

## A QUESTION OF IMPERATIVES

TOM WACHTEL

*Adam Mickiewicz University, Poznań*

The major existing analyses of the imperative are inadequate in the arbitrariness they ascribe to the surface form. A non-arbitrary analysis is presented here,<sup>1</sup> which accounts for both the command force of an imperative and for its surface form, and explains why this form should exist, with this force, in pragmatic and universal terms.

Consider first, however, the arbitrariness which the two major modern existing analyses of the imperative ascribe to the surface form. The first of these is the syntactic transformational (e.g. Katz and Postal 1964) which posits an underlying structure something like (2) for (1).

- 1    Leave!
- 2    IMP you will leave

The Imperative transformation applies to (2), triggered by IMP, and derives the surface form (1). The second approach is the generative semantic/performative (e.g. Lakoff 1971; based on Austin 1962; Searle 1969) which posits an underlying structure like (3) (loosely represented as (4)) to which certain rules apply to derive (1). Here, (3) incorporates Ross's (1972) analysis of action predicates, involving DO.

- 3    COMMAND (x, y, DO (y, leave(y)))
- 4    I order you to leave

---

<sup>1</sup> Presented at the 12th International Conference on Polish-English Contrastive Linguistics, Uniejów, Poland, May 1977. The ideas discussed here were originally presented in Wachtel (1976: chapt. 4). I am grateful to Patrick Griffiths, David Reibel, Anthony Warner, John Green, George Horn, and Grzegorz Dogil for their help and comments on an earlier draft.

These are attempts to account for the surface forms of imperatives, and for the meaning relationships between them and other fuller sentences with clearly similar meanings (cf. the underlying forms, above). However, they are both arbitrary in their explanation of the surface forms in that they fail to provide an explanation of why the devices they involve should operate, why such forms should exist, why language should be like this at all. Why, for instance, should *you* and *will* be deleted to form the surface imperative form? Deletion is as arbitrary as, for example, moving them to the end of the sentence, or inserting *scoobie-doo*, so that the form of the imperative would be either (5) or (6).

5 \*Leave you will!

6 \*Scoobie-doo-leave!

Or, why is it not the case that commands only appear as either (7) or (8)?

7 You will leave

8 I order you to leave

Why should a specific 'imperative form' exist, when these sentences are adequate commands?

Consider, further, the arbitrariness implicit in Katz & Postal's (1964:74ff.) treatment of imperatives and questions, where they posit *I* (=IMP) as the underlying imperative morpheme and *Q* as the underlying question morpheme. Subsequent Imperative and Question formation transformations, specifying these morphemes, respectively, delete them, as well as performing other deletion and reordering processes.

The actual surface form of questions may be considered arbitrary. Subject-Verb inversion, WH-fronting, and so on, are arbitrary markers of interrogation, and not universal features of language: English fronts its WH-word, Chinese doesn't; English inverts for truth-value questions, Polish uses an initial question morpheme, Chinese and Fulani a final one, and so on. Thus the form that the interrogative takes in any particular language is arbitrary.

Katz & Postal's treatment of imperatives, however, parallels their treatment of questions. Just as *Q* triggers certain rules, so *IMP* triggers certain other rules, which result in the surface form. Nevertheless, there is a great deal more consensus among languages with respect to the imperative form — a subjectless bare verb stem — than with respect to the question form. (This startling degree of uniformity is examined in more detail below.) Their analysis obscures this fact.

It is not disputed here that the surface forms of questions are arbitrary, or that the form of any other syntactic construction may be arbitrary. It is disputed that all such forms are necessarily arbitrary, by the nature of language. In particular, it is disputed that the imperative form is just as ar-

bitrary as the question form, as is implicit in the Katz-Postal account, which is based on deriving each from an abstract underlying morpheme. If a functional explanation exists, then it must not be obscured by the otherwise prevalent arbitrariness.

Recall that the traditional grammarians' approach to the imperative also ascribes arbitrariness to the surface form: "With an imperative it is generally unnecessary to add the subject" (Jespersen, 1933: 102). Apparently it just so happens that a sentence consisting of a tenseless verb without a subject (or with an 'understood' *you*) has the effect of a command. This 'surface structure analysis' of the imperative has recently been revived, in Downes (1976), where the fact that imperatives have the force of commands is considered to be purely a part of pragmatics, and not syntax/semantics, and the illocutionary force of imperatives ("main clause infinitives") is accounted for by a pragmatic interpretive rule. Thus it is considered incorrect to represent this illocutionary force by IMP or COMMAND, and the only linguistic analysis considered necessary is the surface structure one. This structure has the illocutionary force potential of a command, and if the preconditions (as, e.g., in Searle 1969; see below) are met, it has this illocutionary force. According to this analysis, there is no more to the imperative, linguistically, than there is to any sign — a beckoning finger, for instance. Thus the traditional grammarians' arbitrariness is clothed in pragmatics.

This is an unsatisfactory and arbitrary dismissal of the imperative, and is in no way an explanation. It ascribes the same arbitrariness to the surface form, in that the pragmatics involved deal with a much wider range of signs than just the imperative, and there is not considered to be anything in imperatives, linguistically, that has anything to do with commanding. Since there is no such connection, the form must be considered arbitrary. It does have the merit of acknowledging the interpersonal aspect of commanding, the importance of which will be developed further below.

The two accounts discussed above, on the other hand, say: "Look at all this machinery. This is how it works. This is the structure of language", but without saying why this should be so, why this particular bit of linguistic machinery should have this effect. The simple question here is why the imperative has the form and effect it does, if this is not arbitrary? Thus, not "How does it work?" but "Why does it work?"

The present analysis claims that it is the bare stem that is used as an imperative (and not an 'imperative form'), and that this is not an arbitrary choice, but results from the fact that an imperative is intended to be taken as an answer by one speaker to his interlocutor's hypothetical question: *What shall I do now?* The hypothetical question is represented as *What shall I do now?* throughout. It is stressed that it is the meaning of this question that is important, and not the form. That is, it could equally well be represented as



*What do you want me to do?* or *What must I do?*, or any other form which expresses the authority relationship and invites a command. The 'answer' to this question is, e.g., *You shall leave now*, but normal syntactic rules operate to delete repeated material, thus leaving only the bare stem: *leave*. The fact that this form is subjectless, tenseless, etc., indicates the pragmatic presupposition of the existence of the hypothetical question, and thus establishes the necessary authority relationship. No such question is actually asked, but the use of the bare stem indicates that the speaker is acting as if it had been, which is what the imperative is about.

English is used to exemplify the pragmatic and syntactic aspects dealt with below. However, since the nature of the analysis suggests that it is universal, data from fifteen other languages is presented in the appendix.

Considering what is involved in giving a command, let us turn to Searle's (1969 : 62) "Rules for the use of the illocutionary force indicating device". These are conditions which must be fulfilled for a sentence to have a certain illocutionary force. Consider what Searle (1969 : 64) has to say on giving an order: "The preparatory conditions include that the speaker should be in a position of authority over the hearer, the sincerity condition is that the speaker wants the ordered act done, and the essential condition has to do with the fact that the speaker intends the utterance as an attempt to get the hearer to do the act". The conditions in Gordon & Lakoff (1971) (in the form of meaning postulates) are equivalent to these conditions. These deal with sincerity and wanting the act done by the addressee. The authority aspect seems to have been neglected by linguists, since, presumably, this is a social issue and not a linguistic one. This erroneous and far-reaching conclusion needs to be remedied.

A command with no authority behind it will not work (thus Searle's conditions). Where does this authority come from? It is clearly a purely social (non-linguistic) matter. Either A has authority over B, or he does not. Consider, however, the cases where there are no overt signals of authority, i.e. between peers. Here this is being taken to mean people who act as if they were peers, people who interact in a situation with no overt signals defining their relationship. Such is the bulk of everyday interaction. The question is where the authority behind a command comes from in such a situation. Or, how is the authority to give a command established between individuals who are in no authority situation/relationship already?

