Milena Žic Fuchs[a]
Vlatko Broz[a]
Nina Tuđman Vuković[b]
[a]University of Zagreb
[b]Zagreb

Communication technologies and their influence on language: the notion of *convention* revisited[*]

On the basis of a summation of topics that have emerged from research of text messaging in Croatian during the last ten years, other major questions and issues have also surfaced. In this paper we focus on the notion of *convention*, both from the linguistic as well as pragmatic point of view. *Convention* is viewed as a reflection of the complexity of language, seen not only as a cognitive phenomenon, or a cognitive ability, but also as being central to human interaction. Using text messaging as the basis for the research brought to light the importance of the technological medium, which plays a crucial role in the formation of *convention.* Due to the technological possibilities and limitations of the medium, new *conventions* appear in text messages, *conventions* that at the same time reflect linguistic, sociocultural and discourse/pragmatic factors. This implies that they are a reflection not only of linguistic convention, but also a reflection of the human social cognitive ability, essential in language use. On the basis of the examples analysed we also stress that the social cognitive ability is tailored to the medium of communication itself.

Key words: convention; text messaging; Croatian; linguistic-sociocultural-discourse/pragmatic factors; communication medium.

1. Introduction

This paper can, on one hand, be seen as a summation of topics that have emerged from research of text messages in Croatian, research which was conducted during the last ten years. On the other hand, on the basis of this research, major questions and issues pertaining to some of the foundational notions of cognitive linguistics have surfaced. In this paper we focus on the notion of *convention,* more specifically on convention in the linguistic sense, but also convention seen from a pragmatic view-point. Thus, this paper is not just a glance backward, but aims at providing additional insights into the complex notion of convention found not only in cognitive linguistics, but also in pragmatics and sociolinguistics. In our opinion, the notion of convention reflects a part of the complexity of language seen not only as a cognitive phenomenon or a cognitive ability, but also seen as being central to human interaction. What follows is in line with Croft's claim (2009: 395) that cognitive linguistics is in need of "…incorporating certain foundational work in pragmatics and sociolinguistics. Integrating these two perspectives, the cognitive and the social, would be an important step toward a genuine approach to the whole of language."

In order to bring closer the cognitive linguistic view of language and especially pragmatic features of interchanges, text messages, or more precisely, a corpus of text messages collected over more than ten years, has provided insights into specific phenomena characteristic of text messaging in Croatian, but also insight into how convention arises through language use.

2. Why text messaging in Croatian?

Today, life without personal computers and mobile phones seems practically inconceivable. The use of personal computers and mobile phones has become an integral part of everyday living and communication in the modern world. During the last twenty years or so, a new breed of communication has evolved, communication through the various '*varieties*' found on the Internet, as well as text messaging. The spread and the steadily growing diversity of new 'varieties' of communication, primarily due to new technological breakthroughs, have definitely changed the basic notions of communication itself, with far reaching effects not only on how humans interact, but also on language and languages. One of the first attempts of dealing with these "new" diverse phenomena was David Crystal's book *Language and the Internet* (2001) in which he stresses that his analyses are at best "…a first approximation" (Crystal 2001: 6), of e-mail, chat groups, the language of the virtual worlds, language of the Web. Five years later, Crystal (2006) in the second edition of his book adds a chapter entitled *New Varieties* and analyses *blogging* and *instant messaging*. Today,

if a book entitled *Language and the Internet* were to be published, it would have to of necessity include at least *Facebook* and *Twitter*, if nothing else because of their widespread usage and influence.

As a result of this fast and influential flourishing of new and newer 'varieties' on the Internet, we are witnessing the development of what is most often called *Internet Studies* (see for instance Thurlow et al. 2004; Boardman 2005), an interdisciplinary field studying social, psychological, political, technical, cultural, linguistic, etc. aspects of the Internet and information and communication technologies in general. Text messaging is also often subsumed under the rubric of Internet Studies, or what is also called computer-mediated communication.

Although today many analyses can be found of the different 'varieties' found on the Internet, we are still behind in coping with the unbelievable scope of diversity these 'varieties' provide, not to mention the "new rituals" or conventions of communication they present. In a sense, we are still at the level, of "a first approximation".

