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Phrase Structure of the English Imperative

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1. Introduction

This paper looks at the phrase structure of the modern English imperative. It focuses on the structural aspects of the syntax and consider two basic questions: 1) what is the number of phrasal projections above VP in imperatives and 2) what is the position of various items within these projections: subjects and the negative/emphatic markers *don't*/*do*. The data argue for the English imperative having a structure similar to that found in other clause types as opposed to an impoverished structure as superficially suggested by its morphology and form.

Section 2 introduces the central data to be accounted for: the surface word orders found when we look at the full range of the English imperative. Of particular interest is the presence of subjects in imperatives. English imperatives are unusual in allowing numerous types of overt phrases in subject position. This paper focuses on the phrase-structural position of these noun phrases with respect to *don't* and *do*. Section 3 outlines my assumptions concerning the theoretical fundamentals of phrase structure and presents two competing phrase structural analyses for the imperative data. Both permit the observed word orders and obey standard \bar{X} -theoretic principles. Section 4 gives evidence to decide between the competing hypotheses. It concludes that imperatives contain a verb phrase dominated by two functional projections. Section 5 discusses some consequences of the analysis.

2. Imperative Subjects

Examples of the English imperative in (1) through (3) illustrate neutral, emphatic, and negative imperatives with non-overt subjects. These latter two are formed syntactically by appending neutral imperatives with *do* and *don't*.

- (1) a. Hoist the sails!
b. Mind your business!
c. Be happy!
- (2) a. Do be more careful!
b. Do try some of the dandelion salad!
- (3) a. Don't be so selfish!
b. Don't forget my birthday!

English is typologically unusual in also allowing overt subjects in imperatives. The examples in (4) show several kinds of noun phrases filling the role of subject.

- (4) a. *You* take out the trash!
b. *Everyone* take out a pencil!
c. *Those in the front* back away from the barricade!

Zwicky 1988 and most other analyses¹ assume without comment that such noun phrases are subjects, occupying phrase-structural positions where subjects are found and undergoing syntactic operations that affect subjects. For the purposes of this investigation, then, I will take them to be unexceptional syntactic arguments of the imperative verb.²

The standard line is that subjects are rather restricted in emphatic and negative imperatives.³ Subjects are said to never occur with *do* given the ungrammaticality of examples like those in (5), in particular with *you* as subject. In negative imperatives, the generalization implicitly assumed is that a subject is permitted and it follows *don't*, as in (6). Examples with the subject preceding *don't*, as in declarative sentences, are not considered.⁴

- (5) a. (*)Do *YOU/SOMEBODY* sit down!
 b. (*)*SOMEBODY* do open the window!
- (6) a. Don't *EVERYone* leave!
 b. Don't *you* give me any lip!

It is such limited observations about the position of imperative subjects that typically force restrictive analyses of the imperative in which they are viewed as an idiosyncratic construction whose syntax is divorced from standard assumptions about English clause structure (Schmerling 1975, 1977; Culicover 1976). In an importantly thorough investigation of the English imperative, Davies (1986) re-evaluates the data regarding subject possibilities with *do* and *don't* (henceforth collectively referred to as DO). She considers the full range of subject plus DO combinations and concludes that both orderings are permitted. Instances of each are given in (7) through (10).

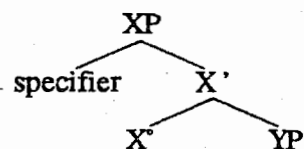
- (7) a. Do *SOMEone* help him quickly! DO + SUBJECT⁵
 b. Do *AT LEAST SOME* of you give it a try!
- (8) a. *SOMEone* do answer the phone! SUBJECT + DO
 b. Those with children do bring them along!
- (9) a. Don't anyone touch my stuff! DON'T + SUBJECT
 b. Don't you misbehave while we're gone!
- (10) a. Those with luggage don't leave it unattended! SUBJECT + DON'T
 b. Girls go into the hall, *BOYS* don't move!

For the present, I accept the above data. A phrase structural account of the imperative must allow for both orderings of the subject and DO. The syntactic analysis below attempts to account for this body of word order facts, in particular the syntactic position of these subject noun phrases and DO.

