

# On English Imperatives

Hitoshi Akahane

## 1 . Introduction

Different types of sentence correspond to different types of illocutionary force. Imperative is one of them and it is the topic of the present paper. To illuminate basic particularities of imperative sentences, let us compare three major sentence types (declarative, interrogative and imperative) in the standard dialect of present-day English:

- (1) a.  $\emptyset$  You bought this book.
- b. Did you buy this book?
- c.  $\emptyset$   $\emptyset$  Buy this book!

In (1a-c) we clearly find that the imperative (1c) differs from the other sentences in two respects. In the former, an uninflected verb is used and no overt subject appears; in the latter, these are disallowed. Regarding an overt subject, it is well-known that it can optionally occur in imperatives as shown in (2)-(3).

- (2) a. You take out the trash!
- b. You and Mike do take more lasagna!
- c. Do YOU give me some support!
- (3) a. Those with luggage don't leave it unattended!
- b. Don't you give me any lip!

(Davies (1986), Potsdam (1996))

In these examples, where the capitalized word is stressed, subjects appear to occupy

two different positions relative to the auxiliary *do(n't)*: the position preceding *do(n't)* as in (2b) and (3a) and the one following *do(n't)* as in (2c) and (3b). As first noticed by Davies (1986), different subject positions seem to be reflected in different interpretations.

In this paper, I am going to discuss the particularities of English imperatives I just mentioned. I will capture them in terms of the PHASE THEORY which is proposed in the current Minimalist Program (Chomsky (2000) and subsequent work). To be specific, I will reduce uninflectedness and two subject positions in English imperatives to the properties of phase heads. Imperatives sometimes receive analyses according to which they have structures more or less different from other sentences. While English imperatives are assumed to be rooted by C, I will propose imperative C should select T which is DEFECTIVE as to feature specification.<sup>1)</sup> I will also propose  $\Sigma$ P (Laka (1990)), which intervenes between TP and  $\nu$ P, should be identified as a phase. English imperatives are shaped by these factors.

The organization of this paper is as follows. Looking through recent studies, sections 2 and 3 will overview structural particularities of English imperatives. In section 2, we will see imperatives and direct *yes/no*-interrogatives differ in application of T-to-C movement, contrary to appearances. Section 3 will demonstrate imperatives are also different from finite declaratives in feature specification of T. From the fact that imperative CPs do not represent pure propositions, section 4 will propose imperative C should select defective T with no  $\Phi$ -feature nor EPP. It will be further proposed that  $\Sigma$ P should be a phase. Since  $\Sigma$  is a phase head, it can be assigned EPP to raise an imperative subject. Section 5 will be devoted to the discussion of two different positions of imperative subjects which are connected with focus interpretation. Section 6 will consider imperatives lacking either the subject or *do*, or both. Section 7 is the conclusion.

## 2. T-to-C Movement?

To begin our discussion, I would like to assume imperatives have subject DPs (henceforth,  $DP_{su}$ ), whether overt or covert, as widely received in generative literature. Such an assumption is corroborated for example by anaphor binding and obligatory subject-control:

(4) a. Enjoy yourself/yourselves!

b. \*Enjoy myself/ourselves/himself/herself/itself/themselves!

(5) Try PRO to be more conventional! (Potsdam (1996))

cf. You<sub>i</sub> should try PRO<sub>i/\*j</sub> to be more conventional.

On this assumption, let us first consider imperatives with the auxiliary *do(n't)*:

(6) a. Do YOU/ø drive!

b. Don't you/ø drive!

Davies (1986: 90) observes the sequence *do^you* in (6a) sounds odd, but we can improve the acceptability by placing stress on *you* or adding adverbials such as *at least* to *you*.

On the surface, the imperatives in (6) resemble the direct *yes/no*-interrogatives in (7).

(7) a. Do you drive?

b. Don't you drive?

(7a, b) involve Subject-Auxiliary Inversion (SAI) or T-to-C movement, which is an instance of a syntactic operation.<sup>2)</sup> We can verify this with examples such as (8).

(8) Didn't everyone get a raise?

As noted by Rupp (2003: 112), the scope relation between the negation *-n't* and the universal quantifier *every*-( $\forall$ ) in (8) is not ambiguous and is identical to the one in (9a) but not to the one in (9b).

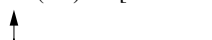
(9) a. Did not everyone get a raise? ( $\sim > \forall$ )

- b. Did nobody get a raise? ( $\forall > \sim$ )

Contrastively, the scope relation between negation and  $\forall$  in (10) is identical to the one in (9b) rather than the one in (9a).

- (10) Did everyone not get a raise?

In (8) and (10), the relevant scope relations are straightforwardly read from the surface order. If the auxiliary *didn't* in (8) occupies the head of TP, lower than  $DP_{su}$ , before Spell-Out, and is displaced to C across  $DP_{su}$  phonologically, (8) should be synonymous with (10) since the Conceptual-Intentional (C-I) systems do not access the phonological output. This is contrary to fact. I therefore assume syntactic movement illustrated in (11) must be involved in (7a, b), (8) and (10).

- (11) [CP *do/did(n't)*-C [TP  $DP_{su}$  *ti* [<sub>VP</sub> ...]]]
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Concerning negative imperatives such as (12), Schmerling (1982: 206) reports negation and  $\forall$  enter into an unambiguous scope relation: (12) is synonymous with (13a) but not with (13b).

- (12) Don't everybody go!

- (13) a. Not everyone should go. ( $\sim > \forall$ )

- b. Nobody go! ( $\forall > \sim$ )

From this, imperatives such as (6a, b) might be seen to involve syntactic T-to-C movement, just comparable to direct interrogatives, which I will reject later though.

As is well-known, there is a conspicuous discrepancy between negative imperatives and negative interrogatives. In negative interrogatives, *do* and *not* are often contracted though not obligatorily. When they are not contracted,  $DP_{su}$  must intervene between them:

- (14) a. Do you not drive?

- b. \*Do not you drive?

In negative imperatives, on the other hand, the counterpart of (14a) is not acceptable. In other words, (14a) as well as (7a) and (10) derives as a result of T-to-C movement, but the same does not seem to hold for (15).

(15) \*Do you not drive!

It goes without saying that *not* cannot stand alone without an auxiliary in imperatives just as in direct interrogatives: <sup>3)</sup>

(16) a. \*You not drive!

b. \*Not drive!

(17) \*You not drive?

If syntactic T-to-C movement is involved in imperatives, DP<sub>su</sub> should not be able to occur before *do(n't)* because it occupies [Spec, T]. Following Davies (1986), Potsdam (1996) regards the overt DPs in front of *do(n't)* in (2b) and (3a) as real subjects rather than vocatives. This observation is also adopted by Rupp (2003). Using an adverb-distribution test due to Jackendoff (1972), Rupp (2003, 2007) demonstrates imperative *do(n't)* is not in a position higher than T:

(18) a. [<sub>TP</sub> [<sub>T</sub> **Just** don't anyone believe what she says]]!

b. Don't anyone [<sub>VP</sub> **just** believe what she says]!

(Rupp (2003: 115))

According to Jackendoff, adverbs such as *just* (E(xtent)-ADVERBS in Potsdam's (1996) terms) cannot occur sentence-initially. Actually, declarative sentences with sentence-initial E-adverbs are unacceptable:

(19) a. \***Just** [<sub>TP</sub> he doesn't believe what she says].

b. He [<sub>T</sub> **just** doesn't believe what she says].

c. He doesn't [<sub>VP</sub> **just** believe what she says].

(Rupp (2003: 114))

Interrogatives with pre-auxiliary E-adverbs are also bad:

(20) \*What **just** didn't the students understand?

E-adverbs therefore should not be adjoined to TP nor C'. Note non-E-adverbs can occur (marginally) in a pre-auxiliary position:

(21) a. Which of them **apparently** does he not like?

b. ?Who **stupidly** did you invite by mistake?

(Potsdam (1996))

Back to (18a), Rupp concludes the E-adverb *just* can appear sentence-initially because *don't* does not occupy C but T.

If Rupp is right, neither T-to-C movement nor *do(n't)*-insertion into C takes place in imperatives. Rupp suggests *do(n't)* should be inserted directly into T and stay there. She assumes the features [2nd Person] and [IMP] are assigned to imperative T and they must be checked against the corresponding features on V. When the relevant feature-checking is interfered with by the intervening functional head  $\Sigma$  which is related to sentence polarity (Laka (1990)), *do*-insertion is invoked. Rupp distinguishes *do^not* from *don't*. The latter is a morphologically unitary element and does not cooccur with  $\Sigma$ P. (22a-d) are the structures which are proposed by Rupp for the imperatives in (2b, c) and (3a, b).