Another point that should be taken into consideration when analysing various aspects of computer-mediated communication is the extent to which a certain ICT is used in a specific country or area. The first paper on text messaging in Croatian (Žic Fuchs 2002–2003: 601), stresses the fact that according to official statistics for the year 2001,[1] 37 % of Croatian households had a personal computer, and 27 % had access to the Internet, while in comparison 81 % had mobile phones. Not surprisingly, text messaging was a major 'variety' of ICT communication at the time. However, 10 years later, official statistics show drastic changes. In 2012, 68 % of households have personal computers and two thirds of these have access to the Internet. After comparing the difference in percentages of personal computers per household, and keeping in mind the widespread use of Facebook and Twitter as new communication 'varieties' appearing during the last decade, one would expect usage of text messaging, as a means of communication to have decreased. Surprisingly, statistics show quite the reverse – an increase in the number of mobile phone users, as well as an increase in the number of text messages sent. Although a decrease in the number of minutes of actual phone calls through mobile networks has been registered (probably due to the overall economic crisis), during 2011 and 2012, text messaging has increased by 3.2 % during this one year period.

Thus, despite very influential and widespread communication 'varieties' on the Internet, text messaging in Croatia still remains a very important means of communication in the overall ICT communication landscape.

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[1] All data has been obtained from the Central Bureau of Statistics of the Republic of Croatia.

3. The corpus

The collecting of "text messaging dialogues" began in the year 2000, and today over 8000 such dialogues comprise the corpus.[2] The task of building up a corpus of this kind is not an easy one since those contributing first and foremost have to be willing to provide, in many cases, very private exchanges, particularly those exchanged with family members and friends. Technically speaking, the whole enterprise is also quite demanding because not only are the dialogues themselves transferred from mobile phones and recorded electronically, but basic information about the participants taking part, namely age, sex, level of education, profession, relationship between participants also has to be incorporated, and all this information accompanies each text message dialogue.

In comparison to the data from 2006, when the corpus numbered around 6 000 text message dialogues (see Žic Fuchs and Tuđman Vuković 2008) the basic parameters of the corpus have not changed, or if they have, these changes are so slight that they can be considered to be marginal, especially in view of the ensuing analysis. Compared to the 2006 version of the corpus, the age range has shifted slightly from 12 to 65 years to 12 to 68 years, while distribution according to sex has remained the same – more female than male mobile phone users in an approximate ratio of 60 per cent to 40 per cent respectively. Level of education has also remained the same, covering the range from primary school children to teenagers at high school level to university professors and professionals such as lawyers, judges, doctors, etc.

One can always question how representative a corpus actually is, and this especially applies to a corpus of the kind described above. In our opinion, the present corpus of Croatian text messages can be said to satisfy the necessary basic parameters of diversity of senders and receivers of text messages, although the main drawback at this point in time is the discrepancies in the number of messages evidenced as far as age is concerned. More specifically, messages sent and received by the younger population predominate. However, despite the fact that it is very difficult to collect a highly representative corpus of text messages, the wealth of specific phenomena that makes text messaging a communication technology 'variety' in its own right, has already been demonstrated in previous research published, at various stages

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[2] It is impossible to individually thank all the contributors who have helped in building up the corpus. However, we would like to thank once again (as we have in previous papers) students of the Department of English, Faculty of Philosophy, University of Zagreb, too numerous to name individually, who have over more than a decade collected, with great enthusiasm, a substantial part of the text messaging corpus in Croatian. We also thank many individual contributors, family members and friends, who have helped build up the corpus.

of corpus development (see Žic Fuchs 2002–2003; Žic Fuchs and Broz 2004; Žic Fuchs and Tuđman Vuković 2008).

The corpus itself is a work in progress, and the 2000 text message dialogues collected from 2006 to the present, verify and confirm some of the basic features and characteristics of Croatian text messaging identified so far.