3. The Hypotheses

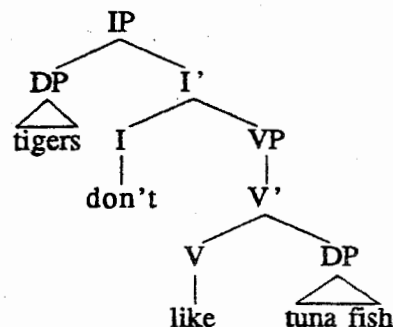
This section outlines two phrase structure proposals concerning the identity of the phrasal projections that make up the imperative clause. Both hypotheses take the \bar{X} scheme (Chomsky 1986) as their starting point. I furthermore assume that subjects occupy only specifier positions and that DO is analyzable as a head. The main points of this model of phrase structure are in (11) and they yield (12) as the structure of a finite clause like *Tigers don't like tuna fish*. I(nfl) is taken to be the head of a sentence. It too projects according to (11)a. I' contains modals or tense and agreement affixes and its specifier is the canonical surface position for the subject in English.

- (11) a. \bar{X} Theory



- b. subject occupy specifier positions
 c. DO is an inflectional head, X°

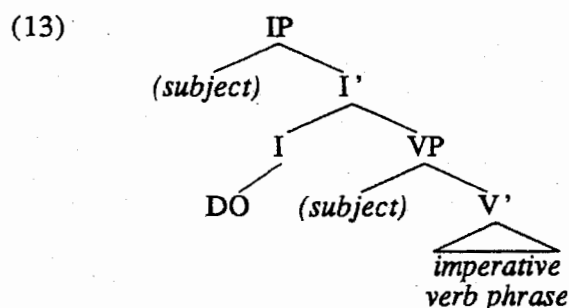
- (12)



Under these assumptions, the subject imperative data in (7) through (10) can be accounted for with 1) two specifiers or 2) two head positions above the verb. Either accommodates both orderings of DO and the subject. These two options are explored below. The focus of the discussion is on determining the correct phrase structure rather than on providing a complete analysis of what might motivate the various reordering operations.

3.1. VP-internal subject analysis

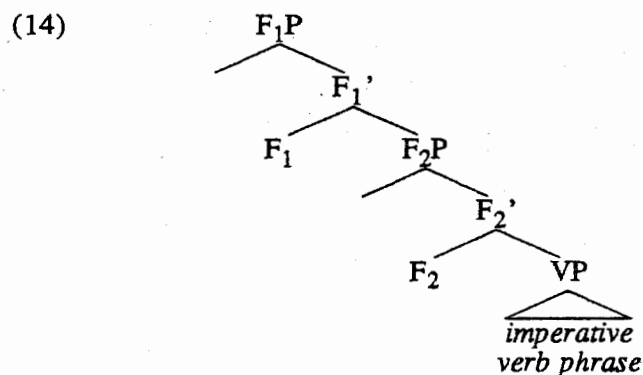
The VP-Internal Subject Hypothesis (ISH) (Kuroda 1988, Koopman and Sportiche 1991) claims that subjects originate in a position inside VP and move up to spec,IP in the syntax. Taking the VP-internal site to be the specifier of VP permits an analysis of the English imperative data which requires only IP above VP. The subject may remain *in situ*, in the VP, where it follows DO located in I'. This gets the DO+subject ordering. The alternative order subject+DO has a structure identical to that found in finite clauses where the subject has raised to the specifier of IP position. The structures for the two orderings of DO and an overt subject are in (13), where the subject may appear in either one of the parenthesized positions.



Such an analysis captures the long-standing intuition that imperatives are fundamentally verb phrases. Bolinger 1967, Downes 1977, and Jespersen (with other traditional grammarians) relate the English imperative to the infinitive. The VP analysis of imperative phrase structure also readily explains why English imperatives lack overt verbal morphology and agreement: in the non-emphatic/non-negative cases they are simply a VP with no inflectional projections. The fundamental empirical claims of the VP analysis are 1) that imperative subjects may be inside the verb phrase and 2) that there is at most one inflectional projection dominating VP.⁶

3.2. functional projection analysis

An alternative structure to (13) would place the subject and DO outside the verb phrase at all times. This would necessitate two projections above VP, rather than one. (14) instantiates this possibility. In this analysis, there are two projections above VP which I will noncommittally label F₁P and F₂P.



