Verb-Raising and Case-Agreement

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Chong-Taek Yu(1993). **Verb-Rasing and Case-Agreement.** *Linguistics.* Vol 1. This paper follows the Johnson's (1989) assumption that verbal inflection is always mediated by verb raising. All the verb heads-main verb, modal, be/have and participle heads-raise to the inflectional head positions and amalgamate with the fusible affixes. While the verb heads undergo a head-to-head movement, VP-internal subject(SU) and object(OB) raise to the Spec positions of AgrP by means of the Mutually Agreement-resisting Properties(MAP). This paper assumes that MAP makes SU and OB skip over the minimal domain. The raising SU and OB are always assigned agreement Case(AC). Even Genitive NP and indirect object(IO) in the double object construction are also assigned AC, but direct object(DO) in it and prepositional object are assigned governed Case(GC). Besides, this paper proposes that the Stowell's (1981) CRP be refined in relation to Case agreement.

1. Introduction

Many recent papers in syntax theory have extended the X'-Schema to the projection of functional heads. Above all, the verb-raising theory and VP-Internal Subject Hypothesis(ISH) force us to reconsider the IP and VP structures from a new angle of vision.

Along this trend, the first section chiefly treats the positions of head phrases in the IP and VP structures, to which all the verb heads as well as SU and OB move upwards.The verb heads are assumed to amalgamate with the fusible inflectional affixes. While SU and OB obligatorily raise to the Spec positions of AgrP, there may occur a sharp conflict between them.It completely blocks their raising,so that they may be frozen in the minimal domain.If so, then they cannot get any Case.In this section,I will try to find a solution to such a problem.

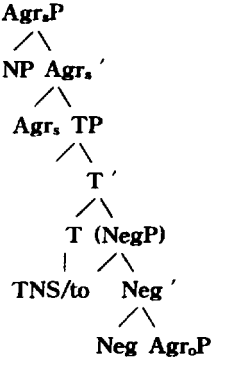
The second section specifies differences between AC and GC on the VP-Internal Subject Hypothesis.It also treats which Case is assigned to SU, OB, double objects, Genitive NP and prepositional object respectively.

In the third section,this paper proposes that the Stowell's Case Resistance Principle(CRP) be refined,because it is postulated on the basis of the *Case Assignment under Government.* If an embedded clause raises to [Spec, AgrP],it is Case-assigned not by the head-government but by the Spec-head agreement. The embedded clause obligatorily moves to the Topic position or VP-final position.This section poses a problem of how the CP structures are base-generated that a Topic clause raises to.

2 .Amalgamation of verb with affix

As shown in Pollock (1989) and Chomsky (1989,1992), the IP structure of clauses contain TP(=FP) between Agr_sP and NegP(or Agr_oP) as in (1):

(1)



The IP structure of finite and nonfinite clauses (1) doesn't contain AuxP to which modals and be/have can raise. I conjecture that [T,TP] bearing [±finite] features cannot contain the head of AuxP in itself. Contrary to (1), Johnson (1989) assumes that AuxP is base-generated between Nom(inative)P and Pol(arity)P, since all the inflectional heads separately have their own phrases. First of all, let us consider the Pollock's (ibid) examples discussed in Lasnik

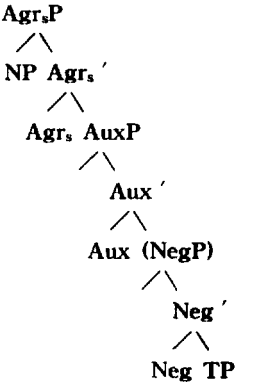
(1992):

(2)* (a) John likes not Mary.
(b) Jean (n')aime pas Marie.

According to Emonds (1978) and Pollock (ibid), French auxiliaries and all lexical verbs undergo a verb-movement in the finite clauses.[1] Unlike French, English lexical verbs cannot do so.Even if an English verb head(root) *like* amalgamates with Tense(TNS) and Agr affixes,[2] (2a) is an ill-formed sentence. That's why English main-verb heads aren't actually qualified to cross [Not,NegP] to a prenegative position.[3] Contrary to (2a), (2b) is a well-formed sentence, because, in (2b), French verb head *aimer* not only amalgamates with TNS and Agr affixes just like English, but also it is actually qualified to cross [Pas,NegP] to a prenegative position.[4] As shown in Lasnik (1992), the strength of French verbs is stronger than that of English verbs.

In short, examples (2) makes us assume that AuxP is base-generated in a prenegative position of the English and French finite clauses, and that TP is base-genereated in a postnegative position of them.Furthermore, we can say that Agr_oP should be base-generated immediatetly under TP.Here is the IP structure of finite clauses:

(3)



If modal auxiliaries and be/have raise from VP through NegP to

Agr_sP, would they follow the Head Movement Constraint(HMC)? I suppose that they would do so. Let us examine the following sentences:

(4) (a) John *cannot(can't)* see the lake from his room.
(b) John *can not* see the lake from his room.

