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AMBIGUITY OF GOVERNMENT AND THE CHAIN CONDITION*

In this paper, I examine the Chain Condition (Chomsky 1981, 1986a) and show that the requirement that the head of an A-Chain be its unique Case position cannot be maintained when a range of data from different languages is examined. In its place, I propose the Revised Chain Condition (RCC), which allows A-Chains to contain more than one Case-marked position as long as each position within the Chain is uniquely Case-marked. Unlike the Chain Condition, which resists successful deduction from independent postulates, the RCC can be derived in its entirety from plausible primitives of the grammar. I test the predictions of the RCC with respect to a variety of theoretical constructs, showing them to be confirmed. The implications of RCC for the conception of Chains and movement in the minimalist approach (Chomsky 1992, 1994, Chomsky and Lasnik 1991, and Lasnik 1993) are discussed. It is argued that a careful reading of the minimalist literature turns out to support the RCC.

1. INTRODUCTION

Chomsky (1981, 1986a) takes the CHAIN CONDITION (CC) given in (1) below as a fundamental generalization about A-Chains and conjectures that it might be derived as a theorem from other principles of the grammar.[1]

(1) In a maximal Chain $C = \{\alpha_1, \ldots, \alpha_n\}$, α_n occupies its unique theta position and α_1 its unique Case-marked position. (171 of Chomsky 1986a, p. 137)

According to the CC, the defining property of an A-Chain is that a unique

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[1] As is standard, I take the CC to hold for A-Chains. Chomsky (1986a) assumes that the CC extends to expletive-associate constructions, and proposes the concept of CHAIN for the latter. Since the reduction of CHAINs to 'Chains-at-LF' is a crucial component of the 'LF Case Theory' of the minimalist approach, I discuss CHAINs in greater detail in section 4.

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θ-role is assigned to the TAIL (= α_n) of a Chain, while a unique Case is assigned to its HEAD ($=\alpha_1$).[2]

1.1. *The Domain of the Chain Condition*

Chomsky's attempt to derive the CC from plausible primitives of the then-current theory is understandable given that the CC is a generalization over the properties of NP-movement dependencies in a number of languages. If the CC is of such generality, it is of course desirable to show that it follows from the architecture of the grammar. However, Chomsky acknowledges (1986a, p. 137) that the CC as it stands cannot be completely deduced from known principles of the then-current theory.

Within the minimalist framework (Chomsky 1992, 1994; Chomsky and Lasnik 1991; Lasnik 1993, inter alia), it is sometimes asserted (Chomsky and Lasnik 1991) that there is a natural deduction of the CC from other postulates – namely, from the principle of GREED. According to Greed, A-movement must be driven by lack of Case on the part of the element undergoing the movement. Once a Case position has been reached, no further movement is possible, since such a movement is no longer driven and any further movement would be unnecessary, leading to a non-optimal derivation (Chomsky and Lasnik 1991). I shall argue (section 4), however, that a careful reading of the minimalist literature does not in fact entail the content of the CC. I shall put off full discussion of minimalist syntax till section 4, turning first to ways in which the generalization stated in the CC could be derived in a pre-minimalist Principles-and-Parameters approach.

1.2. *Deriving the Chain Condition*

Given standard assumptions of pre-minimalist GB syntax, it is not difficult to show that the first part of the CC follows without stipulation. For the sake of expository clarity, let us term the requirement that A-Chains have a unique theta-role and that this theta-role is assigned to the tail position the THETA UNIQUENESS CONDITION (TUC).

In standard GB theory, the TUC follows from the Theta Criterion which requires an argument and, therefore, its associated A-Chain, to have a unique θ-role (at LF). Furthermore, since θ-roles are assumed to

[2] In this paper, I take as given other conditions on well-formed A-Chains, such as the requirement that each link satisfy antecedent government, that it respect Relativized Minimality (Rizzi 1990), etc., and do not discuss them further.

be assigned to D-structure positions, it follows that the tail of the Chain should be the position to which the unique θ-role is assigned.[3]

The second clause of the CC states that the head of an A-Chain is its sole Case-marked position. Let us call this requirement the CASE UNIQUENESS CONDITION (CUC). Unlike the TUC, deriving the CUC is not so straightforward.

One possibility is to invoke the CASE FILTER or the VISIBILITY CONDITION (VC), construed as a well-formedness condition on argument Chains. The VC would require an A-Chain to be Case-marked, ruling out argument Chains without Case at LF. However, without additional stipulations, we cannot derive the fact that only one position of an A-Chain – its head – should be the Case-marked position.

Alternatively, we might contemplate deriving the CUC from the property of the mechanism underlying Case assignment, such as GOVERNMENT.[4] In other words, if government of a given structural position is unique, one might be able to deduce the fact that Case assignment, since it is determined by government, should also be unique.

A moment's reflection shows that even if one grants the two commonly accepted premises on which this deduction rests – (i) that government is unique and (ii) that Case assignment involves government – the CUC does not follow. For singleton Chains (i.e., where no movement has applied), the two premises stated above suffice to guarantee observance of the CUC.

The one and only member of the Chain should have only one governor

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[3] Chomsky (1992) proposes the elimination of D-structure as a distinguished syntactic level, and with it, the Theta Criterion as a well-formedness constraint in syntax (rather than as a condition on the LF interface representation). Without D-structure and without the Theta Criterion, it is unclear how the TUC can be derived in the minimalist approach.

On the other hand, Brody (1993), who also suggests the elimination of the D-structure Theta Criterion (but maintains that D-structure is necessary), argues for the following, which in conjunction with the Projection Principle, ensures the equivalent of the TUC.

(32) Of the set of positions in chains, at the level of D-structure only the root positions are present. (1993, p. 13)

He points out that an analogous restriction must be adopted in the minimalist framework as well.

[4] In minimalist syntax, it is asserted that (Structural) Case does not involve the government relation, presumably because 'government' is not a primitive relation "expressible in elementary X-bar terms" (Chomsky 1992). But the argument is conceptual, and I know of no empirical arguments against using government for Case-assignment. However, it is important to point out that the conclusions in this paper are not affected even if it turns out that Spec-Head agreement, and not government, underlies Structural Case assignment (or Case checking). For the conclusion of uniqueness of government to hold, all that would be required is that an element enter into Spec-Head relation with a unique head.

(by the first assumption), and therefore, the Case assigned to it should be uniquely from this governor (by the second assumption). However, for multi-membered Chains, there are as many governors as there are positions in Chains, and one needs to stipulate further that (iii) only ONE of the governors is a Case-assigner and that (iv) this governor governs the HEAD of the Chain (i.e., that Case assignment is possible only at S-structure), in order to make the deduction complete.[5]

Without the added stipulations (iii) and (iv), we predict that a well-formed A-Chain should have at least one Case position (by the Case Filter/VC). However, nothing limits the number of Case-marked positions to one. Neither is it necessary for the head of an A-Chain to be a Case position. Assuming government of a given position to be unique, A-Chains could be multiply Case-marked as long as each Case-marked position is uniquely governed by the Case-assigner.

I begin this paper by taking stock of various types of Chains in different languages which demonstrate the untenability of the CUC (section 2). In section 3, I show that a systematic examination of structures that violate the CC reveals that the situation depicted in the previous paragraph is indeed attested. Multiple Case-marking in A-Chains is possible so long as each position in a Chain is uniquely governed by a Case-assigner. I name this generalization the REVISED CHAIN CONDITION (RCC). The RCC, unlike the CC, is a descriptive generalization that is fully derivable once we make the assumption that government of a given position is unique. I develop a system of government in which uniqueness of government for a given position is guaranteed, within a revised framework of Minimality (Chomsky 1986b, Rizzi 1990). I then show that the RCC, and the assumption of uniqueness of government on which it rests, are broadly supported.

In section 4, I address several ideas about Case and A-Chains within the minimalist framework, showing how, given a reasonable interpretation of its principles, the RCC can be naturally deduced from minimalist principles. I conclude the paper with some remarks concerning the implications of RCC for the derivational nature of grammars and Chains.

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[5] This interpretation rests on the assumption that non-head positions of Chains are TYPE-IDENTICAL (vs. TOKEN-IDENTICAL) to the head of the Chain. If traces are token-identical to heads, trivial and non-trivial Chains cannot have different properties. Various facts about A-Chains, in particular, the possibility of spelling out the trace as a resumptive pronoun and the existence of Copy Raising, argue in favor of a type-identical interpretation. I discuss resumptive pronouns in A-Chains (Copy Raising) later. See also, McCloskey and Sells (1988), Moore (1993), and Soames and Perlmutter (1979), inter alia. I return to the significance of token vs. type-identity of traces in section 4.

2. The CUC and Multiply Case-Marked A-Chains

I begin this section by documenting several constructions in different languages that violate the CUC (section 2.1). I then consider and reject alternative accounts that attempt to preserve the CUC (section 2.2). Finally, morphosyntactic constraints on the realization of multiply assigned and stacked Cases are discussed (section 2.3).

2.1. *Constructions that Violate the CUC*

2.1.1. *Case Stacking*

Case Stacking constitutes rather transparent evidence that an A-Chain associated with an NP can bear more than one Case, since more than one Case is overtly 'stacked' on a nominal. Case-stacking has been reported in at least three languages, Korean (Gerdts and Youn 1989; J-M Yoon 1991), Japanese (Kuroda 1987), and Cuzco Quechua (Lefebvre and Muysken 1982, 1988). Blake (1994, pp. 103–110) provides further examples of Case-stacking. I shall illustrate Case-stacking using Korean and Cuzco data below.

2.1.1.1. *Korean*

Constructions with non-Nominative subjects in Korean exhibit the stacking of more than one Case (Gerdts and Youn 1989).[6,7]

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[6] Some complications about the data: Not all speakers accept stacking, and Psych verbs are optimal with first person subjects. Stacking data improve in acceptability if a quantitative particle ("delimiter", Yang 1972) such as *-man* 'only' intervenes between the first and the second Case-marker, as this serves to highlight the focussed nature of the Case-stacked NP. Case-stacked NPs in these examples are obligatorily interpreted as exhaustively focussed. I use % to indicate that not all speakers accept the forms in question. The transcription system for Korean data is based on the Yale system and is not phonemic.

[7] Accusative and Genitive Case-markers also stack on top of Dative. These will be discussed in section 3.2.5.

A reviewer notes that the Korean stacking data may not be convincing as counterexamples to the CUC/CC, because Stacking appears to be possible only on a nominal carrying an inherent Case (such as Dative), not Structural Case (such as Accusative). If Inherent Cases do not 'count' for the Case Filter, the CC would require such nominals to receive an additional S-Case.

However, I argue (in section 2.3) that this alternative cannot be maintained. The constraints on stacking are morphological, rather than based on the Inherent-Structural dichotomy. Cases which stack must be morphologically compatible, not surprisingly. The reason Structural Case-markers do not stack on top of each other is that they occupy the same morphological 'slot' in Korean, a point discussed at great length in section 2.3.

Additionally, if Inherent Case does not satisfy the Case Filter/VC, it is hard to see how nominal complements of adpositions are licensed in languages where the adposition does not assign a Structulal Case, but an oblique, Inherent Case. This is the case with postpositions

(2)a. %Na-**eykey-(man)-i** paym-i mwusepta
I-DAT-(only)-NOM snake-NOM fearful

b. Na-**eykey** paym-i mwusepta
I-DAT snake-NOM fearful

c. Nay-**ka** paym-i mwusepta
I-NOM snake-NOM fearful
(Only) I am afraid of snakes.

(3)a. %Chelswu-**eykey-(man)-i** ton-i manhta/issta
Chelswu-DAT-(only)-NOM money-NOM much/is

b. Chelswu-**eykey** ton-i manhta/issta
Chelswu-DAT money-NOM much/is

c. Chelswu-**ka** ton-i manhta/issta
Chelswu-NOM money-NOM much/is
(Only) Chelswu has a lot of money.

(4)a. %i kongcang-**eyse-(man)-i** pwul-i nassta
this factory-LOC-(only)-NOM fire-NOM broke out

b. i kongcang-**eyse** pwul-i nassta
this factory-LOC fire-NOM broke out

c. i kongcang-**i** pwul-**i** nassta
this factory-NOM fire-NOM broke out
It is (only) in this factory that a fire broke out.

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such as *beri* 'since' in Turkish which assigns Ablative to its complement (J. Kornfilt, p.c).

[[ihtilal-ler ve devrim-ler-**den**] **beri**]
revolution-pl and reform-pl-Abl since
since the revolutions and the reforms

Alongside postpositions like *beri*, Turkish also has postpositions like *hakkinda* 'about', which assign a null, presumably Structural Case.

[[Hasan ve Mehmet-Ø **hakkinda**]
Hasan and Mehmet about
About Hasan and Mehmet

The well-formedness of both suggests that Inherent Case by itself must be sufficient to satisfy the Case Filter.

In the PSYCH CONSTRUCTION in (2), the Experiencer NP, *John*, may be marked DAT (2b), NOM (2c), or DAT-NOM (2a). Similarly, in the EXISTENTIAL-POSSESSIVE CONSTRUCTION in (3) and LOCATIVE CONSTRUCTION in (4), the Possessor/Locative NP exhibits the same range of Case-marking variation.

These constructions raise a host of interesting issues concerning Case Theory. However, for the purposes of the present discussion, their significance lies in the fact that a nominal marked with DAT or LOC can be doubled up with NOM Case.

A Relational Grammar account of the Case Stacking is provided by Gerdts and Youn (1989), based on Belletti and Rizzi (1988). Gerdts and Youn assume an unaccusative initial structure for these constructions, in which the Experiencer-Locative argument is an initial Oblique, while the Theme argument bears an initial 2 (Object) relation. From this structure, the Oblique advances to 1 (Subject).

The evidence for advancement to subject comes from the fact that, as the designation 'non-Nominative SUBJECTS' implies, the DAT/LOC/DAT-NOM nominals in (2)–(4) have properties typically attributed to subjects in Korean. They undergo Passive/Subject-to-Subject Raising, control Subject Referent Honorific Agreement, and act as binders of Reflexives, which are properties of canonical subjects.

(5) PASSIVE/SSRAISING

Chelswu-**ka/eykey/eykey-(man)-i**$_i$
Chelswu-NOM/DAT/DAT-(only)-NOM
[t_i ton-i manhta-ko] sayngkak-toy-nta
money-NOM much-COMP thought-PASS-DECL
(Only) Chelswu is considered to have a lot of money.