There are two possibilities: the deferent and the assertive. The authority relationship may be established by deference on the part of the party wishing to rule (Uriah Heep) or by assertiveness on the part of the party wishing to rule (the *macho* way). Either you wear the trousers, or you put them on someone else (counter respectively). In each case there are two ways of doing it: the explicit and the implicit.

*Deference* The explicit way is simply to state that the authority relationship is such.

- 9 Your wish is my command
- 10 At your service
- 11 Awaiting further instructions
- 12 I'm 'umble, I am

The implicit way to establish the other's authority is to ask a question whose basic form is (13).

- 13 What shall I do now?

The utterance of this signals that the utterer wishes to be given an order, that his interlocutor has (according to him, which is all that matters) the authority to tell him what to do, to issue an order which will be obeyed. It is not an explicit assertion of deference; the actual specification of the authority relationship is pragmatically presupposed (Stalnaker, 1974) by the speaker, on uttering something like (13).

*Assertiveness* The explicit way to indicate that one believes himself to have the authority is to declare it:

- 14 As your commanding officer...
- 15 I'm the boss around here
- 16 Because I'm your mother!

The implicit way to establish one's own authority is to assume that one's interlocutor has already conceded the authority, just as the implicit deferential way is to assume that the opposite authority relationship has been established. One way of doing this is to act linguistically as if one's interlocutor has implicitly established one's authority by a question such as (13), above. The best way to do this is to answer the question, and indicate, by syntactic deletion, that even if no such question was actually asked, one is acting as had if it been, and the 'answer' is to be taken as such. To assume this hypothetical antecedent (a pragmatic presupposition) results in utterances of the following type.

- 17 A: (What shall I do now?)  
B: (You shall) *Go home*

This results in a so-called 'imperative form'. Only the bare stem remains. By deleting *you* and *shall* (which is here to be taken as representing the set of modals, real or abstract, that might be used here, e.g. *must*, *should*, ...), B is treating them as repeated items, thus implying their presence in a previous utterance, namely, one of the same logical (though not necessarily lexical) form as the one given here. Thus the form of the imperative implies that it is



the answer to a question which is itself an implicit signal of deference. Thus, by a sort of transitivity, an utterance of 'imperative' form is an implicit assertion of authority. It is precisely for this reason that an 'imperative' has the force of a command.

The same analysis in terms of the performative analysis leads to a question-and-answer pair (corresponding to (17), above) of the following general form.

- 18     A: (What do you command me to do now?)  
        B: (I command you to) *Go home*

Or something like (19).

- 19     A: (REQUEST (A, B, COMMAND (B, A, DO (A, \_\_ (A))))  
        B: (COMMAND (B, A, DO (A,) *Go home* ((A))))

A completely atheoretical account will do equally well: the imperative form is simply that action which is being asked about in the hypothetical antecedent question. If question words, such as *what*, are considered as variables in a general conceptual representation (see Lo Cascio 1976), then the imperative is the proper name (or constant) that is substituted for that variable, thus making the general conceptual representation more specific. Thus, for B to say no more than that proper name, i.e. *go home*, is to imply that A requires this particular specification of some variable. Thus the hypothetical 'conversation' might be (20).

- 20     A: (What I shall do now is x)  
        B: (x is) '*go home*'

This corresponds to the equivalence between (21) and (22).

- 21     A: What is two plus two?  
        B: Four
- 22     A:  $2+2=x$   
        B:  $x=4$

It is clear that such an analysis explicitly specifies the link between authority and commanding, and explains where the covert authority of the 'imperative form' is derived from. As such, it is already superior to the analyses discussed earlier, where authority is a separate pragmatic condition on the speech act of commanding, and unrelated to the surface form. The important point here is that the imperative is the 'answer' to a hypothetical question. This question is in a sense being imposed upon the addressee by the issuer of the command. Although it never happened, they both behave as though it had.

There follows some evidence which supports the above analysis by showing that the pragmatic and syntactic features involved are crucial in related but different parts of the language, and are therefore not ad hoc.

Consider the similarity in surface form between commands and suggestions, pieces of advice, and other such forms. This is due to the fact that these are the result of the same type of process: a suggestion, for instance, is the answer to a (possibly hypothetical) question requesting a suggestion; the same is true for advice-giving, where the question requests advice. The difference between commands, suggestions, advice, and so on, corresponds exactly to the preconditions for the particular speech act involved. Thus, a suggestion does not involve the same type of authority relationship as a command, but it does involve a specific relationship. This difference is specified by the difference in the hypothetical question assumed to have been asked.

- 23     A: (What do you suggest I do now?)  
        B: (I suggest you) *Go home*
- 24     A: (What do you advise me to do now?)  
        B: (I advise you to) *Go home*

Note, further, the restaurant situation, in which a customer may order his meal by using a series of NPs.

- 25     Soup, ratatouille, and a Wonder Ice Cake

This ellipsis is made possible by the fact that the interlocutor roles are obvious in the given context. The customer/waiter relationship may be specified in a question-and-answer format.

- 26     A: (What do you want me to bring you?)  
        B: (I want you to bring me) *Soup, ratatouille, and a Wonder Ice Cake*

Suggested answers to one's own questions also have the same surface form.

- 27     What did he do? *Go home?*
- 28     Where have you been? *In London?*
- 29     What do you want me to do now? *Mow the lawn?*

These 'imperatives' are clearly not commands. They differ from true suggestions in that they are overtly suggested answers to questions, which true suggestions are only covertly (and to a different question). It is much more transparent in these cases that the utterances in question, identical in form to command 'imperatives', are the result of deletion specified by the antecedent question, and also that they are suggested specifications of variables. Note that the utterances in (27 - 9) have no illocutionary force in terms of their propositional content: *go home?* in (27) is not a question about going home but



one about whether the proposition expressed (elliptically) by *go home* is the true answer to the first question.

Straightforward answers to ordinary questions also exhibit the same type of ellipsis.

- 30 A: How's your father?  
B: (My father is) *Fine*
- 31 A: What's the time?  
B: (The time is) *Four o'clock*
- 32 A: Where's my supper?  
B: (Your supper's) *In the fridge*
- 33 A: What's on TV tonight?  
B: *Kojak* (is on TV tonight)
- 34 A: How long has he been out of jail?  
B: (He has been out of jail) (for) *Three weeks*
- 35 A: What's he going to do?  
B: (He's going to) *Kill the cat*

Note that *Kill the cat* is not a command in (35).

This phenomenon is well known and has been for a long time. Postal (1964: 34) says of these "fragments" (also referred to as "semisentences"): "occurrence in isolation permits no interpretation at all. And their interpretation in context is directly determined by, and does not involve an elimination of fixed interpretations inappropriate to, the context". The point to be made here is that exactly the same process goes on in the production of imperatives as in the 'ordinary' answering of questions. This is very strong evidence in favour of the present analysis of imperatives. The only difference is that, with imperatives, the question being answered (whether or not it was literally asked) is of a very specific nature. Consider why the fragment *go home* in (36) would permit no interpretation at all if it was in isolation (which it isn't), whereas the same fragment in (17) is not meaningless, although it is in isolation, i.e. there is no overt antecedent question.

- 36 A: What will John do next year?  
B: (John will) *Go home* (next year)
- 17 A: (What shall I do now?)  
B: (You shall) *Go home*

The answer, of course, is part of general conditions on deletion and recoverability. Clearly, fragments such as these cannot be answers to just any covert question whatsoever. This would clearly make context-dependent interpretation impossible. Thus the covert questions are highly restricted in nature, and in fact strictly linked to the specific relationship holding between questioner and answerer in terms of authority, advisory capacity, and so on. When such

a relationship is established, when such a context is clear, then the 'imperative' answer can be treated as a reply to a hypothetical question consistent with this context.