(5) (a) John *doesn't* do a good deed.
(b) John *does not* do a good deed.

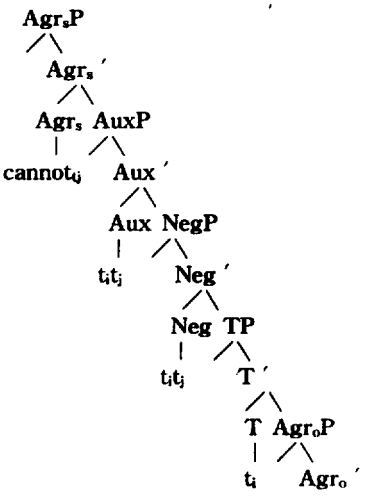
(6) (a) John *isn't* a clever workman.
(b) John *is not* a clever workman.

(7) (a) John *hasn't* any money on him.
(b) John *has not* any money on him.

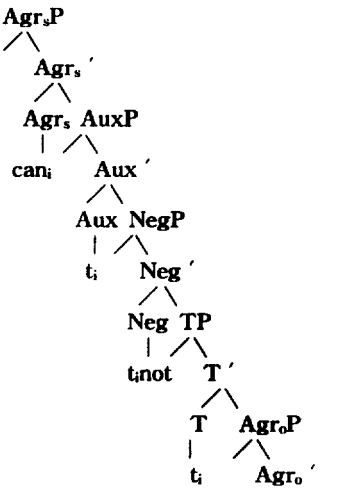
Cannot(can't), don't, be-not(isn't) and *have-not(hasn't)* in (4a)-(7a) are amalgams fused by the raising of modals and be/have to the left of [Not, NegP]. Those sentences, which are formed by the raising of amalgams --e.g.[Neg [T [V can] T] not]--through Aux to Agr_s,satisfy the reguirement for Case assignment in the relation to Spec-head agreement. In result, they are well-formed sentences, since the amalgams undergo a head-to-head movement without hopping NegP. This evidence makes me conjecture that a negative element *not* behaves just like an affix. In other words, it always allows modals and be/have to amalgamate with itself. Even if those amalgams not only are dissolved into two original lexical heads,but also only modals and be/have raise through Aux to Agr_s,(4b)-(7b) are also well-formed sentences, since they follow the HMC.

Following the Lasnik's (1992) assumption that the strength of auxiliary verbs and be/have are weaker than that of main verbs,[5] I also suggest that modals and be/have can either amalgamate with [Not. NegP] or separate from their amalgams. The following diagrams are the derivational structures of (4a) and (4b) respectively:

(8) (a)



(b)



Now, Let us turn to the amalgamation of verb with TNS.Johnson (1989) assumes that modals select an inflectional phrase headed by null-suffix(NS) that forms the "bare" infinitive,and that,if NS and *to* are in competetion for the T position with TNS/Agreement,then the complementary distribution of modals,*to* and TNS/Agreement will be explained.This paper follows his assumption that modals select a bare infinitive headed by NS, but it doesn't agree to his idea that TNS and

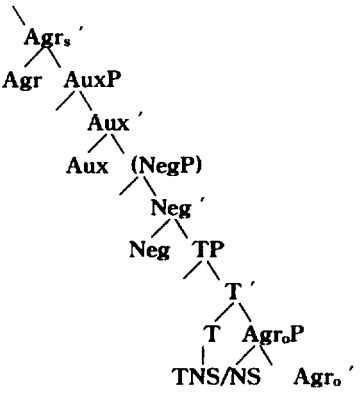
Agreement are in the complementary distribution under the same head phrase TP. I instead assume that, under TP,only TNS and NS are complemantarily base-generated as [T,TP]. And I also assume that infinitive marker *to* is independently base-generated under its own head phrase.

If so, then I will examine the developmental process of infinitive marker *to*. Yu (forthcoming) argues that, in case an infinitive is a subject, or direct object of a sentence, the preceding *to* loses its meaning completely, and becomes a mere sign or prefix of the infinitive.Yet, after intransitive verb, or the passive voice, the infinitival *to* is the preposition still now[6]. He strongly argues that all the infinitives as well as the main verbs after modals and *be/have* are bare infinitives(NS verbs). Therefore, there should be a separate InfP headed by *to* in the IP structure of infinitives.