To obtain the surface order DO+subject in (14), DO must be in F_1' and the subject must be in the specifier of F_2P . The ordering subject+DO, however, without a full analysis of the identification and nature of the projections, is underdetermined, though attainable. If the subject is in the specifier of F_1P then DO may be in either head position. If the subject is in the specifier of F_2P , DO may still be in F_2 and give the desired word order. The exact analysis depends upon the identity of F_1P and F_2P . Although this is the analysis that I will ultimately argue for, I do not address this issue here (see Potsdam in preparation). The primary contrast with the preceding hypothesis is that the subject is outside VP at the surface.

4. Syntactic Evidence for the FP Hypothesis

I will in general refer to the two analyses as the VP and FP hypotheses, respectively. Evidence against the VP analysis is presented in section 4.1 through 4.4. The position of subjects in imperatives with auxiliaries, the appearance of subject-oriented stranded quantifiers, the placement of certain adverbs, and the phenomenon of VP Ellipsis (VPE) all suggest that the overt imperative subject cannot be inside VP. The FP analysis is capable of handling the empirical observations.

4.1. imperatives with auxiliaries

The VP hypothesis makes a prediction about the position of the subject when auxiliaries are present. We expect to see it in its VP-internal position below DO and auxiliaries and next to the main verb of which it is an argument. I show below that this is the wrong result given Zagana's (1988) analysis of VP phrase structure. The data indicate that the subject is higher than this position, compatible with the FP hypothesis.

Zagana 1988 following Ross 1969 argues for a stacked VP analysis of the auxiliaries *be* and *have* in which each one is the head of its own VP. The structure for *Zack might have been waiting* is (15).

- (15) $[_{IP} \text{ Zack } [_{I'} \text{ might } [_{VP_2} [_{V'} \text{ have } [_{VP_1} [_{V'} \text{ been } [_{VP_0} \text{ waiting }]]]]]]]]$

The VP hypothesis claims that imperatives with auxiliaries have the same structure except that the subject is in spec, VP_0 not spec, IP and DO occupies I' in place of the modal. Given imperatives with auxiliaries as in (16) through (18), the hypothesis predicts the position of the subject to be just to the left of the main verb.⁷ This is incorrect as (19) and (20) show.

- (16) a. Don't be fooled by his shoddy argumentation! PASSIVE BE
b. Be reassured by me!
- (17) a. Do be working when we get home! PROGRESSIVE BE
b. Don't you be ringing that call button! (flight attendant on American Airlines 484, May 19, 1995)
- (18) a. For heaven's sake have prepared the thing in advance! PERFECTIVE HAVE
b. Do have tried it before you begin to criticize!
c. Don't have eaten everything before the guests arrive!
- (19) a. *Don't be *anyone* fooled by his shoddy argumentation!
b. *Do have AT LEAST YOU tried it before you begin to criticize!
- (20) a. Don't *anyone* be fooled by his shoddy argumentation!
b. Do AT LEAST YOU have tried it before you begin to criticize!

The contrast between (19) and (20) is particularly clear. The subject must be above the highest auxiliary so that only (20) is grammatical. When it is below the auxiliary, (19), the

result is bad. The empirical facts support the FP hypothesis which claims that the subject is outside of the highest VP, preceding the topmost auxiliary.

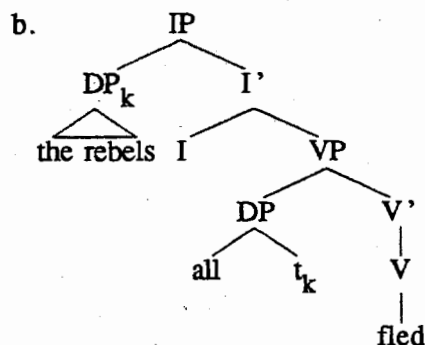
The data indicate that the subject is not in the lowest spec,VP position; however, the examples are compatible with the subject still being within VP: the specifier of the highest auxiliary verb phrase. Although one might pursue a weaker version of the VP hypothesis in which we claim only that the subject is somewhere within VP, I will not do this because the data below indicate that this too would be inadequate.