The point that these straightforward answers to questions exhibit the same type of deletion is crucial here. It is the existence of this type of deletion that enables the implicit assertive way of establishing authority to work. The beauty of the present case lies in the way this common linguistic process has been exploited in the use of language by people behaving linguistically as if there had been an utterance of a specific type when there had been none. The subtlety lies in the fact that the success of this strategy depends on the identity conditions which permit deletion; these are common to all deletion rules. Because of the nature of surface structure constraints in English, a speaker of English knows that certain material has been deleted from a sentence like (1).

1 Leave!

Because of what he knows about identity conditions on deletion, a speaker of English who utters (1) is acting as if there had been an utterance of a certain type uttered just before his utterance of (1). If the speaker and his interlocutor do not act as if there had been such a preceding utterance, then (1) is ungrammatical; it can easily be shown by the speaker that this is not so. This apparent flagrant violation of conditions on deletion, then, indicates that it is to be taken that a suitable antecedent occurred. Thus the existence of this hypothetical antecedent is a conventional implicature (Grice 1968) on the part of the person who utters (1). The importance of this point is that, in English, the imperative command is the only form exhibiting this type of deletion that appears without a surface subject and also without an antecedent occurrence of the subject, which would normally permit deletion. This strongly suggests the pragmatic presupposition of a suitable antecedent, and this is a question of the *What shall I do now?* type.

Further supporting evidence comes from commands of the form of "whimperatives" such as (37), and "fractured whimperatives" such as (38).

- 37 Why don't you pipe down  
38 Pipe down, why don't you

(38) is derived from (37) by a rule of "fracturing" (Sadock, 1974). Although *pipe down* in (38) looks like an 'imperative form' command, it is clear that it is not derived by any sort of 'imperative-formation' rules. It is simply the fronted verb stem of the whimperative. This is a clear case of the verb stem of the whimperative. This is a clear case of the verb stem, as such, being used as a command. The evidence is of course only available in a language which uses fracturing, like English.



Consider now some supporting evidence that stems from a possible objection to this analysis. In the appendix, evidence in support of the bare stem analysis is presented from a number of different languages. Only the *you-sing.*, or 'abrupt', forms are considered here. It may be objected that other forms are also used as imperatives in various languages, and that argue against the analysis. In fact, corroborating evidence of a very interesting kind comes from these forms, in spite of the fact that these are stem+affix forms.

Consider first that the two other principal forms used as commands, and often called 'imperatives', are the subjunctive and the infinitive. Their use is widespread in many languages. Spanish, Italian, and Polish will be used to exemplify the point here. Consider the following forms. (The attitudinal overlays that distinguish between these forms will not be discussed here.)

Spanish:	que beba	'drink'
	that drink-you (pol.)-subj.	
	beber	'drink!'
	drink-inf.	
Italian:	parli	'speak!'
	speak-you (pol.)-subj.	
	parlare	'speak!'
	speak-inf.	

(In Italian, the infinitive as command is more common in the negative: *non parlare* 'don't speak!'.)

Polish:	żebyś pchał	'push! (or else..)'
	that-you (fam.)-push-subj.	
	pchać	'push!'
	push-inf.	

The important question is whether it is arbitrary that these two marked forms are used as commands in these (and many other) languages. Why does one not find the past tense, for instance, used in this way? Clearly the choice is not arbitrary. In that case, what is the explanation?

Note how these forms relate to ways of asking a question about a future action in these languages. The following are all ways of saying *What do you want me to do?* and *What shall/must/should I do?*, which are the key questions here.

Spanish:	?Qué quieres	que haga?
	what want-you	that do-I-subj.
	?Qué tango que hacer?	
	what must-I	do-inf.

Italian:	Cosa vuoi	che faccia?
	what want-you	that do-I-subj.
	Cosa devo	fare?
	what must-I	do-inf.
Polish:	Co chcesz	żebyś zrobił?
	what want-you	that-I-do-subj.
	Co mam zrobić?	
	what am-I-(to)	do-inf.

The particular lexical items *tengo que*, *devo*, and *mam* are like *shall* in (17), above, representing a set of items that might be used here. In these questions, the subjunctive is used for perfectly regular reasons, dependent on the syntax and semantics of questions. A full answer to the subjunctive questions could be the following, for *I want you to* ———.

Spanish:	Quiero que beba	
	want-I that drink-you (pol.)-subj.	
Italian:	Voglio che parli	
	want-I that speak-you (pol.)-subj.	
Polish:	Cheć żebyś pchał	
	want-I that-you (fam.)-push-subj.	

If we remove *quiero*, *voglio che*, and *cheć* (which are repeated material, controlled by the question) from these answers, we are left with the subjunctive 'imperative' forms, and this holds for all the various 'persons' that might be used here. The difference between Spanish and Italian is that the former retains the complementizer (like Polish) and the latter deletes it, though in neither case is this an absolute rule.

Exactly the same situation obtains for the full answers to the infinitive questions.

Spanish:	Tienes que beber	'You must drink'
	must-you drink	
Italian:	Devi parlare	'You must speak'
	must-you speak	
Polish:	Masz pchać	'You are to push'
	are-you-(to) push	

If we remove *tienes que*, *devi*, and *masz* (repeated material), we are left with the infinitive 'imperative'.

Thus we see that it is not only in 'abrupt' imperatives that we see the operation of the assumption of a covert question. Subjunctives and infinitives



are also used as commands because they are used in answering questions about future action. Deletion signals the fact that the material is to be taken as repeated. If we do not accept the present analysis, then we disregard the parallelism between ways of asking/answering questions and ways of commanding. The data suggests that we can 'answer' a covert question of this type by either using the verb form of whatever the full answer would have been (infinitive or subjunctive), or by also deleting the markers indicating these forms, and using the bare stem only.

Another possible objection to this analysis is that it is appropriate only for a subpart of imperatives, including advice, suggestions, and so on, but does not cover commands where a covert question is implausible, such as (39).

39 Get off my toe, you bastard!

The present analysis does not claim, however, that there is an actual underlying question before every command, to which the command is an answer. That would imply that for every command there exists at least one potentially willing commandee, which is not necessarily true. What is claimed is that the utterer of a command in the form of an imperative acts as if there had been a preceding question, that this is indicated by the use of deletion rules which are triggered by this hypothetical antecedent, and that this is where the illocutionary force of a command comes from — the command-issuer linguistically forces his addressee into a position where they are both acting as if he, the addressee, had asked the question. In the case of imperatives like (39), although it is clear that it didn't happen, they both act as though it had — even if he refuses to get off his toe, because he has nevertheless understood the meaning and force of the command, but simply chosen not to obey.

Thus we see that the form of the so-called 'imperative' can be accounted for in a non-ad hoc manner in terms of establishing, by implicature, of an authority relationship between two people. The relationship is covertly established by the issuer of the command, and can be specified by a hypothetical question-and-answer dialogue. The advantage that this has over the 'solutionist' analyses discussed earlier is that it not only derives the surface form from a well-motivated underlying form, as the solutionist analyses do, but also explains why this derivation should operate in the particular way it does and in no other way, even in languages with a rich inflectional morphology (see the Appendix for details). Furthermore, it explains why this form — a bare stem — works as a command, thus revealing the non-arbitrary nature of the surface form. It is a further advantage of this analysis that it applies irrespective of the particular framework adopted for the underlying representation of the command utterance. Thus language transcends the polemics of linguistic theorisation.

## APPENDIX

Fifteen other languages will be examined here, some related to each other, others very distinct, in order to establish the universal nature of the hypothesis that it is the bare stem that is used as an imperative, which the covert-question hypothesis makes use of.

