A Phase-Theoretic Analysis of Object Omission*

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In non-contrastive contexts, object DPs can be omitted to be defocused. While observed in different languages, Rizzi (1986) pointed out that object omission is more common in languages like Italian than in English and advocated the pro-drop parameter for this difference. However, the syntactic nature of English object omission does not seem to be explained properly by his parameter. In this paper, it will be proposed that object omission involves movement to the edge of *v*P, in parallel with p-movement, another defocusing phenomenon. The Phase Theory constrains defocusing. In addition, defocused DPs are optionally assigned null Case which makes them invisible to phonology. Null-Case assignment is parameterized. Finally, the possibility of minimizing the inventory of empty categories will be entertained.

1. Introduction

Among various syntactic phenomena, ellipsis or omission can be regarded as closely related with discourse factors such as focus. Halliday (1967: 206) notes:

> Ellipsis involves systemic features having no realization in structure and therefore having no potentiality of association with information focus: what is unsaid cannot be otherwise than taken for granted.

This statement naturally holds for object omission exemplified by (1), used in non-contrastive contexts:

(1) This leads *e* to the following conclusion.

In (1), *e* indicates an empty position which an "omitted" object should otherwise occupy. The reader should notice that the omitted object in such a case is given a generic or arbitrary, but not definite, interpretation. Hence, (1) can be synonymous with (2a) but not with (2b):

(2) a. This leads *people* to the following conclusion.
b. This leads *them* to the following conclusion.

It is not likely that generic expressions are associated with information focus. Rather, they should be presuppositional, as implied in the above quotation from Halliday (1967). In fact, it has been pointed out by several researchers that when object omission takes place, the object is presupposed. This characteristic of object omission of the type seen in (1) is what will be addressed in the present paper.

Not only in English but also in other languages, we can find such object omission. Let us draw Italian examples from Rizzi (1986):

(3) a. Questo conduce *e* alla seguente conclusione.
this leads *e* to the following conclusion
(= (1))
b. Questo conduce *la gente* alla seguente conclusione.
this leads the people to the following conclusion
(= (2a))

We can see that *e* in (3a) shares with *e* in (1) the generic interpretation, or [+generic] if we adopt Rizzi's feature; the relevant interpretation due to this feature can be considered to entail presuppositionality. (1) might be taken as somewhat marginal, however. According to Rizzi, the syntactic status of *e* in (3a) is different from that of *e* in (1). I will return to this later.[1]

Importantly, we need to distinguish the pertinent object omission from other types (see Cote (1996), etc. for various types of object omission). In many languages, object omission occurs not only in non-contrastive contexts but also in contrastive contexts. Generally speaking,

object omission is less constrained in the latter contexts than in the former in any language. Thus, examples such as (4a-c) are broadly observed in English, despite the marginality of (1):

(4) a. She describes *e*, but doesn't explain *e*.
b. Some people cut *e*, others tear *e*.
c. Buy *e* cheap, sell *e* dear.

Object omission in these cases has the effect of giving special prominence to contrasted verbs (and modifiers), and they will fall into contrastive foci rather than information foci.[2] I consider this to be a good reason to claim that object omission in contrastive contexts is discriminated from that in non-contrastive contexts. In the following discussion, by "focus," I mean information focus unless mentioned otherwise, and we will concentrate our attention on object omission in non-contrastive contexts (though another type of object omission will be mentioned at the end of section 2). I will argue that object omission involves a defocusing operation, showing that its properties follow from the Phase Theory proposed in the Minimalist Program (Chomsky (2000) and subsequent work).

The organization of this paper is as follows. In section 2, I will review Rizzi's (1986) influential study of object pro-drop in which he attempted to capture a parametric difference between English and Italian. In section 3, I will examine some surface order differences between English and Italian/Spanish, introducing prosodically-motivated movement (p-movement) in Zubizarreta's (1998) sense, or short scrambling, and discuss how to defocus VP-internal constituents. It will be suggested that object omission shares the same defocusing mechanism with p-movement. In section 4, I will provide a phase-theoretic account of defocusing and object omission. I will propose that the head of CP should play an essential role in defocusing VP-internal constituents, respecting the Phase Theory. C should also have the ability to assign null Case to an accessible generic DP, which causes object omission. This eliminates the so-called arbitrarily controlled PRO (PRO_{arb}). I will accommodate Rizzi's parameter under our phase-theoretic analysis. In section 5, I will entertain a theoretical implication of our

analysis: the inventory of empty categories can be minimized to a great extent. Section 6 is the conclusion.

2. Pro_{arb} or Implicit Argument?

In the early framework of the Principles and Parameters approach, the Projection Principle was adopted:

(5) Projection Principle
[E]very syntactic representation (i.e., LF-representation, and S- and D-structure) should be a projection of the thematic structure […] of lexical entries. (Chomsky (1981: 36))

For this principle to be satisfied in transitive constructions, in the active voice or in the passive voice, the object position must be filled by a certain constituent. However, the fact in (3a) appears to violate the Projection Principle on the surface. Rizzi (1986) explains that the object position is occupied by an empty pronoun, pro. He proposes that in Italian, the pro-drop parameter in (6) is set to positive:

(6) pro is Case-marked by X^0_y. (ibid.: 524)

This parameter setting allows Italian to have pro in the object position. That is, Italian has X^0_y, *v* (with the categorial label updated), which Case-marks and licenses pro.[3] Hence, *e* in (3a) is replaced by pro:

(7) Questo conduce pro alla seguente conclusione.

As with *e* in (3a), pro in (7) is assigned an arbitrary interpretation (arb). The arb interpretation is shared by "arbitrarily-controlled" PRO (PRO_{arb}) which typically occupies the infinitival subject position. Thus, PRO_{arb} in (8a) can be understood to be synonymous with the indefinite bare-plural *people* in (8b):

(8) a. It is easy [PRO_{arb} to learn syntax].

b. It is easy [for people to learn syntax].

The situation is quite comparable with the pair (7) (=(3a)) and (3b). For this reason, Rizzi analyzes pro in (7) as pro_{arb} whose feature specifications contain [+generic, +plural].[4]

Rizzi argues that English takes the negative value for the pro-drop parameter, so it ensues that English lacks X^0_y and disallows pro. This seems consistent with the fact that English does not "omit" argument pronouns in formal speech. But we have already seen that arbitrary object DPs can be omitted even in English under certain conditions. Let me give additional examples:

(9) a. Owls only kill *e* at night.
(= Owls only kill *animals* at night.)
b. Does the library lend *e* to non-members?
(= Does the library lend *books* to non-members?)
c. In the past, they built *e* only in stone.
(= In the past, they built *buildings* only in stone.)

