

A Semantic Map for Imperative-Hortatives¹

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In press in : Dominique Willems, Timothy Colleman & Bart Defrancq (eds.) *Points of Comparison in Linguistics: from Morphology to Discourse*. Basingstoke: Palgrave Macmillan.

0. Introduction

This paper is about similarities and differences in the way languages express orders, requests, and exhortations. It crucially employs a so-called “semantic map”. The concept of the semantic map will be presented in section 1. Section 2 sketches some issues in the study of Imperatives and Imperative-like constructions. In Section 3 a semantic map is proposed that yields some insights in the study of Imperatives and Imperative-like structures.

1. Semantic Maps

Semantic maps, also called “mental” or “cognitive” have become a powerful tool in cross-linguistic analysis. The idea is not actually new, but at least its prominence in typology is. Typological semantic mapping has been undertaken for a great many aspects of meaning, including tense and aspect (Anderson 1982), evidentiality (Anderson 1986), conditionals (Traugott 1985), voice (Kemmer 1993), and indefiniteness (Haspelmath 1997).² In what follows we will use examples from the realm of modality.

Much of modern typology attempts to explain form on the basis of meaning. Elements of structure are similar because the meanings they encode are similar. The hypothesis holds both for elements within one language and across languages. Consider the sentences in (1), and more particularly the functions of the modal verb *must*.

- (1) a. Mary *must* go home now.
b. Mary *must* be home now.

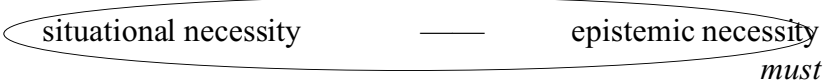
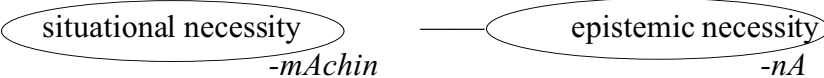
(1.a) expresses an obligation and (1.b) a high probability. Obligation and high probability are by no means the same concepts, yet they are similar. An obligation is a situational necessity: there is something in the state of affairs described in (1.a), maybe somebody’s wish or command, that necessitates Mary’s leaving. A high probability is also a kind of necessity, but it is crucially epistemic or inferential and refers to a judgment of the speaker and a degree of commitment. Epistemic necessity is the necessity of a judgment relative to other judgments. Perhaps the speaker believes that Mary always goes to work by bike, perhaps (s)he notices that Mary’s bike is no longer there, and (s)he then deduces that Mary *must* be home. In English, the auxiliary *must* can be used for both obligation and high probability. In the Tungusic language Evenki, however, the two meanings or uses do not share any marker. Both meanings are, however, perfectly expressible. For situational necessity it is possible to use the suffix *-mAchín* and for epistemic necessity the suffix *-nA* will do.

- (2) Evenki (Nedjalkov 1997: 269, 264, 265, 265)
- a. Minggi girki-v ilan-duli chas-tuli suru-*mechin*-in.
 my friend-1SG.POSS three-PROL hour-PROL go.away-OBL-3SG
 ‘My friend must go/leave in three hours.’
- b. Su tar asatkan-me sa:-*na*-s.
 you that girl-ACC.DEF know-PROB-2PL
 ‘You probably know that girl.’

We now have a mini-typology of languages. There are at least two types of languages in the world: those that have a marker that can express both situational and epistemic necessity, and those that do not have any such marker, but need two markers. We also have a mini-map.

- (3) situational necessity — epistemic necessity

Situational and epistemic necessity occupy two distinct areas in semantic space: this is symbolized by the fact that each is named separately. But these concepts are related: this is symbolized by the connecting line. On this map we can plot the function of English *must* and of Evenki *-mAch*in and *-nA*.

- (4) 
- (5) 

The contrast sketched between English *must* vs. Evenki *-mAch*in and *-nA* is typical. Time and again one finds that what some languages encode as two separate meanings is given a unique encoding by other languages. From another point of view, however, the mini-map presented in (3) to (5) is most untypical. The mini-map has just two values. Usually, there are many more. For modality also, a full map has to relate necessity to possibility, it has to distinguish subtypes of situational and epistemic modality, and it also has to relate the modal concepts of necessity and possibility to non-modal ones (see van der Auwera & Plungian 1998). A few illustrations will make these requirements clearer. Possibility, for instance, is like necessity in allowing both situational and epistemic uses.

- (6) a. You *may* go now. [Situational possibility]
 b. John *may* be next door. [Epistemic possibility]

Again, just like for necessity, constructions and languages differ with respect to the range of meanings/uses they cover. English *may* is used for both types, but its Dutch cognate *mogen* only has the situational meaning.

- (7) Dutch
 a. Je *mag* nu gaan. [Situational possibility]
 you may now go
 ‘You may go now.’

- b. *Jan *mag* hiernaast zijn. [Epistemic possibility]
 John may here.next be
 ‘John may be next door.’