SUBJECT REFERENT HONORIFIC AGREEMENT

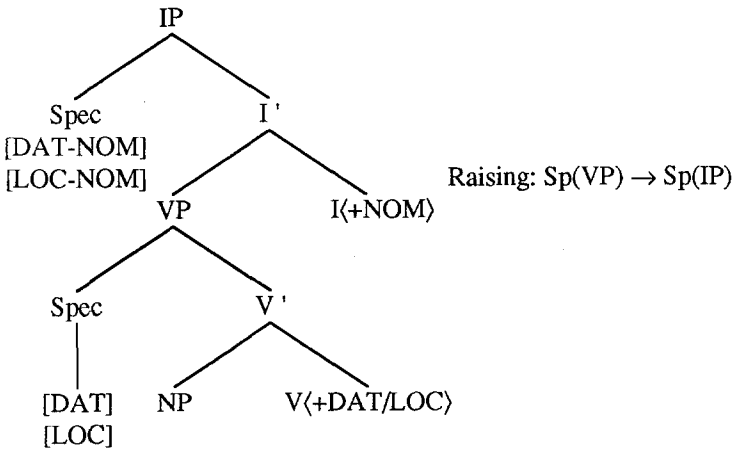
Kim
Kim
sensayngnim-**kkey/kkey-(man)-i/kkeyse**
professor-HON.DAT/HON.DAT-(only)-NOM/HON.NOM
haksayngtul-i kuliwu-**si**-ta
students-NOM miss-SUBJ.HON-DECL
(Only) Professor Kim(honorific) misses(honorific) his students.

A-BINDING

Kim sensayngnim$_i$-**eykey/eykey-(man)-i/i** [**casin$_i$**-uy
Kim teacher-DAT/DAT-(only)-NOM/NOM self-GEN
canglay il-i] kekcengsulepta
future affairs-NOM worry
His$_i$ future worries (only) Prof. Kim$_i$.

I take the above behavior to indicate that the movement in question is A-movement to a subject position. Assuming that the unaccusativity of these predicates implies a vacant Spec of IP, so that the projection of all verbal arguments is inside the VP at D-structure (Belletti and Rizzi 1988), I propose the following schematic derivation for (2)–(4).

(6)



Under the proposed derivation, multiple Case marking on DAT/LOC subjects arises as a consequence of the DAT/LOC-marked nominal moving to SpecIP, from its base-generated position inside VP, a position where it is assigned NOM Case by INFL. The resulting A-Chain is doubly Case-marked, in violation of the CUC.[8]

[8] As the data indicate, not only the DAT-NOM nominal, but nominals marked with DAT or NOM also behave as subjects. For this reason, Gerdts and Youn analyse all three NPs as undergoing advancement to subject position.

There is no obstacle to the assumption that a bare DAT-NP occupies SpecIP with a null, abstract NOM Case because Structural Case-markers like NOMACC need not be realized (as evidenced by the 'Case marker drop', available only to Structural Case-markers). Therefore, we need not take the failure of NOM to surface overtly to imply that NOM is only optionally marked in the SpIP.

For the NOM-marked Exp/Loc, I propose that it arises when Exp/Loc is optionally c-selected as NP rather than PP by the predicates in question. Since the predicates are unaccusative, the Exp/Loc will be base-generated inside the VP. The question which now arises is how NOM Case is assigned to this NP. NOM may have heen assigned within the

Case stacking is also found in Tough Constructions in Korean (Gerdts and Youn 1989; see Kuroda 1987 for analogous data from Japanese). I propose that (7b) and (7c) are derived from (7a) by A-movement.

(7)a. [$_{IP}$ e [$_{VP}$ Chelswu$_i$-eykey [PRO$_i$ New York-eyse Seoul-lo
Chelswu-DAT *New York-from Seoul-to*
ka-ki]-ka sangtanghi elyep-ta]]
go-NML-NOM very difficult-DECL
It is very difficult for Chelswu to go to Seoul from New York.

b. [$_{IP}$ NY-**(eyse)-ka**$_j$ [$_{VP}$ Chelswu$_i$-eykey [PRO$_i$ t$_j$ Seoul-lo
NY-(from)-NOM *Chelswu-DAT* *Seoul-to*
ka-ki]-ka sangtanghi elyepta]]
go-NML-NOM very difficult
It is from New York that going to Seoul is very difficult for Chelswu.

c. [$_{IP}$ Chelswu-**eykey-(man)-i**$_i$ [$_{VP}$ t$_i$ PRO$_i$ New York-eyse
Chelswu-DAT-(only)-NOM *New York-from*
Seoul-lo ka-ki]-ka sangtanghi elyepta]]
Seoul-to go-NML-NOM very difficult
It is (only) Chelswu for whom it is very difficult to go from New York to Seoul.

Tough predicates in Korean are a subclass of Psych predicates which select a clausal Theme and an Experiencer NP (Gerdts and Youn 1989), both of which are projected inside VP (Belletti and Rizzi 1988), leaving a vacant SpIP (cf. 7a). Either the Experiencer NP (7c), or an embedded dependent of the clausal Theme (7b) may move to fill the non-thematic matrix subject position, although it should be clear that neither movement is driven by

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VP (since we know that NOM is available inside the VP – to the Theme NP) or when it raises to SpIP.

A systematic difference between NOM assigned in SpIP and NOM assigned internal to the VP is that only the former is associated with an obligatory focus (exhaustive listing) reading (Kuno 1973, Whitman 1989, inter alia). The NOM Exp/Loc in (2)–(4) need not be read with Focus. I conclude that it gets NOM either inside VP (no Focus) or in SpIP (Focus).

By contrast, the 'doubled' NOM on DAT-NOM stacking structures always induces a focus reading, meaning that it occupies SpIP. This is an important confirmation of the Revised Chain Condition, as we shall see in section 3.

Throughout this paper, I use ⟨+C⟩ to indicate Case features on governors and [C] to indicate Cases available to nominals in the indicated positions.

lack of Case. When the combinations of Case-markings are morphologically compatible, stacking is attested.[9]

2.1.1.2. *Cuzco Quechua*

Cuzco Quechua is among several Quechua dialects which exhibit overt stacking of more than one Case on a nominal (Huallaga Quechua is another, see Weber 1989, p. 254ff). Lefebvre and Muysken (1982, 1988) and Muysken (1989) note that when movement (A or A′) takes place out of an embedded (nominalized) complement, the lower subject which is marked GEN in the absence of raising must be doubled by ACC, yielding combinations of GEN-ACC Cases. Indeed, without this "Co-Case-marking", extraction from nominalized complements is impossible. This is illustrated with WH-movement (8a) and Raising-to-Object/ECM (8b) constructions below.[10]

(8)a. pi-**qpa-ta-**n_i muna-nki [t_i platanu ranti-mu-na-n-ta]
who-GEN-ACC-AF want-2 *bananas buy-NML-3-ACC*
Who do you want to buy bananas?

b. Mariya Xwancha-**q-ta-**n_i muna-n [t_i platanu
Maria Juan-GEN-ACC-AF want-3 *bananas*
ranti-mu-na-n-ta]
buy-NML-3-ACC
Maria wants Juan to buy bananas.
(Lefebvre and Muysken 1988)

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[9] The movement of the PP *New York-eyse-ka* ('from New York') seems to cross over a subject, in violation of the Specified Subject Condition. This might be taken to indicate that the clausal complement is a reduced ('restructured') constituent, lacking a subject. However, there are those (J-M Yoon 1991) who argue that SSC is irrelevant to NP-movement dependencies in Korean. I take the obligatory focus reading of the doubly Case-marked nominals to indicate, as before, that the movement is to SpIP.

[10] Although Lefebvre and Muysken (1988) argue for a Raising analysis of ECM-like constructions in Cuzco Quechua, they seem uncertain as to whether the movement is an A-movement, since the 'raised' object fails to cliticize in the upstairs clause, unlike thematic objects (1988, p. 153). We need not take this to indicate that the movement is an A′-movement, since even if the movement were an A-movement, the position to which the embedded subject is raised would be a non-thematic A-position, so that cliticization would be blocked from such a position.

Cole and Hermon (1981) argue that ECM-like phenomena in a related Quechua language, Imbabura Quechua, is achieved by movement, and that it is an A-movement, even though Imbabura Quechua does not show stacking. Massam (1985) and J-M Yoon (1991) argue for a Raising analysis of ECM in several languages. The raising analysis of ECM constructions has been resurrected even for English in minimalist syntax (as raising to SpAgrO).

Lefebvre and Muysken (1988) give the following account of Case Stacking in Cuzco Quechua. In (8a,b), they propose that GEN Case is assigned to the subject of embedded nominalized clauses by a (nominal) AGR within the complement clause. ACC Case, in turn, is assigned by the matrix verb when the subject of the complement clause moves out of the embedded clause, through a "Comp-like Case position".[11] In this derivation, the Chain associated with the raised NP is doubly Case-marked.

2.1.2. *Finite ECM Constructions*

In addition to constructions overtly manifesting double Case assignment, there are constructions where the Chain associated with a nominal must be assumed to possess more than one Case even though only one Case is manifested on the surface. Such constructions can be found readily in languages that allow Raising-to-Object/ECM with finite complements.[12]

ECM constructions in several languages such as Korean (J-M Yoon 1991, H-S Choe 1994), various Quechua dialects (Cole and Hermon 1981, Lefebvre and Muysken 1982, 1988), and Niuean (Seiter 1980) exhibit a clustering of properties which leads one to conclude that the A-Chain associated with an ECMed nominal is multiply Case-marked, even though only one Case appears overtly.[13]

(9) KOREAN

a. Chelswu-nun Yenghi-**lul**$_i$ [e$_i$
Chelswu-TOP Yenghi-ACC
chencay-i-ess-ta-ko] mitnunta
genius-COP-PAST-DECL-COMP believes

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[11] Case assignment into COMP in ECM-like constructions in French has been proposed by Kayne (1984), among others.

[12] The majority of these languages also has Raising-to-Subject (SSR) from finite complements (Massam 1985). As should be obvious, finite SSR poses the same problems for CUC as finite ECM. For reasons of space, I restrict the discussion to a sampling of Raising-to-Object/ECM constructions.

Despite the fact that ECM involves raising (which makes ECM a misnomer and SOR a more appropriate designation), I will continue use ECM as a descriptive label for the phenomenon under investigation.

[13] Due to limitations of space, I cannot justify that these are indeed ECM/Raising constructions rather than Control or A′-movement structures. Extensive justification of the ECM/Raising analysis for each language cited here is given in the original references. See also Massam (1985) for more general discussion.

b. Chelswu-nun [Yenghi-**ka** chencay-i-ess-ta-ko]
Chelswu-Top Yenghi-NOM genius-COP-PAST-DECL-COMP
mitnunta
believes
Chelswu believes that Yenghi was a genius.

(10) IMBABURA QUECHUA (Cole and Hermon 1981)

a. Maria-ca Francisco$_i$-**ta** yacha-n [e$_i$ cay-pi
Maria-TOP Francisco-ACC knows-3t this-in
ca-j-ta]
be-PRS.NML-ACC

b. Maria-ca yacha-n [Francisco cay-pi
Maria-TOP know-3 Francisco(NOM) this-in
ca-j-ta]
be-PRS.NML-ACC
Maria knows that Francisco is here.

(11) NIUEAN (Seiter 1980)[14]

a. To nakai toak e au [e **pusi**]$_i$ [ke
FUT not let ERG I ABS cat SUBJ-COMP
kai e$_i$ e ika]
eat ABS fish

b. To nakai toak e au [ke kai [**he**
FUT not let ERG I SUBJ-COMP eat ERG
pusi] e ika]
cat ABS fish
I won't let the cat eat the fish.

In these languages, complement clauses embedded under ECM verbs are FINITE; ECM is OPTIONAL; and can take place in the presence of COMP, as opposed to English where ECM verbs take NONFINITE complements; ECM is OBLIGATORY; and no COMP is present. The optionality of ECM is expected since the clauses embedded under ECM verbs are finite al-

[14] Absolutive Case in Niuean is marked with *e* on common nouns and *a* on pronouns and proper nouns. Ergative is marked with *he* on common nouns and *e* on pronouns and proper nouns.

lowing Case assignment to the embedded subject position. There is no Case-theoretic reason which makes ECM obligatory.

Furthermore, if ECM in these languages always involves movement through a CP-like projection (Massam 1985, Lefebvre and Muysken 1988, Yoon 1991, Choe 1994), the presence of COMP or a CP projection will not hinder ECM, since the reason for the exclusion of COMP in English ECM is that an intervening COMP will block direct government of SpIP by the matrix verb.

The non-string vacuous character of ECM is evident in Imbabura Quechua and Niuean (cf. 10 and 11 above). However, the strict head-final nature of Korean makes it difficult to see that ECM actually involves movement, but there are paradigms which are explicable only on the assumption that ECM involves movement.

For example, sentential adverbs modifying the matrix predicate can be interposed between an ECMed lower subject and the lower predicate, but not between a NOM subject and the lower VP.

(12)a. *?John-un [Mary-ka, **elisekkeyto**, yenglihata-ko]
John-TOP Mary-NOM, foolishly, intelligent-COMP
sayngkakhanta
thinks
Foolishly, John thinks that Mary is intelligent.

b. John-un Mary-lul$_i$, **elisekkeyto**, [e$_i$ yenglihata-ko]
John-TOP Mary-ACC, foolishly, intelligent-COMP
sayngkakhanta
thinks
Foolishly, John thinks that Mary is intelligent.

A reasonable assumption is that sentential adverbs must occur within the clause they modify. An ECMed lower subject, if it moves out of the lower clause as proposed, is no longer a dependent of the embedded clause. Therefore, the adverb may be construed as a constituent of the matrix clause in (12b) but not in (12a) where it follows a nominative embedded subject.

The contrast in the interpretation of the speech act parenthetical, '*asitas-iphi* as you may know (so)', also shows the non-string vacuous nature of ECM in Korean.

(13) (adapted from Choe 1994)

a. Na-nun John-i, **asitasiphi,** chencayla-ko
I-TOP John-NOM, as you know so, genius-COMP
mitsupnita
believe

As you know so (=that **I believe** so/*?that **John** is so), I believe John is a genius.

b. Na-nun John-ul, **asitasiphi,** chencayla-ko mitsupnita
I-TOP John-ACC, as you know so, genius-COMP believe
As you may know so (=that **John** is so/that **I believe** so), I believe that John is a genius.

Let us assume that the speech act parenthetical can only be associated with matrix clause constituents, like the validator speech act particles found in the Quechua dialects which cliticize only to matrix constituents (Cole 1982). The contrast observed above can be explained readily if we assume that ECM places the embedded subject in the matrix clause. Without ECM, the parenthetical can only modify the entire content of the embedded clause ('I believe so'). When ECM displaces the embedded subject and makes it a matrix constituent, the parenthetical can modify it ('I believe that JOHN is so').

Finally, for many speakers, the lower subject 'gap' left by SOR/ECM can be filled optionally by a lexical pronoun, yielding a 'Copy Raising' structure (see section 2.2.2.2 for discussion of Copy Raising). The existence of Copy Raising demonstrates the non-string vacuous nature of ECM quite unambiguously.

