An RCS Approach to the *Tough*-Construction*

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1. Introductory Remarks

The purpose of this paper is twofold: (i) to consider previous analyses of the *tough*-construction and show their limitations, and (ii) to offer an alternative analysis within the framework of Recursive Categorical Syntax (hereafter RCS. See Brame, 1984; 1985; 1987; 1988 for detailed discussions of the theory). The alternative analysis not only accounts for both syntactic and semantic properties unique to the *tough*-construction but also generates *tough*-sentences in terms of a general concatenation device in a principled way.

Tough is a class of adjectives which can be classified into three groups: (i) those which express the degree of difficulty: *difficult, easy, hard, impossible. etc.*; (ii) those which state emotional state: *agreeable, amusing, annoying, boring,* etc.; and (iii) those which indicate value judgment: (*in*) *appropriate, bad, beneficial, cheap, etc. Tough*-adjectives occur in three construction types: *tough*-movement, extraposition, and sentential subject (see Araki & Yasui, 1992). A representative of each construction type is given below.

(1)

a. John is easy to please.

b. It is easy to please John.

c. To please John is easy.

Let us now examine previous analyses of the *tough*-constructions.

2. Previous Analyses and Limitations

Transformationalists in the 1970s assumed that (1a) was derived in

terms of a preposing transformation by which *John* was moved from its original position to the subject position of the main clause (see Postal, 1971 and Nanni, 1978). Consider

(2) [$_{IP}$ e is easy [$_{IP}$ PRO to please John]]

With the advancement of Government-Binding theory (GB), it became clear that the above analysis presents a number of problems. First, the moved constituent *John* would be assigned two different Cases thereby giving rise to "case conflict": Accusative case is assigned by the verb *please*, whereas Nominative case is assigned by AGR. Second, *John* would get two θ-roles, thus violating the θ-Criterion (see (3)): an internal θ-role is assigned by *please*, while an external θ-role is assigned by VP of the main clause. Finally, the trace of *John* is not properly bound within its governing category. This violates Condition (A) of the Binding Theory (see (4)).

(3) θ-Criterion (Chomsky, 1981: 36):

Each argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument

(4) Binding Theory (Chomsky, 1981: 188):

(A) An anaphor is bound in its governing category

(B) A pronominal is free in its governing category

(C) An R-expression is free

To eliminate the problems associated with the previous analysis, an innovative analysis based on the recent development of the principles and parameters theory (henceforth PPT) was advanced. Under a PPT approach as described in Ando, Amano & Takami (1993: 243), (1a) is generated through a more complex process involving empty operator O and VP adjunction. Consider

(5) John is easy [$_{CP}$ O_i [$_{IP}$ PRO to [$_{VP}$ t'_i [$_{VP}$ please t^0_i]]]]

As shown in (5), empty operator O_i underwent two stages of move-α: First, O_i was taken out from the object position of *please* and then adjoined to VP. Second, it was then moved to the CP position. After completion of these operations, O_i is coindexed with *John* by a predication rule[1] (I will take up this issue shortly) in LF, where the representation of sen-

tence meaning is determined. Therefore, *John* is appropriately interpreted as the object of *please*.

The two-step movement of O_i in structure (5) does not raise a problem under the theory of barriers (Chomsky, 1986). First, both the higher VP and the lower VP do not constitute a barrier for the movement of O_i: the former dominates t^1_i, while the latter does not exclude t^0_i. Next, IP is neither an inherent barrier nor can it be a barrier by inheritance since the higher VP does not constitute a barrier. It follows from this that the movement from t^1_i to O_i does not involve any barrier. Thus, the Subjacency Condition given below under (6) is satisfied. Third, both t^0_i and t^1_i do not violate the Empty Category Principle (see (7)): t^0_i is θ-governed by *please*. Moreover, t^1_i antecedent-governs t^0_i, since the former is not excluded by the higher VP. Finally, since neither the higher VP nor IP is a barrier, t^1_i is antecedent-governed by O_i, thus satisfying the ECP.

(6) Subjacency Condition (Chomsky, 1986: 30):

If (α_i, α_{i+1}) is a link of a chain, then α_{i+1} is subjacent to α_i.

(7) Empty Category Principle (ECP) (Chomsky, 1981: 250):

[$_\alpha$ e] must be governed (in some sense)

Therefore, the first and the third problems associated with the previous analysis discussed above are dismissed. The second problem, however, remains unaccounted for.

