On Nominative-Genitive Conversion

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1. Introduction

Nominative-Genitive Conversion (hereafter NGC) in Japanese, which is also often called *Ga/No Conversion*, is one of the most intriguing syntactic phenomena in the history of generative grammatical study of Japanese (see Harada 1971, 1976, Bedell 1972, Inoue 1976, Shibatani 1977, 1978, Nakai 1980, Saito 1982, Fukui 1986, Fukui and Nishigauchi 1992, Terada 1990, Murasugi 1991, Miyagawa 1989, 1993, Ura 1993, Sakai 1994, Hasegawa 1995, Watanabe 1994, 1996a, 1996b, and Ochi 1999, among many others). Nevertheless, as we will see below, the phenomenon has not yet been provided with a conceptually and empirically adequate theoretical account.

The purpose of this paper is to elucidate the syntactic architecture of NGC and to explore an optimal account for the phenomenon within the framework of the Minimalist Program (cf. Chomsky 1995, 1999, 2000). In particular we will reject on much empirical grounds the ECM/Raising analysis of NGC, which assumes the genitive Case feature-checking by an external D head. Our investigation reveals that UG allows another mechanism of genitive Case checking in addition to D. More specifically, it will be argued that the genitive Case can be checked by the φ- feature of the C-T-V amalgamate formed via AGREE, independently of D. It is shown that this hypothesis in fact has a number of important consequences for parametric syntax.

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Another aim is to put NGC in a cross-linguistic perspective, bringing a new insight into the phenomenon. The previous study of NGC has paid little attention to languages other than Japanese. As we will see in Section 6, however, NGC (or genitive Case-marking on the subject) can be observed in fact in many other languages, such as Cuzco Quechua (the Quechuan family), Yaqui, Wappo, Chemehuevi and Nevome (the Uto-Aztecan family), Turkish, Tuvan and Uzbek (the Turkic family), Mongolian and Dagur (the Mongolian family), Middle Korean, Chamorro, Hawaiian (the Austronesian family), Mishing (Miri) and Apatani (the Tibeto-Burman family) Kayardild (the Australian family) just to name a few. In so doing, important universal aspects of the phenomenon are brought to light. In the meanwhile, it will be also shown that the diachronic perspective reveals an important aspect of the nature of the Case and agreement system in Japanese syntax.

The organization of this paper is as follows. Section 2 first takes a brief look at the two major theories of NGC proposed in the literature, the *ECM/Raising analysis* (Miyagawa 1993, Ura 1993 and Ochi 1999) and the *Wh-agreement analysis* (Watanabe 1994, 1996a, 1996b), respectively. Then we introduce a new theory of genitive Case AGREE, which proposes that in a certain type of languages such as Japanese, the structural genitive Case can be checked by the φ-feature on C 'copied/transferred' from T via AGREE. Section 3 shows ample data which reveals serious empirical inadequacies of the previous approaches and then presents a new descriptive generalization of NGC, with which a theoretical explanation is provided by our proposed theory. Section 4 brings to light an significant consequence of the proposed theory; it is argued that Miyagawa (1993) and Ochi's (1999) ECM/Raising analysis of NGC is theoretically untenable by showing that in fact NGC does not exhibit the *Defective Intervention Constraint* (Chomsky 2000), contra predictions of the ECM/Raising analysis. We will argue that the probe for nominative and genitive Case is in fact the same single φ-feature and that a theory of MULTIPLE AGREE (cf. Hiraiwa 2000b) correctly explains the absence of the intervention effect under the proposed mechanism of NGC. Section 5 presents several arguments for our claim that the genitive Case is checked by the C-T-V amalgamate and shows important cross-linguistic implications of our theory. Section 6 takes a cross-linguistic perspective on NGC and shows that the same phenomenon is observed in many other languages, where a cross-linguistic generalization of NGC is suggested. Finally, Section 7 explores the syntactic nature of transitivity restriction and parametric variation in accusative Case checking. It is claimed that the unavailability of accusative Case checking in NGC exhibits interesting correlations with other syntactic phenomena. Section 8 concludes our discussions.

2. The Proposed Mechanisms of NGC

NGC is a construction in which the nominative-marked subject optionally alternates with the genitive-marked subject in relative clauses and nominal complements as in the following Japanese examples (1).[1]

(1) *Japanese*

a. Kinoo John **ga** katta hon
yesterday John-NOM buy-PST-ADN book
'the book which John bought yesterday'

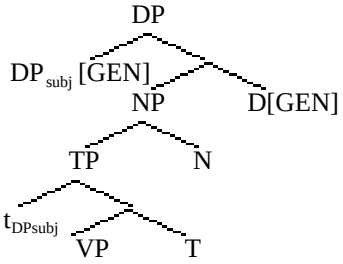
b. Kinoo John **no** katta hon
yesterday John-GEN buy-PST-ADN book
'the book which John bought yesterday'

Roughly speaking, there have been two major proposals pertaining to NGC, the *ECM/Raising analysis* (Miyagawa 1993 and Ochi 1999 among many others) and the *Wh-agreement analysis* (Watanabe 1994, 1996a, 1996b). In this section, we first overview the previous theories of NGC and then introduce our theory of genitive Case AGREE.

2.1. Miyagawa (1993): ECM/Raising Analysis

Miyagawa (1993), building on Bedell's (1972) insight, proposes the LF Case checking analysis, which argues that the genitive Case feature is checked by the external relative head D at LF.

(2)



Let us term this approach *ECM/Raising analysis* (cf. Miyagawa 1993, Ura 1993, Ochi 1999 among others). It should be noted that under this analysis, the genitive Case-feature checking by D can be regarded as an instance of

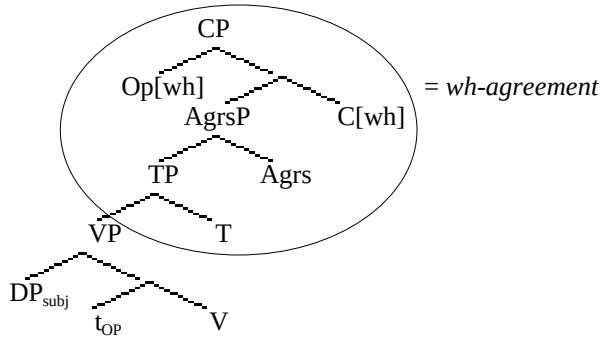
[1] A list of abbreviations used in this paper is as follows: NOM=nominative, ACC=accusative, DAT=dative, GEN=genitive, ERG=ergative, ABS=absolutive, LOC=locative, TOP=topic marker ADN=adnominal form, C=complementizer, COND= conditional form, CONJ=conjunctive, CPL=copula, FN=formal noun, FUT=future, IMP= imperative form, INF=infinitive, NML=nominalizer, PASS=passive, PRES=present, PST=past, Q=Q-particle, REL=relative marker.

ECM/Raising on parallel with the ECM construction in English.[2] One of the tenets of the approach is that the generalization is derived quite straightforwardly that NGC is limited to relative clauses and nominal constructions; only these structures have a D head to check the relevant genitive Case-feature.

2.2. Watanabe (1994, 1996a, 1996b): Wh-agreement Analysis

Watanabe (1994, 1996a, 1996b), on the other hand, proposes an intriguing alternative, in which the genitive Case-marking on the subject is a realization of *wh-agreement*, on a par with French stylistic inversion.

(3)



In (3) the operator movement triggers wh-agreement, which is argued to be responsible for NGC.

Let us term this approach *Wh-agreement analysis*. Watanabe's (1994, 1996a, 1996b) claim is that the distribution of both NGC and French stylistic inversion is limited to wh-agreement domains and argues that as a manifestation of wh-agreement on T and Agrs, their EPP-feature is lifted and therefore the subject remains in situ, taking a genitive-marking as a disguised form of nominative case-marking.

In the sections that follow, we will see that both approaches, despite their initial attractions, encounter serous empirical problems.[3]

2.3. Genitive Case AGREE: A New Theory of NGC

In this paper we propose the following mechanism of genitive Case AGREE, which is crucially independent of genitive Case checking by D.

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[2] See Ura (1993) for the hyper-raising analysis and Ochi (1999) for the ECM analysis of NGC.

[3] Watanabe's theory does not give any clear explanation why wh-agreement in Japanese manifests itself as overt genitive Case-marking on the subject. In this respect a radical (and undesirable) departure from standard assumptions of Case and agreement is forced. Furthermore as it is evident, the idea that EPP is lifted as a result of wh-agreement is inevitably counter-cyclic.

(4) *Genitive Case AGREE*
Genitive Case can be checked under an AGREE relation with the φ-feature of the C-T-V verbal head amalgamate, which is formed via AGREE.[4]

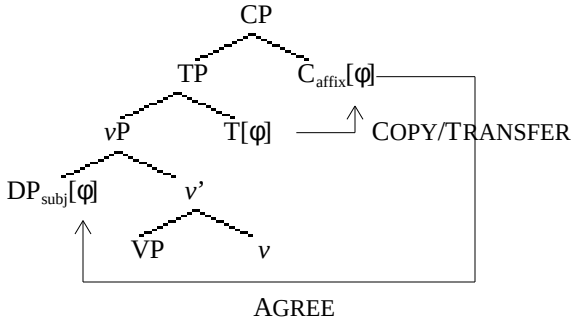
Under the framework of Case and agreement proposed in Chomsky (1999, 2000), there is no Case 'feature' as a syntactic object and structural Case is assumed to be a part of the single undifferentiated φ-feature (but cf. Ura 2000b). Therefore structural Case is regarded as a property of the probe in that the Case-value of DP is underspecified and it is only specified/assigned by the syntactic operation AGREE with a relevant φ-feature of the probe. Thus a DP gets 'nominative' Case if the matching probe is the φ-feature of T and 'accusative' Case if it is the φ-feature of *v*.[5]

Adopting Chomsky's (1999, 2000) theory of structural Case, we will propose the conjecture formulated in (5) that C universally has the ability to specify the structural Case as genitive.[6]

(5) C specifies/assigns the structural Case on DP as genitive.

More specifically, the relevant structure of NGC is assumed to be like in (6) below.

(6)



In this paper we propose that the verbal inflection in Japanese is formed by AGREE; thus in normal declarative sentences T always AGREEs with V (and *v*) to form tense and inflectional morphology on the verb. In the sections that follow, building on the insights of Kinsui (1995) and Kaplan and Whitman

[4] In this paper I leave it open whether the special inflection formation involves an actual syntactic head-'movement' or not. In the discussion below I propose an AGREE view of morphological merger (cf. Lasnik 1981, 1995). Also see Chomsky (1999) for the claim that head-movement is a PF process. I am grateful to Cédric Boeckx for suggestions and discussions.

[5] See Hale (1998) for some evidence from Pittapitta for a close correlation between the property of the probe and structural Case (i.e. T(ense) and nominative Case). According to Hale (1998) the language realizes the future tense on the nominative subject DP. See also Pesetsky and Torrego (2000) for some discussions on this point.

[6] For the abundant empirical evidence that C (i.e. the C-T-V amalgamate) has the ability of assigning structural genitive Case to DPs, see the rest of the discussion.

(1995), it is further argued that the relative clause in Japanese has a null C_{affix}, which is affixal, and that this affixal C is subject to a certain kind of the *Stranded Affix Filter* (cf. Lasnik 1981, 1995)[7] Thus in (5) the affixal C requires AGREE with the T-*v*-V to avoid stray affix.[8] Thus in the structure (6) the special verbal inflection is formed by the C-T-*v*-V amalgamate via AGREE.

With this much background, it is further proposed that the uninterpretable φ-feature of T can be 'copied/transferred onto' C as a result of this V-T-C AGREE, and the head amalgamate gets a single φ-feature as a whole ('FEATURE COPY/TRANSFER'). Now the transferred uninterpretable φ-feature of the C-T-*v*-V head amalgamate probes for the closest matching φ-feature in its c-commanding domain D(P), locating the relevant feature of DP_{subj} as a candidate, which results in MATCH and AGREE with the φ-feature of DP_{subj}. Consequently, this AGREE specifies the Case-value of the goal as genitive by (5).

A note on the 'FEATURE COPY/TRANSFER' is in order here. How is the wrong derivation excluded under our mechanism, in which the φ-feature on *v* is transferred onto T (and onto C in the end), thereby allowing some kind of genitive-accusative conversion? As we will see soon below, accusative-genitive conversion (AGC) is universally blocked. We suggest that this is due to the fact that *v*P as well as CP is a 'phase', but TP is not (cf. Chomsky 1999, 2000; cf. also Uriagereka 1999). Thus the uninterpretable probe φ-feature of *v* must be checked and erased by the completion of *v*P phase (cf. Chomsky 1999, 2000), which prevents any further transfer of the uninterpretable φ-feature, whereas the uninterpretable φ-feature of T, TP being not a phase, does not have to be checked before C is pure-merged with TP.[9][10]

The proposed theory brings two important consequences for the analysis of NGC. One is that it predicts that NGC is allowed in structures that lack wh-agreement (cf. Watanabe 1994, 1996a, 1996b) or a D head to check the genitive Case (cf. Miyagawa 1993, Ochi 1999). Section 3 shows with much empirical evidence that this prediction is indeed borne out and that therefore neither of the previous theories is tenable. The other important point is that the proposed theory argues that the probe φ-feature for nominative Case and the

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[7] As it will be shown later in this paper, Japanese is special in this respect; in other languages with NGC, the affixal C is realized morphophonologically. See Section 6.

[8] See also Kaplan and Whitman (1995). See Section 4 for more details of our theory.

[9] Or alternatively, even if it is possible to transfer the φ-feature on *v* onto T, the feature cannot assign accusative Case value to the subject DP, by 'tracking back' to the previous phase, given (i) in the 'derivation by phase' model proposed in Chomsky (1999, 2000).

(i) *Phase and Inertness* (Chomsky 2000:107)
The head of a phase is 'inert' after the phase is completed, triggering no further operations.

[10] In more intuitive terms, T-to-C head movement 'pied-pipes' T's features to C. See Pesetsky and Torrego (2000) for a similar proposal that C-to-T AGREE (T-to-C head movement) in English results in the movement of T feature onto C. The notion of FEATURE COPY/TRANSFER may be more compatible with the feature movement theory of Chomsky (1996). See also Lasnik (to appear) for the view that 'feature movement' exists on head-movement, whereas A-movement may not involve 'feature movement'.

one for genitive Case in NGC is the same single φ-feature, as opposed to the ECM/Raising theory, which argues that the probe for genitive Case is the φ-feature of the structurally higher D distinct from T. We will see in Section 4 that this property manifests itself as a fundamental difference in closeness and the Defective Intervention Constraint between the two constructions.

Another, but related, important claim of this paper is (7).