4. Research on text messaging and phenomena relevant to the notion of *convention*

4.1.   The growing interest in computer-mediated communication, as well as in text messaging, is primarily focused on what may be termed *universal* features of a specific 'variety' regardless of the language used, although it goes without saying that English is the most analysed language of all. Thus, as far as text messaging is concerned, topics such as choice of vocabulary, abbreviations and acronyms specific to the 'variety', emoticons, extreme ellipticality, lack of punctuations as well as non-grammaticality are identified as being characteristic of the 'variety' (see for instance Harper et al. 2005; Baron 2008). We would argue that these specific features of text messaging are conventionalized ways of dealing with how one can efficiently communicate via this communication technology. They are primarily a reflection of the tension between 'speech' and 'writing' and at the same time a reflection of how to maximally utilize the potentials, but also how to minimize the restrictions of the technology itself. More specifically, text messages are by and large determined by the need for *brevity* which in turn results in various *shorthand forms* directly influenced by how we use this technology as well as by the limitations of the technology. In other words, they result from the process of "writing" a "spoken" message, the "speed" with which this is normally performed, as well as the fact that text messages are constricted by limitations of message length determined by the 'software' of the technology.

Brevity, or *shorthand forms*, can also exert a strong influence on the appearance of *language-specific* phenomena as has already been shown through the reappearance of *aorist* (an archaic Croatian past tense) in Croatian text messages (Žic Fuchs 2002–2003). The reappearance of the aorist in turn triggered off a different distribution of past tenses in Croatian text messages in comparison to the one found in contemporary written language (Žic Fuchs and Tuđman Vuković 2008). In short, the *aorist* (2), a Croatian past tense deemed archaic and obsolete from the point of view of present-day usage, both in written texts as well as in oral communication, has resurfaced in Croatian text messages very simply because of its short form, short in comparison to

the present-day most frequent past tense in Croatia, the *perfect* (1):

(1) ***Vidjela sam*** *te pred faksom.*
PERFECT – 'to see'
'I **saw** you in front of the faculty building'

(2) ***Vidjeh*** *te pred faksom.*
AORIST – 'to see'
'I **saw** you in front of the faculty building'

[female professor, 50 years old]
(Žic Fuchs 2002–2003: 605)

Such specific usage of grammatical forms is in line with the *principle of brevity*, saving both time and space, and can be seen as a new convention specific to this 'variety' of communication technologies. This specific convention is not only new as far as its linguistic form is concerned but also new in the sense that the meaning of the *aorist* has shifted from its traditional sense and has become a generic marker of past tense in Croatian text messages.[3]

4.2. In the previous section we have shown how the tension between 'speech' and 'writing', or more precisely, how the "speed" of transposing spoken language into a form of writing can induce the need for brevity and thus trigger off the creation of a grammatical convention specific to the 'variety' itself. This conventionalized way of using, what was thought to be an obsolete tense, stresses the intricate manylayered interrelationship between the sender and his or her aim of achieving quick, efficient "communication" with the receiver, and with the necessity of adapting to the medium, or to the technological limitations it imposes. Very simply, it is an example of how the transfer into what is sometimes called *written speech* induces creative usage of grammatical forms brought about by the influence of the "environment" or medium through which the communicated is realized.

However, text messaging manifests other specific features that are grounded in either social or cultural dimensions of message exchanges. Thus, a very important determining factor of phenomena found in text messaging lies in the fact that text messages are predominantly exchanged between people who know each other well. This places the 'variety' of text messaging close to at least some characteristics of what can be subsumed under face-to-face interaction, understood in a general, everyday

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[3] A more detailed analysis of tenses used in Croatian text messages can be found in Žic Fuchs and Tuđman Vuković (2008). The analysis shows different distribution of tense usage in text messages as compared to the usage found in corpora of written contemporary Croatian.

sense. The notion of familiarity between senders and receivers is also relevant since it sets apart this 'variety' from, for instance, 'chat groups' found on the Internet, in which anonymity, whether real or pretended, flavours much of what is communicated and how it is communicated.

Text messaging, precisely because in principle it is not based on anonymity and because it manifests a kind of overall similarity with face-to-face interaction, was in an earlier paper (Žic Fuchs and Broz 2004) analysed from the point of view of the Gricean Maxims (Grice 1975). As is well known, Grice assumes that there are general, overall assumptions guiding how people conduct conversations. On the basis of these assumptions he formulates his famous *basic maxims of conversation* formulaically presented in Levinson (1983: 101–102):

The maxim of Quality
try to make your contribution one that is true, specifically:
(i)   do not say what you believe to be false
(ii) do not say that for which you lack adequate evidence

The maxim of Quantity
(i)   make your contribution as informative as is required for the current purposes of the exchange
(ii) do not make your contribution more informative than is required

The maxim of Relevance
make your contributions relevant

The maxim of Manner
be perspicuous, and specifically:
(i)   avoid obscurity
(ii)   avoid ambiguity
(iii) be brief
(iv)   be orderly

The Gricean Maxims are a reflection of the more general *co-operative principle* that governs conversational exchanges (Grice 1975: 45).

