

1 Introduction

Recent approaches to imperatives in the semantics literature have defined the category ‘imperative’ in terms of sentence type (or more recently, clause type). Sadock and Zwicky’s (1985) typological study of sentence types represents an early influence on this mode of thought. Specifically, Sadock and Zwicky claim that three sentence types are universal: declarative, interrogative, and imperative. Portner (2011) links these sentence types to the notion ‘sentence mood,’ which is “the semantic side of the opposition among clause types,” an idea with antecedents in Chierchia & McConnell-Ginet (2000), Zanuttini & Portner (2003), and others. In this paper, I begin by arguing that understanding the category ‘imperative’ as belonging to the natural class that contains ‘declarative’ and ‘interrogative’ fails to explain the distribution and interpretation of morphologically imperative verbs.

After establishing that imperatives are not analogous to declaratives and interrogatives (which I maintain as sentence types/sentence moods), I argue that some left-peripheral element is syntactically represented in (matrix) clauses which contain either morphologically imperative verbs or verbs with some other type of morphology. This left-peripheral element, which I analyze as located in C^0 , is an operator which drives V-C movement of morphological imperative verbs; this operator therefore plays a role in both sentence typing and sentence mood, although it is not to be conflated with imperative morphology. Under the view presented here, there is no one-to-one mapping between imperative morphology and clause type. Rather, the clause type ‘directive’ is represented in the syntax but allows various types of verbal morphology.

1.1 Imperative Morphology and Clause Type

Possibly the strongest argument for viewing imperatives as a sentence type can be found in Portner (2011), who argues that ‘imperative’ should be considered a sentence type, given that the relevant type is instantiated by verbs bearing different kinds of verbal morphology, including the indicative, subjunctive, and even non-finite verb forms, in addition to the morphological imperative. Portner cites the following Italian data from Zanuttini (1997) to illustrate this point.

- (1) a. Telefona!
call.IMP.2SG
‘Call (her)!’

- b. Telefonatele tutti i giorni!
call.INDIC.2PL-her every the days
'Call her every day!'
- c. Lo dica pure!
it say.SUBJ.3SG indeed
'Go ahead and say it!'
- d. Non telefonarle! / Non le telefonare!
neg call-INF-her / neg her call—textsc-inf
'Don't call her!'

For Portner (2011), all of the examples in (1) fall under the sentence type category 'imperative.' According to Portner (2011), imperatives, construed as a clause type, are somewhat unique regarding the variation with respect to verbal morphology, i.e. "verbal mood shows a correlation with sentence type: Both declarative and interrogative clauses are expressed using the indicative, while imperative clauses show variation" (Portner 2011). Taking this claim at face value, two predictions emerge: (i) declaratives and interrogatives contain indicatives, and (ii) imperative is a clause type.

Prediction (i) is falsified by consideration of subjunctives in root clauses. These exist in both declarative and interrogative sentence types (2).

- (2) Q: Was hätten Sie getan? A: Ich würde verlassen
what have.SUBJ you done I become.SUBJ left
haben.
have
Q: 'What would you have done?' A: 'I would have left.'

While the subjunctives in (2) have been linked to modality by several researchers (Farkas 1992, Giannakidou 1997, Portner 1997, Quer 2001, among many others), the crucial point is that if declarative and interrogative are to be clause types, and if (2) represents both a declarative (in the answer) and interrogative (in the question), then the verbal mood indicative cannot be as intimately linked to sentence type as Portner (2011) suggests.

Again holding declarative and interrogative constant as sentence types (following Portner 2011), the sentence-type analysis of imperatives suggests that morphological imperatives should be excluded from declarative and interrogative sentences/clauses.¹ Nevertheless, morphological imperatives

¹Portner (2004, 2011) uses the term 'clause type,' not 'sentence type,' as the relevant category. However, for Portner, the relevant 'imperative clause type' is limited to root contexts, and therefore can be understood as a sentence, not clause, type, and therefore

(apparently in those languages with relatively richer imperative morphology) can appear in sentences which are interrogative, as (3) shows (see also Medeiros 2013, to appear); while the English modal *must* is used in the translations of these examples, the embedded clauses of these sentences contain bona-fide morphological imperatives (i.e. of the same morphological form that would be expected in matrix clauses).² See Medeiros (to appear) for further analysis of these data as well as examples of MIVs in declarative sentences.