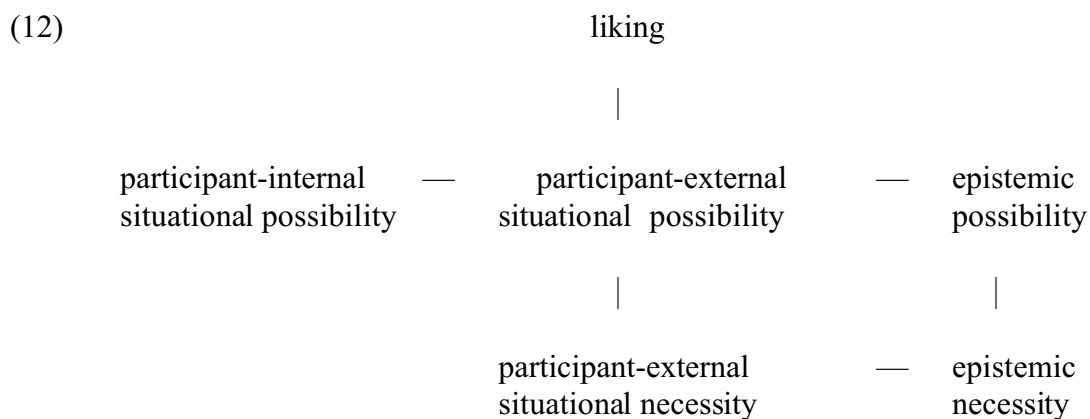
As to finer distinctions, the point can be made with English *may* and *can*. *can* is used both for the subtype of situational possibility that is internal to a participant in the situation, usually the subject (capacity, ability), and for permission, a situational possibility external to the participant. English *may* only has the second meaning/use.

- (8) a. *I *may* swim. [Participant-internal situational possibility]
 b. You *may* go now. [Participant-external situational possibility]
- (9) a. I *can* swim. [Participant-internal situational possibility]
 b. You *can* go now. [Participant-external situational possibility]

And as to relations between possibility and necessity, and between both possibility and necessity and non-modal meanings or uses, consider that Danish *må* — a cognate of *must* — allows both a situational possibility and a situational necessity reading, and that Dutch *mogen* ‘may’ allows a ‘like’ reading.

- (10) Danish (Davidsen-Nielsen 1990:187)
 Nu *må* du fortælle.
 now may/must you tell
 ‘Now you may/must tell a story.’
- (11) Dutch
 Ik *mag* geen soep.
 I may no soup
 ‘I don’t like soup.’

The evidence in (6) to (11) shows that a two value map is not sufficient. Something like (12) is needed.



(13) is the same map, showing the meanings/uses of English *may* and *can*, Dutch *mogen*, and Danish *må*.

2. Imperative-Hortatives

There is little cross-linguistic work on Imperatives and related categories, apart from the Saint Petersburg typology volume edited by Xrakovskij (2001/1992) and, specifically on negative Imperatives, Zanuttini (1997) and follow-up studies. There is also no universal agreement on the meaning of the term “Imperative”. But at least the following statement should make sense to most linguists: the structures in (16) to (17) uttered to one or more addressees with the intention to make the addressee(s) sing all count as Imperatives.

(16) English
Sing!

(17) French
Chante!/Chantez!

Remark that the statement for which we seek a wide agreement is a statement about the use of a form, not about the form itself. Neither the French form nor the English one are morphologically dedicated to the Imperative use. English *sing* obviously also occurs as an Infinitive, and as an Indicative Present for all persons except the third person singular. The form *sing* is thus highly multifunctional, and one may or may not feel inhibited to call the form itself “Imperative” and thus be forced to homonymy. For the purpose of this paper, we steer clear of this issue. Our object of study is first and foremost identified by function, and not by form.

The problem we will focus on in this section is whether one could sensibly speak about non-second person Imperatives. In the tradition of French grammar, this parlance makes sense. The form in (18) is commonly called an “Imperative first person plural”.

(18) French
Chantons!
'Let us sing!'

The corresponding construction in English is not normally called “Imperative”. English grammarians may have two reasons for this, a semantic and a formal one. On the semantic side, they may point out that the meaning of the first person plural construction is a bit different. *Let us sing!* is not so much an order as an exhortation. On the formal side, they may observe that the first person plural construction is compositionally quite different from the second person construction. The latter is a bare verb, the former has a verb *let* followed by a pronoun and an Infinitive.

With respect to the grammar of English, the decision not to call *let us sing* “Imperative” may be excellent. From a cross-linguistic point of view, however, it is problematic. The semantic argument, first of all, will not convince the grammarians of French, for they too accept that the meaning of French *chantons* is not exactly the same as that of *chante* and *chantez*, and yet they will not hesitate to call all three “Imperative”. All that is required is a notion of Imperative that abstracts from the particulars of the person to which the appeal to fulfill the speaker’s wish is addressed. The formal argument is also problematic. It will not, for instance, convince Birjulin & Xrakovskij (2001). In their theoretical introduction to the Saint Petersburg Imperative book (Xrakovskij ed. 2001), Birjulin & Xrakovskij (2001: 28) claim that cross-linguistically Imperative paradigms are seldom formally homogeneous. The fact that *let us sing* and *sing* are

composed in different ways should not therefore prevent us from calling both “Imperative”.

It is not only the first person plural about which one can quarrel as to whether it deserves to be called “Imperative”. For the Uralic language Mari Sebeok & Ingemann (1961: 21-22) postulate a paradigm comprising the second person singular and plural Imperative accompanied by a third person singular and plural. The third persons are also called “Imperative”.

(19) Mari (Sebeok & Ingemann 1961: 21-22)

	SG	PL
2	-Ø /-t	-za/-sa
3	-šē/-ñē/-šo/-ño/-šö/-ñö	-(c)št

(20) Mari (Sebeok & Ingemann 1961: 21-22)

- a. Təj kində-m kondo-Ø!
 you bread-ACC bring.IMP.2SG
 ‘Bring bread!’
- b. ... küə-m koč-so!
 stone-ACC eat-IMP.3SG
 ‘... let it eat the stone!’

A similar situation is found in an Irrealis Future paradigm found in the Papua New Guinea language Alambak, and the grammarian on duty, Bruce (1984: 139-140), calls the second persons “Imperative”. This time around, however, the third persons are called “Hortative” rather than “Imperative”.

Languages may have paradigms in which the second person Imperatives are joined by both the first person plural and the two third persons. An example is Hungarian. A so-called “indefinite” paradigm for the verb *vár* ‘wait’ is shown in (21).