(14) %John-un Bill-ul$_i$ [**ku-ka**$_i$ maywu yenglihata-ko]
John-TOP Bill-ACC he-NOM very clever-COMP
sayngkakhanta
thinks
John thinks that Bill is very clever.

It would be difficult to explain the above paradigms by assuming, as Lasnik (1993) does for English, that Raising-to-Object takes place only at LF. Clearly, surface constituency tests place the ECMed nominal in the

upper clause. Therefore, I take ECM in Korean to involve overt raising, as in Imbabura and Niuean.[15]

Let us assume for concreteness' sake that what makes finite ECM possible in these languages is that the SpecCP, or some such position, can mediate the ECM movement (Lefebvre and Muysken 1982, Massam 1985, J-M Yoon 1991) out of the embedded CP.[16] Following these authors, I assume that ACC is assigned to SpCP, rather than in the matrix VP.[17]

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[15] A reviewer points out that these facts only show that the ECMed nominal is a constituent of the matrix clause, not that it forms a Chain (Movement or Copy) with the embedded subject position. As an alternative, this reviewer suggests that the ECMed NP may be an adjunct of the matrix clause which does not form a Chain with the embedded subject position, on a par with *regarding John* in the following sentence from English.

1. I believe [**regarding John**], that he is lazy and dishonest.

According to this alternative *John* and *he* are in distinct, though coindexed, A-Chains. In addition, the former is part of a phrase that occurs in an A′-position in the matrix clause.

In order for this analysis to work, one would have to assume that Korean, but not English, can mark bare NP adjuncts with ACC, an assumption that cannot be rejected out of hand as there are adjuncts (duration and frequency adverbials) which may be marked ACC in Korean (Maling 1989, inter alia).

Nonetheless, the adjunct analysis cannot work. Adjuncts, even when they are NPs, cannot undergo A-movement, since A-movement is prohibited from an A′-position (as an instance of improper movement).

2a. John lectured yesterday.

vs.

2b. *Yesterday$_i$ was lectured t_i (by John).

Now, if the matrix NP in Korean ECM constructions is a Case-marked adjunct, we would expect it not to undergo Passive. However, in the presence of a downstairs copy, the ECMed nominal can passivize, as shown below.

3. John-i_i (manhun salamtul-eyuyhay) t_i [ku-ka chencay-la-ko]
John-NOM (many people-DAT) he-NOM genius-COP-COMP
sayngkak-toy-nta
think-PASS-DECL
John is thought by many people that he is a genius.

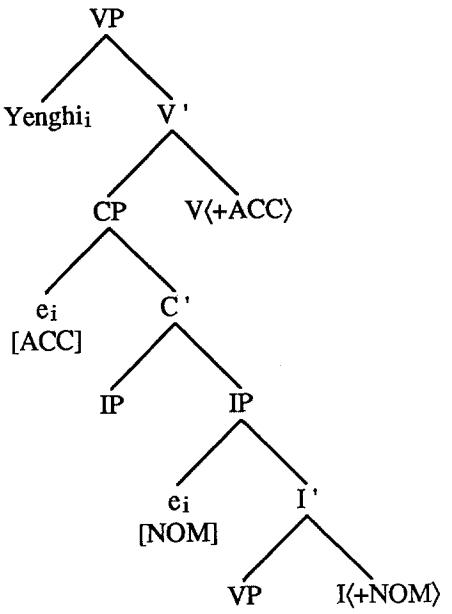
[16] The raised subject moves through SpCP but its surface position is a non-thematic position within the higher VP (or possibly outside VP, such as Spec of AgrOP. See Authier 1991, J-M Yoon 1991, Bowers 1993 for various proposals), given that the raising is not string vacuous.

Even if such positions are available within (or above) the higher VP, it is necessary to assume that SpCP or some such position is available as an intermediary A-position in languages that allow Raising out of finite clauses. This is so since (i) skipping SpCP should result in a Subjacency violation, and (ii) moving through an A′-SpCP to another A-position constitutes Improper Movement (Chomsky 1986b).

For Copy Raising Chains, it is not clear that the mediation of SpCP is necessary. However, if the locality conditions on Copy Raising Chains are identical to those of movement Chains (as argued by Moore 1993), we still need to use SpCP to establish a local (minimal) link of the Copy Chain.

[17] Positive evidence for this conclusion will be provided when we consider the contrast

(15) KOREAN ECM



According to the above derivation, the Chain associated with the ECMed nominal has more than one Case – one assigned to embedded subject position (NOM in Korean and Imbabura Quechua and ERG in Niuean in the preceding examples) and the other assigned by the matrix verb (ACC in Korean, Imbabura Quechua and ABS in Niuean), even though only one Case is morphologically realized. The reason for the failure of the multiply assigned Cases to 'stack' will be discussed in section 2.3.

2.1.3. *Multiply Case-Marked A'-Chains*

It is also possible to find multiply Case-marked A'-Chains in languages such as Hungarian (Harbert 1989, Kiss to appear) and Cuzco Quechua (Lefebvre and Muysken 1988).

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between 'verbal' ECM (shown here) and ECM into nominalized clauses, and Case-marking under extraction out of dative complements in Cuzzo (section 3.2.4, note 42). Note also that the c-command based definition of government (section 3.1, note 37) predicts, correctly, that ACC will be assigned only 'down' to SpCP and not 'up' to SpVP.

(16) HUNGARIAN A′-Movement (Harbert 1989)

kiket$_i$ szeretnel [t$_i$ [ha eljoennenek t$_i$]]
who-ACC you-would-like t(ACC) came t(NOM)
Who would you like to come?

(17) CUZCO QUECHUA WH-MOVEMENT (Lefebvre and Muysken 1988)

pi-**qpa-ta-**n$_i$ muna-nki [t$_i$ [**t$_i$** platanu
who-GEN-ACC-AF want-2 t(ACC) t(GEN) bananas
ranti-mu-na-n-ta]]
buy-NML-3-ACC
Who do you want to buy bananas?

As far as I know, double Case-marking always accompanies WH-movement in Cuzco, while in Hungarian, it is required with most complement-taking predicates.

It is not obvious whether multiply Case-marked A′-Chains entail any adverse consequences for the CUC. It is standardly assumed that in an A′-Chain of argument NPs, it is the variable that needs Case, since the variable, but not the operator which binds it, is an argument (at LF) which needs to be made 'visible' by Case-marking. However, as the variable is an empty category bound by the operator, the Case assigned to the variable is manifested on the operator. The data presented above might be construed as illustrating a situation where an additional Case is assigned to the operator (in an A′-position), but where the (singleton) A-Chain associated with the variable has only one Case in conformity with the CUC. On this interpretation, multiply Case-marked A′-Chains present no problems for CUC per se.

On a different interpretation, the data do pose problems for the CUC. We might take the obligatoriness of multiple Case-marking in A′-Chains to reflect the fact that A′-movement in Hungarian and Quechua must be mediated by an A-movement which goes from a Case position to another Case position.[18] On this interpretation, multiple Case-marking in A′-

[18] The scenario sketched here, that of A′-movement being mediated by a prior A-movement, is not unfamiliar. For example, in Malayo-Polynesian languages such as Tagalog, WH-movement must be mediated by a prior movement of arguments to 'topic' position, since only 'topics' may be WH-extracted. On the analysis of Guilfoyle, Hung and Travis (1992), movement to 'topic' is an A-movement. What is being hypothesized here is that in Hungarian and Quechua, WH-extraction from a clause must be via a topic-like (or 'COMP-like', à la Lefebvre and Muysken 1982, 1988) Case-position to which ACC is assigned. Lefebvre and

Chains is no different from that in A-Chains and raises similar difficulties for the CUC.

2.1.4. *Summary*

We have seen that there are constructions in various languages which appear to counterexemplify the CUC, if we accept the analyses provided for these constructions. However, alternative analyses of the data which are consistent with the CUC can be readily devised. In what follows, I consider some of these alternatives, arguing that they are untenable or are otherwise lacking in generality.

2.2. *Alternatives to Multiple Case Assignment*

Although multiple Case assignment is transparently manifested in Case stacking, for finite ECM constructions, one might question whether multiple Cases were really assigned, since only one Case is morphologically realized. One might propose that Case assignment is optional, so that the only Case that is assigned in finite ECM constructions is the overtly realized Case. I argue in 2.2.1 that optional Case-marking cannot be correct.

A question may also be raised as to whether the multiply Case-marked positions indeed form a single Chain, or whether in fact there are two (or more) separate Chains, each of which conforms to the CUC. I consider and reject this alternative in 2.2.2.

A different objection may be levelled against Case stacking. Given that the majority of stacking data in Korean appears to involve one Inherent and one Structural Case (coming in that order), one might argue that an extended interpretation of Chomsky's CC based on the bifurcation of Inherent and Structural Cases (Chomsky 1986a) actually predicts this behavior. That is, if Inherent Case does not 'count' for the Case Filter/VC, such Chains are not problematic for the CUC. I take up this matter in section 2.3, where I show this alternative to be inadequate and demonstrate that fundamentally morphological restrictions account for the constraints on stacking.

2.2.1. *Optional Case Assignment*

Let us consider the first alternative analysis. According to it, in finite

Muysken (1982, 1988) argue specifically for this interpretation of multiply Case-marked WH-Chains in Cuzco.

ECM constructions with no stacking, there is only one Case assigned to the Chain – the overtly realized Case. This may be so because Case assignment is optional in general, driven, as a Last Resort, only to satisfy potential violations of the Case Filter/VC. Since one Case suffices to make a Chain visible, there is no need for another, so the argument goes.

The first consideration which militates against this hypothesis is Case stacking. The idea that Case assignment is optional runs into problems with Case stacking, for in Stacking, the optionality of Case assignment must have been clearly suspended.

Secondly, the optional Case assignment hypothesis predicts that there cannot be a situation where an A-Chain has only one Case but where this Case is realized in a non-head position. This is so because once a Case-position has been reached in the derivation, there is no reason to move further. By economy (Case as a Last Resort), further movement should be impossible. However, as we shall see, there appear to be structures (in Farsi, Tongan, e.g.) where the TAIL of a (multi-membered) A-Chain is the sole Case position.

2.2.2. *There is More Than One Chain*

2.2.2.1. *Control vs. Raising*

Another objection which may be raised is this: the structures we took to instantiate multiply Case-marked Chains, e.g., finite ECM in Korean shown below, actually have more than one Chain, each of which is uniquely Case-marked in conformity with the CUC.

(18) Mary-nun John$_i$-ul [e$_i$ chencay-i-ess-ta-ko]
M-TOP J-ACC genius-COP-PST-DECL-COMP
mit-nun-ta
believes-PRES-DECL
Mary believes John to have been a genius.

This hypothesis claims that {*John*} and {*e*} above form two distinct A-Chains where each Chain has a unique Case in conformity with the CUC. They are simply coindexed with each other. This amounts to the claim that Control, not Raising, is involved in Korean ECM.

The Control analysis cannot be correct, since there is a THEMATIC DEPENDENCY between the surface position of the ECMed nominal and the gap position, but no such thematic dependency between the ECMed NP and the higher verb, as shown by the contrast below.

(19)a. #John-un **i** **cip-ul** mit-nun-ta
J-TOP this house-ACC believe-PRES-DECL
John believes this house.

(19)b. John-un **i** **cip-ul**$_i$ [e_i acwu cal
J-TOP this house-ACC very well
ci-eci-ess-ta-ko] mit-nun-ta
build-PASS-PAST-DECL-COMP believes
John believes this house to have been built very well.

(19a) is a sentence where *mitnunta* 'believe' is used as a transitive V taking an NP object. This sentence is odd given that *i cip* 'this house' is an unlikely object of one's belief. We can take this to indicate that NP object is selected by the verb. In contrast, (19b), where the nominal *i cip* is raised out of the embedded clause, is acceptable. This implies the lack of selection, or theta-marking, of the raised nominal by the verb. It goes without saying that thematic dependency is a constitutive property of Chains.[19]

2.2.2.2. *Copy Raising and the CUC*
It is conceivable, however, that (18) constitutes an example of a COPY RAISING construction (Soames and Perlmutter 1979, McCloskey and Sells 1988, Moore 1993, inter alia). That is, the nominal *John* is base-generated in a non-thematic A-position, deriving its theta-role (but not Case) from a coindexed with a base-generated pronominal in a thematic A-position. That is,

(20) {John$_i$ . . . pro$_i$}
$-\theta$ $+\theta$
+Case +Case
A-pos A-pos

It should not be difficult to see that Copy Raising poses no problems for the conclusion that A-Chains may be multiply Case-marked. Since A-Chains are taken as domains for theta-role assignment (Cinque 1990, Rizzi 1990, Moore 1993), there would have to be a single A-Chain in (20), given that one theta-role is split between two positions. The Copy Raising alternative does not undermine our arguments against the CUC. Rather,

[19] See Massam (1985), J-M Yoon (1991), Déprez (1992), and Darzi (1993), inter alia, for additional arguments against the Control analysis of finite Raising/ECM constructions.

if Copy Raising A-Chains exist, we cannot avoid the conclusion that multiple Case-marking is possible on A-Chains.

However, it is by no means the case that multiple Case-marking is restricted to Copy Raising Chains. As noted earlier, ECM in Korean may indeed form a Copy A-Chain since the gap in the lower clause can be spelled out as an overt pronoun for many speakers.

(21) %Mary-nun **John-ul$_i$** [**ku-ka$_i$** chencay-i-ess-ta-ko]
M-TOP J-ACC he-NOM genius-be-PST-DECL-COMP
mit-nun-ta
believe-PRS-DECL
Mary considers John to be a genius.

Spelling out the gap in Case stacking constructions is impossible if the nominal occupying SpIP is DAT-NOM (22a,b), though it is marginally possible when it is marked only with NOM (22c).

(22)a. John-eykey-(man)-i$_i$ (***ku-eykey$_i$**) ton-i manh-ta
J-DAT-(only)-NOM he-DAT money-NOM much-DECL

b. John-eykey-(man)-i$_i$ (***ku-ka$_i$**) ton-i manh-ta
J-DAT-(only)-NOM he-NOM money-NOM much-DECL

c. John-i$_i$ (**??ku-eykey$_i$**) ton-i manh-ta
J-NOM he-DAT money-NOM much-DECL
John has a lot of money.

I take this to indicate that in (22a,b) instantiate multiply Case-marked Movement Chains, while (22c) represents a multiply Case-marked Copy Raising Chain.

2.2.2.3. *Copy Raising as Case-Driven Raising*

We are not quite done yet, because it is possible to provide analyses of putative Copy Raising constructions that do not violate the CUC. Déprez (1992) presents such an analysis of an apparent Copy Raising (Subject-to-Subject Raising) construction in Haitian Creole.