- (3) a. Zakaj te moj nasvet, da bodi pameten, tako jezi?
 why you my advice that be.IMP.2SG sensible so angers
 ‘Why does my advice that you [must] be sensible make you so angry?’ (Sheppard and Golden, 2002)
- b. Tu David-se milai-hai je ihaan tini baje
 you David-the met who here three o’clock
 aaye.
 come.IMP.3RD SG
 ‘Have you met David who [must] come here at 3 o’clock?’ (author notes)

(3) is problematic for the hypothesis that imperative is properly understood as a sentence type, as opposed to a morphological class. In particular, within the hypothesis that imperative is a sentence type, these data entail (at least) one of the two following conclusions: (i) the sentence type analysis of imperatives does not explain the distribution of morphological imperatives, (ii) embedded morphological imperatives, while morphologically identical to their matrix counterparts, are not ‘real’ imperatives in some way yet to be defined. I find both of these conclusions unsatisfactory and therefore conclude that imperative is a property of verbal morphology and not sentence or clause type.

Rejecting the sentence-type hypothesis for imperatives is relevant for recent claims that there is no distinct functional head in the matrix C⁰ position of clauses which contain morphologically imperative verbs. For example, Zanuttini et al. (2012) argue that while morphological imperatives “have properties suggestive of an imperative operator imperatives containing

linked to ‘sentence mood.’

²Note that while the English translation of (3-a) is grammatical without *must*, this token of *be* is not an imperative (but is likely a subjunctive). Pronoun binding facts show MIVs are excluded in this context in English, e.g. **Why does my advice that everybody_i raise your_i hand make you all so angry?*

subjunctive, indicative, or infinitival verb forms ... in general do not.” If however, ‘imperative’ is a category on a par with the categories subjunctive and indicative (among others), and not a sentence type (as suggested by (3)), an imperative is not a clausal category. Nevertheless, I agree with Portner (2011) that a sentence-type style analysis should account for the facts in (1), but crucially without conflating the sentence-level phenomenon with morpho-syntactic properties. While Portner (2004, 2007) and Zanuttini et al. (2012) have argued that the clause type property (rejected here) of imperatives should be understood without recourse to a clause typing operator in the syntax, in the next section I present some arguments that this attempted theoretical reduction is not justified empirically.

1.2 Arguments For a Sentence-Level Operator

V-T-C movement has long been taken to be evidence for a left-peripheral, matrix (i.e. sentence level) operator which selects TPs containing MIVs. While the relevant operator is often called an ‘imperative operator,’ this label may be a misnomer in light of the discussion above; nevertheless, the movement properties are relatively well understood.

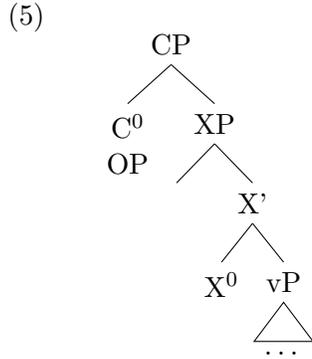
A number of authors have observed that MIVs move to a very high position, i.e. C^0 or related projection, given the relationship between MIVs and other syntactic elements such as negation and clitics (Cheng 1991, Rivero & Terzi 1995, Rizzi 1997, Zanuttini 1997, Han 2000, 2001, Isac 2012). Focusing now only on the distribution of MIVs with respect to clitics, in many languages an inversion process takes place by which clitic-verb word order, which is expected when the verb is e.g. indicative, surfaces as verb-clitic when the verb has imperative morphology; (4) demonstrates this for a handful of languages which have clitic-verb word order for non-imperative verbs.

- (4) a. Citeste - le (Romanian)
 read.IMP.2SG - them.cl
 Read them!
- b. Lee lo! (Spanish)
 read.IMP.2SG it.CL
 Read it!
- c. Faites le! (French)
 do.IMP.2PL it.CL
 Do it!

Crucially, the examples in ((4)) would be ungrammatical with the (otherwise

normal) clitic-verb word order.

