]]] [r^0 \text{ru}}] \\
\text{b. } [\text{IP[FP John-ga [VP[v' nihongo-ga [v^0 \text{bi}]]] [F^0 [F^0 [v^0 \text{hanas-e}]-\text{\text{-i}}]]]] [r^0 \text{ru}}]
\end{array} \]

The potential morpheme in (69a) blocks movement of the verb. Since the verb here is transitive, it assigns accusative Case to its internal argument. In (69b), on the other hand, due to the lexical reanalysis in the lexicon, the verb and potential morpheme form a $V^0$. Assume that the potential morpheme has no Case assigning ability. Since it is the morphological head of the lexically reanalyzed $V^0$, the object NP will not be assigned Case from the verb. However, in this case, to save the sentence from a Case Filter violation, the lexically reanalyzed $V^0$ can move to the $F^0$ because there is no $V^0$ that blocks this movement. The internal argument is now able to get nominative Case from $F^0$ through the V-movement chain.

The Case patterns of the desiderative construction are explained in a similar fashion. As discussed above, the desiderative morpheme $\text{ta-}$, which is adjectival, does not have the designated lexical Case associated with the experiencer subject; thus, its subject must be nominative as in (70b) below. The $F^0-\text{i}$ morpheme and the adjectival present tense-marker $-\text{i}$ must not be confused. Unlike potential $e$, the desiderative $\text{ta}$ takes FP as its complement as shown in (70).

\[ (70) \]
\[ \begin{array}{c}
\text{a. John-ga biiru-o nom-i-ta-\emptyset-i} \\
\text{John-NOM beer-ACC drink-NML-want-NML-PRES} \\
\text{John wants to drink beer}
\end{array} \]
The accusative-nominative Case alternation on the object, again, is explained in terms of the lexical reanalysis. When there is no reanalysis taking place in the lexicon, the desiderative "ta and the verb "nom have independent maximal projections as illustrated in (71a). In this case, the verb "nom assigns its accusative Case to the internal argument. If, on the other hand, lexical reanalysis applies, then, "nom-"ta forms a single A. Again, the reanalyzed A is inert of Case assignment; the desiderative "ta is the morphological head of the reanalyzed A, and it is an adjective, hence it does not have Case assigning property. The internal argument cannot move to some higher SPEC position crossing over the subject NP since this subject NP is an A specifier, thus the movement will be blocked by Relativized Minimality. The only way to save the sentence is to move the reanalyzed A to the higher F position so that nominative Case is assigned to the internal argument through the V-movement chain as shown in (71b).

(71) a. \[
\begin{array}{c}
\text{IP[FP[AP[VP John-ga [v mizu-o [v' nom]] [r i] [A ta] [r i] [i i]]]} \\
\hline
\end{array}
\]

b. \[
\begin{array}{c}
\text{IP[FP[AP John-ga [A mizu-ga [A ta]] [r [A nom-"ta"-i] [i i]]] [i i]]}
\end{array}
\]

Note that V-movement of the verb "nom to the immediately higher F in (71a) is possible, since there is no lexical element blocking this movement. This particular movement, however, does not create a nominative Case assignment environment because the verb "nom is still a transitive verb, which normally assigns accusative Case. Therefore, nominative Case assignment to the object must be considered a last resort phenomenon. Note also that once the verb "nom moves into the immediately higher F, further movement to the next higher F is blocked presumably because of the A ta.

The claim that an intervening lexical X element blocks movement of the verb to F accounts for why the direct passive must involve NP-movement, rather than V-movement. Let us, again, assume that the passive morpheme is a V taking a VP as its complement, and assume further that the passive morphology absorbs the Case assigning ability of the verb as in the standard GB account. Notice that the passivization is an operation that changes grammatical relations. Suppose that lexical reanalysis of the sort discussed above is not available for a grammatical relation changing operation, then, it follows that the direct
passive sentence (72a) has (72b) as its D-structure. The verb *syookais* cannot move to the F₀ position due to the intervening passive morpheme; thus, the only way to save the sentence is to raise the underlying object NP to the VP SPEC position as in (72c).

(72) a. John-ga Mary-ni *syookais-are-ø-ta*  
    John-NOM Mary-DAT introduced-PASS-NML-PAST  
    'John was introduced to Mary'

b. [IP[FP[V[P Mary-ni John [v₀ syookais]] [v₀ are]] [ø छ]] [o ta]]

c. [IP[FP[V[P Johni-ga [VP Mary-ni ti [v₀ syookais]] [v₀ are]] [ø छ]] [o ta]]

Under the VPISH, the dative NP Mary-ni in (72) will not be in the VP SPEC position. It follows then that the movement shown in (72c) observes Relativized Minimality since the dative NP is not an A specifier that blocks antecedent-government.

6.4. VP-Preposing and the Verb-Movement Analysis

In the previous subsection, I proposed that the nominative object is assigned Case by F₀ through a chain formed by V-movement. It was also claimed that the accusative-nominative Case alternation on the object is explained in terms of lexical reanalysis. This subsection shows that some facts from VP-preposing provide support for this approach.

