

Cross-linguistic Variation in the Compatibility of Negation and Imperatives*

CHUNG-HYE HAN
University of Pennsylvania

1. Introduction

Many works done on the syntax of imperatives in Romance and Slavic languages note that while some languages have negative imperatives, others do not, instead expressing prohibition through the use of suppletive subjunctives or infinitives (Joseph & Philippaki-Warbuton (1987), Zanuttini (1991), Zanuttini (1994), Rivero (1994a), Rivero (1994b), Rivero & Terzi (1995), Zanuttini (1997)). This paper provides a novel account for the cross-linguistic variation in the compatibility of imperatives and negation. I argue that some languages rule out negative imperatives because the syntax derives a structure which maps onto an illegitimate semantic representation. This paper mainly considers data from Italian, Spanish, French, Modern Greek, Bulgarian, Serbo-Croatian, German and English.

In §2, I discuss the data and the issues they raise. In §3, I discuss previous studies that provide syntactic accounts of the relation between negation and imperatives. In §4, I discuss a puzzle concerning the non-availability of negative imperatives, which previous studies failed to take into account. In §5, I establish that C^0 is the locus of imperative operator which attracts the imperative verb. In §6, I propose that negative imperatives are ruled out because they have a syntactic configuration which maps onto a semantic

*I thank Anthony Kroch for many valuable discussions on this topic. I also thank Robin Clark, Sabine Iatridou, Roumyana Izvorski, Eric Potsdam and Beatrice Santorini for helpful comments. I am also grateful to Alexis Dimitriadis, Luis López, Paola Merlo, Carmen Rio Rey, and Sandra Stjepanovic. Of course, all errors are mine.

representation that is simply uninterpretable. Under the proposed analysis, negative imperatives are ruled out by semantics and not syntax. In §7, I discuss and account for a potential counterexample to the proposed analysis posed by the existence of negative imperatives in Bulgarian and Serbo-Croatian. In §8, I extend the proposed analysis to negative interrogatives.

2. Data and Issues

In Modern Greek and Spanish, imperatives are not compatible with negation. The prohibition is expressed through the use of subjunctives in Modern Greek and subjunctives or infinitives in Spanish.¹

(1) Modern Greek

- | | |
|---|--|
| <p>a. * Mi grapse to!
Neg write-2sg.Imp it
'Don't write it!'</p> <p>b. (Na) mi to grapsis!
NA Neg it write-2sg.Subj
'Don't write it!'</p> | <p>c. * Mi grapsete to!
Neg write-2pl.Imp it
'Don't write it!'</p> <p>d. (Na) mi to grapsete!
NA Neg it write-2pl.Subj
'Don't write it!'</p> |
|---|--|

(2) Spanish

- | | |
|---|---|
| <p>a. * No lee!
Neg read-2sg.Imp
'Don't read!'</p> <p>b. No leas!
Neg read-2sg.Subj
'Don't read!'</p> <p>c. No leer!
Neg read-Inf
'Don't read!'</p> | <p>d. * No hablad!
not talk-2pl.Imp
'Don't talk!'</p> <p>e. No habléis!
not talk-2pl.Subj
'Don't talk!'</p> <p>f. No hablar!
not talk-Inf
'Don't talk!'</p> |
|---|---|

In Italian, imperatives in the 2nd person singular cannot be negated, but imperatives in the 2nd person plural can be. The prohibition in the 2nd person singular is expressed through the use of suppletive infinitives.

(3) Italian

- | | |
|---|---|
| <p>a. * Non telefona le!
Neg call-2sg.Imp her
'Don't call her!'</p> <p>b. Non telefonare le!
Neg call-Inf
'Don't call her!'</p> | <p>c. Telefonate le!
call-2pl.Imp her
'Call her!'</p> <p>d. Non telefonate le!
Neg call-2pl.Imp her
'Don't call her!'</p> |
|---|---|

¹In Modern Greek, many imperative verbs in the 2nd person plural have the same forms as corresponding subjunctive verbs. One way to distinguish the two forms is through the use of pronominal clitics. In imperatives, clitics encliticize onto the verb, whereas in subjunctives, they procliticize.

Imperatives in the 2nd person singular have verbal forms unique to the imperative paradigm, whereas imperatives in the 2nd person plural have verbal forms morphologically identical to the corresponding indicative form. For this reason, Zanuttini (1991) refers to 2nd person singular imperatives as TRUE IMPERATIVES and 2nd person plural imperatives as SUPPLETIVE IMPERATIVES.²

In French, German, Bulgarian, Serbo-Croatian and English, imperatives are compatible with negation.