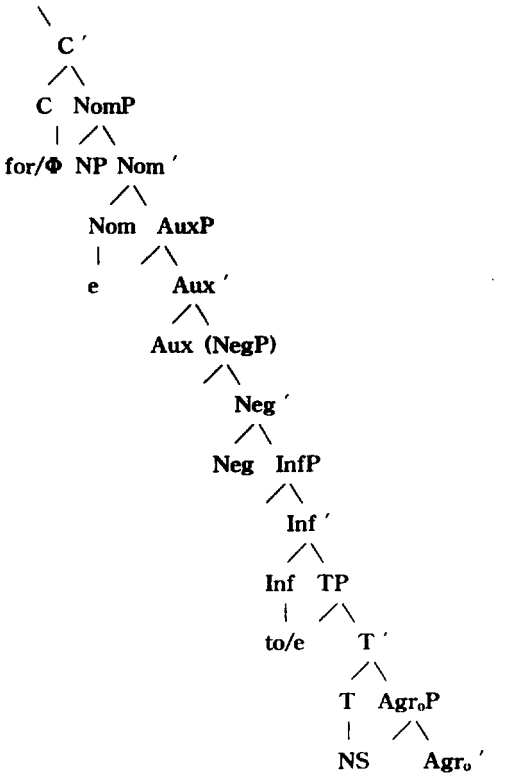
Besides, Stowell (1981) suggests that the basic distinction between S′ (=CP) and NP relates to the [±Tense]. Consequently, infinitives come out as being [+Tense]. As pointed out in Johnson (1989), TNS and Agreement may be syntactically present, but morphologically absent in English nonfinite clauses.[7] In addition to them, Yoon (1992) clearly suggests that, as for the extraction from the infinitival complement, TNS is realized. These suggestions help me assume that the IP structure of infinitives contains an independent head T bearing only NS, which forms TP not morphologically but syntactically.

Putting all accounts together, I will show the IP structures of finite and nonfinite clauses separately as in (9):

(9) (a)



(b)



The first diagram (9a) is the IP structure of finite clauses,in which functional heads Aux and T are base-generated. TP cantains TNS or NS complementarily as its heads. If the finite clause is an interrogative, negative, or imperative sentence, [Aux, AuxP] should be obligatorily base-generated with [NS, TP]. On the contrary, if the clause is a declarative sentence, [Aux, AuxP] is always empty, being an inherent barrier as Pollock (1989) and Chomsky (1986) propose. The second diagram (9b) is the IP structure of nonfinite clauses.[8] A complementizer is either *for* or zero-governor Φ suggested in Kayne (1984) And subject(SU)-agreement marker *Nom*(in Icelandic as well as in English)[9] is obligatorily empty. In ModE, prepostional link *tole* is assumed to be a lexical head of InfP, which is also an inherent barrier. And [NS, TP] always amalgamates with a

bare infinitive. These NS verbs follow both after modals and *be/have* in finite clauses and immediately after an infinitival head *to* in nonfinite clauses.

Putting aside Case agreement(see the third section), let us turn to another controversial problem. First,I will look into the VP structures in which all the lexical heads are selected from Lexicon, and then targetted according to X'-theory. Following the ISH assumed in Kuroda (1988), Kitagawa (1986), Koopman and Sportiche (1991), Belletti,(1990) Huang (1990) and Chomsky (1992),[10] I also assume that the VP-internal suject SU(=NP^*) occurs in [Spec, $VP(=V^{max})$]. Not a higher $NP(=NP^{\frown})$ in [Spec,IP]) but a lower SU receives a θ-role from its sister VP (or V ').[11]

As pointed out in Lasnik (1992), TNS is the reguired trigger for raising. All the lexical verb heads selected from Lexicon amalgamate with [+Affix] features -TNS, NS, Agrs and participle affixes. Accordingly, I will define a verb raising like the following:

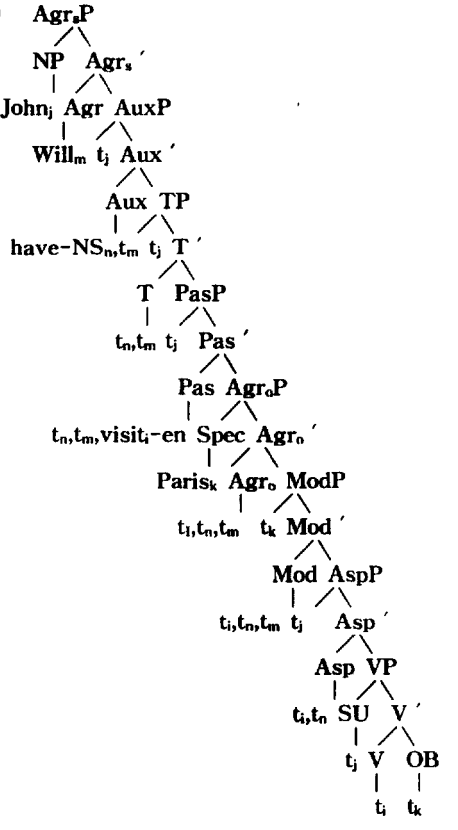
(10) All the lexcial verb heads amalgamate with the fusible [+Affix] features.

