

THE IMPACT OF ENGLISH ON SIX CROATIAN PREPOSITIONAL STRUCTURES

by
Anita Memišević and Branka Drljača Margić

English as a global language exerts an overwhelming influence on other languages. The present paper deals with the way English influences the use of prepositions in the standard Croatian language. Over the past years, an increase in use of incorrect prepositions in both public and private communication has been noticed. The paper focuses on six structures that have appeared in standard Croatian in recent years, and are literal translations of English structures. The experiment was conducted using *E-prime 2* software. The sample included 40 subjects who are students of the English language at the University of Rijeka. The authors look at the error rate and response times. The task included three types of structures: prepositional structures that follow the English pattern, prepositional structures that are correct in Croatian, and prepositional structures that are incorrect in Croatian, but do not follow the pattern of English structures. The results indicate that the subjects have developed new processing patterns for the structures that follow the English pattern, in addition to the processing patterns for the appropriate Croatian structures that they already had.

Key words: prepositional structures, Croatian, English as a global language, processing patterns

1. Introduction

Prepositions belong to the group of structural or grammatical words. Their function is to express relations in language (spatial, temporal, etc.). However, they do so differently in different languages, and this, according to some authors, reflects different perceptions of reality that are conditioned by the expressive means of a particular

language. Slobin's 'thinking-for-speaking' hypothesis states that we pay attention to those aspects of reality, i.e. the world around us, that have to be expressed in our language (Slobin, 1996). According to Talmy (1985), there is a difference between the content expressed by grammatical (as opposed to lexical) words. Lexical words largely contribute conceptual content, while grammatical words determine the conceptual structure (Talmy, 2003). Grammatical words such as prepositions express content that is cognitively limited, so it is highly unlikely that they will be replaced by different structures. In other words, such a replacement, or change, would have to occur on the most basic processing level.

Cognitive approaches to studying prepositions state that spatial prepositions are 'radial' categories and that a preposition may have several prototypical meanings. Just like lexical words, prepositions have a certain kind of meaning, but the nature of this meaning has not yet been determined definitely – probably due to the fact that their meanings have a more complex structure than is the case for lexical words (Šarić, 2003). Also, meanings of prepositions can be extended to encompass areas other than those covered by their basic meaning¹ – e.g. spatial prepositions can be (and in fact are) extended to cover temporal relations:

Spatial meaning: He is **in** the living room.

Temporal meaning: He was born **in** 1976.

The thinking-for-speaking hypothesis, as already mentioned, basically states that each language 'sees' the world in a slightly different way, and therefore prepositions with different meanings are used to describe the same relations in various languages. This in turn influences the way their meanings will be extended in various languages. Šarić (2003) compared some prepositional categories and prototypes in Russian, Slovenian, Croatian and Polish (all languages that belong to the Slavic family) and found that their meanings are extended in different ways in these languages. The differences are even greater when languages come from two different families. For

example, English has a preposition *at*, while Croatian has no single preposition that would correspond to it. When spatial meaning is concerned, three Croatian prepositions predominantly correspond to this preposition, depending on the perception of the space in question:

*He is **at** school. – On je **u** školi.*

*He is **at** the market. – On je **na** tržnici.*

*He is **at** home. – On je **kod** kuće.*

When temporal meaning is concerned, the corresponding Croatian preposition is *u*:

*See you **at** 5 o'clock. – Vidimo se **u** 5.*

This very simple example indicates that Croatian and English 'see' the world around us somewhat differently – what is conveyed in English by a single preposition is in Croatian conveyed by three different prepositions.

Based on previous cognitive research (e.g. Schwartz & Begley, 2005), we know that mother tongue and speech are automatic cognitive processes and that fixed patterns are used when linguistic units² are being processed³. These patterns can be changed, but it takes a long time and a lot of effort to do so consciously – as shown by Schwartz and Begley (2005). Research that has used neuroimaging methods has shown that there are some interesting differences when it comes to processing of grammatical and lexical words. Wartenburger et al. (2003) conducted an fMRI study with bilingual subjects and they concluded that the processing of grammar and of lexico-semantic systems depends on different cortical systems, and that grammatical knowledge depends primarily on implicit memory⁴, while lexico-semantic knowledge depends primarily on explicit memory⁵. In his overview paper from 2001, Fabbro states that in bilingual speakers who started learning their L2 after the age of 7, structural words are stored together with lexical words – unlike the case of early bilingual speakers who store structural words of both languages together in the left frontal lobe.