If text messages are as a rule exchanged between people who know each other well, or between whom a high degree of familiarity exists, then this implies two basic features that determine the context as well as linguistic output, namely a high degree of *shared knowledge* and *expected future exchanges*. Thus, Grice's *co-operative principle* can be seen as providing a stable interpretative background for text message exchanges, but the question arises whether the four maxims are in their original

form applicable, or more precisely, are they or how are they realized in concrete examples of text message exchanges.[4]

Since brevity has been stressed as the key notion for understanding phenomena found in text messaging, it is of interest to see how it manifests itself in relation to the *Maxim of Manner*, which in itself "advocates" – be orderly, be brief, avoid obscurity and ambiguity. However, this maxim, or its reflections found in text messages, is manifested in very specific ways, which, it should be noted, systematically appear throughout the corpus of Croatian text messages. This is illustrated at least to some extent by the following exchanges taken from Žic Fuchs and Broz (2004):

(3) A: *di si ti. Kacemo se vit. javi se vise*
  [Gdje si ti? Kad ćemo se vidjeti? Javi se konačno.]
  'Where are you? When will I see you? Get back to me finally'

  B: *e sori, nikako bon kupit. aj jel more sutra? predvecer*
  [Hej, sorry, nikako da kupim bon. A je li može sutra predvečer?]
  'Hey, sorry, haven't had time to get my top-up. Is tomorrow evening OK?'

  A: *ok bit cu doma pa navrati*
  [OK, bit ću doma, pa navrati.]
  'OK, I'll be at home, drop by'

  B: *ok si ju*
  [OK, see you.]
  'OK, see you.'

  [A – female student, 20 years old]
  [B – female student, 21 years old]

(4) A: *Di*
  [Gdje ćemo se naći?]
  'Where will we meet up?'

  B: *Konti*
  [Hotel Interkontinental]

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[4] Crystal (2001: 48–61) discusses the relationship between the traditional understanding of the Gricean maxims and the changes that the new 'varieties' on the Internet have resulted in. In his opinion we are confronted with different rules governing these communication types and accordingly calls them *Netspeak maxims*. He primarily focuses on the *Maxim of Quality* (the maxim of 'truth') and shows how it plays a different role in the communication that occurs in chat groups, where in many cases anonymity plays a crucial role.

'Hotel Intercontinental'

A: *8*
   [U 8 sati?]
   'At eight o'clock?'

B: *8:30 prije*
   [Prije ću moći u 8:30]
   '8:30 p.m. is more likely'

[A – female professor, 48 years old]
[B – lawyer, 59 years old]

The text message examples cited may appear obscure to "the reader" up to a certain point, a fact which stems from the high level of shared knowledge between the senders and receivers, as well as the familiarity of previous exchanges and previously shared contexts. However, what should be noted is the extremely high degree of shorthand forms of different types, which is in some cases characteristic of the 'spoken' medium, in some of the 'written' medium, while in others specific to the 'variety' itself. Again, a convention of what could be termed extreme ellipticality achieved through specific shorthand forms, as well as the unconventional use, or partial or complete avoidance of punctuation, has evolved.

Despite the fact that the phenomena illustrated through these examples seem to stretch the *Maxim of Manner* – 'Be Brief' to extreme lengths, rarely do we come across misunderstandings. The *Maxim of Manner* in text messaging, despite its different realization in comparison to spoken language, in principle functions well communication wise.

'Be Brief' acquires a new meaning in this 'variety' and should not be seen as a simple agglomeration of shorthand forms and ellipses, but a complex network specific to the 'variety' despite the fact that some of these features can be found in spoken and written language, as well as occasionally in other 'varieties' on the Internet.

A Gricean Maxim, often left out of many works that deal with various aspects of pragmatics, conversational analysis, etc. is the maxim 'Be Polite' (Grice 1975: 47). Grice mentions this maxim specifically, and in our opinion, it covers a very important facet of face-to-face interactions because it encapsulates in many ways cultural relativity and cultural grounding since 'politeness' (or lack of) is a relative, culturally marked, social and pragmatic category.