(7) The syntactic C-T-V head amalgamate formed via AGREE corresponds to the special verbal inflection *predicate adnominal form* (*the P-A form*).

Below we propose, building on the insight of Kinsui (1995), that the special verbal inflection in Japanese is composed of the C-T-V amalgamate. In Section 5 it is proposed that in fact (7) is part of the universal principle in relativization, and various evidence is presented.

In the next Section we first see the empirical superiority of our theory.[11]

3. Nominative-Genitive Conversion Revisited

This section first overviews general properties of NGC and introduces the long-standing descriptive generalization. Then we demonstrate, presenting a set of empirical counterevidence against the generalization, that a close examination reveals empirical inadequacies of the ECM/Raising analysis of NGC (see. Miyagawa 1993, Ochi 1999) and leads to a new generalization. It is shown that our new generalization is correctly explained by the theory of NGC proposed in the previous section.

3.1. General Properties of NGC

As we have briefly noted in Section 2, NGC is a construction in which the nominative subject optionally alternates with the genitive subject in certain structures, which has been observed in a very wide range of languages such as Japanese, Cuzco Quechua (cf. Lefebvre and Muysken 1988), Yaqui (Dedrick and Casad 1999), Wappo (Li and Thompson 1978), Chemehuevi (Press 1980), Nevome (Shaul 1986), Middle Korean (Jang 1995, Sohn 1998), Dagur (Hale and Ning 1996), Ken Hale (personal communication)), Modern Mongolian (Binnik 1979), many languages of the Turkic family such as Turkish (George and Kornfilt 1980), Kural 1993, Meltem Kelepir (personal communication)) and Uzbek (Boeschoten 1998), some languages of the Austronesian family such as Chamorro (Gibson 1980, Chung 1982) and Hawaiian (Hawkins 1979), some languages in the Australian family such as Kayardild (Nicholas 1995) and Lardil

[11] Another note is on the Inclusiveness Condition (cf. Chomsky 1995). It would be a radical violation of Inclusiveness Condition if one would have to introduce a new φ feature into the C-T-V head amalgamate at the stage of the derivation where the C-to-T AGREE has taken place. The 'feature transfer' mechanism combined with the Case and agreement theory proposed in Chomsky (1999, 2000) solves this problem. I thank Hiroyuki Ura for pointing out the problem to me.

(Norvin Richards (personal communication)) and some Tibeto-Burman languages such as Mishing (Miri) (Jackson T.-S. Sun (personal communication), Prasad 1991) and Apatani (Abraham 1985) just to list a few.[12]

As it has been pointed out repeatedly in the literature, NGC is allowed in relative clauses and nominal complements (cf. (8)-(12)).

(8) *Japanese*

a. Kinoo John **ga** katta hon
yesterday John-NOM buy-PST-ADN book
'the book which John bought yesterday'

b. Kinoo John **no** katta hon
yesterday John-GEN buy-PST-ADN book
'the book which John bought yesterday'

(9) *Japanese*

a. John wa [$_{CP}$ kinoo Mary **ga** kita koto/no]
John-TOP yesterday Mary-NOM come-PST-ADN FN/C
wo sira-nakatta
-ACC know-NOT-PST
'John didn't know that Mary came yesterday.'

b. John wa [$_{CP}$ kinoo Mary **no** kita koto/no]
John-TOP yesterday Mary-GEN come-PST-ADN FN/C
wo sira-nakat-ta
-ACC know-NOT-PST.
'John didn't know that Mary came yesterday.'

(10) *Cuzco Quechua* (Lefebvre and Muysken 1988) [13]

a. Runa-**ø** qulqi-ta qu-sqa-n warmi-man
man-NOM money-ACC give-NML-3 woman-to
chay-ta ni-pa-ni
that-ACC say-PST-1
'I said that to the woman to whom the man gave the money.'

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[12] Watanabe (1994, 1996a, 1996b) is the insightful precursor who first noted the interesting parallelism between Japanese and Chamorro NGC. See Watanabe (1996b) for detailed analysis of Chamorro NGC. I would like to thank Jackson T.-S. Sun for the data on Mishing and Tibetan languages. I am also grateful to Meltem Kelepir for providing me with Turkish data. See Section 5 for more extensive discussion on the cross-linguistic investigation of NGC. Needless to say I am solely responsible for any errors or misunderstanding on this point.

[13] Other dialects of Quechua such as Imbabura Quechua and Huallaga Quechua do not allow NGC.

b. Xwancha-**q** runa-ø/*ta riku-sqa -n wasi-ta
Juan-GEN man-OBJ/ACC see-NML-3 house-ACC
rura-n
build-3
'the man that Juan saw builds a house'

(11) *Turkish* (Meltem Kelepir (personal communication))
Dün Mary-**nin**/*ø bas-i-na koy-dig-u
yesterday Mary-3.GEN/NOM head-3.sg.POSS put-NML-3.sg.POSS
toko
hairclip
'the hairclip which Mary put on her head yesterday'

(12) *Chamorro* (Chung 1982)
In-kännu'i néngkanu' [ni f-in-ahan-**ña** si Mari gi.
Elp-eat the food C IN-buy-NML-her-POSS unm Maria loc
tenda
store
'We ate the food that Maria bought at the store.'

In contrast, NGC is strictly prohibited in matrix clauses (cf. (13) and in structures headed by an overt complementizer *to* and *ka*. (cf. (14)-(15)).

(13) *Japanese*
a. John **ga** kita.
John-NOM come-PST-END
'John came here.'

b. *John **no** kita.
John-GEN come-PST-END
'John came here.'

(14) *Japanese*
a. John wa [$_{CP}$ kinoo Mary **g**a kita to] sinjiteita
John-TOP yesterday Mary-NOM come-PST C believe-PST
'John believed that Mary came yesterday.'

b. *John wa [$_{CP}$ kinoo Mary **no** kita to] sinjiteita
John-TOP yesterday Mary-GEN come-PST C believe-PST
'John believed that Mary came yesterday.'

(15) *Japanese*
a. John wa [$_{CP}$ kinoo dare **ga** kita ka] tazuneta
John-TOP yesterday who-NOM come-PST C ask-PST
'John asked who came yesterday.'

b. *John wa [$_{CP}$ kinoo dare **no** kita ka] tazuneta.
John-TOP yesterday who-GEN come-PST C ask-PST
'John asked who came yesterday.'

A second property of NGC is that the accusative object never alternates with the genitive object as is shown in (16). [14]

(16) a. sono hon **wo** katta hito
the book-ACC buy-PST-ADN person
'the person who bought the book'

b. *sono hon **no** katta hito
the book-GEN buy-PST-ADN person
'the person who bought the book'

The third property is the presence of *Transitivity Restriction* (cf. Harada 1971, 1976, Shibatani 1978, Miyagawa 1993, Watanabe 1994, 1996a, 1996b among others). In Japanese, Cuzco Quechua and Chamorro, for example, the accusative Case-marked objects are prohibited when the subject is in the genitive Case, whereas Turkish does not show any transitivity restriction in NGC.

(17) *Japanese*
a. Kinoo John **ga** hon wo katta mise
yesterday John-NOM book-ACC buy-PST-ADN shop
'the shop where John bought books yesterday'

b. *Kinoo John **no** hon wo katta mise
yesterday John-GEN book-ACC buy-PST-AND shop
'the shop where John bought books yesterday'

c. *Kinoo hon wo$_i$ John **no** t$_i$ katta mise
yesterday book-ACC John-GEN buy-PST-ADN shop
'the shop where John bought books yesterday'

[14] It should be noted that accusative-genitive conversion is not attested in Turkish and Cuzco Quechua as well as various other languages (cf. Section 5). See Section 1.3. for the phase-based account for the universal absence of accusative-genitive conversion

(18) *Cuzco Quechua* (Lefebvre and Muysken 1988:118)[15]

a. Runa-**ø** qulqi-ta qu-sqa-n warmi-man
man-NOM money-ACC give-NML-3 woman-to
chay-ta ni-pa-ni
that-ACC say-PST-1
'I said that to the woman to whom the man gave the money.'

b. Xwancha-**q** runa-ø/*ta riku-sqa-n wasi-ta rura-n
Juan-GEN man-OBJ/ACC see-NML-3 house-ACC bulid-3
'the man that Juan saw builds a house'

(19) *Chamorro* (Chung 1982:64; cf. also Watanabe 1996b)
Na'i yu' ni häpbun ni pära fa'gase-**mmu**
give me obl soap C FUT wash-NML-your-POSS
ni/*ø kareta
OBL/ABS car
'Give me the soap which you will wash the car with.'

(20) *Turkish* (Meltem Kelepir (personal communication))
Düm John-**un** mektub-u yolla-dig-i adam
yesterday John-3.GEN letter-ACC send-NML-3.sg.POSS man
'the man who John sent a letter yesterday'

To conclude, the basic properties of NGC and its parametric variations are summarized as follows.[16]

(21)

	*in the matrix	*AGC	optionality	TR
Japanese	√	√	√	√
Cuzco Quechua	√	√	√	√
Chamorro	√	√	√	√
Turkish[17]	√	√	No	No

[15] Lefebvre and Muysken (1988) assumes that the unmarked Case-marking on the object in (18) is objective Case, not nominative Case. See Lefebvre and Muysken (1988) for the discussion. Another possibility is that the unmarked object undergoes some kind of incorporation into the verb, as has been suggested for Hindi (cf. Mohanan 1995). See Hiraiwa (1999b/in progress) for detailed discussions on TR. in various constructions. I am grateful to Akira Watanabe for pointing out the similarity with Hindi to me.

[16] Another important property of NGC in Japanese is that the genitive subject as well as the nominative subject shows perfect diagnostics of subjecthood such as reflexive binding, subject honorific agreement and subject control. See Ura (1993) for some relevant discussions.

[17] According to Boeschoten (1998), NGC in Uzbek is optional as in Japanese.

3.2. Empirical Problems

The descriptive generalization that NGC is only allowed in relative clauses and nominal complements has been considered to be indubitably true and has never been subjected to critical scrutiny. In this respect, Watanabe's (1994, 1996a, 1996b) hypothesis that NGC is allowed in wh-agreement domain is highly important and insightful. He points out that Comparative Deletion Construction, which involves an operator movement, allows NGC despite the lack of an external DP structure.

(22) *Japanese* (Watanabe 1996a:396)

a. John wa [Mary **ga** yonda yori] takusan no
John-TOP Mary-NOM read-PST-ADN than many-GEN
hon wo yonda
books-ACC read-PST
'John read more books than Mary did.'

b. John wa [Mary **no** yonda yori] takusan no
John-TOP Mary-GEN read-PST-ADN than many-GEN
hon wo yonda.
books-ACC read-PST
'John read more books than Mary did.'

The grammaticality of (22b) is totally unexpected, as Watanabe correctly points out, under the theory which assumes that the genitive Case feature is checked by D in NGC.

However, there are in fact a number of significant empirical counter-examples that are problematic for both the ECM/raising analysis and the wh-agreement analysis. Consider the Japanese data listed below.

(23) a. John wa [ame **ga** yamu made] office ni ita.
John-TOP rain-NOM stop-PRES-ADN until office-at be-PST.
'John was at his office until the rain stopped.'

b. John wa [ame **no** yamu made] office ni ita.
John-TOP rain-GEN stop-PRES-ADN until office-at be-PST.
'John was at his office until the rain stopped.'

(24) a. [Boku **ga** omou ni] John wa Mary ga
I-NOM think-PRES-ADN -DAT John-TOP Mary-NOM
suki-ni-tigainai
like-must-PRES
'I think that John likes Mary.'

b. [Boku **no** omou ni] John wa Mary ga -suki-ni tigainai.
I-GEN think-PRES-ADN -DAT John-TOP Mary-NOM like-must-PRES
'I think that John likes Mary.'

(25) a. [Sengetsu ikkai denwa **ga** atta kiri] John kara nanimo renraku ga nai.
last month once call-NOM be-PST-ADN since John-from any call-NOM be-not-PST
'There has been no call from John since he called me up once last month.'

b. [Sengetsu ikkai denwa **no** atta kiri] John kara nanimo renraku ga nai.
last month once call-GEN be-PST-ADN since John-from any call-NOM be-not-PRES
'There has been no call from John since he called me up once last month.'

(26) a. Kono atari-wa [hi **ga** kureru ni tsure(te)] hiekondekuru.
around-here-TOP sun-NOM go-down-PRES-ADN as colder-get-PRES
'It gets chillier as the sun goes down around here.'

b. Kono atari-wa [hi **no** kureru ni tsure(te)] hiekondekuru.
around-here-TOP sun-GEN go-down-PRES-ADN as colder-get-PRES
'It gets chillier as the sun goes down around here.'

(27) a. John wa [toki **ga** tatsu to tomoni] Mary no koto wo wasurete-itta.
John-TOP time-NOM pass-PRES-ADN with as Mary-GEN FN-ACC forget-go-PST
'Mary slipped out of John's memory as times went by.'

b. John wa [toki **no** tatsu to tomoni] Mary no koto wo wasurete-itta.
John-TOP time-GEN pass-PRES-ADN with as Mary-GEN FN-ACC forget-go-PST
'Mary slipped out of John's memory as times went by.'

(28) a. [John **ga** kuru to konai to]
John-NOM come-PRES-ADN and come-not-PRES-ADN and
de wa oochigai da.
-TOP great-difference be-PRES
'It makes a great difference whether John comes or not.'

b. [John **no** kuru to konai to]
John-GEN come-PRES-ADN and come-not-PRES-ADN and
de wa oochigai da.
-TOP great-difference be-PRES
'It makes a great difference whether John comes or not.'

Very significantly, NGC is allowed in (22)-(28) despite the fact that neither D nor wh-agreement can be assumed to be present in these structures. Note that no involvement of wh-agreement has been attested in the derivations above so far in the literature. Furthermore, (29) confirms the lack of D in the relevant embedded clauses in (22)-(28).[18]

(29) a. ***sono** *yori* / ***sono** *made* / ***sono** *ni* / ***sono** *kiri* /
it(GEN)-than it (GEN)-until it(GEN)-DAT it(GEN)-since
***sono** *to*
it(GEN)-with

b. **sore** *yori* / **sore** *made* / **sore** *ni* / **sore** *kiri* / sore *to*
it-than it-until it-DAT it-since it-with

None of the italicized elements that head CPs in (22)-(28) can take the genitive form of the pronoun *sono* but select the full DP form *sore*, which explicitly excludes the possibility that these P(reposition)-like elements check the genitive Case.

Other structures that lack a D head but allow nominative-genitive conversion in Japanese are Cleft Construction and Head-internal Relative Clause (HIRC), which are illustrated in (30) and (31), respectively.[19]

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[18] The exact category of the elements which head the CP's in (22)-(28) is of no concern here. We assume tentatively that they are P's for expository purposes, which does not affect our discussion below.