In a syntactic framework in which movement is motivated by features, e.g. as proposed by Chomsky (1995) and both earlier and subsequent research, the facts in (4) can be captured by reference to an operator which drives head movement, located in Spec, CP, as in (5), which only includes relevant projection labels.



However, more compelling evidence bearing on the presence of a left-peripheral operator must ‘factor out’ language specific movement properties. This is in principle possible given the hypothesis that the relevant left-peripheral operator is licit in the matrix CP-domain only. The matrix-only nature of the relevant left-peripheral operator has been related to the speech-act, performative status of (matrix) imperatives (Han 2000). While I agree with Han (2000) that matrix imperatives (in most languages) obligatorily have speech-act status, Han’s (2000) linking of the relevant operator’s speech act-status to the (purported) cross-linguistic prohibition on embedded imperatives is not empirically justified in the face of embedded imperative data such as (3). However, the possibility of embedded imperatives in a subset of languages suggests a new way to test the hypothesis that a left-peripheral, speech-act operator drives movement for matrix imperatives. Specifically, if a language has obligatory V-C movement for MIVs in matrix contexts but prohibits this movement in embedded contexts, this would be very strong evidence that a speech-act operator drives the relevant V-C movement.

Slovene is exactly a language of this type. In Slovene, matrix MIVs must precede clitics (6), an inversion of the normal verb-clitic word order in this language (Sheppard & Golden 2002). In contrast, embedded imperatives in Slovene cannot precede a clitic, but obligatorily follow clitics (7) (the clitics in these examples are in capitals for expository purposes).

- (6) a. Poslusaj GA, ce hoces.
listen.IMP him.CLIT.DAT if you-want
Listen to him, if you want.
b. *GA posluaj, ce hoces.
- (7) a. Vztrajal je, da GA poklici.
insisted.PART is.3SG that him.CLIT.ACC call.IMP
He insisted that you must call him.
b. *Vztrajal je, da poklici GA. (Rus 2005)

Note that this matrix/embedded asymmetry with respect to verb-clitic ordering in Slovene is easily captured by an analysis which posits a left-peripheral operator in matrix clauses which contain MIVs. Since the operator can only be associated with matrix clauses, nothing motivates the movement of MIVs in embedded clauses, even for a language like Slovene in which V-C movement of MIVs is obligatory in matrix clauses.

In order to characterize the Slovene data above, I adopt an analysis (familiar from the syntactic literature, see references above) in which an operator is syntactically represented in (most) matrix clauses with an MIV, labeling this operator C_{dir} (=directive). Below, I argue that C_{dir} is in fact associated with a specific type of performativity, but not necessarily imperative morphology.

1.3 The Left-Peripheral Operator and Negation

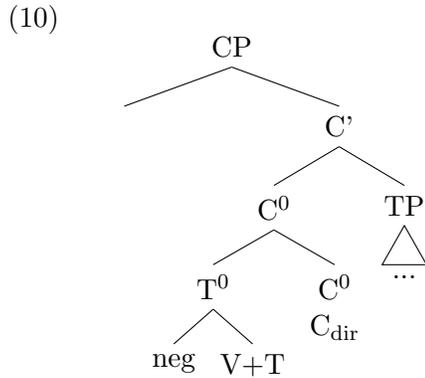
Although not addressed extensively here, a major topic in prior literature on imperative syntax involves the incompatibility of negation and MIVs in some languages (Zanuttini 1997, Han 2000, 2001, von Stechow & Iatridou 2010, Isac 2012). For example, Spanish (8-a) has a morphological imperative, but this is incompatible with negation (8-b). Instead, a subjunctive must be used as in (8-c). (Note also that the subjunctive in (8-c) can not precede the clitic.)

- (8) a. ¡Lee lo!
read.IMP it.CL
Read it!
- b. *¡No lee lo!
NEG read.IMP it.CL
Read it!
- c. ¡No lo leas!
NEG it.CL read.SUBJ
Don't read it!

Han (2001) provides a syntax/semantics interface solution for this pattern of data, which crucially relies upon the presence of a left-peripheral operator. First, Han (2001) shows that sentences with MIVs under negation are unambiguous with respect to scope; the performativity (which Han identifies as a type of illocutionary force and translates as ‘I require’ in (9)) has scope over negation (9).

- (9) *Don't call!*
 \approx I require that you not call.
 \neq I do not require that you call.