According to the rule (10), the verb heads of modals and be/have amalgamate with the fusible TNS and Agr_s in the interrogative, negative, and imperative finite clauses, and main verb heads amalgamate with the fusible NS or Agr_o(in case of transitive verbs) in them. Similarly, main verb heads amalgamate with the fusible TNS,Agr_s, and Agr_o in the declarative sentences. Contray to them, NS verbs(bare infinitives) in nonfinite clauses amalgamate with the fusible NS or Agr_o. Besides, participial verb heads amalgamate with the fusible *-en*,and Agr_o. Intuitively, we can say that all the verb heads amalgamate with the fusible [+Affix] features by raising to head positions for themselves.

Next, let us turn to a complex structure in which three kinds of verb heads,SU and OB raise together to the Spec and head positions:

(11) (a) John will have visited Paris.

(b)



The above diagram(11b) is the derivational structure of sentence (11a). [H,Mod(al)P] *will* raises to [Agr_s,Agr_sp], amalgamating with the fusible affixes TNS and Agr_s. According to the rule (10), modals connot amalgamate with such infusible elements as Agr_o, *-en* and NS.[12] And [H,Asp(ect)P] *have* can raise to [Aux,AuxP], amalgamating with NS in TP. Subsquently, Past-Participle(PP) head *visit* selected from Lexicon raises to [Pas, Pas(t participle)P], amagamating with fusible affix *-en*. And then SU *John* raises to [Spec,AspP] without any trouble. Next, OB tries to raise to [Spec,AspP], but it cannot do so, because SU has already occupied the position. As assumed in Chomsky (1992), OB cannot choose but be frozen in the minimal domain {[Su_j,t_j,OB]}.[13] Even though SU and its trace are equidistant

from OB, OB cannot substitute for SU_j. That's why SU and OB are lexical words. Therefore, I will assume that OB can skip over [Spec, AspP] with the minimal domain undamaged by means of the Mutually Agreement-resisting properties(MAP):

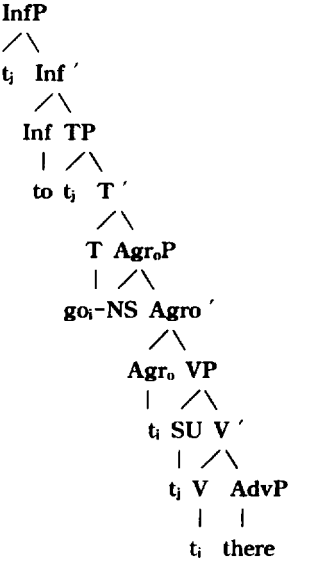
(12) CHs = {(SU_i…t_i),(OB_j…t_j)} share mutually agreement-resisting properties with their own Agrs.

MAP makes OB skip over [Spec, AspP] to [Spec, Mod(al)P]. so that the PP verb head *visit* continues to make an amalgamation(=adjunction) movement to [Mod, ModP], forming a new minimal domain which excludes t_j in [Spec, VP]. Although SU in [Spec,AspP] may not raise to [Spec,ModP] due to the occupation of OB,MAP fortunately resucues SU from being confined in the new minimal domain. Therefore, SU can raise to [Pas, PasP], hopping Agr_oP by means of MAP.PP head *visit* in [Mod, ModP] raises through [Agr_o, Agr_oP] to [Pas, PasP], amalgamating with NS(Agr_oP is assumed to contain NS in English, but often suffix in French) and *-en*.[14] Thus, if all the transformational structures are finished,a well-formed sentence (11a) is derived from them.

Similarly,bare infinitives(NS verb heads) in nonfinite clauses also raise to [NS, TP],amalgamating with the head:

(13) (a) John told mary not *to go there.*

(b)



Verb head *go* in (13b) raises to [Agr_o,Agr_oP] which bears NS in English. According to Chomsky's (1989) assumption, Agr_o is present even for non-transitives. And a VP internal SU skips over [Spec, Agr_oP] by means of MAP, raising to [Spec, TP].It finally raises to [Spec, NomP] in (9b). The verb head raises to [T, TP] which also bears NS just like Agr_o in English.

So far, I have assumed that all the verb heads--modal, be/have, and PP heads-raise to the upper head positions in order to amalgamate with the affixes-- TNS, NS, Agrs and participle affixes. In other words, all the lexical verb heads necessarily amalgamate with the fusible [+Affix] features. Besides, I have also assumed that Agr_s and Agr_o share mutually -resisting properties with their SU and OB chains.MAP helps SU and OB skip over the minimal domain.