(22) a. [TP DP<sub>i</sub> do-T [ $\Sigma$ P  $\Sigma$  [FP  $t'_i$  F [<sub>vP</sub>  $t_i$  VP]]]] (= (2b))

b. [TP do-T [ $\Sigma$ P  $\Sigma$  [FP DP<sub>i</sub> F [<sub>vP</sub>  $t_i$  VP]]]] (= (2c))

c. [TP DP<sub>i</sub> don't-T [FP  $t'_i$  F [<sub>vP</sub>  $t_i$  VP]]] (= (3a))

d. [TP don't-T [FP DP<sub>i</sub> F [<sub>vP</sub>  $t_i$  VP]]] (= (3b))

According to Rupp, the functional category FP which contains *vP* in (22a-d) is Asp(ect)P. In imperatives, DP<sub>su</sub> must raise from inside *vP* to [Spec, Asp] at lowest, as supported by examples with aspectual auxiliaries:

(23) a. Don't you have finished the work by the time I get back!

b. Don't anyone be waiting up for me all night!

(Rupp (2003: 117))

Rupp argues [Spec,  $\Sigma$ ] is not a valid landing site for A-movement (I will propose

the opposite later) and adverbials are kept from being adjoined to  $\Sigma P$ . As a result, nothing can intervene between *do* in T and *not* in  $\Sigma$ , and the  $do^{DP_{su}}not$  sequence as in (15) should not arise. The imperative-interrogative discrepancy can be thus captured.

Under Rupp's analysis,  $\Sigma P$  is present only when it is headed by either uncontracted *not* or an abstract emphatic affirmative element. In *don't*-imperatives,  $\Sigma P$  is absent and FP is immediately contained by TP as in (22c, d). While *do/don't*-distinction itself may be somewhat questionable, there is a problem of whether *do*-insertion is really necessary for checking the features on T. In fact, as recognized by Rupp, if the feature checking at issue is carried out by covert feature movement in Chomsky's (1995) sense or feature agreement in Chomsky's (2000) sense, it is unlikely to be interfered with by  $\Sigma$ . That is,  $\Sigma$  does not seem to be assigned [Person] nor [IMP], so  $\Sigma$  should not be a pertinent intervener which brings about a violation of the Minimal Link Condition (MLC):

- (24) [Where] D(P) is the c-command domain of [a probe] P, a matching [goal] feature G is closest to P if there is no G' in D(P) matching P such that G is in D(G'). (Chomsky (2000: 122))

In addition, under Chomsky's assumption that only CP and  $\nu P$  are (strong) phases,<sup>4)</sup> the Phase Impenetrability Condition also allows T to agree with  $\nu$ :

- (25) Phase Impenetrability Condition (PIC)

For  $[ZP\ Z\ \dots\ [HP\ \alpha\ [H\ YP]]]$  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))

Therefore, we do not have to resort to *do*-insertion. Feature agreement itself will be totally irrelevant if imperative T has no agreement/ $\Phi$ -features, which will be discussed in the next section.

C indicates illocutionary force (Chomsky (1995: 240)). In this sense, it seems

reasonable to posit C is present in imperatives. With many authors (Beukema and Coopmans (1989), Henry (1995), Potsdam (1996), Platzack and Rosengren (1998), etc.), I maintain CP is at the root of imperatives and imperative C is assigned the force feature [IMP].<sup>5)</sup> I assume *do(n't)* is not raised to nor inserted into C, as suggested by Rupp and others (Potsdam (1996),<sup>6)</sup> Platzack and Rosengren (1998),<sup>7)</sup> Zhang (1991),<sup>8)</sup> etc. though there are some conflicts among these authors). Syntactic T-to-C movement and *do(n't)*-insertion into C are considered to be triggered by a feature on C. But if nothing is raised to nor inserted into C, we may well judge C is not assigned a trigger feature. I adopt the view that in imperatives, *do(n't)* is not in C but in a lower functional head. To be specific, I will propose *do(n't)* should occupy  $\Sigma$  in the structure (26).

$$(26) [CP\ C\ [TP\ T\ [\Sigma\ \Sigma\ \dots\ [vP\ v\ [VP\ V\ \dots]]]]]$$

Before that, I would like to discuss T in imperatives.

### 3. Defective T

In the preceding section, we saw imperatives differ from direct interrogatives with respect to the distribution of *do(n't)*. Rupp (2003) considers imperatives are structurally similar to finite declaratives. Needless to say, imperatives and finite declaratives have striking differences in the TP layer. In finite declaratives, verbs take one of inflected forms according to tense and person/number of DP<sub>su</sub>:

- (27) a. I {am/was/\*be} honest.  
       b. We/You/They {are/were/\*be} honest.  
       c. She/He/It {is/was/\*be} honest.

Finite declarative T is assigned  $\Phi$ -features for matching DP<sub>su</sub> and they are realized morphologically on verbal items. As a consequence of agreement, nominative Case is assigned to DP<sub>su</sub>. In imperatives,  $\Phi$ -features are not realized morphologically:

- (28) a. (You) {Be/\*Are/\*Were} honest!



- b. The boy in the corner stand/\*stands up!

In (28b) there is no intonation break after the DP *the boy in the corner*, so the DP should be regarded as a subject rather than a vocative. Although this DP<sub>su</sub> is in the third person singular, the verb takes the uninflected form without agreement. These suggest imperative T is deficient in  $\Phi$ -feature specification.<sup>9)</sup>

The absence of  $\Phi$ -feature realization from imperatives can be also consistent with auxiliary facts:

- (29) a. You can speak Welsh.

- b. You must leave early.

- (30) a. \*Can speak Welsh!

- b. \*Must leave early!

Modal auxiliaries which must be always inflected can be involved in finite declaratives but not in imperatives. Note (30a, b) are not semantically deviant for their synonyms are grammatical:

- (31) a. Be able to speak Welsh!

- b. Have to leave early!

(Davies (1986: 125))

*Do*-insertion by contrast applies in imperatives even with *be* as in (32), while it is resisted in finite declarative counterparts as in (33).

- (32) a. Don't be a fool!

- b. \*Ben't/Be not a fool!

- (33) a. \*You don't be a fool.

- b. You aren't a fool.

This seems natural if the auxiliary *do* is not inserted into T in imperatives.

Zanuttini (1991), Henry (1995), Platzack and Rosengren (1998) and others argue T(P) is absent from imperatives. The time of event in imperatives however is future or non-past. This is easily figured out from the future-orientation of the time-

adverbs involved in imperatives:

(34) a. Be on time {tonight/\*last night}!

b. You phone him {now/tomorrow/\*yesterday}!

Cinque (1999: 87-88) suggests time-adverbs should be placed in [Spec, T] in the articulated phrase structure. Rupp (2003: 190-191, fn. 99) also remarks time-adverbs may be licensed by T. It is traditionally understood that T is the locus of tense. For imperatives to have the unrealized/future tense, T should be present. See Han (1998) for the unrealized/future tense in imperatives (cf. Stowell (1982)). Moreover, if C always selects T(P), T should be always included in the sentence structure.

I continue assuming imperatives have both C(P) and T(P) but imperative T is defective as mentioned above. Through agreement, finite declarative T assigns nominative Case to DP<sub>su</sub>, which can be recognized easily when DP<sub>su</sub> is a pronoun. It is usually unrecognizable in imperatives though some authors (Beukema and Coopmans (1989), Potsdam (1996), Rupp (2003), etc.) argue imperative DP<sub>su</sub> is assigned nominative Case. Zhang (1991) reports that when imperative DP<sub>su</sub> comprises conjoined pronouns, the pronouns must be assigned accusative rather than nominative:<sup>10)</sup>

(35) a. Don't you and him/her/them fight again!

b. \*Don't you and he/she/they fight again!

Compare the imperatives in (35) with the interrogatives in (36):

(36) a. Won't you and him come to the party?

b. Won't you and he come to the party?

In (36a, b), the conjoined pronouns can be either accusative or nominative. Potsdam (1996: section 4.4.1) conjectures conjoined DPs are freely assigned accusative as DEFAULT CASE. Suppose so, (36a) can be seen as an instance of default-Case assignment. As for the imperative counterparts, the default accusative-

Case example in (35a) is acceptable whereas the nominative-Case example in (35b) is not. The contrast follows if imperative T has no Case-assigning properties and allows DP<sub>su</sub> to be assigned default Case, as suggested by Potsdam (cf. Platzack and Rosengren (1998: 190, fn.19)). If plausible, imperative DP<sub>su</sub> does not have nominative Case.