In each of these examples, the empty object *e* is assigned the arb interpretation just like pro_{arb}. If Rizzi is right, *e* in (9a-c) should not be pro_{arb}. He suggests that a sort of detransitivization is operative in English cases. Namely, the object θ-role is saturated in the lexicon and not projected into syntax.

There are some reasons for Rizzi's distinction between Italian and English. Since pro_{arb} is a syntactic object, we expect that it will participate in syntactic phenomena (syntactically "active" in Rizzi's term): for example, pro_{arb} controls PRO_{obl}, and enters into predication with a secondary predicate. According to Rizzi, Italian object pro_{arb} is really compatible with obligatory control of PRO, which contrasts with the "implicit object" in English. Observe the pairs in (10) and (11):

(10) a. Questo conduce la gente$_i$ a [PRO_i concludere quanto segue].
b. This leads people$_i$ [PRO_i to conclude what follows].

(11) a. Questo conduce pro_{arbi} a [PRO_i concludere quanto segue].
b. *This leads e_i [PRO_i to conclude what follows].

(10a) and (10b) are an Italian object-control construction and the English counterpart. Turning to (11), we can see that in the Italian example (11a), PRO in the infinitival complement is controlled by the matrix object pro_{arb}. On the other hand, this is not viable in the English counterpart (11b) where *e* is intended to be an implicit object.

In a similar way, pro_{arb} is compatible with object-oriented secondary-predication in Italian:

(12) a. Un dottore serio visita pro_{arb} nudi.
'A serious doctor visits people nude.'
b. Di solito, Gianni fotografa pro_{arb} seduti.
'In general, Gianni photographs people seated.'
c. Di solito, quel famoso pittore ritrae pro_{arb} vestiti di bianco.
'In general, that famous painter portrays people dressed in white.'

In these examples, depictive secondary-predicates (*nudi*, *seduti*, *vestiti di bianco*) are predicated of pro_{arb}. Such secondary predication does not apply to an implicit object. In fact, if we attempted to translate (12a-c) into English word for word with no overt objects, we would not obtain the interpretation of object-oriented secondary predication:

(13) a. A serious doctor visits nude.
b. In general, Gianni photographs seated.
c. In general, that famous painter portrays dressed in white.

Rather, (13a-c) would be construed as subject-oriented secondary-predicate constructions. From the structural perspective, object-oriented secondary predicates, generated within *v*P, require the occurrence of an object DP in *v*P (see Rothstein (1983), etc). This is also confirmed by (14)-(16) with resultative secondary-predicates:

(14) a. John [$_{v\mathrm{P}}$ broke *the dish* **into pieces**].
b. *The dish*$_{\mathrm{i}}$ was [$_{v\mathrm{P}}$ broken t_{i} **into pieces**].
c. *The dish*$_{\mathrm{i}}$ [$_{v\mathrm{P}}$ broke t_{i} **into pieces**].
(15) a. *Mary [$_{v\mathrm{P}}$ shouted **hoarse**].
b. Mary [$_{v\mathrm{P}}$ shouted *herself* **hoarse**].
(16) a. *Joggers [$_{v\mathrm{P}}$ ran **threadbare**].
b. Joggers [$_{v\mathrm{P}}$ ran *their Nikes* **threadbare**].

As for the passive construction in (14b) and the unaccusative construction in (14c), the surface subjects originate in the object position in *v*P indicated by *t* (trace/copy), so object-oriented secondary predication holds. In (15) and (16), by contrast, the verbs are unergative, and the object positions are not expected to be filled by anything. Hence, object-oriented secondary predication will not take place, unless fake objects are inserted as in (15b) and (16b).

After all, there seems to be some disparity between the two languages, and object omission is syntactically allowed in Italian but not in English. On the contrary, Mittwoch (2005: 253 fn.19) points out that English has a construction in which an empty object seems to be syntactically active:

(17) a. These architects build *e* high.
b. The coffee mill grinds *e* very fine.
c. ??He writes *e* very small.

(17a-c) are resultative secondary-predicate constructions. Since secondary predication holds, it seems reasonable to argue that pro$_{\mathrm{arb}}$ should occur in these examples, though English does not have a construction analogous to (12) for some reason. While the examples in (17) might be somewhat marginal, we can consider them to involve pro$_{\mathrm{arb}}$ in syntax, not saturated in the lexicon, because they actually derive from respecting the syntactic condition on secondary predication. I will therefore pursue a syntactic analysis of English object omission.

Before proceeding, let us see what type of argument can undergo

object omission. Two types of object omission can be discriminated in relation to the types of transitive verbs used. Since the early days of generative grammar (Chomsky (1964), Katz and Postal (1964), etc), sentences such as (18a, b) have been cited repeatedly as typical examples of object omission:

(18) a. He wrote.
b. He is writing.

(18a) and (18b) entail (19a) and (19b), respectively, whose objects have no specific referents:

(19) a. He wrote something.
b. He is writing something.

An earlier account invokes deletion transformation by which the indefinite pro-form *something* is deleted.[5] Once deletion applies, the transitive verb will be altered into an intransitive verb as in (18).[6] Recently, lexical analyses have become more dominant (Jackendoff (1990), etc.). Under such analyses, while a verb is transitive throughout, the implicit object argument is affected only in the lexicon but not realized in syntax. It appears consistent with Rizzi's (1986) account reviewed above. However, the indefinite-object alternation between (18) and (19) is not uncommon in English. This contradicts Rizzi's observation that object omission is unproductive in English.

We should take notice of the type of transitive verb which participates in indefinite-object alternation. Semantically, verbs like *write* are classified as activity verbs. Activity verbs are atelic with no aspectual delimiter, and this is demonstrated by the *for/in* temporal-adverbial tests:

(20) a. John wrote for hours.
b. *John wrote in five minutes.

(20) shows that when object omission takes place, only the *for*-adverbial is

acceptable. When the verb takes an indefinite bare-plural object as in (21), there arises a similar situation:

(21) a. John wrote stories for hours.
b. *John wrote stories in five minutes.

An activity verb has a simplex event structure:

(22) (x ACT)

According to Grimshaw (2005: 81), it is not the event structure but the semantic content of an activity verb which determines that it can be accompanied by an object. Grimshaw refers to such an object argument as a "content argument," and differentiates it from a "structural argument" which is linked to a position in an event structure. Content arguments are optional in principle. Therefore, the availability of the implicit argument in English seen in (18) can be attributed to the optionality of content arguments. Incidentally, non-thematic objects can occur in object-oriented secondary-predicate constructions with activity verbs by virtue of such optionality:

(23) a. He ate *himself* sick.
b. He read *his eyes* sore.

The same can be found in (15b) and (16b) with unergative intransitive verbs which typically express activity:

(15) b. Mary shouted *herself* hoarse.
(16) b. Joggers ran *their Nikes* threadbare.