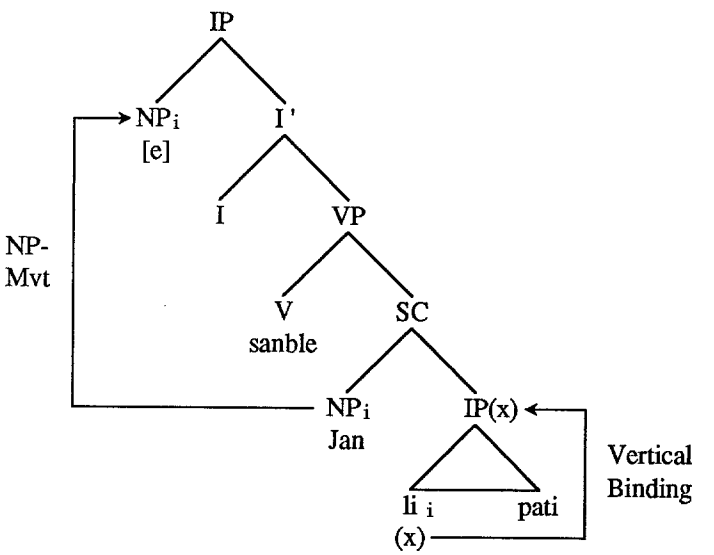
(23)a. sanble [Jan pati]
seems Jan left
It seems Jan left.

b. Jan_i sanble [li_i pati]
Jan seems he left
John seems to have left.

There is an overt pronoun in (23b), and since there is a thematic dependency linking the matrix subject and the pronoun, we seem to have an instance of a Copy Raising Chain with Case-marked head and tail positions. This is so since the matrix subject position is a nonthematic A-position to which Case is assigned and since the clause in which the pronoun *li* occurs is finite, allowing lexical NPs in subject position (Déprez 1992).

Déprez argues, however, that *Jan* and *li* do not enter directly into Chain formation. She proposes instead that the matrix subject is generated as the subject of a 'sentential Small Clause' predicate. According to her, the finite complement clause may function as a sentential predicate by virtue of its pronoun subject 'passing up' (under VERTICAL BINDING – Williams 1993) its external θ-role to the dominating IP, making the IP a predicate. This role is then assigned under sisterhood to the SC subject *Jan*.[20]

(24)



The SC subject in turn is in a Caseless position. It is governed, but not

[20] Déprez claims specifically that her analysis is designed to conform to the CUC, the reason being that, according to her, A-Chains with pronominal (resumptive) tails are 'unheard of' – a statement that is quite misleading in view of works such as Soames and Perlmutter (1979), McCloskey and Sells (1988), etc.

Case-marked by *sanble*, a raising verb. The NP must therefore move to a Case position – the matrix SpIP. The A-Chain which links the SC subject position and the matrix SpIP conforms to the CUC, with a unique Case on the head of the Chain.

Ingenious as this analysis may be, I find it unworkable as a general account of Copy Raising. First, it is crucial in Déprez's account that not every language has recourse to the strategy of 'sentential predicates' which underlies Copy/finite Raising in Haitian Creole, since otherwise we wrongly predict finite Raising to exist in languages such as English. She therefore calls upon the 'underspecified nature' of pronouns in Haitian Creole (which are ambiguous between [+/-anaphoric]; Déchaine and Manfredi 1994) as the factor which allows pronouns to 'pass up' an assigned theta-role to the dominating node in order to make sentential predicate formation possible.

Unfortunately, this property cannot be replicated in most languages with Copy/finite Raising. For instance, there is a systematic distinction between pronouns and anaphors in Korean, and yet we have seen evidence of Copy/finite Raising.

Secondly, Déprez's analysis predicts that when the 'sentential SC' is embedded under an ECM/SOR predicate in Haitian Creole, the SC subject need not move, since a Case-assigner (the ECM verb) would govern it in situ. She thus predicts the following to be well-formed, contrary to fact (M. DeGraff, p.c.).[21]

(25) *Mwen kwe [$_{SC}$ Jan [$_{IP}$ li pati]]
I believe/think Jan he left
I believe John to have left.

Thirdly, there is an argument internal to Korean that even if one adopts

[21] In fact, ECM-like structures in Haitian are fine without the extra pronoun. M. DeGraff suggests that verbs like *vle* 'want', in contrast to *konprann* 'think', might be ECM verbs, as they disallow coreference between embedded and matrix subjects.

Jan vle Marie/li genyen
Jan want Marie/3sg win
Jan wants Marie/him to win (Jan =/= him).
vs.
Jan konprann Marie/li genyen
Jan thinks Marie/3sg win
Jan thinks Marie/he has won (jan = he).

The embedded subject of *vle* may be a lexical NP or a pronoun, but not both. The absence of pronoun is unexpected in Déprez's account.

the 'sentential predicate' analysis of Copy/finite Raising, we still end up with violations of the CUC. There is a long tradition in Korean and Japanese linguistics which recognizes the existence of sentential predicates – in the so-called 'Multiple Nominative Construction', illustrated by the following Korean example, where a clause is predicated on a NOM-marked NP.

(26) John-i [$_{SC}$ apeci-ka ton-ul cal pesinta]
John-NOM father-NOM money-ACC well makes
It is John whose father makes a lot of money.

Note crucially that the constituent interpreted as the subject of the sentential predicate, *John*, bears Case. Now, if we adopt Déprez's analysis, we predict that when (26) is embedded under a SSR verb, the subject of the sentential predicate, *John*, should not raise to the matrix subject position, since it is already Case-marked and movement to another Case position would violate the CUC. The facts do not bear out this prediction. The NP can be raised to the subject position of an SSR predicate.[22]

(27) **John-i$_i$** (Bill-eykey-nun) [e$_i$ [$_{SC}$ apeci-ka
John-NOM Bill-DAT-TOP father-NOM
ton-ul cal pesi-nunkes]] katta-pointa
money-ACC well make-COMP seems
John seems to Bill that his father makes a lot of money.

On the basis of these difficulties, we can conclude that Déprez's analysis cannot be a serious candidate for a general theory of Copy/finite Raising. We must conclude that the CUC remains violated in Copy/finite Raising in at least certain languages.

[22] An Experiencer NP interposed between *John* and the rest of the clause shows that there is (non-vacuous) Raising. That the movement is not simply scrambling (A'-movement) is shown by the fact that *John*, in its raised position, can bind an anaphor inside the Experiencer phrase. Cf.

John$_i$, [caki-uy$_i$ hyengceytul-eykey-nun], [e$_i$] [$_{SC}$ pwuin-i ton-ul
J-NOM, self-GEN brothers-DAT-TOP wife-NOM money-ACC
cal pe-nunkes]] katta-pointa
well make-COMP seems
John$_i$ seems to his$_i$ brothers that (his) wife makes a lot of money.

2.3. *Constraints on Case Realization*

In previous sections, we saw that more than one Case can be assigned to an A-Chain. In stacking, it is clear that such a Chain bears more than one Case. Even so, the number of Cases that show up stacked is rather limited. In other constructions which I have argued involve multiply Case-marked A-Chains, the effect of multiple Case assignment is harder to see since only one Case is overtly realized.

I have suggested, however, that these restrictions cannot be taken to be evidence in support of the CUC. I am obliged, therefore, to provide an account of the restrictions on Case realization in Chains with multiple Cases. I turn to an investigation of these constraints in this section, arguing that the restrictions are fundamentally morphological in nature.

2.3.1. *When Can Cases Stack?*

Stacking poses some analytic difficulties, since it is possible in some constructions but not in others even within a language. For example, in Korean, stacking is found with DAT-marked experiencers in Psych constructions but not with ECMed subjects. Furthermore, many languages with finite Raising prohibit stacking altogether. In order to understand the constraints on stacking, I begin with an investigation of the morphosyntax of Case-marking in Korean, a language which robustly manifests Case-tacking. We shall see that the restrictions on stacking are morphological restrictions.

In Korean, the following pattern of Case stacking is found.

(28) STACKING POSSIBLE

eykey-ka, eykey-lul, eykey-uy, eykey-pwuthe-ka
DAT-NOM, DAT-NOM, DAT-GEN, DAT-ABLAT-NOM

STACKING IMPOSSIBLE

*ka-ul, lul-ka, *ka-uy, *uy-ka,
NM-GEN, ACC-NOM, NOM-GEN, GEN-NOM,

*uy-lul, *lul-uy
GEN-ACC, ACC-GEN

Let us adopt the standard assumption that in Korean NOM, ACC and GEN Cases are Structural Cases and that the other Cases, including DATIVE and ABLATIVE, are Inherent Cases (Gerdts and Youn 1989). Given this, the data appear to indicate that stacking among Structural

Cases is impossible, whereas stacking of (multiple) Inherent Case(s) and one Structural Case, coming in that order, is possible.

As previously mentioned, under a certain interpretation of Inherent Case, this generalization on stacking may be construed as evidence FOR the CUC. Take Inherent Case to be a marker of theta-roles (Chomsky 1986a), rather than as a Case-marker per se. One could then argue that the doubling of Inherent and Structural Case (in that order) is actually predicted by the CC, since the CC allows one theta-role (=I-Case) at the tail and one Structural Case on the head of a Chain. The ordering observed between the two Case-markers would be a consequence of something like the Mirror Principle (Baker 1985).

An immediate problem for this line of argument is that there are languages like Cuzco Quechua which allow stacking of two Structural Cases, i.e., GEN and ACC.[23]

Secondly, the restrictions on stacking in Korean can be insightfully explained once we understand the morphological properties of various types of Case-markers in this language.

The apparent impossibility of stacking two Structural Cases in Korean is due to the morphological restrictions on nominal inflection (cf. Yoon 1989, Yu-Cho and Sells to appear). As shown independently in the above-cited references, nominal affixes that realize Structural Cases (NOM, ACC, GEN) occupy a single morphological 'slot'. Therefore, when one marker is chosen, it rules out all other markers. Stacking among (semantically compatible) Inherent Cases as well as the stacking of (multiple) Inherent Cases and a single Structural Case is possible since the particles occupy different morphological slots, the Inherent Case particles occurring in a (potentially) recursive slot which comes before the slot for Structural Case-markers. Two pieces of evidence support the morphological explanation.

First, certain affixes with quantificational force (called 'Delimiters' in Yang 1972) occur in the same morphological slot as Structural Case-markers. As expected, the co-occurrence of these affixes and Structural Case-markers is prohibited, even though there is no question of double

[23] As Lefebvre and Muysken (1988) show, GEN Case in Cuzco Quechua is a Structural Case that is not theta-constant, being assigned by AGR in nominalized complement clauses to subjects bearing a variety of theta-roles (and by nouns to any type of dependent .– arguments and non-arguments). GEN in Quechua fails another diagnostic of Inherent Case, the Uniformity Condition of Chomsky (1986a), which requires Inherent Case to be realized within the maximal projection of the head which assigns the Case. GEN-marked elements can be moved out of embedded clauses which contain the head (= Agr) that assigns GEN Case, in violation of the Uniformity Condition. In addition, if GEN is structural, we also expect it to be assigned to 'raised' subjects as well. I do not know if this is the case.

Case-marking or Case conflict. This is illustrated below with the Nominative particle *-ka* and the Delimiter *-to*.

(29)a. *Chelswu-**to-ka** o-ess-ta
*Chelswu-**also-NOM** come-PAST-DECL*

b. *Chelswu-**ka-to** o-ess-ta
*Chelswu-**NOM-also** come-PAST-DECL*

c. Chelswu-**to** o-ess-ta
*Chelswu-**also** come-PAST-DECL*
Chelswu also came.

However, *-to* can co-occur with Inherent Case-markers like *-eykey*.

(30) Na-nun ku chayk-ul Chelswu-**eykey-to** cwu-ess-ta.
*I-TOP that book-ACC Chelswu-DAT-**also** give-PAST-DECL*
I give that book to Chelswu also.

The contrast between (29) and (30) shows quite clearly that the restriction on stacking is simply part of the larger generalization about strict affix ordering and slot competition.

Secondly, when morphology allows it, Structural Case-markers can show up doubled (Yu-Cho and Sells, to appear). This rare possibility is attested for the 'plain' NOM particle (NOM.PL) *-i* and the 'honorific' NOM particle (NOM.HON) *-kkeyse*.[24]

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[24] I take *iss-ta* here to be a Raising predicate and the sentence here to involve (Subject-to-Subject) Raising. The double NOM marking is then a reflex of the Raising. Honorific NOM is felicitous only if the intended referent of the NP to which it is attached is a 'socially honorable', person. I do not take this to imply that it is an inherent Case-marker, since the thematic role of the NP to which *-kkeyse* is attached is not constant, equivalent in range to the suite of roles allowed by the plain NOM (a Structural Case).

Apenim-**kkeyse** kyay-eykey mwul-li-si-ess-ta
Father-HON.NOM dog-by bite-PASS-HON-PAST-DECL
(Patient)
Father was bitten by a dog.

Apenim-**kkeyse** mayil wuntong-ul ha-si-n-ta
Father-HON.NOM everyday exercise-ACC do-HON-PRES-DECL
(Agent)
Father exercises everyday.

There is no question that *-kkeyse* is a Case-marker, rather than a semantically invariable postposition, since only subjects may be marked it. Morphologically, it comes right after the

(31) Apecinim-**kkeyse**-man-**i** ilen il-ul
Father-NOM.HON-only-NOM.PL this.kind.of thin-ACC
ha-si-l-swu iss-ta
do-can is-DECL
Only father can do this kind of thing.

2.3.2. *Case Resolution Strategies*

Let us turn now to multiply Case-assigned Chains that prohibit the simultaneous realization of multiply assigned Cases, i.e., those that prohibit stacking altogether. As before, I take the failure of stacking to be due to the fact that the markers (affixes) realizing the multiply assigned Cases are in competition for a single slot. If this line of explanation is to be successful, we must address the question of how the competing Cases sort themselves out since only one of them can be overtly realized. Following the lead of Gerdts and Yoon (1989) and Harbert (1989), I propose that there are universal and language-specific CASE RESOLUTION STRATEGIES regulating Case realization in such instances. I examine conflicts involving different types of Cases in turn.

2.3.2.1. *I-Case Compehng With S-Case*
I propose that (32) holds when I-Cases and S-Cases come into conflict. Furthermore, I take this constraint to hold without exception.

(32) I-Case must be realized.

Let us illustrate (32) with quirky Case subjects in Icelandic. Assume for the sake of argument that quirky subjects in Icelandic are marked with both Inherent and Structural NOM Case, the latter in the Spec of IP (Cowper 1988).