The *Maxim of Politeness* proved exceptionally interesting in many respects, but for the purpose of this overview we will single out the following, which indicates a

different interpretation of 'politeness' in Croatian text messaging when compared to what is usually found in face-to-face interaction.

Examples were found of a single 'utterance' or 'sentence' message to which no reply followed, or came after long stretches of time. Here, we refer to direct questions that were asked, as in:

(5) A: *Kad dodjes po mene*
     'When will you pick me up

     (no reply)

     [A – female professor, 49 years old]

(6) A: *Sta radis sutra*
     'What are you doing tomorrow?'

     (no reply)

     [A – male student, 20 years old]

Behaviour of this kind would be rude in face-to-face interaction, and not answering direct questions can definitely cause disruptions in relationships, or at the very least it can prompt further questions.

However, when the senders of such text messages were interviewed, rarely did they consider such behaviour to be rude. At best they claimed that they were irritated by the lack of response, but they assumed that the receivers of such messages were simply not available, or were in a situation in which they could not answer. Hence, not replying was not considered to be a breach of the 'Be Polite' maxim, as it would be to a very high degree in a face-to-face interaction.[5]

4.3. In the previous section, text messages in Croatian were analysed from the point of view of the Gricean Maxims, indicating that conventions can arise from social relationships and social norms within the framework of a specific communication 'variety' determined once again by the technology or medium within which it is realized.

The third set of examples pertaining to text messaging and convention comes from research done on *understanding* and *misunderstanding* with special reference to metonymy.[6] The reason why the Croatian text messaging corpus was used lies pri-

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[5] The examples and analysis are taken from Žic Fuchs and Broz (2004).

[6] This section of the analysis is in part based on a paper entitled "Understanding and misunderstanding: an analysis of metonymy and metaphor in Croatian SMS text messages", presented by Milena Žic

marily in the fact that the text message dialogues offered insight into how understanding and misunderstanding occur in what may be seen as on-line meaning construction. In a sense, text messages can be said to capture authentic dialogues with speaker-hearer interaction. Thus, research on the corpus presents a step away from the idealized examples often found in the literature, and can be seen as a step towards a usage-based approach, an approach mirroring both linguistic and pragmatic phenomena.

The basic starting point for the research was metonymy seen as a conceptual phenomenon which has with reason become one of the focal points of interest in cognitive linguistics. From the initial postulates on metonymy, and here we refer primarily to Lakoff's and Johnson's (1980) seminal work *Metaphors We Live By,* an unbelievable quantity of research has appeared on metonymy within cognitive linguistics. But, more importantly, it is not just the number of papers and books that have been published during the last decades that is so impressive, but even more interesting is the diversification of possible interpretations as to what metonymy is, and even more importantly, the role it plays in language and thought. It is impossible in a paper of this length even to begin to track the development of thought on metonymy that has evolved in cognitive linguistics. However, one line of development in how metonymy is interpreted is found in works which see metonymy as being part of semantics and pragmatics. More precisely, this view and interpretation of metonymy sees it as playing an important part in utterance interpretation as well as triggering off links between concepts that can be used for inferencing (see for instance Barcelona 2007; Benczes et al. 2011; Panther and Radden 1999; Panther andThornburg 2003; Ruiz de Mendoza Ibáñez 1998; Ruiz de Mendoza Ibáñez and Pérez Hernández 2003).

Such a wider view of metonymy, of course, brings into question any strict division between semantics and pragmatics. The research done on dialogues of Croatian text messages proves that the need for such a broad interpretation of metonymy is necessary, especially when viewed on the basis of understanding and misunderstanding. As far as understanding and misunderstanding are concerned, we know from experience that the majority of communication in general flows within the realm of understanding, the general assumption being that participants in interchanges intend to come to an understanding in communication. The same applies to text messages.

Misunderstandings are, of course, by far less frequent and can be caused by a 'variety' of factors – *external* such as social and cultural differences and *internal* such as problematic *reference* and problematic *implicativeness*. Thus, we view misunder-

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standings not as a peripheral phenomenon, but quite the reverse, as indications as to what has gone *wrong* in the exchange between speaker and hearer. In other words, when misunderstandings do occur they can shed light on either specific semantic/conceptual and/or pragmatic phenomena.