Thus, neurolinguistic research indicates that lexical words are stored and processed primarily in the temporal lobe, and depend on the system of explicit memory, while grammatical words are stored and processed in the left frontal lobe and depend on the system of implicit memory. Implicit memory, due to its nature, always implies a high level of automaticity. This would indicate that prepositions and other grammatical words are processed completely automatically, without resorting to the processes that are involved in the processing of lexical words; the latter depends on the systems of explicit memory, which always include retrieval of information. It is important to note that one preposition might have more than one processing pattern. In his research from 2005, Kemmerer started out from Metaphoric Mapping Theory and the proposition that children usually acquire spatial meanings of prepositions before they acquire their temporal meanings. He studied four patients with lesions in whom, depending on the location of the lesion, either the processing of spatial or the processing of temporal meaning of prepositions was damaged. His results indicate that the left supramarginal gyrus is a critical structure for processing spatial meanings of prepositions, while the left perisylvian cortex seems to be implicated in processing of temporal meanings of prepositions. This would indicate that although spatial and temporal meanings of prepositions are linked through the TIME IS SPACE metaphor, they might be represented and processed independently, i.e. by using different processing patterns for the spatial and temporal meaning.

English as a global language exerts an overwhelming influence on other languages (Picone, 1996; Görlach, 2002; Anderman & Rogers, 2005; Onysko, 2007; Fischer & Pułaczewska, 2008). This influence is most obvious at the lexical level; however, influence of the English language at other levels, such as syntactic, is far from negligible. Over the past years, an increase in the use of incorrect prepositional structures under the influence from English, in both public and private communication in Croatia, has been observed.

The same phenomenon has been noticed for other languages, such as German (*in Deutsch* instead of *auf Deutsch*, *in 1978* instead of *im Jahre 1978*; Muhvić-Dimanovski, 1992), and Spanish (unnatural prepositional constructions influenced by English: *en línea con* (Engl. in line with), *en orden a* (Engl. in order to) and *en profundidad* (Engl. in depth); Smith, 1997). According to Melchers and Shaw (2003), grammatical calquing shows the strongest influence of one language on another, and not infrequently such calquing has been subject to puristic reactions. In the case of English, this tendency has been encouraged by the translation practices in the European Union. The trend has been called *translationese* – referring to a literal translation that follows the original text, while neglecting the rules of the recipient language (Moore & Varantola, 2005). Thomas (1991) believes that calques may incur restructuring of the word-formational and syntactic system and hence constitute a greater danger than do loanwords, whose presence does not pose a threat at the grammatical level; similarly, Picone (1996) describes the borrowing of syntactic elements as a matter of great concern, as such borrowing could be an indicator that the integrity of the recipient language is at risk.

2. *The present research*

The aim of this paper is to find out whether native speakers of the Croatian language will recognise Croatian prepositional structures influenced by English structures as incorrect in standard Croatian. Since results of neurolinguistic research indicate that prepositions and other words that belong to the closed classes of words are processed by implicit memory (which implies a high level of automaticity), the paper also aims to see if there will be any difference in the speed of processing of structures influenced by English structures compared to the acceptable structures of standard Croatian; this should reflect

the level of automaticity with which they are processed. In other words, the aim of the paper is to try and see if there are any indications that our subjects have developed new processing patterns for structures that are under the influence of the English language.

We focus on six prepositional structures that have appeared in the standard Croatian language and are literal translations of English structures. These structures were chosen due to the fact that they can be heard and read in various forms of media quite frequently. For each structure, a genuine example found on the Internet is given:

1. *u hrvatskome* (Engl. in Croatian) instead of *na hrvatskome* (Engl. on Croatian)
in + Croatian LOCATIVE instead of on + Croatian LOCATIVE
"Nula se u engleskom jeziku kaže naught ili zero."
(www.engleski-jezik.com)
zero + REFLEXIVE PRONOUN + in + English LOCATIVE
+ says + naught + or + zero
"In English, nula is naught or zero."