3. Agreement case and governed case

As shown in the preceding section,all the lexical verbs selected from Lexicon raise to [T, TP], [Agr, AgrP], etc. for amalgamating with affixes, while SU and OB raise to [Spec, Agr_sP] and [Spec, Agr_oP] respectively.

In this section, I will examine which Case is assigned to each lexical NP in a sentence. According to Koopman and Sportiche (1991), Nominative Case assignment is a relation between a head,namely, INFL, and its specifier. Inherent Case assignment is a relation between a head and a complement. That is, the structural Case is assigned by agreement of an NP with a Case-assigning head, and the inherent Case is assigned to an NP by government of a Case-assigner. I will call the former Agreement Case (AC) and the latter Governed Case(GC). A VP-internal subject(SU) is assigned a θ-role by VP(or v'), but it is not assigned Nominative Case by it. SU,therefore, must raise to [Spec,Agr_sp] so that it can be assigned AC. Following Chomsky (1989,1992), I assume that OB is also

assigned AC in [Spec,Agr_oP], even though it is the complement of a transitive verb.

First, let us consider how AC is assigned to SU and OB:

(14) (a) John loves Children.

(b) [CP[C ′[Agr_{sP} $John_i$[Agr_s ·[Agr_s[T_j[$Agro_k$ [$V_m$love]Agr_o]T] Agr_s] [TP[T ′t_j [AgroP $children_n$[Agro ′t_k[VP t_i [V ′ t_m [NP[N ′ t_n]]]]]]]]]]]

Omitted are possible intermediate traces of verb head, Agr_o, T, SU and OB in (14b), which is the derivational structure of (14a). In (14b), the relation of subject *John* to verb head *love* is determined by the ϕ-features(gender,number,person) of Agr_s—an inflectional morpheme *-s*, and Nominative Case is determined by T that amalgamates with verb head *love*. On the other hand, the relation of object *children* to *love* is determined by the ϕ-features of Agr_o(NS in case of English), and Accusative Case is determined by *love*.[15)m] Consquently, SU is assigned AC by Agr_s and T, and OB is assigned AC by Agr_o and verb head.

According to the Chomsky's (1992) assumption, there is a symmetry between the subject and object inflectional systems. In both positions, the relation of NP to verb is mediated by Agr, that is, a collection of ϕ-features. Let us turn to the AC assignment of VSO language Welsh illustrated in Koopman and Sportiche (1991):

(15) (a) Agorodd y dynion ddim y drws.
opened-3s the men not the door
'The men didn't open the door.'

(b) [CP[C ′[Agr_sP[Agr_s ′[Agr_s[T_m[Agr_{ok} Agorodd]]][NegP y $dynion_i$[Neg ′[Neg t_{mk} ddim][TPt_i[T ′$t_{m,k}$[Agr_oP y $drws_j$ [Agr_o ′ t_k[VP t_i[V ′t_k [NP[N ′ t_j]]]]]]]]]]]]]

In (15b) which is the derivational structure of (15a), SU *y dynion* doesn't raise to [Spec,Agr_sP], but to [Spec, NegP].In result, SU is assigned GC, because Agr_s governs SU in [Spec, NegP].[16] The inflectional morpheme of a transitive verb head is mediated not from

Agr_S, but from Agr_o. This is a clear evidence that Welsh OB is assigned AC by the morphological reflex of the relation between Agr_o and its specifier.

If a single direct object(DO) precedes PP, the PP agrees with DO like Welsh. Let us consider a French PP construction illustrated in Koopman and Sportiche(ibid), too:

(16) Cette écharpe Jean l'$_i$ a offertE t_i à Pierre.
this scarf(FEM) John it has offered(FEM) to Pierre.
'As for this scarf, John offered it to Pierre.'

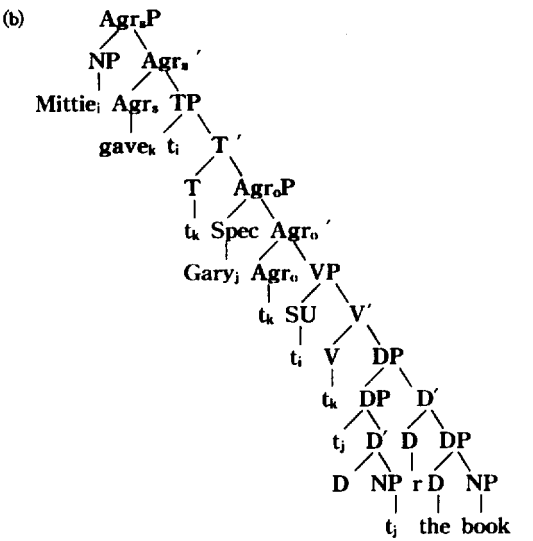
When DO occurs in the postverbal position,French Agr_o bears NS like English Agr_o.On the contrary, when it occurs in the preverbal position, French Agr_o bears agreement affix like English Agr_s. Anyway, this parametric structure gives another edidence that Agr_o bears agreement features just like Agr_s.