[19] Kuroda (1974-77) and Ito (1986) argue that NGC is impossible in HIRC. More precisely, Kuroda claims that the cases in which NGC is apparently allowed in HIRC should be treated as a different type of relative clause (*No-relatives* in his terms) such as (i).

(i) John ga [ringo no yoku ureta no] wo eranda
John-NOM apple-GEN good ripe-PRES-ADN -NML-ACC select-PST
'John selected the apple which is good and ripe.'

However, his statement is only partially true. It should be noted that in No-relative the genitive marked must be placed at initial position obligatorily and hence (ii) is ungrammatical.

(30) a. John **ga** sikar-are-ta no wa Mary ni da.
John-NOM scold-PASS-PST-ADN C -TOP Mary-DAT CPL
'It is by Mary that John was scolded.'

b. John **no** sikar-are-ta no wa Mary ni da
John-GEN scold-PASS-PST-ADN C -TOP Mary-DAT CPL
'It is by Mary that John was scolded.'

(31) a. John ga [sara no ue ni ringo **ga** oiteatta no]
John-NOM plate-GEN on-DAT apple-NOM put-PST-ADN C
wo katteni tabeta
-ACC without-permission eat-PST.
'John ate an apple, which was on the plate.'

b. John ga [sara no ue ni ringo **no** oiteatta no
John-NOM plate-GEN on-DAT apple-GEN put-PST-ADN C
wo katteni tabeta
-ACC without-permission eat-PST.
'John ate an apple, which was on the plate.'

It is well known that HIRC in Japanese does not allow modification by a genitive or an adjective phrase, unlike normal head-external relative clause (HERC) (cf. Kuroda 1999)

(32) a. John ga [sara no ue ni *takusan no* ringo ga
John-NOM plate-GEN on-DAT many-GEN apple-NOM

(ii) *John ga [yoku ringo no ureta no] wo eranda
John-NOM good apple-GEN ripe-PRES-ADN NML-ACC select-PST
John selected the apple which is good and ripe.'

Another important difference between HIRC and *No*-relative is that the latter obtains a restrictive interpretation, whereas the former has only non-restrictive interpretation.

Now returning to (30) and (31), it is important to note that the examples allow the genitive subject to be at the non-initial position and that they only have a non-restrictive interpretation, which strongly shows that they are not a *No*-relative, but an instance of genuine nominative-genitive conversion in HIRC.

It is very important to note that the grammaticality of NGC in HIRC also reveals a problem of Watanabe's (1994, 1996a, 1996b) theory of NGC. Watanabe argues that *wh-agreement* has a strong tendency to manifest itself only if the whole wh-phrase is moved. Thus he claims that NGC is impossible in the matrix clause wh-question in Japanese, because what is moved in this language is not the whole wh-phrase but a null wh-operator.

(iii) Dare **ga/*no** kimasita ka?
who-NOM/GEN came-END Q
'Who came?'

But this account clearly cannot predict the grammaticality of NGC in HIRC, since again what is moved is not the whole internal relative head but a null operator.

As we will see soon below, our theory of NGC correctly explain all the cases.

oiteatta no] wo katteni tabeta.
put-PST-ADN C -ACC without-permission eat-PST.
'John ate many apples, which was on the plate.'

b. *John ga *takusan no* [sara no ue ni ringo ga
John-NOM many-GEN plate-GEN on-DAT apple-NOM
oiteatta no] wo katteni tabeta.
put-PST-ADN C -ACC without-permission eat-PST.
'John ate many apples, which was on the plate.'

Again, this indicates that HIRC in Japanese lacks an external D head to check the genitive Case, which supports our claim that checking of the genitive Case in NGC has nothing to do with D.

It should be noted that Turkish and Cuzco Quechua also provide a cross-linguistic evidence for the claim that NGC is not contingent on the existence of the external D head either.

(33) *Turkish* (Kornfilt 1987:640)
[Ahmed-**in** ben-i sev+dig-in]-i
[Ahmed-3.GEN I-ACC love-NML-3.sg.POSS]-ACC
bil-iyor-um 1.sg
know-PRES.prog
'I know that Ahmed loves me.'

(34) *Cuzco Quechua* (Lefebvre and Muysken 1988:119)
Kay warmi-**q** qusa-n-ø maqa-sqa-n-ta yacha-ra-nk-chu
this woman-GEN husband-3-OBJ beat-NML-3-ACC know-PST-2-Q
'Did you know that this woman beat her husband?'

Thus these facts clearly show serious empirical inadequacies of both Miyagawa's (1993) and Watanabe's (1994, 1996a, 1996b) theories, which incorrectly predict that NGC is impossible in the relevant structures.

3.3. A New Descriptive Generalization

A close examination reveals a very interesting generalization that lies behind the distributional property of NGC in Japanese given above. It should be noted that all the structures that allow the case conversion are headed by verbs with a special verbal inflectional morphology (which has been termed *Rentai-kei* (the predicate adnominal form) in the traditional Japanese linguistics). This leads us to the following descriptive generalization.[20]

(35) *The Descriptive Generalization to NGC in Japanese*
NGC in Japanese is only licensed by the special verbal inflection *predicate adnominal form* (*the P-A form*).

[20] See Watanabe (1996:404) footnote 22 for some speculations in this vein.

It is sometimes difficult to observe the validity of (35) in Modern Japanese due to the well-known phonological merger of the end form into the P-A form, which took place around the 13th century (see Kinsui 1995 among others). But fortunately the so-called verbal adjective and copula, which still retain the relevant morphophonological distinction, confirm our claim. The end form *da* is morphologically realized as *na* in relative clauses and nominal complements as illustrated in (36).

(36) a John ga suki-**na** ongaku wa blues da
John-NOM like-PRES-ADN music-TOP blues be-PRES
'The music that John likes is the Blues.'

b. John ga onkoo-**na** koto / no wa
John-NOM gentle-PRES-AND FN/C-TOP
yuumei da.
well-known-be-PRES
'It is well-known that John is gentle.'

Note that the P-A form in Japanese takes *na* not *da* in the relative clause and in the nominal complement, whereas the end form *da* appears in the matrix clause.

This diagnostic test reveals that the verbal inflection in (22)-(28) is the P-A form.

(37) a. John no koto ga simpai-**na** yori mo,
John-GEN thing-NOM worried-PRES-ADN than
Mary ga simpai da.
Mary-NOM be-worried-PRES.
'I am worried about Mary rather than about John.'

b. John wa ijou-**na** made ni sinkeisitsu da
John-TOP extraordinary-ADN extent to nervous-PRES
'John was extraordinarily nervous.'

This generalization is correctly borne out by the ungrammaticality of NGC in the clauses with other verbal inflectional forms. Consider the examples below. As (38) shows explicitly, the complementizers *to* [-Q] and *ka* [+Q] in Japanese select the end form as their complements and hence NGC is ungrammatical as we have already seen in (13)-(14) above.[21]

[21] One systematic counterexample comes from highly grammaticalized constructions like *noda*/*noni*/*node*, where NGC is disallowed in spite of the presence of the special verbal inflection, though the problem is not so serious as it appears. See Hiraiwa (1999a, 2000c) for discussions on this point.

(38) a. John wa class de Mary **ga**/*__no__ ichiban kirei-**da** to
John-TOP class in Mary-NOM/*GEN most beautiful-END C
omotta
think-PST
'John thought that Mary was the most beautiful in the class.'

b. John wa class de dare **ga**/*__no__ ichiban kirei-**da** ka
John wa class in who-NOM/*GEN most beautiful-END C
tazuneta
ask-PST
'John doesn't know who is the most beautiful in the class.'

In support of (35) it is interesting to note that the rest of the verbal inflection forms do not allow NGC either, as it is shown in (39).

(39) a. [Dare **ga**/*__no__ ki**te** mo] kamaimasen.
[whoever-NOM/GEN come-COND even-if] care-not-PRES.
'I don't care whoever will come.'

b. [John **ga**/*__no__ ku**reba**] minna yorokobuyo
[John-NOM/GEN come-COND everyone be-pleased-PRES
'Everyone will be delighted if John comes.'

c. Omae **ga**/*__no__ **koi**!
you-NOM/GEN come-IMP
'(You) Come here!'

The generalization (35) in fact holds of other languages with NGC, as it is now clear (see Cuzco Quechua, Turkish and Chamorro in Section 3.1.). Hence we restate (35) here as a cross-linguistic generalization.

(40) *The Cross-linguistic Generalization to NGC*
NGC is only licensed by the special verbal inflection predicate adnominal form (the P-A form).

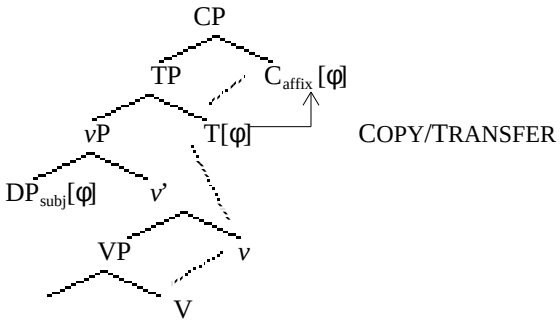
3.4. The Special Verbal Inflection as C-T-V AGREE

To explain the generalization (40), we propose the following hypothesis.

(41) The syntactic C-T-V head amalgamate formed via AGREE corresponds to the special verbal inflection predicate adnominal form (*the P-A form*).

If this is proven to be true, as it will be in fact shown to be in Section 5, the mechanism of NGC can represented as (42), capturing our new descriptive generalization (41).

(42)



In (42) each head AGREEs derivationally; *v* AGREEs with V, with which T enters into an AGREE relation. Now at the step of the derivation where C_{affix} is merged with the TP, C_{affix} requires AGREE with T-*v*-V, spelling out the special verbal inflectional PF form (i.e. the P-A form). As we have argued in Section 1.3., the φ-feature of T is transferred onto C as a result of this C-T-*v*-V AGREE; thus genitive Case checking becomes available in (42) by our mechanism (5). If there is no C-T-*v*-V AGREE due to the lack of C_{affix} , the verb remains as *end form* (i.e. only T-*v*-V AGREE obtains). Thus under the present theory, the correlation between NGC and the special verbal inflection (C-T-*v*-V AGREE) is naturally captured.

3.5. Interim Summary

To summarize the discussion so far, we have seen fundamental empirical problems of the previous approaches to NGC and shown that NGC is crucially independent of the presence of D or wh-agreement, contra the previous claims. Thus a new generalization has been presented that the P-A form is the real trigger for genitive Case checking in NGC. This generalization has been shown to hold even cross-linguistically. Two mechanisms have been proposed, *C-T-V amalgamation* and *Genitive Case AGREE;*. the former reduces the morphological P-A form to a syntactic head-amalgamation via AGREE, and the latter captures the genitive Case checking in NGC as an AGREE by the φ-feature on T. We have shown that the full range of empirical data of NGC falls within a scope of the proposed theory.

In the sections that follow, we will see further evidence and motivations for our proposed theory of NGC from various perspectives.

4. Against ECM/Raising: Closeness and MULTIPLE AGREE

In this section, we will present three further empirical arguments against the ECM/Raising analysis: absence of defective intervention effects, grammatical functions and possessive/genitive agreement in NGC.

4.1. NGC and the Defective Intervention Constraint

We first show that NGC exhibits a crucial difference from an ECM/ Raising construction: the former does not trigger any defective intervention effects, whereas the latter does. It is demonstrated that this is a crucial empirical evidence against the ECM/Raising theory of NGC, in favor of our proposed theory.

4.1.1. Hiraiwa (2000b): MULTIPLE AGREE

Chomsky (1999, 2000) introduces the mechanism AGREE as a sophistication of Chomsky's (1995) ATTRACT, which dispenses with feature/category movement in feature-checking. Under the new probe-goal theory of AGREE, uninterpretable structural Case on the goal DP is part of an undifferentiated φ-feature and it is deleted/erased by AGREE with a probe φ-feature, which 'specifies' the Case-value of the structural Case on DP, reflecting the properties of the probes. Chomsky (1999, 2000) also proposes that uninterpretable features of the probe and the goal render them 'active' in the sense that only the presence of them induce AGREE. Thus once the AGREE relation has been established between the probe and the goal, the uninterpretable structural Case of the goal deletes, which makes it 'inactive' for further AGREE relation and 'frozen in place'.

He further proposes that the closeness is defined strictly in terms of c-command; thus the syntactic operation AGREE is subject to the strict closeness condition according to which the structurally higher 'inactive' goal feature β always prevents the probe α from entering into AGREE relation with the goal feature γ c-commanded by β, which he calls the *Defective Intervention Constraint* (cf. Chomsky 2000:123).[22]

(43) *The Defective Intervention Constraint* (Chomsky 2000:123)
α > β > γ
(*AGREE (α, γ), where > is c-command and β is inactive due to a prior AGREE with some other probe)

On the other hand Chomsky (1999:22) proposes that equidistance in terms of minimal domain should be eliminated. One of the important corollaries of this proposal, as he notes, is that multiple specifiers are no longer considered to be equidistant (cf. Chomsky 1999, Richards 1999, Pesetsky and Torrego 2000, Hiraiwa 2000a for extensive discussions on this point). Hiraiwa (2000b) demonstrates, however, that if this conceptual move is on the right track, then the theory of AGREE runs into a problem in the case of multiple AGREE without MOVE (i.e. covert multiple feature-checking in Ura 1996). For example, consider the raising construction in Japanese exemplified in (44).

[22] See also Boeckx (2000), Ura 2000 for its application to the raising construction in Icelandic and various other languages.

(44) *Japanese* (Hiraiwa 2000b)
John ni(wa) [yosouijouni nihonjin **ga** eigo **ga** hido*ku*] kanjita/omoweta.
John-DAT than-expected the Japanese-NOM English-NOM bad-INF think-PST
'It seemed to John that the Japanese are bad at English than he had expected.'

Given the well-established generalization that infinitivals in Japanese cannot check nominative Case (cf. Takezawa 1987, Ura 2000b), the source for the nominative Cases in the embedded clause in (44) is obviously the matrix T. However, under Chomsky's (2000) system, at the point of the derivation where the T enter into an AGREE relation with the embedded subject DP and deletes its structural Case, the derivation should freeze up due to defective intervention effects yielded by the higher nominative goal, blocking any further AGREE between the T and the lower goal, which is clearly a wrong consequence[23].

I propose a new theory of multiple feature-checking MULTIPLE AGREE (45) as an alternative to multiple applications of AGREE.

(45) MULTIPLE AGREE (cf. Hiraiwa 2000a, 2000b)
Multiple Agree is a single syntactic operation that applies to all the matched goals *derivationally simultaneously*.