By contrast, a causative verb such as *build* has a complex event structure incorporating a change-of-state meaning:

(24) (x CAUSE (y CHANGE STATE))

Since causative verbs always require structural object arguments (*y* in (24)), object omission should be disallowed. It follows, as noted by Mittwoch (2005), that causative verbs do not display the elasticity as to complement selection seen in (23). Furthermore, to a question like (25), (18b) can be an appropriate answer, whereas (26) cannot and may be impossible:

(25) What is he doing?
(18) b. He is writing.
(26) ??He is building. (cf. (9c))

(18b) is interpreted as solely denoting an activity, with no affected object in mind. In (26), such an interpretation is hardly obtained because structural arguments must be selected by causative verbs. It seems possible to read (26) as involving an affected object which is taken for granted, though not overtly realized. From the opposite viewpoint, we could "omit" a structural object argument provided that it is presupposed to a certain degree. In the following discussion, sticking to Rizzi's (1986) pro-drop parameter, I will confine object omission cases to those with causative verbs in non-contrastive contexts.

Despite the facts in (11)-(13), the type of English object omission that we saw in (17), as well as in (1) and (9), is (almost) acceptable, if marginal. Then, it is plausible, as suggested by Mittwoch (2005) among others, that the English object omission construction should contain an empty object in syntax. In section 1, I gave the quotation from Halliday (1967) to the effect that omission is related with discourse properties. More recently, Mittwoch (2005) made a similar point concerning object omission: omission is the ultimate destressing, and backgrounded material increases the prominence of what is stressed. Goldberg (2000, 2005) also presented a similar descriptive principle:

(27) Principle of Omission under Low Discourse Prominence
Omission of the patient argument is possible when the patient argument is construed to be deemphasized in the discourse vis-

à-vis the action. That is, omission is possible when the patient argument is not topical or focal in the discourse, and the action is particularly emphasized (via repetition, strong affective stance, discourse topicality, contrastive focus, etc.).

"Stressed/emphasized" can be paraphrased as "focused," and "destressed/deemphasized" as "defocused." In general, defocused elements are backgrounded/presupposed. Along these lines, I will analyze object omission in comparison with another defocusing phenomenon.

3. P-Movement and Defocusing

In the preceding section, we saw that English object omission is syntactically active but somewhat marginal. In this respect, English differs from Italian. While omission is one way of defocusing, it is helpful for us to look at another way of defocusing in order to elucidate the difference between the two languages. Let us look at a phenomenon of short, leftward scrambling:

(28) Maria ha messo [sul tavolo]$_i$ il libro t_i. (Italian)
Maria has put on the table the book
'Maria put the book on the table.'

In (28), the underlined object noun comes to the sentence-final position as a result of scrambling of the bracketed PP, and becomes the focus of the sentence. Due to scrambling, (28) does not tolerate a focus-neutral or wide-focus interpretation. Thus, it cannot be an appropriate answer to "*What did Maria do?*." Rather, it will be an answer to the context question like "*What did Maria put on the table?*." Without scrambling, (29) cannot convey the same information as (28):

(29) *Maria ha messo il libro [sul tavolo].
(= (28))

In this sense, scrambling in (28) is another way of defocusing. Italian has

scrambling for defocusing but English does not. Quite interestingly, this difference seems to coincide with Rizzi's pro-drop parameter. I will return to this point later.

Zubizarreta (1998) argues that *v*P-internal short scrambling in (28) is prosodically-motivated movement or p-movement. Under the assumption that prosodic phrasal prominence is generated by the Nuclear Stress Rule (NSR), she proposes a modularized version of NSR which consists of the constituent-driven NSR (C-NSR) and the selection-driven NSR (S-NSR):[7]

(30) C-NSR: Given two sister categories C_i and C_j, the one lower in the asymmetric c-command ordering is more prominent.
S-NSR: Given two sister categories C_i and C_j, if C_i and C_j are selectionally ordered, the one lower in the selectional ordering is more prominent.

Selectional ordering in the definition of the S-NSR is based on the lexico-syntactic structures proposed by Hale and Keyser (1993). In addition to the NSRs, the Focus Prominence Rule (FPR) is postulated:

(31) Given two sister categories C_i (marked [+F(ocused)]) and C_j (marked [-F]), C_i is more prominent than C_j.

The C-NSR and the FPR are assumed to apply simultaneously. What if a [+F]-category precedes (viz. asymmetrically c-commands) a [-F]-category in a sentence? There will exit two sister categories which are prosodically more prominent than the other, which can never hold at the same time. (29) just exemplifies this contradiction. To solve such a problematic situation, p-movement is invoked. By p-movement, a [-F]-category at the sentence-final position is shifted to the left of the [+F]-category, so only the latter may be assigned the main prominence by the C-NSR. P-movement could be looked upon as an operation which repairs C-NSR violation.

To be precise, p-movement applies in a local fashion:

(32) $[_{TP}$ Subj ... $[_{vP}$ $[_{VP}$ XP t_v YP]]]

It carries a defocused constituent to the left periphery of *v*P. Consequently, a focused constituent is placed at the sentence-final position. Thus, (28) derives as in (33):

(33) $[_{TP}$ Maria$_j$ ha messo $[_{vP}$ sul tavolo$_i$ t_j $[_{VP}$ il libro t_v t_i]]]

It is trivial that the empty category t_i (and other *t*s) is metrically invisible in (33). I assume with Zubizarreta (1998: 49) that this holds in any language. Let us also see p-movement in Spanish:[8]

(34) a. *María puso el libro sobre la mesa.
María put the book on the table
b. María puso [sobre la mesa]$_i$ el libro t_i.
(= (34a))

In Spanish, just like Italian, when the C-NSR conflicts with the FPR as in (34a), it is repaired by p-movement as in (34b): the non-focal Goal PP moves leftward leaving the focused constituent at the bottom in the c-command ordering.

We have not yet touched on the S-NSR. Zubizarreta argues that the S-NSR as well as the C-NSR operates in English, whereas only the C-NSR in Italian and Spanish. In (35a-c), the underlined parts are lowest in the c-command ordering, so they turn out to be prosodically prominent and focused (*t* in (35b) is metrically invisible):

(35) a. Mary voted.
b. Truman$_i$ died t_i.
c. John ate the pie.

As for (35c), the focus position conforms not only to the C-NSR but also to the S-NSR. That is, the sentence-final Theme argument is lowest in the selectional ordering and prosodically prominent in (35c). The S-NSR plays

a salient role in intransitive and passive constructions:

(36) a. Mary voted.
b. Truman$_i$ died t_i.
c. Trespassers$_i$ will be prosecuted t_i.