In short, I have shown that OB as well as SU in SVO finite clauses is assigned AC, because English Agr_o always bears NS, and French Agr_o also bears NS except the PP construction which DO precedes. This paper acctually follows the Chomsky's (1992) assumption that DO is assigned AC, which is different from the Koopman and Sportiche's (ibid) one that English objective Case is apparently GC.However,SU in VSO finite clauses is assigned GC by the government of Agr_S. On the other hand, SU in the nonfinite clauses is always assigned GC, because Agr_s in [Nom, NomP] is empty. (This paper won't treat this matter in detail.)

Next, adopting Johnson's (1990)"DP Hypothesis", I will examine how indirect object(IO) raises to [Spec,Agr_oP] in the double object construction:[17]

(17) (a) Mittie gave Gary the book.

(b)



Johnson assumes that *r* is the head of the clausal DP whose complement is the second nominal(DO), and whose Specifier is the first nominal(IO) of the double object construction. Further, *r* assigns Accusative Case to its complement DP, so that DO is assigned GC. Contrary to it, IO raises to [Spec,Agr$_o$p], and then it is assigned AC.

As illustrated in Georgopoulos (1992), Palauan verb also agrees with IO in the double object contruction as in (18):

(18) a. ng-mils(k)-*ak* a buk a Tmerukl.
3s-gave-1s book
'Tmerukl gave *me* a/the book.'

b. ak-mils-*terir* a buk.
1s-gave-3p book
'I gave *them* a/the book.'

Palauan verb *mils(k)* agrees with IO *ak* in (18a), and with IO *terir* in (18b). Even though both objects may be potential agreement triggers, only IO becomes the trigger when it is present in the double object construction. The goal(IO) --*ak,terir*--raises from the Spec of DP to

Agr_o,but the theme(DO)--*a buk*--still stays in the complement position. The Georgopoulos's analysis agrees with the Johonson's assumption that the double object construction contains the clausal DP.

Finally, I assume that prepositional object is assigned GC by prepositional head P, but that Genitive NP is assigned AC by the agreement relation between Genitive head *'s* and [Spec,G(enitive)P].

(19) (a) John [VP[V' [V talked] [PP[P' [P to] [NP Gary]]]]]

(b) John follows [NP[GP[NP_i government][G' [G 'S] t_i]][N' policies]]

Preposition *to* assigns GC to Gary in (19a). On the contrary, Genitive NP *government* in (19b) is assigned AC by the agreement of itself with Genitive Case-marker's, because I suppose that, following the Yim's (1984) assumption that GP is [Spec,NP],[18] the Genitive NP raises from complement position t_i to [Spec,GP].

To sum up, SU in SVO languages is always assigned AC, but GC in VSO languages.And a single DO in both the languages is assigned AC, since the Agr_o of English, NS as well as those of the other languages amalgamates with a raising verb head. AC is assigned to IO and Genitive NP, whereas GC is assigned to SU in nonfinite clauses, DO in the double object construction and prepositional object.

4. Case-agreement of embedded clauses

The Case Assignment under Government and The Case -Resistance Principle*(CRP)* assumed in Stowell (1981) is as follows:

(20)

(a) The Case Assignment under Government
In the configuration [α β···] or [···β α],α Case-marks β,where
(i) α governs β and
(i) α is adjacent to β, and
(i) α is [-N] or [+Tense]

(b) The Case-Resistance Principle(CRP)
Case may not be assigned to a category bearing a Case-assigning feature.

Case features and Case-assigning features might be resistant to each other in terms of (20b) when the rule (20a) applies between them. Therefore, tensed clauses and *to*-infinitives are not assigned Case by [-N] Categories, since they bear the [+Tense]. However, Yim's (1984) assumption is a bit differnt from Stowell's. According to him, Case friction occurs between the sentential Case-marker *that* and the configurational Case-marker Agr or verb, so that it triggers the extraposition and topicalization.

At any rate, note that English SU and OB are not assigned GC but AC, if we accept the ISH. Accordingly, I propose that CRP postulated by the government rule between Case-assigner and Case-assignee be refined.

