Prohibition: negative imperatives and the parametric typology of negation

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A number of researchers have offered hypotheses about the syntactic relationship between Tense and Negation. Zanuttini 1996, for example, has argued that the head NEG may only occur in the presence of Tense. This paper examines data on negation in 15 languages which has been collected in an ongoing typological research project, PARATYP. The study focuses on the difference between prohibitive and non-prohibitive negations, since the imperative form in some languages may or may not include the feature Tense. Our data confirms Zanuttini's hypothesis that the relationship between Tense and Negation is mirrored in the patterns of cooccurence of these two categories. We identify two parametric types of Negation based on Zanuttini's two types and investigate whether it is possible to use the distribution of the prohibitive negative as a diagnostic tool for determining the Negation type found in each language.

Introduction

Typological studies of sentential negation in the languages of the world have established that negative morphemes may appear as verbal affixes, free morphemes, or even verb forms (Dahl 1979, Payne 1985). Although these studies have provided valuable information, their content remains descriptive and is limited to statements about the surface behaviour of negation. More recent typological studies of negation have assumed a parametric account of syntax and have focused inquiry upon the parametric variations which might be evidenced in the underlying syntactic structure of negated clauses. Negation itself has come to be regarded as one of the functional phrasal projections which are assumed to be included in clausal structure (Pollock 1989, Ouhalla 1991). Still, parametric accounts of negation have either been limited to comparisons of two widely differing languages, or comparisons of several closely-related languages or dialects of the same family (Haegeman & Zanuttini 1996, Zanuttini 1996).

This paper is intended to widen the scope of parametric typological research into the nature of negation in two ways. First, it examines data on negation from a wider sample of genetically non-related languages than any

other parametric study of negation to date. Second, it specifically examines the type of negation which is found in negated imperatives, or prohibitives, such as the one illustrated in (1).

(1)   Don't drink the water!

This type of sentential negation is one which has been largely neglected in previous descriptive studies, but presents an interesting variety of realizations in the languages of the world. As an utterance type it can be used to convey warning or prohibition, and in many languages seems to require a special form of sentential negation different from the one found in negated non-imperatives. Its peculiar behaviour in the Romance languages has been commented upon and analyzed in the more restricted parametric studies quoted above, particularly Zanuttini 1996. With this paper, we explore whether the existing analysis of prohibitive negation in the Romance languages may be extended to other languages. In addition, we attempt to establish Zanuttini's proposed syntactic correlation between Negation and Tense as a diagnostic to help determine the type of negation found in the languages in our study.

1. The relation between Negation and Tense

A number of syntacticians have suggested a strong syntactic relationship between the two functional categories Negation and Tense. This relationship has been expressed in different ways and exploited to explain such phenomena as basic word order and scrambling.

1.1. Imperatives and Tense

Imperatives and participles are constructions which may lack Tense in certain languages. In order to specify whether an imperative does contain Tense or not, it is necessary to distinguish between true imperatives and surrogate imperatives (Rivero 1994). True imperatives are expressed using an inflection which is distinct from any other verbal paradigm. However, some languages do not have distinct imperative inflections, but instead have imperatives which are identical in form to subjunctive, indicative, or infinitive verb forms. These are surrogate imperatives. Tense is present in surrogate imperatives, but not in true imperatives. If there is a strong relationship between Negation and Tense, then we may expect that it will be reflected in the relationship between Negation and the true imperative.

1.2 Zanuttini 1996

Zanuttini supports her proposed linking of Negation and Tense by showing that in certain Romance languages such as Italian, the sentential negation is indeed ungrammatical with a true imperative, as shown in (2). This does not mean, of course, that Italian is devoid of prohibitive expressions. Instead, prohibitives must be expressed with an infinitive verb form which does include Tense (3). In other words, the negation *non* demands the presence of Tense in order to be realized syntactically.

(2)   *Non telefona!
       NEG telephone-IMPER-2sg
       Don't call!   (Zanuttini 1996:188)

(3)   Non telefonare!
       NEG telephone-NFIN
       Don't call!   (Zanuttini 1996:188)

But not all languages show this effect. Prohibitives in the northern Italian dialect of Piedmontese allow the normal sentential negative with a true imperative, as shown in (4):

(4)   Parla nen!
       talk-2sg NEG
       Don't talk!   (Zanuttini 1996:189)

To account for this seeming contradiction, Zanuttini proposes that the negations in Italian and Piedmontese are actually of two different types: The former is a head negation, and does require the presence of Tense, while the latter is an adverbial negation, and does not require the presence of Tense. Her solution is thus to treat imperatives uniformly, while identifying parametric variation in syntactic status among sentential negations.