Assuming imperative T has no nominative Case-assigning properties, we can also address the question of why imperatives, but not other sentences, allow the occurrence of phonologically null DP<sub>su</sub>. According to the most widely-held view, null imperative DP<sub>su</sub> is pro (Henry (1995), Potsdam (1996), Platzack and Rosengren (1998), Rupp (2003), etc.).<sup>11</sup> Imperative pro should not be the same as the one in Romance pro-drop languages because English imperative pro cannot be licensed by rich agreement (cf. Jaeggli (1982), Rizzi (1986), etc.). Imperative pro solely refers to a hearer/hearers (possibly including third person side-participants), and its identification would rather be carried out pragmatically (see Potsdam (1996)). However licensed/identified, it is hard to prove imperative pro occupies [Spec, T] since it is inaudible. Flagg (2001) and Rupp (2003) contend that in imperatives [Spec, T] is filled only optionally. We saw in (22) that DP<sub>su</sub> can stay low ([Spec, *v*] for Flagg and [Spec, Asp] for Rupp) or move to [Spec, T]. The example below might favor the analysis that imperative DP<sub>su</sub> should not occupy [Spec, T]:

(37) One of the boys test yourself while I wait! (Potsdam (1996))

In (37) the mismatch between the third person DP<sub>su</sub> *one of the boys* and the second person reflexive pronoun should cause a Condition A violation, but the sentence is not excluded.

(37) may be paralleled with (38):

(38) You should hang [a picture of myself] on your wall.

The reflexive pronoun in (38) does not have an antecedent in the sentence, so it cannot be bound syntactically. Differently put, it evades Condition A. Reinhart

and Reuland (1993), referring to this kind of reflexive pronoun as LOGOPHOR, provide their definition of Condition A:

(39) A reflexive-marked predicate is reflexive.

Definitions:

a. A predicate is REFLEXIVE iff two of its arguments are coindexed.

b. A predicate (formed of P) is REFLEXIVE-MARKED iff either P is lexically reflexive or one of P's arguments is a SELF anaphor.

Reinhart and Reuland agree with Chomsky (1986) that TP and DP with full grammatical functions (especially subject) are the domains relevant to anaphor binding. They call such domains SYNTACTIC PREDICATES. In (38) the reflexive pronoun is not an argument of *hang*, so Condition A does not apply to TP. Neither does it to the *picture*-DP because the Spec of that DP is not occupied by DP<sub>su</sub>. In such cases reflexive pronouns are looked upon as logophors. In (37) the reflexive pronoun is an argument of *test* but it should not be coindexed with the DP<sub>su</sub> due to person mismatch. If imperative T is not assigned EPP, it has no DP<sub>su</sub> in its Spec. Then, Condition A does not apply anyhow and the reflexive pronoun can be counted as a logophor.

In (37) the second person reflexive pronoun appears to take the third person DP<sub>su</sub> as an antecedent. Pragmatics can serve to solve this puzzle. Suppose the force feature [IMP] on imperative C is translated as 'I DIRECT YOU.' The illocutionary act of (37) is represented informally like (40).

(40) I DIRECT YOU<sub>x</sub> [[x: one of the boys] test yourself]

In (40) the DP<sub>su</sub> *one of the boys* is identified with *YOU* through the mediation of the variable *x*, which enables the second person logophor to corefer with the third person DP<sub>su</sub>. Incidentally, the second person reflexive pronoun in (37) can be replaced by a third person reflexive pronoun:

(41) One of the boys test himself while I wait!

(Potsdam (1996))

The reflexive pronoun in (41) can be bound syntactically by the DP<sub>su</sub>. We might say reflexive-marking is optional when there is no domain to which Condition A applies.

The view that imperative DP<sub>su</sub> does not occupy [Spec, T] might also be supported by tag imperatives. In tag questions, DP<sub>su</sub> of the tag is the pronominalized form of DP<sub>su</sub> of the matrix clause, and the tense and the auxiliary of the tag must be identical to those of the matrix clause, while the polarity is opposite as a general rule:

- (42) Sally won't still be waiting for us, will she?

The same generalization does not hold for tag imperatives:

- (43) a. \*Someone cut himself a piece of cake, will he?  
b. Someone cut yourself a piece of cake, will you?

(Bouton (1982: 32))

If imperative T has no  $\Phi$ -feature specification nor DP<sub>su</sub> in its Spec (cf. Bennis (2007)), we will naturally expect there to be no DP<sub>su</sub>/auxiliary parallelism between the matrix clause and the tag at the TP level. Compatibility between the matrix imperative clause and the tag may be dealt with by pragmatics. I will not go into detail here for space limit.

We have confirmed imperative T is defective and its Spec is not occupied by DP<sub>su</sub>. Chomsky (2005: 18) submits a proposal that C, the true locus of subject-agreement, should assign uninterpretable features ( $\Phi$  and perhaps EPP) to T. In the present discussion, imperative C selects defective T. So the former should not assign any  $\Phi$ -features or EPP to the latter. I am not saying imperatives are subjectless; rather, imperative DP<sub>su</sub> should occupy not [Spec, T] but the Spec of a lower functional category.

#### 4. Imperatives and the Phase Theory

So far I have argued imperative C is not assigned a feature which triggers T-to-C movement (section 2), and imperative T is defective or devoid of  $\Phi$ -features necessary for nominative-Case assignment and EPP (section 3). Given so, syntactic operations such as Agree and Move should not be driven by features on C nor T. I also suggested imperative C should be assigned [IMP] which allows imperative DP<sub>su</sub> (overt or covert) to be identified as the second person. It ensues directly or indirectly that imperatives have the characteristics which are listed below:

- (44) a. no T-to-C movement (no auxiliary in C)
- b. no inflected verb
- c. no modal auxiliary
- d. no nominative-Case assignment to DP<sub>su</sub>
- e. no A-movement to [Spec, T]
- f. phonologically null DP<sub>su</sub> (= pro)

Adopting the structure in (26), I hypothesize imperative DP<sub>su</sub> does not occupy [Spec, T] since imperative T is not assigned EPP. Platzack and Rosengren (1998) among others argue the functional category which is related with EPP is absent from imperatives. According to them, such a functional category is responsible for anchoring of the proposition in time and space. From this viewpoint, imperative CPs which contain T without EPP do not express pure propositions. This can be born out by the answer “No, that is not true” which is possible to declarative sentences such as (45a) but not to imperatives such as (45b).

- (45) a. You visited your mother.
- b. Visit your mother!

To (45b), an answer such as “No, I will not” may be felicitous.

Within the current Minimalist framework, Chomsky (2000 and subsequent

work) proposes propositional units should define syntactic local domains, i.e. phases. He stipulates CP and  $vP$  are identified as phases. Suppose imperative CPs are not identified as phases since they are not propositional. If this is the case, the CP-TP layers cannot be spelled out to phonology. Thus in imperatives, Spell-Out only applies to  $vP$ . Consequently, imperatives which begin with verbs as in (1c) are realized:

(46) [<sub>CP</sub> C [<sub>TP</sub> T [<sub>ΣP</sub> Σ ... [<sub>vP</sub> **pro** *v* [**vP** **buy this book**]]]]]

In (46), everything outside  $vP$  is not spelled out. This case is fine because the unpronounced part does not contain any overt elements. Other cases might however be problematic. As witnessed by Potsdam (1996),  $vP$ -external elements such as aspectual auxiliaries occur in imperatives:

- (47) a. Be waiting on the corner at six!  
       b. Have prepared the thing in advance!

Aspectual *be* and *have* should be contained by  $\Sigma P$  since *do*(^*not*) can be attached in front of (47a, b) to derive emphatic affirmative or negative imperatives. As shown in (26),  $\Sigma P$  intervenes between TP and  $vP$ . This can be demonstrated by (48) and (49), originally cited in Klima (1964).

- (48) a. The writers could **not** believe the boy.  
       b. \*The writers **not** believed the boy.  
       c. The writers did **not** believe the boy.  
       (49) a. The writers could **so** believe the boy.  
           b. \*The writers **so** believed the boy.  
           c. The writers did **so** believe the boy.

In (48) the negative operator *not* with [+Neg] appears between finite auxiliaries in T and non-finite verbs in  $vP$ . In the same environment occurs the emphatic affirmative operator *so* with [+Aff] as in (49). Klima (1964) captures the complementary distribution of the polarity operators with a phrase structure rule. In

almost the same spirit, Laka (1990) situates the polarity operators under  $\Sigma$ , the functional category which is related to the truth value of the sentence. Even without an overt affirmative operator, *do* can be inserted if it is heavily stressed, i.e. emphatic *do*:

(50) The writers DID believe the boy.