Let us examine how CRP applies to AC in the following sentences:

(21)

(a) [CP[Spec[CPThat Jenny is a good hostess]$_i$][CP[Agr$_s$P t_i[Agr$_s$' [Agr$_s$ is] self-evident]]]][19]

(b) [CP[Agr$_s$P it$_i$[Agr$_s$' [Agr$_s$ is] self-evident [CP that Jenny is a good hostess]$_i$]]]

(c) [CP[Spec[CP For you to take this course]$_i$][CP[Agr$_s$P t_i[Agr$_s$' [Agr$_s$ would] help you]]]]

(d) They [Agr$_s$ [Agr$_o$ think]$_j$][Agr$_o$P it$_i$[Agr$_o$' t_j] to be almost impossible [CP to finish the work in two days]$_i$]]

(e) *He based his theory [PP[P on] [CP that porcupines mate in the spring]]

In (21a), the *that*-clause moves to the Topic-position by means of CRP applied to Case friction between [Spec,Agr$_s$p] and [Agr$_s$,Agr$_s$p]. In (21b), the *that*-clause extraposes to the VP-final position. Likewise, the infinitival clause in (21c) moves to the Topic-position.The infinitival clause in (21d) extraposes to the

VP-final posion.Finally,(21e) gives a clear evidence that CRP doesn't apply to the government relation between preposition and embedded clause. That is, CRP does't apply to GC, but to AC.[20]

This evidence makes me refine the Stowell's CRP as the following:

(22) The Case-Resistance Principle(CRP)
Agreement Case may not assigned to a clausal argument.

If so, then how is the embedded clause assigned AC by Agr? Stowell also assumes that CRP applies only to the lexical head of a phrase, rather than to the phrase as a whole.Therefore,Case is assigned to the variable which functions as the argument at the head of the A-chain. This "saving device" makes Agr be able to assign AC to the trace of embedded clause in [Spec, AgrP],which is a member of AC chain with the moved clausal argument to a non-A-position.

Finally, I will consider the topicalization of embedded clauses in connection with CRP (22):

(23) (a) [CP [Spec [CP That you took the course]$_i$][CP [Agr$_s$P t_i[Agr$_s$ ′[Agr$_s$ is] unfounded]]]]

(b) *John's belief [CP that [CP [Spec [CP that you took the course]$_i$][CP[Agr$_s$P t_i[Agr$_s$ ′[Agr$_s$ is] unfounded]]]]]

(c) John swore [CP (that) [CP[Spec[PP under no circumstances]$_i$] [CP [C′[C would] he accept their offer t_i]]]]

Comptementizer *that* is never deleted when the embedded clause is a subject as in (23a), so that the clausal argument must raise to the higher Spec pocition.As pointed out in Authier (1992),complementizer *that* cannot be also deleted in (23b), since it is not lexically governed,[21] If so, then CP iteration is never allowed. The only landing site that the embedded clause can be repelled by CRP is the

highest Spec, but the sentential Case-marker *that* never allows any lexical words to immediately precede itself.In result, (23b) is an ill-formed sentence.Contrary to it, (23c) is a well-formed sentence, because complementizer *that* can not only be lexically governed and deleted, but also CP iteration be allowed. It seems to me that the relation between CRP and CP is mysterious.

At any rate, Stowell's CRP should be refined in relation to Case agreement like (22):AC may not be assigned to a clausal argument, which contains a sentential Case-marker.

5. Conclusion

All the verb heads in finite and nonfinite clauses move upwards to the head positions without violating the HMC. Those raising verb heads obligatorily amalgamate with their own fusible affixes--TNS, Agr_s, Agr_o, NS, and participial affixes. While SU and OB are raising to the Spec positions of Agr_sP and Agr_oP respectively, their chains are assumed to share MAP with their own Agrs. MAP may be a syntactic force that helps SU and OB be able to skip over the minimal domain.

Ac is assigned to an NP by the agreement of the NP and a Case-assigning head, and GC is assigned to an NP by the government of a Case-assigner. SU and OB are assumed to be assigned AC in SVO languages.In the double object construction, only IO raises to [Spec, Agr_op] and Case-agrees with the verb amalgam. AC is also assigned to a Genitive NP, which raises to [Spec,GP] and Case-agrees with ['S,GP]. On the other hand, GC is assigned to SU in VSO languages, SU in nonfinite clauses, prepositional object and DO in the double object construction.

Finally, I propose that the Stowell's CRP be refined, if we accept the ISH: Agreement Case may not be assigned to a clausal argument.On top of that, this paper furnishes a hint that the topicalization of embedded clauses bears a close relation to the

sentential Case-markers.

This paper leaves the problem open.

NOTES

1. Pollock (1989:367) proposes that the French auxiliary verbs *avoir* 'have' and *être* 'be' are members of the same category V as all the "main verbs" of the language. See also Emonds (1978:151).

2. This paper will not adopt an assumption suggested by Pollock (1989:385-386) and Chomsky (1989:47,1992:10-11), and it instead follows Johnson's (1989:5) idea that Terms only be moved to position where they c-command their traces, guaranteeing that movement is always "upwards" That is, Verbal inflection is always mediated by verb Raising.