(21) Hungarian (Kenesei, Vago & Fenyvesi 1998: 311)

	SG	PL
1		<i>várjunk</i>
2	<i>várj(ál)</i>	<i>várjatok</i>
3	<i>várjon</i>	<i>várjanak</i>

Note that the slot for the first person singular is empty. In fact, there is a first person singular form, and it used with a ‘Let me ...’ meaning, but it is obligatorily accompanied by *hadd* ‘let’, while this is optional for the other persons.

A paradigm that caters for all six traditional grammatical persons is that of the polite, mild, perhaps futurate Imperatives in the Tungusic language Even. (22) is the paradigm for the verb *ga-* ‘take’ — note that there are separate forms for an exclusive and an inclusive first person plural.

(22) Even (Malchukov 2001: 161)

	SG	PL
1	<i>ga-d'inga-v</i>	<i>ga-d'inga.vur</i> (inclusive) / <i>ga-d'inga.vun</i> (exclusive)
2	<i>ga-nga-nri</i>	<i>ga-nga.san</i>
3	<i>ga-d'inga.va-n</i>	<i>ga-d'inga.vu-tan</i>

There are at least two issues here. One is terminological. What is the appropriate label for non-second person constructions that are used like standard second person Imperatives, except that they are not addressed to any addressee, or — in the case of the inclusive first person plural — they are not used to the addressee(s) only? In Xrakovskij (ed.) (2001) the term “Imperative” is used for all persons. Attempts to make use of the labels of the “Hortative” family, comprising “Hortative” itself but also “Cohortative” and “Exhortative” are found in Ammann & van der Auwera (2001) and in van der Auwera & Ammann (2002). In this paper we will take no stand on this issue and call all the relevant phenomena “Imperative-Hortative”. The second issue concerns the formal structure of Imperative-Hortative paradigms. We fully agree with Birjulin & Xrakovskij (2001: 28) when they claim that cross-linguistically Imperative paradigms are seldom formally homogeneous. Nevertheless, these paradigms may contain at least a partial formal homogeneity. Whereas in English *let us sing* and *sing* are formally very different, in French *chantons*, *chante*, *chantez* are formally rather similar. And we have seen that the formal homogeneity may include third persons (Mari, Alablak), third persons and first person plural (Hungarian) and third persons and first person plural as well as singular (Even). The point of this paper is to explore the second issue. Is the partial formal homogeneity within Imperative-Hortative paradigms systematic?

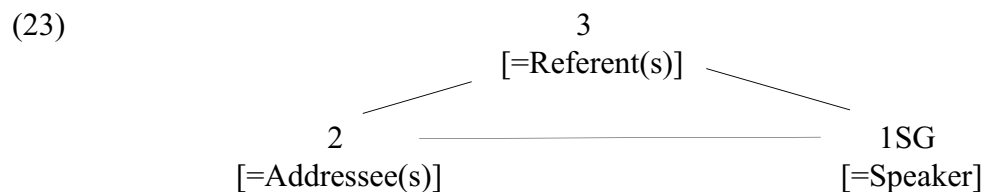
3. A Semantic Map for Imperative-Hortatives

We have studied the formal structure of Imperative-Hortatives in 376 languages. It is a convenience sample. It is a subset of a much larger set of languages, chosen in part with the method proposed by Rijkhoff, Bakker, Hengeveld & Kahrel (1993).² Quite often, the information in grammars is incomplete and the 376 languages just happen to be the ones for which we dare to frame an hypothesis, however tentative, about the structure of the Imperative-Hortative system. Some appreciation of the languages may be gathered from Map 1, and although many dots are superimposed on each other, the map at least shows that languages were chosen from all corners of the globe. For some claims about the spread of certain types of Imperative-Hortative systems, we can refer to van der Auwera, Dobrushina & Goussev (2003).

 Insert Map 1 about here

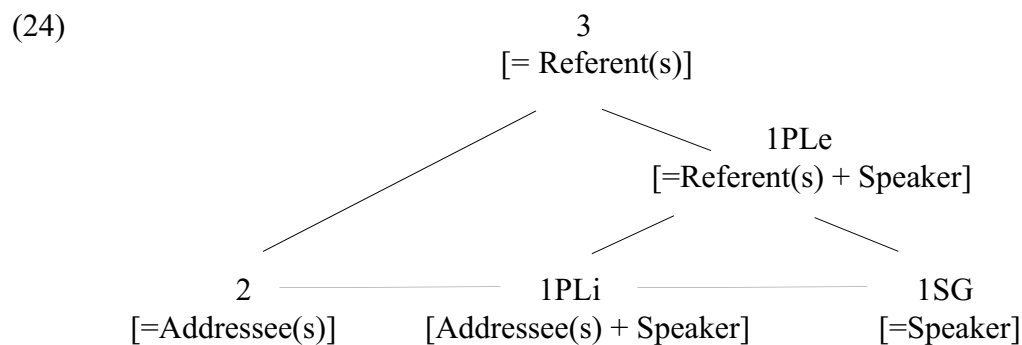
3.1. Constructing the map

The semantic map we propose for Imperative-Hortatives is built on three partially independent dimensions: (i) the nature of the speech participants: Speaker, Addressee or Referent, (ii) the number of the speech participants, (iii) the nature of the Imperative-Hortative speech act. A skeleton map representing the three speech participants is shown in (23).