The PPT analysis creates anew a number of syntactic and semantic problems. Let us begin with the syntactic problems. First of all, if θ-roles are assigned in D-Structure as generally assumed, no θ-role is assigned to *John* which is base-generated in structure (5). This gives rise to a violation of the θ-Criterion (see Lasnik and Uriagereka, 1988: 147)[2].

Second, as is also pointed out by Lasnik and Uriagereka (1988: 147), if *John*, O_i, t^1_i, and t^0_i are all coindexed, structure (5) violates Condition (C) of the Binding Theory: the coindexed items are free from the binding condition because they are R-expressions. This problem, however, might be avoided if the above predication rule is employed as a loop hole.

Third, the predication rule is not an appropriate solution. Consider the following predication rule in Williams (1980: 206), where X can be either

AP, PP, NP, VP, S or S'.

(8) Predication Rule:

Coindex NP and X.

Predication Rule (8) operates basically in the following manner: When a sentence meets one of the generalized structural descriptions in (9), the two italicized phrases are coindexed (see Williams, 1980:212).

(9)

a. *NP VP*

b. *NP* VP *X*

c. *NP* be *X*

d. If X is in VP, and V specifies that X is a predicate, then the antecedent of X is the theme of V (or, in the worst case, V specifies which NP is the antecedent).

It is, however, not clear exactly how Williams' Predication Rule can coindex *John* with O_i in (5). Ando, Amano & Takami (1993) fail to offer an explanation regarding this point.

Fourth, a couple of questions arise regarding justifiability of the empty operator: (i) What is it really?; and (ii) Why do the examples in (10) involve the empty operator, while those in (11) do not?[2] These questions are not trivial, hence require a principled answer.

(10)

a. this book, O_i I really like t_i

b. this violin is easy O_i to play sonatas on t_i

c. John is taller than O_i Mary is t_i

(11)

a. Who_i t_i saw what?

b. Who_i do you believe t_i hit Tom?

c. Which_i boy did John say that Susan liked t_i ?

d. Where_i do you think John bought the car t_i ?

Finally, the asymmetry illustrated in the following paradigm opens yet another problem for the PPT followers. (The examples are taken from Nanni, 1978: 91).

(12)

a. *The money was tough for John to lack.

b. *That expensive dress was easy for Mary to want.

c. *The hard-cover edition was hard for the teacher to prefer.

(13)

a. It was tough for John to lack the money he needed.

b. It was easy for Mary to want expensive clothes.

c. It was hard for the teacher to prefer the hard-cover edition.

Let us now consider the rest of the examples in (1). Transformationalists assume that (1b) and (1c) are related derivationally as shown below under (14). This assumption, however, creates its own critical and seemingly insoluble problems: Firstly, how can *It* fill the empty slot which was originally occupied by the sentential subject? Secondly, granting this, it is not clear how the inserted *It* and the postposed IP get the same index. Finally, if *It* and IP are coindexed, structure (14c) violates Condition (C) of the Binding Theory: Unlike expletive *it*, anticipatory *It* here is taken to be an R-expression, hence being free from the binding condition. Notice that the coindexing problem mentioned above also applies to the non-movement oriented analysis illustrated in (15).

(14)

a. $[_{IP}$ PRO to please John] is easy -----› Sentential Subject Postposing

b. t_i is easy $[_{IP}$ PRO to please John$]_i$ -----› *It*-Insertion

c. It_i is easy $[_{IP}$ PRO to please John$]_i$

(15)

a. $[_{NP}$ e] is easy $[_{IP}$ PRO to please John] -----› *It*-Insertion

b. It_i is easy $[_{IP}$ PRO to please John$]_i$

Therefore, no generally accepted transformational treatment of the *tough*-constructions that provides principled answers to the above problems currently exists.

Let us now focus on the semantic problem. Kuno (1972) claims that the *to*-infinitive clause of *tough*-constructions obligatorily states self-controllable action. This explains the ungrammaticality of the following ex-

amples.

(16)

a. *John is easy for Bill to resemble.

b. *Such a person is hard for me to come to like.

Kuno's observation points out a major semantic property unique to the *tough*-construction. Unfortunately, his observation has not been accounted for within the framework of PPT.

We are now in a position to demonstrate an RCS analysis that offers a unified solution by accounting for both syntactic and semantic properties at the onset of generating the *tough*-constructions.