More specifically, I argue that in the multiple feature-checking configuration (46) the probe first MACTCHes with the closest candidate β but does not result in AGREE immediately; rather the probe α, being [+multiple] continues its search for the next closest matching goal and MACTCHes with the γ and AGREE applies *simultaneously* only after all the matching goals are MATCHed up, triggering no defective intervention effects.

(46) MULTIPLE AGREE as a single simultaneous operation
α > β > γ
(AGREE (α, β, γ), where α is a probe and both β and γ are matching goals for α.)

The most important consequence of our theory of MULTIPLE AGREE is that the Defective Intervention Constraint in (43) obtains only when the probes for β and γ are derivationally distinct; in other words, only when AGREE is established at different points of the derivation. In the discussion below, we will show the theory of MULTIPLE AGREE reveals a fundamental asymmetry between the ECM/Raising construction and NGC, which constitutes a strong evidence against Miyagawa (1993) and Ochi (1999).

[23] The same reasoning holds of the double object construction in Icelandic (cf. Richards 1999), multiple wh-construction in wh-in-situ languages etc. and raising construction in Japanese. See Hiraiwa (2000a, 2000b) for extensive discussions.

4.1.2. Defective Intervention Constraint in the ECM/Raising Construction

One construction in which defective intervention effects are incurred is the ECM/Raising construction in Japanese.

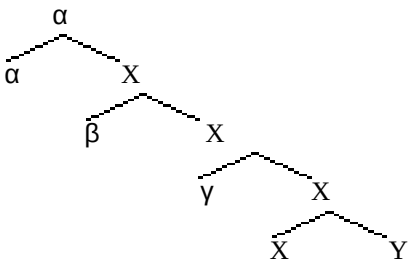
(47) *Japanese*

a. John ga Mary **ga** totemo kawii to omotta.
John-NOM Mary-NOM very pretty-PRES C think-PST
'John considered Mary to be very pretty.'

b. John ga Mary **wo** totemo kawii to omotta.
John-NOM Mary-ACC very pretty-PRES C think-PST
'John considered Mary to be very pretty.'

Hiraiwa (2000a), drawing on cross-linguistic evidence from various constructions, shows that in a multiple specifier configuration, the AGREE relation between the probe α and the goal γ in the inner multiple specifier over the goal β in the outer multiple specifier is strictly prohibited and argues that multiple specifiers in fact cannot not be equidistant in terms of a higher probe α.

(48)



(order irrelevant)

One of the crucial evidence for this comes from ECM in possessor-raising construction and nominative object construction in Japanese and Korean. (49) and (50) show that covert ECM/raising in the possessor-raising construction can apply only to the higher element in the multiple specifiers.[24]

[24] Cédric Boeckx (personal communication) suggested to me that our theory of C may be able to derive a phase; both C and *v* has uninterpretable features, which trigger Spell-Out. Extending his insight, given the unquestionable existence of covert ECM (and covert superraising cf. Ura 1994) across the CP in Japanese and Korean, I tentatively propose that a CP counts as a phase if and only if the C enters into some AGREE relation in the derivation. In other words, only CPs in relative clauses and wh-question, but not CPs headed by normal overt complementizers such as *to* and *toiu*, function as a phase in these languages. See Kural (1993) for evidence from the ECM construction in Turkish. See Hiraiwa (2000a, 2000b) for extensive discussions on related issues. I thank Cédric Boeckx for discussions.

(49) *Japanese*

a. Mary ga [John **ga** se **ga** takai to] sinjite-iru
Mary-NOM John-NOM height-NOM high-PRES C believed
'Mary believed that John is tall.'

b. Mary ga [John **wo** se **ga** takai to] sinjite-iru
Mary-NOM John-ACC height-NOM hight-PRES C believed
'Mary believed that John is tall.'

c. *Mary ga [John **ga** se **wo** takai to] sinjite-iru
Mary-NOM John-NOM height-ACC high-PRES C believed
'Mary believed that John is tall.'

(50) *Korean* (Schütze 1997; also cf. Baek 1997)

a. Na-num Swunhi-**ka** sonkalak-**i** kilta-ko sayngkakhanta.
I-TOP Swunhi-NOM finger-NOM long-C think
'I think that Swunhi's finger is long.'

b. Na-num Swunhi-**lul** sonkalak-**i** kilta-ko sayngkakhanta.
I-TOP Swunhi-ACC finger-NOM long-C think
'I think that Swunhi's finger is long.'

c. *Na-num Swunhi-**ka** sonkalak-**ul** kilta-ko sayngkakhanta.
I-TOP Swunhi-NOM finger-ACC long-C think
'I think that Swunhi's finger is long.'

The same holds of covert ECM/Raising in Nominative Object Construction (NOC) in Japanese (cf. also Baek 1997 for Korean).

(51) *Japanese*
John ga nihongo **ga**/***wo** dekiru
John-NOM Japanese-NOM/*ACC do-can-PRES
'John can speak Japanese.'

(52) *Japanese*

a. Mary wa [John **ga** nihongo **ga** dekiru to]
Mary-TOP John-NOM Japanese-NOM do-can-PRES C
sinjite-ita
believe-PST
'the reason why John can speak Japanese'

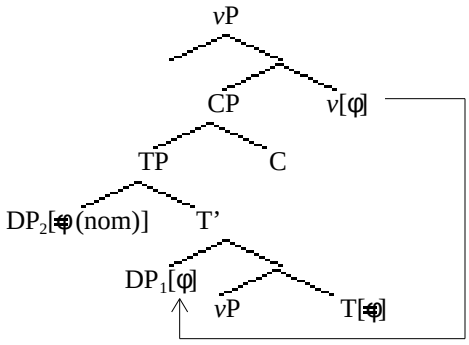
b. Mary wa [John **wo** nihongo **ga** dekiru to]
Mary-TOP John-ACC Japanese-NOM do-can-PRES C
sinjite-ita
believe-PST
'the reason why John can speak Japanese.'

c. *Mary wa [John **ga** nihongo **wo** dekiru to]
Mary-TOP John-NOM Japanese-ACC do-can-PRES C
sinjite-ita
believe-PST
'the reason why John can speak Japanese.'

As (51) indicates, the stative predicate *dekiru* in Japanese cannot take an accusative object. (52a) and (52b) show that Japanese allows the nominative subject to be marked accusative when it is embedded under ECM verbs via ECM/raising. However, it should be noted that as (52c) shows, ECM/raising of the nominative object over the nominative subject is impossible.

In Hiraiwa (2000a, 2000b), it is proposed that (49c), (50c) and (52c) are explained as an instance of a violation of closeness in AGREE; the Defective Intervention Constraint (43). The illicit examples are excluded since the AGREE between the probe matrix v_{φ} and the goal φ-feature of the DP in the inner specifier is blocked by the closer inactive goal φ-feature of the DP in the outer specifier by (43), as expected under the assumption that the multiple TP-specifiers are not equidistant from the probe φ-feature of the possessor DP_2.[25][26]

(53)



[25] The element in the outer specifier c-commands the element in the inner specifier and hence counts as closer to the probe. Note that the assumption that multiple specifiers are equidistant leads to the wrong prediction that in (48) the AGREE relation between the probe v and the DP in the inner specifier of *v*P should be possible, because the DP in the upper specifier and the DP in the lower specifier are equidistant (since they are in the same minimal domain) and therefore the former triggers no defective intervention effects. See Hiraiwa (2000a, 2000b) for much detailed discussion.

[26] See Hiraiwa (2000a) for a detailed discussion against closeness in multiple specifiers, where much cross-linguistic evidence is given from various languages and constructions.

4.1.3. Nominative-Genitive Conversion as MULTIPLE AGREE

Now returning to the case of NGC, if Miyagawa/Ochi's ECM/Raising analysis is correct, it should be predicted that the very same kind of closeness violation prohibits the ECM/Raising of the DP in the inner specifier in NGC. However, very interestingly this prediction is not borne out. Miyagawa (1993:229) originally observes that nominative objects can undergo the nominative-genitive conversion, allowing all the four logical possibilities that are illustrated in (54) (cf. also Ochi 1999). It is also observed in the nominative-genitive conversion in the possessor-raising construction as it is shown in (55).

(54) *Japanese*

a. Totemo yoku John **ga** nihongo **ga** dekiru
very well John-NOM Japanese-NOM do-can-PRES-ADN
riyuu
reason
'the reason why John can speak Japanese very well' [NOM-NOM]

b. Totemo yoku John **no** nihongo **ga** dekiru
very well John-GEN Japanese-NOM do-can-PRES-AND
riyuu
reason
'the reason why John can speak Japanese very well' [GEN-NOM]

c. Totemo yoku John **ga** nihongo **no** dekiru
very well John-NOM Japanese-GEN do-can-PRES-AND
riyuu
reason
'the reason why John can speak Japanese very well' [NOM-GEN]

d. Totemo yoku John **no** nihongo **no** dekiru
very well John-GEN Japanese-GEN do-can-ADN
riyuu
reason
'the reason why John can speak Japanese very well' [GEN-GEN]

(55) *Japanese*

a. John **ga** se **ga** takai riyuu
John-NOM height-NOM high-PRES-ADN reason
'the reason why John is so tall' [NOM-NOM]

b. John **no** se **ga** takai riyuu
John-GEN height-NOM high-PRES-ADN reason
'the reason why John is so tall' [GEN-NOM]

c. John **ga** se **no** takai riyuu
John-NOM height-GEN high-PRES-ADN reason
'the reason why John is so tall' [NOM-GEN]

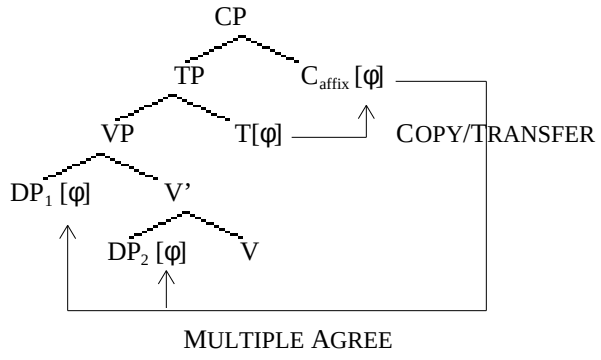
d. John **no** se **no** takai riyuu
John-GEN height-GEN high-PRES-ADN reason
'the reason why John is so tall' [GEN-GEN]

As shown in (54) and (55), the nominative object and the possessee DP can take genitive Case without any defective intervention effects, even though the subject in the outer specifier of TP has nominative Case. However, Miyagawa & Ochi's ECM/Raising analysis cannot explain the grammaticality (54c) and (55c); their theory wrongly predicts that the AGREE between the probe D_{φ} and the goal φ-feature of the lower DP is prohibited due to the intervention of the closer inactive goal φ-feature of the higher DP, assuming that structural Case (nominative, accusative and genitive) is a reflex of φ-feature AGREE (Chomsky 2000). This strongly indicates that NGC never has an ECM/raising structure, contra Miyagawa-Ochi's claim.

It should be noted that the grammaticality in (54) and (55) is exactly what our proposed theory predicts; the genitive Case on the DP is not a result of AGREE by D; rather, it is checked by the same unique φ-feature on the C-T-V amalgamate *simultaneously*. In other words, there is no structural difference between the probe for the genitive Case and the probe for the nominative Case and hence no defective intervention effects. Under our theory the probe φ-feature in (54) and (55) is a single unique [+multiple] feature, transferred from T to C via C-T-V AGREE and therefore AGREE between the probe and the relevant feature of the goal in the outer specifier does not block an establishment of a further AGREE relation with the goal in the inner specifier, just as the first nominative argument does not prevent the second nominative argument in multiple nominative construction (e.g. (49a) and (50a)).[27]

Let us take a closer look at the derivation of (54c) and (55c) under the mechanism of MULTIPLE AGREE.

(56)



[27] In the same fashion, MULTIPLE MOVE is a single operation that attracts all the matching goals simultaneously. See Hiraiwa (2000a, 2000b) for extensive discussions on the mechanism of simultaneous MULTIPLE AGREE/MOVE and its applications to various constructions.

In (56) the φ-feature of the probe C_{φ} searches its closest φ-feature in its c-command domain and MATCHes with the φ-feature of DP_1 first. Then the feature, being [+multiple], probes for the next closest goal, Matching with the φ-feature of DP_2. At this point the probe enters into AGREE with the matching features of the goals *simultaneously*, deleting the goals' uninterpretable structural Case. As a result of this MULTIPLE AGREE, the values of each structural Case of the goals are specified, reflecting the property of the probe (cf. Chomsky 1999, 2000); in (56) the probe uninterpretable φ-feature has the property of C as well as T as a result of FEATURE COPY/TRANSFER. Thus it can assign not only nominative Case value but also genitive Case value (cf. (5)) to the goals, deriving four surface possibilities *NOM-NOM, GEN-NOM, NOM-GEN*, and *GEN-GEN* (cf. (54) and (55)).

It is very important to note here that MULTIPLE AGREE by a single probe feature does not trigger any defective intervention effects, since both DP_1 and DP_2 AGREE with the same probe feature *derivationally simultaneously*; in other words, AGREE with the multiple goals is established at the same point of the derivation. Thus we have seen that the data from MULTIPLE AGREE convincingly show the non-existence of ECM/raising in NGC (and hence irrelevance of genitive Case checking by D) and that the proposed Case and agreement theory can provide a principled account for the facts.

4.2. Grammatical Functions in NGC in Japanese

In this section we will demonstrate that the genitive subject in NGC in Japanese has genuine subject properties in terms of such subjecthood diagnostic tests as *subject control* and *subject honorific agreement* proposed in Ura (1996, 2000). First the genitive subject in NGC can control.

(57) a. Kinoo John **ga** [PRO naki-nagara] kaettekita
yesterday John-NOM cry-INF-while come-home-PST-ADN
riyuu
reason
'the reason why John came home crying'

b. Kinoo John **no** [PRO naki-nagara] kaettekita
yesterday John-GEN cry-INF-while come-home-PST-ADN
riyuu
reason
'the reason why John came home crying'

Second, as Ura (1993) notes, the genitive subject can trigger subject honorific agreement just as the nominative subject can.

(58) a. Kinoo Yamada-sensei **ga** **o**-kai-**ni-natta** hon
yesterday Yamada-teacher-NOM H-buy-PST-ADN book
'the book which Teacher Yamada bought yesterday'

b. Kinoo Yamada-sensei **no** **o**-kai-**ni-natta** hon
yesterday Yamada-teacher-GEN H-buy-PST-ADN book
'the book which Teacher Yamada bought yesterday'

Adopting Ura's (1996, 2000a) claim that subject control and subject honorific agreement are firm indications of φ-feature checking on T, (57) and (58) are important in two ways; in NGC, AGREE occurs between a probe φ-feature and a goal within embedded CPs (cf. Ura 1993) and the genitive Case in NGC is not an inherent Case.[28] Note that this is exactly what our theory claims; under our mechanism of NGC the φ-feature on C (copied from T) enters into an AGREE relation with a goal DP, realizing the surface nominative-genitive conversion.