2. A hypothesis

2.1 The Prohibitive Test

Let us assume that Zanuttini's hypothesis about the dual syntactic status of negation is correct, and that there is a head (NON) negation and an adverbial (NEN) negation. If her analysis is correct, this would mean that the use of the two types correlates with the presence or absence of Tense. This correlation is in turn revealed in the ability of a sentential negation to cooccur with a true imperative, since the NON negation will not be able to occur with a true imperative, while the NEN type will. If we can determine with certainty the status of the imperative in a language as a true or

surrogate imperative, then we should also be able to classify the status of the negation which appears with it. We predict the following patterns, which have already been documented for Romance by Zanuttini:

(5)   NEG + true imperative   NEG = NEN
       *NEG + true imperative   NEG = NON
       NEG + surrogate imperative   NEG = NON
       NEG + surrogate imperative   NEG = NEN

The crucial case is therefore that of negation with true imperatives. If the proposed correlation between Tense and Negation is correct, then these patterns should be observed in other languages besides those in the Romance family. Every language which bars the usual sentential negation from appearing with a true imperative can be said to possess a head (NON) type of negation element. We will thus need to test the [NEG + imperative] combination, and we will refer to this as the Prohibitive Test, and attempt to apply the test to data collected from 15 different languages. If we find that the correlations described by Zanuttini for Romance are indeed duplicated in other languages, we may conclude that the relationship between Tense and Negation is universally valid. As a result, we may then use the Prohibitive Test as a diagnostic test to determine the syntactic status of the sentential negation element in any language.

2.2 Problems

A condition for being able to apply the Prohibitive Test, however, must be the identification of a true imperative in the language being tested. If we find only surrogate imperatives, the identity of Negation cannot be determined: either a Head or an Adverbial Negation can occur with a surrogate imperative. This follows from the assumption that Tense is irrelevant to the use of the Adverbial Negation. Zanuttini 1996 shows that English is an example of a language which has a surrogate imperative and both a Head negation (*n't*) and an Adverbial negation (*not*). Either type of negation may be used in the English prohibitive. The surrogate imperative therefore tells us nothing about the type of negation. Furthermore, it means that the value of the Prohibitive Test rests on the assumption that true imperatives lack Tense universally and surrogate imperatives do not. If this is also a feature which varies parametrically, then we cannot use it to test the character of negation in the way we have proposed.

A second complication is the fact that languages may show mixed paradigms, with both surrogate and true imperatives in some verb classes.

If we apply the Prohibitive Test rigidly, however, the existence of any constructions of the type [Neg + true imperative] must be taken as sufficient evidence that the Negation element is Adverbial. The only alternative to such a conclusion would be to abandon the crucial assumption that true imperatives lack Tense, which we have just discussed as tantamount to invalidating the Prohibitive Test.

A third complication is that some languages may show no verbal inflections at all. It is therefore difficult to assess the status of imperative verb forms in these languages as true or surrogate, when the morphological criteria is simply irrelevant for the language. Given that surrogate imperatives are originally defined as being identical to other indicative verb forms, and that in these languages the same forms may function as imperatives and indicatives, we will interpret these uninflected forms for the moment as surrogates.

3. Data: The PARATYP Project

The data we have analyzed was collected as part of the study of negation done by the PARATYP Project (Parametric Typology – Variation in Syntax), which is based at Lund University. A summary of the original data on sentential negation for the 15 languages of the study is given in table 1. The goal of the PARATYP study has been to develop generative syntactic analyses for each language and in so doing identify parameters of variation. For the study of negation, it has meant identifying the syntactic status of negation in each language and the place of negation with respect to other functional categories.