- | | |
|--|--|
| <p>(4) French</p> <p>a. Ne chante pas!
Neg sing-2sg.Imp pas
'Don't sing!'</p> <p>b. Ne chantez pas!
Neg sing-2pl.Imp pas
'Don't sing!'</p> | <p>(5) German</p> <p>a. Schreib nicht!
write-2sg.Imp neg
'Don't write!'</p> <p>b. Schreibt nicht!
write-2pl.Imp neg
'Don't write!'</p> |
| <p>(6) Bulgarian</p> <p>a. Ne četi!
Neg read-2sg.Imp
'Don't read!'</p> <p>b. Ne četete!
Neg read-2pl.Imp
'Don't read!'</p> | <p>(7) Serbo-Croatian</p> <p>a. Ne čitaj!
Neg read-2sg.Imp
'Don't read!'</p> <p>b. Ne čitajte!
Neg read-2pl.Imp
'Don't read!'</p> |

The data considered here raise the following issues.

- Why are imperatives compatible with negation in some languages but not in others?
- In languages like Italian, in which the imperative verbal paradigm has both true and suppletive imperative verbal forms, why are imperatives in the suppletive form compatible with negation, whereas true imperatives are not?
- Why do languages that do not allow negative imperatives choose infinitives or subjunctives as suppletive forms?

In this paper, I only address the first issue for lack of space. See Han (in prep.) for the discussion of the other issues.

²In Italian, although imperatives in the 2nd person plural have verbal forms morphologically identical to the corresponding indicative form, they do not have the syntax of indicatives. Pronominal clitics procliticize onto verbs in indicative sentences, but they encliticize in both affirmative and negative imperative sentences.

3. Previous Studies

3.1 Zanuttini (1991, 1994, 1997)

Zanuttini (1991, 1994, 1997) provides an account for Romance of the incompatibility of negation and true imperatives. Her basic claim is that imperatives are defective in that they lack a certain functional category required by a certain type of negation. Hence, languages with this type of negation do not have negative imperatives. Here, I discuss the version presented in Zanuttini (1991) in more detail (because it is the most straightforward and simplest version).

Zanuttini (1991) distinguishes between preverbal and postverbal negation in Romance: preverbal negation requires TP, whereas postverbal negation does not. She also argues that imperatives are tenseless and so do not project TP. Putting the two assumptions together, Zanuttini concludes that imperatives are incompatible with negation in languages that have preverbal negation (e.g., Italian, Spanish and Catalan).

Although Zanuttini's analysis works well for Romance, it does not easily extend to Balkan languages such as Modern Greek, Bulgarian, and Serbo-Croatian. These languages all have preverbal negation but differ in whether they allow negative imperatives: Modern Greek does not, whereas Bulgarian and Serbo-Croatian do. Given Zanuttini's analysis, one would have to argue that either the preverbal negation of Modern Greek requires TP but that of Bulgarian and Serbo-Croatian does not, or that TP is absent in the imperatives of Modern Greek but present in those of Bulgarian and Serbo-Croatian.

3.2 Rivero (1994), Rivero and Terzi (1995)

The accounts given in Rivero (1994) and Rivero and Terzi (1995) start from the assumption that Neg^0 projects to NegP in Modern Greek, Spanish, Bulgarian and Serbo-Croatian and that they share a phrase structure in which CP dominates NegP, which in turn dominates IP. Rivero and Terzi argue that in Spanish and Modern Greek (and potentially in Italian) the root C^0 hosts a strong imperative mood feature that must be checked by the verb before Spell-out requiring the imperative verb to move to C^0 overtly. The claim is that negative imperatives are unavailable in Modern Greek and Spanish because Neg^0 blocks imperative verb movement to C^0 .

According to Rivero and Terzi, in Bulgarian and Serbo-Croatian, the strong imperative mood feature is located in I^0 , rather than in C^0 . This means that the imperative verb moves only up to I^0 . Negative imperatives are available in these languages because imperative verbs do not cross Neg^0 . According to Rivero and Terzi, C^0 cannot be the position associated with imperative force in these languages (or any other illocutionary force for that matter), because C^0 is reserved as the last-resort landing site for verb movement to rescue clause-initial clitics.

Rivero and Terzi's analysis is problematic in that it does not take into account the fact that negation in Spanish and Modern Greek have the morphosyntactic properties of clitics, which I discuss in more detail in §4. The issue does not arise for Bulgarian and Serbo-Croatian although the negation markers in these languages are also clitics.