(33) ICELANDIC (Zaenen et al. 1985)
$[_{IP}$ Hennar$_i$ $[_{VP}$ e_1 $[_{V'}$ var saknað$]]]$
She-GEN was missed
She was missed.

Even though both GEN and NOM are assigned, we see that it is the Inherent GEN, and not the NOM Case, which is realized. This follows from (32).

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noun stem, in a slot usually reserved for Inherent Case-markers (see Yu-Cho and Sells to appear, for details).

Korean, on the other hand, allows both I and S-Cases to be realized in similar constructions.[25]

(34)a. Yenghi-**eykey** ton-i manh-ta
Yenghi-DAT money-NOM much-DECL

b. Yenghi-**eykey-ka** ton-i manh-ta
Yenghi-DAT-NOM money-NOM much-DECL
(It is) Yenghi (who) has a lot of money.

(32), in tandem with the morphological differences between the two languages, provides an account of the Icelandic-Korean contrast. (32) states that marking of Inherent Case cannot be obliterated. The inflectional template of Icelandic does not allow GEN and NOM to be stacked because there is only one slot for Case-markers. Thus, GENITIVE (I-Case) and NOMINATIVE (S-Case) are in competition for realization, with the former winning out in accordance with (32).

On the other hand, stacking in Korean is allowed, being subject to no morphological conflict, as long as the marking of Inherent Case is not wiped out by the addition of an S-Case marker.

This raises the question of what to do with sentences like (35) in Korean where Inherent DAT on the Experiencer NP seems to have been wiped out by NOM Case.

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[25] The assumption that quirky subjects in Icelandic are doubly Case-marked may be challenged, since such subjects fail to trigger agreement, in contrast to NOM subjects. For reasons such as this, Sigurðsson (1991) considers the quirky subject in Icelandic to have only one Case, i.e., the lexical Case. On the other hand, I suggested that a quirky Case subject originates from a position internal to the VP (where it receives I-Case from the V) and moves to SpIP position (where it receives S-Case), attributing the failure of NOM to surface to (32). While (32) explains the failure of stacking, I must explain the failure of agreement as well.

I note first that the failure of agreement in Icelandic cannot be taken to imply the lack of (morphological) NOM Case assignment, since it is known that NOM is available to the subject position of infinitivals, where there is no agreeing INFL (Sigurðsson 1991). This clears an obvious hurdle to my account.

Secondly, even in Sigurðsson's analysis, there is something analogous to double Case-marking – proper Head Government for lexical NPs. That is, he requires that a quirky (lexical) subject (receiving morphological Case from V) be properly head-governed by a finite INFL (albeit a non-agreeing one) in order to be licensed. His notion of proper head government is quite close to the notion of (abstract) S-Case. If one grants this equivalence, it is not difficult to see that there is something akin to double Case-marking even in his system.

However, the overall framework in this paper does not require that we stick to the double Case-marking-cum-Case resolution analysis. The formulation of RCC in section 3 allows A-movement from a Cased to a non-Cased position. Sigurðsson's particular analysis is consistent with this possibility allowed by the RCC.

(35) Yenghi-**ka** ton-i manh-ta
Y-NOM money-NOM a lot-DECL
Yenghi has a lot of money.

We need not be led to the conclusion that (35) violates (32). As suggested earlier, (35) simply illustrates the possibility of the Experiencer argument being c-selected as a bare NP.

It is not difficult to see why a constraint like (32) may be universal, as I have suggested. (32) seems to reflect the generalization behind the Theta Criterion and the Projection Principle. Inherent Case reflects θ-marking. To wipe out the marking of Inherent Case would be tantamount to making the θ-role assigned to that argument invisible at LF (as the PF 'cue' has been eliminated).

2.3.2.2. *S-Case Competing With S-Case*

Let us investigate what happens when multiple S-Cases assigned to a Chain compete for a single slot. In such cases, we shall see that the Case Resolution strategies may be parochial. Different languages resolve such conflicts in different ways.

In Korean, the generalization appears to be that the S-Case that is assigned on a later cycle has precedence over ('remarks') the one assigned on an earlier one. This can be seen in ECM constructions. The NOM-marked subject and the ACC-marked ECM subject behave differently with respect to Principle B of Binding Theory.

(36)a. John$_i$-un [**ku$_i$-ka** ttokttokhata-ko] sayngkakhanta
John-TOP he-NOM smart-COMP think

b. John$_i$-un **ku$*_i$-lul** [e$_i$ ttokttokhata-ko] sayngkakhanta
John-TOP he-ACC smart-COMP think
John thinks he is smart.

Coreference between the subject of the embedded clause and the matrix clause is possible when there is no ECM as in (36a), but not when the embedded subject is ECMed with ACC Case in (36b). This difference follows if the NOM-marked subject and the ACC-marked subject occupy different positions, resulting in different Governing Categories. This means that in ECM, of the two S-Cases assigned to the ECM Chain, only the one assigned in a later cycle (ACC) can be realized. If either of the

two Cases could be realized, we cannot explain the difference in binding behavior between the NOM and the ACC-marked subject, because we could not predict the surface position of the embedded subject on the basis of its Case-marking.[26]

On the other hand, there appear to be languages where the Structural Case assigned on an earlier cycle is maintained throughout the cyclic derivation, with no 'remarking' by a late cyclic Case. Raising structures in Farsi (Darzi 1993, Yoon 1992) and Tongan (Chung 1978) could be construed as such examples.

Farsi has Subject-to-Subject Raising out of finite complements to Raising verbs/adjectives, as argued in Darzi (1993, forthcoming).[27] However, the raised nominal does not trigger agreement on the matrix verb. Instead, agreement on the raising verb remains fixed as 3rd singular, which is the default form. This seems to indicate that the raised nominal carries the NOM assigned in the lower clause and is not remarked on the higher cycle.

(37) FARSI (Dazzi 1993)

a. in lazem æst-Ø [ke **to** be-ræv-i anja]
*it necessary is-**3sg** that you Sbj-go-**2sg** there*
It is necessary for you to go there.

b. **to**$_i$ lazem æst-Ø [ke e_i be-ræv-i anja]
*You necessary is-**3sg** that Sbj-go-**2sg** there*
Lit., You are necessary to go there.

Similarly, when an embedded subject is raised to matrix subject position in Tongan, it retains the S-Case assigned in the lower clause.

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[26] Elabbas Benmamoun (p.c.) suggests that Arabic might use a similar resolution strategy. In Arabic, subjects of finite CPs may be assigned ACC by the complementizer, overriding NOM.

[27] Darzi (1993, forthcoming) argues that the nominal *to* occupies a subject position on the basis of a variety of tests, including the ability to act as A-binder, to float quantifiers, to antecede the emphatic reflexive *xod* 'self', etc., all of which are possible only for subjects occurring in an A-position.

(38) TONGAN (Chung 1978)[28]

a. 'E lava [ke temate'i **'e he mahina** 'a e la'a]
UNS can Comp shut Erg the moon Abs the sun
It is possible for the moon to block out the sun.

b. 'E lava **'e he mahina**$_i$ ['o tamate'i e$_i$'a e la'a]
UNS can Erg the moon Comp shut Abs the sun
The moon is likely to block out the sun.

The raising verb *lava*, being intransitive, should assign Absolutive to the raised nominal. However, the raised nominal retains the ERG Case-marking assigned in the lower clause.[29]

The Case Resolution strategy in Turkish (Mulder 1976, Moore 1993) is more complex still. In Turkish, raising from a GEN or NOM-marked position to a GEN-marked position is possible, while raising from a GEN-position to a NOM-marked position is impossible. That is,

(39)a. {GEN$_i$, . . . GEN$_i$}
b. *{NOM$_i$, . . . GEN$_i$}
c. {GEN$_i$, . . . NOM$_i$}

Since NOM Case is null in Turkish, the generalization seems to be that the tail of a multiple Case Chain must bear the same morphological Case as its head, or have no morphological Case at all (Moore 1993). In other words, Turkish does not admit any conflict in the surface shape of multiple Cases assigned to a Chain.

The language-specific nature of Case Resolution strategies for conflicting S-Cases is expected, since there is no Core Grammar or UG principle, such as Theta Theory, which requires an S-Case marked earlier in the cycle to be maintained throughout the derivation (or, for that matter, for an S-Case assigned earlier to be overwritten by a late cyclic S-Case).

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[28] A reviewer asks if it is not the case that *'e he mahina* in (38b) is an adjunct phrase 'for the moon' base-generated in the upstairs clause, so that there is no raising to subject in this sentence. This cannot be the correct analysis since Chung shows conclusively that the raised nominal acts as a subject in both the upstairs and downstairs clauses, using tests similar to those for Farsi. As argued earlier, an adjunct in the upstairs clause fails to exhibit subject (A-position) diagnostics.

[29] Alternatively, raising Chains in Farsi and Tongan might be construed as those in which only the tail of the A-Chain is assigned Case, a possibility allowed by the Revised Chain Condition (RCC). See section 3 for more discussion.

2.3.2.3. *I-Case Competing With I-Case*

Korean possesses structures that appear to involve multiple Inherent Cases assigned to a nominal.

(40)a. John-**eykey** John-DAT 'to John'

b. John-**eykey-lo** John-DAT-ADESS 'toward John'

Gerdts and Youn (1989) take these to be examples of multiple Inherent Cases assigned to a nominal and state their Case Resolution principles to allow combinations of I-Cases.

Alternatively, one could assume that *-eykey*, and *-eykey-lo* are two different I-Case markers. *-Eykey-lo* would signal that the NP to which it is attached bears multiple theta RELATIONS, but a SINGLE theta ROLE in the syntax.[30]

On either alternative, no Resolution is called for. On the single, composite-marker approach, there is but one Case-marker, and no need for resolution. On the multiple marker approach, multiple combinations of I-Case markers would be allowed as long as they are semantically and morphologically compatible.

3. The Revised Chain Condition and the Uniqueness of Government

In section 1, we saw that the CUC cannot be deduced from the assumption that government of a structural position is unique. The CUC follows only when one adopts two additional stipulations – (i) that only one of Chain-internal governors is a Case assigner, and (ii) this governor governs the head of the Chain.

Without these stipulations, we predict that in multi-membered Chains, as long as the multiple governors of Chain-internal positions have Case assigning features, the Chain as a whole could bear multiple Cases, even when each position in the Chain is uniquely governed. Needless to say, there has to be at least one Case position in the Chain, so as not to violate the Case Filter/VC. However, there is no requirement that the HEAD of an A-Chain is always a Case position. Any other Chain-internal position

[30] See Cowper (1992) and much work in Conceptual Semantics (Jackendoff 1983) for the distinction between multiple theta relations and multiple theta roles. Multiple PP complements ('from under the rug') in English might be taken to instantiate multiple I-Cases as well.

A reviewer suggests that if *lo-eykey* is ungrammatical, this might be taken to indicate support for the single marker approach. It indeed is unacceptable, suggesting that the single marker approach is correct.

would do, so long as the Chain as a whole had at least one Case-marked position.

One might argue that the situation depicted in the above paragraph constitutes the NULL HYPOTHESIS, since it calls upon no additional assumptions besides the Case Filter/VC and the proposition that government of a given position is unique, both of which can be taken as axiomatic.

Regarding the distribution of Case and theta-marking in A-Chains, I shall take the null hypothesis to be essentially correct and propose the following REVISED CHAIN CONDITION (RCC) as the descriptive generalization which replaces Chomsky's CC.

(41) REVISED CHAIN CONDITION
$C = \{\alpha_1 \ldots \alpha_n\}$ is an A-Chain iff C is the maximal sequence such that each member of C bears the same index and;
(i) α_n has a unique Theta-role.[31]
(ii) For α_i, $1 \leq i \leq n$, the Case of α_i determined by a unique (Case)-governor.[32]

The first clause of RCC (= TUC) does not differ from the corresponding clause of the CC. The second clause does, as it requires that Case(s) assigned to a given position be determined by a unique Case-governor.[33]

Let us examine the predictions that the RCC makes with respect to possible and impossible A-Chains on the basis of the schematic configurations given in (42).

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[31] Clause (i) can be made parallel to (ii) if it is rephrased in terms of government.

(i)′ α_n has a Theta role determined by a unique θ-governor.

But the formulation in terms of 'θ-government' runs into some technical difficulties, since in the post-Barriers framework, θ-government enters into the definition of government, instead of government defining configurations of θ-marking. As noted earlier, I assume that (i)/(i)′, or its equivalent, is needed even in minimalist syntax.

[32] As stated, clause (ii) requires at least one link of an A-Chain to be Case-marked, since I assume the Case Filter/VC to be a constraint on A-Chains. If none of the positions is Case-marked, the Chain will be ruled out for lack of Case.

[33] I have stated the uniqueness requirement in terms of the uniqueness of Case-government for a given position, rather than by restricting the cardinality of Cases assigned to a given position to one. This is so for the following reasons. If a Case-governor assigns only one Case to its governee, the formulations in terms of uniqueness of assigned Case and uniqueness of Case-government would be equivalent. However, in light of proposals countenancing multiple Cases assigned to a single position by a single Case-governor (Belletti 1988), I adopt the latter formulation. In the type of Case-assignment envisaged by Belletti, the uniqueness of assigned Case and uniqueness of Case-government are not equivalent. Since I take the overriding principle driving the RCC to be the uniqueness of government, I have phrased the requirement in terms of the uniqueness of government of a given position, rather than the uniqueness of Case assigned to it.

(42)a. {. . . a . . . . . b . . .}
| |
C(x) C(y)[34]

b. *{. . . a . . . . . b . . .}
|
C(x)C(y) (by distinct Case-governors)

c. *{ a }
|
C(x)C(y) (by distinct Case-governors)

d. {. . . a . . . b . . .}
|
C(x)C(y) (by the same Case-governor)

e. { a }
|
C(x)C(y) (by the same Case-governor)

The RCC allows distinct positions to be assigned different Cases by distinct governors (42a); or for a single position in a Chain, singleton or multi-membered, to be assigned multiple Cases by a single governor (42d,e). It rules out multiple Cases assigned to a single position of a multi-membered Chain or to a singleton Chain by distinct governors (*42b,c).

Notice that, holding other assumptions constant, the CC also rules out (*42b,c) and allows (42d,e). It is crucially with regard to a Chain like (42a) that the RCC and CC differ in their predictions. A number of constructions in section 2 instantiate Chains of the type in (42a), pointing to the correctness of the RCC.

An important point to note is that as long as the independent postulates of UG upon which it rests are valid, the RCC as a generalization follows IN ITS ENTIRETY from them, unlike the CC whose deduction rested on two additional, and questionable, assumptions.

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[34] I leave open the question of whether the two Cases C(x) and C(y) in this configuration must come from distinct governors. A single governor could assign different Cases to different positions of the same Chain in the following situation: (i) A head X assigns one Case to its Complement, (ii) the Complement moves to the Spec; (ii) X assigns another Case to the moved complement in Spec. I do not know if such cases exist.