2. *interes u* (Engl. interest in) instead of *interes za* (Engl. interest for)
interest + in PREP + ACCUSATIVE instead of interest + for PREP + ACCUSATIVE
e.g.- "Imali smo sreću da su i u Kini prepoznali mogućnosti koje ovo tržište nudi pa su iskazali interes u osnivanje zajedničkog predstavništva za određene tipove artikala."
(www.udrugajedra.com/kina/kina.html)
... expressed + interest ACCUSATIVE + in + founding ACCUSATIVE + joint ...
"We were lucky that they recognised the possibilities offered by this market in China too, and they expressed interest in founding a joint regional office for certain types of commodities."

3. *zainteresiran u* (Engl. interested in) instead of *zainteresiran za* (Engl. interested for)
 interested + in PREP + ACCUSATIVE instead of interested + for PREP + ACCUSATIVE
 e.g. – "*Bilo tko, tko je zainteresiran u ISO 9241 standard.*"
 (www.zpr.fer.hr/static/erg/2003/gospodmetic/razno/ISO-9241.pdf)
 any + who + who + is + interested + in + ISO + 9241 + standard
 ACCUSATIVE
 "*Anyone interested in the ISO 9241 standard.*"

4. *u svijetu* (Engl. in the world) instead of *na svijetu* (Engl. on the world)
 in PREP + world LOCATIVE instead of on PREP + world LOCATIVE
 "*U svijetu ima 27 milijuna robova*" (www.portal.hr/vijesti/svijet/22767/u-svijetu-ima-27-milijuna-robova.html).
 in + world LOCATIVE + have + 27+ million + slaves
 "*There are 27 million slaves in the world.*"

5. *hvala za* (Engl. thank you for) instead of *hvala na* (Engl. thank you on)
 thank + for + ACCUSATIVE instead of thank + on + LOCATIVE
 e.g. – "*Hvala za potporu.*" (www.jutarnji.hr/sanader-odlazim-zbog-ovog-suludog-slovenskog-teatra/301925/)
 Thank + for + support ACCUSATIVE
 "*Thank you for the support.*"

6. *zahvalan za* (Engl. thankful for) instead of *zahvalan na* (Engl. thankful on).
 thankful + for PREP + ACCUSATIVE instead of thankful + on + LOCATIVE

"*Putin je Jeljcinu nesumnjivo bio zahvalan **za** ono što je za njega učinio kada ga je u jesen 1999. izabrao za svojeg nasljednika...*"
 (www.nacional.hr/clanak/33926/carski-pogreb-za-grobara-sovjetskog-saveza)

... was + thankful + for + that ACCUSATIVE + what...

"*Putin was definitely grateful to Yeltsin **for** what he [Y] had done for him [P] when he [Y] chose him [P] as his [Y's] successor in the autumn of 1999...*"

The above cited examples all come from various official newspaper, company, university, etc. sites. It is worth mentioning that examples of these structures can be found in even greater numbers on various unofficial sites (personal blogs, forums, etc.).

It is important to point out that the Croatian structures *hvala za* and *zahvalan za* were created under the influence of the German language, which for centuries had a major impact on Croatian. However, until recently these structures were never widely used, especially not in public communication, whereas now they can be frequently observed. We ascribe this to the growing influence of the English language. And even though the structures *u svijetu*, *u brvatskome*, and *interes u* do exist in Croatian, they are quite different from the above mentioned structures – they result in different meanings, which is perhaps best seen in example (3) listed below. (This and the other examples are given in comparison with the corresponding acceptable target structures to help clarify the difference in meaning.)

1a. *Što ima novoga **u** svijetu?*

what + has + new + in + world LOCATIVE

*What's new **in** the world?*

1b. *On je najbolji **na** svijetu.*

he + is + best + on + world LOCATIVE

*He is the best **in** the world.*

In example (1a), the meaning is 'world', as opposed to 'Croatia' (as in 'news from the world' as opposed to 'news from Croatia'), while in (1b), the meaning is 'world as a whole'.

2a. *Koliko je imenica u hrvatskome?*

how many + is + nouns + in + Croatian LOCATIVE

How many nouns are there in Croatian?