Laka adopts Chomsky's (1955) idea that an abstract emphatic affirmative morpheme (Emph) is involved in such a case, and he analyzes Emph as occupying  $\Sigma$ . Emph as well as *so* is assigned [+Aff].

Suppose  $\Sigma$  heads a phase. When Spell-Out applies to  $\Sigma P$ , aspectual auxiliaries which are included in it should be sent to phonology. The result will be (47). Recall propositionality is one of possible criteria of phase. We can understand  $\nu P$  basically corresponds to the core of a proposition.  $\nu P$  is contained by  $\Sigma P$ . If  $\nu P$  is translated as a proposition  $p$ , it is not implausible that the composite of [*not*  $\nu P$ ] is translated as  $\sim p$ . Logically,  $\sim p$  is a proposition since  $p$  is a proposition. As a propositional unit,  $\Sigma P$  should be qualified as a phase. Chomsky (2000: 106, 2001: 12) considers phonetic independence can be another criterion of phase. Here I just refer readers to Akahane (2006, forthcoming), where I argue  $\Sigma$  as well as other phase heads can license phonological reduction of the complement domain (cf. Takahashi (2002)). This conforms to Lobeck's (1995) and Potsdam's (1996) analyses that  $\text{Neg}(\Sigma)$  licenses  $\nu P$  ellipsis. The  $\Sigma P$  phase hypothesis thus seems to be espoused by both semantics and phonology.

There are also various reasons to believe  $\Sigma P$  is a phase for syntactic computations. One of the most well-known intervention phenomena can be detected in (51) where movement of a wh-adverb is involved:

(51) \*How<sub>i</sub> didn't you find a solution  $t_i$ ?

In (51) the negative operator prevents the  $\nu P$ -internal wh-adverb from moving to the sentence-initial position ([Spec, C]). Ross (1984) regards the negative operator as



creating a domain called INNER ISLAND to which syntactic operations are confined. This phenomenon obtains straightforwardly if  $\Sigma P$  is identified as a phase. Since nothing seems to motivate the *wh*-adverb in  $vP$  to move to the edge of  $\Sigma P$ , it is not accessible to [Q] on C in accordance with the PIC. Hence (51) is excluded. Note  $\Sigma P$  should not always be a phase even though it is always selected by T for polarity interpretation. Rather,  $\Sigma P$  should be looked upon as a phase only when its head is occupied by a polarity operator with [+Neg] or [+Aff].<sup>12)</sup> In (52)  $\Sigma P$  is not a phase, so the sentence is grammatical.

(52) How did you find a solution?

For further arguments in favor of the  $\Sigma P$  phase, see Akahane (2006, forthcoming) and Błaszczak (2003).

Chomsky (2000: 109) suggests phase heads should be optionally assigned EPP. I adopt this and concur with Chomsky (1995: 232) that EPP is a kind of D-feature which is only checked against DP. With EPP, we can account for the D/non-D asymmetry between (51) and (53).

(53) What<sub>i</sub> didn't you repair *t<sub>i</sub>*?

In (53) we can raise the *wh*-DP to the edge of  $\Sigma P$  by assigning EPP to  $\Sigma$ . Since the PIC allows C to search the edge of  $\Sigma P$ , the *wh*-DP which has raised to that position can raise further to [Spec, C]. In (51) EPP, if assigned, cannot raise the *wh*-adverb to the edge of  $\Sigma P$ , and we cannot extract it from  $\Sigma P$  without violating the PIC.<sup>13)</sup>

With EPP, we can also work out where  $DP_{su}$  should occur in imperatives. Imperative T has no EPP, so [Spec, T] is not occupied by  $DP_{su}$ . As discussed in the preceding paragraphs,  $\Sigma$  can be optionally assigned EPP for it is a phase head. Thus, the negative imperative (3a) will have the structure (54) rather than (22c).

(54) [<sub>CP</sub> C [<sub>TP</sub> T [ <sub>$\Sigma P$</sub>  those with luggage<sub>i</sub> do-n't [ <sub>$vP$</sub>  *t<sub>i</sub>* v [ <sub>$vP$</sub>  leave it unattended]]]]]

Some readers might wonder whether [Spec,  $\Sigma$ ] is an A-position or an A'-position. As pointed out by Chomsky (1995: 63-64, 194-195, 276), the A/A'-distinction

cannot be recognized well in the Minimalist Program. Indeed they might only have a taxonomic role. I therefore do not take the question to be crucial. In sections 2 and 3, we saw *do(n't)* should not appear in imperative C nor should it occupy T with no agreement features. In (54) *do*-insertion happens but it is not because local T-*v* agreement (or affix hopping) is blocked. I would rather suggest *-n't* in  $\Sigma$  must be morphologically attached to an overt [V]-element. On the basis of Merge-over-Move preference, *do*-insertion to  $\Sigma$  should be chosen over *v*-to- $\Sigma$  movement. Another polarity operator *Emph* with [+Aff] must be also supported by an overt [V]-element; *do*-insertion is therefore triggered. Then the emphatic affirmative imperative (2b) will have the structure (55) but not (22a).

(55) [CP C [TP T [ $\Sigma$ P you and Mike<sub>i</sub> *do*- $\Sigma$ [+Aff] [ $\nu$ P *t<sub>i</sub>* *v* [ $\nu$ P take more lasagna]]]]]

Identifying  $\Sigma$ P as a phase, I suggested imperative DP<sub>su</sub> should raise to [Spec,  $\Sigma$ ] to satisfy EPP which is optionally assigned to  $\Sigma$ . Affixal properties of *-n't/Emph* in  $\Sigma$  cause *do*-insertion. We can resultantly derive the DP<sub>su</sub>^*do(n't)* sequence in imperatives. Traditionally, DP<sub>su</sub>^*do(n't)* imperatives have been taken up for discussion less frequently or judged less acceptable than *do(n't)*^DP<sub>su</sub> imperatives such as (56) (see Davies (1986: section 3.3)).

(56) a. Do AT LEAST YOU have tried it before you begin to criticize!

b. Don't you be ringing that call button!

(Potsdam (1996))

(56a, b) involve aspectual auxiliaries, so DP<sub>su</sub> (*AT LEAST YOU/you*) to the left of the auxiliaries must have moved from the base position, i.e. [Spec,  $\nu$ ]. This DP-movement should take place to satisfy EPP. By assumption, imperative T has no EPP so that DP<sub>su</sub> in (56a, b) cannot be in [Spec, T] nor in [Spec,  $\Sigma$ ] because the dummy auxiliary *do* in  $\Sigma$  appears to the left of DP<sub>su</sub>. There should be an intermediate subject position which is higher than [Spec,  $\nu$ ] and lower than [Spec,  $\Sigma$ ]. Where should DP<sub>su</sub> occur in *do(n't)*^DP<sub>su</sub> imperatives? How do *do(n't)* ^DP<sub>su</sub>

imperatives derive? What is the difference between  $do(n't)^{DP_{su}}$  imperatives and  $DP_{su}^{do(n't)}$  imperatives? I will address these questions in the next section.

## 5. Two Structural Positions for Imperative $DP_{su}$

Since Davies' (1986) work, several authors (Potsdam (1996), Moon (1999), Rupp (2003), etc.) have shown imperative  $DP_{su}$  can appear not only after  $do(n't)$  but also before  $do(n't)$ . Namely, there are two different positions for imperative  $DP_{su}$ . These authors notice  $do(n't)^{DP_{su}}$  imperatives and  $DP_{su}^{do(n't)}$  imperatives are not free variations but the difference in ordering reflects some semantic difference. Davies (1986: 90) notes  $DP_{su}$  in the post- $do(n't)$  position does not signal authority over the addressee but indicates the addressee is being contrasted with certain other people. Thus the post- $do(n't)$   $DP_{su}$  with heavy stress or adverbials such as *at least/at any rate* is smoother than simple *you*:

(57) Do at least you have a go, even if the others won't! (Davies (1986: 95))

Another semantic difference between  $do(n't)^{DP_{su}}$  and  $DP_{su}^{do(n't)}$  is pointed out by Moon (1999). Quoting Lyons (1977), Moon observes negative imperatives without  $DP_{su}$  such as "Don't invite him!" can convey two distinct meanings. Examine (58a, b).

(58) a. I know you want to, but don't invite him!

b. I know you don't want to, so don't invite him!

(Moon (1999: 98))

The underscored parts in (58a, b) bear the meanings which are represented in (59 a, b):

(59) a. ~[Do you invite him]

b. Do ~[you invite him]

In (59) *Do* stands for a modal operator which is related to POSSIBILITY. The imperatives in (58a, b) can be also paraphrased as (60a, b), respectively (the

capitalized words are heavily stressed).