These analyses are necessarily brief, and irrelevant details are omitted. Standard orthography will be used, unless this is phonetically opaque in a significant way. The analyses intended to show, firstly, that other languages clearly support the hypothesis, and secondly, that where a language appears not to support it (e.g. Polish, Greek, and others), this is the result of the opacity of the surface forms, and a correct analysis reveals that the language does support the hypothesis. This is intended as a demonstration that the existence of apparent counterexamples in other languages is not sufficient evidence, unless supported by a sufficient analysis. It will be seen that some languages present very strong cases against the hypothesis.

It is stressed that the existence of a language with imperatives whose form is specifically and overtly a verb stem plus an imperative marker does not invalidate the question-and-answer hypothesis for imperatives. There is no reason why a language should not have a speech act marker of this sort, attached to the bare stem imperative, especially since the speech act of commanding is considered to be represented as such at the underlying level of representation. This type of redundancy is a common feature of language. What is interesting, and stunning, is that so many languages do not have such a marker, when there is no priori reason why they should not.

Square brackets are used both for surface phonetic representations and underlying phonological representations. Morpheme boundaries (+) do not appear in surface phonetic representations.

*Dutch* In addition to *jij* 'you-sing', and *jullie* 'you-plur.', Dutch has a 'polite' addressee pronoun *u*, morphologically singular, but semantically singular or plural. This is used in 'polite' imperative, with subject-verb inversion.

Komt u binnen, heren 'Come in, gentlemen!'

Affixed to the stem, *-t* marks the second and third persons singular of the present tense. Thus the stem of *komt* (the infinitive is *komen*) is *kom*, and it is this form that is used for the 'abrupt' imperative, with no addressee pronoun.

Kom morgen naar me toe 'Come to me tomorrow!'

This is perfectly regular. Further examples of these 'imperative forms' are *breng* 'bring!' *kijk* 'look!'. These are clear examples of the bare stem being





used as a command, even though Dutch (unlike, e.g., English) does mark the second person forms of verbs elsewhere.

*Danish* The transparency of the orthography throws the bare stems into relief here. This pattern is regular.

<i>Imperative</i>	<i>Infinitive</i>	<i>Present tense</i>	
åbn	åbne	åbner	'open'
lån	låne	låner	'lend'
sov	sove	sover	'sleep'
arbejd	arbejde	arbejder	'work'

Pending a more detailed analysis of the phonology, however, (particularly of the *stød*), we draw no conclusions here.

*Finnish* Finnish appears to provide counterevidence, in that imperatives contain material which is not found in some other forms. This argues against a bare stem analysis.

<i>Imperative</i>	<i>Infinitive</i>	
ota	ottaa	'take'
sovi	sopia	'suit'
sulje	sulkea	'close'
istuudu	istuutua	'sit down'

Completely ad hoc phonological rules would be required to relate these forms, in order to support the hypothesis. Such an analysis would, however, also neglect two other important points: the traditional analysis of Finnish as having several types of verb stems, and the regular relationship between the imperative form and certain other forms. Traditionally, Finnish uses one stem for the infinitive, and another for the imperative. Thus the lack of correspondence above. Compare the imperative with the second person present tense form, however.

ota	otat
sovi	sovit
sulje	suljet
istuudu	istuudut

The same regular and transparent relationship is found throughout. The first and second person forms use this stem; the third person forms use the same stem as the infinitive. Thus Finnish provides a clear case of using a bare stem as a command, even if one cannot speak of 'the' stem, which is a language-specific phenomenon, and independent of the imperative. Many languages, for instance, distinguish between an indicative and a subjunctive stem (see, e.g.,

Swahili, below). That it is the stem which is used for the second person forms, rather than that used for the third person forms, is also consistent with the hypothesis.

*Swahili* Here there is clear evidence of the bare stem being used as the 'imperative form'. The infinitive is marked by the prefix *ku-*, as in *kungoja* 'wait' *kulenga* 'aim' *kutii* 'obey'. The imperatives are represented in the following commands.

Ngoja kidoga	'Wait a bit!'
Lenga bunduki	'Aim the gun!'
Watii wazazi waho	'Obey your parents!'

In the last example, the imperative form is *tii*. The prefix *wa-* is an object marker, marking the presence of *wazazi* (note the same prefix). Compare this with the following sentence.

M'tii mwalimu waho 'Obey your teacher'

These prefixes are clearly not imperative markers. The forms *ngoja*, *lenga*, and *tii* are the verb stems, which in other sentences undergo affixation of various kinds (arguments, tense, ...) to give the verb forms found elsewhere.

This stem is in fact indicative stem. Swahili subjunctives are formed by using a subjunctive stem. This is identical to the indicative stem, except when the latter ends in *-a*, which becomes *-e* in the subjunctive stem. The subjunctive stem may also be used as a command.

Mwulize akusaidie 'Ask-him to help-you'

The indicative stem here is *uliza* 'ask'. The prefix is a pronoun. Usually, the subjunctive form is preceded by *tafadhali*, which is equivalent to *please*.

Tafadhali, nisaidie 'Please, help me'  
Tafadhali lete sabuni na vitamba 'Please bring soap and cloths'

The indicative stems here are *saidia* 'help' and *leta* 'bring'. Compare the indicative stem of the same verb in the following.

Leta vikombe na visahani vyake, bakuli la sukari na biriki chai 'Bring the cups and saucers, the sugar bowl, and the tea pot'

In the case of those indicative stems which do not end in *-a*, it is of course impossible to tell whether an imperative is an indicative or a subjunctive stem (if it makes any sense to ask), since the forms are identical. Either way, however, a bare stem is being used.

It is clear, then, that Swahili provides evidence in support of the hypothesis. This evidence is particularly strong in that Swahili abounds in affixes.



To put it crudely, Swahili has an affix for everything. This often involves a lot of redundancy, as in *Watii wazazi waho*, above. It is thus particularly striking that there is no affix marking 'imperativeness' — under any analysis but the present one, there is no reason why there should not be one. The absence of such an affix is predicted by the present analysis, but accidental under any other.

*Latin* One might expect this richly inflected language to provide counter-evidence, but this is not the case. In fact, Latin provides very strong evidence that it is the bare stem that is used in imperatives, in that the endings of the forms vary, depending on the class of verbs involved. That is, the ending is not predictable from some putatively more basic form. Nor is there any specific imperative morpheme affixed to the stem or affecting it in some way. The vowel found in the imperative is found throughout the indicative paradigm for a given verb. The infinitive is given for contrast here.

<i>Imperative</i>	<i>Infinitive</i>	
voca	vocāre	'shout'
narra	narrāre	'tell'
ride	ridēre	'smile'
responde	respondēre	'answer'
puni	punīre	'punish'
fini	finīre	'finish'

A major class of exceptions is the class known traditionally as the 'third conjugation', where the stem is considered to end in a consonant (e.g. *scrib-* 'write', *leg-* 'read') but where the imperative ends in *-e* (*scribe*, *lege*). To suggest that *-e* is an imperative marker in these verbs, but occurs in no others, is not an interesting solution. It cannot be considered part of the stem, because it cannot be accounted for elsewhere in the paradigm, in parts of which a different short vowel appears. This is also suggested by the fact that the infinitives (*scribēre*, *legēre*) have a penultimate short vowel in these verbs only. We may tentatively suggest, however, a constraint on the surface form of imperatives, or bare stems, to the effect that they must end in a vowel. This applies to all verbs, but vacuously to those with a stem-final vowel. This simply states that *\*scrib*, *\*leg* are unacceptable surface strings. This is clearly not a phonological or categorially-based constraint, since words with final consonants, including verbs, are numerous in Latin. It is a constraint on the structure of morphemes in that it affects surface stems, or imperatives, which are the only forms that bare stems surface as.