3. An RCS Approach to the Tough-Construction

3.1. Preliminary remarks

In the following sections, I assume the theory of RCS originated and being developed by Brame (1984; 1985; 1987; 1988). For expository purposes, however, it is necessary to show a brief sketch of lexical specification and Word Induction.

The RCS employs, among others, two formal devices, lexical specification and Word Induction. The former rigorously encodes grammatical information into words. Words can be classified into two major groups, those which take arguments and those which do not. Argument-taker words are further classified into three groups: l-words, d-words, and dl-words. The four generalized lexical specifications given below embrace the subcategorization frames of the types of words discussed above.

(17)

a. $\mid x, \varphi \mid$	nullary words
b. $\mid x, \varphi \mid \psi_1,\ldots,\psi_n\rangle$	l-words
c. $\langle\theta_m,\ldots,\theta_1 \mid x,\varphi \mid$	d-words
d. $\langle\theta_m,\ldots,\theta_1 \mid x,\varphi \mid \psi_1,\ldots,\psi_n\rangle$	dl-words

(cf. Brame, 1987: 151)

The lower case Latin in the formulae symbolizes phonetic or orthographic words such as *truth, the, saw, I*, etc. The lower case Greek designates categories such as D, determiner; T, tense; N, noun; V, verb; P, prep-

osition; etc. Lower case Greek φ represents "intrinsic" category. The intrinsic category and phonetic word are separated by a vertical line from "argument" categories which are represented by θ and ψ.

Word Induction is a concatenation device which mechanically combines words together; thus words, phrases, clauses and sentences can be created as a result. Consider the following three concatenation devices.

(18) l-Induction:

If $L_i = \langle x,\varphi \mid \psi_1,\ldots,\psi_n\rangle \in LEX$ and $L_j = \langle y,\psi_1\sigma \mid \theta_1,\ldots,\theta_m\rangle \in LEX$, $n \geq 1$, $m \geq 0$, then $L_i(L_j) = \langle x\text{-}y, \varphi\psi_1\sigma \mid \theta_1,\ldots,\theta_m,\psi_2,\ldots,\psi_n\rangle \in LEX$.

(19) d-Induction:

If $L_i = \langle \psi_n,\ldots,\psi_1 \mid x,\varphi \mid \in LEX$ and $L_j = \langle \theta_m,\ldots,\theta_1 \mid y,\sigma\psi_1 \mid \in LEX$, $n \geq 1$, $m \geq 0$, then $(L_j)L_i = \langle \psi_n,\ldots,\psi_2, \theta_m,\ldots,\theta_1 \mid y\text{-}x, \sigma\psi_1\varphi \mid \in LEX$.

(20) dl-Induction:

If $L_i = \langle \alpha_i,\ldots, \alpha_1 \mid x, \varphi \mid \psi_1,\ldots,\psi_n\rangle \in LEX$ and

$L_j = \langle \delta_1,\ldots, \delta_1 \mid y, \psi_1\sigma \mid \beta_1,\ldots,\beta_j\rangle \in LEX$ and

$L_k = \langle \varepsilon_m,\ldots, \varepsilon_1 \mid z, \theta\alpha_1 \mid \gamma_1,\ldots, \gamma_k\rangle \in LEX$, then

$(L_k)L_i(L_j) = \langle \delta_1,\ldots, \delta_1, \alpha_i,\ldots, \alpha_2, \varepsilon_m,\ldots, \varepsilon_1 \mid z\text{-}x\text{-}y, \theta\alpha_1\varphi\psi_1\sigma \mid \beta_1,\ldots,\beta_j, \psi_2,\ldots,\psi_n, \gamma_1,\ldots, \gamma_k\rangle \in LEX$.

l-Induction is responsible for the left-to-right concatenation of words, whereas d-Induction unites words from right to left. On the other hand, dl-Induction can be thought of as a generalized concatenation mechanism in which l-Induction and d-Induction are collapsed into one formula.

Let us take l-Induction as an example and show how it works. The concatenation is triggered and carried out if the initial element of the argument category of a lexical item is the same type as the initial element of the intrinsic category of another lexical item. This can be shown in (21), where the association line is employed to indicate that the two elements identified by the arrow heads are the same type.

(21) $\langle x,\varphi \mid \psi_1,\ldots,\psi_n\rangle(\langle y,\psi_1\sigma \mid \theta_1,\ldots,\theta_m\rangle) = \langle x\text{-}y,\varphi\psi_1\sigma \mid \theta_1,\ldots,\theta_m, \psi_2,\ldots,\psi_n\rangle$

To complete the picture let us now show the concatenation at work using concrete examples. Given the lexical specifications in (22) and l-Induction (18), the induced word on the right of the equal sign in (23) can

be obtained.