(60) a. You [MAY not invite him].

(= You are not permitted to invite him.)

b. You may [NOT invite him].

(= You are permitted not to invite him.)

As clarified with the square brackets in (60a, b) as well as (59a, b), we can understand negation takes scope over the proposition including the modal operator in (58a) but only the proposition excluding the modal operator in (58b).

We can connect these two meanings with  $do(n't)^{DP_{su}}$  imperatives and  $DP_{su}^{do(n't)}$  imperatives. Take (61) as an example.

(61) A: Some of us have decided not to call Mary today.

B: a. Fine, some of you don't call her today, then!

b. ?\*Fine, don't some of you call her today, then!

(Moon (1999: 101))

Judging from A's statement, A is more likely to expect B's acceptance of A's intention than B's rejection. As a reply to (61A), (61Ba) is more natural than (61Bb). (61Ba) entails propositional negation and gives permission or instruction *not to call Mary today*. On the other hand, (61Bb), which entails modal negation, cannot have this reading. (61Ba) is therefore compatible with (61A) whereas (61Bb) sounds inappropriate. Based on these facts, Moon hypothesizes the position of  $DP_{su}$  displays the type of negation (propositional or modal). I adopt her hypothesis and revise the clause structure from (26) to (62).

(62) [CP C [TP T [ΣP (DP<sub>su</sub>) Σ [MP (DP<sub>su</sub>) M ... [<sub>VP</sub> t<sub>su</sub> v [<sub>VP</sub> V ...]]]]]]]

In (62) MP which is headed by M(ood) is inserted between ΣP and <sub>VP</sub>. The structure with MP is also proposed by Zanuttini (1997) (cf. Cinque (1999)). I agree with Zanuttini that M is the base position of modal auxiliaries. I posit an abstract modal auxiliary is inserted in imperative M. As seen in (62), MP is in the scope of

negation( $\Sigma$ ). I argue the reading of modal negation obtains if no (overt) element of a proposition is extracted from MP which completely contains a propositional unit, i.e.  $vP$ . If any (overt) element of a proposition sticks out of MP, modal negation does not ensue; rather, propositional negation will arise.<sup>14)</sup> In (62) we have two possible positions for  $DP_{su}$ :  $[Spec, \Sigma]$  and  $[Spec, M]$ . We can predict  $DP_{su}$  in  $[Spec, \Sigma]$  indicates propositional negation and  $DP_{su}$  in  $[Spec, M]$  modal negation. This way, the two types of negation in imperatives are shown by the two distinct  $DP_{su}$  positions.

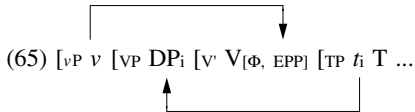
I am assuming  $\Sigma P$  is a phase but MP is not. If this is the case, M cannot be assigned EPP. How can we raise  $DP_{su}$  from  $vP$  to  $[Spec, M]$ ? Consider the pairs in (63)-(64).

- (63) a. The DA proved [two  $men_i$  to have been at the scene] during each  $other_i$ 's trials.  
 b. ?\*The DA proved [that two  $men_i$  were at the scene] during each  $other_i$ 's trials.
- (64) a. The DA proved [**no-one** to be at the scene] during **any** of the trials.  
 b. ?\*The DA proved [that **no-one** was at the scene] during **any** of the trials.

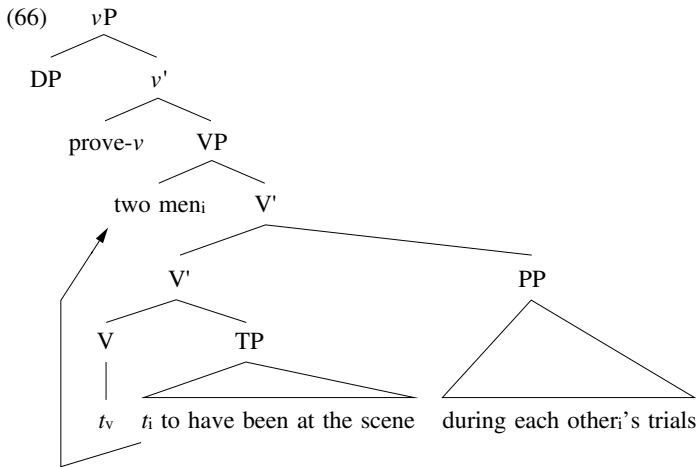
(Lasnik (1995))

In the matrix clauses, (63a, b) contain an anaphor *each other* and (64a, b) a negative polarity item (NPI) *any*. Anaphor binding and NPI licensing are possible only in the exceptional Case-marking constructions in (63a) and (64a). For anaphor binding and NPI licensing to be available in these examples, the antecedent and the negative operator must be in a c-command position in the matrix clause. Under the split VP hypothesis and the object-raising analysis which is restored in the Minimalist Program (Koizumi (1995), Lasnik (1995), etc.), accusative  $DP_{su}$  can raise overtly to a c-command position in the middle of the matrix VP. Adopting

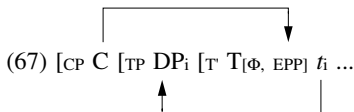
the essence of the latter analysis, Chomsky (2001, 2005) suggests the matrix V should be assigned  $\Phi$  and EPP by the matrix transitive  $v$ , and  $DP_{su}$  in the infinitival complement [Spec, T] should raise to the matrix [Spec, V] to satisfy EPP. This is schematized by (65).



Following Chomsky (2004: 123), I presume all operations in the same phase are carried out SIMULTANEOUSLY. Then (63a) for instance will have the structure (66) (V-to- $v$  movement is also supposed to take place simultaneously).

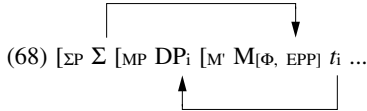


In this structure, the accusative  $DP_{su}$  moves to the matrix [Spec, V], from which it can c-command the anaphor. Chomsky also applies the mechanism in (65) to the CP-TP layers:



I assume (65) but not (67) in imperatives because imperative CP is not identified as a phase for lacking propositionality.

Transitive/unergative *v* and non-imperative C assign features including EPP to V and T, respectively. Let us apply the same to the  $\Sigma$ P-MP layers:



I stipulate  $\Phi$  ([2 person +  $\alpha$ ]) and EPP are assigned to M by  $\Sigma$  which bears [+Neg] or [+Aff]. M which is assigned [2 person +  $\alpha$ ] must agree with a second-person  $DP_{su}$  or a third-person side-participant  $DP_{su}$ . I suppose default Case is assigned to imperative  $DP_{su}$  through agreement with M. Such default-Case assignment takes place only when T does not have nominative-Case assigning properties. Differently put, M which has default-Case assigning properties can coexist with imperative C which selects defective T.

In (68) an overt  $DP_{su}$  raises to [Spec, M] and the  $do(n't)^{\wedge}DP_{su}$  sequence follows. This is due to EPP which is assigned by  $\Sigma$ . As observed by Davies (1986), Moon (1999) and Rupp (2003), post- $do(n't)$   $DP_{su}$  is the contrastive focus or the focus of negation.<sup>15)</sup> The post-*do*  $DP_{su}$  in (57) is thus the contrastive focus. This account is also borne out by the pairs in (69)–(70).

(69) I would like all of you to give it a try.

[Only some present try]

a. Please, DO EVERYbody give it a try!

b. \*Please, everybody DO give it a try!

(70) I would like you to give it a try.

[Nobody dares to]

a. \*Please, DO EVERYbody give it a try!

- b. Please, everybody DO give it a try!

(Rupp (2003: 169-170))

We can see that in (69), *everybody* is contrasted with *only some present* but in (70), *everybody* is not contrasted with *nobody*. It is also substantiated by (71) that post-*don't* DP<sub>su</sub> is the focus of negation.

- (71) All right, Jill. Start singing.

[Bill, not Jill, starts singing.]

- a. No, No. Don't Bill sing. It's Jill that I want to hear.  
b. \*No, No. Bill don't sing. It's Jill that I want to hear.

(Moon (1999: 104))

Miyagawa (2004) advances a hypothesis that (in focus-prominent languages) the head of CP phase assigns [Focus] to T and this feature is checked against the focus element in [Spec, T]. I would like to incorporate his hypothesis into the system in (68) with some revisions. Let us say  $\Sigma$  with [+Neg]/[+Aff] assigns [Focus] to the CLOSEST overt element through the agreement operation. Since DP<sub>su</sub> which has raised to [Spec, M] for EPP turns out to be closest from  $\Sigma$ , it is assigned [Focus]; hence it gets focused.