2b. *Kako se na hrvatskome kaže lijepo?*

how + REFLEXIVE PRONOUN + on + Croatian LOCATIVE + says + beautiful

How do you say beautiful in Croatian?

In this case, the difference in meaning is quite subtle and somewhat difficult to see, since it depends on the meanings of the prepositions. In example (2a), Croatian is seen as a container which contains a certain number of items, while in example (2b) it is seen as a plane.

3a. *Anin je interes u poslu velik.*

Ana POSSESSIVE + is + interest + in + business
LOCATIVE + great

Ana has a great share in the business.

3b. *Anin je interes za posao velik.*

Ana POSSESSIVE + is + interest + for + business
ACCUSATIVE + great

Ana's interest for business is great.

In case of these two examples the difference in meaning is quite obvious – in (a) the meaning is "share", while in (b) the meaning is "interest".*

English is nowadays very present in Croatian – from the names of various stores and malls (e.g. *City Center One* in Zagreb) to terminology (e.g. various medical terms that come from English do not have a Croatian translation, or at least not a satisfactory one, so the

* Editor's Note: the locative of Croatian *posao* 'work, business' is *poslu*.

experts use English terms), and media (e.g. the name of a Croatian show on Nova TV – *Red Carpet*), not to mention the more informal communication among people. Since there is a great demand for new films, television series, and books, translators are frequently under a lot of pressure, which sometimes results in clumsy translations and mistakes (the most notorious one is probably the translation of the movie title "Dead Heat" as "*Ubojita vrućina*", which in Croatian means "deadly heat", instead of as "*Mrtva utrka*" which is the equivalent Croatian collocation). In some cases, the people who do the translations are in fact not qualified as translators, which in turn results in bad translations that tend to transpose English structures directly into Croatian without regard for the rules of Croatian (some companies that provide translations for cable TV programs hire students and other people, who are not skilled translators, in order to cut costs; it is impossible to provide precise examples here, but it is sufficient to watch, for example, any of the Discovery channels in Croatia to see the results of this practice). It is also important to note that in Croatian secondary schools, the emphasis in the course called 'Croatian Language' tends to be on literature; teachers rarely teach about the language itself. Thus, our initial hypothesis is that the knowledge of English and its presence in everyday life, coupled with bad translations in the media and insufficient instruction in Croatian in the schools, have led to structures modelled on English patterns having become acceptable in standard Croatian.

3. Methodology

The experiment was conducted using *E-prime 2* software. The sample included 40 students of English language and literature of the Faculty of Arts and Sciences in Rijeka (students of all years of study). They were chosen as subjects because their knowledge of English should make them more receptive to the English prepositional structures.

Furthermore, we noticed that they used the structures influenced by English that are the topic of this paper in their everyday communication (such as oral and written communication with their professors).

The aims were to find out whether our subjects, being native speakers of Croatian, would recognise English-influenced Croatian prepositional structures as incorrect in the standard Croatian language, and to see if there were any differences (measured as the subjects' reaction times) in processing structures influenced by English structures, compared to the corresponding acceptable structures of standard Croatian. The task set before the subjects was to decide whether or not each of the 54 sentences presented (6 instances of prepositional structures x 9 sentences incorporating prepositional structures in initial, medial and final position) was considered correct in standard Croatian. The sentences were specially constructed for this test in order to ensure equal length (give or take one word) so as to enable equal length of presentation. The stimuli included three types of sentences:

- (1) sentences that include prepositional structures that are correct in standard Croatian – *correct structures*, e.g. *Srce se na talijanskome kaže cuore* (Engl. *Heart on Italian is cuore*);
- (2) sentences that include prepositional structures that follow the English pattern – *incorrect A structures*, e.g. *Kako se u njemačkome kaže mačka?* (Engl. *How do you say cat in German?*);
- (3) sentences in which the prepositional structures are incorrect in Croatian but do not follow the pattern of English structures – *incorrect B structures*, e.g. *Kako se po francuskome kaže ogledalo?* (Engl. *How do you say mirror by: French?*).