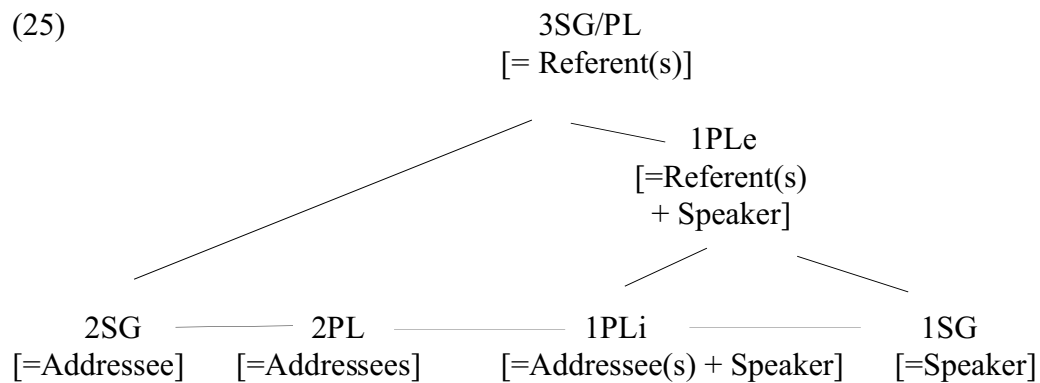


Note that the the Speaker is necessarily singular. No language is known to have grammaticalized the idea of a plurality of people speaking at the same time (Cysouw 2001: 66).

We now add what is traditionally called “the first person plural”. Semantically, it is either a mix of the Speaker and the Addressee(s) poles — the inclusive first person plural (“1PLi”) — or a mix of the Speaker and the Referent(s) poles — the exclusive first person plural (“1PLe”).



We also need to make the singular-plural distinction explicit for the second and the third persons. For the second person, we propose to make two locations, with the second plural being the immediate neighbor of the first plural inclusive. Taking them apart reflects that languages may have different strategies dependent on the number of the second person. For the third person, we will keep both numbers in one location. There is no language in the sample in which a third singular Imperative-Hortative attracts a different strategy from the third plural.



Of course, there are other number distinctions, like dual, trial and paucal. Especially the dual shows up in Imperative-Hortatives, for instance for the second person of Sino-Tibetan Limbu ((26)) or for the inclusive first person of the Colombian language Awa Pit ((27)).

(26) Limbu (Van Driem 1987: 188)

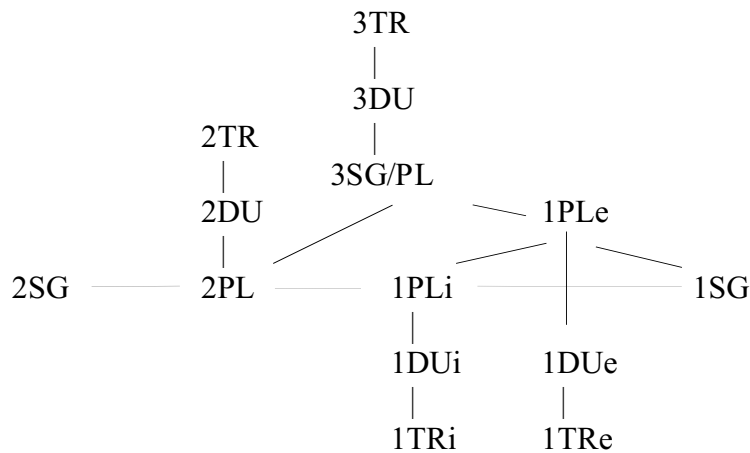
- a. *Ips-Ø-εʔ!*
sleep-2SG-IMP
'Sleep!'
- b. *Ips-εtch-εʔ!*
sleep-2DU-IMP
'Sleep!'
- c. *Ips-amm-εʔ!*
sleep-2PL-IMP
'Sleep!'

(27) Awa Pit (Curnow 1997: 248)

- Ku-pay!*
eat-IMP.1DUi
'Let's eat (both you and me)'

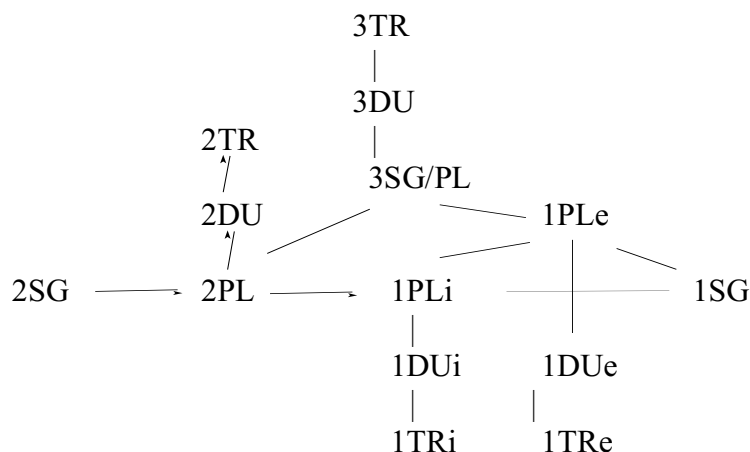
The trial is much rarer, but in section 3.2 we will see how it shows up in the Vanuatu language Motlav. Duals and trials are special cases of plurals. A dual is a plural for just 2 Addressees. Whenever there is a dual there is also a plural *sensu stricto* ("non-singular"), which in that case applies only to three or more Addressees. Whenever there is a trial, there is also a dual and a plural, and the plural *sensu stricto* then only applies to four or more Addressees. The maximal constellation, relative to what was found in our sample, is shown in (28). It is not clear yet whether we should assign all the duals and trials separate locations, or whether we should provide multi-filler locations, such as our 3SG/3PL location. For the time being, we give them separate locations.