When overt DP<sub>su</sub> in [Spec, M] is not a focus of any sort, it should not remain there. According to Chomsky (2000, 2001), optional EPP-assignment to phase heads can be invoked only if it has an effect on outcome. With the same logic, we can move imperative DP<sub>su</sub> which has raised to [Spec, M] further to [Spec,  $\Sigma$ ] by assigning EPP to the head of the  $\Sigma$ P phase. This is really motivated since it gives birth to a new semantic interpretation (see (69)-(70)). After DP<sub>su</sub> has moved to [Spec,  $\Sigma$ ], it is no longer closest to  $\Sigma$  by the definition of the MLC in (24). In such cases, the closest overt element will be  $v(-V)$  or the whole  $vP$ , and it will be focused. In (72) the focus of negation in the underlined imperative is *say (a word)* but not the DP<sub>su</sub> *the others*, as observed by Davies (1986).



- (72) You lot be the spokesmen, the others don't say a word! (ibid.: 94)

Likewise, the focus in (70b) is the whole vP *give it a try*.

Let us turn to the question of why the sequences of  $do^{\wedge}DP_{su}^{\wedge}not$  and  $do^{\wedge}not^{\wedge}DP_{su}$  are impossible in imperatives:

- (73) a. \*Do you not open the door!  
b. \*Do not you open the door!

Many authors including those already mentioned suggest uncontracted *not* should head NegP( $\Sigma$ P). I would rather suggest a possibility that the emphatic negative adverb *not* should be merged with MP and it should occupy the MP-adjoined position (the same should also apply to the emphatic affirmative adverb *so*). Emphatic *not* has the valued feature [+Neg]. Suppose that different from  $\Sigma$  with *-n't* (or Emph),  $\Sigma$  without phonological features carries the unvalued feature [uNeg]. [uNeg] needs to be valued through agreement with *not*([+Neg]). It will otherwise get the default value [-Neg] after Spell-Out, but this cannot avoid conflicting with [+Neg] on *not*. I suggested  $\Sigma$  with a valued feature ([+Neg]/[+Aff]) should be supported by an overt [V]-element. *Do*-insertion is therefore required to accompany the emphatic negative adverb *not*.

Let me present the structures of (73a, b):

- (74) a. [<sub>CP</sub> C [<sub>TP</sub> T [<sub>ΣP</sub> do- $\Sigma$  [<sub>MP</sub> you<sub>i</sub> not [<sub>M'</sub> M [<sub>vP</sub> t<sub>i</sub> open-v the door]]]]]]]  
(= (73a))  
b. [<sub>CP</sub> C [<sub>TP</sub> T [<sub>ΣP</sub> do- $\Sigma$  [<sub>MP</sub> not you<sub>i</sub> [<sub>M'</sub> M [<sub>vP</sub> t<sub>i</sub> open-v the door]]]]]]]  
(= (73b))

In each case,  $DP_{su}$  raises to [Spec, M] and *not* is at the edge of MP. Since both are immediately contained by MP, it follows that *not* and  $DP_{su}$  will be equidistant to the probe  $\Sigma$  in accordance with Chomsky's (2000: 122-123) definition of EQUIDISTANCE:

- (75) a. Terms of the same minimal domain are equidistant to probes.

- b. The minimal domain of a head *H* is the set of terms immediately contained in projections of *H*.

$\Sigma$  with [+Neg] assigns [Focus] to the closest non-null element, so both  $DP_{su}$  and *not* will be assigned [Focus]. It seems reasonable to claim [Focus]-assignment should be unequivocal. Presumably, such a constraint may be imposed on narrow syntax by an external system which deals with discourse. In (73a, b), however, unequivocal [Focus]-assignment is not feasible because  $DP_{su}$  and *not* can be equally assigned [Focus]. If such cases are ruled out by Spell-Out, we can explain why (73 a, b) are unacceptable. When  $DP_{su}$  escapes from [Spec, *M*] to [Spec,  $\Sigma$ ] due to optional EPP-assignment, the outcome will be acceptable:<sup>16)</sup>

(76) I know I've done wrong but I can't survive on my own.

(?)Oh please, *SOMEbody* do not desert me!

It is pointed out by Potsdam (1996) that *do*^*not*^ $DP_{su}$ -imperatives improve with appropriate emphasis and intonation, especially when  $DP_{su}$  is a quantifier phrase ( $QP_{su}$ ):

(77) a. I know I've done wrong but I can't survive on my own.

(?)Oh please, do not *ALL* of you desert me!

b.(?)*DO* not *YOU*, of all people, insult me in this heinous and base manner!

Although not every instance of the *do*^*not*^ $DP_{su}$  sequence is acceptable, we must be able to derive acceptable cases. Potsdam takes *not* to raise to *C* together with *do*. Under the present analysis, imperatives do not involve T-to-*C* movement (nor direct *do*-insertion into *C*). Alternatively, based on quantifier scope interpretation, Rupp (2003) analyzes *not* as being adjoined to  $QP_{su}$  in examples such as (77a). While inserting *do* into  $\Sigma$  rather than *T*, we can uphold Rupp's analysis:

(78) [<sub>CP</sub> *C* [<sub>TP</sub> *T* [ <sub>$\Sigma$ P</sub> *do* [<sub>MP</sub> [<sub>QP</sub> *not ALL* of you]<sub>i</sub> *M* [ <sub>$\nu$ P</sub> *t<sub>i</sub>* desert me]]]]]

The situation in (77b) is different from that in (77a). The  $DP_{su}$  in (77b) is not a

QP. Relative to other elements around, *not* is not focally stressed. From this, *not* in (77b) should be distinguished from emphatic *not*. The former would be the uncontracted version of non-emphatic *n't* occupying  $\Sigma$ , which does not receive focal stress, whereas the latter occupies the MP-adjoined position and receives focal stress (cf. French *ne-* versus *pas*). Hence, even without contraction, *do-not* in (77b) should be counted as a unitary head. In the upshot, the  $DP_{su}$  *you* in [Spec, M] alone can receive [Focus] from  $\Sigma$ :

- (79) [CP C [TP T [ $\Sigma$  do-not [ $MP$  you<sub>i</sub> M [ $VP$   $t_i$  insult me ...]]]]]  
└──────────┘↑[Focus]

## 6. Imperatives without $DP_{su}/Do$

In the previous section, we have considered imperatives with the sequences of  $do(n't)^{\wedge}DP_{su}$  and  $DP_{su}^{\wedge}do(n't)$ . To recapitulate, I provide relevant imperative examples and their structures in (80)-(81) (for the purpose of exposition, I omit the CP-TP layers which are not very crucial though present).

(80)  $do(n't)^{\wedge}DP_{su}$  imperatives:

- |                             |   |
|-----------------------------|---|
| a. Do YOU drink!            | [ $\Sigma$ do [ $MP$ you <sub>i</sub> M [ $VP$ $t_i$ drink]]]         |
| b. Don't you drink!         | [ $\Sigma$ do-n't [ $MP$ you <sub>i</sub> M [ $VP$ $t_i$ drink]]]     |
| c. Do not YOU drink!        | [ $\Sigma$ do-not [ $MP$ you <sub>i</sub> M [ $VP$ $t_i$ drink]]]     |
| d. Do not ALL of you drink! | [ $\Sigma$ do [ $MP$ [QP not QP] <sub>i</sub> M [ $VP$ $t_i$ drink]]] |
| e. *Do not you drink!       | [ $\Sigma$ do [ $MP$ not you <sub>i</sub> M [ $VP$ $t_i$ drink]]]     |
| f. *Do you not drink!       | [ $\Sigma$ do [ $MP$ you <sub>i</sub> not M [ $VP$ $t_i$ drink]]]     |

(81)  $DP_{su}^{\wedge}do(n't)$  imperatives:

- |                      |  |
|----------------------|--|
| a. YOU do drink!     | [ $\Sigma$ you <sub>i</sub> do [ $MP$ $t'_i$ M [ $VP$ $t_i$ drink]]]             |
| b. YOU don't drink!  | [ $\Sigma$ you <sub>i</sub> do-n't [ $MP$ $t'_i$ M [ $VP$ $t_i$ drink]]]         |
| c. YOU do not drink! | [ $\Sigma$ you <sub>i</sub> do(-not) [ $MP$ (not) $t'_i$ M [ $VP$ $t_i$ drink]]] |

There remains a question of how to derive imperatives with no  $DP_{su}$  and/or no

*do* as in (82).

- (82) a. Do drink!
- b. Don't drink!
- c. Do not drink!
- d. Drink!
- e. You drink!