These data show that a left-peripheral operator, if present, has scope over negation. While the scope properties in (9) appear to be universal, the morpho-syntactic properties of negation are not. For example, in Spanish, Modern Greek, and Italian — all languages which prohibit imperatives under negation — sentential negation is a type of clitic which attaches to the verb; as such, negation is treated as a unit with the verb (Zanuttini 1991, 1997, Rivero 1994, Cinque 1999). Therefore, if the verb in question is an imperative, and if this is attracted to C^0 under the influence of C_{dir} , an adjunction structure such as (10) is the result.



Given the structure in (10), there is no syntactic relationship such that C^0 , which hosts C_{dir} , asymmetrically *c*-commands T^0 , which hosts negation as a clitic, resulting in an ill-formed LF. According to Han (2001), in those languages for which negation is not a clitic (e.g. English), negation is compatible with MIVs, because negation stays ‘low’ in the structure, asymmetrically *c*-commanded by the relevant operator in C^0 .

The syntactic interactions between MIVs and the syntax of negation and clitic ordering are therefore problematic for analyses such as Portner (2007)

and Zanuttini et al. (2012), which do away with a left-peripheral operator. While elimination of the operator from the theory attempts reduction, this reduction is unsuccessful insofar as both new and previously described patterns of data are left without explanation. In particular, I showed that V-C movement asymmetries in Slovene are explained by postulating a sentence-level operator; in Slovene, MIVs move from V to C in matrix but not embedded clauses. In addition, existing accounts of restrictions on MIVs under negation, such as Han (2001), depend upon the presence of the relevant operator. Assuming now that such an operator exists, in the next section I discuss how adoption of the relevant operator allows a formal re-analysis of the data, such as (1), which motivated the sentence-type analysis of imperatives.

2 Formal Re-Analysis of the Imperative Sentence Type Hypothesis

In this paper and in prior work (Medeiros 2013, to appear), I argue that ‘imperative’ is best understood as a morphological property of verbs, as opposed to a sentence or clause type. In particular, embedded imperative data showed that a sentence-level analysis of imperatives would necessarily leave unexplained the semantic properties and syntactic distribution of embedded, morphological imperatives; this is an undesirable state of affairs, in which a morphological class ‘imperative’ is only partially explained by a sentence-level category ‘imperative.’

Nevertheless, the ‘imperative as sentence type’ hypothesis, which I have rejected, is motivated by the observation that multiple morphological verb classes — not just imperative but also subjunctive, infinitive, and others — have similar, if not identical, properties in terms of performative, illocutionary force. Data from Italian ((1)), discussed above, illustrates the relevant pattern. Similar data can be found in English as well; while English differs from Italian in allowing MIVs under negation, infinitives can work equally well as commands (11).

- (11) a. Read this book by Monday!
b. This book is to be read by Monday!

Kaufmann (2012) discusses data similar to (11) in German and von Fintel & Iatridou 2010 discuss cross-linguistic data patterning with both (11) and (1).

(1) and (11) motivate a sentence-level analysis given that the same performative act is achieved by means of various different types of verbal morphology, according to Portner (2004, 2007). For this reason, all of the non-morphological imperatives in (1) and (11) are sometimes called ‘suppletive imperatives.’³ The sentence-level analysis of imperatives is therefore tailor-made to explain the (what I will argue to be incorrect) “intuition that suppletive imperatives really are imperatives” (Portner 2011). While I argue below that suppletive imperatives and morphological imperatives have identical performative properties, suppletives and MIVs differ in important ways.

In particular, von Fintel & Iatridou (2010) show that MIVs uniformly allow permission readings cross-linguistically. As for suppletive imperatives, which can take such diverse forms as infinitive, subjunctive, or even future (e.g. Hebrew), these are far more complex with respect to permission readings. In fact, it appears that these suppletive imperatives must be examined on a case-by-case basis in terms of both verbal morphology and specific language to determine whether a permission reading is possible.

For example, Catalan imperatives allow a permission reading, while a suppletive imperative, in this case an infinitive, does not (12). The same pattern of data can be observed in English (13), in which an imperative can be interpreted as a permission while a suppletive cannot, such that the suppletive imperative patterns with the strong necessity modal *must* (13-c) to the exclusion of the imperative.