(28)



The third dimension is the very nature of the Imperative-Hortative speech act. It concerns the expression of a wish by the Speaker and an appeal that the wish be fulfilled. In the most typical situation this appeal is directed at the Addressee(s) and it is the Addressee(s) that has/have to undertake some action. The most typical Imperative-Hortatives are therefore second person structures. This much is suggested by the Standard Average European grammar and it retains its validity also after 376 languages. Whenever a language has grammaticalized one or more Imperative-Hortative constructions, they have to be available for the second persons.⁴ Within the second person Imperative-Hortative, however, we have reason to believe that the second person singular is more typical than the plural. For quite some languages, grammarians are found saying that the language has a “true Imperative” only for the second singular and that it caters for the second plural in some other way — see the discussion of Lingala below. We also believe that the plural is more typical than the dual and the trial. Let us reflect the typicality by turning the relevant lines into arrows. With respect to the second persons, we can transform (28) into (29).

(29)



With non-second person Imperative-Hortatives, the appeal is arguably still directed at the Addressee(s), but it is more complex and arguably less typical. Consider a third person construction like English (30).

(30) *Let the party start!*

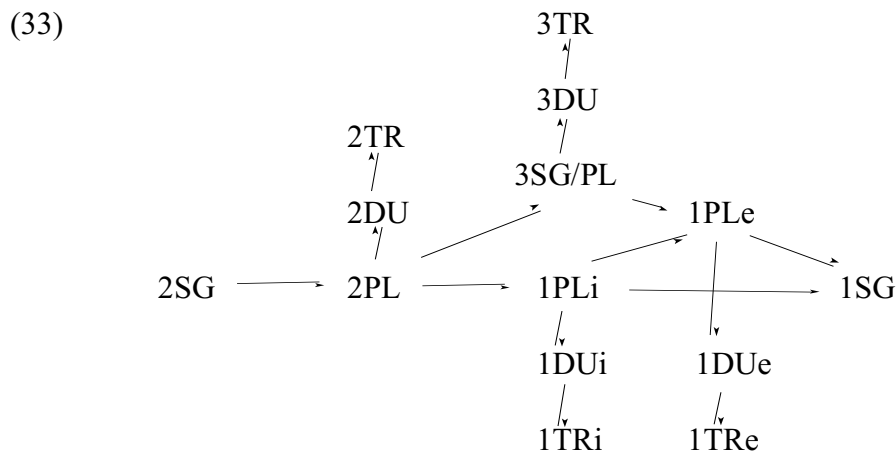
The appeal is not to the party itself. It is again the Addressee(s) that is/are entreated to do something to the effect that the party will start. Also with the first person non-singulars, the Addressee(s) are appealed to.

(31) *Let us sing!*

In the inclusive reading, the Addressee(s) is/are supposed to join the speaker in singing. In the exclusive reading, the Addressee(s) is not entreated to sing, but still to do something to the effect that the Speaker and one or more Referents get to sing. In the first person singular, one can see the Speaker either doubling up in a role of Addressee or as appealing to some real Addressee(s) to allow him/her, the Speaker, to sing.

(32) *Let me sing!*

Of the three non-second Imperative-Hortatives, our materials show that the first plural exclusive and the first person singular are grammaticalized least frequently and are therefore least typical. Whether the third persons are more or less typical than the first person plural inclusive, we do not know. For the time being, we leave them in the position they occupy on the map so far. Typicality relations are again reflected by arrows. We once more assume that the trials are less typical than the duals, which are themselves less typical than the plurals.



The map is now quite complex. One can interpret it as a conflation of several hierarchies. If one disregards the duals and the trials as well as the inclusive-exclusive distinction, one can detect the hierarchy in (34).

(34) 2SG → 2PL → 3 or 1PL → 1SG

The first person inclusive-exclusive distinction can be captured by a mini-hierarchy as well.

(35) 1PLi → 1Ple

For number it is tempting to bring the “Number Hierarchy”, known from the typological literature (see Corbett 2000: 38ff) and represented in a simplified format in (36).

(36) SG → PL → DU → TR

In the Imperative-Hortative domain, however, (36) holds true only for the second person. For the first person, the plural has to occupy the top position, and for the third person, both the singular and the plural go in the first position. What holds true of all persons, however, is the hierarchy in (37).

(37) PL → DU → TR

3.2. Formal homogeneity

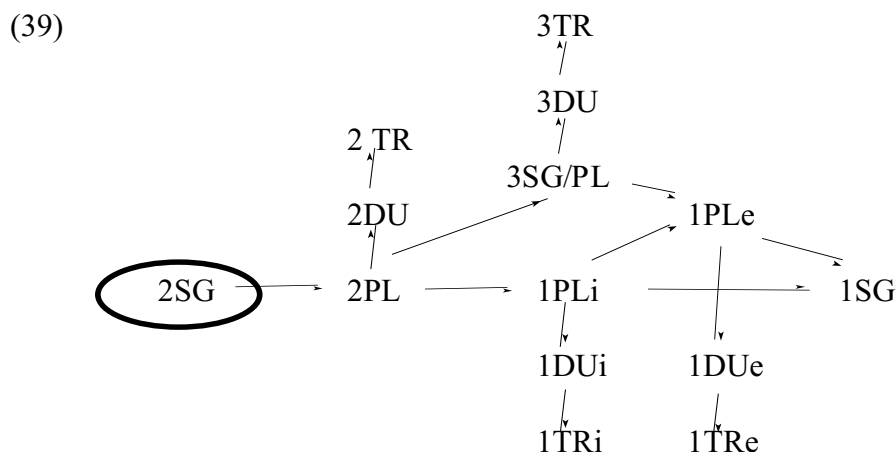
The map in (33) may raise many issues. The only one that the rest of the paper will deal with is its potential for explaining formal homogeneity in Imperative-Hortative paradigms. For this purpose we can simply rely on the contiguity requirement, which goes with any semantic map. The contiguity requirement will predict that if a language employs a certain strategy for more than one “location” on the map, these locations have to be contiguous. Is this requirement fulfilled or not, in the 376 languages studied?