3. As shown in Chomsky (1989), the VP-adverbs in (1), which we take to be generated under VP adjoined to another VP, are pre-verbal in English and post-verbal in French, and English auxiliaries *have* and *be* in (2) behave like French ordinary verbs:

(1) (a) John *often* kisses Mary.
(b) John *completely* lost his mind.
(c) Jean embrasse *souvent* Marie.
(d) Jean perdit *complètement* la tête.

(2) (a) John has *completely* lost his mind.
(b) John are *often* rewritten for children.

4. Pollock (1989:366) says that *pas*, but not *ne*, is the French counterpart of English *not*. The historical evolution of English and French clearly shows that this is the right grouping: Old English had a negative preverbal adverb *ne/na* that could optionally be "strengthened" by *not/nought* (Mossé (1952:153-154)). *Ne/na* became optional in the fourteenth century, just like modern French *ne*.

5. Lasnik(1992:403) designates main verbs as strong and auxiliary verbs as moderate. He assumes,with Pollock (1989), that verb raising involves adjunction of verb to the affix, and that the affix cannot support as a dependent a verb that is stronger than it is

6. As pointed out in Yu (MS, forthcoming), the OE simple infinitive is used as the accusative-with-infinitive construction, and rarely as the nominative. In the course of ME, its inflectional ending is leveled and dropped to become *-en,-e*, or the same null-suffix as after the MOE infinitives. On the other hand, the OE and ME inflected infinitives are used only as the dative, always preceded or governed by a preposition *tō(te,to)*. Originally, a preposition *tō* before the dative infinitive has the same meaning and use as before the ordinary substantives.

7. Johnson (1989:26) supposes that null suffixation in some instances involves the syntactic but not morphological presence of the suffix.
8. The patterning of data is somewhat different from what Pollock (1989) suggests. Putting aside the short raising cases Pollock presents for French,Lasnik (1992:403) proposes that we find the following pattern for verb raising to Infl:

	English		French	
	Finite	Nonfinite	Finite	Nonfinite
Main verb	*	*	OK	*
Auxiliary verb	OK	*	OK	OK

9. Johnson (1989:18) suggests that the difference between Icelandic and Mainland Scandinavian is that the complementizers serve as Nom in Mainland Scandinavian, whereas subject agreement serves as Nom in Icelandic.
10. Huang (1990:6) assumes that the subject of a sentence is base-generated in the Spec of VP position (more generally that of the predicate XP),but not as the Spec of IP.
11. As shown in Koopman and Sportiche (1991:218), hypothesis that theta roles are assigned under sisterhood indicates that NP^{*} and VP are indeed sister nodes, and that I and NP^{Λ} are not.
12. I assume that every verb head makes an amalgamation (adjunction) movement to the upper head positions. And I also assume that,while it raises to the head positions, it makes a substitution movement for the traces of the other verb heads.
13. The raising of VP-internal subject to the [Spec,Asp] blocks Case assignment to the object:the object is frozen in place.
14. Let's consider the following examples given in Chomsky (1989:58):

(1) (a) combein de tables [Paul a [AgrP t' [AgrP Agr [repeint-t]]]]
(b) combin de tables [Paul a [Agrp Agr [repeint-t]]]

The two forms are synonymous, meaning "how many tables has Paul repainted." In (a), the participle surfaces as *repeintes*(plural), in (b) as *repeint*(lacking agreement).
15. An NP in the [Spec, head] relation to the Agr complex bears the associated Case and agreement features. The Spec-head and head-head relations are therefore the core configurations for inflectional morphology.See Chomsky (1992:11).
16. If some X^{O} governs YP, it governs the specifier of YP.See Chomsky (1989:8-9) and Koopman and Sportiche (1991:228).
17. Johnson (1990:35) assmes that it is just range of meanings that arises with respect to the "possession" relation between a genitive NP and the remainder of the NP it is contained
18. According to Yim (1984:82-84), a genitive Case-marker 's governs NP,

as in other cases of Case assignment. Affix hopping, which operates at the level of PF, will move *'s* to the right of NP, creating "NP'S".

19. Chomsky (1977:91) assumes the rule R2:S′ →COMP(S″ or S).

20. Marantz (1978:113) argues that, even if embedded sentences occurred everywhere noun phrases do, we could not conclude that embedded sentences are noun phrases.

21. Following Authier's (1992:334) assumption, we can constrain CP iteration in terms of the selectional properties of complementizers as restricted to the class of lexically governed complementizers identified by Stowell(1981):

A head of type C may optionally select a CP that bears the index of a topic iff that head is lexically governed.

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