These details are irrelevant, however, to the hypothesis that bare stems function as imperatives, which is clear from the Latin data, apart from the

one class of potentially problematic counterexamples. (Data from Winniczuk 1975).

*Spanish/Italian* The majority of Spanish verbs support the hypothesis, following the regularity of these two verbs.

<i>Imperative</i>	<i>Infinitive</i>	
alaba	alabar	'praise'
bebe	beber	'drink'

The stems are *alaba* and *bebe*, respectively. Arguments similar to those for Latin argue against considering the stems to be *alab* and *beb*. Some (traditionally 'irregular') verbs suggest that the final vowel is not part of the stem, since they do not appear in the imperatives.

pon	poner	'put'
ven	venir	'come'
ten	tenir	'hold'
sal	salir	'leave'

Since only these four verbs exhibit such forms, it is reasonable to conclude that any irregularity lies here, and that these verbs are unusual in having consonant-final stems. Thus, in all the verbs considered so far, a bare stem is used as the imperative form. A major class of exceptions, however, is that consisting of verbs whose infinitive form ends in *-ir*, on the pattern of *partir* 'depart', where the vowel in the imperative does not tally with the vowel we would consider to be a stem vowel, on the basis of the infinitive.

parte	partir	'depart'
escribe	escribir	'write'

We find here the same vowel as in the *beber*-type verbs. In many other parts of the paradigm, the *partir*-type verbs also exhibit the same endings as the *beber*-type verbs, in contrast with the *alabar*-type verbs — the subjunctive forms, for instance. We also find this widespread distinction in Italian, between *parlare*-type verbs on the one hand, and *credere/partire*-type verbs on the other. Also, we have the same problem with the imperative in Italian.

parla	parlare	'speak'
credi	credere	'believe'
parti	partire	'depart'

Note that Italian has an *-i* ending in the imperatives of the non-*a*-stem verbs (whereas Spanish has *-e*). Thus, it is the *credere*-type verbs that appear irregular (whereas in Spanish it is the *partir*-type verbs). Apart from this, the same situation appears to hold in both languages, and for both languages



we have a distinction between *a*-stem verbs and non-*a*-stem verbs, as far as much of the morphology is concerned. The fact that the grouping together of the *er(e)* and *ir(e)* verbs in both languages is not restricted to the imperative form makes the apparent exceptions to the hypothesis appear less crucial. In fact, it may be the infinitive forms, which maintain a *e/i* distinction, that are 'irregular'. If so, we may consider the imperative forms to represent the stems (which in Spanish are distinguished into *a*-stems and *e*-stems, and in Italian into *a*-stems and *i*-stems). This has clearly not been proved here (that would require a detailed analysis of the morphology and phonology of both languages) but we can say with certainty that the majority of Spanish and Italian verbs clearly support the hypothesis, and there is a good chance that all of them do.

*Rumanian* Here we seem to have a real counterexample. Consider the following imperatives, where, unlike in Latin, the final vowels (or their traces) can be shown not to be part of the stem.

calca	[kalkə]	'tread!'
taci	[tatə]	'be silent!'
crede	[kredə]	'believe!'
mori	[mori]	'die!'

The stems here are *calc* [kalk], *tak* [tak], *cred* [kred], *mor* [mor]. Note that these are also the 1st pers. sing. pres. tense forms. If these are not stems then they need a lot of explaining as present tense forms.

Rumanian is a clear counterexample. We may note, however, the similarity between these imperative forms and the Latin ones (which are bare stems), in terms of the difference in the final vowel depending on the verb class rather than the presence of a specific uniform imperative marker, and hypothesize that at some point in the development of Modern Rumanian these bare stem imperatives were reanalysed as stem+affix forms — that is, verb stems were reanalysed. Thus we may have a historical explanation for the modern counter-evidence. If the bare-stem hypothesis is universal, however, and pragmatically based, we may expect to see a change in Roumanian imperatives, to modern bare-stem forms instead of historical bare-stem forms. (Data from Mirska-Lasota 1964).

*Polish* A more detailed analysis is presented of Polish, since it appears to have two general types of imperative forms: those which are clearly bare stems, and those which appear to consist of stem+(vowel)+[j]. Thus Polish provides both supporting data and apparent counterevidence, if one considers only the surface forms. A closer look reveals more regularity.

Note firstly that verb roots take a stem-forming vowel *-i*. This surfaces,

for instance, as [j], in *kupią* [kupjow], where the root is *kup* [kup] and the person-tense-number affix is *-ą* [ow]. Except in particular phonetic environments involving consonant clusters (see below), this vowel is deleted in final position. Thus the imperative is *kup* [kup], derived from [kup+i], which is the stem. In certain cases, it causes palatalisation before being deleted. Thus we get the imperative form *rzuc* [žutə] from [žut+i] → [žutə]. There is no evidence of this vowel, however, in *rzucą* [žutsow]. This is the result of the depalatalisation caused by the suffix *-ą* [ow̃], whereby [žutə+i+ow̃] → [žutə+i+ow̃] → [žutə+ow̃] → [žuts+ow̃]. (See Gussmann (1973) for further details). Thus, given these regular phonological processes, all the following forms are regular in using the bare stem (root+i) as the imperative. The infinitive and the third pers. plur. pres. tense form (hereafter 'the *-ą* form') are given for comparison. Certain vowel changes and devoicing rules (e.g. in *zrób* [zrup]) are regular and irrelevant.

Imperative	Infinitive	The <i>-ą</i> form	
patrz [patš]	patrzeć [patšitə]	patrzą [patšow̃]	'look'
rzuc [zutə]	rzucić [žutəitə]	rzucą [žutsõw̃]	'throw'
mów [muf]	mówić [muvitə]	mówią [muvjõw̃]	'say'
zrób [zrup]	zrobić [zrobite]	zrobią [zrobjõw̃]	'do'
kup [kup]	kupić [kupite]	kupią [kupjõw̃]	'buy'

It is clear that the bare stem is used as the imperative form here, without further analysis. Turning now to the apparent counterexamples, we see that this is not so clear here. This, however, simply demonstrates the importance of analysis over mere data: "To find evidence to support or to refute a proposed condition on rules, it does not suffice to list unexplained phenomena; rather, it is necessary to present rules", (Chomsky 1976 : 5). The same point is applicable in the present case. The apparent counterexamples given below are only such at a superficial level. They are susceptible of analysis in such a way as to reveal their true regularity and conformity with the hypothesis. Each of the sets given below represents a class, and not merely a closed list of verbs.

Consider the first set of apparent counterexamples.

Imperative	Infinitive	
kochaj [koxaj]	kochać [koxatə]	'love'
czytaj [tšitaj]	czytać [tšitatə]	'read'
rzucaj [žutsaj]	rzucąć [žutsatə]	'throw'

The simple data suggests that the stems are *koch*, *czyt*, and *rzuc*. This is not the case. The stems of these verbs are *kochaj*, *czytaj*, and *rzucaj*. (Whether they are [kox+aj], [kox+a+i] or [koxa+i] is left aside here). Note firstly the regularity (in terms of a final *-i*) that these stems have under this analysis,



in comparison with the first set of data. Furthermore, the *-a* forms are *kochają* [koxajow̃], *czytają* [tšitajow̃], and *rzucają* [žutsajow̃]. Elsewhere, *-a* is affixed to the stem. This suggests that the stems of these verbs end in *-aj*. (See also Gussmann (1973 : 144–5) for further details).

Thus the hypothesis is supported by this group of apparent counterexamples, since it is not the imperative form as such that is different, but the stem of the verb itself. According to the hypothesis, the imperative must differ accordingly.

Consider now the second group of apparent counterexamples.