The answer is largely positive. In the overwhelming majority of cases, Imperative-Hortative systems seem positioned across connected locations on the semantic map. In what follows we will first illustrate some of these systems and at the end we discuss two problems.

The map obviously allows that a certain strategy is used in only one location. The Imperative of the Bantu language Lingala appears only in the second person singular (Meeuwis 1998: 28).

(38) Lingala (Meeuwis 1998: 28)
Sál-á!
 work-EPV.IMP.SG
 ‘Work!’

The form *sál-á* consists of the root of the verb (*sál-*) followed by *-a*, called an “expletive verbal suffix” (“EPV”) by Meeuwis. For the second singular Imperative this suffix has a high tone.



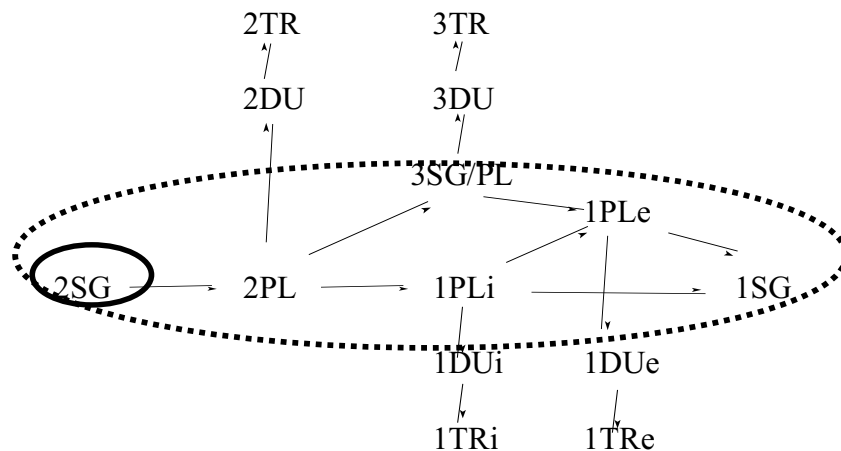
Note that Lingala speakers do have the possibility to issue orders and requests to a plural Addressee. To do this, they have to resort to what Meeuwis (1998: 28) calls a “Subjunctive”. This is morphologically quite different from the Imperative. Subjunctives have a person-number prefix with a high tone.

(40) Lingala (Meeuwis 1998: 28, p.c.)

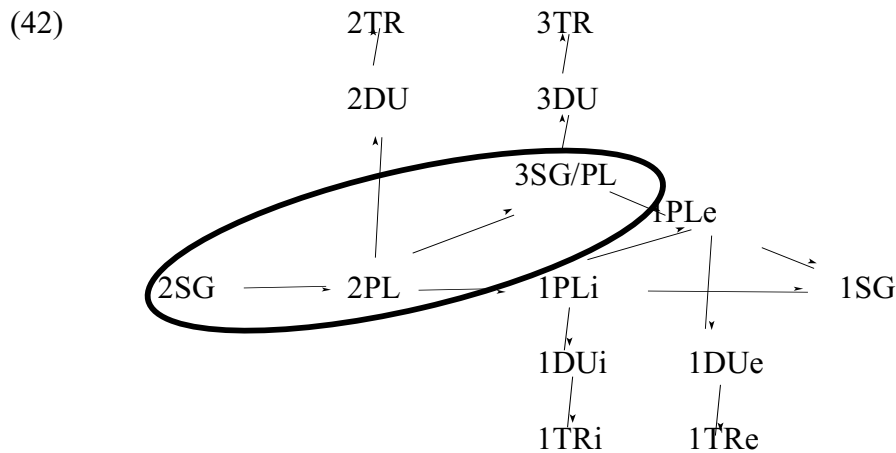
	SG	PL
1	<i>ná-sál-a</i>	<i>á-sál-a</i>
2	<i>ó-sál-a</i>	<i>bó-sál-a</i>
3	<i>tó-sál-a</i>	<i>bá-sál-a</i>

This Subjunctive strategy does not only provide for orders and requests for the second plural, but for all relevant persons, including the second singular (Meeuwis 1998: 29, p.c.). Given the terminology developed in this paper, Lingala can therefore be said to possess an all person Imperative-Hortative system. This Imperative-Hortative strategy obviously passes the contiguity test and the full representation of the Lingala Imperative is shown in (41).⁵

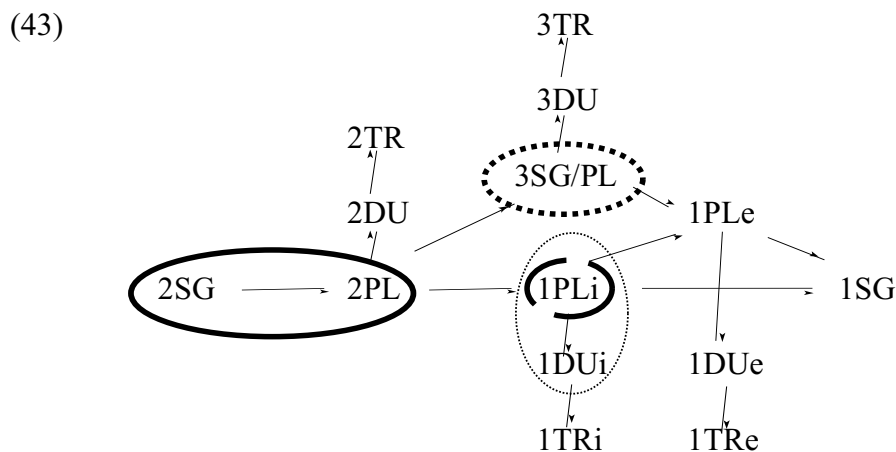
(41)



In (42) we show the Mari system, already discussed in section 3.1.. It represents a system in which the strategy used for the second singular and plural is extended to another person, in this case to the third singular and plural.