(22)

a. | the,D3 | N›

b. | syntactician,N |

(23) | the,D3 | N›(| syntactician,N |)= | the-syntactician,D3N |

In (23), the argument category of *the* and the intrinsic category of *syntactician* are the same type, N. This satisfies the condition of l-Induction, and the concatenation is successfully carried out.

The induced word *the-syntactician* is not a subject as it stands. In order to make it a subject, we need a formula called "subject identity word" as illustrated in (24). Upon concatenation, this phonetically null word is fused with another word thereby creating a subject. (English exhibits words that are intrinsically subject such as *I, we, he, she, they,* etc. Intrinsically subject words are of course not subject to subjectivization in terms of the subject identity word.)

(24) Subject Identity Word

| Λ,$ | D_n,VT^x_n›

The symbol $ designates subject type. The superscript x of T is a variable which ranges over °, present; and ˙, past. The subscript n of D and T is designed to guarantee the agreement in number between the subject and the verb. Consider

(25) | Λ,$ | D_n,VT^x_n›(| the-syntactician,D3N |)= | the-syntactician, $D3 N | VT^x3›

The induced word *the-syntactician* is now a subject that selects as its argument a third person verb with tense. The number agreement is ensured: the value of n is actualized as 3, the third person. The above discussion of lexical specification and Word Induction constitutes a stepping stone to an RCS analysis of the *tough*-construction.

3.2. An RCS analysis of the tough construction

Each of the three types of *tough* constructions given in (1) can be classified into a construction of general type: (1a) is an example of unbounded

construction; (1b), focus construction; and (1c), infinitive construction. Thus, the representatives can be analyzed accordingly. Let us now demonstrate how (1a) is generated within the framework of RCS. Consider first the following lexical specifications.

(26)

a. | Λ,T$\$_x$D,$T^{\infty}X_x$D›
b. | John,D3 |
c. | is,VT °3 | A›
d. | easy,$A_{[+sc]}$ |
e. | to,T^{∞} | VT^{∞}›
f. | please,$V_{[+sc]}T^{\infty}{}_x$D |

Syntactically, the sentence *John is easy to please* is characterized by two features. First, the subject of the matrix clause *John* and the object of *please* in the *to*-infinitive clause are co-referential. Second, this co-referentiality is an example of long-distance relationship: The co-reference takes place over a long distance. (WH-questions, topicalization, and relative constructions also involve this kind of dependency.) Tough operator (26a) is designed to account for these two features. Notice that the argument category contains two free determiners $_x$D whose subscript x guarantees the co-reference relationship discussed above. The X of $T^{\infty}X_x$D is a variable signifying intervening materials in the long-distance relationship. The value of X is determined (substituted with intervening type symbols) in terms of the rule of substitution called Variable Continuation.

(27) Variable Continuation:

If ‹... | x, φ | ψXσ›∈LEX and ‹... | y, ψθσ | ...›∈LEX, then ‹... | x, φ | ψθσ›∈LEX.

Semantically, *tough*-adjectives trigger self-controllable action, thus they bear the feature [+ self-controllable]. Due to this semantic property, a "semantic conflict" results if a *tough*-adjective occurs with a verb which carries the feature [-self-controllable]. Notice that lexical specifications (26d) and (26f) carry the feature [+st] which stands for [+self-controllable]. This step is indispensable for the analysis of the semantic property unique to the *tough*-construction.

I assume that the head of the infinitive clause is *to* which selects an infinitive verb as specified in (26e). (26f) is an induced word: *please* is fused with the free determiner $_xD$ which is co-referential with the first component of the argument category of tough operator (26a). Given the above lexical specifications and l-Induction together with the Variable Continuation, (1a) can be obtained as shown below.