<i>Imperative</i>		<i>Infinitive</i>	
<i>próbuj</i> [prubuj]		<i>próbować</i> [prubovate]	'try'
<i>maluj</i> [maluj]		<i>malować</i> [malovate]	'paint'
<i>narysuj</i> [narisu]		<i>narysować</i> [narisovate]	'draw'

Here we see the productive verb-forming suffix *-ować* (infinitive form), used also to form verbs from loaned roots: *dubbingować* 'to dub (films)', *kserokować* 'to xerox', *filmować* 'to film'. This is affixed to the forms *prób*, *mal*, *rys* (*na-* is a prefix). These are not the verb stems, however, but the roots, and recur in nouns, for instance: *próba* 'rehearsal', *malarz* 'painter', *rysunek* 'drawing'. The *-a* forms of the verbs are *próbują* [prubujow̃], *malują* [malujow̃], *narysują* [narisujow̃]. In fact, the *-uj-* occurs in the whole present tense paradigm. We see that the stems are *próbuj*, *maluj*, *narysuj*, i.e. as in the imperative forms. The hypothesis is supported.

Consider the third type of apparent counterexample.

<i>Imperative</i>		<i>Infinitive</i>	
<i>zabij</i> [zabij]		<i>zabić</i> [zabite]	'kill'
<i>wytrzyj</i> [vitšij]		<i>wytrzeć</i> [vitšet]	'wipe'
<i>umyj</i> [umij]		<i>umyć</i> [umite]	'wash'

These are trivial counterexamples, but illustrative of the need for analysis. Here, the final vowel in the imperative is not the suffix it looks like, but part of the stem; *za-*, *wy-*, and *u-* are prefixes. The infinitives of the verbs they are prefixed to are *bić* 'hit', *trzeć* 'rub', and *myć* 'wash', respectively, whose imperative forms are *bij* [bij], *trzyj* [tšij], and *myj* [mij]. Clearly, these are bare stems functioning as imperatives. The hypothesis is supported.

Consider the fourth type.

<i>Imperative</i>		<i>Infinitive</i>	
<i>spełnij</i> [spewnij]		<i>spełnić</i> [spewnite]	'fulfill'
<i>objaśnij</i> [objaenij]		<i>objaśnić</i> [objaenite]	'clarify'

Once again it can be shown that the final vowel in the imperative form is not an imperative affix but part of the stem. The *-a* forms are *spełnią* [spewnjõ],

*objaśnią* [[objaenjõ]. Note the palatalisation of the nasal, which is non-palatal in the roots *spełn* [s+pełn], *objasn* [ob+jasn]. (Compare the adjectives *pełny* [pewni], *jasny* [jasni].) We see here the same stem-forming affix *-i* as we saw in *kup* [kup], from [kup+i], and *rzuc* [žutə], from [žut+i], above. Here, however, the vowel is not deleted, since it follows a consonant cluster ending in a nasal, although it is in final position. Thus it surfaces in *spełnij* and *objaśnij*, which are the stems. The hypothesis is supported.

Consider the fifth type.

<i>Imperative</i>		<i>Infinitive</i>	
<i>zamknij</i> [zamknij]		<i>zamknąć</i> [zamknontə]	'close'
<i>stuknij</i> [stuknij]		<i>stuknąć</i> [stuknontə]	'tap'
<i>chrapnij</i> [xrapnij]		<i>chrapnąć</i> [xrapnontə]	'snore'
<i>ciągnij</i> [teongnij]		<i>ciągnąć</i> [teongnontə]	'pull'
<i>machnij</i> [maxnij]		<i>machnąć</i> [maxnontə]	'wave'

This last group constitutes the only real possible counter-examples in Polish, since it seems that the *-i* in the imperative form cannot be considered part of the stem. Consider the *-a* forms: *zamkną* [zamknõ], *stukną* [stuknõ], *chrapną* [xrapnõ], *ciągną* [teonghnõ], *machną* [maxnõ]. Note the nasal consonants, however. Firstly, it is not part of the root; these are *zamyk*, *stuk*, *chrap*, *ciąg*, *mach*. Verbs without the *-n-* are formed from these roots, with suitably different imperatives: *zamykać* : *zamykaj*, *stukać* : *stukaj*, *chrapać* : *chrapaj*, *wyciągać* : *wyciągaj*, *machać* : *machaj*. The *-n-* affix forms semelfactive verbs from the root, and its absence results in iterative verbs. Note that its presence makes the stem end in a consonant cluster ending in a nasal (cf. the previous group of verbs). Only after such a cluster does the imperative show this unaccounted *i* vowel. That this is a phonological matter and not a property of the root can be demonstrated by evidence from Polish dialects. For instance, *ciągnij* appears as *ciąg* (*wyciąg* 'pull out!', *pociąg* 'give a pull!'). No nasal consonant and no vowel. Note that the imperative of *wyciągać* is *wyciągaj*, so we are not dealing with a semelfactive/iterative distinction.

This consonant-nasal cluster also has historical significance. The Proto-Slavonic (see below) regular 'imperative' ending was *-i*. The rule deleting this in final position became operative in certain contexts early, but by the end of the sixteenth century had spread to almost all contexts. The *-i* survived only after stems ending in certain consonant clusters, particularly those with a nasal as the second element. The imperative forms of verbs with *i* in the stem, e.g. *bij*, *myj*, above, were at that time as they are today, i.e. [bij], [mij]. At this point, glide-formation on final *i* was extended to final *i* in polysyllabic words, and thus to those imperatives which still ended in *i*, i.e. after the consonant clusters. These then became immune to the change deleting final *i*, which was no longer final.



The problem, then, is a morphological one — the presence of *-n-*. Gussmann (1973) suggests that there is a morphological rule which changes the stem-forming *i* to *o* in these cases, i.e. after this morpheme *-n-*. If this rule does not operate when *i* is in word-final position, then *stuknaq* [stuknoŋ] is derived [stuk+n+i+oŋ] → [stuk+n+o+oŋ] → [stuk+n+oŋ], whereas *stuknij* [stuknij] is derived from [stuk+n+i], where the *i* → *o* rule does not operate. On this analysis, even these verbs support the hypothesis. If this morphological rule is incorrect, then we are left with a class of tightly defined counterexamples to the hypothesis, on morphological grounds, and with a historical explanation in terms of the interaction of two independent phonological processes.

Taking an optimistic view of the last point, we see that Polish confirms the hypothesis, in spite of several types of apparent counterexamples, and in spite of being a language with a very rich morphological system.

**Czech** Here we have the same situation as in Polish. There are both bare-stem imperatives which are clearly so, and ones with final [Vj]. The Polish [aj] forms are [ej] in Czech, and the [ij], [i] endings are [i]. The nasal clusters are also in evidence where one would expect them. Compare the imperative and infinitive forms: *pros*: *prosit* 'beg', *trp*: *trpět* 'suffer', *kryj*: *kryt* 'cover', *kupuj*: *kupovat* 'buy', *dělej*: *dělat* 'do', *tiskni*: *tisknout* 'press', *miň*: *minout* 'pass'. Bare stems clearly function as imperative. (Data from Damborský 1970)

**Russian** Firstly, Russian provides striking evidence in support of the above analysis of Polish were the stem of *czytam* 'I read' is analysed as *czytaj*, since we see this *-aj* in the present tense forms of these verbs in Russian: *читаю* [tʃitaju], where [u] is the person-tense-number affix. Likewise, *читаете* [tʃitajete] 'you read', cf. Polish *czytasz* [tʃitaʃ]. Since the Russian imperatives here have the form *читай* [tʃitaj], i.e. the bare stem, these are not counterexamples at all in Russian.