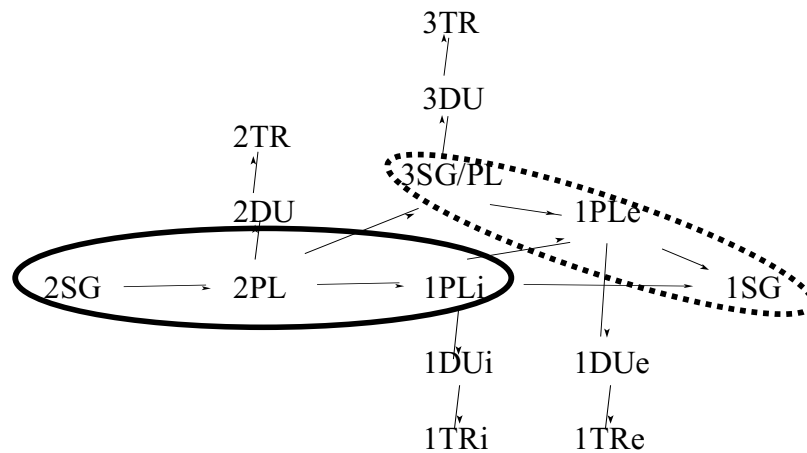


That the singular and plural third use the same strategy is very pervasive, whether, as in Mari, it is a strategy that the third persons share with another person, or it is exclusive for them, as in Armenian (Kozintseva 2001: 246-249).



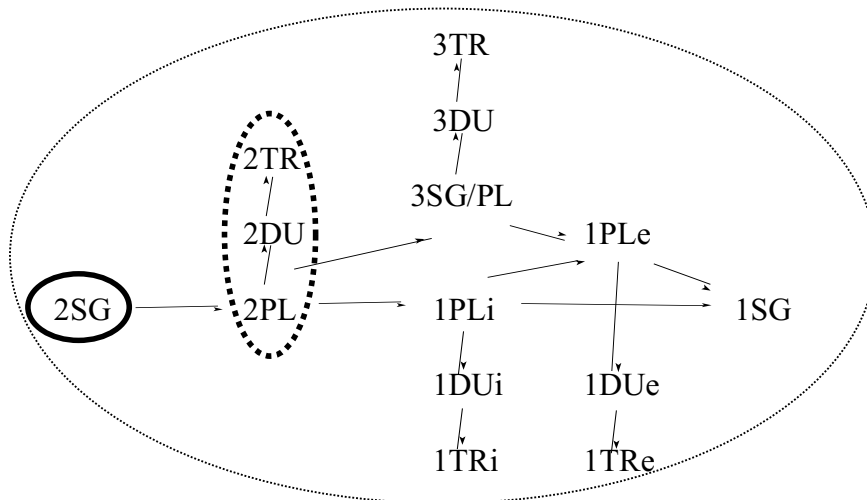
Armenian also shows that the first person plural — and dual — inclusive may have a dedicated structure. Of the two first person plurals, it is typically the inclusive one that is grammaticalized, whether it has a dedicated strategy (Armenian) or not (French). In the Even paradigm in (22) both first persons have their own form. This is true for West Greenlandic as well, and in this language they belong to different paradigms (Fortescue 1984: 24-27, 291-292).

(44)

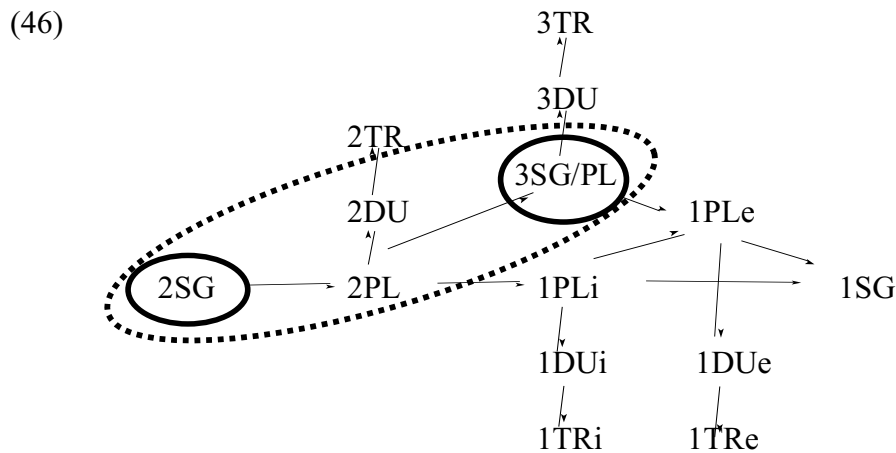


A dual is found on the Armenian map in (43). We also found it in the Vanuatu language Motlav and in this language we find a trial as well. The language has three Imperative-Hortative strategies: (i) a bare verb strategy available for the second singular, (ii) a bare verb accompanied by special Imperative-Hortative pronouns, available only for the second dual, trial, and plural, and (iii) a “desiderative aorist” strategy, available for the three persons, in the four numbers, and in the first person dual, trial, and plural both in the inclusive and exclusive variety (François 2001, p.c.).

(45)



So far all the constellations which we have shown obey the contiguity requirement, and this seems true for the overwhelming majority of the languages in the sample. Yet there are problems. We will discuss two. The first concerns the Chilean language Mapuche. In Mapuche (Smeets 1989: 233-236), morphological Imperatives exist for the third persons as well as for the second person singular whose object is not a first person. For the second person plural and dual, for the second person singular with a first person object as well as for the third persons an Indicative strategy is used. On the map we get a breach of the contiguity principle.