In other words, the stimuli included 54 sentences incorporating prepositional structures; for each instance of a prepositional structure, three versions of a sentence were constructed (*correct*, *incorrect A*, *incorrect B*, see above); then, for each of these two more versions

were constructed, so that the prepositional structures appeared in initial, medial, and final sentential position:

- a) initial position: "U njemačkome se pas kaže der Hund."
 in + German LOCATIVE + REFLEXIVE
 PRONOUN + dog + says + der + Hund
 "In German, dog is der Hund."
- b) medial position: "Knjiga se u talijanskome kaže libro."
 book + REFLEXIVE PRONOUN + in +
 Italian, LOCATIVE + says + libro
 "In Italian. book is libro."
- c) final position: "Mačka se kaže cat u engleskome."
 cat + REFLEXIVE PRONOUN + says +
 cat + in + English LOCATIVE
 "In English, mačka is cat."

This makes a total of nine sentences per instance of a prepositional structure. We included sentences that contain prepositional phrases in all the sentential positions they can appear in, in order to control for the possible impact of the sentential position.

The experiment was conducted using a laptop computer (Toshiba Satellite), and the subjects responded by pressing keys 1 or 2 on the keyboard, depending on whether they thought that the sentence was acceptable or unacceptable in standard Croatian. Each sentence was shown for four seconds, which was enough time for the subjects to read and comprehend it. This was followed by the following question, to which the subjects were expected to respond, appearing on the screen: "Is the sentence correct?". The response time was not limited. Prior to the experiment, it was emphasised to each subject that the focus of the research was the standard Croatian language and not any of their vernaculars. The results were analysed using the statistical software package SPSS 16.

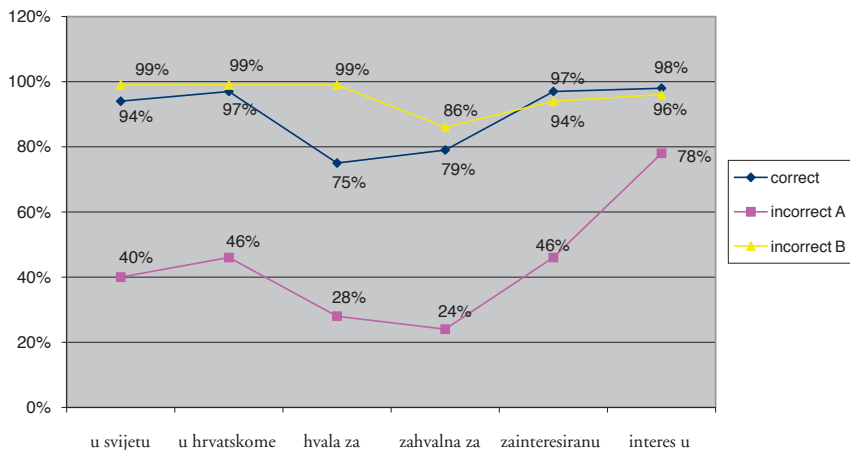
4. Results

4.1 Analysis of correct responses

Overall, the analysis of the results showed that in over 90% of the cases, the subjects recognised *correct* and *incorrect B* structures for what they were; however, they recognised *incorrect A* structures as incorrect in only 45% of the cases.

The analysis of correct responses (that is, when the subjects identified incorrect structures as incorrect and correct structures as correct) showed that in the case of *incorrect A* structures, subjects tended to accept five of them as correct in over 50% of the cases; only one instance of a structure was convincingly recognised as incorrect.

Graph 1: *Correct responses*



Graph 1 shows the percentage of correct responses according to the prepositional structures tested. The structures listed below the graph are the *incorrect A* structures that we were primarily interested in. As can be seen from Graph 1, when it comes to *correct* structures,

the subjects had some trouble recognising *hvala na* and *zahvalan na* as correct – they were recognised as correct in no more than 75%, respectively 79% of the cases; in contrast, in the case of the other structures, the percentage is above 90: 94% for *na svijetu*, 97% for *na hrvatskome* and *zainteresiran za*, and 98% for *interes za*. When it comes to *incorrect B* structures – that is those that are incorrect in Croatian but do not follow the English pattern – the only case where the percentage was below 90 was that of *zahvalan* (86%).