Note also that the RCC does not rule out a single Case-governor (more precisely, the head Chain associated with such a governor) from multiply governing different NP-Chains. Such a possibility is utilized in the system of Larson (1988), where the V-Chain of a ditransitive verb governs both the direct and indirect object A-Chains.

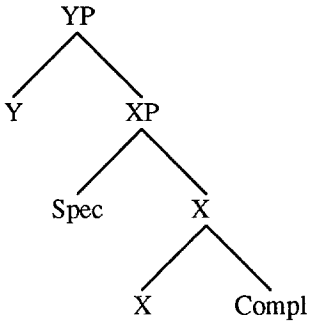
I take it to be uncontroversial that the Case Filter/VC and the mechanism which ensures the TUC (clause (i) of the RCC) must be valid axioms of UG. The proposition that government is unique, while taken to be generally correct, might be open to some challenge. For the RCC to be fully deduceable, what is needed is a demonstration that government of a given position is indeed unique. This is what I attempt to do next.

3.1. *The Uniqueness of Government for Case Assignment*

If a given structural position can be governed by more than one governor, a nominal occupying such a position could be multiply Case-marked in situ. Chomsky's (1986b) formulation of the Minimality Condition (MC) might be interpreted as allowing such ambiguous government. However, I shall argue below that the most plausible interpretation of Minimality is one which prohibits ambiguous government.

The MC in *Barriers* allows the Specifier position of complement (L-marked) maximal projections to be governed by an internal head (=X), but also by an external head (=Y) which L-marks the XP.

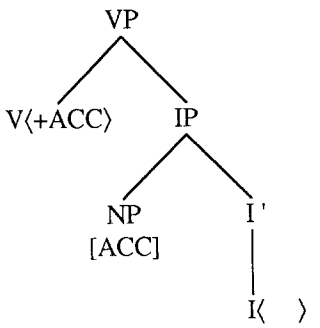
(43)



Chomsky does not state explicitly whether government from two potential governors holds simultaneously, but unless something specific is said, the *Barriers* system is open to a construal whereby a singleton Chain of a nominal could bear multiple Cases AS LONG AS it occupies such a Spec position.

The standard example of exceptional government of Spec by an external head is ECM. Chomsky (1986b) assumes direct Case-government of the embedded subject NP by the matrix ECM verb which selects and L-marks a non-finite IP. This is illustrated below.

(44)



In (44), SpecIP is governed by the external governor and assigned Case. Exceptional government is possible since SpIP lies outside the immediate c-command domain of INFL (=I′).

Is there evidence indicating that the subject is also governed/Case-marked by the internal governor, INFL as well? The answer seems to be no. A non-finite INFL in English does not assign Case. Nor does it define IP as a Governing Category for the purposes of Binding Theory. In fact, the only reason Spec is governable from the outside is because the internal, and hence, closer governor CANNOT govern its own Spec for the purposes of Case-assignment, defining Governing Categories, etc.

Let us generalize this result to mean that Specs can be governed externally only when the internal governor is unable to assign to it, under government, certain grammatical features (such as Case) that it requires. However, when the internal governor possesses the requisite features, Specs cannot be governed by an external governor.[35]

I present an informal exposition of this idea within the framework of Rizzi (1990). Following Rizzi (1990), I assume that a head can HEAD-GOVERN its dependents in a certain domain for the purposes of (at least): (i) Case-assignment and (ii) Proper head government (ECP). Let us employ the terms CASE-(HEAD)-GOVERNMENT and PROPER-(HEAD)-GOVERNMENT, respectively, for the two types of head government. This allows us to formulate head-government in a variable way, i.e., W-(HEAD)-GOVERNMENT. The values of W for head-government then are {Case, Proper}.

(45) W-(HEAD)-GOVERNMENT
X W-(H)-GOVERNS Y only if there is no Z such that:
(i) Z is a POTENTIAL W(H)-GOVERNOR for Y.

[35] In this, I differ from Rizzi (1990), who conjectures that Specs of functional categories are always open to external government, while those of lexical categories are always opaque to outside government. Lack of space precludes a systematic comparison of the two proposals.

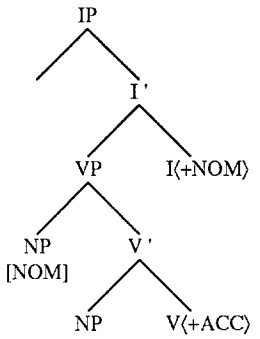
(ii) otherwise (i.e., Z is not a potential W-(h)-governor), if Z c-commands Y and does not c-command X.

We can then define POTENTIAL W-(H)-GOVERNMENT informally as follows.

(46) POTENTIAL CASE-(H)-GOVERNOR[36]
Z is a POTENTIAL C-(H)-GOVERNOR for Y iff;
– Z m-commands Y,[37] and;

[36] Similar ideas have been independently developed by Lee (1992) under the label of 'Case Minimality'.

[37] The claim that a head with Case feature protects its Spec (under its m-command domain) from Case assignment by an external governor may appear to be at odds with the mechanism for NOM assignment that is assumed in certain versions of the VP-Internal Subject Hypothesis. In the Internal Subject Hypothesis, subjects are base-generated in the Spec of VP and it is assumed that in some languages, NOM Case is assigned to the Spec of VP by INFL under government.



However, according to our definitions, since the verb has a Case feature, (+ACC), it should block the assignment of NOM Case to the subject in the Spec of VP from the external governor INFL in this configuration. This is not the result we want.

I propose to solve this problem in the following way. Although the verb has a Case feature (+ACC), ACC is required by the object, not the subject. The intuitive content of potential Case-government as defined below is that when there are two competing governors for a given position, the internal and, hence, closer governor is the actual governor. In the case at hand, even though the subject occupies the SpVP, the head V is not a competing governor for the subject, since the V has assigned its ACC Case to the complement. To accommodate the above situation, I revise the inventory of governors, allowing not only heads, but an intermediate projection unsaturated with respect to Case features to be Case-governors. Crucially, the V′ that is sister to the subject NP has used up its Case feature. Therefore, it is not a potential Case-governor of the Spec and does not prevent an external head INFL from governing the Spec. This also means that NOM is assigned to SpIP by an I′ specified ⟨+NOM⟩ rather than by INFL. The definition of potential Case governor incorporating this revision is as follows.

Z is a potential Case governor for Y iff:
– Z c-commands Y
– Z has a Case feature for Y
– $Z \in \{X, X'\}$

– Z bears a Case assigning feature for Y.

(47) POTENTIAL PROPER-(H)-GOVERNOR
Z is a POTENTIAL P-(H)-GOVERNOR for Y iff;
– Z c-commands Y, and;
– $Z \in \{V, A, (P), (N), (Agr), (Comp), \ldots\}$[38]

For Case-government, this means that the Spec of a category whose head has Case features to discharge on it will be protected from Case-government by an external head. Otherwise, the Spec is free to be governed and assigned Case by an external head with Case features. Complements, on the other hand, are always protected from an external governor whether or not the head that c-commands them is a potential Case governor.[39]

Turning to Proper Head Government, let us assume with Rizzi that Specs are never properly head governed by the internal head. If Rizzi is correct, the question of ambiguous Proper Head Government never arises for Specs: they are always amenable to external government, since the internal head is not a potential governor. Complements, however, are always protected from proper head-government by an external governor.

One consequence of the revision is that government uses c-command, rather than m-command, in its definition. C-command will also guarantee correctly that SpVP will not come under the government domain of V, but only under V'. In this way, we ensure that ACC cannot be assigned to SpVP. Other strategies for getting around this problem are also possible, such as the 'Split VP' idea, according to which Subjects and Objects are never in the same VP.

A reviewer notes that this revised definition predicts that if INFL assigns NOM inside VP via government, SpIP should be available for ECM of ACC by a higher verb. However, in finite ECM, the CP boundary, including overt Complementizers, is present. An intervening COMP head would block direct head government of SpIP even if INFL did not assign Case to this position.

[38] I leave the list open-ended, implying that the categories which are head-governors for proper government may be subject to cross-linguistic variation, as proposed in Rizzi (1990) and Cinque (1990).

[39] (46) does not allow the direct assignment (under government by INFL) of NOM Case to the complement of V. Therefore, direct NOM assignment to a VP-internal Theme (occurring as complement of V) in non-Nominative subject constructions is prohibited.

There are reasons why one would not want to extend government into complement domains of heads, since it is well-known that morphological NOM Case can be found indefinitely far down complement domains in languages such as Icelandic. To accommodate such cases under direct Case-assignment under government would be quite problematic. Instead, I follow den Besten (1983) and Sigurðsson (1991), who employ a two-step mechanism for getting NOM down into complement domains – one, government, and two, chain/percolated government. It is only through percolated government that morphological NOM can be realized in complement domains. Direct long-distance Case-assignment into complement domains is also prohibited in the system of Raposo and Uriagereka (1990).

In the next section, I examine the validity of the RCC and the assumption of uniqueness of government on which it is rests by investigating different constructions showing multiply Case-marked A-Chains.

3.2. *The RCC and Uniqueness of Government*

In this section, I examine various types of multiply Case-marked A-Chains against the prediction about possible and impossible Chain types made by the RCC (cf. 42). The result of this investigation will show that the predictions of the RCC are confirmed. Apparent counterexamples to the RCC are shown to be unproblematic upon closer scrutiny.

3.2.1. *Case Stacking in Korean*

In section 2, I argued that constructions in Korean exhibiting Case Stacking involve multiply Case-marked A-Chains. The analysis I proposed is consistent with the RCC. Where the movement involved in the Chain formation is not string vacuous and where it is clear that each Chain-internal position has only one governor, the RCC is obeyed (as in the analysis of Tough movement in 2.1.1.1).

The analysis of Case stacking of the Experiencer in Psych constructions also appears to be consistent with the RCC if one accepts the proposed analysis where the movement is from a position governed uniquely by the verb to one governed uniquely by INFL.

(48) $[_{IP}$ Chelswu-eykey-(man)-i_i $[_{VP}$ e_i ton-i manh-ta]]
Chelswu-DAT-(only)-NOM money-NOM much-Decl
(Only) Chelswu has a lot of money.

However, given that the movement posited here appears to be string-vacuous, one might argue that the multiple Cases were assigned in situ to the nominal inside VP, in violation of the RCC. Fortunately, there is independent evidence for movement even here. As we saw earlier, the Case-doubled NP gets an obligatory Focus interpretation, a feature associated exclusively with elements in SpIP (cf. note 8). Thus, the multiple Cases are distributed in the manner predicted by the RCC.

3.2.2. *Finite ECM*

Languages like Korean, Niuean, and various Quechua dialects allow ECM into finite clauses (section 2). If the mechanism for ECM in these languages is the same as that in English (ACC is assigned exceptionally to a

singleton Chain in SpIP by the higher V), an RCC violation will result, since the nominal in SpIP is also within the government domain of the internal governor, INFL, which has Case-features. Therefore, it is not surprising that finite ECM must involve multi-membered Chains, with the nominal in SpIP receiving NOM uniquely from INFL, forming a Chain with another position (SpCP), which receives ACC from a unique governor (the verb).

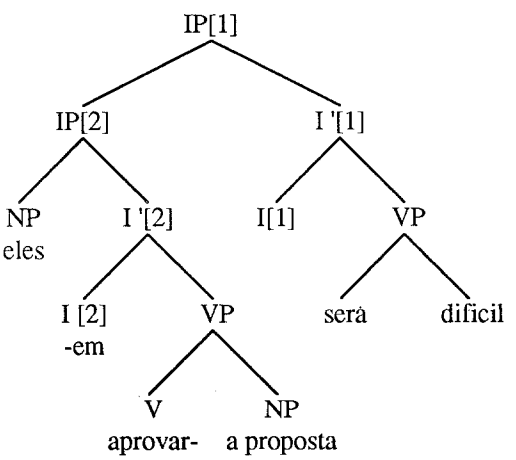
I argued that this was the case even when finite ECM appears to be string-vacuous (as in Korean). Finite ECM, then, is consistent with the RCC in that each Chain-internal position is governed uniquely, although the Chain as a whole is multiply Case-marked.

3.2.3. *European Portuguese Inflected Infinitivals*

A confirmation of the RCC and the ban on ambiguous government is provided by the analysis of inflected infinitivals in European Portuguese (EP, Raposo 1987). Raposo (1987) attributes the appearance of NOM Case on the subject of embedded inflected infinitivals in EP to the fact that when the head of the infinitival IP[2] (see below), INFL[2], is governed by an external governor, INFL[1], the Case-assigning ability of the infinitival INFL is 'activated', enabling the assignment of NOM Case to its subject.

(49) Eles aprovarem a proposta sera dificil
they to-approve-Agr the proposal will be difficult
For them to approve the proposal will be difficult.

(50)



However, a problem for this analysis (as acknowledged by Raposo in note 16, p. 95) is this: if INFL[2] is governed by INFL[1], why does SpIP[2],

the embedded subject, fail to exhibit agreement with the matrix INFL[1]? In other words, assuming that agreement is a manifestation of Case-government, why does INFL[1] not govern SpIP[2] directly? Although Raposo leaves this as an open problem, the RCC provides a simple answer. Since the INFL of inflected infinitivals in Portuguese is capable of assigning Case, SpIP[2] must be Case-governed by the internal governor, INFL[2]. Therefore, the subject NP can only agree with its Case-assigner, namely, INFL[2].[40]

3.2.4. *Case Alternation in Nominalized CPs in Korean and Cuzco*

A difference between Korean and Cuzco Quechua with respect to Case alternation in nominalized complement clauses can be understood once we assume the RCC (Yoon and Yoon 1990). Both Korean and Cuzco Quechua have nominalized complement clauses (CPs) whose subjects are/

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[40] Since English nonfinite INFL is not a governor, it should not prevent government from matrix INFL in an analogous structure. However, sentences corresponding to (49) in English are ungrammatical – i.e., there is no ECM of NOM Case in English (even though subjects of gerunds in older forms or English behave analogously to the EP infinitives, as pointed out by a reviewer. Cf. 'They being around the house all the time is undesirable').

1. *[They to approve the proposal] is difficult.

On the other hand, both EP and English admit such infinitives as complements. The subject is assigned NOM in EP, as expected (since the lower INFL blocks external government by ACC-assigning V) and ACC in English.

2. Nos lamentamos [eles ter-em recebido pouco
   I regret they(NOM) to-have-Agr received little
   dinheiro] (Raposo 1987, p. 96)
   money

   vs.

3. I expect [them to receive some money].

A reviewer suggests that this contrast might follow if one assumes that ACC is assigned under government but NOM only in Spec-Head configurations. The failure of (1) would be due to the impossibility of Sp-Hd agreement between the matrix INFL and the embedded subject of the infinitive.