4. A Puzzle Posed by the Clitic-like Nature of Negation

In negative sentences in Modern Greek, Spanish and Italian, negation always precedes the verb and nothing (except for clitics) can intervene between them. That is, negation has the morphosyntactic properties of clitics and it is treated as a unit with the verb in overt syntax. If a verb moves to C^0 in a certain construction in these languages, we expect the verb and negation to move as a unit in the negative counterpart. Hence, it is not surprising that the verb cannot move across Neg^0 in negative imperatives, under a system that assumes imperative verb movement to C^0 as in Rivero and Terzi's analysis.³

I observe that a real puzzle concerning the non-availability of negative imperatives comes from the fact that languages like Modern Greek, Spanish and Italian allow the verb and negation to move as a unit to C^0 in other types of sentences. For instance, in Italian Aux-to-Comp constructions, a participle or an infinitive (or, more marginally, a subjunctive) auxiliary inverts around a subject, as in (8a) (Rizzi (1982)). In a negative Aux-to-Comp construction, negation and the verb move to C^0 as a unit, as in (8b).

- (8) Italian
- a. Avendo Gianni fatto questo, ...
having Gianni done this, ...
 - b. Non avendo Gianni fatto questo, ...
Neg having Gianni done this, ...

In Spanish and Modern Greek, questions can be formed by moving the verb to C^0 , resulting in subject-verb inversion. In negative questions, negation and the verb move to C^0 as a unit as well, as in (9).⁴

- (9) a. Ti den edose o Yannis stin Meri?
what Neg gave the Yannis to Meri
'What didn't Yannis give to Meri?' (Modern Greek)
- b. ¿Qué no le dió Juan a María?
What Neg to-her gave Juan to Maria
'What didn't Juan give to Maria?' (Spanish)

Given Rivero and Terzi's analysis, examples in (8b) and (9) are expected to be ungrammatical. But this is not correct. Moreover, given the behavior of negation and the verb in Aux-to-Comp constructions in Italian and in questions in Spanish and Modern Greek, we expect Neg^0 and the verb to move to C^0 as a unit in negative imperatives as well. But this expectation is not borne

³I assume that clitic negation attaches to the verb in the overt syntax. That is, I am not assuming that cliticization of negation is a pure PF phenomena, where clitic negation attaches to the verb only at PF.

⁴I assume that Spanish allows verb movement to C^0 in some *wh*-questions (see Torrego (1984)). For Modern Greek, there is some controversy as to whether verb-movement to C^0 in questions exists at all (see Anagnostopoulou (1994)).

out. Then, the real puzzle (under the assumption that imperative verb moves to C^0) is why the construction in which Neg^0 and the imperative verb have moved to C^0 as a unit is ruled out in languages that allow verb movement to C^0 along with negation in other types of constructions.

5. The Locus of Imperative Operator: C^0

In this section, I establish that imperatives have CP structures and that C^0 is the locus of the imperative operator. I establish this indirectly by presenting various arguments from the literature that imperative verbs move to C^0 because C^0 hosts an imperative operator. The analysis that I will propose in §6 of the (non)-availability of negative imperatives relies on the result established here, which is based mainly on data from English, German, French, Spanish, Italian, and Modern Greek.

5.1 Subject Position

In German, when an imperative has an overt subject, the verb precedes the subject. In *yes-no* questions, the verb also precedes the subject.

- (10) a. Schreib Du den Aufsatz!
write2sg.Imp you the paper
'You write the paper.'
- b. Schreibst Du den Aufsatz?
write you the paper
'Are you writing the paper?'

The fact that the verb must precede the subject in both imperatives and *yes-no* questions suggests that the verb in imperatives is located wherever the verb in *yes-no* questions is located: namely, in C^0 .

In English, imperative verbs follow the subject in positive imperatives. But in imperatives with *do*-support, namely, negative imperatives and emphatic imperatives, the verb *do* precedes the subject.

- (11) a. You open the door!
b. Don't you talk back to me!
c. Do at least some of you have a try. (Davies 1986:89)

This suggests that at least auxiliary *do* moves to C^0 in imperatives. Potsdam (1997) discusses various evidence for the claim that *do* and *don't* in imperatives are in C^0 .⁵

5.2 Adverb Placement

Adverb placement in Italian imperatives suggests that imperative verbs move to a position quite high in the clausal structure. Zanuttini (1997) shows that imperative verbs obligatorily precede the adverbs *pure* and *ben*, which are particles of emphatic affirmation.

⁵I assume that in English imperative verbs in sentences without *do*-support move to C^0 at LF.

- (12) a. Dagli ben una risposta!
 give-2sg.Imp-him indeed an answer
 ‘Do give him an answer!’ (Zanuttini 1997:135)
 b. * Ben dagli una risposta! (Zanuttini 1997:135)
- (13) a. Fallo pure!
 do-2sg.Imp-it indeed
 ‘Go ahead and do it!’ (Zanuttini 1997:135)
 b. * Pure fallo! (Zanuttini 1997:135)

According to Cinque (1999), *pure* and *ben* occur higher than TP. If so, then the fact that imperative verbs must precede these adverbs suggests that they move higher than the functional head that hosts tense features.