(28) John is easy to please.

a. $| \Lambda,\$ | D_n,VT^x_n\rangle(| John,D3 |) = | John,\$D3 | VT^x3\rangle$

b. $| John,\$D3 | VT^x3\rangle(| is,VT\ ^\circ3 | A\rangle) = | John\text{-}is,\$D3VT\ ^\circ3 | A\rangle$

c. $| John\text{-}is,\$D3VT^\circ3 | A\rangle(| easy,A_{[+sc]} |) = | John\text{-}is\text{-}easy,\$D3VT^\circ 3A_{[+sc]} |$

d. $| \Lambda,T | \$_xD,T^\infty X_xD\rangle(| John\text{-}is\text{-}easy,\$D3VT\ ^\circ3A_{[+sc]} |) = | John\text{-}is\text{-}easy,T\$_xD3VT\ ^\circ3A_{[+sc]} | T^\infty X_xD\rangle$

e. $| to,T^\infty | VT^\infty\rangle(| please,V_{[+sc]}T^\infty{}_xD |)\rangle | to\text{-}please,T^\infty V_{[+sc]}T^\infty{}_xD |$

f. $| John\text{-}is\text{-}easy,T\$_xD3VT\ ^\circ3A_{[+sc]} | T\ ^\infty X_xD\rangle(| to\text{-}please,T^\infty V_{[+sc]}T^\infty{}_xD |)$

$= | Joh\text{-}is\text{-}easy\text{-}to\text{-}please,T\$_xD3VT^\infty 3A_{[+sc]}T^\infty V_{[+sc]}T^\infty{}_xD |$

In (28f) the variable X has been substituted by $V_{[+sc]}T^\infty$ in terms of the Variable Continuation. Moreover, the induced word on the right of the equal sign shows that *John* is the subject, and it is co-referential with the object of *please*.

Before discussing the derivation of (1b), consider the following set of examples which shows that (1b) is a typical example of the focus construction.

(29)

a. It was Mike who criticized the phonetician.

b. It was the semantic problems that Mary failed to solve.

c. It was hard to persuade Joe to eat tofu.

Two characteristics are prominent here: First, the focus of information is the postverbal NP in (29a-b), while it is the *to*-infinitive clause in (29c). Second, the focused (or extraposed) constituent is co-referential with *It*, the subject of the main clause. The first point is borne out by the fact that the primary stress falls on the focused constituents, i.e. *Mike* in (29a), and *the*

semantic problems in (29b). Furthermore, it would be possible to have (29a), (29b) and (29c) as the answer to (30a), (30b) and (30c), respectively.

(30)

a. Who criticized the phonetician?

b. What did Mary fail to solve?

c. What was hard, you say?

With the above argument in mind, let us consider the derivation of (1b). Given below are lexical specifications essential for inducing the sentence at issue. (Aforementioned lexical specifications are not repeated here).

(31)

a. $\langle$ It, $\Gamma\$_xD3$ | VT^x3, $_xT^\infty\rangle$

b. $\langle$ please, $V_{[+sc]}T^\infty$ | D$\rangle$

The word *It* is not only the head but also the subject of the focus construction, hence its intrinsic category is specified as Γ, focus type fused with $\$_xD3$, third person subject determiner. The *It* selects two arguments, VT^x3 and $_xT^\infty$. The latter shares the same coindex with the intrinsic category. This means that the anticipatory *It* and *to*, the head of the clausal subject are in co-reference relationship (see Crystal, 1985: 18). As illustrated in (31b), the transitive verb *please* takes its object whose head is D, determiner such as *John*. Given the relevant lexical specifications together with I-Induction, the target sentence can be created as desired.

(32) It is easy to please John.

a. $\langle$ It,$\Gamma\$_xD3$ | VT^x3,$_xT^\infty\rangle$($\langle$ is,$VT^\circ3$ | A$\rangle$)= $\langle$ It-is,$\Gamma\$_xD3VT^\circ3$ | A,$_xT^\infty\rangle$

b. $\langle$ It-is,$\Gamma\$_xD3VT^\circ3$ | A,$_xT^\infty\rangle$($\langle$ easy,$A_{[+sc]}$ |)= $\langle$ It-is-easy,$\Gamma\$_xD3VT^\circ 3A_{[+sc]}$ | $_xT^\infty\rangle$

c. $\langle$ It-is-easy,$\Gamma\$_xD3VT^\circ3A_{[+sc]}$ | $_xT^\infty\rangle$($\langle$ to,T^∞ | $VT^\infty\rangle$) = $\langle$ It-is-easy-to,$\Gamma\$_xD3VT^\circ3A_{[+sc]x}T^\infty$ | $VT^\infty\rangle$

d. $\langle$ It-is-easy-to,$\Gamma\$_xD3VT^\circ3A_{[+sc]x}T^\infty$ | $VT^\infty\rangle$($\langle$ please,$V_{[+sc]}T^\infty$ | D$\rangle$) = $\langle$ It-is-easy-to-please,$\Gamma\$_xD3VT^\circ3A_{[+sc]x}T^\infty V_{[+sc]}T^\infty$ | D$\rangle$

e. $\langle$ It-is-easy-to-please,$\Gamma\$_xD3VT^\circ3A_{[+sc]x}T^\infty V_{[+sc]}T^\infty$ | D$\rangle$($\langle$ John,D |) = $\langle$ It-is-easy-to-please-John,$\Gamma\$_xD3VT^\circ3A_{[+sc]x}T^\infty V_{[+sc]}T^\infty$D |