In this section we have provided evidence in support of our theory of genitive Case AGREE and shown that φ-feature agreement (and hence determination of structural Case) is executed crucially within CP.

4.3. Case and Agreement in Turkish and Cuzco Quechua

In this section we will present further evidence from Turkish and Cuzco Quechua in support of our proposal of the genitive Case checking by the C-T-V head amalgamate.

In Turkish, the genitive possessor argument obligatorily agrees with the possessee DP as in (59) (cf. George and Kornfilt 1980).[29]

(59) *Turkish*
Mary-**nin** bas-**I**
Mary-3.GEN head-3.sg.POSS
'Mary's head'

In (59) the possessee DP *bas* takes the 3 person singular possessive suffix *I*, agreeing with the genitive possessor *Mary-nim*.

Interestingly, this nominal agreement appears in NGC as well (cf. George and Kornfilt 1980). Of great importance is the fact that the possessive agreement appears on the verb, not on the head noun DP. (60) and (61) show that the possessive agreement necessarily appears on the verbal complex irrespective of the existence of D head.

(60) *Turkish* (Meltem Kelepir (personal communication))
a. Dün Mary-**nin** bas-i-na koy-dig-***u***
yesterday Mary-3.GEN head-3.sg.POSS put-NML-3.sg.POSS
toko
hairclip
'the hairclip which Mary put her on her head yesterday'

[28] Recall Section 4.1.3. for further evidence from defective intervention effects for structural genitive Case in NGC.

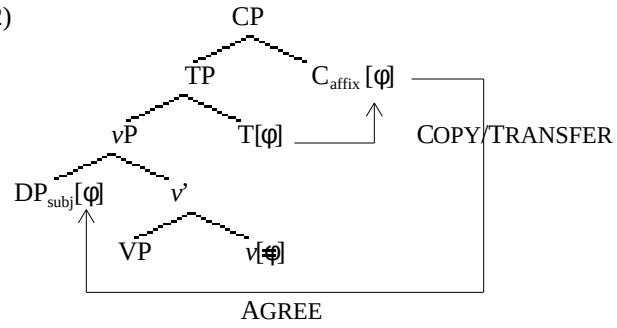
[29] I am very grateful to Meltem Kelepir for providing me with the Turkish data. Needless to say, I am solely responsible for any errors and misunderstanding.

b. Düm John-**un** mektub-u yolla-dig-***i*** adam
yesterday John-3.GEN letter-ACC send-NML-3.sg.POSS man
'the man who John sent a letter yesterday'

(61) *Turkish* (Kornfilt 1987:640)
[Ahmed-**in** ben-i sev+dig-***in***]-i
[Ahmed-3.gen I-ACC love-NML-3.sg.POSS]-ACC
bil-iyor-um
know-PRES.prog.-1.sg
'I know that Ahmed loves me.'

This suggests that the genitive subject is in AGREE relation with the C-T-V head amalgamate, not with the D head outside the relative clause. In other words, under the mechanisms of Case and agreement proposed in Chomsky (1999, 2000), the φ-feature of the probe (the transferred φ-feature on C) enters into an AGREE relation with the φ-feature of the goal *John-un*, specifying the Case-value of the goal as genitive and at the same time spelling out the possessive agreement on its own.

(62)



Thus the agreement facts in Turkish NGC not only argue against the ECM/raising analysis but also give a strong evidence for our theory of genitive Case AGREE.[30]

Cuzco Quechua is also revealing in this point. This language also shows subject person agreement with the verb (cf. Lefebvre and Muysken 1988). Interestingly, in nominalized clauses the subject person agreement is *nominal*, the same as the one that appears in nominals.

[30] Hale and Ning (1996) and Ken Hale (personal communication) show that the opposite is attested in Dagur; in the language the genitive subject agrees with the head DP in the relative clause, whereas the possessive agreement appears on the verb in the headless structure. At this point I have no answer to this and I have to leave the issue for the future research.

(63) *Cuzco Quechua* (Lefebvre and Muysken 1988)

a. wawa-***y***
child-1
'my child'

b. runa-**q** qulqui-ø qu-sqa-***n*** warmi-man
man-GEN money-(ACC) give-NML-3 woman-to
'the woman to whom the man gave the money'

There are two points to be noted; first, the person agreement morphology appears on the verb with the nominalizing suffix. Second, more importantly, the genitive subject in (63b) does not show agreement with the relative head noun of the relative clause *warmi*, in contrast with (63a). Both of these facts prove our claim that the φ-feature of the genitive subject AGREEs with the φ-feature on C, not with the external D head.[31]

To recapitulate the discussion in this section, it has been shown that contra the claim by Miyagawa (1993) and Ochi (1999), NGC does not exhibit an ECM/Raising diagnostics in terms of closeness and the Defective Intervention Constraint in AGREE, and that our proposed theory of genitive Case AGREE correctly captures the lack of defective intervention effects in NGC. We have also demonstrated that Case and agreement in Turkish gives further support for our claim that genitive Case is checked by the verbal amalgamate, not by D.[32]

5. Syntax of C^{o}

So far we have proposed, building on the insight of Kinsui (1995), that the special verbal inflection (the P-A form) is syntactically formed by C-T-V AGREE. (64) summarizes this mechanism.

(64) The special verbal inflection predicate adnominal form (*the P-A form*) corresponds to the syntactic C-T-V head amalgamate form via AGREE.

In this section we will present three arguments that support this hypothesis. Then it will be shown that the proposed theory correctly explains the existence of the complementizer blocking effect in NGC in Japanese and Turkish and the long-distance AGREE in NGC.

5.1. *Kakari-Musubi* Construction

Kinsui (1995) suggests that so-called *adnominal* form (the P-A form) in Japanese should be analyzed as a form that merges a null C. One argument that

[31] Recall also that in Chamorro, the genitive agreement in NGC is the same as the one spelled-out on the possessee DP in a noun phrase.

[32] Miyagawa (1993) and Ochi (1999) presents scope, which initially appears to support their ECM/Raising analysis. However, it turns out that this is not correct. See Section 7.4. for detailed discussions.

Kinsui (1995) presents comes from *Kakari-Musubi Construction* in Classical Japanese, in which a wh-phrase 'concords' with the special verbal inflection. Descriptively put, *Kakari-Musubi* is a syntactic construction in which DPs with Q-particles (*ya*/*ka*) and F(ocus) particles (*zo*/*namu*) require a special verbal inflection (i.e. the P-A form).[33] As (65) and (66) illustrate, the wh-particle *ka* requires the verb to take a P-A form, which is used in relative clauses.

(65) *Classical Japanese*
Miyuki huru koshi no ohoyama yuki-sugite
snow(-NOM) fall-PRES-ADN Koshi no Ooyama go-passing
izure no hi ni ***-ka*** wa ga sato wo mi-***mu***
when-GEN day-DAT Q I-GEN home-ACC see-will-ADN
'Crossing the snowy Mt. Ooyama, when can I see my native village?'
(*Manyoosyuu* 3153)

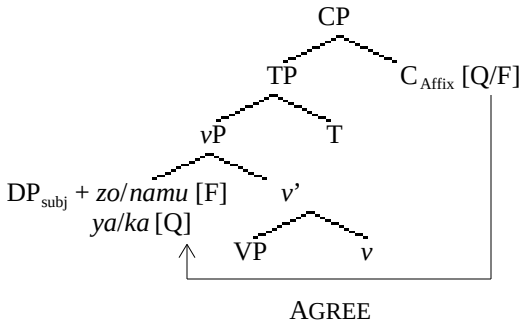
(66) *Classical Japanese*
Tsuto ni yuku kari no naku ne wa
morning-in go-PRES-ADN geese-GEN cry-PRES-ADN voice-TOP
wagagotoku mono omohe ***ka*** mo koe no kanashi-***ki***
I-GEN-like worried-about Q F voice-GEN sad-ADN
'The wild geese in the morning sky are sadly crying. Do they pine for their native land as I yearn for mine?'
(*Manyoosyuu* 2137)

Kinsui (1995) argues that from a minimalist viewpoint this agreement phenomenon can be seen as covert feature-checking relation between the wh-/F-features of the particles and the verb. He proposes that the verb with the special inflection moves syntactically to C and enter into a checking relation with the relevant features.

In our terms the *Kakari-Musubi* phenomenon amounts to a manifestation of AGREE between C, T and V (the special verbal inflection formation) and of AGREE between the uninterpretable [Q/F] feature of the probe C_{Affix} and the [Q/F] feature of the goal particles. This is schematically represented in (67).

[33] See Yamaguchi (1990) and Nomura (1995) for the detailed studies on the *Kakari-Musubi Construction* in Classical Japanese.

(67)



Our analysis of *Kakari-Musubi Construction* is also supported by Cheng's (1991) *Clausal Typing Hypothesis*. Cheng (1991), from typological viewpoints of wh-questions, presents the following cross-linguistic generalization (cf. also Greenberg 1966, Bresnan 1972, and Kayne 1994).

(68) *Clausal Typing Hypothesis* (Cheng1991:30)
Every clause needs to be typed. In the case of typing a wh-question, either a wh-particle in $C^0$is used or else fronting of a wh-word to the Spec of $C^0$is used, thereby typing a clause through C^0 by spec-head agreement.

The hypothesis states that there are only two options to adopt in human language: overt wh-movement or overt wh-complementizer. In a nutshell, in a question sentence either the spec of CP or the C^0 position must be syntactically filled. As far as this generalization is to be maintained, it supports our claim that the verb in the P-A form is syntactically at C^0 position, since Classical Japanese, which lacks an overt wh-complementizer, has no overt wh-movement either. Under our theory what types the question sentence at C in Classical Japanese is the C-T-V head amalgamate (i.e. the P-A form) itself.

Another argument that Kinsui (1995) gives is the fact that in Classical Japanese the verb with the special inflection is able to complement a sentence without any overt complementizer.

(69) *Classical Japanese*
[$_{CP}$ Tomo **no** empoo yori ki-tar-**u**] wo yorokobite
friends-GEN away from come-PST-ADN-ACC delighted-at
'(being) delighted at (the fact) that friends came all the long way…'

In fact there was no complementizer in Classical Japanese, and instead the P-A inflection appears in the structure which requires an overt complementizer in Modern Japanese (cf. Section 5.5. for more discussion). This lends support for

our claim that the verb in the special inflection contains a null C element, thus forming the C-T-V head amalgamate.[34]

5.2. Pronoun Attraction Principle and Relativization Universal

The second argument is based on the cross-linguistic investigation of relative clauses. Bach (1971:165) observes that there is an interesting correlation between wh-question formation and relativization. For example, English uses the same overt wh-movement strategy in relativization, clefting and wh-question.

(70) a. John is the man *who* loves Mary [HERC]
b. Show me *what(ever)* you have [Headless RC]
c. *What* I want is hope [Pseudo-cleft]
d. *Who* did you see in the department? [Wh-question]

Seen in this light the data from Classical Japanese presents a very interesting paradigm. As we have already seen, Classical Japanese employs the verbal inflection strategy in both wh-question and relativization, which is schematically represented in (71).

(71) *Classical Japanese*
a. V-ADN + head [HERC]
b. head.....V-ADN [HIRC]
c. V-ADN + copular [Cleft]
d. wh..…V-ADN [Wh-question]

Bach's (1971) insight leads us to the following generalization.

(72) Relative clauses are universally CPs.; either overt wh-movement, overt complementizer or V-to-T-C AGREE is required.

Under (72), relativization is uniformly considered to be a C-domain phenomenon on parallel with wh-question formation (cf. (68)). In fact typological studies (Downing 1978 and Keenan 1985) show that most languages of the world are classified into the following categories (cf. also Kayne 1994).

(73) N-initial relative clause (postnominal RC)
a. N [$_{CP}$ WH.....] e.g. English, Russian, …
b. N [$_{CP}$ [$_{C'}$ C.....] e.g. Arabic, Hebrew, Thai, French, …
c. N [$_{CP}$ [$_{C'}$ C-suffix+V.....] e.g. Bantu (Kihung'an, Dzamba)…

[34] The *Kakari-Musubi* phenomenon is not restricted to Japanese; recall that Chamorro also uses the same special verbal inflection in the wh-question and relativization. See also Tamil etc.

(74) N-final relative clause (prenominal RC)
a. [$_{CP}$ .....V-suffix] N e.g. Japanese, Korean, Navajo, …
b. [$_{CP}$.....affix-V] N e.g. Amharic, Apatani, ...
c. [$_{CP}$ [$_{TP}$.....V] C] N e.g. Mandarin Chinese, …

Of special interest here is (73c). Kaplan and Whitman (1995), building on Givón (1979), presents an important argument for the involvement of C in relativization. Givón (1972, 1979) points out that in some Bantu languages such as Kihung'an and Dzamba relativization requires structural adjacency between the head noun and the subordinating morpheme.

(75) *Kihun'an* (Givón 1979:249)
kit ki-a-swiimin Kipes zoon
chair REL-he-buy-PST Kipes yesterday
'the chair that Kipes bought yesterday'

cf. Kipes ka-swiimin kit zoon
Kipes buy-PST chair yesterday

Note that the basic word order in this language is SVO. Givón (1979) presents the following generalization.

(76) *Pronoun Attraction Principle* (Givón 1979:249)
Relative pronouns or relative-clause subordinating morphemes tend to appear adjacent to the head noun modified by the clause.

The *Pronoun Attraction Principle* correctly captures the typological variations in (73) and (74), revealing the universal tendency (72). Although Givón analyzes Kihung'an's relative clause as a case of subject-postposing, Kaplan and Whitman (1995) argue that it should be reconsidered as a case of V-movement, under which analysis the possible landing site should be C since the verb precedes the subject position (see Ura 2000 for a similar view).

We propose that C universally has an EPP property in relativization as well as in wh-question formation. Then there are three ways to saturate the requirement on C: overt wh-movement to the spec of CP , merger of an overt relativizing complementizer into C, or head movement into C, deriving the well-known parametric variations in relativization (cf. (73) and (74)).[35] The existence of this displacement property forces an overt 'head-attraction' into C in Bantu-type languages, just as it triggers 'pronoun-attraction' in the English-type languages. Now if we assume, following Kaplan and Whitman's (1995) insight, that the relativizing affix in the Japanese-type languages is universally an affixal C element that resists stranding, the C-T-V AGREE can be regarded as

[35] The status of head movement (syntactic or phonological) is left open here (cf. Chomsky 1999, 2000). See footnote 4.

a language particular device to avoid the stranded affix in C (cf. Lasnik 1981,1995).[36]

To conclude, we have argued that our claim that the verb in the special inflection is the syntactic C-T-V head amalgamate receives support from the universal properties of relativization.