4.2. floating quantifiers

Sportiche 1988 develops a theory of floating quantifiers which crucially takes advantage of the VP-internal subject hypothesis. In this section, I lay out the relevant aspects of his analysis for English and show that, in conjunction with the VP hypothesis for imperatives, we incorrectly rule out the possibility of quantifier float in imperatives. The FP hypothesis accounts for the data.

Sportiche's theory of floating quantifiers is more appropriately described as quantifier stranding. Floating quantifiers like *all* and *both* may be stranded in any position that the noun phrase they modify passes through in the derivation. Since subjects are assumed to originate in the specifier of VP and ultimately move to a higher functional specifier which is their surface position, intermediate specifiers are potential stranding positions for floated quantifiers. Assuming with Sportiche that *all* and *both* are adjoined to DP, quantifier float is then stranding of the upper DP segment in some specifier position while the lower segment moves higher in the tree. The derivation given to *The rebels all fled*, in (21)a, is (21)b. Constituency tests in (22)—conjunction, clefting, placement in object position, and topicalization—all confirm that the string *the rebels all* is not a constituent, as the structure shows. Strings of the form DP+quantifier, then, are evidence of quantifier stranding.

- (21) a. The rebels all fled.



- (22) a. *The rebels all and their leader fled.
 b. *It's the rebels all who fled.
 c. *We hid from the rebels all.
 d. *The rebels all, we saw.

COORDINATION
 CLEFTING
 OBJECT PLACEMENT
 TOPICALIZATION

A consequence of Sportiche's analysis is that a noun phrase cannot be in its base-generated position if it precedes a modifying quantifier. The appearance of a noun phrase to the left of a modifying *all* or *both* necessarily indicates that the noun phrase is no longer in spec,VP. Returning to imperatives, the VP hypothesis makes the prediction that there should be no quantifier stranding in imperatives because the subject does not move out of its VP-internal position. The FP hypothesis, in contrast, predicts that stranding is available, in particular, in the base spec,VP position. The data in (23) indicate that the prediction of the VP hypothesis is incorrect. Stranded quantifiers are grammatical in imperatives, an observation first made in Schmerling 1977. In (23), a DP preceding a modifying quantifier is grammatical as a subject. The FP hypothesis gives them the analysis in (24) fully parallel to

(21)b, in which the quantifier is stranded in spec,VP. The VP hypothesis will not assign these examples a structure.

- (23) a. The twins both be here for the pictures!
 b. Rhett, Scarlet, and Lassie all get ready for the next scene!
 c. MY children all come right here, I won't tolerate such misbehavior!
 d. (The girls can all leave but) don't the boys all go yet!

- (24) $DP_i [VP [DP \text{ all/both } t_i] [V, V \dots]]$

Using quantifier stranding as a probe for the VP-internal subject position indicates that imperative subjects cannot be VP-internal at surface structure. On the other hand, if Sportiche's analysis of quantifier float is correct, it indicates that imperative subjects are like other subjects in originating in the specifier of the main verb. This further supports the contention of the FP hypothesis that imperative phrase structure does not necessarily differ from that of other clause types in English.

4.3. VP ellipsis

VP Ellipsis (VPE) in English also shows that the imperative subject is not VP-internal at the surface. To do this requires that I first sketch out my assumptions about how VPE works. VPE illustrated in (25) is a process that allows a VP to be missing under 'identity' with another VP. Elided VPs below are marked by the symbol \emptyset .

- (25) a. Joe will taste the food after Mikey has \emptyset .
 b. Matt isn't moving to Finland but Sophie might \emptyset .

A descriptive constraint governing VPE (Lobeck 1991 crediting Bresnan 1973) is that an overt auxiliary in I' must immediately precede the elided material. This accounts for the ungrammaticality of (26) in comparison to (25)b. There is no overt inflectional head preceding the missing VP.

- (26) *Matt isn't moving to Finland but Sophie \emptyset .