Let us now consider the last example (1c). The subject of the construc-

tion is the whole *to*-infinitive clause whose head is the infinitive *to*, of course. The *to*, however, does not intrinsically bear the subject type $. Thus, a subject identity word comes into play to make *to* the head of the subject clause. This subject identity word[3] selects two arguments: infinitive *to*, and a verb with third person. Given the lexical specification of the subject identity word in (33) and the relevant words discussed above, the sentence under consideration can be generated in terms of I-Induction as shown in (34).

(33) $\langle \Lambda,\$ \mid T^{\infty},VT^{x}3\rangle$

(34) To please John is easy.

a. $\langle \Lambda,\$ \mid T^{\infty},VT^{x}3\rangle(\langle$ To,$T^{\infty} \mid VT^{\infty}\rangle) = \langle$ To,$\$T^{\infty} \mid VT^{\infty},VT^{x}3\rangle$

b. $\langle$ To,$\$T^{\infty} \mid VT^{\infty},VT^{x}3\rangle(\langle$ please,$V_{[+sc]}T^{\infty} \mid D\rangle) = \langle$ To-please,$\$T^{\infty}V_{[+sc]}T^{\infty} \mid D,VT^{x}3\rangle$

c. $\langle$ To-please,$\$T^{\infty}V_{[+sc]}T^{\infty} \mid D,VT^{x}3\rangle(\langle$ John,D $\mid\rangle = \langle$ To-please-John,$\$T^{\infty}V_{[+sc]}T^{\infty}D \mid VT^{x}3\rangle$

d. $\langle$ To-please-John,$\$T^{\infty}V_{[+sc]}T^{\infty}D \mid VT^{x}3\rangle(\langle$ is,$VT^{\circ}3 \mid A\rangle) = \langle$ To-please-John-is,$\$T^{\infty}V_{[+sc]}T^{\infty}DVT^{\circ}3 \mid A\rangle$

e. $\langle$ To-please-John-is,$\$T^{\infty}V_{[+sc]}T^{\infty}DVT^{\circ}3 \mid A\rangle(\langle$ easy,$A_{[+sc]} \mid\rangle = \langle$ To-please-John-is-easy,$\$T^{\infty}V_{[+sc]}T^{\infty}DVT^{\circ}3A_{[+sc]} \mid$

As demonstrated above, the derivation of (1c) is straightforward without involving the Variable Continuation.

4. Concluding Remarks

The PPT analysis has developed devices in an effort to solve the problems of the previous analysis only to create anew a number of problems. It has been shown that the problems are not settled in a general and principled fashion. As an alternative to the PPT analysis, I have put forward an RCS analysis which straightforwardly accounts for the three types of the *tough* construction: both syntactic and semantic properties unique to the constructions are accounted for in a general, unified and principled way.

FOOTNOTES

* I am grateful to Peter Skaer and anonymous readers for helpful comments and stylistic suggestions on an earlier version of this paper.

1. Ando, Amano & Takami (1993) do not give a detailed discussion of the predication rule.

2. In Chomsky (1993), a solution to this problem is suggested: In nonθ-positions a lexical item, such as *John*, can be inserted in the course of the derivation and assigned its θ-role only at LF. Nevertheless, the problem remains: No device is offered to guarantee the co-referentiality between the inserted item *John* and the object of *please* in the structure John is easy [$_{CP}$ O [$_{IP}$ PRO to please t]].

3. For heuristic purposes, two minor changes are made on the original examples which are taken from Ando, Amano & Takami (1993: 40ff): (i) WH words are replaced with O_i in the examples of (10), and (ii) the coindexing is assigned in (10) and (11).

4. The existence of this subject identity word suggests another subject identity word which is essential in accounting for the gerundive construction such as *Pleasing John is easy*. The subject identity word in question can be lexically specified as ⟨ Λ,$ | VT^{ing},VT^{x}3⟩.

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