While the suggestion is plausible, I would like to propose an alternative way of explaining the failure of ECM in (1): assume, as is plausible, that the subject is a nominal constituent (as manifested clearly in EP), in which case the matrix INFL will have to assign Case to the entire subject, leaving no Case available for the embedded subject, even if in principle it could govern that position. Given that the internal infinitival INFL in English is not even an indirect governor, the embedded subject would have no source for NOM Case, as opposed to EP.

may be marked GEN. The subjects of nominalized clauses in Cuzco display an alternation between GEN and GEN-ACC when they occur as complements to ECM verbs. However, the alternation in Korean is between GEN and NOM only.

(51)a. CUZCO QUECHUA

Mariya Xwancha-**q/q-ta**-n muna-n platanu
*M J-***GEN/GEN-ACC**-*VAL want-3sbj banana*
ranti-mu-na-n-ta
buy-CIS-NML-3sbj-ACC
Maria wants Juan to buy bananas.

b. KOREAN

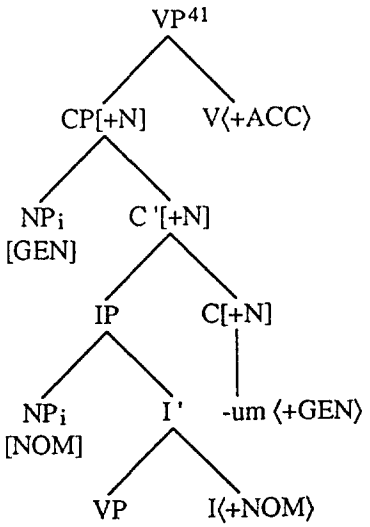
Maria-nun John-**uy/i/*ul** pwuca-i-m-ul
*Maria-TOP John-***GEN/NOM/ACC** *rich-COP-NML-ACC*
al-ko-issta
know-COMP-PROG
Maria knows that John is rich.

Let us suppose that GEN in Korean (cf. 51b) is assigned to the SpCP of a nominalized CP by the nominal complementizer (i.e., the nominalizer, *-um*), while NOM is assigned to SpIP by INFL. This entails that when the embedded subject is GEN-marked, there is an A-Chain between SpCP and SpIP, assigned GEN and NOM Cases, respectively (with GEN, the late Case, realized in accordance with the language-specific Case Resolution principle of Korean). NOM surfaces if there is no Chain formation between the two positions.

Now, since we know independently that ACC can be assigned to subjects of VERBAL complements (to ECM/SOR verbs) in Korean, the question arises why ACC cannot be assigned to SpCP of a nominalized complement clause, especially since it appears to be possible in Cuzco.

The RCC provides a plausible explanation for this contrast. A nominal in SpCP is potentially open to government by the higher V. However, the external governor (=V) cannot Case-govern the Spec of the nominal CP because the internal head, C is a Case-marking head. This is illustrated below.

(52)



In contrast, in verbal ([+V]) complement CPs, the complementizer (*-ko*) lacks Case-marking ability. As a result, SpCP of a verbal complement clause is not protected from external Case government and can be assigned ACC Case by the higher V.[42]

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[41] CP[+N] indicates a nominalized clause. The unavailability of ACC on the embedded subject cannot be explained by assuming that the nominalized CP uses up the ACC Case assigned by the V, making it unavailable for the NP in SpCP. This is so because verbs in Korean assign multiple ACC Cases, as is well known.

[42] This implies, as noted earlier, that ACC in verbal ECM is assigned to the SpCP of the complement clause rather than to a position within the matrix VP (SpVP, e.g.) that the ECMed nominal moves to. If ACC-marking becomes available only inside the higher VP, nothing should prevent ACC from being realized in (52), since the Chain could conform to the RCC under the following derivation.

{ACC,	GEN,	NOM}
|	|	|
Sp(V)	Sp(C)	Sp(I)
|	|	|
by V	by C	by I

Lefebvre and Muysken (L&M) assert that ACC-marking in Cuzco is to the Spec of CP (or, in their terms, a "COMP-like Case position"), rather than in a position in (or above) the matrix VP. The argument runs as follows.

a. Pi-**qpa-man**-mi$_i$ qulqi-ta [e$_i$ ususi-n-man] qu-ni
who-GEN-DAT-AF money-ACC daughter-3-*DAT give*-1
Whose daugher did I give money to? (1988, p. 150)

vs.

b. *Pi-**qpa-ta**-mi$_i$ . . .
Who-GEN-ACC-AF (AF = affirmative validator)

For Cuzco, Lefebvre and Muysken (1988) propose that GEN is assigned to subjects of nominalized complements by a nominalized INFL.[43] If we accept their conclusions, we naturally predict GEN-ACC combinations to be possible in this language.[44] This is because GEN is assigned to the Spec of (a nominalized) IP in Cuzco Quechua (in contrast to Korean where it is assigned to SpCP). When this nominal moves to the Spec of CP, it can be governed and assigned ACC Case from the higher V, since the COMP does not carry any Case features. This gives arise to GEN-ACC combinations, as illustrated below.

L&M argue that the multiple DAT's in (a) arise as a concomitant of the extraction of the possessor from the DAT-marked complement of *qu-ni*. DAT is assigned at the point in the derivation when the possessor moves out of the DAT-complement (via its "Comp-like" CASE position). Since DAT is an inherent Case, it could not have been assigned to the possessor after it was extracted from the DAT-complement, as the verb fails to theta-mark the possessor. In addition, the ungrammaticality of (b) indicates that the extracted possessor cannot be Case-marked inside a position within the VP, where it ultimately lands, since if it could, nothing should block the assignment of ACC Case in that position.

They take this contrast to show that the phenomenon of "Co-Case Marking" takes place as an element is moved out of a Case-marked constituent. Generalizing this to ECM implies that ACC is assigned as the embedded constituent is extracted out of the nominalized CP. Similar arguments can be constructed on the basis of Korean data.

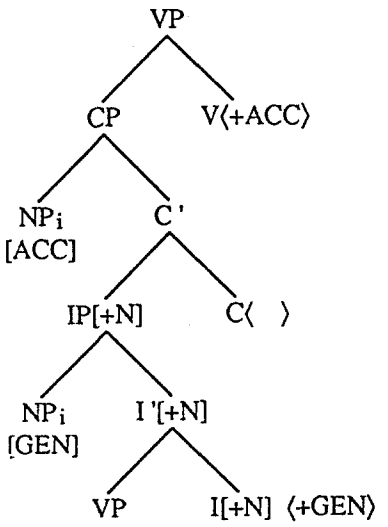
[43] The proposed account of the difference between Korean and Cuzco nominalizers can be supported in various ways. Since both are transparently agglutinative languages, affix order can be used to determine in part the syntactic function/position of the affixes in question (cf. Baker 1985). In Korean, the nominalizer follows the inflected verb stem (carrying agreement-like and tense-aspect morphemes) and occupies the slot reserved for other affixes which express COMP information, the Mood affixes (see Yoon 1989, inter alia, for details). Yoon (1989, chapter 3) also argues on the basis of syntactic coordination tests, that the nominalizer is a COMP, as a single nominalizer is able to take scope over a coordinated IP.

In contrast, nominalizers in Cuzco express temporal information (Lefebvre and Muysken 1988, for details), suggesting that they are nominalized INFLs. In addition, nominalizers attach closer to the verb stem than Agr elements, which may be taken to indicate that they cannot be COMP elements, unlike Korean.

[44] ACC will stack on top of GEN rather than replace it, because morphology allows the stacking of these two Cases in Cuzco (cf. Lefebvre and Muysken 1988, p. 71 for the nominal inflectional template in Cuzco). In Korean, GEN replaces NOM, instead of stacking on top of it because both are S-Case markers occupying a single slot, as discussed earlier.

A reviewer suggests that the impossibility of ECM-ing (as ACC) GEN-marked subject NPs in Korean might be due to the complexities of Case Resolution, in which case we cannot draw any conclusions about the RCC on the basis of this contrast. I agree that the complexities of Case resolution have to be explored in greater detail.

(53) CASE ALTERNATION IN CUZCO NOMINALIZATIONS



3.2.5. *DAT-ACC/GEN Stacking in Korean*

The stacking of ACC and GEN on DAT-marked nominals in Korean shown below appears problematic for the RCC (J. Maling, p.c.). Since there is no indication that the Case-doubled nominals involve movement, there is potentially a violation of the RCC.

(54) %John-i Mary-**eykey-(man)-ul** kkoch-ul
J-NOM Mary-DAT-(man)-ACC flower-ACC
ponay-cwu-ess-ta
send-BEN-PAST-DECL
It is (only) to Mary that John sent flowers.

(55) John-uy ecey-**pwuthe-uy** hayngtong
John-GEN yesterday-ABLAT-GEN behavior
John's behavior since yesterday.

The problem here is only apparent, however. Recall that the RCC rules out multiply Case-marked singleton Chains when the multiple Cases come from DISTINCT Case-governors (cf. *42c), but not when the multiple Cases are assigned by the SAME governor (cf. 42d). (54, 55) are of the latter type. This is so because the DAT is assigned by the V and by the N (or

Det), respectively. But then, ACC and GEN are also assigned by the same respective heads.

3.3. *CC As An Independent Well-formedness Condition*

We have accumulated a fair amount of evidence for the RCC – specifically, evidence supporting its claim that Case government of a given position is unique. Before proceeding further, we should consider the important question of whether the CC ever plays a role as an independent well-formedness condition on A-Chains, in the sense that certain illicit A-Chains are ruled out solely as violations of the CC. If there are such instances, we must ensure that abandoning the CC in favor of RCC can still account for the same range of data.

Lasnik and Saito (1992) correctly point out that the majority of the structures in English which violate the CC redundantly violate other principle(s) of the grammar. This is the case with illicit A-movement crossing a subject (SSC violation) or movement out of a finite clause (TSC violation).

(56) *John$_i$ seems [$_{CP}$ that [$_{IP}$ Bill likes t_i]]

(57) *John$_i$ seems [$_{CP}$ [$_{IP}$ t_i is crazy]]

(56) and (57) violate the CC. But they also violate other principles of the grammar, such as the ECP, Binding Theory, or the Extended Uniformity Condition (Lasnik and Saito 1992). Therefore, these types of illicit A-Chains cannot decide the issue.

They suggest, however, that there is one remaining instance of illicit A-movement for which the CC (more specifically, the CUC) appears to be the only principle that is violated. Movement of an Experiencer to a nonthematic subject position in sentences whose predicates subcategorize for an Experiencer argument and a clausal Theme are systematically ruled out in English. Neither the TSC/SSC (or their reduction to other independent postulates) nor the Theta Criterion are violated in these sentences, and yet they are sharply ungrammatical.

(58)a. *John$_i$ seems to t_i [that Bill is a jerk]
b. It seems to John [that Bill is a jerk]

(59)a. *John$_i$ strikes t_i [that Mary is a fool]
b. It strikes John [that Mary is a fool]

The RCC predicts incorrectly that the ungrammatical (a) sentences are well-formed, as each link of the A-Chain is uniquely Case-governed, even though the Chain as a whole is multiply Case-marked. The CUC rules

out such movement due to multiple, conflicting Cases on the head and tail of the A-Chain.

This paradigm would be a problem only if there was no other way to rule out these sentences. Let us assume that CPs in English have phi-features and that the clausal expletive *it* is a 'place holder' for the extraposed CP much as the NP/DP expletive *there* is one for its associate.[45] This means, given current (minimalist) assumptions, that the *it* expletive is the target of 'expletive replacement' by the associate CP at LF. Under these assumptions, the ungrammaticality of (58, 59a) can be explained as follows.

Suppose that the expletive is induded in the initial NUMERATION (N, Chomsky 1994) of (59a), so that N = {it, strikes, John, that, . . .}. When the following point in the derivation has been reached, there is a need to fill the subject position (to satisfy the EXTENDED PROJECTION PRINCIPLE, EPP – which in minimalist syntax reduces to a 'strong' TNS feature, or whichever element assigns/checks NOM Case. English TNS is 'strong').

(60) α strikes John [that Mary is a fool]

We may fill α either by raising John overtly, or by inserting *it*, the element that remains in N. The latter choice is less costly, since insertion does not

[45] Chomsky (1994, p. 39) assumes that there is no expletive replacement with the clausal expletive *it*, as opposed to the NP expletive *there*, given the apparent lack of agreement between *it* and the associate CP, presumably because CPs lack Case and agreement (phi) features.

The assumption that CPs are featureless (or that they do not need feature-checking) is not without problems since coordinated CPs in subject position show plural agreement.

> [[That John will come] and [that Mary will leave]] are/*? is evident to all of us.

In addition, the very fact that CPs occur in subject position (pace Koster) must indicate, theory-internally, that CPs are able to check the features of TNS. Clearly, a featureless entity cannot enter into a feature-checking relationship.

In contrast to CPs, I assume that nonfinite IP complements of raising verbs do not enter into a CHAIN relation with the matrix subject position. This assumption receives prima facie support from the fact that the *it* expletive co-occurs only with CPs (finite or non-finite), and never with bare IPs. Neither is it possible for a bare IP in English to occur in subject position.

If there is no expletive replacement with IPs, the failure of Experiencer movement to clausemate subject with raising verbs taking complement IPs is surprising, since I have attributed this failure to expletive replacement. Fortunately, this sort of derivation is ill-formed independently, since, if the Experiencer moves, the embedded subject of non-finite IP will be without Case, violating the Case Filter.

> [e] seems to John [$_{IP}$ Bill to be a liar]
> *John$_i$ seems to t_i [$_{IP}$ Bill to be a liar]

In sum, there seems to be no positive evidence suggesting expletive replacement with IPs.

violate Procrastinate, whereas overt movement does. Therefore, we get (59b).

Assume now that the clausal expletive *it* is not included in the numeration, so that N = {strikes, John, that, . . .}. With this numeration, the movement of *John* to α (yielding 59a) should be legitimate, as there is no 'cheaper' move. However, (59a) is ill-formed in English.

Chomsky proposes to rule out the movement by invoking a principle that relies on the correctness of the CUC, Greed. The movement is in violation of the strong ('self-serving') version of Greed, which disallows movement of an element if the movement checks no features of the element undergoing it. Since the Experiencer nominal checks its Case in its surface position (or at AgrOP at LF), it need not, and cannot, move to SpTP.

Instead of relying on the strong version of Greed (in fact, we shall see shortly that there are reasons to adopt a weaker version) to ban the movement, I propose the following. With or without the movement of *John* to the subject position, the only well-formed derivation from (61a) is one in which the CP moves overtly to the subject position, checking its phi features (see above and note 45) and satisfying the EPP – (61b).