At this stage, it is unclear how to deal with the counterexample. Either we make the map more complex by incorporating an extra parameter or we leave the map the way it is and accept its contiguity property as a statistical universal instead of as an absolute universal and interpret the actual strategy as resulting from competing motivations.

The second problem can be illustrated with French. The paradigm that includes the second singular and plural ((17)) also includes the first plural ((18)).

(17) French
Chante!/Chantez!
 ‘Sing!’

(18) French
Chantons!
 ‘Let us sing!’

As far as we can observe, the first person plural can only be inclusive. French also has a strategy for the third persons, illustrated in (47). It uses the complementizer *que* ‘that’ and the verb is subjunctive.

(47) French
Que la fête commence!
 ‘Let the party start.’

This structure is also attested for the first person singular. An example is (48), due to Kordi (2000: 377) — other examples in Grevisse (1980: 854).

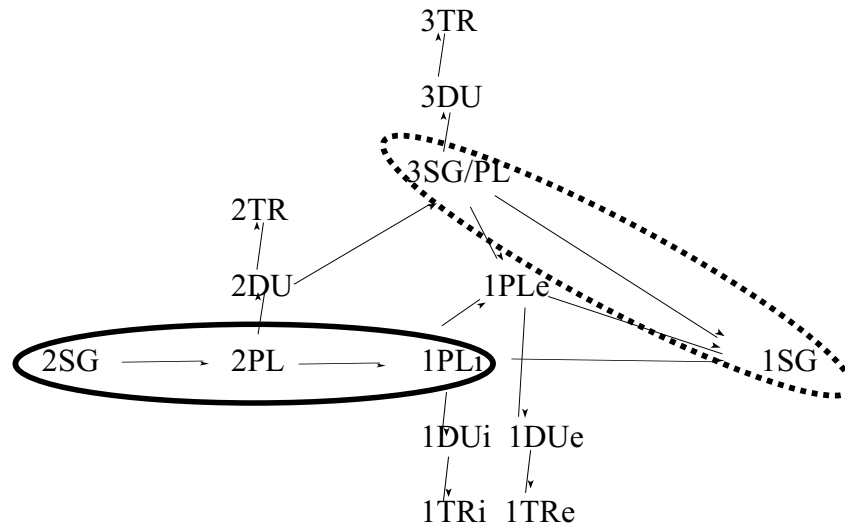
(48) French
Que je te réchauffe contre moi!
 ‘Let me warm you against me!’

According to the semantic map, this structure should also exist for the exclusive first person plural, but native speakers asked were very hesitant about (49).

- (49) French
 ?? *Que nous te réchauffions contre nous!*
 ‘Let us warm you against us!’

Let us assume that (49) really does not occur, how then can we represent the formal homogeneity of the third person (singular and plural) and first person singular Imperative-Hortative of French? Would it be justified to simply draw a direct line between the third person and the first person singular? Or should we accept the French constellation as a counterexample?

(50)



Just like for Mapuche, we will abstain from making any decision.

4. Conclusion

In this paper we have studied “Imperative-Hortative” systems cross-linguistically. The term “Imperative-Hortative” is designed to include the uncontroversial second person Imperatives as well as related non-second person structures, whether or not grammarians call them “Imperative” or “Hortative” or yet something else. The specific goal was to study the degree of formal homogeneity within these paradigms. The explanation relied on a proposal for a semantic map and the basic idea that the semantic contiguity of the semantic map is reflected by formal contiguity. The semantic map embodies a typicality dimension and presents the second singular at one end, that of the most typical Imperative-Hortative, and the first singular at the other end. The most interesting features of the in-between area are the fact that there is no need to distinguish between a third person singular and plural, and that there are two first person plurals, inclusive and exclusive, with the former as the more typical Imperative-Hortative.

Notes

- 1 The work was done while Nina Dobrushina (Moscow State University) and Valentin Goussev (Oriental Institute, Russian Academy Sciences, Moscow) were visitors at Antwerp's Center for Grammar, Cognition and Typology. Funding was provided the Research Council of the University of Antwerp and by the Flemish Fund for Scientific Research (project G.0097.98 N). Thanks are also due to Jan Nuyts and to the students of the Autumn 2000 Typology class in the Germanic languages department of the University of Antwerp.
- 2 Maps are related to hierarchies, which have also been prominent in typology, but they are more complex. Whereas a hierarchy is a directional ordering along just one dimension, a map may involve several dimensions and there may or not be a directionality. One could say that hierarchies are a subtype of maps. The discussion of Imperative-Hortatives in section 3 will illustrate the relation between maps and hierarchies.
- 3 Another factor in the selection of languages was that the sample had to obey the requirements posed by the "WALS" project ("World Atlas of Language Structures", see Dryer, Haspelmath, Gil & Comrie eds. 2003). For this project 200 languages were chosen, and our set properly includes these 200 languages.
- 4 Note that we are not claiming that every language has to have a number-specific second person construction. The Mongolian language Kalmyk and the Siberian language Yukaghir may well be languages that provide for the second persons with an all person paradigm, but on top of that they have dedicated constructions for first person plurals (Yukaghir: Maslova 1999: 172, 568) or for thirds (Kalmyk: Benzing 1985: 18, 38, 61, 66, 103, 131-132).
- 5 We assume that the first person plural can have exclusive as well inclusive uses. If this assumption turns out to be wrong and the form only has one interpretation, most likely the inclusive one, contiguity is still preserved.

Abbreviations

ACC	Accusative	PL	plural
DEF	definite	POSS	Possessive
DU	dual	PROB	probability
e	exclusive	PROL	Prolative
EPV	expletive verbal suffix	SG	singular
i	inclusive	TR	trial
IMP	Imperative	1,2, 3	first, second, third person
OBL	obligation		

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Map 1. The 376 languages of the convenience sample