When the data was compiled, it was apparent that a large percentage of the languages being studied expressed the prohibitive by means of a special prohibitive NEG morpheme different from the one used for sentential negation in declaratives. Although the study examines only 15 languages, they are sufficiently distinct both geographically and genetically to make this tendency toward special prohibitive NEG morphemes significant. Language-specific data on the prohibitive forms is given in table 2. We felt that this concentration of special prohibitive forms warranted closer investigation, particularly in light of Zanuttini's proposals about the interaction of Negation, Tense, and imperatives. We attempted to apply the Prohibitive Test to the 15 PARATYP languages. Our results are discussed in the next sections.

Table 1. Negation in the PARATYP database.

Language	Free or affix	Negative morphs	Basic word order	Position (–finite)
Basque	free	*ez*	SOVI, SNIOV	??
Chinese	free	*bù, bié, méi*	S(N)VO	??
Hopi	free	*qa, so'on, ngasta*	SO(N)V	??
Irish	free	*ní, gan, mura*	(N)VSO	*gan*SOV
Japanese	suffix	*-na*	SOV(N)	
Kabardian	suffix	–	SOV(N)	
Kammu	free	*pɔ́ɔ, práa, plɔ́ɔ, táa*	S(N)VO	
Lithuanian	prefix	*ne-*	S(N)VO	NegV-INF
Maori	free	*kaore, kaua, kiihai, eehara*	N[VSO]	gerundive
Megrelian		*va, ve*	SO(N)V	
Mongolian	suffix, free	*-gui, bitgi, biš*	SOV(-N)	V-Asp-Neg
Sami	free	*i, aellie, olle*	(N)(S)VO	NA
Seediq	free	*ini, iya, uxe, uka*	(N)VOS	??
Swedish	free	*inte*	SV(N)O (V2)	pre V
Icelandic	free	*ekki*	SV(N)O (V2)	post V

Table 2. Prohibitive Negative typologies.

Type	Imperative	Sentential Negation	Prohibitive Negation
*I	true	Head	Head
?II	surrog	Head	Head
III	true	Head	NEN
?IV	surrog	Head	NEN
*V	true	Head	–
VI	surrog	Head	–
VII	true	NEN	NEN
?VIII	surrog	NEN	NEN
*IX	true	NEN	Head
X	surrog	NEN	Head
XI	true	NEN	–
?XII	surrog	NEN	–

4. Results and interpretation

4.1 Speculations

Before discussing the actual results of our investigation, we would like to point out possible results of attempting to apply the Prohibitive Test to any collection of data. Recall in particular the problems discussed in section 2.2. The PARATYP data on prohibitives could be indicative of a number of different interpretations. We might find that:

A. The majority of languages in our study have surrogate imperatives and the Prohibitive Test is therefore not applicable to diagnosing the status of negation in these languages

B. A majority of the languages in our study have true imperatives and the Prohibitive Test can predict the status of negation in these languages.

C. The Prohibitive Test is not a reliable diagnostic for determining the syntactic status of negation.

(A) would indirectly discredit the Prohibitive Test. If so few languages meet the criteria for using the test, then it is not very useful. (B) will be true only if we can establish that the special prohibitive NEG morphemes in the database are being used with true imperatives. This interpretation will be a clear confirmation of the usefulness of the Prohibitive Test. It will indicate that the prohibitive NEG morphemes are instances of a NEN type negation, and exist to fill the gap left by the *[NON + true imperative] restriction.

(C) will be true if we can establish that there is any language which uses a [NON + true imperative] to express the prohibitive. This would be the most crucial finding of our study.

4.2 Indications

First, we observe that the majority of languages in our study do employ true imperatives. That is, there does exist a true inflected imperative form in these languages, so we are able to check whether this form may occur with prohibitive negation. Only four languages have been classified as using surrogate imperatives exclusively: Kammu, Mandarin, Maori, and Sami. Furthermore, the identification of these as surrogates might be questioned, since some of these langues do not employ verbal inflections of any kind. This allows us to dismiss interpretation (A). However, it would be desirable

to expand the database later to determine whether this higher incidence of true imperatives is truly representative of natural languages.

Second, we can reiterate the observation that the majority of the languages in our study do not employ the same negative morphemes for both sentential and prohibitive negation. The few which do are Basque, Icelandic, Kabardian, and Swedish. There is, however, no correlation in these four languages with surrogate imperatives, as interpretation (B) might lead us to expect. Likewise, there is no clear correlation with the use of true imperatives among those languages which have special prohibitive NEG morphemes. Thus Hopi employs a special prohibitive NEG morpheme and has a true imperative, while Kammu also employs a special prohibitive NEG morpheme, but can be argued to have a surrogate imperative. Interpretation (B) makes a very strong claim that we do not feel we can verify with this data. While the Prohibitive Test might be able to tell us about the nature of the prohibitive NEG morpheme in a language, it may not necessarily give us information about the status of the sentential NEG in that language. In Section 5 below we discuss the typological implications of treating sentential and prohibitive NEG morphemes separately.