(12) Catalan ‘true’ vs. suppletive imperatives

- a. Si, vés-hi!
to sleep.IMP-CL
Yes, go-CL.
- b. #A dormir! (# as permission)
to sleep.INF
Go to sleep. (von Fintel & Iatridou 2010)

(13) English ‘true’ vs. suppletive imperative vs. strong necessity modal

- a. If it’s too hot, open the window.
- b. #If it’s too hot, the window is to be opened. (# as permission)
- c. #If it’s too hot, you must open the window. (# as permission)

³As with the term ‘imperative,’ there is terminological confusion surrounding the term ‘suppletive imperative.’ The use of ‘suppletive imperative’ here follows von Fintel & Iatridou (2010), who use the term for any verb type in a performative, directive sentence.

Given this pattern of data, I argue that modal accounts of imperatives which characterize imperatives in terms of strong necessity (e.g. Kaufmann 2012) are too strong. Instead, I analyze (morphological) imperatives in terms of weak necessity, adopting the formalization in Silk (2013) which appears in (14), such that weak necessity is contingent necessity.

- (14) ‘Ought ϕ ’ is true at w iff ‘Must ϕ ’ is true at all worlds $w' \in s(w, \chi)$
iff $\forall w' \in s(w, \chi): \cap P_{w'} \subseteq [[\phi]]$
s.t. $P_w =$ all maximally consistent subsets of $F_w \cup G_w$ that include F_w as a subset & s is a selection function that selects a set of closest χ -worlds to the evaluation world χ (Silk 2013)

That imperatives really do encode contingent necessity, as opposed to propositions with *must*, is further supported by contrasts such as (15).

- (15) a. (*to get to Harlem*) Take the A-train, but there’s also a bus if you want.
b. (*to get to Harlem*) #You must take the A-train, but there’s also a bus if you want.

In short, the claim that suppletive ‘imperatives’ “really are imperatives” is false when taken at face value (and from a cross-linguistic perspective), given the sharp distinction between MIVs and suppletives (which show variation) in terms of permission reading.

2.1 Bipartite Semantics and Performativity

While I argued above that Portner (2011) is not empirically justified in equating suppletive imperatives with MIVs, in this section I formally reframe the sentence-level data which motivated Portner’s claim in terms of the directive force operator proposed above. Given the prior literature on suppletive imperatives, including von Stechow & Iatridou (2010) and Portner (2011) (among others), I propose that performative sentences with MIVs and with suppletive imperatives (whether or not the specific verb form allows a permission interpretation) are unified with respect to one component of meaning, namely the performative component. While this hypothesis has not undergone rigorous empirical testing (e.g. by testing with different kinds of follow-ups), this is (as far as I know) what Portner means when he equates suppletive imperatives to MIVs.

According to the discussion above, MIVs are associated with a weak necessity modal, which is represented separately from directive force. Un-

der this model, imperative morphology is associated with a clause-internal projection, which I identify as T^0 here for the sake of exposition. The clause-internal representation of the property which triggers imperative morphology is suggested by data such as (3) and especially (7), in which unambiguous imperative morphology occurs outside a directive context.

For the semantic analysis of the directive force operator, I adopt the presuppositional component of the imperative semantics developed by Kaufmann (2012). While the current proposal differs from Kaufmann’s (2012) proposal in the semantic and syntactic characterization of the relevant modal, I identify the meaning of the proposed directive force operator with the presuppositional meaning developed in Kaufmann, such that the presuppositional component is syntactically represented in the left periphery and the modal component is represented separately, in T or some related modal projection.

According to Kaufmann (2012), the relevant performative meaning associated with imperatives includes four presuppositions. Informally, these encode presuppositions regarding temporal interpretation, speaker authority, epistemic uncertainty, and a disjunctive presupposition according to which the utterance is either speaker bouletic or addresses a salient decision problem (see Kaufmann (2012) for formal definitions). Adopting these as the meaning for the directive force operator, I characterize the latter as (16).