Within the context of *brevity*, metonymy, and to a far lesser degree metaphor, plays a crucial role, or very simply put, metonymy is one of the ways in which brevity is achieved in this specific 'variety'. Not surprisingly, since metonymy has already been identified in the literature (for instance Warren 1999) as an abbreviation device, whose relations are based on a number of recurrent links, making the interpretation of metonymy almost effortless, especially in comparison to metaphor. One can interpret in this light at least one of the reasons why in our corpus we found a very high frequency of metonymy and a much lower frequency of metaphor. Expressed numerically, the ratio between metonymy and metaphor is approximately 4 to 1. However, it was not only the frequent usage of metonymy in text messages that triggered off our interest for further research, but the fact that its specific nature shed light on semantic/conceptual dimensions of the phenomena, as well as the pragmatic role it plays in achieving understanding between participants in exchanges.

As has already been stated, misunderstandings can occur for a variety of reasons, such as cultural knowledge, or lack of it, as can be seen in the following example in which the misunderstanding is triggered off by cultural differences inherent in different Croatian dialects. More specifically, speakers of the coastal čakavian dialect segment time within one hour differently from continental speakers of the štokavian dialect.

(7) A: *nadjemo se ispred menze u 12 manje kvarat*
    'meet me in front of the canteen at 12 less a quarter (a quarter to 12)'

B: *moze*
    'ok'

then at 11:45 a.m.:

A: *di si?*
    where are you?

B: *pa jesi rekla u 12:15?*
    'didn't you say at 12:15?'

[A - female (21), student]
[B - female (21), student]

[relation: friends]

The majority of examples found in our corpus are of referential metonymy. This is not surprising, due to the nature of this communicative medium, in the sense that text messages are very often used for practical purposes: arranging meetings, exchanging information etc. Thus we find examples pertaining to referential metonymies GENERIC FOR SPECIFIC and NAME FOR ACTIVITY, or NAME FOR CONCRETE OBJECT, etc.

Examples of GENERIC FOR SPECIFIC can be seen in the following example involving place metonymy. In the following, metonymy triggers off a misunderstanding.

(8) A: *vidimo se na **trgu** u 6 kod sata*
'see you in the (main) **square** at 6, under the clock'

B: *na kom **trgu**? Jel znas kolko ima trgova u zg-u?*
'in which **square**? Do you know how many squares there are in Zagreb?'

A: *Pa kod bana jelacica*
'At ban Jelačić's square'

[A – female (20), student]
[B – female (20), student]
[relation: friends]

The Croatian word *trg* in this case can be seen as two metonymies sharing the same metonymic target and thus forming a short metonymic chain. Namely, the two metonymies are GENERIC FOR SPECIFIC, as well as PERSON FOR PLACE - referring to the main square in the city of Zagreb, named after the historical figure of Vice-Roy Jelačić. The square is not only the 'center' of the city so to speak, but also the traditional meeting place of Zagreb residents. B in this text message dialogue is a non-resident of Zagreb and thus is not familiar with the shared knowledge that *trg* implies for speakers born and bred in the city of Zagreb. This example shows that metonymic reference is very much connected to shared *conventionalized* knowledge and is not simply an inferencing device, and cannot be thus explained exclusively from a pragmatic viewpoint. In other words it cannot be exclusively subsumed under general principles of pragmatic inferencing. However, examples such as these also open up questions of the notion of shared knowledge or *convention,* indicating that we are confronted by a gradable phenomenon determined by degrees of conventionalization in different sized groups of speakers from, for example family units up to knowledge shared by entire linguistic communities.

Another similar example of referential metonymy, and referential metonymy is by

far the most frequent in our corpus, is an example in which again shared knowledge plays a crucial role. Here we have an example of induced misunderstanding, misunderstanding that does not occur naturally, and in this case produces a humorous slant, because *Gajeva* is the name of one of the main streets in the city center, and is also known as a red light district. In this case the word *ugovor* 'contract' tied in with the referential metonymy *Gajeva* - PLACE FOR ACTIVITY - is the trigger for the humorous effect achieved, as well as inferencing:

(9) A: *nadjemo se u 15 na trgu?*
     'meet me at 3 pm in the main square?'