I adopt the analysis of VPE in Lobeck (1991, 1992) which subsumes VPE under a condition which licenses and identifies empty pronominals (Rizzi 1986). In its most general form: an empty, non-arbitrary pronominal must be governed by an X' specified for strong agreement.⁸ For Lobeck, an elided VP is a particular kind of empty pronominal. It is a base-generated *pro*-form for which strong agreement translates into a specification of [+TNS].

- (27) *VP Ellipsis Licensing Principle* (Lobeck 1992)
 a null VP must be governed by an X' with the strong agreement feature [+TNS]

In finite clauses, (27) correctly predicts that modals, *do*, and any verb or auxiliary that raises to I' from a lower projection will license a null VP. The first two are base-generated in I' while the latter moves there to support inflectional morphology. In English, only *be* and auxiliary *have* undergo V'-to-I' movement (Jackendoff 1972, Pollock 1989 citing Emonds 1976) so they are the only underlyingly V' elements that will license VPE.

Evidence from the position of adverbs and negation indicate that verbs in imperatives, auxiliaries included, never raise; they always remain inside VP (Schmerling 1977, Lasnik 1981, Beukema and Coopmans 1989, Pollock 1989, Zhang 1990, Potsdam in preparation). Thus, standard imperatives never show ellipsis:

- (28) a. *The Smiths have reached a decision regarding the matter. Jane, have \emptyset too!
 b. *You should definitely be on time. Absolutely no excuses, be \emptyset !
 c. *Jane is doing her chores, so, if you know what's good for you, be \emptyset too!
 d. *The doctor thinks we all should cut down on caffeine, so everyone \emptyset !
 \emptyset = cut down on caffeine

As (28) illustrates, the mere presence of an auxiliary is insufficient to license VPE. It must be in I', the appropriate structural position compatible with a specification for [+TNS], as (27) requires. Since there is no raising of *be* or *have* in the examples, ellipsis is not permitted. (28) should be contrasted with the indicative counterparts in (29) in which there is raising of the auxiliary and the result is grammatical.

- (29) a. The Smiths have reached a decision regarding the matter and Jane has \emptyset too.
 b. We told John to definitely be on time and he was \emptyset .
 c. Jane is doing her chores and I see you are \emptyset too!

The situation is different in negative and emphatic imperatives. They seem to permit VPE:

- (30) a. Did we say you could draw on the walls? All right, then, don't \emptyset !
 b. We want everyone to come, so those who can, by all means, do \emptyset !
 c. Mom said you shouldn't be playing in the chimney, so don't be \emptyset !

In order to account for the contrast between imperative ellipsis with and without DO, Lobeck's theory entails that DO must be an appropriate type of head to satisfy the Ellipsis Licensing Principle in (27).

Since VPE is available in imperatives, we can use it as a probe on the position of the subject in imperatives. Do subjects elide in ellipsis constructions? The VP and FP hypotheses make different predictions about what will remain after VPE has applied in imperatives. After ellipsis, the VP hypothesis structure, back in (13), will leave only the upper subject position and DO. The lower, VP-internal subject position is part of the elided material so ellipsis with a post-DO subject is predicted to be ungrammatical. This is incorrect, as (31) shows. VPE in imperatives can leave the subject following DO in place. The post-DO subject is not inside VP. The alternative hypothesis easily handles the data since it does not make this claim. Both subject specifier positions in the FP structure, (14), are outside of VP.

- (31) a. Rick walked out of the lecture, but don't everyone else \emptyset , please!
 b. Don't YOU be seen with those losers and don't ANYONE ELSE be \emptyset either!
 c. Billy didn't tell mom what I did, so don't YOU \emptyset either!

If Lobeck's analysis of VPE is correct then DO must be the X' that licenses VPE. It must, therefore, 1) have originated in F₂ which is the head position that governs the empty VP⁹ and 2) bear a specification for [+TNS]. I discuss the consequences of this position in section 5. The important conclusion at this point is that the imperative ellipsis facts are incompatible with the imperative subject being VP-internal as claimed in the VP hypothesis.