As can be seen from the graph, the results for *incorrect A* structures – those that follow the English pattern – are rather different: here, the percentages of correct answers are much lower, compared to the other structures (the only exception is *interes u*, which our subjects recognised as incorrect in 78% of the cases). Again, the most problematic structures were those with *zahvalan* and *hvala* – in the case of *zahvalan za*, the percentage of correct answers was only 24%, whereas *hvala za* showed only 28%. When it comes to the other structures, these were recognised as incorrect in around 40 to 50 % of the cases: *u svijetu* in 40%, *u hrvatskome* and *zainteresiran u* in 46% of the cases.

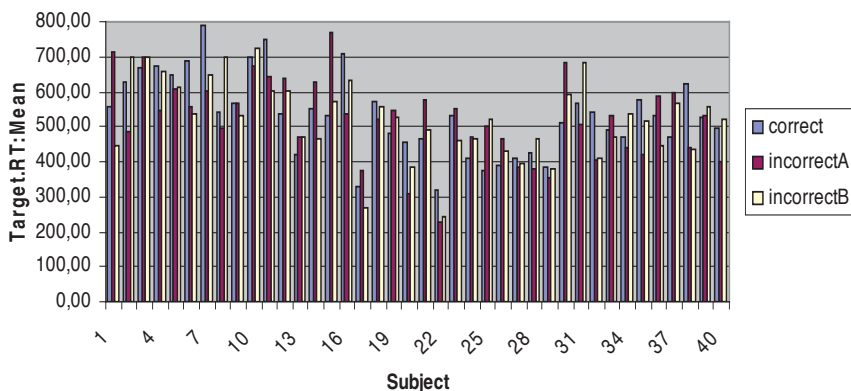
The analysis also included the impact of the position of the prepositional structure on the percentage of correct answers. As already mentioned, the structures were presented in initial, medial, and final sentential position. However, the statistical analysis showed that the position in the sentence has no significant impact on the acceptance of structures as correct, except in the case of *interes u*, which tends to be accepted as correct more often when it appears in the initial position.

4.2 Analysis of reaction times

The analysis of the correct responses showed that reaction times (measured in milliseconds; see Graph 2) were fastest for the *incor-*

rect A structures (mean: 521.47), somewhat slower for the *incorrect B* structures (mean: 525.07), and slowest for the *correct* structures (mean: 533.05). Since we were particularly interested in cases where our subjects accepted incorrect structures as correct in standard Croatian, we also looked at the reaction times for incorrect responses (that is when the subjects identified incorrect structures as correct and vice versa). With regard to these responses, the reaction times were fastest for *incorrect B* structures. The mean for these responses was 500.01, which is significantly faster than all the other means (both for correct and incorrect responses), which indicates that the wrong answers could be 'slips of the finger', rather than representing real acceptance of incorrect structures as correct, since such fast reactions cannot be taken to reflect thinking; compare that reaction times were significantly slower for *incorrect A* (mean: 517.00), and slowest to *correct* structures (mean: 559.68).

Graph 2: RTs to correct responses (in msec)



Graph 2 shows the reaction times for correct responses. As can be seen, the reaction times for correct responses were fastest for *incorrect A* structures (that is, the ones that follow the English pattern).

They were somewhat slower for *incorrect B* structures, while they were the slowest for *correct* structures.

5. Discussion

Since prepositions belong to the group of structural words that are stored in the frontal lobe of the brain and are processed by implicit memory, using fixed processing patterns, it is not very likely that these patterns would be easily changed. When we combine this with the fact that each language has its own rules for the extension of meanings of prepositions, changes like these become even more unlikely. However, the results of our research indicate that such a change in fact did occur in the case of the Croatian-English bilingual speakers who were the subjects of our investigation. These speakers seem to have developed additional, new processing patterns that enable them to process incorrect structures as correct in standard Croatian.

Our analysis showed that *incorrect A* structures (those that are unacceptable in the Croatian language and follow the English pattern) are accepted as correct in 45% of the cases. The percentages were highest for those structures that had been present in non-standard Croatian for the longest time – *hvala za* and *zahvalan za*. In contrast, the correct structures *hvala na* and *zahvalan na* were recognised as correct in only 75%, respectively 79% of the cases, which indicates that our subjects may have patterns for processing each of these structures and accept both *correct* and *incorrect A* structures as correct in a great number of cases, even in the standard language. In fact, when we looked at the individual results for our subjects, it became evident that only two out of forty subjects consistently accepted *hvala na* and *zahvalan na* as correct, while also consistently identifying the *incorrect A* structures (the ones that follow the English pattern) as incorrect. On the basis of this, it might be claimed that these

structures have, for the majority of our subjects, reached a status of equally acceptable alternatives in the Croatian standard language. This development of parallel patterns (or a *parallel norm*, as Prčić 2005:78 states), originates in an excessive exposure to the English language on the one hand and insufficient knowledge of one's own linguistic norms on the other.