     B: *ajde u 15.30 moram odnet ugovor u **gajevu***
     'make it 3.30 I have to take a contract to **gajeva**'

     A: *pa nisam znao da za **gajevu** treba ugovor? Ajd moze*
     'I didn't know you needed a contract for **gajeva**? Ok'

     10 minutes later:

     A: *bezobraznik jedan :) onda u 15.30*
     'you smart ass :) at 3.30 then'

     [A - female (24), student]
     [B - male (24), student]
     [relation: friends]

This example incorporates referential metonymy as well as metonymy as the basis of inferencing, and what is more indicates the very complex interrelatedness between semantic/conceptual and pragmatic dimensions that occur between sender and receiver. This example clearly shows that if we see meaning construction as an on-line activity, then its full scope is understood through the communicative value of each utterance, indicating the intermeshing of semantic/conceptual and pragmatic features of each interchange. Every example of metonymy as found in this interchange indicates how delicate a task it is to describe the kinds of semantic/conceptual and pragmatic information that is employed during immediate understanding. More concretely, in this case we are dealing with conceptual information or shared knowledge pertaining to *Gajeva* as a red light district, but also with pragmatic information based on knowledge how to achieve humorous effects through inference, as well as pragmatic knowledge as to with whom we may enter into such interchanges, and what are the social and cultural bounds of what is allowed in cases such as these. Thus, what may seem as one referential metonymy is also at the same time the trigger for metonymically based features such as inferencing and humour, indicating the many layered functions of metonymy in discourse.

5. *Convention* as a multi-layered phenomenon

The overview of research on text messaging in Croatian opens up insights into the many-layered factors and mechanisms that contribute to the rise of *convention.* The analysis provides insight into how humans deal with establishing efficient and successful communication in a "new" communication technology by taking advantage of the potential for creating linguistic and socio-cultural conventions based on specific discourse/pragmatic features that are at the same time a result of the potentials and limitations of the technology itself. This in turn implies massive shared knowledge of different kinds and of different levels, but also shared knowledge of the medium which provides the basis for "fashioning" new conventions that in time become specific to the medium and are shared by a substantial number of users.

The complexity of factors involved in how conventions arise evokes one of the fundamental notions of cognitive linguistics – Embodiment or the Embodied Mind. Embodiment has been a crucial concept from the very beginnings of cognitive linguistics (Lakoff 1987; Langacker 1987; Lakoff and Johnson 1999) mirroring the view how the embodied mind interacts with the environment, both physical and sociocultural:

> Meaning includes patterns of embodied experience and preconceptual structures of our sensibility (i.e. our mode of perception, or orienting ourselves, and of *interacting with other objects, events or persons*). These embodied patterns do not remain private or peculiar to the person who experiences them. Our community helps us interpret and codify many of our felt patterns. They become *shared cultural modes of experience* and help to determine the nature of our meaningful, coherent understanding of the world. (Johnson 1987: 175)

The notion of embodiment reminds us that language should not only be viewed as what is "inside the head" but also what is "outside the head", as Croft (2009: 395) graphically formulates it. Croft sees the further development of cognitive linguistics not so much along the lines of focusing on internal, conceptual mechanisms but on paying more attention to language as human socially determined communication (Croft 2009: 397):

> But language is not just a cognitive ability, a constellation of mental structures and processes… We all have language and use it. The reason, of course, is that language is a central feature of human social interaction."

And it is primarily through human social interaction that convention and conventions arise. On one hand, they reflect man's creative potentials,[7] in adapting for instance to new communication technologies, adapting by adopting or "inventing" linguistic conventions, as well as sociocultural and discourse/pragmatic ones within "new physical environments". It is through the interplay of the conceptual/linguistic, social/cultural, discourse/pragmatic, and the medium in which communication is realized that new conventions evolve when the need arises. Challenges that new communication technologies initially present are met successfully and with great efficiency as evidenced by the massive quantity of successful communication found in computer-mediated kinds. This confirms Croft's view (2009: 401) that "...the ability to evolve convention for communication is a social cognitive ability essential for language," and we would add that it is a social cognitive ability tailored to the medium of communication, determined by its potential and limitations. Thus, 'outside the head' implies not only social cognitive abilities in the narrow sense of the word, but also the potential to interact with the concrete physical world "personified" by computers and mobile phones.