4.4. adverb placement

In this section, I use the distribution of adverbs as a diagnostic for the position of subjects in imperatives. By determining the phrase structure positions that a particular class of adverbs must occupy in tensed clauses and assuming that its syntactic position is constant across different clause types, we can determine, or at least narrow down, the position of imperative subjects. The conclusion will again be that the imperative subject cannot be as low as the specifier of VP.

Jackendoff 1972 develops a classification of adverbs in English based on their positional distribution in a clause. He identifies three classes of adverbs. The first two are the well-known sentence adverbs (S-adverbs) and manner adverbs (VP-adverbs). Unfortunately, these two classes are of no help in locating the structural position of the subject. S-adverbs

may appear clause-initially and because of this the subject may be anywhere to the right of the left clause boundary. VP-adverbs are similarly unhelpful for the opposite reason: they may arguably appear below the specifier of VP. Thus, subjects will necessarily appear to their left and the adverb will offer no indication of the subject's structural position.

Jackendoff's third class of adverbs has the distribution of neither S- nor VP-adverbs. Adverbs like *merely*, *hardly*, or *scarcely* do not easily fit into either category on semantic or syntactic grounds. I will call them E(xtent)-adverbs since they approximately describe the extent or degree to which a situation holds. Syntactically, Jackendoff describes them as necessarily occurring between the subject and the main verb, never in a clause-peripheral position. (32) shows that they may occur immediately following the subject. (33) shows them in a position immediately to the right of a modal or first auxiliary if there is no modal. These two locations correspond respectively to pre-I' and post-I' in our working model of finite clause structure. (34) illustrates that, crucially, clause-initial is not a possible placement for E-adverbs.

- (32) a. He *simply* is incapable of it.
 b. The raccoons *scarcely* have touched our garbage.
 c. They *hardly* should worry about that.
- (33) a. He is *simply* incapable of it.
 b. The raccoons have *scarcely* touched our garbage.
 c. They should *hardly* worry about that.
- (34) a. **Simply* he is incapable of it.
 b. **Scarcely* the raccoons have touched our garbage.
 c. **Hardly* they should worry about that.

To sketch a syntactic account of E-adverbs that is descriptively adequate, I bring in three assumptions. The first two have been discussed earlier: the finite clause structure we are working with, from (12), and the claim that subjects can only be located in specifier positions, for example spec,VP or spec,IP. The third assumption is that adverbs may be adjoined only to X' or XP. One or the other of these is typically assumed in most analyses (for example, Johnson 1991 and Bowers 1993 assume adjunction to X'; Pollock 1989, Iatridou 1990, and Chomsky 1991 assume adjunction to XP). (35) constitutes one proposal that will account for the clause-internal, string-wise positioning of E-adverbs as described above. Its virtues are that it is largely descriptively adequate and within the set of assumptions above it can identify specifier positions that are overtly realized. The left adjunction to I' option permits the data in (32). Adjunction to VP or V' accounts for the ordering in (33). Clause peripheral positions, as in (34), are ruled out by the proposal.

- (35) *syntactic distribution of E-adverbs*
 a. left adjunction to I'
 b. left adjunction to VP or V'

The placement of E-adverbs is relevant to determining the location of imperative subjects in that their position is fixed with respect to certain specifier positions. In particular, E-adverbs are always below finite clause subjects, hence, below the specifier of IP. If the imperative subject is VP-internal, then an E-adverb will be able to appear to its left. If, on the other hand, the imperative subject is in an inflectional specifier as claimed by the FP hypothesis, then any E-adverb in an imperative will have to be to its right. As the examples in (36) and (37) below each clearly show, E-adverbs must be to the right of the subject and may not be to the left. The VP hypothesis prediction is incorrect and, furthermore, the FP hypothesis correctly places the adverb.¹⁰

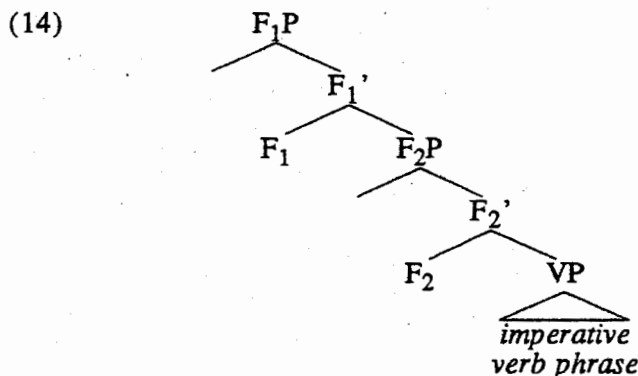
- (36) a. There's plenty of room.
 b. Everyone *simply* move to his right a little!
 c. **Simply* everyone move to his right a little!