In (36), the underlined arguments can be prosodic prominence, and foci, in accordance with the S-NSR rather than the C-NSR: they are ordered lower than the verbs which select them. From (35) and (36), we acknowledge that both the S-NSR and the C-NSR apply in English. Zubizarreta hypothesizes that in languages where only the C-NSR operates, all phonologically non-null elements are metrically visible; on the other hand, in languages where the S-NSR also operates, defocused (and anaphoric) constituents are metrically invisible. Thus, (37) is compatible with a narrow-focus interpretation, and can be used as an answer to "*What did Mary put on the table?*":

(37) Mary put the book on the table.

Given that optional defocusing, a kind of extrametricality, is freely available, examples like (37) are acceptable in English without repairing a paradoxical word order. Similarly, (36a-c) will not conflict with the C-NSR, nor does p-movement take place, if the verbs are invisible. Following Zubizarreta, we can say that French is another language which employs the extrametricality strategy.[9] In fact, French seems to utilize the two strategies (extrametricality and p-movement) and be able to choose between them:

(38) a. Nous avons mis trois livres sur la table.
we have put three books on the table
b. Nous avons mis [sur la table]$_i$ trois livres t_i.
(= (38a))

(Zubizarreta (1998))

In passing, French allows object omission with the arb interpretation. This is corroborated by (39):

(39) a. Cette drogue rend beaucoup de gens fou.
'This drug renders a lot of people insane.'
b. Souvent, cette drogue rend *e* fou.
'Often, this drug renders people insane.'
(Authier (1992: 354-355))

In (39b), the empty object *e* enters into predication with *fou*.

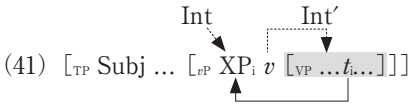
This modularized NSR account does not go without any problems, however. As seen above ((37) for example), C-NSR violation can be repaired by means of the extrametricality strategy. Probably, the latter strategy may be reduced to a last resort convention which is parametrically opted for in English and French. But this strategy itself seems less constrained. It may also nullify the S-NSR. If the S-NSR is real, we cannot tell whether it has priority over the C-NSR. So, it is not obvious when the S-NSR can override the C-NSR. Moreover, we cannot find any reason that English does not have p-movement. There is another difficulty which is raised by López (2009) in relation to Spanish double object constructions:

(40) a. Le di a mi hermana dos pimientos para mi <u>madre</u>.
Cl.dat gave.1sg DAT my sister two peppers for my mother
'I gave my sister two peppers for my mother.'
b. Le di [dos pimientos]$_i$ a mi hermana t_i para mi <u>madre</u>.

(40a) obeys both the C-NSR and the FPR: ***<u>madre</u>***, the [+F]-category, is placed lowest in the c-command ordering. Hence, (40a) is well-formed. From Zubizarreta's account, p-movement should not be triggered. Despite such a prediction, p-movement is carried out in (40b). In this case, there is no conflict between the C-NSR and the FPR. If so, p-movement should take place for another reason.

Contra Zubizarreta, López (2009) argues that p-movement should be

regarded as driven by a formal feature rather than by prosody. Under his analysis, a defocused category is assigned a Case-like feature [uf] which is related to some discourse interpretation. By p-movement, a probe-goal relation will be created between [uf] on the edge and [f] on the head of *v*P, a kind of spec-head relation. As a consequence of the probe-goal agreement, [uf] receives the positive value, [+f]. Needless to say, this is a variant of Chomsky's (2001) system: an element which is moved to the edge of *v*P receives a presuppositional interpretation (Int); Int cannot be assigned in the complement domain of *v*, i.e. VP. Movement to the edge of *v*P also results in evasion from focus interpretation (Int′) assigned by *v*:



Chomsky originally proposed this system for Scandinavian object shift:[10]

(42) a. Jag kysste [$_{vP}$ henne$_i$ inte [t_v t_i]]. (Swedish)
I kissed her not
'I did not kiss her.'
b. (*)Jag kysste [$_{vP}$ inte [t_v henne]].
(= (42a))

P-movement is different from object shift: for example, the former affects various categories while the latter only DPs. But they are alike in that a defocused element is moved to the edge of *v*P. Assuming with Chomsky (2001: 15) that surface semantic effects are restricted to narrow syntax, López (2009) looks upon p-movement as a syntactic operation (he retains this term, though not prosodically motivated).

Let us turn to object omission. Omission of phonological contents is the ultimate way of defocusing, since there is no potentiality of association with information focus, as Halliday (1967) notes. Suppose that the defocused or presuppositional interpretation, Int, is only assigned to the outside of the complement domain of *v*, especially, to the edge of *v*P, as illustrated in (41). Then, what should be defocused needs to be displaced

from within VP for Int-assignment. If this is the case, the two ways of defocusing (p-movement and object omission) should involve the same syntactic operation, namely, movement to the edge of *v*P. Along these lines, how can the differences between English and Italian/Spanish that we have discussed so far be accommodated? I will address this question in the next section.

4. Defocusing in the Phase Theory

In Chomsky (2000) and subsequent work, it is hypothesized that syntactic units which semantically correspond to propositions are core cyclic constructions called "phases." CP (full clause) and *v*P (full verb phrase) are traditionally qualified as phases. Sentences derive phase by phase, so syntactic operations apply in a strict-cyclic fashion. As a result, we can reduce computational complexity. In order to enforce phase-by-phase derivation, the Phase Impenetrability Condition (PIC) is postulated:

(43) For $[_{ZP}$ Z ... $[_{HP}$ α [H YP]]] with ZP the smallest strong phase, the domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations. (Chomsky (2001: 14))

Although there is a distinction between strong and weak phases in (43), only strong ones (i.e. CP and *v*P) are crucial. Therefore, I will keep the term phase only for CP and *v*P. As mentioned by Chomsky (2000: 121), properties such as topic-comment, presupposition, focus, specificity, new/old information, agentive force, and others are considered discourse-oriented and appear to involve the 'edge' of constructions. Substituting "phases" for "constructions," we can state that phase edges interface with the discourse system:

(44) $[_{CP}$ Spec C $[_{TP}$ ... $[_{vP}$ Spec *v* VP]]] ⇦ Computational System

edge edge

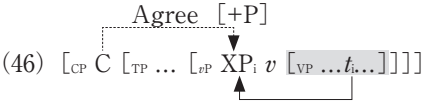
$<Int_{\alpha}>$ $<Int_{\beta}>$ ⇦ Discourse System

López (2009) assumes with Chomsky (2001) that defocusing should be accompanied by movement to the edge of *v*P. I adopt this point. I would like to advance an alternative to López's theory, though, for there are some problems with it. As cited in the previous section, López makes use of spec-head agreement in [f]-feature valuation. In the Phase Theory, however, spec is considered to be merely the second merger and the notion itself no longer has any significance. In addition, he argues that an element with an unvalued [uf]-feature is moved to the edge/spec of *v*P, and it will behave as a probe searching for a valued [(+)f]. But this is exactly the opposite of the normal probe-goal relation. Hence, defocusing through agreement à la López is not sustained in the standard framework of the Phase Theory. Furthermore, the status of his [f]-feature as such is not very clear.