On the assumption that unpronounced imperative  $DP_{su}$  is *pro*, all examples except e. in (82) have *pro* in a preverbal position. *Pro* is commonly understood to have Case, so it should enter into agreement with a Case assigner. By hypothesis, *M* has default-Case assigning properties. In order to get default Case, *pro* has only to be placed where it can get into agreement with *M*. *M* also carries EPP which is assigned by  $\Sigma$ , so *pro* might raise to  $[Spec, M]$  to satisfy EPP. Because *pro* has no phonetic contents, it cannot be focused in accordance with the present analysis:  $\Sigma$  only assigns [Focus] to an overt element. In addition, movement of *pro* from  $[Spec, M]$  to  $[Spec, \Sigma]$  should not be motivated at least for escaping focus interpretation. That is, the interface economy condition prevents  $\Sigma$  from being assigned EPP in (82a-d). For these reasons, *pro* in English imperatives should remain in  $[Spec, M]$  at highest:

- (83)  $[_{CP} C [_{TP} T [_{\Sigma P} do-\Sigma [_{MP} (not) pro_i M [_{\nu P} t_i drink]]]]]$

How about *do*-less imperatives such as (82d, e)? Let us consider (82d) first. Since there occur no  $\nu P$ -external elements such as aspectual auxiliaries, one might speculate (82d) does not have the  $\Sigma P$ -*MP* layers. Although no overt  $DP_{su}$  appears, *pro* is involved in (82d) just as in (82a-c). I have just argued *pro* in imperatives is assigned default Case by *M* through agreement. I maintain the  $\Sigma P$ -*MP* layers are always involved in (imperative) sentences. I suggested at (62) that *MP* should be headed by an abstract modal auxiliary, which may have something to do with the meaning of possibility (POS) when it is selected by  $\Sigma$  with [+Neg].

Similarly, I would like to conjecture  $\Sigma$  with [+Aff] selects MP which is headed by an abstract modal auxiliary with the meaning of necessity (NEC). Suppose *do* is the realization of these auxiliaries, and POS always takes overt *do* while NEC does only optionally. [+Neg]/[+Aff] on  $\Sigma$  triggers M-to- $\Sigma$  raising when M is occupied by an overt auxiliary. When M(NEC) does not host overt *do*, [+Aff] $\Sigma$  hops to  $v(-V)$  just parallel to affix hopping from T to  $v(-V)$  in finite declaratives. As one would expect, semantic differences manifest themselves between (82a) and (82d). Namely, (82a) puts stronger emphasis on the modal meaning than (82d) (see Davies (1986), etc.).

Turn to (82e) where overt DP<sub>su</sub> occurs. Since the DP<sub>su</sub> *you* can be interpreted as focus just as in (84), we can regard it as occupying [Spec, M].

(84) The others can go now, but you stay here with me! (Davies (1986: 146))

But as pointed out by Davies (1986), we can also interpret *you* in (82e) as not being focused. If our analysis is correct, we could provide two possible structures to (82e):

- (85) a. [CP C [TP T [ΣP Σ [MP you<sub>i</sub> M [vP t<sub>i</sub> drink]]]]]  
           [+Aff] | \_\_\_\_\_ ↑  
       b. [CP C [TP T [ΣP you<sub>i</sub> Σ [MP t'<sub>i</sub> M [vP t<sub>i</sub> drink]]]]]  
           [+Aff] | \_\_\_\_\_ ↑

(85a) is for the focused reading and (85b) is for the unfocused one. If affix hopping must obey the phonological string-adjacency condition, (85a) apparently looks problematic because the DP<sub>su</sub> *you* intervenes between  $\Sigma$  and *drink*. However, if affix hopping merely sees relevant heads, it would not bother us. The latter view might be supported by examples such as (86).

(86) They **often** addressed these issues.

In (86), though there exists an adverb intervening between T and  $v$ , affix hopping is not blocked<sup>17)</sup> (the  $\Sigma P$ -MP layers are ignored which are supposed to be inert in non-

emphatic affirmative declaratives (cf. note 12)):

(87) [CP C [TP they T [<sub>VP</sub> *t<sub>i</sub>* **often** address these issues]]]



## 7. Conclusion

I argued the clausal functional categories in English imperatives are special enough to exhibit the well-observed particularities (i.e., uninflected verbs are used and no overt DP<sub>su</sub> with nominative Case is needed). These particularities can be reduced to the defectiveness of T which is selected by imperative C. We saw ΣP plays significant roles in imperatives. The main proposal was that ΣP is a phase in Chomsky's (2000) sense. The phase head Σ can be optionally assigned EPP. EPP must be satisfied by DP, and it serves to set DP<sub>su</sub> in the pre-*do(n't)* subject position in imperatives. Σ takes MP as the complement. Selected by defective T, imperative Σ can, as it were, activate M to assign default Case. These two functional categories (Σ, M) provide two possible positions for imperative DP<sub>su</sub>: [Spec, Σ] and [Spec, M]. Different subject positions are connected with different interpretations of imperative DP<sub>su</sub>.

## Notes

- 1) Some authors who are cited in this paper (Beukema and Coopmans (1989), Potsdam (1996), Rupp (2003), etc.) use the categorial label I(P) rather than T(P). I will use T(P) instead of I(P) throughout the paper.
  - 2) Another view can be found in Chomsky (2001: 37), etc.
  - 3) Compare (16a) with subjunctive clauses such as (i), where *not* stands alone:
    - (i) I insist that John not come so often.
  - 4) Chomsky (2000) states *v*P is a phase only when the head *v* is equipped with full argument structure, namely, transitive or unergative *v*. He calls such *v* '*v*\*.' If so, passive and unaccusative verb phrases are not identified as phases. I will leave this question open and use *v*/*v*\* throughout rather than *v*\*/*v*\*P.
  - 5) Flagg (2001) and Rupp (2003) suggest TP should be at the root.
  - 6) Potsdam (1996) suggests that under the Split IP Hypothesis, *do* should occupy either of two functional heads (Agr, T) in imperatives.
  - 7) Platzack and Rosengren (1998) argue emphatic *do* in imperatives is not an auxiliary verb but a main PERSUASIVE verb which takes a complement VP (cf. Pollock (1989)). They also distinguish *do*<sup>^</sup>*not* from *don't*. *Do* in the former is a persuasive verb which occurs in the matrix VP and *not* negates the complement VP. *Do* in the latter is a dummy auxiliary which supports *-n't* in a position lower than C.
  - 8) Zhang (1991) argues *don't* is adjoined to TP and captures the topicalization facts in (ib) and (iib) (cf. Lasnik and Saito (1992)).
    - (i) a. Don't you/pro open that present until next week!
    - b. That present<sub>i</sub>, don't you/pro open *t<sub>i</sub>* until next week!
    - (ii) a. Can't you read that classic novel by next week?
    - b. \*That classic novel<sub>i</sub>, don't you read *t<sub>i</sub>* by next week?
- (Zhang (1991))
- For a criticism of Zhang's analysis, see Potsdam (1996).
- 9) Presenting the historical fact that agreement was visible in imperatives into the Early Modern English period, Rupp claims present-day English still keeps invisible agreement. This is of course unprovable.
  - 10) Potsdam (1996) refers to Platzack and Rosengren's (1994) comment that the judgments in (35) are not widely shared. They might reflect dialectal/idioclectal variations. I have nothing to say about this and I stick to the judgments in (35).
  - 11) Other possible candidates for null imperative DP<sub>SU</sub> are PRO (Schütze (1997), Han (1998)) and bound variable (Beukema and Coopmans (1989)).
  - 12) Such an idea is not unprecedented. Chomsky (2001) stipulates all verb phrases are headed by

- v but vPs with no external argument are not counted as phases.
- 13) There is a trend that weak islands (Cinque (1990)) including inner islands should be treated in terms of semantics rather than syntax. Szabolcsi and Zwarts (1993) however comment their semantic claim is truly not a rival of syntactic accounts and expect many of the semantic constraints to have syntactic correlates. This is probably true since syntactic computations must be motivated by the external systems such as C-I.
  - 14) One might attempt a generalization that the reading of modal negation obtains if every overt element of a proposition is completely contained in XP whose head hosts a modal auxiliary. This could capture the parallelism between overt modal auxiliaries such as *may* and the pertinent abstract auxiliary in imperatives. When *may* is stressed as in (60a), it is raised to and hosted by T. Everything inside TP will be the scope of the modal auxiliary, and modal negation will arise. When *not* is stressed as in (60b), the auxiliary *may* is not raised as high as T. Whether or not this generalization is plausible is beyond the scope of this paper.
  - 15) On the basis of vP deletion facts, Flagg (2001) proposes contrastive overt DP<sub>su</sub> in imperatives should escape from vP. Assuming no intervening phrases between TP and vP, she argues contrastive DP<sub>su</sub> moves to [Spec, T]. This possibility is rejected in the present discussion.
  - 16) Rupp (2003) regards (76) (and (77a, b)) as perfect, though Potsdam (1996) judges them to be somewhat marginal.
  - 17) It might be said that pair-merged adjuncts such as *often* in (86) are on plains other than the main plain to which set-merged members (Spec, head, complement) belong, and constituents on different plains cannot interact. It is however unclear whether such adjunct plains are compatible with extraction of wh-adverbs as in (52).