6. Conclusion

Croft's (2009) views on directions in which cognitive linguistics should develop are in line with again another foundational notion of cognitive linguistics, namely the usage-based model as initially formulated by Langacker (1987: 46), as further developed in Barlow and Kemmer (2000). These views are also in line with claims made on the necessity of empirical studies in cognitive linguistics as found in Lakoff and Johnson (1999: 5). However, despite the declared "empiricist" orientation that goes back to the very beginnings of cognitive linguistics, it has been only relatively recently that two basic lines of development have evolved (at times interwoven), and here we refer to corpus-based research (see for instance Deignan 2005; Gries and Stefanowitch 2006) as well as the more recent advent of cognitive sociolinguistics (see for instance Kristiansen and Dirven 2008; Geeraerts et al. 2010). These lines of research are empirically based either in the sense of corpus-based techniques, or experimental methods and survey-based research, bringing together social and conceptual aspects of language and opening up new possibilities and perspectives of reevaluating basic notions of cognitive linguistics.

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[7] For creativity as a crucial factor in language, and especially language use see Gasparov (2010) and Vega Moreno (2007). On pragmatic meaning viewed from a cognitive linguistic perspective see Marmaridou (2000).

The analyses presented in this paper are corpus-based, in the sense of concrete language usage analysed from different viewpoints, but with a pronounced pragmatic dimension. This perspective not only reflects on communication and communicative knowledge and skills, but also opens up possibilities of a more encompassing interpretation of basic notions, such as *convention*.

Fundamental notions such as *convention,* or *shared knowledge* acquire new meaning through the analysis of concrete examples of communicative interactions. Sperber and Wilson's *Relevance Theory* (1995), for instance, introduces a cognitively based approach to pragmatic phenomena, but at the same time they do not set much store to shared (mutual) knowledge. They aim at going beyond the notion of shared knowledge which they consider to be conceptually vague. But then, how do conventions arise? Is the development of new conventions possible in text messaging, or in any other media for that matter, without shared knowledge of linguistic, sociocultural and discourse/pragmatic factors, not to mention the shared knowledge of the medium itself?

Questions such as these comprise only a part of understanding how communication, language and cognitive abilities work together. In order to answer such questions to the fullest extent possible, it is our belief that usage-based linguistic 'varieties' found on the Internet, as well as text messages, can help clarify and test some of the basic claims in cognitive linguistics as well as those 'varieties' found traditionally dealt with in pragmatics.

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Authors' address:

Milena Žic Fuchs
Vlatko Broz
Filozofski fakultet Sveučilišta u Zagrebu
Odsjek za anglistiku
Ivana Lučića 3
10000 Zagreb
mzicfuch@ffzg.hr
vbroz@ffzg.hr

Nina Tuđman Vuković
Zagrebačka škola ekonomije i managementa
Jordanovac 110
10000 Zagreb
ntvukovi@zsem.hr

KOMUNIKACIJSKE TEHNOLOGIJE I NJIHOV UTJECAJ NA JEZIK: POJAM *KONVENCIJE* S GLEDIŠTA JEZIČNIH TEHNOLOGIJA

Iz desetogodišnjeg istraživanja SMS poruka u hrvatskom jeziku proizašle su teme i pitanja od šireg značaja, poput pojma *konvencije*. Pojam *konvencije* se u ovome radu analizira kako s lingvističkog, tako i pragmatičkog gledišta. Na *konvenciju* se gleda ne samo kao na odraz jezika viđenog kao kognitivne pojavnosti ili sposobnosti, već i kao na pojavnost od središnje važnosti za ljudsku komunikaciju. Istraživanja na temelju SMS poruka ukazuju na važnost tehnološkog medija koji igra važnu ulogu u stvaranju same *konvencije*. Zbog tehnoloških mogućnosti, ali i ograničenja medija, nove *konvencije* koje nalazimo u SMS porukama istovremeno ukazuju na bitnost jezičnih, društvenih, kulturnih, diskursnih i pragmatičkih čimbenika. To znači da konvencija nije samo ona lingvistička u užem smislu, već je jednako tako sastavni dio ljudske društvene kognitivne sposobnosti, nezaobilazne u jezičnoj uporabi. Na temelju analiziranih primjera pokazano je da se društvena kognitivna sposobnost prilagođava i samom komunikacijskom mediju.

Ključne riječi: konvencija; SMS poruke; hrvatski jezik; jezični društveni, kulturni, diskursni i pragmatički čimbenici; komunikacijski medij.