Instead of [f], I will use [+P], a feature bearing on the defocused/presuppositional interpretation, which I consider is assigned to the head of CP. C with [+P] probes for a goal with [uP], and feature valuation is carried out through agreement, where the probe (C) asymmetrically c-commands the goal. I also propose that the same should take place in object omission. Let us posit (45):

(45) [+P] in C can give the positive value to [uP] in an overt constituent through agreement.

It goes without saying that (45) must conform to the PIC. We can schematize (45) like (46):

(46) 

Under the PIC, the edge of a phase is accessible to the head of the next higher phase. Thus, in (46), the edge of *v*P can be accessed by a feature on C. Chomsky pursues the idea that optional operations can apply only if they have effects on outcome.[11] It is exactly instantiated by p-movement to the edge of *v*P. Whereas p-movement, a kind of scrambling, is an optional

operation, it will lead to [+P]-valuation and defocusing. If scrambling does not happen and nothing vacates the base-position in VP, what remains there will be assigned [-P] by the c-commanding phase-head *v* and interpreted as focus (cf. López (2009)). Since the focus interpretation can be avoided by p-movement/scrambling, the operation should be permitted. Scrutinizing (46), the reader might wonder if the subject intervening between C and the edge of *v*P contravenes the so-called Defective Intervention Constraint (DIC). The probe-goal agreement is not blocked by the intervening subject, probably because the intervener also receives [+P] in terms of multiple agreement and no DIC effects emerge (Hiraiwa (2001), etc.). This seems to hold true with Romance p-movement, but further study is needed.

(45)/(46) applies straightforwardly to p-movement in Romance languages. How about English? In the traditional discussion, the scrambled word order (S-V-XP-O) is ruled out in English for Case reasons (the adjacency condition on accusative-Case assignment in particular). Sentences with heavy NP shift appears exceptional:

(47) Max put in his car *all the boxes of home furnishings*.

Whereas heavy NP shift has been analyzed as involving rightward movement since Ross (1969), Larson (1988) gives a leftward-movement analysis. According to Larson, a predicate (*put in his car* in (47)) is raised across a heavy NP (*all the boxes of home furnishings*). He resorts to an undesirable reanalysis of V′ as V to be raised, though. Kayne (1998) provides another possible leftward-movement analysis, making use of remnant movement. However, as criticized by Zubizarreta (1998), heavy NP shift can get along with a wide-focus interpretation, so it should be differentiated from p-movement, even if leftward movement is relevant to both.

On the surface, English does not have p-movement or short scrambling for defocusing. Diesing (1992), on the other hand, remarks that English bare plural objects undergo covert scrambling, or quantifier raising (QR), in habitual contexts for generic interpretations (cf. Kratzer (1995)). The

existence of covert scrambling could be verified by the fact that generic indefinites license antecedent-contained deletion, just as quantifiers:

(48) Oscar usually reads *books* that Olga does. (Diesing (1992: 94))

It is also argued by Johnson (2000) that QR should be equated with scrambling. In this sense, we may well say that English indeed has scrambling, but not overt, following Nissenbaum (2000) and Chomsky (2004), who maintain that syntax intersperses overt operations with covert ones. In the system adopted here, overt movement to the edge of *v*P is present even in languages like English, due to the requirement of the PIC (and EPP); otherwise, we cannot carry out overt movement to the CP phase or higher from inside *v*P. Overt elements must eventually vacate the edge of *v*P. Why does English disallow a p-moved/overtly-scrambled element to remain in *v*P? I speculate that the phonological legibility of the edge of *v*P is parameterized:

(49) *v*P-Edge Parameter
The higher copy of movement is (not) phonologically legible at the edge of *v*P after Spell-Out.

Languages such as Italian are supposed to set this parameter to positive, so an element which has p-moved to the edge of *v*P can serve as instructions to phonology. On the other hand, English makes the opposite choice, so a p-moved element, if any, will be illegible at PF and the derivation will crash (for this reason, scrambling would be restricted to marginal cases like heavy NP shift in English, if Larson and Kayne are on the right track).

I have suggested that object omission is connected with p-movement. This does not seem unreasonable since they both are instances of defocusing VP-internal elements. Moreover, sentences with object omission often represent generic properties of the subject, and according to Chierchia (1995), generic sentences contain the generic operator **Gen** at the edge of *v*P.[12,13] We might suppose that Chierchia's **Gen** pertains

somehow to the elements which have undergone p-movement to the edge of *v*P. Under the analysis given above, a p-moved element is assigned [+P] at the edge of *v*P and defocused; whether it can be pronounced there depends on the *v*P-edge parameter. In section 2, we saw that empty object DPs are syntactically active and structurally present. They are given the arb interpretation just as overt generic plurals in habitual contexts. Let us compare the a. and b. examples in (50):

(50) a. Questo pediatra visita *e* sedate.
this pediatrician examines sedated.PL
'This pediatrician sedates people before examining them.'
b. Questo pediatra visita *i* *bambini* sedate.
this pediatrician examines DET children sedated.PL
'The pediatrician sedates children before examining them.'
(Cattaneo (2007))

Note that in habitual contexts, Italian uses generic plurals headed by overt generic D (*i* in (50b)), whereas English uses bare plurals (see Longobardi (1994) among others). Suppose the latter contain covert generic D.[14] As already noted, the arb interpretation is also shared by PRO_{arb}. I repeat (8):

(8) a. It is easy [PRO_{arb} to learn syntax].
b. It is easy [for people to learn syntax].

(8a) can be paraphrased as (8b) without major semantic changes. Chomsky and Lasnik (1993) hypothesize that PRO is assigned "null Case" which reflects its morphological properties. According to Rizzi (1997), null Case is assigned by C with [-Finite].[15,16] Combining null-Case assignment and generic D, I posit (51) and (52):

(51) Null Case is assigned to DP with generic D, overt or covert, by empty [-Finite, +P]C.
(52) Null-Case DPs are exempted from being spelled out.