5.3 Clitic Placement

In French, Italian, Spanish and Modern Greek, a direct object clitic must follow the verb in imperatives, whereas it must precede the verb in other types of constructions, such as indicatives and subjunctives.

- (14) French
- | | |
|---|--|
| a. Faites le!
do-2pl.Imp it
‘Do it!’ | b. * Le faites!
it do-2pl.Imp
‘Do it!’ |
|---|--|
- (15) Modern Greek
- | | |
|--|---|
| a. Diavase to!
read-2sg.Imp it
‘Read it!’ | b. * To diavase!
it read-2sg.Imp
‘Read it!’ |
|--|---|
- (16) Spanish
- | | |
|--|---|
| a. Lée lo!
read-2sg.Imp it
‘Read it!’ | b. * Lo lée!
it read-2sg.Imp
‘Read it!’ |
|--|---|
- (17) Italian
- | | |
|---|--|
| a. Telefona le!
call-2sg.Imp her
‘Call her!’ | b. * Le telefona!
her call-2sg.Imp
‘Call her!’ |
|---|--|

According to Kayne (1994), a clitic adjoins to an empty head of a functional projection above I^0 . In subjunctives and indicatives, the verb moves to I^0 , resulting in clitic-verb order. Rooryck (1992), Rivero (1994b) and Rivero & Terzi (1995) take the verb-clitic order in imperatives to indicate that the imperative verb moves to C^0 , bypassing the functional head to which the clitic is adjoined (adopting Kayne’s analysis of the syntax of clitics).

5.4 Emphatic Commands

Under the assumption that imperative verbs move to C^0 , this movement would be blocked if C^0 is already occupied by some other lexical element. Rivero (1994b) discusses such constructions in Spanish. In Spanish, emphatic commands are expressed with *que* and the subjunctive verb. Tellingly, the imperative is ruled out in this construction.

- (18) a. Que escribáis!
that write-2pl.Pres.Subj
'You just write!'
(Rivero 1994b:99)
- b. * Que escribid!
that write-2pl.Imp
'You just write!'
(Rivero 1994b:99)

The marker *que* is a complementizer in C^0 and it is being used with emphatic force. Since C^0 is already occupied by *que*, emphatic commands cannot co-occur with the imperative verb.

5.5 No Embedded Imperatives

As noted by Sadock & Zwicky (1985) and Palmer (1986), an imperative cannot occur as an embedded clause.

- (19) a. * O Yannis se dietakse grapse.
the Yannis you order-2sg write-2sg.Imp
'Yannis ordered you to write.' (Modern Greek)
- b. * Pido que dad-me el libro.
ask that give-2sg.Imp-me the book
'I ask that you give me the book.' (Spanish)
- c. * Ti ordino (di/che) fallo!
you order (of/that) do-2sg.Imp-it
'I order you (of/that) do it!' (Italian)
- d. * J'exige que tu chante.
I-require that you sing-2sg.Imp
I require that you sing.' (French)
- e. * Hans schlägt-vor daß du den Aufsatz schreib(e).
Hans suggests that you the paper write-2sg.Imp
'Hans suggests that you write the paper.' (German)

Embedded clauses cannot express illocutionary force. If imperatives have an operator in C^0 that encodes directive force, it follows that imperatives cannot be embedded in and of itself. This fact does not show that imperative verbs move to C^0 but it is consistent with the claim that the locus of imperative operator that encodes directive force is in C^0 .

6. Proposal

Before I present my analysis with respect to the cross-linguistic variation in the compatibility of negation and imperative, I note that the directive force contributed by the imperative mood cannot be negated. This is shown by the

fact that negative imperatives only have reading in which the directive force has scope over the negation, never in which the negation has scope over the directive force.

- (20) Don't call!
 \approx I order you not to call.
 $\not\approx$ I don't order you to call.

This fact is not specific to imperatives, but holds of interrogatives and statements as well. Just as the directive force of an imperative cannot be negated, neither can the question force of an interrogative nor the assertive force of a statement.

I propose an account of the cross-linguistic variation in the availability of negative imperatives based on the fact that the directive force cannot be negated and on the assumption that the imperative operator encoding the directive force is located in C^0 .

The proposal is that negative imperatives are unavailable in some languages because they have syntactic configuration in which negation takes syntactic scope over the imperative operator in C^0 . Such constructions are ruled out because they map onto a semantic representation in which the directive force ends up being negated. Such semantic representations are simply illegal. Under the proposed analysis, negative imperatives are ruled out by semantics and not syntax.