Whitman (1990) points out that the distribution of nominative objects in the VP-preposing context is more restricted. He further suggests that this fact is nicely accounted for given a V-movement analysis. Whitman’s analysis is slightly different from the analysis proposed in the previous subsection, but the observation that he makes does support the present approach as well. Consider the following examples.

(73) a. *eigo-ga/*?-o owakar-i-sae, John-wa si-nakat-ta  
    English-NOM/*?ACC understand-NML-even John-TOP do-not-PAST  
    'Even understanding Japanese, John didn't do'

    English-NOM/ACC speak-can-NML-even John-TOP do-not-PAS'T  
    'Even being able to speak English, John didn't do'

c. *biiru-*ga/o nom-i-sae, John-wa si-taku-nakat-ta  
    beer-*NOM/ACC drink-NML-even John-TOP do-want-not-PAST  
    'Even drinking beer, John didn't want to do'
In (73a), accusative-marking on the object is marginal while nominative-marking is good. This contrast must be related to the fact that accusative object is marginal with the verb *wakar* as shown in (74).\(^{32}\)

(74) \begin{align*}
&\text{John-wa} \quad \text{nihongo-ga/*?o} \quad \text{wakar-u} \\
&\text{John-TOP} \quad \text{Japanese-NOM/?ACC} \quad \text{understand}
\end{align*}

'John understands Japanese'

The nominative version of (73a) is accounted for in the present framework in the usual way: The VP-preposing involve movement of FP. The verb here does not have any Case to assign, but, the verb inherits the nominative Case assigning ability by moving to F₀, hence it assigns nominative Case to the object through the chain formed by V-movement, as illustrated in (75).

\[ \text{FP [VP [V-nihongo-ga [V₀ Ij]] [F₀[wakar-j-i]]]-sae} \]

In (73b), either nominative or accusative-marking is grammatical. Again, in the present approach, this fact can be explained in terms of V-movement and the presence or absence of the lexical reanalysis discussed in the previous subsection. (76a) below illustrates the context with the reanalysis in the lexicon and (76b) without it. Nominative-marking is only possible with the reanalysis; the lexically reanalyzed V₀ can move to F₀, and this movement makes nominative-marking on the object possible. Without the lexical reanalysis, the potential V₀ blocks the V-movement, thus, the verb assigns its accusative Case to the object.

\[ \text{FP [VP [V-nihongo-ga [V₀ Ij]] [F₀[wakar-j-i]]]-sae} \]

\[ \text{FP [VP [V-nihongo-ga [V₀ Ij]] [F₀[wakar-j-i]]]-sae} \]

\[ \text{FP [VP [V-nihongo-ga [V₀ Ij]] [F₀[wakar-j-i]]]-sae} \]

\[ \text{FP [VP [V-nihongo-ga [V₀ Ij]] [F₀[wakar-j-i]]]-sae} \]

\[ \text{FP [VP [V-nihongo-ga [V₀ Ij]] [F₀[wakar-j-i]]]-sae} \]

\[ \text{FP [VP [V-nihongo-ga [V₀ Ij]] [F₀[wakar-j-i]]]-sae} \]

---

\(^{32}\)There is some dialectal variation with respect to accusative-marking of this kind of verbs. Other verbs that behave similarly are suki-da 'like,' kirai-da 'dislike' and hosi-i 'want.' Sugioka (1984) for instance accepts accusative-marking with these predicates. It is true the accusative-marked version becomes perfect in the context where the subject renders a volitional interpretation. For example,

(i) John-wa nihongo-o wakar-oo-to si-ta
   John-TOP Japanese-ACC understand-try-to-do-PAST
   'John tried to understand Japanese'

(ii) John-wa kuruma-o hosi-gat-ta
    John-TOP car-ACC want-VERBALIZER-PAST
    'John wants a car'

The relevant dialectal variation might be due to the existence of sentences like these.
(76) a. \[FP [VP [\nu\text{ eigo}-\text{ ga} [v^0tj]] [f^0[v^0\text{ hanas-e}]j-\theta]]\text{-sae}\]

b. \[FP [VP [vp eigo-\text{ o} [v^0\text{ hanas}] [v^0e]] [f^0\theta]]\text{-sae}\]

In (73c), nominative-marking is not permitted. This fact is easily accounted for in the present analysis. In the VP-preposing context, the lexical reanalysis obviously cannot take place since the pertinent verb and the desiderative adjective ta are not adjacent to each other. The verb can move up to \(F_0\) as illustrated in (77), but it is still a transitive verb with accusative Case to assign. Therefore, only accusative version is possible.

(77) a. \[FP [VP [\nu\text{ biiru}-\text{ o} [v^0tj]] [f^0[v^0\text{ nomj-i}]]\text{-sae}\]

I demonstrated that all the instances of (73) are accounted for by the analysis proposed in 6.3.

References:


Kuroda, S.-Y. (1970) "Remarks on the Notion of Subject with Reference to Words like Also, Even, or Only," Part II, Annual Bulletin 4, Logopedics and Phoniatrics Research Institute, Tokyo University.