### References

- Akahane, Hitoshi. (2006). Inner islands: a minimalist account. *English Linguistics* 23. 315-346.
- Akahane, Hitoshi. (forthcoming). Intervention effects in covert movement constructions. *Gengo Kenkyu* 133.
- Bennis, Hans. (2007). Featuring the subject in Dutch imperatives. In Wurff, Wim van der (ed.), *Imperative clauses in generative grammar*. Amsterdam: John Benjamins. 113-134.
- Beukema, Frits and Coopmans, Peter. (1989). A Government-Binding perspective on the imperative in English. *Journal of Linguistics* 25. 417-436.
- Błaszczak, Joanna. (2003). Getting rid of covert movement or getting into trouble? In Kosta, Peter et al. (eds.), *Investigations into formal Slavic linguistics: contributions of FDSL* 4. Frankfurt am Main: Peter Lang. 513-538.
- Bouton, Lawrence. (1982). Stem polarity and tag intonation in the derivation of imperative tag.



- In Schneider, Robinson, Tuite, Kevin, and Chametzky, Robert (eds.), *Papers from the Parasession on Nondeclaratives*. Chicago, Ill.: Chicago Linguistic Society. 23-42.
- Chomsky, Noam. (1955). The logical structure of linguistic theory. Ms., Harvard University and MIT, Cambridge, Mass.
- Chomsky, Noam. (1986). *Knowledge of language: its origin, nature, and use*. New York: Praeger.
- Chomsky, Noam. (1995). *The minimalist program*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. (2000). Minimalist inquiries: the framework. In Martin, Roger, Michaels, David and Uriagereka, Juan (eds.), *Step by step: essays on Minimalist syntax in honor of Howard Lasnik*, Cambridge, Mass.: MIT Press. 89-155.
- Chomsky, Noam. (2001). Derivation by phase. In Kenstowicz, Michael (ed.), *Ken Hale: a life in language*. Cambridge, Mass.: MIT Press. 1-52.
- Chomsky, Noam. (2004). Beyond explanatory adequacy. In Belletti, Adriana (ed.), *Structure and beyond: the cartography of syntactic structures* (Vol. 3). New York: Oxford University Press. 104-128.
- Chomsky, Noam. (2005). Three factors in language design. *Linguistic Inquiry* 36. 1-22.
- Cinque, Guglielmo. (1990). *Types of  $\bar{A}$ -dependencies*, Cambridge, Mass.: MIT Press.
- Cinque, Guglielmo. (1999). *Adverbs and functional heads: a cross-linguistic perspective*. New York: Oxford University Press.
- Davies, Eirlys. (1986). *The English imperative*. London: Croom Helm.
- Flagg, Elissa. (2001). 'You' can't say that: restrictions on overt subjects in the English Imperative. In Andronis, Mary, Ball, Christopher, Elston, Heidi and Neuvel, Sylvain (eds.), *Proceedings from the main session of the 37th meeting of the Chicago Linguistic Society*. Chicago, Ill.: Chicago Linguistic Society. 161-174.
- Han, Chung-hye. (1998). *The syntax and semantics of imperatives and related constructions*. Doctoral dissertation, University of Pennsylvania.
- Henry, Alison. (1995). *Belfast English and standard English*. New York: Oxford University Press.
- Jackendoff, Ray. (1972). *Semantic interpretation in generative grammar*. Cambridge, Mass.: MIT Press.
- Jaeggli, Osvaldo. (1982). *Topics in Romance syntax*. Dordrecht: Foris.
- Klima, Edward. (1964). Negation in English. In Fodor, Jerry and Katz, Jerrold (eds.), *The structure of language: readings in the philosophy of language*. Englewood Cliffs: Prentice-Hall. 246-323.
- Koizumi, Masatoshi. (1995). *Phrase structure in Minimalist syntax*. Doctoral dissertation, MIT.
- Laka, Itziar. (1990). *Negation in syntax: on the nature of functional categories and projections*.

- Doctoral dissertation, MIT.
- Lasnik, Howard. (1995). Last resort. In Haraguchi, Shosuke and Funaki, Michio (eds.) *Minimalism and linguistic theory*. Hituzi Syobo: Tokyo. 1-32.
- Lasnik, Howard and Saito, Mamoru. (1992). *Move  $\alpha$ : conditions on its application and output*. Cambridge, Mass.: MIT Press.
- Lobeck, Anne. (1995). *Ellipsis: functional heads, licensing, and identification*. New York: Oxford University Press.
- Lyons, John. (1977). *Semantics* (Vol. 2). Cambridge: Cambridge University Press.
- Miyagawa, Shigeru. (2004). On the EPP. In Richrads, Norvin and McGinnis, Martha (eds.), *Proceedings of the EPP/phase workshop*. Cambridge, Mass.: MIT Working Paper in Linguistics.
- Moon, Grace. (1999). Don't imperatives. In Vaux, Bert and Kuno, Susumu (eds.), *Harvard Working Papers in Linguistics* 7. Cambridge, Mass.: Department of Linguistics, Harvard University. 93-107.
- Platzack, Christer and Rosengren, Inger. (1994). On the subject of imperatives: a minimalist account of the imperative pronoun and negated imperatives. Ms., Lund University, Lund.
- Platzack, Christer and Rosengren, Inger. (1998). On the subject of imperatives: a minimalist account of the imperative clause. *Journal of Comparative Germanic Linguistics* 1. 177-224.
- Pollock, Jean Yves. (1989). Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20. 365-424.
- Potsdam, Eric. (1996). *Syntactic issues in the English imperative*. Doctoral dissertation, University of California, Santa Cruz.
- Reinhart, Tanya and Reuland, Eric. (1993). Reflexivity. *Linguistic Inquiry* 24. 657-720.
- Rizzi, Luigi. (1986). Null objects in Italian and the theory of *pro*. *Linguistic Inquiry* 17. 501-557.
- Ross, John. (1984). Inner islands. In Brugman, Claudia and Macaulay, Monica (eds.), *Proceedings of the 10th annual meeting of the Berkeley Linguistics Society*. Berkeley, Cal.: Berkeley Linguistic Society. 258-265.
- Rupp, Laura. (2003). *The syntax of imperatives in English and Germanic: word order variation in the minimalist framework*. New York: Palgrave.
- Rupp, Laura. (2007). 'Inverted' imperatives. In Wurff, Wim van der (ed.), *Imperative clauses in generative syntax*. Amsterdam: John Benjamins. 297-322.
- Schmerling, Susan. (1982). How imperatives are special, and how they aren't. In Schneider, Robinson, Tuite, Kevin, and Chamezky, Robert (eds.), *Papers from the parasession on nondeclaratives*. Chicago, Ill.: Chicago Linguistic Society. 202-218.
- Schütze, Carson. (1997). *INFL in child and adult language: agreement, case and licensing*. Doctoral dissertation, MIT.

- Stowell, Tim. (1982). On tense in infinitives. *Linguistic Inquiry* 13. 561-570.
- Szabolcsi, Anna and Zwarts, Frans. (1993). Weak islands and an algebraic semantics for scope taking. *Natural Language Semantics* 1. 235-284.
- Takahashi, Daiko. (2002). Recycling phases. *Eigo Seinen* 148. 270-273 (written in Japanese).
- Zanuttini, Raffaella. (1991). *Syntactic properties of sentential negation: a comparative study of Romance languages*. Doctoral dissertation, University of Pennsylvania.
- Zanuttini, Raffaella. (1997). *Negation and clausal structure: a comparative study of Romance languages*. New York: Oxford University Press.
- Zhang, Shi. (1991). Negation in imperatives and interrogatives: arguments against inversion. In Dobrin, Lisa, Nichols, Lynn, and Rodriguez, Rosa (eds.), *Papers from the 27th regional meeting of the Chicago Linguistic Society Part 2: the parasession on negation*. Chicago, Ill.: Chicago Linguistic Society. 359-373.