6.1 Languages without Negative Imperatives

Recall that negative imperatives are not available in Modern Greek, Spanish and Italian (in the 2nd person singular). In all three languages, sentential negation is expressed by a preverbal negation which has the status of a clitic on the verb. This means that the negative marker is treated as a unit with the verb in the overt syntax. Thus, in negative imperatives, we expect the negative marker and the verb to move to C^0 as a unit. However, if it did, the imperative operator would end up within the scope of negation. Consequently, the directive force would end up being negated, resulting in semantic uninterpretability.⁶

6.2 Languages with Negative Imperatives

Languages that have negative imperatives include English, French and German. In German, the verb in imperatives is also adjoined to C^0 . But negation never forms a unit with the verb, and so it never ends up in C^0 . Since Neg^0 stays low in the clause, it does not scope over the imperative operator in C^0 .

In French, the imperative verb and the negative marker *ne* form a unit, and so when the imperative verb moves to C^0 , *ne* also ends up there. Thus,

⁶I assume the definition of c-command given in Kayne (1994).

- (1) Definition of c-command (Kayne 1994)
X c-commands Y iff X and Y are categories and X excludes Y (i.e., no segment of X dominates Y) and every category that dominates X dominates Y.

Under the definition of c-command in (1), when the negation and the verb adjoin to C^0 , the negation c-commands C^0 but C^0 does not c-command negation. Thus, negation asymmetrically scopes over the imperative operator and the other scope possibility where the imperative operator scopes over negation is ruled out by the syntax.

the proposed analysis seems to predict incorrectly that imperatives should not be compatible with negation in French. However, closer look reveals why imperatives and negation are compatible in French after all. French forms sentential negation with *ne ... pas*, where *ne* is a proclitic on the verb. In informal registers, the negative clitic *ne* is not obligatory, indicating that *ne* is pleonastic and that sentential negation is expressed by *pas*. But then, the prediction is that negative imperatives are available in French: the imperative verb moves to C^0 with the pleonastic *ne*, and the true negation *pas* stays low in the clause. Hence, the negation does not take scope over the imperative force of C^0 .

English has two types of negative imperatives: *do not* imperatives, as in *Do not call*, and *don't* imperatives, as in *Don't call*. The explanation for why *do not* imperatives are available is simple: *do* alone moves and adjoins to C^0 , and *not* stays low in the clause. And so, negation does not take scope over the imperative operator of C^0 .

In the case of *don't* imperatives, negation forms a unit with *do*. Moreover, as is evident from the order of *don't* and the subject in imperatives (e.g., *Don't you cry*), *don't* is in C^0 . Just as in Spanish, Italian and Modern Greek, in *don't* imperatives, negation and the imperative verb form a unit and adjoin to C^0 , the locus of imperative operator. However, unlike Spanish, Italian and Modern Greek, *don't* imperatives are ruled in. I argue that this can be explained with the assumption that *do* in imperatives is like the deontic modal verb *must*. In a negative deontic modal sentence in English, the deontic modal verb has scope over the negation.

- (21) John mustn't leave.
 \approx It is obligatory for John not to leave. ($\Box\neg$)
 $\not\approx$ It is not obligatory for John to leave. ($\neg\Box$)

This means that the deontic modal verb, which takes scope over the entire sentence at LF or in semantic representation, passes the negation low in the representation, deriving the interpretation in which the deontic modal scopes over the negation. If *do* in *don't* imperatives is like the deontic modal verb *must*, then it, too, can also pass the negation low at LF or in semantic representation. In this representation, the negation does not take scope over the imperative operator, and so *don't* imperatives are not ruled out.

7. Apparent Counterexamples

In languages like Bulgarian and Serbo-Croatian, clitics encliticize onto the imperative verb, and yet negative imperatives are possible, as shown in (22) and (23).

- (22) Bulgarian
- | | |
|-----------------|---------------------|
| a. Četi ja! | b. Ne ja četi! |
| read-2sg.Imp it | Neg it read-2sg.Imp |
| ‘Read it!’ | ‘Don’t read it!’ |
- (23) Serbo-Croatian
- | | |
|-----------------|----------------------|
| a. Čitaj je! | b. Ne čitaj je! |
| read-2sg.Imp it | Neg read-2sg.Imp it. |
| ‘Read it!’ | ‘Don’t read it!’ |

These facts appear to pose counterexamples to the analysis proposed here because they suggest that although the imperative verb moves to C^0 , imperatives are compatible with negation.

But they are only apparent counterexamples because the imperative verb is not in C^0 on the surface. Following Rivero & Terzi (1995), I take the fact that clitics can appear preverbally in imperatives when they are not in a clause-initial position as evidence that the imperative verb is low in the clause. This is shown in (24).