Recall that the only place where the stem-forming *i* did not surface in Polish was finally after a stop-final root, e.g. *kup*. Russian has final surface palatal stops where Polish does not, so we see (ignoring irrelevant details) the trace of this vowel *i* in the corresponding Russian imperatives: *сядь* [sʲadʲ] 'sit down' from [sʲadʲ+i]; *встань* [fstanʲ] 'stand up' from [fstanʲ+i]. Compare the 1st pers. sing. pres. tense forms: *сяду* [sʲadu], *встану* [fstanu].

We see the full *i* vowel after the familiar consonant+nasal clusters: *достигни* [dastʲignʲi] 'achieve', *свергни* [sfjergʲni] 'overthrow'.

There is, however, a class of verbs in which the *i* surfaces which does not appear in Polish. These are the verbs which are stressed on the final syllable. In the imperative, this is the *i* vowel: *иди* [idʲ] 'go', *изучи* [izutʲi] 'study'. This is not a counterexample to the hypothesis, since we are considering this to be a stem-forming vowel, as in Polish. Note, however, that there exist

other forms of these verbs, e.g. *иди* [idʲ], where there is no *i*, nor any trace of it. We ignore this minor problem here, considering it to be the result of a property of the suffix [u], perhaps when a consonant precedes the *i*. Consider a similar problem in Latin, where the stem of *amare* 'love' is considered to be *ama-*, in spite of the surface form *amo*, derived from [ama+o].

We see then that Russian supports the hypothesis, in that it uses *i*-final stems as imperatives. (Data from Pulkina 1975).

**Bulgarian** Here we have the same system as we saw in Polish and Russian, with imperatives ending in *-i*. In Bulgarian, this is always stressed, as we saw in some Russian verbs: *чети* [tʃetʲi] 'read', *моли* [molʲi] 'ask', *гледи* [gledʲi] 'look'. Here, the root ends in a consonant. With vowel-final roots, *i* becomes a glide: *сеи* [sɛj] 'sow', *стои* [stoj] 'stand'. If we did not take into consideration evidence from Polish, we might conclude that *i* is an 'imperative marker' here, since the surface data from other verb forms suggests that the stems are, e.g., [tʃet] or [tʃete]. (Recall that the stem of Polish *czytaj* at first appeared to be *czyt*, erroneously.) For instance, Bulgarian verbs are traditionally divided into three conjugations, depending on whether the 'stem-forming' vowel is *-e*, *-i*, or *-a*, e.g. *чете* [tʃete], *моли* [moli], *гледа* [gleda]. According to the arguments from Latin, above, these should be the imperative forms, and thus Bulgarian appears to have an 'imperative marker' *i*. Since Bulgarian is not a Romance language, however, we may conclude that this *i* has more in common with the stem-forming *i* found in other Slavonic languages, where we find both *i*-final imperatives and *i*-deletion. This suggests that it might be possible to consider the stems to be [tʃet+i], [mol+i], and [gled+i], or perhaps [tʃete+i], [moli+i], and [gleda+i], with *i*-deletion under certain conditions (as in Polish and Russian) but not where the bare stem surfaces as an imperative (as in Russian, and most of Polish). This has clearly not been proved here, and a more detailed analysis is necessary before firm conclusions may be drawn. If it turns out that it cannot be maintained, however, and we are forced to analyze the imperative as a stem+affix form here, then we have a situation similar to that in Rumanian, where the metanalysis of stems has taken place (from stem=root+i to stem=root), thus creating a 'stranded' imperative marker. (Data from Popowa 1972.)

**Old Church Slavonic** Note firstly that Proto-Slavonic (PS) and Old Church Slavonic (OCS) imperatives developed not from the Proto-Indo-European (PIE) imperative, but from the PIE optative. The PIE optative stem consisted of the present stem plus *\*-i*, or *\*-iē* when the present stem was not formed by *\*-i* or *\*-o*. Subsequent changes affected the stem-final vowel and *\*-i*. For instance, if the present ended in *\*-o*, the diphthong *\*-oi* developed into *\*-ei*, which developed into OCS *-i*. This is no longer an affix, note, but



part of the stem, as the *o* part of the diphthong was. Where the stem ended in *\*-i*, then *\*-i+i* developed into OCS *-i*. This accounts for the *i* prevalent in Slavonic imperatives, and also for the metanalysis according to which it developed from an affix into part of the stem, but not part of the root. Thus all but a handful of OCS imperatives end in *-i* (and the handful end in a palatal consonant cluster derived from *\*-i* affixed to PIE stems ending in *\*-d*).

Of the 17 OCS open verb classes in Lehr-Splawiński and Bartula (1976), 9 have *i*-final present stems. For these verbs, the imperative form is identical to the stem, without further detailed analysis. The other eight have stems ending in *-e*. These constitute counterexamples to the hypothesis, unless it can be shown that the underlying representation of these forms is identical to that of the imperative/stem, as has been shown for similar counterexamples in Polish. (Data from Lehr-Splawiński & Bartula 1976)

*Greek* Greek provides a whole range of apparent counterexamples. Consider first a relatively simple case: *παιδεύε* [pajdewe] 'educate'. This imperative is the bare stem. It consists, however, of the root [pajdew] plus the stem-forming vowel *-e* [e]. This vowel occurs in all the forms of those verbs which take it (see below for verbs which don't). (The variant *o* occurs before nasal consonants.) However, when a further vowel-initial suffix is added, certain regular phonetic rules affect the contiguous vowels. The details of these rules will not be examined here, only the changes they effect. Consider the following derivations of other forms of the same verb: *παιδεύω* [pajdewo:] (1st pers. sing. pres. ind. act.) is derived [pajdew+e+o:] → [pajdew+o:] → [pajdewo:]; *παιδεύη* [pajdewe:] (2nd pers. sing. pres. ind. med./pass.) is derived [pajdew+e+hai] → [pajdew+e+ai] → [pajdew+e:] → [pajdewe:]; *παιδεύετε* [pajdewete] (2nd pers. pres. ind. act.) is derived [pajdew+e+te] → [pajdewete] — the stem-forming vowel is not affected, since the following affix is not vowel-initial.

In the imperative, since no affix follows the stem, this vowel is never changed or deleted, nor does it ever appear as *o*, of course. The result is that it may look as though this is an imperative marker, since it always occurs in this form, but it is usually not evident in any other form. This is clearly a false assumption, since it is present in all the relevant forms, even though it does not surface, since it is part of the stem.

This camouflaging of the true nature of this vowel is compounded by the effect of these phonetic rules in the case of roots ending in *-a*, *-e*, or *-o*, like *τιμᾶ* [tima] 'value', *ποιε* [poje] 'do', *δουλο* [du:lo] 'subjugate'. As above, the stem-forming vowel *e* is affected by a following vowel-initial suffix; here, it is deleted, following which further rules affect the root vowel, which is now adjacent to the suffix. These are the 1st pers. sing. pres. ind. act. forms: *τιμᾶ*

[timo:] is derived [tima+e+o:] → [tima+o:] → [timo:]; *ποιῶ* [pojo:] is derived [poje+e+o:] → [poje+o:] → [pojo:]; *δουλώ* [du:lo:] is derived [du:lo+e+o:] → [du:lo+o:] → [du:lo:]. If no suffix follows the stem, however, as in the imperative, then the stem-forming vowel is not affected by the first rule of the above derivations, and the *e* remains. Now, however, different rules apply, affecting the root and stem vowels. These are the imperatives: *τιμᾶ* [tima:] is derived [tima+e] → [tima:]; *ποιε* [poje:] is derived [poje+e] → [poje:]; *δουλον* [du:lu:] is derived [du:lo+e] → [du:lu:]. Since a different vowel is adjacent to the root vowel here, the changes effected are different. Now, it so happens that the final [a:] occurs in almost only this form, the 'imperative', of [tima-]; similarly for the [e:] of [poje-] and the [u:] of [du:lo-]. Once again, the imperative has a distinct form which doesn't look like the stem, only here we can't even see the stem-forming vowel *e*. This is purely the result of the phonetic rules affecting adjacent vowels, however.