- (16) C_{dir} presupposes that the utterance ϕ in its scope:
- a. does not take place solely in the past
 - b. is uttered by a relevant authority
 - c. is unclear as to whether ϕ would take place
 - d. is either speaker bouletic or addresses a salient decision problem

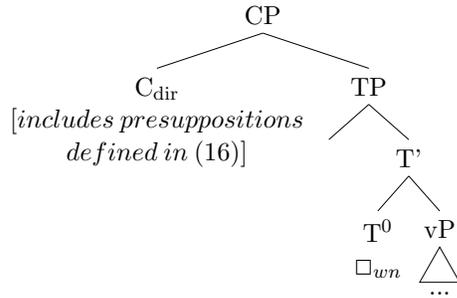
Within this bipartite framework, it is certainly possible that non-imperative verb forms, such as suppletive imperatives or even overt deontic modals such as *must*, encode a different type of modality from MIVs. For the set of suppletive imperatives which do not allow permission readings, the appropriate modal might, for example, encode strong necessity. (17) restates this set of hypotheses reading the bipartite nature of suppletive imperatives.

- (17) a. Performative MIVs and performative suppletive imperatives have identical performative properties.
- b. MIVs encode weak necessity modality. Suppletive imperatives can encode a range of modal meanings, depending on verb form and specific language.

With respect to (17-b), it remains to specify the contents of the relevant modal for a given suppletive form in a given language, which is beyond the scope of this paper; the goal here is simply to show that the bipartite analysis of imperatives presented here can capture account for the distribution of MIVs as well as some of the valuable intuitions of the sentence-type hypothesis which I have rejected.

Hypothesis (17-a) now allows us to re-consider the ‘imperative-as-sentence-type’ hypothesis from a more formal perspective. Under the analyses developed here, the presuppositional component, which accounts for the performative properties of directive clauses, is syntactically represented in the CP domain, while the weak necessity modal associated with imperative morphology is represented in the TP domain, as in (18).

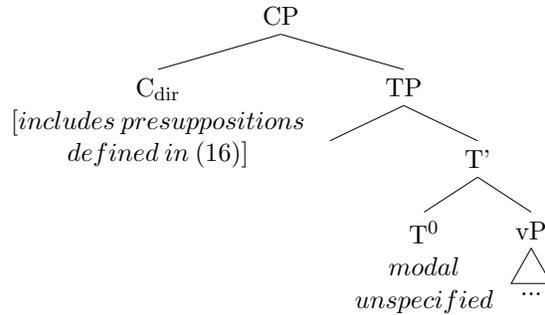
(18)



If hypothesis (17-a) is on track, i.e. performative sentences with MIVs and performative sentences with (at least some) suppletive imperatives are identical in terms of their performative semantics, then a sentence-level analysis that can cover the various verbal forms should maintain all of the performative aspects but allow the modal component to vary.

Following Portner (2007, 2011) in labeling the relevant performative force ‘directive’ (even though this can accommodate a variety of interpretations *depending on the modal*), an appropriate sentence-level analysis for both performative MIVs and suppletive imperatives, for example the Italian data (1), can be represented as (19), which is identical to (18) with respect to C_{dir}, but leaves the modal component unspecified.

(19)



3 Conclusion

While Portner (2004, 2011) and others have argued for an imperative sentence (or clause) type which includes clauses with MIVs as a proper subset, in this paper I re-analyzed the ‘imperative sentence type’ as the formalization in (19). This has several desirable properties. If performative sentences with MIVs *or* suppletive imperatives share the same performative properties, then they could, in principle, be modeled by the same set of presuppositions. Therefore, to the extent that the presuppositions in (18), adopted from Kaufmann (2012), correctly characterize the performative component of (performative) sentences containing MIVs, then the model for sentences with suppletive imperatives in (19) correctly unifies the MIV and suppletive data in terms of performativity. On the other hand, (19) is flexible enough to accommodate the differences between MIVs and suppletive imperatives; this is because some of the properties of matrix imperatives (e.g. their apparently universal ability to support permission readings) is derived from their modal meaning, which is left unspecified in (19).

More importantly, the analysis in this section allows for a fully formal characterization of directive, performative force. This is so because labels such as ‘imperative sentence’ or ‘directive sentence’ are reduced to superficial naming conventions for the formalized set of presuppositions in (19). By leaving the specific modal that is associated with suppletive forms unspecified, this analysis allows for the kind of interpretive differences between suppletive forms and MIVs (e.g. with respect to permission) discussed above.

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