- (24) a. Knjige im čitajte!
 books to-them read-2pl.Imp
 ‘Read books to them!’ (Serbo-Croatian)
 (Rivero and Terzi 1995, 17a)
- b. Ela i mi kaži!
 come-2sg.Imp and me tell-2sg.Imp
 ‘Come and tell me!’ (Bulgarian)
 (Hauge 1976, 5; cf. Rivero 1994, 35)

If imperative verbs do not move to C^0 , then how can we explain the fact that clitics enclitize in some imperatives? An answer will be given in §7.2.

7.1 Imperative verb movement to C^0 at LF

Neither Bulgarian nor Serbo-Croatian allows embedded imperatives. This is consistent with the proposal that C^0 is occupied by an imperative operator.

- (25) a. * Ivan nastojava (ti) govori.
 Ivan insists (you) speak-2sg.Imp
 ‘Ivan insists that you speak.’ (Bulgarian)
- b. * Ivan insistira da je čitaj.
 Ivan insists that it read-2sg.Imp
 ‘Ivan insists that you read it.’ (Serbo-Croatian)

I therefore assume that Bulgarian and Serbo-Croatian imperatives also have an imperative operator in C^0 , and I propose that the imperative verb moves and adjoins to C^0 at LF. But since morphological/phonological constraints do not apply at LF, the imperative verb can move alone stranding the clitic-like preverbal negation. Consequently, Neg^0 does not take scope over the imperative operator of C^0 , and so negative imperatives are not ruled out.⁷

7.2 C^0 as the locus of illocutionary force operators

Recall that Rivero (1994b) and Rivero & Terzi (1995) argue that C^0 cannot host an operator which encodes directive or question force in Bulgarian and Serbo-Croatian. Their claim is that C^0 is the locus for last-resort verb movement to prevent clitics from occupying first position. This claim can be contradicted on two grounds:

⁷As Chomsky (1995), I assume that LF movement involves feature movement, where only necessary features are attracted by the target. Thus, the imperative operator in C^0 attracts the verbal feature, leaving behind other features.

- (26) a. It can be shown that verbs do not move to C^0 to prevent clitics from occurring in the first position.
 b. It can be shown that C^0 does indeed have something to do with encoding illocutionary forces.

If we adopt the account on participle-aux orders in Slavic given by Embick & Izvorski (1997), which is extended to verb-pronominal clitic orders, we can do away with the claim that C^0 is reserved for verb movement to prevent clitics from appearing in the first position. In Slavic, some sentences show participle-aux orders, as in (27).

- (27) Napísal som list.
 written am letter
 'I have written a letter.' (Slovak)
 (Embick and Izvorski 1997:210)

According to Embick & Izvorski (1997), some auxiliaries in Slavic are like clitics. Thus, they cannot occur in a sentence-initial position. They propose that when clitic auxiliaries are stranded by the syntax in sentence-initial position, Morphological Merger (Marantz 1989) operates at a post-syntactic level to invert the stranded clitic auxiliary with an adjacent element, namely the participle, thus satisfying the clitic's need for a host and yielding participle-aux orders. Extending the account to verb-clitic orders, they argue that clause-initial clitics affix onto the adjacent verb at a post-syntactic level, eliminating the motivation for last-resort verb movement to C^0 .

Assuming Embick and Izvorski's (1997) account, we immediately have an explanation for imperatives in which clitics have encliticized onto the imperative verb, as in (22a) and (23a): the clitics have affixed onto the verb in I^0 at a post-syntactic level. Also, clitics procliticize in negative imperatives in Bulgarian, as in (22b), because the presence of *ne* renders Morphological Merger unnecessary.⁸

We still need to explain why clitics enclitize in Serbo-Croatian negative imperatives, as shown in (23b). As pointed out by Rivero & Terzi (1995), in Serbo-Croatian, negation *ne* and the verb cannot be intervened by pronominal clitics. This is exemplified with indicative sentences as in (28).

- (28) Serbo-Croatian
- | | | | | | |
|----|---------------------------|-----|----|---------------------------|--|
| a. | Ne čitate | je. | b. | * Ne je čitate. | |
| | Neg read-Pres.2pl | it | | Neg it read-Pres.2pl | |
| | 'You are not reading it.' | | | 'You are not reading it.' | |

⁸Macedonian imperatives potentially pose a problem. In Macedonian, clitics procliticize in finite clauses, but encliticize in non-finite clauses, where non-finite clauses include imperatives and gerunds (Tomić (1996), Legendre (1999)). The clitic placement in imperatives suggests that the imperative verb is somewhere high in the clause. However, negative imperatives are available and pronominal clitics encliticize in negative imperatives just as in affirmative imperatives. This suggests that negation and the verb in negative imperatives are also located somewhere high in the clause. One possible explanation may be that non-finite verbs (including imperative verbs) are located in a functional head below Neg^0 but above I^0 on the surface, deriving (neg)-verb-clitic order. And then the imperative verb moves further to C^0 at LF.