Consider now those verbs which do not form stems from roots by using this vowel *e*, but do so by initial reduplication, or by the suffix *-vo* [ny:]. We would thus expect the imperative to be overtly identical to the stem here. This is so. The root *στη* [ste:] 'stand' forms its stem by reduplication: *ίστη* [hi+ste:] (<[si+ste:]). The imperative is *ίστη* [histe:]. This is clearly a bare stem. The root *δεικ* [dejk] 'show' forms its stem with *-vo*: *δεικνω* [dejk+ny:]. The imperative is *δεικνω* [dejkny:]. This is clearly a bare stem!

Other verbs of this class, however, underwent certain analogical changes, based on the verbs taking the stem-forming vowel *e*. This affected those stems whose root vowels were *-e* or *-o*, such as *τιθε* [ti+the] 'lay' (root: *θε* [the]) and *διδω* [di+do] 'give' (root: *δο* [do]). By analogy with, e.g., the roots *ποιε* [poje] and *δουλο* [du:lo], above, in some cases a 'stem-forming' vowel *e* was suffixed to what was already a stem. Thus the 'real' stems [tithe] and [dido] became [tithe+e] and [dido+e], and it is the latter 'stems' that were used as the 'imperative form'. Phonetic rules that we have already seen above affected these underlying forms, deriving *τιθει* [tithe:] and *διδου* [didu:]. These are not the 'real' stems, but are derived as if they were, in that the affix distinguishing them from the stems is the misplaced stem-forming vowel *e*.

It is thus clear that Greek, in spite of apparent superficial counterexamples of the strongest kind, provides strong evidence in support of the hypothesis, in that it uses bare stems at the systematic level, rather than at the surface. The apparent counterexamples are simply the result of phonetic rules applying to the bare stems. (Data from Golias (1975) and Auerbach & Golias (1962))

*Chinese* It is clear that no very strong arguments can be drawn from a language which contains very little verb morphology anyway. For example, the futurity of the following sentence is indicated only by *míngtiān* 'tomorrow'.



Wǒ míngtiān dào Běi Jīng qù 'I shall go to Peking tomorrow'  
I tomorrow to Peking go

In Chinese, the imperative is only one instance out of many in which the verb appears as a bare stem. Likewise the absence of a subject is found in non-imperative sentences, as in the following conversation.

A: Nǐ míngtiān mǎi shū má 'Are you going to buy some  
you tomorrow buy book Q books tomorrow?'  
B: Mǎi 'Yes'  
buy

This is the normal way of answering questions. It is clear that the non-appearance of the subject is pragmatically justified. The form *mǎi* is also the form used as the imperative, 'Buy!'. Whereas no direct evidence can be drawn from this, it is worth noting that those contexts in which a bare stem form, like *mǎi*, is appropriate are responses to questions, where the non-surfacing but semantically relevant material has been expressed in the question. Also, consider information questions, such as the following.

A: Nǐ xiànzài zuò shénme 'What are you doing now?'  
you now do what  
B: Kàn bào 'I'm reading a newspaper'  
read newspaper

These subjectless forms also occur in other places where specification would be redundant, e.g. when listing a series of actions performed by one person, even across sentences, where no change of subject occurs. The only place where there is no direct linguistic prespecification of the subject is in imperatives. The fact that Chinese produces the same form as a response to a question as it does as an imperative is circumstantial evidence in favour of the covert question analysis of imperatives, which explains why this form is used in imperatives, where there is no overt specification, but there is a pragmatic assumption of the presence of covert specification.

*Conclusion* We see therefore that the data from some other languages supports the hypothesis. The support is particularly strong from languages with complex inflectional systems, unlike English. There is also some strong counter-evidence from some languages, however, though there always seem to be extenuating circumstances. These require a more detailed analysis than is possible here. If it can be demonstrated that all languages use a bare stem as the 'imperative form', then we have strong support for the covert-question hypothesis. If not, then the universality of the hypothesis is weakened, but it is not invalidated, since redundancy is a common feature of language, and it is not unusual for languages to use speech act markers.

## REFERENCES

- Auerbach, M. and Golias, M. 1962<sup>s</sup>. *Gramatyka grecka*. Warszawa: PWN.  
Austin, J. L. 1962. *How to do things with words*. Oxford: Clarendon Press.  
Chomsky, N. 1976. "On Wh-movement". Paper read at the Irvine Conference on Formal Syntax, June 1976.  
Damborský, J. 1970. *Podstawy gramatyki języka czeskiego*. Warszawa: PWN.  
Davidson, D. and Harman, G. (eds). 1972. *Semantics of natural language*. Dordrecht: D. Reidel.  
Downes, W. 1976. "The imperative and pragmatics". Paper read at the Spring Meeting of the LAGB, Edinburgh.  
Golias, M. 1975<sup>s</sup>. *Wstępna nauka języka greckiego*. Warszawa: PWN.  
Gordon, D. and Lakoff, G. 1971. "Conversational postulates". *CLS* 7. 63 - 85.  
Gussmann, E. 1973. *Contrastive Polish-English consonantal phonology*. Unpublished Ph. D. dissertation, Maria Curio-Skłodowska University, Lublin.  
Grice, H. P. 1968. "Logic and conversation". MS mimeo, Harvard.  
Jespersen, O. 1933. *Essentials of English grammar*. London: Allen and Unwin.  
Katz, J. J. and Postal, P. M. 1964. *An integrated theory of linguistic descriptions*. Cambridge, Mass.: The MIT Press.  
Lakoff, G. 1971. "On generative semantics". In Steinberg, D. D. and L. A. Jakobovits. (eds). 1971. 232 - 296.  
Lehr-Splawiński, T. and Bartula, C. 1976<sup>r</sup>. *Zarys gramatyki staro-cerkiewno-słowiańskiego*. Wrocław: Ossolineum.  
Lo Cascio, V. 1976. "On 'linguistic variable' and primary object topicalisation in Italian". *Italian linguistics* 1.  
Mirska-Lasota, H. 1964. *Zwięzła gramatyka języka rumuńskiego*. Warszawa: Wiedza Powszechna.  
Munitz, M. K. and Unger, P. K. (eds). 1974. *Semantics and philosophy*. New York: University Press.  
Popowa, W. 1972. *Zwięzła gramatyka języka bułgarskiego*. Warszawa: PWN.  
Postal, P. M. 1964. "Underlying and superficial linguistic structure". In Reibel, D. A. and Schane, S. A. (eds). 1969. 19 - 38.  
Pulkina, I. M. 1975<sup>s</sup>. *A short Russian reference grammar*. Moscow: Russian Language Publishers.  
Reibel, D. A. and Schane, S. A. (eds). 1969. *Modern studies in English*. Englewood Cliffs, N. J.: Prentice Hall.  
Ross, J. R. 1972. "Act". In Davidson, D. and Harman, G. (eds). 1972. 70 - 127.  
Sadock, J. M. 1974. *Towards a linguistic theory of speech acts*. London: Academic Press.  
Searle, J. R. 1969. *Speech acts*. Cambridge: CUP.  
Stalnaker, R. C. 1974. "Pragmatic presuppositions". In Munitz, M. K. and Unger, P. K. (eds). 1974.  
Steinberg, D. D. and Jakobovits, L. A. (eds). 1971. *Semantics: an interdisciplinary reader in philosophy, linguistics, and psychology*. Cambridge: CUP.  
Wachtel, T. J. 1976. *Linguistic means and communicative ends in causatives, commands, and performatives*. Unpublished M.A. dissertation, York.  
Winniczuk, L. 1975. *lingua Latina*. Warszawa: PWN.