Finally, we consider interpretation (C). We have checked to see whether any language in our study realizes a grammatically acceptable prohibitive with the combination [NON + true imperative]. The crucial pattern can be argued to occur in two languages in our study, Irish (6) and Seediq (7):

(6)   Na' ho'laigi an t-uisce
       NEG drink-IMPERpl DEFsg water
       Don't drink the water!

(7)   Iya mahi qsiya kiya
       NEG-IMPER drink-PF-IMPER water that
       Don't drink that water!

Using the Prohibitive Test, we would automatically want to classify the Irish and Seediq NEG morphemes as adverbial. However, these two elements have already been argued to have Head status in the works of other researchers (Duffield 1995 for Irish, Holmer 1996 for Seediq). At the moment, therefore, accepting interpretation (C) rests on previous analyses of these two languages. Before dismissing the Prohibitive Test altogether, it would be desirable to examine more data to determine the existence of further possible counterexamples and the strength of the analysis of them as such.

5. Discussion

5.1. *Imperative-Negative typologies*

We can approach the interpretation of the PARATYP data in another way, by treating the features of Negation and the Imperative as parameter values and calculating the total range of parametric variations. Given the 3 variables of sentential negation type (adverbial NEN vs. head NON), prohibitive negation type (also NEN vs. NON), and imperative type (true vs. surrogate), we can predict that certain types of languages should be possible (table 2). We consider both sentential and prohibitive negation to allow for the possibility of both unified and 'mixed' languages, in which the two types of Negation might be totally different in syntactic status. The NON type of negation is referred to here as Head for clarity. The NEN type of negation is the Adverbial negation.

Type I should not be possible. A language with true imperatives will not be able to express prohibition if the only negations it includes are of the Head type. Type V will be excluded for the same reason. If such a language existed, it would simply lack the ability to express prohibition. Or, it would have developed some other means of expressing prohibition without the use of any negation element whatsoever. We assume for the moment that all languages are capable of expressing prohibition and that they do so by means of some form of negation.

To recover from the impossible situations in Types I and V, a language could either develop a surrogate imperative, or keep the true imperative and develop an alternative type of negation. The former option is represented by languages of Type VI, and the latter in languages of Type III. Type VI is realised in a language such as Italian. Italian shows both a true imperative (in the 2sg) and a surrogate imperative (identical to the infinitive). There is no special prohibitive negative form. To overcome the ungrammaticality of the 2sg [NON + true imperative] without using an alternative form of negation, Italian is in effect forced to provide a surrogate form for the 2sg as well. It is identical to the infinitive and was illustrated earlier in example (3).

Type II could also be a solution to the problems of Type I and V, albeit a redundant one. The special prohibitive morpheme would not perform any special function syntactically. However, it would not be directly ungrammatical either. Does Universal Grammar allow for this kind of redundancy and variation in the functional projections? If Type II does

occur, it would make the data on prohibitives much more difficult to interpret. Type III is a much more direct solution.

Type IV would also be a redundant solution, providing both an alternative form of negation as well as an alternative form of imperative. However, it is not clear that the NEN type of negation is restricted solely to occurring in contexts which do not contain Tense. In other words, Zanuttini does not specifically state that the combination of [NEN + surrogate imperative] is ungrammatical. This makes it difficult to say anything definite about the status of negations in languages which only make use of surrogate imperatives. Furthermore, it raises questions about the existence of special prohibitive negative morphemes in languages which only possess a surrogate imperative. The implication in Zanuttini's work seems to be that the NEN type of negation exists solely as an alternate in languages with NON negation and true imperatives to provide a means of bypassing the ungrammatical *[NON + true imperative]. Can we say that all languages which have developed a special prohibitive morpheme will be of Type III?