Empty [-Finite]C in (51) is meant to exclude lexical infinitival complementizers like *for*. With (51)-(52) and (45), (8a) will be derived as in (53):

(53) [+P, null C.]
it is easy [$_{CP}$ C [$_{TP}$ *people* to [$_{vP}$ learn syntax]] <before Spell-Out>
it is easy *e* to learn syntax <after Spell-Out>

Once null Case is assigned to DP headed by covert generic D (*people*), it will not be spelled out. I assume arbitrary-control C has [+P], so [+P]-valuation should occur simultaneously in (53) conceivably, (53) might be associable with Moltmann's (2006) analysis of the generic pronouns, *one* and PRO$_{arb}$: an empty generic operator $O_{[+gn]}$ at the edge of CP binds *one*/PRO$_{arb}$ in its c-command domain (cf. Diesing (1992), Krifka, et al. (1995), etc.)).

How about object omission cases? Since object omission can take place in finite clauses, (51), as it stands, is not applicable. To capture the similarities between PRO$_{arb}$ and object omission, I make a modification to (51), adding (54ii):

(54) Null Case is assigned to DP with generic D, overt or covert,
i. obligatorily by empty [-Finite, +P]C, or
ii. optionally by [+Finite, +P]C.

Let us go through the derivation of (50a) with (54). By p-movement, the generic plural moves to the edge of *v*P and will come in the reach of [+Finite, +P]C:

(55) [+P, null C.]
[$_{CP}$ C [$_{TP}$ questo pediatra visita [$_{vP}$ *i bambini*$_i$ *v* [$_{VP}$ t_v t_i sedate]]]]
questo pediatra visita *e* sedate

In (55), p-movement should apply before accusative-Case assignment by *v*; otherwise, the defocused object DP will be prevented from receiving

null Case. I conjecture that p-movement precedes merger of the external argument, which I deem as a derivational version of Burzio's (1986) generalization. As to null-Case assignment in (55), we can ignore the intervening subject DP, which seems closer to C than the p-moved DP, because the two DPs are at the edge of the same *v*P. The same is true of English object omission:

(56) Psychiatrists certify *e* as a last resort.
(= Psychiatrists certify *patients* as a last resort.)

Given (54ii), (56) will be derived as shown in (57):

(57) [$_{CP}$ C[$_{TP}$ psychiatrists [$_{vP}$ *patients*$_i$ *v* [$_{VP}$ certify t_i] as a last resort]]]
[+P, null C.]
psychiatrists *e* certify as a last resort

Just as in (55), p-movement applies. One may wonder that English p-movement is questionable, since the *v*P-edge parameter in (49) does not allow any non-empty elements at the edge of *v*P in English. However, there will be no conflict due to (52); therefore, we can predict that object omission is possible in English.[17]

Recall that object omission, or pro$_{arb}$ drop, is robust in Italian but not in English according to Rizzi (1986). If this observation is the case, the above analysis is not upheld. To this puzzle, I want to point out the morphological difference in generic D between Italian and English: Italian generic plurals are headed by overt D, but English counterparts are headed by covert D. If null-Case assignment is taken to be morphology-sensitive in nature, it can be considered that Rizzi's parameter is reducible to the morphological difference in D. Let me provide a revised version of (54):

(58) i. Empty [-Finite, +P]C assigns null Case to DP with generic D, overt or covert.
ii. [+Finite, +P]C can optionally assign null Case to DP with overt

generic D.

By this revision, we can explicate (half of) Rizzi's parameter. From (58ii), null Case is not assigned to generic bare plurals in English, and they should be spelled out at the edge of *v*P after p-movement. It contradicts the setting of the *v*P-edge parameter. Hence, the derivation would not converge at PF. To rescue the derivation, I suggest that phonological deletion is invoked as a last resort in Chomsky and Lasnik's (1993) sense.[18] Under the standard Minimalist assumption, last resort operations are costly, so they can only be used to save a derivation which otherwise yields no legitimate output. Then marginality of English object omission can be attributed to costly last-resort deletion, which must also satisfy recoverability.

5. Minimizing the Inventory of Empty Categories

So far, we have discussed the close relationship between object omission and p-movement. And under the hypothesis that infinitival subjects in arbitrary control constructions are empty due to null Case, I argued that Italian empty objects are p-moved DPs which are assigned null Case at the edge of *v*P. In English, on the other hand, p-moved DPs are not assigned null Case, and last-resort deletion is applied to them in order to avoid a crash at PF. There is a very important theoretical implication in the present analysis. In dealing with object omission, we are undertaking to minimize the inventory of empty categories.

Traditionally, four major types of empty category or empty argumental DP have been proposed in the generative literature:

(59) a. The spy was arrested e_1.
b. Who did you arrest e_2?
c. John decided [e_3 to arrest the spy].
d. Don't { e_4 / you} arrest the spy!

The empty category e_1 in (59a) is conventionally called NP-trace or A-trace, as it is left behind in a Case-less position after A-movement. It co-

refers with the DP in the subject position *the spy*. e_2 in (59b), occupying a Case-position, should be identified as a *wh*-trace or A′-trace after A′-movement, bound by an operator in an A′-position. e_3 in the infinitival subject position in (59c) is not a trace but PRO. Specifically, it is PRO_{obl} since it is obligatorily controlled by the matrix subject *John*. In (59d), e_4 does not take any antecedents or binders in the sentence, so it is not a trace. Nor is it PRO because it can be replaced with an overt pronoun *you*. Rather, it is a pure empty pronoun, pro. It has been assumed that PRO and pro are assigned independent θ-roles whereas A- and A′-traces are not assigned θ-roles independently of their antecedents. In this respect, traces are distinguished from PRO/pro. This was the standard assumption before the Minimalist Program.

In the Minimalist Program, non-lexical elements which are solely introduced in syntactic computation are totally dispensed with, as formulated in the Inclusiveness Condition:

(60) Any structure formed by the computation is constituted of elements already present in the lexical items selected for N[umeration]; no new objects are added in the course of computation apart from rearrangements of lexical properties.
(Chomsky (1995: 228))

Since elements such as traces do not exist in the lexicon, they should be eliminated in favor of the Inclusiveness Condition. The Trace Theory is substituted by the Copy Theory on which traces are regarded as mere copies of moved elements. The Copy Theory asserts that movement creates two identical copies of a single constituent, and subsequently, complementary deletion applies to them:

(61) a. *the spy* was arrested ~~*the spy*~~ (= (59a))
copying

b. *who* did you arrest ~~*who*~~ (= (59b))
copying

In general, phonological contents are deleted in the lower copy, and the higher copy will be pronounced. Provided that the covert elements in the base positions are silent copies of the moved constituents, we no longer have to postulate traces as syntactic formatives. Eliminating traces is also motivated from another perspective. In variants of the Extended Standard Theory, the Projection Principle was espoused (see (5)). The syntactic levels which are maintained in the current Minimalist framework are only external interface levels, especially, the Sensorimotor interface and the Conceptual-Intentional (C-I) interface. Therefore, the Projection Principle could never hold, and traces should not be kept for this principle.