5.3. Complementizer Blocking Effect

One of the consequences of our theory of NGC gives a straightforward answer to the observation that NGC is blocked by a presence of an overt complementizer *to* and *ka* (cf. Inoue 1976, Ura 1993, and Abe 1994 , Watanabe 1994, 1996a among others). Consider (77) below.

(77) *Japanese*

a. [[syoorai daijisin **ga** okiru]
in-the-future great-earthquake-NOM occur-PRES-ADN
kanousei]
possibility
'the possibility that a great earthquake will occur in the future'

b. [[syoorai daijisin **no** okiru]
in-the-future great-earthquake-GEN occur-PRES-ADN
kanousei]
possibility
'the possibility that a great earthquake will occur in the future'

c. [[syoorai daijisin **ga** okiru **toiu**]
in-the-future great-earthquake-NOM occur-PRES-END C
kanousei]
possibility
'the possibility that a great earthquake will occur in the future'

d. *[[syoorai daijisin **no** okiru **toiu**]
in-the-future great-earthquake-GEN occur-PRES-END C
kanousei]
possibility
'the possibility that a great earthquake will occur in the future'

[36] The analysis may derive the lack of overt wh-movement in 'C0 strategy' languages (e.g. Japanese, Mandarin Chinese, Bantu languages) in a principled way; EPP in these languages is satisfied by an overt C or C-T-V AGREE. Thus pure AGREE suffices for an establishment of a wh-relation between a probe C and a goal wh-phrase. I am indebted to Cédric Boeckx for the suggestions.

(78) *Japanese*

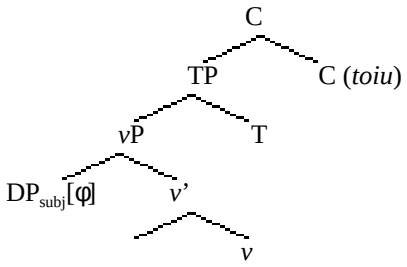
a. [[House of Blues de John **ga** ensou-suru **to** no]
House of Blues-at John-NOM play-PRES-END C-GEN
jouhou]
information
'the information that John will plat at the House of Blues'

b. *House of Blues de John **no** ensou-suru **to** no
House of Blues-at John-GEN play-PRES-END C-GEN
jouhou
information
'the information that John will plat at the House of Blues'

As (77) indicates the complementizer *toiu* is optional. But (77d) shows that NGC is disallowed when the overt complementizer appears in C.

Within our theory of NGC, this phenomenon is explained quite straightforwardly. Consider the derivation (79) for the illicit sentence (77d).

(79)



Recall that under the proposed theory, the C-T-V AGREE is a crucial prerequisite for NGC. This is because only the AGREE among the heads makes possible FEATURE COPY/TRANSFER from T to C (see Section 2.3.). However, as (79) clearly shows, head amalgamation is syntactically blocked by the presence of the overt C, since being non-affixal, it need not (and hence cannot) AGREE with T, which bars the syntactic amalgamation and leaves the predicate in the end form. As a result the φ-feature of T cannot transfer onto C and therefore cannot assign genitive Case value to the structural Case of the subject under AGREE, deriving the complementizer blocking effect. The following paradigm pointed out by Watanabe (1996:390) falls within the same analysis.

(80) *Japanese* (Watanabe 1996:390)

a. [[Mary ga [$_{CP}$ John **ga** t_i katta to]
Mary-NOM John-NOM buy-PST-END C
omotteiru] hon$_i$]
think- PRES-ADN book$_i$
'the book which Mary thinks that John bought'

b. *[[Mary ga [$_{CP}$ John **no** t_i katta to]
Mary-NOM John-GEN buy-PST-END C
omotteiru] hon$_i$]
think- PRES-ADN book
'the book which Mary thinks that John bought'

NGC is blocked by the presence of the overt complementizer *to* as expected.

Our theory predicts a universal correlation between the (un)availability of NGC and the absence/presence of overt C. In fact Turkish provides us with an important insight. In this language, NGC is prohibited in the presence of the overt complementizer *ki*, which has been employed from Persian, whereas as we have already seen, the language allows NGC in the ordinary relative clauses.

(81) *Turkish* (Meltem Kelepir (personal communication))
Dün Mary-**nin** bas-i-na koy-dig-u
yesterday Maryt-3.GEN head-3.sg.POSS put-NML-3.sg.POSS
toko
hairclip
'the hairclip which Mary put her on her head yesterday'

(82) o tokoi ki Mary-**ø**/*-**nin** bas-na
that hairclip C Mary-NOM/*GEN head-3.sg.POSS-DAT
koy-du-ø
put-PST 3.sg
'the hairclip that Mary put on her head'

5.4. Long-distance AGREE and Defective Intervention Constraint Revisited

The example (80) observed in the previous section shows that the genitive Case of *John* cannot be checked by the higher C-T-V head amalgamate via 'long-distance' AGREE (i.e. *superraising*) with the higher probe. In fact Watanabe (1996) argues from the facts in (80) that NGC is strictly local. However, Ura (1994) shows convincingly that such long-distance Case dependency is possible in Japanese and various other languages.

Although I have no specific solution for the unavailability of long-distance AGREE in (80) at this point, it is worth pointing out that long-distance AGREE becomes licit when the higher subject *Mary* in (80) is 'evacuated' by some operation (e.g. passivization) (cf. 80b).[37]

[37] The apparent impossibility of long-distance AGREE in (80b) may be related to the parallel fact that in Japanese it is, for unclear reasons, impossible for an argument to enter a long-distance Case relation with T when the T already has an argument in the same clause. Consider the famous data from Takezawa (1987).

(i) John ga Mary no yokogao wo/*ga totemo utsukusiku omotta.
John-NOM Mary-GEN face-ACC/*-NOM very beautiful-INF think-PST
'John thought that Mary's face is very beautiful.'

(83) [[[$_{CP}$ John **no** t_i katta to] omow-areteiru]
John-GEN buy-PST-END C think-PASS-PRES-ADN
hon_i]
$book_i$
'the book which it is thought that John bought'

(80b) *[[Mary ga [$_{CP}$ John **no** t_i katta to]
Mary-NOM John-GEN buy-PST-END C
omotteiru] hon_i
think- PRES-ADN book
'the book which Mary thinks that John bought'

If this is the case, our theory makes an interesting prediction about defective intervention effects discussed in Section 4: in the long-distance NGC in NOC, there should appear defective intervention effects, since now the probe for the nominative Case and the probe for the genitive Case are not the same φ-feature; the former is the φ-feature on C_1 whereas the latter is the φ-feature on the T within CP_2. In other words, the structure is now parallel with the true ECM/raising structure (cf. 53)). Very interestingly, this prediction is borne out.

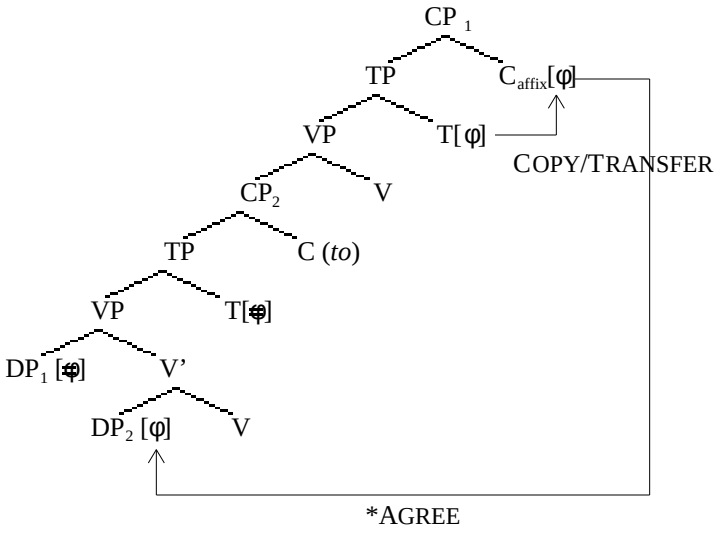
(84) a. [[$_{CP1}$ [$_{CP2}$ Totemo yoku John **ga** nihongo **ga**
very well John-NOM Japanese-NOM
dekiru to] omow-areteiru] riyuu]
speak-can-PRES-END C think-PASS-PRES-ADN reason
'the reason why it is thought that John can speak Japanese very well'

b. *[[$_{CP1}$ [$_{CP2}$ Totemo yoku John **ga** nihongo **no**
very well John-NOM Japanese-GEN
dekiru to] omow-areteiru] riyuu]
speak-can-PRES-END C think-PASS-PRES-ADN reason
'the reason why it is thought that John can speak Japanese very well'

c. Totemo yoku John **ga** nihongo-**no** dekiru
very well John-NOM Japanese-GEN do-can-PRES-ADN
riyuu
reason
'the reason why John can speak Japanese very well' (=(54c))

Given the attested existence of superraising in Japanese it is puzzling that the embedded subject cannot enter into an AGREE relation with the matrix T. In (i) in the presence of the nominative subject *Taro-ga* at the spec of TP, the long-distance is somehow blocked.

(85)



In (85) the higher probe (the transferred φ-feature on C_1) searches the closest goal but it cannot match with the lower DP_2 *nihongo* since the higher goal DP_1 *John*, whose structural Case has been deleted via AGREE with the lower T, is inactive and induces defective intervention effects (i.e. closeness violation).

5.5. Genitive Case and C: The Minimalism meets the Japanese Traditional Grammar

Our theory of genitive Case checking has interesting implications for the grammaticalization of genitive Case into C, which has been much studied in the Japanese Traditional Grammar *Kokugogaku*.[38]

It is well known that the genitive Case marker *no* in Modern Japanese is also used like a complementizer/nominalizer.

(86) *Modern Japanese*

John wa	[$_{CP}$ kinoo	Mary **no**	kita	**no**] wo
John-TOP	yesterday	Mary-GEN	come-PST-ADN	NML-ACC

sira-nakat-ta.
know-not-PST.
'John didn't know that Mary came yesterday.'

[38] Significantly, the proposed theory also gives theoretical basis for other claims in Japanese Traditional Grammar. For example, incidentally, in classical Japanese *no* and *ga* were both nominative and genitive (cf. Konoshima 1966, Nomura 1993, 1996, 1998 among many others). Our proposed theory of NGC, which regards genitive Case checking in NGC as parallel with nominative Case checking (see Section 2.3.), provides a theoretical foundation for this old claim. See also Section 4. for empirical justification of our theory.

(87) *Classical Japanese*
[$_{CP}$ Tomo **no** empoo yori ki-tar-**u**] wo yorokobite.....
friends-GEN away from come-PST-ADN-ACC delighted-at
'(being) delighted at the fact that friends came all the long way…'

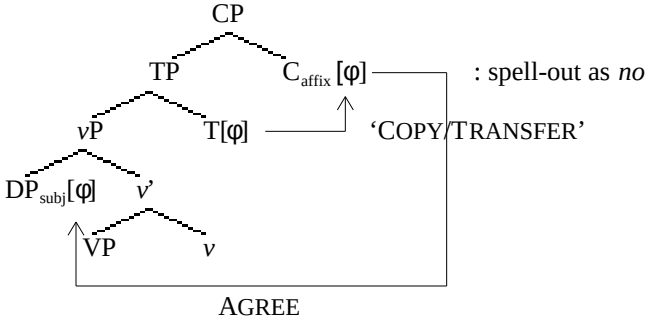
Kinsui (1995) shows from the diachronic perspective that in fact the usage of *no* as a complementizer/nominalizer emerged as the morphophonological distinction between the P-A form and the end form became obscure due to the morphophonological assimilation of the two forms that took place around 13th century (see also Yamaguchi 1992 and Kondo 2000 and references therein).

(88)

	Classical Japanese	*Modern Japanese*
HERC	V-ADN	V-no
HIRC	V-ADN	V-no
nominal complement	V-ADN	V-no
cleft construction	V-ADN	V-no
question	V-ADN	V-no / -ka

Very interestingly, as we will see soon below, a cross-linguistic investigation reveals that this is never an accident. Thus an interesting question arises here: why has the genitive Case been selected as a candidate for the alternative relativizing marker, and what is the syntactic mechanism that drove the diachronic change? Our theory of genitive Case checking presents an interesting answer to this. Consider (89)

(89) *No* as a spell-out of genitive Case AGREE on C



As we have argued in the preceding section, under our mechanism of genitive Case checking, the structural Case of DP$_{subj}$ gets genitive Case specification by entering an AGREE relation with the uninterpretable φ-feature of the probe. Now it is easy to see the mechanism of the grammaticalization of genitive Case in Japanese: the genitive Case morphology on C can be considered nothing but a phonological spell-out of genitive Case AGREE on the probe's side (recall the

arguments in Section 4.3. about possessive/genitive agreement in NGC in Turkish and Cuzco Quechua).[39]

Furthermore, this kind of phenomena is not particular to Japanese. In fact it is attested in not a few languages in the world. For example in Cuzco Quechua the nominalizer takes the form of *-p* (agentive nominalizer) when the subject is relativized. It should be noted that it is the same form as the genitive Case marker in the language. Our analysis (89) easily extends to (90)-(91)

(90) *Cuzco Quechua* (Lefebvre and Muysken 1988:120)
una-n-kuna-ta amacha-**q** puma-ka
cub-3-pl-ACC protect-ag.NML puma
'the puma who protects his little ones'

(91) *Cuzco Quechua* (Lefebvre and Muysken 1988:83)
waso-**q** punku-**n**
house-GEN door-3
'the door of the house'

Furthermore, the same kind of phenomena has been reported in Tibetan, Apatani as well as Dyrbal (cf. Dixon 1969) and Mandarin Chinese.

(92) *Tibetan* (Mazaudon 1976)
Peema khii-**pa** thep the
Peem-ERG carry-REL(GEN) book the
'the book that Peem carried'

(93) *Apatani* (Jackson T.-S. Sun (personal communication), Abraham 1985)[40]
ngo [si-mi **ka** pa-ni-bo] mju-mi kapa-to
I cattle-ACC GEN kill-NML person-ACC see-PFT
'I saw the person who killed the cattle.'

(94) *Dyirbal* (Dixon 1969:38)
yibi njalnga-ngu djilwal-na-**nu** yara-ngu bura-n
woman-NOM child-ERG kick-naj-REL-NOM man-ERG see-PRES
'The man saw the woman who had kicked the child.'