Thus, the fact that clitics encliticize in negative imperatives in Serbo-Croatian is simply due to an independent constraint of the language.

The facts from questions in Bulgarian and Serbo-Croatian establish that C^0 does indeed have something to do with encoding illocutionary forces. In *wh*-questions, all *wh*-phrases undergo fronting.

- | | | | | |
|------|----|---|----|---|
| (29) | a. | Koj kak udari Ivan?
who how hit Ivan
'Who hit Ivan how?'
(Bulgarian) | b. | Ko gdje spava?
who where sleeps
'Who sleeps where?'
(Serbo-Croatian) |
|------|----|---|----|---|

The structural position to which the *wh*-phrases move in *wh*-questions is generally argued to be [Spec, CP]. Then, the question relevant here is why the *wh*-phrases move to [Spec, CP] even when there is no clitic (either pronominal or auxiliary) to support. The obligatoriness of *wh*-movement in *wh*-questions suggests that C^0 is associated with an operator that encodes the illocutionary force of questions. Moreover, the Bulgarian particle *li* which occurs in *yes-no* questions is argued to be a complementizer in C^0 (Rivero (1993), Izvorski *et al.* (1997)). If these accounts are correct, then this is another case of C^0 hosting an operator that encodes illocutionary force.

Under the simplest theory, if C^0 is the locus of operator that encodes question illocutionary force in a language, it should also be the locus of the operator that encodes directive illocutionary force in that language. Under such a simple theory, the fact that a sentence cannot be both an imperative and an interrogative follows without any stipulation. Moreover, such a simple theory simplifies type theory in that operators with same semantic type associate with the same syntactic category.

8. Extension to Negative Interrogatives

The proposed analysis predicts that languages with verb movement to C^0 in questions and a clitic-like sentential negation should not have negative *yes-no* questions. We immediately realize that this prediction is not borne out.

- (30) ¿No bebió Juan café?
 Neg drank Juan coffee
 'Didn't Juan drink coffee?' (Spanish)

As shown in (30), there are negative *yes-no* questions in which the verb and the negation occupy C^0 as a unit. I explain why such negative *yes-no* questions are available by appealing to the semantics of questions.

8.1 Negation in *Yes-no*-questions

Following Groenendijk & Stokhof (1985), I assume that a *yes-no* question denotes a partition that represents the possible answers: namely, the positive and the negative answer. An affirmative *yes-no* question and the corresponding negative *yes-no* question both denote the same partition because they both have the same set of possible answers. For instance, the question *Does John drink?* and *Doesn't John drink?* have the same set of possible answers: *John drinks* and *John doesn't drink*. They both denote the same partition in (31).

(31) $\llbracket \text{Does John drink?} \rrbracket \equiv \llbracket \text{Doesn't John drink?} \rrbracket$

John drinks
John doesn't drink

They differ in that while the negative question implicates that the speaker expects a positive answer, the affirmative question has no such implication.

Since the clitic-like negation in *yes-no* questions does not make a truth-conditionally relevant contribution to the denotation, we can assume that it is pleonastic. Thus, it does not negate the question force, and so negative *yes-no* questions are allowed.

8.2 A Prediction with respect to alternative questions

The analysis presented here makes a prediction with respect to alternative questions. The possible answers to an alternative question, such as *Did John drink coffee or tea?*, are *John drank coffee* and *John drank tea*. That is, an alternative question denotes a partition as in (32).

(32) $\llbracket \text{Does John drink coffee or tea?} \rrbracket$

John drank coffee
John drank tea

The negation in alternative questions is a true negation because it affects the denotation. Thus, the prediction is that alternative questions with negation in C^0 should not be available, whereas alternative questions with the negation low in the clause should be. This prediction is borne out in English.

- (33) a. Didn't John drink coffee or tea?
b. Did John not drink coffee or tea?

The question in (33a) cannot have the alternative question reading in which the possible answers are *John didn't drink coffee* and *John didn't drink tea*. It can only be interpreted as a *yes-no* question in which the possible answers are *John drank coffee or tea* and *John didn't drink coffee or tea*. In contrast, the question in (33b) has both the alternative question reading and the *yes-no* question reading, as expected. The prediction with respect to alternative questions holds in other languages as well. See Han (in prep.) for more discussion on this issue.