The Θ-Criterion in (62) was also assumed to work in tandem with the Projection Principle:

(62) Θ-Criterion
Each argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument. (Chomsky (1981: 29))

Although the Projection Principle was dispensed with, we might be able to recast the Θ-Criterion as an interface condition pertaining to the C-I interface. However, the original Θ-Criterion should be rejected anyway in face of multiple θ-role assignment observed, for example, in secondary-predicate constructions:

(63) The policeman **shot** *the spy* **dead**. (θ_1 θ_2)

In (63), the argument DP *the spy* is assigned two θ-roles at the same time, one from the verb *shot* and the other from the adjective *dead*, a violation of (62). What if multiple θ-role assignment is absolutely permissible? Hornstein (2001) among several others actually stands on it, and proposes that argument DPs can move for a second θ-role, quite contrary to the traditional Θ-Criterion. Thus, movement/copying is involved in control constructions such as (65) as well as in raising constructions such as (64):

(64) [$_{TP}$ *John* is likely [$_{TP}$ ~~John~~ to have [$_{vP}$ ~~John~~ **arrested** the spy]]]

θ

copying copying

(65) [$_{TP}$ *John* [$_{vP}$ ~~John~~ **decided** [$_{TP}$ ~~John~~ to [$_{vP}$ ~~John~~ **arrest** the spy]]]]

θ_2 θ_1

copying copying copying

Under this analysis, PRO_{obl} is regarded as a silent copy of movement just like an A-trace. This is a welcome result, since we can minimize the inventory of empty categories which were made up simply to describe syntactic phenomena. For this reason, I adopt the proposal that PRO_{obl} should be got rid of.

Let us turn to PRO_{arb}:

(66) It is difficult [PRO_{arb} to arrest the spy].

Different from PRO_{obl}, PRO_{arb} is controlled arbitrarily. The controller of PRO_{arb} is structurally unrealized, and more often than not, PRO_{arb} is assigned a generic interpretation. Hornstein (2001) attempts to analyze PRO_{arb} as pro rather than as a silent copy. If pro, it should be able to take a specific antecedent in the preceding discourse, but this is infeasible. More significantly, Hornstein has to maintain pro for PRO_{arb}, so he cannot completely minimize the inventory of empty categories. In these points, the present analysis seems superior since pro is not necessary for PRO_{arb}: null Case renders non-empty categories invisible to phonology.

I want to briefly comment on pro, though offering a full account is beyond the scope of this paper, and also impossible due to space limit. It has been assumed that Italian and other languages allow pro subjects in finite clauses owing to rich inflections. To eliminate pro in the relevant contexts, it may be possible to extend null-Case assignment to nominative personal pronouns. It requires a small revision of (58ii) as we can see below:

(67) [+Finite, +P]C can optionally assign null Case to DP with overt generic or personal D.

(67) is a parametric option taken in Italian, but not in English. Note that (67) totally replaces Rizzi's parameter in (6). Italian has non-empty subject pronouns (*io*, *tu*, *lui*, *lei*, *noi*, *voi*, *loro*) which can stand in front of finite verbs. They never occur without emphasis, and are sometimes called "strong forms." In this sense, they are focused pronouns; hence, null Case is not assigned to them.[19] Chomsky (1981: 65) put forth the Avoid Pronoun Principle which imposes a choice of PRO(/pro) over an overt pronoun where possible. He suggests that it may be a subcase of a conversational principle of not saying more than is required, or may be related to a principle of deletion-up-to-recoverability. This coincides with our null-Case assignment in spirit.

In languages without rich inflections like Japanese, pro has been also considered to be involved. (67) may not be applicable to Japanese, for object omission in generic contexts does not seem robust in Japanese (see footnote 1). There are analyses which do not make use of pro in Japanese. Among them is Hasegawa (1985). Hasegawa argues that instead of pro, a variable occupies an A-position, from which a null operator OP moves to the sentence-peripheral position. If true, pro has no role to play. If OP is a silent copy of a non-empty topic, with the latter deleted for pragmatic reasons, there will be no need to keep another empty category OP, either (cf. Horstein (2001)). In this relation, the status of e_4 in (59d) is intriguing. Han (1998) argues that English has infinitival imperative sentences, and their subjects are PROs rather than pros. Then, e_4 might seem to be a natural outcome of null-Case assignment to the non-empty, second-person pronoun. However, English null-Case assignment is only permitted by (58i). Thus, e_4 cannot be regarded as generic DP with null Case, but it would be a copy/variable left behind by the topic *you* which will be deleted (cf. Beukema and Coopmans (1989), etc.). Of course, these solutions are tentative, and there remain many problems to be tackled. But if we are on the right track, we can surely reduce empty categories along the lines of the Minimalist Program.

6. Conclusion

In the recent Minimalist Program, there have been numerous studies which develop mechanisms to incorporate discourse properties into syntax. Just the same way, I attempted to provide a unified account of defocusing phenomena, object omission and p-movement, which prevent VP-internal elements from coming into information focus. Defocusing involves C's assignment of the [+P]-feature through the operation Agree, and it is constrained by the PIC. The availability of object omission at issue is varied among languages, as described by Rizzi's (1986) pro-drop parameter. I proposed two parameters to capture the difference in availability of p-movement and object omission. One is to determine whether p-moved elements can be pronounced at the edge of *v*P. The other is to determine whether finite C can assign null Case to generic DPs (outside VP). Languages like Italian choose positive values for both parameters, so they manifest productivity in object omission as well as p-movement. On the other hand, languages like English choose negative values for them, so it is predicted that they do not allow (visible) p-movement nor object omission. However, English actually has object omission in non-contrastive contexts. To solve this contradictory situation, last-resort deletion is invoked. We can take this to be reflected by the purported marginality of object omission in English (this is irrelevant to object omission in contrastive contexts, because the latter seems to be executed as a measure subsidiary to contrastive-stress assignment). With copy deletion in addition to null-Case assignment and last-resort deletion, I pursued the possibility of minimizing the inventory of empty categories.

NOTES

*I would like to thank the members of the Yamaguchi University Circle of English Linguistics for helpful comments on earlier versions of this paper. All inadequacies remain mine. This work was supported by JSPS Grant-in-Aid for Scientific Research (C) #22520501.

[1] Languages such as Japanese appear to allow object omission of this type. Take (i) for example:

(i) Nanzi *e* korosu nakare. (Ex. 20: 13)
thou kill not-shall
'Thou shalt not kill.'