The results for the structures that have appeared in Croatian more recently – *u svijetu*, *u hrvatskome* and *zainteresiran u* – indicate that even they have begun taking root and will probably soon acquire the same status that the structures *hvala za* and *zahvalan za* already have.

Especially interesting is the structure *interes u*, which was the only structure that was recognised as incorrect in the majority of the cases. As already mentioned in Section 4, we also looked at the influence that the position of the structure in the sentence may have on the acceptance of the structure as correct. The structure *interes u* is the only one for which position proved to be significant – subjects tended to accept it as correct when it appeared initially, but not when it appeared in the sentence medial or final position.

Again (as already mentioned in Section 2), it must be pointed out here that the structure *interes u* does exist in Croatian, but with a different meaning. The most probable explanation for the higher level of acceptance of this structure as correct in the initial position is based on the concepts of theme and focus. We will start here from the definitions provided by Greenbaum and Quirk:

THEME is the name given to the initial part of any structure when we consider it from an informational point of view. ... In other words, the new information ... is the 'focus' of the message... (1996:397)

As in other languages, in Croatian, too, old, known information tends to appear at the beginning of the sentence, whereas new, unknown

information appears in its second part (except in the case of inversion). As a result, speakers and listeners tend to pay more attention to the second part of the sentence, while the first part receives less attention and is in a sense 'taken for granted'. This focusing of attention on the sentence's latter part might be the reason that our subjects tended to accept this structure when it appeared initially.

Our research also focused on response reaction time, as this is an indicator of the speed of processing and the level of automaticity with which the response is produced. The reaction times for correct responses reflected what we expected – they were fastest for *incorrect A* structures, since the subjects 'knew' the appropriate structures in standard Croatian and recognised the inappropriate structures immediately. As likewise expected, in the case of the structures *hvala za* and *zahvalan za* (which had already been in use on the regional or substandard level, due to the influence of German, even prior to the greater influence from English), only two subjects were completely consistent in their responses; this was in contrast to the case of the more recent structures that have developed under the influence of the English language. Reaction times for *incorrect B* structures were somewhat slower, probably due to the fact that the structures we created were highly unusual (not just in standard Croatian, but in any variety of the language) and as such posed greater processing demands on our subjects; it took a while for them to resolve the conflicts these structures presented. The slowest reaction times occurred with *correct* structures, which again was what we expected, because the majority of the subjects were confused about which structure was appropriate in the standard language – the *incorrect A* or the *correct* structure – and thus spent more time trying to decide whether the *correct* structure was really acceptable. This was especially the case with the older structures *hvala za* and *zahvalan za*, which have become rooted in the non-standard varieties of the Croatian language and which the majority of our subjects considered acceptable also in standard Croatian.

We also analysed the reaction times for incorrect responses, since we were especially interested in the latter.⁶ The fact that the reaction times for incorrect responses (when the subjects identified an inappropriate structure as appropriate) were again faster for *incorrect A* structures shows that the subjects deemed these structures acceptable in standard Croatian – the speed with which they responded is indicative of automatic processing. This, coupled with the fact that the reaction times for incorrect responses to *correct* structures were the slowest of all, seems to support our conclusion that the subjects seemed to be confused as to which structure is actually acceptable in standard Croatian – the *correct* or the *incorrect A* structure.

The analysis of the reaction times, both for correct and incorrect responses, also seems to support the claim that our subjects have developed additional processing patterns (definitely in the case of structures *hvala za* and *zahvalan za*, and to varying degrees for the other, recently created prepositional structures) – patterns that allow them to accept both *correct* and *incorrect A* structures as acceptable in standard Croatian. This in turn indicates that the *incorrect A* structures have taken root in the Croatian language to various degrees and are on their way to gain the same status (when it comes to processing) as that of the *correct* structures; in the case of the structures *hvala za* and *zahvalan za*, they may already have attained it.