9. Conclusion

I have proposed that a language does not allow negative imperatives if the syntax derives a structure in which the imperative operator ends up in the scope of negation. This is because such a syntactic structure maps onto a semantic representation in which the directive force is negated. This semantic representation is simply illegal. The proposed analysis has implications for the syntax to semantics mapping in imperatives. Given the proposed analysis, the cross-linguistic variation in the compatibility of negation and imperatives is another case that shows that the set of available syntactic structures in a language is restricted by the semantics.

References

- ANAGNOSTOPOULOU, ELENA, 1994. *Clitic dependencies in Modern Greek*. University of Salzburg dissertation.
- CHOMSKY, NOAM. 1995. *The Minimalist Program*. Cambridge, MA: The MIT Press.
- CINQUE, GUGLIELMO. 1999. *Adverbs and Functional Heads : A Cross-Linguistic Perspective*. Oxford Studies in Comparative Syntax. New York, Oxford: Oxford University Press.
- DAVIES, EIRLYS. 1986. *The English Imperative*. London, Sydney, Dover, New Hampshire: Croom Helm.
- EMBICK, DAVID, & ROUMYANA IZVORSKI. 1997. Participle-auxiliary word orders in slavic. In *Annual Workshop on Formal Approaches to Slavic Linguistics: the Cornell Meeting 1995*, ed. by Natasha Kondrashova Wayles Brown, Ewa Dornisch & Draga Zec, volume 4, 210–239. Ann Arbor: Michigan Slavic Publications.
- GROENENDIJK, JEROEN, & MARTIN STOKHOF, 1985. *Studies in the semantics of questions and the pragmatics of answers*. University of Amsterdam dissertation.
- HAN, CHUNG-HYE, 1999. *The Structure and interpretation of imperatives: mood and force in universal grammar*. University of Pennsylvania dissertation.
- IZVORSKI, ROUMYANA, TRACY KING, & CATHERINE RUDIN. 1997. Against li-lowering in bulgarian. *Lingua* 102.187–194.
- JOSEPH, BRIAN, & IRENE PHILIPPAKI-WARBURTON. 1987. *Modern Greek*. London: Croom Helm.
- KAYNE, RICHARD. 1994. *The Antisymmetry of Syntax*, volume 25 of *Linguistic Inquiry Monograph*. Cambridge, London: The MIT Press.
- LEGENDRE, GERALDINE. 1999. Morphological and prosodic alignment at work: the case of south-slavic clitics. In *The Proceedings of the Seventeenth West Coast Conference on Formal Linguistics*, ed. by Kimary Shahin, Susan Blak, & Eun-Sook Kim, 436–450. Stanford: CSLI.
- MARANTZ, ALEC. 1989. Clitics and phrase structure. In *Alternative Conceptions of Phrase Structure*, ed. by M. Baltin & Anthony Kroch. Chicago: Chicago Press.
- PALMER, FRANK ROBERT. 1986. *Mood and Modality*. Cambridge Textbooks in Linguistics. Cambridge: Cambridge University Press.
- POTSDAM, ERIC, 1997. *Syntactic issues in the English imperative*. University of California at Santa Cruz dissertation.
- RIVERO, MARIA-LUISA. 1993. Bulgarian and serbo-croatian yes-no questions: V⁰ raising to *-li* vs. *-li* hopping. *Linguistic Inquiry* 24.567–575.
- . 1994a. Clause structure and v-movement in the languages of the balkans. *Natural Language and Linguistic Theory* 12.63–120.
- . 1994b. Negation, imperatives and wackernagel effects. *Rivista di Linguistica* 6.39–66.
- , & ARHONTO TERZI. 1995. Imperatives, v-movement and logical mood. *Journal of Linguistics* 31.301–332.
- RIZZI, LUIGI. 1982. *Issues in Italian Syntax*. Dordrecht: Foris.
- ROORYCK, JOHAN. 1992. Romance enclitic ordering and universal grammar. *The Linguistic Review* 9.219–250.
- SADOCK, JERROLD M., & ARNOLD M. ZWICKY. 1985. Speech act distinctions in syntax. In *Language Typology and Syntactic Description*, ed. by Timothy Shopen, volume 1, 155–196. Cambridge: Cambridge University Press.
- TOMIĆ, OLGA MIŠESKA. 1996. The balkan slavic clausal clitics. *Natural Language and Linguistic Theory* 14.811–872.
- TORREGO, ESTHER. 1984. On inversion in spanish and some of its effects. *Linguistic Inquiry* 15.103–129.
- ZANUTTINI, RAFFAELLA, 1991. *Syntactic properties of sentential negation: a comparative study of Romance languages*. University of Pennsylvania dissertation.
- . 1994. Speculations on negative imperatives. *Rivista di Linguistica* 6.67–89.
- . 1997. *Negation and clausal structure: a comparative study of Romance languages*. Oxford Studies in Comparative Syntax. New York, Oxford: Oxford University Press.