Such a sentence, however, sounds like a translation from a foreign language, and seems less productive, if not idiomatic. Kageyama (1993: 58-59) tries to account for this unproductivity by assuming that the unrealized arbitrary object is PRO_{arb}. He argues that PRO_{arb} cannot occur in the object position because of the PRO Theorem:

(ii) PRO is ungoverned. (Chomsky (1981: 191))

[2] Kiss (1998) argues that there are some crucial differences between information focus and contrastive/identificational focus, as listed below:

(i) a. the identificational focus expresses exhaustive identification; information focus merely marks the nonpresupposed nature of the information it carries.
b. certain types of constituents, universal quantifiers, *also*-phrases, and *even*-phrases, for example, cannot function as identificational foci; but the type of constituents that can function as information focus is not restricted.
c. the identificational focus does, information focus does not, take scope.
d. the identificational focus is moved to the specifier of a functional projection; information focus, however, does not involve any movement.
e. the identificational focus is always coextensive with an XP available for operator movement, but information focus can be either smaller or larger.
f. the identificational focus can be iterated, but information focus can project.

[3] According to Rizzi, Italian T(ense) is also X^0_y so that pro can occupy the subject position:

(i) pro ho trovato il libro.
have found the book
'I found the book.'

In (i), the occurrence of pro can be confirmed by its replacement by the

overt first-person singular pronoun *io* with no change of meaning.

[4] Pace Rizzi (1986), I doubt that [+human] should be included in the feature specifications associated with arb. It is actually falsified by English object omission sentences such as (9).

[5] In (19), if the indefinite objects are analyzed as real existential quantifiers, there will arise a problem. According to Fodor and Fodor (1980), in a sentence with subject and object quantifiers as in (ia), we should expect scope ambiguity:

(i) a. Everyone wrote something.
b. Everyone wrote.

In (ia), two scope interpretations are possible: *everyone* and *something* can take wider scope than the other. Such ambiguity cannot be detected in (ib). In (ib), "*something*" cannot take wider scope than *everyone*. Therefore, the object omission in question cannot be analyzed with a covert existential quantifier.

[6] Under a non-transformational approach, Bresnan (1978) analyzes this transitive-intransitive alternation in terms of a lexical mapping rule. The rule treats *write* in (18) syntactically as an intransitive verb and functionally(/semantically) as a transitive verb.

[7] Underlying the C-NSR is Cinque's (1993) basic generalization about nuclear stress: nuclear stress falls on the most embedded element on the recursive side of the tree. As to the S-NSR, Zubizarreta credits computing prominence with selectional properties to Schmerling's (1976) pioneering work.

[8] Zubizarreta (1998: 130) assigns a Spanish p-movement sentence like (i) a structure like (ii):

(i) Ana escondió debajo de la cama la muñeca.
Ana hid under the bed the doll

(ii) [$_{TP}$ Ana$_j$ [escondió [$_{VP1}$ e$_j$ [V$_1$ [$_{VP2}$ [$_{PP}$ debajo de la cama]$_i$ [$_{VP2}$ la muñeca [V2 e$_i$]]]]]]]

Although she analyzes the defocused PP as adjoining to the lower VP (VP2) of the layered VP structure, little seems to change if it adjoins to the higher VP (or *v*P) as in (33).

[9] So is German. In (i), the embedded subject noun *Junge* is focused:

(i) Ich glaube, daβ ein Junge das Buch genommen hat.
I believe that a boy the book taken has
'I believe that a boy took the book.'
(Zubizarreta (1998: 60))

This is possible because the defocused object *das Buch* (and what follows) is metrically invisible.

[10] It is well-known that object shift is restricted to the matrix clause without auxiliaries, and captured by Holmberg's generalization:

(i) Object Shift cannot apply across a phonologically visible category asymmetrically c-commanding the object position except adjuncts.
(Holmberg (1999: 15))

In most varieties of Swedish and some varieties of Norwegian, weak (unstressed and simple) pronouns are subject to object shift. In Danish and most varieties of Norwegian, on the other hand, they are not. See Holmberg and Platzack (1995) and so on.

[11] For example, in order to drive optional movement to the edge of *v*P, Chomsky (2001: 34) stipulates (i) as a universal principle:

(i) *v* is assigned an EPP-feature only if that has an effect on outcome.

[12] Chierchia (1995) uses the label VP rather than *v*P. He assumes that **Gen** is generated in the Spec of VP to bind a verb with the habitual aspectual feature.

[13] Cinque (1999: 99) assumes that generic sentences involve a generic operator in the Spec of an aspectual head which can also host an episodic or progressive operator.

[14] Diesing (1992) and others point out that generic indefinites do not have quantificational force of their own for lack of determiners functioning as operators. I leave open the question whether generic D as such has a generic meaning.

[15] Under the Cartographic Approach, Rizzi (1997) puts forward split CP in which discourse and pragmatic properties are allocated to independent heads (TOP, FOC, FORCE) as shown in (i):

(i) $[_{\text{ForceP}}$ Force $[_{\text{TopP*}}$ Top $[_{\text{FocP}}$ Foc $[_{\text{TopP*}}$ Top $[_{\text{FinP}}$ Fin $[_{\text{IP}}$ ...

Thus, to be more precise, it is Fin, the lowest part of split C, that assigns null Case.

[16] We may say that nominative Case as well as null Case is assigned by C. See Chomsky (2001) and so forth.

[17] Such an analysis might be extended to an account of middles and passives:

(i) Bureaucrats bribe easily.

(ii) Spanish is spoken here.

Actually, it looks akin to Stroik's (1992) analysis:

(iii) [$_{TP}$ bureaucrats$_i$ [$_{vP}$ [$_{vP}$ bribe t_i easily] PRO]]

(iii) shows that PRO, the so-called implicit external argument, is adjoined to *v*P. This PRO could be identified with a generic plural which is assigned null Case.

[18] Chomsky and Lasnik (1993) employ last-resort deletion of intermediate traces for chain uniformity to be satisfied. This explains the strength of island violation: mild subjacency versus ECP. Regarding repair with deletion, Ross's (1969) analysis of sluicing is another antecedent (for more recent work on sluicing, see Merchant (2001), etc.).

[19] Alternatively, we could adapt reanalysis, a crucial step of grammaticalization (see Roberts and Roussou (2003), Fuß (2005), etc.), to synchronic syntax. In a nutshell, non-empty nominative pronouns are fused into finite T just like reanalysis. Rich inflections follow as a result:

(i) Parl<u>o</u> inglese.

'(I) speak English.'

To implement this proposal, we should perhaps set weak forms apart from strong forms in the lexicon. Otherwise, we will not be able to have the two distinct forms of pronouns in the same clauses, contrary to fact:

(ii) <u>Io</u> parl<u>o</u> inglese.

'I speak English.'

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