It is very important to note that the proposed mechanism of Case and agreement correctly explains the grammaticalization of nominative Case *ga* and question particle *ka*, which suggests a way toward a unified account of the phenomena.

[39] According to Oono (1983, 1984) in fact in most of the dialects in Modern Japanese complementizers take forms of genitive Case with phonological variation. This gives further strong support for our theory presented here. See Hiraiwa (1999a) for detailed discussions.

[40] As we will see in Section 5, Apatani also has NGC. Interestingly, in Apatani, just like in the case of Cuzco Quechua (cf. (90) and (91)), the genitive Case morphology also appears adjacent to the verb in the case of subject relativization (cf. (93)).

Ishigaki (1955) argues that the sentence conjunction marker *ga* in (95) in Modern Japanese is a grammaticalized form of the nominative Case marker *ga*.

(95) *Japanese*
John wa Mary ga suki da -**ga**, Mary wa John ga.
John-TOP Mary-NOM like CPL-END CONJ Mary-TOP John-NOM
kirai da
dislike CPL
'Mary dislikes John, although he likes her'

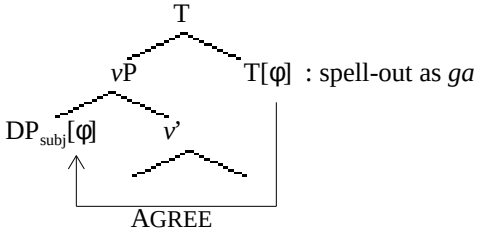
Yamaguchi (1990) shows that the wh-complementizer *ka* in Modern Japanese was originally a wh-particle attached to a wh-phrase in Classical Japanese. Note that in (97) the Q-particle *ka* appears attached with an indefinite DP *dare*.

(96) *Modern Japanese*
Dare ga kimasita ***ka***?
who-NOM come-PST Q
'Who came here?'

(97) *Classical Japanese*
hitori nomi kinuru koromo no himo tokaba
alone-only wear cloth-GEN sash(-ACC) untie-if
[dare ***ka*** mo yuha***mu***] ihe tohoku site
who-Q F tie-will-ADN home away-because
'If I untie my sash away from you, who will refasten it for me'
(*Manyoosyuu* 3715)

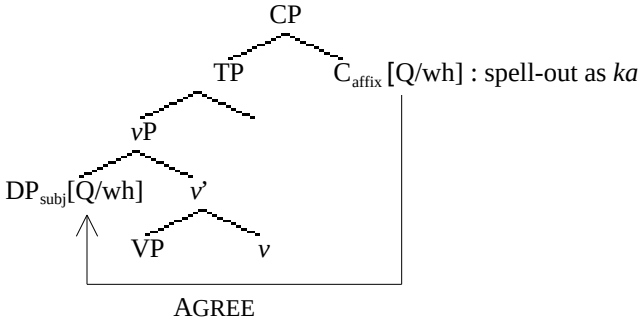
Our theory provides a unified explanation for these facts. In other words, the conjunctive marker *ga* should be considered to be a spell-out of nominative Case AGREE on the probe T. In the same way the sentence-final Q particle *ka* should be considered to be a spell-out of Q/wh-feature checking on the probe C.[41][42]

(98) *Ga* as a spell-out of nominative Case AGREE on T



41 Cf. Section 4.1. for *Kakari-Musubi Construction* and evidence that the C-T-V amalgamation has a Q/wh-feature. Note that our claim is crucially different from Hagstrom's (1998) Q-movement hypothesis.
42 Sinhala exhibits the same phenomena as (99). See Hagstrom (1998).

(99) *Ka* as a spell-out of Q/wh-feature checking on C



In this section we have shown that our hypothesis that the special verbal inflection in Japanese is formed by a syntactic amalgamation of V, T and C receives empirical support from *Kakari-Musubi Construction*, Pronoun Attraction Principle in relativization, complementizer blocking effect, and grammaticalization of Case particles in Japanese.[43]

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[43] David Pesetsky (personal communication) questions if there is any synchronic evidence for the V-to-T-to-C AGREE ('movement') in modern Japanese. One piece of supporting evidence comes from the data discussed in Miyagawa (2000), which is adapted below.

(i) Japanese (Miyagawa 2000)

a. Zen'in ga sono tesuto wo uke-nakat-ta (**yo**/**to** omou)
all-NOM that test-ACC take-NEG-PST-END
'All did not take that test.'
(all>not, *not>all)

b. Zen'in ga sono tesuto-o uke-nakat-ta (**koto**) FN
all-NOM that test-ACC take-NEG-PST-ADN
(all>not, not>all)

He points out that (ia), which ends with exclamation particle *yo* or complementizer *to*, does not show scope ambiguity, whereas (ib), which is embedded in *koto* clause does. Interestingly, the scope ambiguity also re-appears in relative clauses (Shigeru Miyagawa 2000, personal communication).

(ii) Zen'in ga uke-nakat-ta testo
all-NOM take-NEG-PST-ADN test
'the test which all did not take.'
(all>not, not>all)

It is very important to recall that the verbal inflection in *koto* and relative clauses takes the special form in Japanese as a result of C-T-V AGREE, whereas in (ia) it is the ending form. Under the present theory, the scope (un)ambiguity in (ib) and (ii) is now naturally explained if we assume that this C-T-V AGREE amounts to the syntactic C-T-V movement and therefore the verb is in C position , which is higher than the nominative subject position See Miyagawa (2000) for more discussion on scope ambiguity in Japanese.

6. A Cross-linguistic View on Nominative-Genitive Conversion

As we have already seen some examples in the preceding sections, NGC (or genitive-marking of the subject) is in fact observed in many languages other than modern and classical Japanese: American Indian languages such as Cuzco Quechua (cf. Lefebvre and Muysken 1998) of the Quechuan family and Yaqui (Dedrick and Casad 1999), Wappo (Li and Thompson 1978), Chemehuevi (Press 1980), and Nevome (Shaul 1986) of the Uto-Aztecan family, West Greenlandic[44] (Bok-Bennema 1991) of the Eskimo-Aleut family, Dagur (Hale and Ning 1996, Ken Hale (personal communication) and Modern Mongolian (cf. Binnik 1979) of the Mongolian family, many languages of the Turkic family such as Turkish (cf. Kornfilt 1987, Kural 1993, Meltem Kelepir (personal communication)), Uzbek (cf. Boeschoten 1998) and Tuvan, middle Korean (cf. Jang 1995, Sohn 1998), Chamorro (cf. Gibson 1980, Chung 1982), Hawaiian (cf. Hawkins 1979), Samoan (cf. Chung 1973) of the Polynesian family, lanugages of the Australian family such as Lardil (Norvin Richards (personal communication) and Kayardild (Nicholas 1995), and some Tibeto-Burman languages such as Mishing (Miri) (Jackson T.-S. Sun (personal communication), Prasad 1991) and Apatani (Abraham 1985), among many others.[45]

Some examples are shown below.

(100) *Modern Japanese*

a. Kinoo John **ga** katta hon
yesterday John-NOM buy-PST-ADN book
'the book which John bought yesterday'

b. Kinoo John **no** katta hon
yesterday John-GEN buy-PST-ADN book
'the book which John bought yesterday'

[44] In West Greenlandic, which is an ergative language, an ergative Case morphology and an genitive Case morphology is actually identical, as it is often the case with ergative languages, and therefore more careful examination is necessary in future research to see whether genitive-marking in nominalization construction in this language is an instance of genuine NGC.

[45] In this paper I use the term 'nominative-genitive conversion' to cover (100)-(110) just for convenience, although Turkish, for example, does not exhibit nominative-genitive 'conversion' in a true sense, since the genitive-marking is never optional but obligatory contra Japanese-type languages.

(101) *Classical Japanese*

a. Imo ga misi ahuti no hana wa
sister-NOM see-PST-AND ahuti-GEN flower-TOP
tirinubesi wa **ga** naku namida imada
fall-almost-PST-mod I-NOM cry-PRES-ADN teas yet
hinaku-ni
dry-up-NEG-DAT
'The flowers will fall too which she eyed before my woeful tears are dried.'
(*Manyoosyuu* 798)

b. Tomo **no** empoo yori ki-tar-u -wo yorokobite
friends-GEN away from come-PST -ADN-ACC delighted-at
'(being) delighted at (the fact) that friends came all the long way...'

(102) *Cuzco Quechua* (Lefebvre and Muysken 1988)
Xwancha-**q** runa-ø/*ta riku-sqa-n wasi-ta rura-n
Juan-GEN man-OBJ/ACC see-NML-3 house-ACC build-3
'the man that Juan saw builds a house.'

(103) *Yaqui*[46] (Dedrick and Casad 1999)
hunáa'a baákot **'ém** kó'oko-si yáa-k-a'u 'enˇcí
that snake your(GEN) pain-ADV make-PRF-NML you-ACC
ná'ateho-k
accuse-PRF
'The snake that you hurt accused you.'

---

[46] In Yaqui, the accusative Case marker -ta is also employed as genitive Case marker. Interestingly a full DP subject in a relative clause is also obligatorily marked as accusative/genitive (cf. Dedrick and Casad 1999:).

(i) *Yaqui* (Dedrick and Casad 1999)
behák née bakót-**ta** bobók-ta bwá'e-m-ta né bícˇa-k
just:now I snake-ACC frog-ACC eat-NML-ACC I see-PRF
'I just saw a snake that is eating a frog.'

Under our theory this phenomena can be accounted for as an instance of NGC. It should be noted that accusative/genitive-marking on the subject of a relative clause is also observed in Wappo (Li and Thompson 1978:107), Nevome (Shaul 1986), and Chemehuevi (Press 1980), languages in the Yuki family.

(ii) *Wappo* (Li and Thompson 1978:107)
[**/i/*/ah** cˇhuya-ø t'ynt-i] sˇy'ikhi/
me-ACC/NOM house-ACC bought-NOM burned down
'The house that I bought burned down.'

(104) *Modern Mongolian* (Binnik 1979)
Tednij xij.sen ajl.yg üz.lee
they-GEN do-PST-NML work-ACC see-witness
'I saw the work they did.'

(105) *Dagur* (Hale and Ning 1996)
mini aw-sen mer-min
I-GEN buy-past horse-1sg
'the horse I bought'

(106) *Turkish* (Meltem Kelepir (personal communication))
Dün Mary-**nin** bas-i-na koy-dig-u toko
yesterday Maryt-3.gen head-3.sg.poss put-NML-3.sg.poss hairclip
'the hairclip which Mary put on her head yesterday'

(107) *Mishing* (Miri) (Jackson T.-S. Sun (personal communication), Prasad 1991:122)
ngo-**ka** kaa-nam ami da si daku
I-GEN see-NML person DET this CPL
'This is the person I saw.'

(108) *Apatani* (Abraham 1985:131)
Kago**ka** tuni my
Kago-GEN kick-NML man
'the man whom Kago kicked'

(109) *Middle Korean* (Jang1995:226)
nwuy tanglang-**uy** nunghi swulwuy kesulum -ul
who-NOM tanglang-GEN easily cart push-NML-ACC
polio.
see-PRES
'Who can see Tanglang's pushing the cart easily?'

(110) *Chamorro* (Chung 1982)[47]
a. Hafa f-in-ahan-**na** si Maria gi tenda?
what IN-buy-NMLz-her-POSS unm Maria loc store
'What did Mary buy at the store?'

[47] In Chamorro the overt complementizer *ni* is used in relativization as well as the relativizing special verbal inflection. One might argue that this is an apparent counterexample to our cross-linguistic generalization of NGC presented above. However, it would be worth suggesting a possibility that the structure in question is a kind of P-CP structure just like (22)-(28) in Japanese.

b. In-kännu'i néngkanu' ni f-in-ahan-**ña**
Elp-eat the food C IN-buy-NML-her-POSS.
si Mari gi tenda
unm Maria LOC store
'We ate the food that Maria bought at the store.'

One of the important implications of our theory is that it expects a universal correlation between the (non-)existence of NGC and the type of relativization strategy. Under our theory the genitive Case of the subject can be checked only by the transferred φ-feature on C. In fact NGC is not observed in languages which use wh-movement strategy (e.g. English, Hindi, etc.) or overt-complementizer strategy (e.g. Thai, Modern Hebrew, Persian, etc.).[48] Following the conjecture, we propose the following cross-linguistic generalization (implicational universal).

(111) *The NGC Universal*
Nominative-Genitive Conversion is possible only in a language L which employs the C-T-V AGREE strategy in relativization; consequently, *NGC* is not observed in the languages which use overt wh-movement strategy or overt complementizer strategy in relative clause formation.[49]

7. Transitivity Restriction: Parametric Variations in Accusative Case Checking

In this final section, we will make a brief note on the issue of *Transitivity Restriction* (TR) in NGC and suggest that a single deep parameter can give a unified account for TR in NGC and Case patterns in Dative Subject Construction (DSC), without going into theoretical implementation.[50]

[48] See Section 5.3. and 5.4.. Recall that in Japanese and Turkish the presence of overt complementizers blocks NGC.

[49] Diachronically, the nominative Case marker *ga* and the genitive Case marker *no* were also used as both nominative and genitive Case markers in Classical Japanese (cf. Nomura 1993, 1996, 1998). However, it is important to note that our investigation shows that this historical fact, though it has a quite significant importance in the investigation of Japanese syntax, does not play any crucial role in the (un)availability of NGC in a given language L. As far as I know, none of the languages in (100)-(110) has the same diachronic facts as Japanese.

[50] See Hiraiwa (1999b/in progress) for detailed investigation. Here we will limit ourselves only to the Japanese-type languages, which show TR in NGC.

(i) TR
Yes: Japanese, Cuzco Quechua, Chamorro, …
No: Turkish, Dagur, Yaqui, …

See Hiraiwa (1999b/in progress) for a theoretical account for the parametric variation (i).

7.1. Transitivity Restriction

As it has been noted by Harada (1971, 1976) and Watanabe (1994, 1996a, 1996b) among others, Japanese disallows accusative Case-marking in NGC (see Section 3; cf. also Cuzco Quechua and Chamorro).

(17) *Japanese*

a. Kinoo John **ga** hon wo katta mise
yesterday John-NOM book-ACC buy-PST-ADN shop
'the shop where John bought books yesterday' [NOM-ACC]

b. *Kinoo John **no** hon wo katta mise
yesterday John-GEN book-ACC buy-PST-AND shop
'the shop where John bought books yesterday' [GEN-ACC]

c. *Kinoo hon wo_i John **no** t_i katta mise
yesterday book-ACC John-GEN buy-PST-ADN shop
'the shop where John bought books yesterday' [ACC-GEN]

(17b) shows that accusative Case is unavailable when the subject has genitive Case. Furthermore (17c) demonstrates that this is not an adjacency effect; the sentence is still ungrammatical even if the accusative element is scrambled before the genitive subject. The point is made clear by the fact that neither dative nor prepositional elements trigger TR. (cf. Watanabe 1994, 1996a, 1996b).