- (37) a. Don't you *just* stand there like a bump on a log!
 b. *Don't *just* you stand there like a bump on a log!

The ungrammaticality of the b examples indicates that the subjects cannot be in spec,VP. If they were in spec,VP, an adverb adjoined to I' or VP would appear to the subject's left and the examples should be grammatical, which they are not. We should conclude from this that imperative subjects in standard English are never seen in spec,VP.

5. Consequences

The structure that we arrive at for the English imperative is repeated below. Both DO and the subject are outside VP and appear in the functional projections. The arguments that have been used to support (14) have some consequences for the identity of F_1P and F_2P .



Adopting Lobeck's analysis of VPE forces us to say that F_2 is either Tense or an inflectional projection that contains a tense feature. This is so because VP ellipsis is permitted in imperatives (see (30)) and the Ellipsis Licensing Principle in (27) requires that these VPs be governed by a tense-specified head. F_2' is the only governor available under standard definitions of government (e.g. Chomsky 1986). F_1 is ruled out as a governor of VP by the barrier status of F_2P or some version of relativized minimality— F_2' is a closer potential governor. Contrary to common conceptions, then, if Lobeck is on the right track, English imperatives must be specified for tense even though it is not morphologically realized. Consequently, F_2' must either be I' with a [+TNS] feature or it must be T' in a complex Infl scenario.¹¹

Accepting that imperatives contain a specification for tense suggests that imperative inflection, F_2P , contains a null affix of some kind (Lasnik 1981) and is not simply empty. Consequently, *Do*-Support is actually expected to apply in imperatives just as in indicative main clauses. *Do* will be inserted into F_2' to support the stranded affix. It is noteworthy in this regard that the situations in which *do* shows up in imperatives and finite clauses are the same: in the presence of negation or affirmation. This issue of whether or not DO in imperatives is the same DO seen in finite clauses sharply divides the literature. Numerous researchers¹² analyze *do* and/or *don't* as an imperative particle introduced directly into pre-IP position and syntactically unrelated to DO in finite clauses. Introductory particles, particularly for negative imperatives are common cross-linguistically (Schmerling 1977, Sadock and Zwicky 1985, Zhang 1990). Others¹³ follow Chomsky 1975 in attempting to analyze at least some cases of DO in imperatives as instances of *Do*-Support. This is a more restrictive hypothesis in that it potentially introduces no new mechanisms or lexical items into the syntactic analysis of English. The ellipsis facts provide further support for this approach.

It is noteworthy that these arguments concerning the structure of imperatives do not hinge on the additional data introduced by Davies (1986). It is not crucial that subjects be able to appear with *do* or that they be able to precede *don't*. With the more restricted data, the structure argued for in (14) would be valid only for imperatives with *don't*: Accepting

Davies' observations, however, permits us to generalize the structure to all imperatives, a clearly desirable simplification. To the extent that such imperatives are less acceptable, a non-structural account must be found since the syntax does not rule them out.

The results of this work can be summarized as follows. The structure of an imperative in English is as in (14). *Do*-Support occurs in the presence of negation or emphasis, inserting *do* into F_2^* where it behaves like other English lexical items that occupy I^* and license VP ellipsis. From there, *do* moves to F_1^* , perhaps obligatorily. The subject of an imperative is base generated VP-internally but moves into the inflectional projections, at least as high as F_2P , allowing quantifier stranding.

Notes

* I would like to thank Judith Aissen and Jim McCloskey for valuable comments on this work. I also acknowledge helpful insights from members of the UCSC linguistics community and participants at FLSM VI.