It could be argued that, since our subjects are bilingual, their acceptance of structures following the English pattern is the result of transfer. However, we do not believe this to be the case for several reasons:

- 1) Transfer of grammatical words (including transfer of prepositional phrases) is less likely than transfer of lexical words. If it does occur, it usually happens in the opposite direction, i.e. from mother tongue to the second language. The reason for this is fairly simple – the processing patterns for mother

tongue structures are deeply rooted and extremely difficult to change.

- 2) For any such transfer to occur, our subjects would have to actively use English significantly more than they actually do. The unpublished results of another questionnaire used in our department reveal that the majority of our students use English actively only about 10 to 15 hours a week (this includes classes held in English). Students estimate that they use English in the productive sense (writing and speaking) only about 3 to 4 hours a week. (Usually, they added a comment to the effect that they use it even less during the summer break).
- 3) In everyday communication, the subjects use the six prepositional structures that are the focus of this article to varying degrees (notably more in oral and less formal communication); however, we have not noticed that they use other prepositional structures that follow the English pattern. If this were purely a case of transfer, then we would expect to see also other prepositional structures following the English pattern being used in their communication.

6. Conclusion

Our initial hypothesis was that the knowledge of English and its presence in everyday life, combined with the bad translations encountered in the media as well as the schools' insufficient instruction in Croatian, have led to structures that follow English pattern having become acceptable in the standard Croatian language; this hypothesis was confirmed, at least in the case of our subjects. Our findings indicate that the subjects have developed, at least for some of these structures (namely *hvala za* and *zahvalan za*, and possibly for

others, depending on the individual subjects), additional processing patterns that enable them to accept both the correct structures and the structures that follow the English pattern as correct in standard Croatian. Further research is needed to enable us to draw stronger conclusions about the actual situation in contemporary standard Croatian. Such further research should focus not only on groups of subjects, such as students of the Croatian language, who should be the most aware of the appropriate forms of the standard Croatian language, but also groups that do not study languages at all, as a control group of subjects who are not accustomed to consciously analyse linguistic phenomena. In addition, the focus should be on the older population, preferably on those who do not speak English, as the group that is the least likely to be influenced by factors potentially leading to language change and the acceptance of changing linguistic structures. Such research would also enable us to better understand how new prepositional structures are created under the influence of another language.

Anita Memišević and Branka Drljača Margić
Faculty of Arts and Sciences in Rijeka
Department of English language and literature
Trg Ivana Klobučarića 1
HR – 51 000 Rijeka
Croatia
e-mail: amemisevic@ffri.hr and bdrljaca@ffri.hr

Notes

1. If a preposition is classified as, for example, a spatial preposition, then its spatial meaning is considered to be its basic meaning, from which

at some point in history the other meanings are derived through extension, metaphor or metonymy. These other meanings, provided they are central to the meaning of the preposition, are also then considered to be the prototypical meanings of the preposition in question.

2. Here, the linguistic unit is seen as defined by Langacker:
A unit is a structure that a speaker has mastered quite thoroughly, to the extent that he can employ it in largely automatic fashion, without having to focus his attention specifically on its individual parts or their arrangement (1987:57).
3. The idea behind this is that we process a phrase (prepositional or other) or a collocation as a single linguistic unit (that is, as a whole), and do not parse it into individual words that are then processed as individual elements. This wholesale processing is done by employing the processing patterns that are deeply entrenched in our minds and thus are fixed, i.e. not liable to change.
4. Implicit memory is defined as an automatic, unconscious form of memory. It is in charge of skills such as riding a bike, playing a musical instrument, or tying one's shoes. It is slow to acquire, but once acquired, it is very difficult to lose or change it.
5. Explicit memory is defined as conscious and intentional recollection of previous events and experiences. It is divided into semantic and declarative memory. It is acquired quickly, but easily lost or changed.
6. The reaction times for *incorrect B* structures are left out from the discussion since, as stated earlier, they were so fast that they could only indicate 'slips of the finger' (subjects accidentally pressing the wrong button).

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