(61) a. α strikes John (as pure nonsense) [that Mary is a fool]
b. [That Mary is a fool]$_i$ strikes John t_i (as pure nonsense)

Any other derivation from (61a) is bound to crash. Suppose that nothing moves to fill the position of α. The derivation crashes due to a violation of EPP, since a strong feature remains unchecked. Suppose that *John* moves, filling α. EPP is satisfied, but the extraposed CP cannot now check its features, since the only position it could move to in order to do so (overtly or at LF) is now filled by *John*.

Suppose the numeration N includes the DP/NP expletive *there*. The derivation will again crash, since one must assume (reasonably) that *there* cannot check the features of CPs, for, otherwise, there would be no need for two distinct expletive forms in the grammar of English.[46]

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[46] The following (ungrammatical) examples provided by a reviewer can also be accounted for along the lines proposed above.

a. I think [it seems to John [that . . .]]
b. *I think [it to seem to John [that . . .]]
c. *I think [John$_i$ to seem to t_i [that . . .]]

First, there is an independent reason for the ungrammaticality of the (b,c) examples: *think* does not take a nonfinite clausal complement. Suppose that it could (or that this fact itself is in need of explanation), we can still rule out (b) since *it* is without Case, violating the Case Filter. As for (c), we can rule it out as the movement of *John* obliterates the target for expletive replacement at LF, as proposed earlier.

An interesting prediction of the proposed account is that if a language did not have expletives (equivalently, if the complement CP did not extrapose), nothing should ban the movement of the Experiencer NP to the nonthematic, clausemate subject position. This prediction is confirmed in Korean, a language which lacks expletives and extraposition of complements. As we see below, either the Experiencer (62b) or a constituent embedded within the clausal Theme (62c) may move to the subject position of such sentences.

(62)a. [$_{IP}$ [e] [$_{VP}$ John-eykey-(man) [$_{CP}$ Mary-ka chencay-inkes]
John-DAT-(only) *Mary-NOM genius-COMP*
katta-pointa]]
seems/strikes

b. [$_{IP}$ **John-eykey-(man)-i$_i$** [$_{VP}$ t$_i$ [$_{CP}$ Mary-ka chencay-inkes]
John-DAT-(only)-NOM *Mary-NOM genius-COMP*
katta-pointa]]
seems/strikes

(62)c. [$_{IP}$ **Mary-ka$_i$** [$_{VP}$ John-eykey-(man) [$_{CP}$ t$_i$ chencay-inkes]
Mary-NOM *John-DAT-(man)* *genius-COMP*
katta-pointa]]
seems/strikes
It seems to/strikes (only) John that Mary is a genius.

4. Further Consequences

4.1. *The RCC and Minimalist Syntax*

The aim in this section is to evaluate the architecture and leading ideas of the minimalist approach concerning the nature of A-Chains and the CUC against the conclusions we have reached. We shall see that there is an interpretation of the leading ideas of minimalist syntax that can naturally accommodate the results I have argued for thus far.

4.1.1. *Deduction of the CC in Minimalist Syntax*

Chomsky's conception of the CC in the 80's gave birth to the idea known as 'Movement as a Last Resort'. This idea, in turn, forms the backbone of several minimalist principles. Procrastinate and Greed derive from core intuitions underlying 'Movement as a Last Resort'. Procrastinate dictates

that all grammatical operations are to be avoided in overt syntax if at all possible, since delaying an operation until LF is less 'costly'. With regard to movement, it deems overt movement more costly than LF movement.

Greed, in its strong form, dictates that an operation in violation of Procrastinate may be allowed in overt syntax, but only to 'check off' features of the element undergoing the operation. In Chomsky's words, Greed is 'self-serving'.

Chomsky and Lasnik (1991) rely on the interplay of these two constraints to deduce the CUC. By Procrastinate, overt A-movement should be avoided if at all possible. The only circumstance under which overt movement is sanctioned is if an NP occurs in a position where Case is not available to it (where it cannot check its Case). Greed overrules Procrastinate in this case and allows the movement, since the movement is required to remedy the deficiency of the element in question, i.e., it is self-serving. Once a Case position has been reached in the derivation, however, no further movement would be motivated, since an NP that has checked its Case is not deficient vis-a-vis the Case Filter/VC. Therefore, an optimal A-Chain always has a unique Case position on the head of the Chain. Q.E.D.

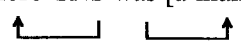
The question still remains why A-Chain formation is not always put off until LF, where it will be less costly. The proposed answer is that Procrastinate may be violated in order to guarantee convergence (Chomsky and Lasnik 1991) – for instance, to satisfy the EPP (the strong TNS feature).

Note that the crucial element in the deduction of the CUC is the strong version of Greed. Procrastinate is violable for convergence, but Greed is not. And this is what guarantees that a Case-marked/checked element does not move further.

4.1.2. *Some Problems with the Deduction – Non Self-Serving Greed*

Lasnik (1993) points out some difficulties with this conception of Greed, arguing for a weaker version of it, on the basis of an investigation of the syntax of expletive-associate constructions in English.

(63) there TNS was [a man] in the garden



NOM PART
Checked Checked

Chomsky (1992) reasoned that in structures such as (63) the associate *the man* undergoes A-movement to the position of the expletive at LF because its surface position is not a Case/agreement position. The movement is

sanctioned as it is 'self-serving' – necessary to remedy the (Case/agreement) deficiency of the associate.

Lasnik argues that, contrary to Chomsky's assumptions, the associate in *there*-insertion constructions must be assumed to be Case-marked by the copula with Partitive Case (Lasnik 1992, Belletti 1988). In addition, he observes that as the expletive in SpTP checks off the strong feature of TNS in English, the NOM Case assigned to that position will be 'used up', so that even when the associate moves to this position at LF, Case will no longer be available in this position. Nonetheless, in order for (63) not to 'crash' (as it evidently does not, given that it is interpreted), its LF must be Fully Interpreted, which means within this approach that the associate has moved to the position of the expletive at LF, yielding the correct interpretation of this sentence.

This is where the problem arises. Chomsky assumed that the force that drives the expletive replacement at LF is the failure on the part of the associate to check its Case/agreement in situ. Evidently, if the Belletti–Lasnik theory is correct, this explanation can no longer work, given that the associate is already Case-marked, in addition to the fact that NOM in SpTP has already been checked off. Therefore, in order to ensure that the movement, which is non-Case seeking, is still 'driven', as it must under minimalist assumptions, Lasnik suggests that it is the deficiency of *there*, as an 'LF Affix', which triggers expletive replacement.

Regardless of the correctness of Lasnik's particular explanation, this general line of argumentation makes it clear that Greed, as the property driving the operation Move, cannot be entirely self-serving, since the posited LF-movement is triggered by the deficiency of the target of movement, not the moved element itself. Lasnik concludes that a weaker version of Greed, which may be overridden for convergence, may be necessary. According to him, Greed operates in "Enlightened Self-Interest" instead.

What is important for us is that the interplay of Procrastinate and the weaker version (non-self serving) of Greed will no longer be able to deduce the CUC as a theorem, since an A-Chain may be formed between two Case positions when, as in the expletive-associate example, there is a 'morphological deficiency' other than a Case deficiency which mandates Chain formation.

In fact, we appear to have an example illustrating exactly this possibility. Icelandic has obligatory movement to subject position, but not for the lack of Case on the part of the moved element. Zaenen, Maling and Thráinsson (1985) demonstrate conclusively that the quirky subject of Psych constructions in Icelandic occupies a subject position. Given the

usual assumption that a quirky NP subject originates as an internal argument of the V, inherently Case-marked by it, we have here an instance of obligatory A-movement without an apparent Case-theoretic motivation.[47]

Assuming that Greed need not be self-serving, a reasonable minimalist analysis can be provided for this movement. Given the fact that Icelandic does not have subject expletives (even though it has Topic expletives like other Verb Second languages), all we need to assume is that Icelandic TNS is 'strong'. This requires something to check off the Tense feature overtly. Since there are no expletives, the only way to do so would be to move some element to the subject position in overt syntax. The fact that the moved element may already be Case-marked is irrelevant, since the movement would be allowed as an instance of Lasnik's "Enlightened Self-Interest", i.e., non-self serving Greed.

4.1.2. *Checking Theory and the RCC*

As a reviewer points out, the checking theoretic aspect of minimalist syntax can be construed in such a way that multiply Case-marked A-Chains, in apparent violation of CUC, are sanctioned according to its principles, in particular, without compromising the strong version of Greed.[48] Let us see how this may be so. Suppose that a nominal is inserted in a position where Case X is checked but it carries Case X and Case Y.[49]

Suppose also that Y is 'strong'. This means that the nominal carrying X + Y must move overtly to a position where Y can be checked. The movement in question is in fact driven completely by the 'deficiency' of the moved element – i.e., the inability of Case Y to be checked in the position that checks Case X. As a consequence, we would have an A-Chain with multiply Case-marked positions. This appears to be a reasonable analysis of Case-stacking within the minimalist system.[50]

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[47] The target of this movement may or may not be a Case position, as discussed in footnote 25. However, what is undeniable is that the movement is FROM a Case position, something explicitly banned by the CC/CUC. Following earlier conclusions, I do not accept the proposal that Inherent Case is insufficient for the Case Filter.

[48] But see Yoon (1994) for arguments that checking theory may not be applicable to the inflectional morphology of certain types of languages.

[49] Chomsky assumes implicitly that a nominal may carry only one Case. However, given the lexicalist basis of Chomsky's (1992) checking theory, nothing should preclude the possibility of inserting multiply Case-marked nominals as formatives in the syntax if the morphology of a given language reserves more than a single slot for the expression of Case inflection.

[50] While this appears to be a plausible account of stacking, I still believe that Greed cannot be maintained in the strong form. The first consideration that leads us to think so is Lasnik's analysis mentioned earlier. Another consideration is the following: strong Greed and checking theory predict that there will be multiply Case-marked Chains, but that all Chain-internal positions in such a Chain must be Case-positions, since multiple Case-marking arises

The checking-theoretic aspect of the theory casts a different light on certain cases of apparently optional movement. The minimalist program allows optionality only to the extent that there are equally optimal convergent derivations coming from the same initial numeration.

We have seen that movement from a Case position to another Case position appears to be optional, though the derivations (with and without movement) are hardly equal to each other in terms of known measures of cost in the theory. On closer inspection, this problem of apparent optionality disappears, at least in certain cases. Consider Case-stacking constructions in Korean, repeated below.

(64)a. [e] John-eykey ton-i manh-ta
John-DAT money-NOM much-DECL

b. John-eykey-ka$_i$ t$_i$ ton-i manh-ta
John-DAT-NOM money-NOM much-DECL
John has much money.

In the minimalist system, (64a,b) are not in the same reference set (Chomsky 1994) at all. The initial numerations for (64a) and (64b) are different, since in the former, the Experiencer nominal is inserted with ⟨CASE: DAT⟩, while in the latter, it is ⟨CASE:{DAT,NOM}⟩. The movement in (64b) would be obligatory, since without the movement, one of the Cases (NOM) will fail to check off.

4.1.4. *Summary*

In the preceding sections, I have argued that Chomsky's initial conjecture that principles of the minimalist approach will naturally derive the CUC is mistaken. A careful reading of its principles and a minor adjustment (weakened Greed) actually turn out to provide a plausible analysis of the types of A-movement in violation of the CC but those which are sanctioned by the RCC. I conclude, therefore, that the RCC receives a viable deduction from minimalist principles.

By way of conclusion, in the remainder of this paper I examine the implications of the RCC for the derivational nature of Chains and gram-

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from a nominal inserted with multiple Cases which need to be checked off. When all the Cases have been checked, there should be no further movement, since Greed no longer licenses such a movement. We have seen, however, some plausible examples of A-Chain formation between a Case-position (= tail) and a Caseless position (= head) in languages such as Farsi, Tongan, and Icelandic (if Sigurðsson is correct).

mars, and suggest a deduction of the uniqueness of government, on which the RCC rests, from primitive properties of grammar organization.

4.2. *The Notion of Chains and Multi-Stratal Grammars*

The RCC and the distinctions it makes among Chain types crucially depends on an interpretation of non-head positions of Chains as TYPE-IDENTICAL to the head, rather than TOKEN-IDENTICAL to it (cf. note 5). The claim that traces are typical-identical to the head means that Chains are not simply 'discontinuous' representations of a single entity, but a means to relate two distinct entities/positions. In contrast, Chomsky's CC is consistent with a token-identical interpretation of non-head positions, since we can view it as saying that multi-membered Chains must have properties identical to those of single-membered Chains.

Chains are hallmarks of derivational theories embracing multiple syntactic strata. In a multi-stratal theory, the rationale for positing dependencies within a strata (single-membered Chains) as well as those embracing adjacent strata (multi-membered Chains) rests on the supposition that the two types of dependencies are interestingly different. However, the picture painted by CC leads us to expect that the two types of dependencies should behave alike. If monostratal and multi-stratal dependencies were equivalent, it would defeat the very purpose of positing multiple strata. Arguments for theories embracing multiple syntactic strata could be constructed only if the properties of the two diverged in interesting ways. This is what the RCC based on type-identical interpretation claims. According to the RCC, there are properties that single and multi-membered Chains share, the uniqueness of theta-roles and the uniqueness of government, and those that set them apart, i.e., the ability of multi-membered Chains to bear multiple Cases.

4.4. *Multi-Domination and the Uniqueness of Government*

A central property claimed to underlie the RCC is the UNIQUENESS of government of a given structural position.[51] If this is as fundamental as it seems to be, we should seek to derive this requirement from deeper principles of grammar organization.

[51] We have been concerned only with HEAD-GOVERNMENT, not antecedent-government. It should be clear that only the former can be reduced to elementary properties of P-markers. Antecedent-government is a species of (minimal) binding. Its reduction, if any, should be to properties of optimal chains. The label 'government' has been attached to this concept purely as a matter of historical accident, as is well-known.

In my view, allowing a single position to be ambiguously governed by a head (i.e., allowing it to show the effects of ambiguous government, such as Case-marking) is equivalent to allowing MULTI-DOMINATION in P-markers. In a multi-stratal theory which employs P-markers as representational tools, instances of putative multi-domination have been handled by separating out the apparent multiple (simultaneous) dependencies into different strata, so that in each strata, the dependency is unambiguous.

An analogous restriction is found in another multi-stratal theory, Relational Grammar. While graph-theoretic multi-domination is allowed, the STRATAL UNIQUENESS LAW (SUL, Perlmutter and Postal 1983) requires that a nominal bear an unambiguous (primary) grammatical relation vis-a-vis the predicate at any given stratum. We can view the absolute ban on ambiguous govemment (which derives the RCC) and the SUL as different 'executions', of the same 'leading idea'.

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