(112) *Japanese*
John **ga/no** MIT ni itta hi
John-NOM/-GEN MIT-DAT go-PST-ADN day
'the day when John went to MIT'

Thus TR is considered to be a condition on accusative Case checking.

7.2. Morphological Accusative Case and Nominative Case Checking

Interestingly, as Watanabe (1994, 1996a, 1996b) correctly points out, the restriction is lifted if the accusative object is wh-extracted. Examples from relativization (and cleft are shown below, respectively.

(113) *Japanese* (Watanabe 1996)
[[John **ga/no** t_i katta] hon_i]
John-NOM/-GEN buy-PST-ADN book
'the book which John bought'

(114) *Japanese* (Hiraiwa 1999b/in progress)
[[John **ga/no** t_i katta no]-wa kono hon wo da.
John-NOM/GEN buy-PST-AND C -TOP this book-ACC CPL
'It is this book that John bought.'

However, the suspension of TR is also observed in the case of *pro-drop* of the accusative object.

(115) *Japanese* (Hiraiwa 1999b/in progress)

a. *[[John **no** hon wo kasita] hito]
John-GEN book-ACC lend-AND-PST person
'the person whom John lent a book'

b. [[John **no** pro-ø kasita] hito]
John-GEN pro-ACC lend-AND-PST person
'the person whom John lent (a book)'

Considering these facts, I would like to propose, provisionally, the following generalization.

(116) *A generalization of Accusative Case checking in Japanese*
Spell-out of morphological accusative case triggers nominative Case checking on T in the next strong phase.

Putting aside the precise theoretical implementation for now, (116) states an interdependence between morphological accusative case and abstract nominative Case (cf. Hiraiwa 1999a, 1999b/in progress).

Thus (17b) and (17c) result in ungrammaticality because there is no nominative Case checking on T required by (116) in these derivations; instead, under our theory C enters into a checking (AGREE) relation with the subjects, triggering genitive Case checking. On the other hand, the derivations in (113)-(115) are correctly ruled in; *v* checks abstract accusative Case but there is no spell-out of the accusative Case.

7.3. Dative Subject Construction

The generalization formulated in (116) brings an interesting consequence: in particular it makes a prediction that the same mechanism holds universally in other constructions in Japanese.

It is well-known that in Japanese, Dative Subject Construction (DSC) resists accusative Case-marking, allowing only DAT-NOM pattern (cf. Shibatani 1978, Ura 1996, 2000a).

(117) *Japanese*

a. John **ga** nihongo **ga** hanas-eru (koto)
John-NOM Japanese-NOM speak-can-PRES (that)
'John can speak Japanese' [NOM-NOM]

b. John **ga** nihongo **wo** hanas-eru (koto)
John-NOM Japanese-ACC speak-can-PRES (that)
'John can speak Japanese' [NOM-ACC]

(118) *Japanese*

a. John **ni** nihongo **ga** hanas-eru (koto)
John-DAT Japanese-NOM speak-can-PRES (that)
'John can speak Japanese' [DAT-NOM]

b. *John **ni** nihongo **wo** hanas-eru (koto)
John-DAT Japanese-ACC speak-can-PRES (that)
'John can speak Japanese' [DAT-ACC]

The potential construction is one of the constructions that allow nominative object in Japanese. When the subject is nominative, both nominative and accusative object are allowed (cf. (117)). However, once the subject is marked dative, accusative object is never licensed (cf. (118)).

As it is already obvious, the ungrammaticality of (118b) is naturally expected under (116); the spell-out of the accusative Case fails to trigger nominative Case checking on T. Instead, the subject is assigned inherent dative Case (cf. Ura 1996, 2000a). Thus our generalization (116) brings to light the significant nature underlying the Case system in Japanese, and gives a unified explanation to the ostensibly unrelated phenomena (TR in NGC and the Case pattern in DSC).[51]

The following data combining DSC and NGC lends further supporting evidence for (116).

(119) *Japanese*

a. John **ga** nihongo **ga/wo/no** hanas-eru jijitsu
John-NOM Japanese-NOM/ACC/GEN speak-can-PRES-ADN fact
'the fact that John can speak Japanese' [NOM-NOM]
[NOM-ACC]
[NOM-GEN]

b. John **no** nihongo **ga/*wo/no** hanas-eru jijitsu
John-GEN Japanese-NOM/ACC/GEN speak-can-PRES-ADN fact
'the fact that John can speak Japanese' [GEN-NOM]
*[GEN-ACC]
[GEN-GEN]

---

[51] Traditionally, the facts in (118) have been explained by assuming that T must always check nominative Case in Japanese (Shibatani 1978, Ura 1996, 2000a). Thus (118b) is out since the uninterpretable feature on T is unchecked and leads to crash. However, such a hypothesis cannot be empirically true, once you consider NGC, as an example such as (1b) clearly shows (repeated here as (i)). Note that the sentence is perfectly grammatical despite the fact that there is no nominative Case. checked.

(i) Kinoo John **no** katta hon
yesterday John-GEN buy-PST-ADN book
'the book which John bought yesterday'

c. John **ni** nihongo **ga/*wo/no** hanas-eru jijitsu
John-DAT Japanese-NOM/ACC/GEN speak-can-PRES-ADN fact
'the fact that John can speak Japanese' [DAT-NOM]
*[DAT-ACC]
[DAT-GEN]

(119) shows that among 9 possible Case arrays in Japanese, the two ungrammatical patterns are both with accusative Case without nominative Case, conforming to the generalization (116).[52][53]

To sum up this section, a new hypothesis has been proposed for the TR in NGC that spell-out of morphological accusative Case necessarily triggers nominative Case checking on T in the next strong phase. It has also been shown that this generalization explains not only the TR in NGC but also the Case pattern in DSC in Japanese.

7.4. A Consequence: Miyagawa's (1993) Scope Phenomena Revisited

Miyagawa (1993:218) notes that NGC sentences like (120b), in contrast with (120a), show a scope ambiguity and argues that this is a strong evidence for genitive Case checking by an external D head in NGC, under the assumption that Case checking position feeds scope determination.

(120) *Japanese* (cf. Miyagawa 1993:218)

a. John ka Mary **ga** kita riyuu
John or Mary-NOM come-PST-ADN reason
'the reason John or Mary came.' (reason > J or M)

b. John ka Mary **no** kita riyuu
John or Mary-GEN come-PST-ADN reason
reason>(J or M): 'the reason John or Mary came.'
(J or M)>reason: 'the reason John came or the reason Mary came.'

Ochi (1999), building on Miyagawa's observation, correctly points out that a placement of an embedded adverb before the genitive subject eliminates the wide scope reading of the genitive subject.

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[52] A caution is in order here for the DAT-GEN pattern in (119). In order for the genitive object to enter into a proper AGREE relation with the probe C-T-*v*-V amalgamate beyond the dative subject, it is expected that the dative element in Japanese is 'transparent' for the probe φ-feature and hence does not trigger the Defective Intervention Constraint, in contrast with Icelandic (cf. Chomsky 2000, Ura 2000b). See Hiraiwa (2000a, 2000b) for detailed discussion on this point with supporting evidence for the dative transparency in Japanese.

[53] The principle (116) readily extends to ergative languages as well. As it is well known, ERG-ACC pattern is cross-linguistically extremely rare.

(121) *Japanese*

a. *Kinou* John ka Mary **ga** kita riyuu
yesterday John or Mary-NOM come-PST-ADN reason
reason > (J or M), *(J or M) > reason

b. *Kinou* John ka Mary **no** kita riyuu
yesterday John or Mary-GEN come-PST-ADN reason
reason > (J or M), *(J or M) > reason

Ochi (1999) argues that this is in fact expected in his ECM analysis of NGC on a par with Lasnik's (1999) analysis of ECM in English; if the raising of the genitive subject into a Spec-DP position is overt, it yields a wide scope, whereas it the raising is covert, no wide scope is allowed. Note that the position of the embedded adverb clearly indicates that the genitive DP has not raised overtly in (121b).

To the extent that these scope facts are real, however, they constitute a good piece evidence for the ECM/Raising analysis of Miyagawa (1993) and Ochi (1999) over our proposed theory; under our theory of NGC, it is predicted that there should be no real scope ambiguity between a genitive DP and a nominative DP with respect to an external relative head DP.

However, TR that we just examined in this section give us compelling reasons to think their arguments are not quite correct despite their initial success.

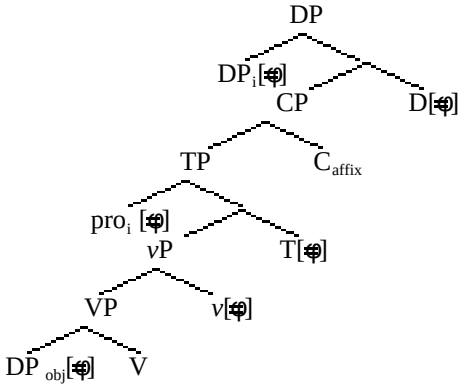
(122) *Japanese*

[$_{DP}$ John ka Mary **no** [kyonen kuruma **wo** kaikaeta] riyuu]
John or Mary-GEN last-year car-ACC buy-PST-ADN reason
(J or M)> reason:
'the reason John bought a new car last year or the reason
Mary bought a new car last year'
*reason > (J or M):
'the reason John or Mary bought a new car last year'

The sentence, if grammatical, should be expected to be ambiguous according to Miyagawa-Ochi's analysis. But notice that it is also predicted that the sentence should be ungrammatical due to TR (116). Interestingly enough, these conflicting predictions brings a significant evidence against the ECM/Raising analysis of NGC.

The expectation is in fact fulfilled in an interesting way. First, (112) is ungrammatical under a narrow scope interpretation; this is quite straight-forwardly expected by TR (116). However, crucially interesting to note is the fact that (122) is in fact grammatical under a wide scope interpretation despite the existence of the object with morphological accusative Case; a wide scope reading is apparently free from the general principle (116). This convincingly shows that the syntactic structure that yields the apparent wide scope in (120b) and (122) is fundamentally different in nature from a genuine NGC. More specifically, a surface wide scope interpretation in NGC is a consequence of an alternative derivation (123), which is termed here *pseudo-NGC*).

(124)



In (124) a genitive DP is base-generated in a Spec-DP position as a normal genitive phrase. This DP is in a control relation with the subject of the relative clause *pro* in Spec-TP. Under this structure, the wide scope of the genitive DP over the relative head D obtains.

If the above account is on the right track, .the absence of TR in (122) also naturally follows; (122) is simply not an instance of NGC; thus the morphological accusative Case on the object is properly licensed by the (abstract) nominative Case checking (AGREE) between *pro* and the T's φ-feature. [54]

Note that the preceding argument brings an ironical consequence; as our theory of genitive Case checking correctly predicts, in a genuine NGC both a nominative subject and a genitive subject can exhibit only a narrow scope with respect to the external relative head DP, which in turn calls into question the ECM/Raising analysis of NGC.[55]

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[54] What we call 'pseudo-NGC' here is not 'nominative-genitive conversion' in any sense. For example, it apparently allows 'accusative-genitive conversion' (ib), which is strictly prohibited in genuine NGC cross-linguistically as (ia) shows (cf. Section 2.3.).

(i) *Japanese*

a. nihon ga kome **wo/*ga/*no** yunyuu suru kanousei
Japan-NOM rice-ACC/NOM/GEN import-do-PRES-ADN possibility
'the possibility that Japan will import rice.'

b. kome **no**$_i$ nihon ga pro$_i$ yunyuu suru kanousei
rice-GEN Japan-NOM import-do-PRES-ADN possibility
'the possibility that Japan will import rice.'

Again this convincingly suggests that the genitive DP in pseudo-NGC is a base-generated phrase independent of the embedded clause.

[55] The ECM/Raising analysis suffers another empirical problem; it expects that when raising is overt, a genitive subject DP can precede an adjective that modifies an external relative head DP. But as the following sentences (next page) show, the prediction is not borne out.

8. Concluding Remarks

In conclusion, in this paper we have presented a new descriptive generalization that NGC is licensed by the special verbal inflection in Japanese and argued that genitive Case in NGC is checked by AGREE with the probe φ-feature on C (the C-T-V amalgamate which is formed by AGREE). It has been shown that the proposed theory can correctly account for a range of new empirical data which was argued to be problematic for any previous theories. The study has shown that cross-linguistic facts on NGC support our claim that the genitive Case can be checked by the C-T-V head amalgamate, independently of D. Furthermore contra Miyagawa/Ochi's ECM/raising analysis, it has been argued that NGC does not show the diagnostics of ECM/raising which are expected with true ECM constructions and that this is because NGC is an instantiation of MULTIPLE AGREE by a single probe φ-feature. Finally, we have suggested that the proposed Case and agreement theory has a number of important implications for the parametric syntax.

One of the remaining questions in our theory of NGC is the precise mechanism that allows the φ-feature on C to assign genitive Case value to the goal. Although our study has shown that the structural genitive Case is checked by the φ-feature on the C-T-V amalgamation, which is formed via AGREE, it does not give any more fundamental explanation to the question why C can universally have structural genitive Case. Nevertheless I would like to suggest that the proposed theory for the long-standing claim for the non-trivial syntactic symmetry between CP and DP (and between C and D) (cf. Abney 1987, Pesetsky and Torrego 2000 among many others).[56] Thus as we have seen, C-to-T-to-V AGREE creates the maximal formal parallelism between DP and CP in terms of Case and agreement. Another symmetry between DP and CP that has been focused in the recent work is the 'phase'-hood of the categories (cf. Chomsky 1999, 2000 for the phase-hood of CP) In fact it has recently proposed that DP is also a phase (cf. Boeckx 1999, McCloskey 2000; see also Marantz 1999). The further investigation of these issues is left for future research.

(i) *Japanese*

a. [$_{DP}$ akai [$_{CP}$ John **ga/no** katta] kuruma]
red John-NOM/GEN buy-PST-ADN car
'the red car that John bought'

b.*[$_{DP}$ John **ga/no** [$_{D'}$ akai [$_{CP}$ $t_{John\ no}$ katta] kuruma]
John-NOM/GEN red buy-PST-ADN car
'the red car that John bought'

No natural account for the ungrammaticality of (ib) is available under the ECM/Raising analysis. Under our theory, on the other hand, (ib) is an instance of a violation of a general condition that prohibits scrambling out of a relative clause.

[56] See Pesetsky and Torrego (2000) for some speculations toward a refined theory of parallel syntax of D and C.

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