Languages with proposed NEN type sentential negation are represented by Types VII–XII. Type X is the most consistent, and is realized by Piedmontese. The imperative is a true imperative, and there is no need for a special prohibitive morpheme. If there were, it would be redundant (Type VII). A special prohibitive morpheme of the Head type would not be possible (Type IX). Types VIII and XII raise the same questions as II and IV.

To summarize, a Prohibitive Test such as the one we have proposed would be most effective at identifying Types III, V, and X. They are therefore highlighted in the table above. Even if we rule out some types as logically impossible, the test does not identify enough of the different possible types. To be truly useful, the Prohibitive Test should identify a much larger percentage of the possible types. As might be expected from this discussion, we found it very difficult to classify the PARATYP languages into types using the Prohibitive Test.

5.2 The Adverbial NEG

Zanuttini does not provide a detailed discussion of the character of the Adverbial NEG. It is stated, however, that the fundamental difference between the Head NEG and the Adverbial NEG is that the former selects a complement (namely TP), while the latter does not select any complement. It is thus implied that the Adverbial NEG is in the position of an adjunct to

VP, and not dominating it as one of the functional projections forming the backbone of the tree structure. This adequately distinguishes the Adverbial NEG from the Head NEG in terms of structural relations such as c-command and dominance. But the two are not adequately distinguished in terms of their inherent status as both being heads. Even adjuncts must be construed as XP categories projected from some head X. This means that an automatic classification of affixal NEG morphemes as Head negations is illfounded. Even Adverbial NEG morphemes, by virtue of being heads, could participate in incorporations onto a verb form by means of head movement.

5.3. Prohibitives in parameter setting

The input to the child is sufficiently rich in this construction type. It is a salient construction for the child, in terms both of frequency of occurence and discourse function. It would be easy for UG to use this construction as a means of setting one parameter for negation. This entails, however, that learners have certain assumptions about the relationship between Tense and Negation and Tense and Imperatives. They must be able to recognize the difference between a true imperative and a surrogate imperative, which means that they must be able to distinguish different verb forms morphologically. If there is no visible morphological distinction, they must assume a surrogate imperative and an accompanying Tense projection. This implies that they have reached a stage at which Tense as a functional projection has become active in the L1 grammar (for English L1 learners, about 26-28 months of age). If this scenario is correct, then we may have a tentative hypothesis about possible interaction of parameters, order of parameter setting, and triggers. The prohibitive could act as a trigger for the setting of the Head-Adv (NON-NEN) Negation Parameter, but the triggering effect is only possible if the functional category Tense and verbal inflectional morphology is active in the grammar.

Since prohibitives dominate negations in speech directed to small children it is important to take them into account when investigating the linguistic surroundings of first language learners. Structural differences between prohibitives and negated declaratives could account for the relatively late acquisition of the syntax of negation. In Swedish, for instance, there is a special prohibitive which is only used in motherese and which coincides in form with the first negations in the children's production. In motherese, prohibitives are expressed with preverbal

negation and an infinitival (i.e. surrogate) form of the verb (8a). In adult speech, the negation is postverbal and the verb is used in a true imperative form (8b). The negative placement is the same in declaratives (8c). In his first utterance containing the sentential negation, the child Markus (from the Strömqvist CHILDES corpus, Plunkett & Strömqvist 1990) uses the verb in infinitival form and places the negation preverbally (8d), mirroring the pattern of motherese.

(8)   a. Inte röra!
         NEG touch-NFIN
         Don't touch!

      b. Rör inte!
         Eat-IMPER NEG
         Don't touch!

      c. Jag rör inte
         I touch-PRESENT NEG
         I don't touch

      d. de de inte röra   (Markus, 24 months)
         that that NEG touch-NFIN
         Don't touch that

6. Conclusion

From the results in section 4, it appears that the Prohibitive Test does not offer a clear diagnostic instrument for determining the syntactic status of the negation element. At best, it can indicate a range of choices from the twelve language Types described in section 5. It therefore does not seem plausible to make the prohibitive construction a candidate for triggering the setting of a hypothetical negation parameter. To trigger a parameter setting, its form would have to implicate a clear choice between the many possible alternatives, which it does not. Instead, there are too many other factors which can affect the status of negation as Head or Adverbial. Some of these have had to be considered in our analysis of the data in section 4. If the prohibitive is not capable of serving as a trigger for the setting of a possible negation parameter, then we are left with the question of what *is* a possible trigger.

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