1. For example, Bolinger 1967, Downing 1969, Stockwell et. al. 1973, Davies 1986, and Beukema and Coopmans 1989.

2. In particular, it is not the case that such noun phrases are vocatives as proposed in Thorne 1966. Downing 1969, Stockwell et. al. 1973, and Potsdam (in preparation) argue against such an approach and show that numerous syntactic and semantic tests distinguish vocatives from subjects in English despite the lack of morphological marking.

3. See Bolinger 1967, Stockwell et. al. 1973, Schmerling 1977, 1982, Beukema and Coopmans 1989, Zhang 1991, and Platzack and Rosengren 1994 for various proposed restrictions.

4. Subjects seem not to be permitted with *do not*, which may be used to form negative imperatives, as in (i). (ii) is the best example I have found.

- (i) *Do not you come near me!
- (ii) ??DO NOT ANYONE touch my stuff!

I will not discuss such imperatives here; although, ultimately, they should be incorporated into a complete analysis. I agree with Schmerling (1977) that taking *do not* to be simply uncontracted *don't* yields a chaotic picture. *Do* in such examples does not act like an auxiliary as it does in the cases to be discussed.

5. Davies 1986 argues for the acceptability of *do* even with *you*:

- (i) a. For heaven's sake, of all people, DO YOU give me some support!
- b. Do AT LEAST YOU have a go, even if the others won't!

A functional explanation for the general oddness of *do* with *you* as subject is suggested. In the acceptable examples, *you* is not being used as a marker to signal authority over the addressee, as is typical, but, rather, functions contrastively. It contrasts the addressee to certain other people. Adverbs like *at least* which improve the acceptability of the examples make this contrast explicit. *Do* not occurring with *you* is a consequence of the rarity of situations in which both persuasive *do* and contrastive *you* are warranted.

6. Formal proposals claiming that imperatives are VPs or other reduced clause types include Schmerling 1977, 1982 and Platzack and Rosengren 1994. Two recent analyses of the English imperative that adopt a VP-internal representation for the subject are Henry 1995 (for a Belfast dialect of English) and Platzack and Rosengren 1994 (on Germanic languages).

7. It is sometimes claimed that imperatives with auxiliaries are ungrammatical. Akmajian, Steele, and Wasow 1979 and Takezawa 1984, for example, do not accept imperatives with perfective *have*. Bolinger 1967 convincingly argues that they are in fact grammatical, citing acceptable examples along with an experiment in which a passage containing a perfective *have* imperative was submitted to twelve native English speakers. Only three people noted the

imperative and none marked it as un-English. Davies 1986 makes the same point, arguing that there are in general *no* syntactic constraints against auxiliaries in imperatives.

8. *Strong agreement* is defined as in (i).

- (i) X° is specified for strong agreement iff
 - a. X° or a phrase coindexed with X° is specified for agreement and
 - b. agreement is morphologically realized on X° or a head coindexed with X°

9. The fact that the overt head is no longer adjacent to the empty VP cannot be problematic. Traces, or perhaps the chain, need to be able to satisfy the Ellipsis Licensing Principle as the same situation arises in ellipsis in questions. The tag question in (i)a has the structure in (i)b. The head that licenses the elided VP is not adjacent to the VP but has moved to C°.

- (i) a. Can we, please?
 b. [_{CP} can_k [_{IP} we [_{I'} t_k [_{VP} \emptyset]]]]

10. The acceptability of these examples given the appropriate context suggests that Stockwell et. al. 1973 are incorrect in claiming that such preverbs are incompatible with imperatives. Davies 1986 makes the same observation.

11. Initially, this would seem obviously incorrect given that imperative verb forms are different from finite forms and never show any tense morphology: **Is/Were on time!* A way to make sense of things is to distinguish tense from finiteness. The latter is a poorly understood notion (Davies 1986) and a precise definition of it would offer a starting point for teasing apart the distinction. Imperatives could be tensed but still be negatively specified for whatever accounts for inflected forms.

12. See Bolinger 1967, Cohen 1976, Schmerling 1977, Beukema and Coopmans 1989, Pollock 1989 and Zhang 1991 for various approaches.

13. These include Stockwell et. al. 1973, Lasnik 1981, Davies 1986, Pollock 1989, and Zanuttini 1991.

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