



UDC 81'27

Original scientific paper

Accepted for publication on 26 September 2003

Communication Technologies and their Influence on Language: An Example from Croatian

Milena Žic Fuchs
Faculty of Philosophy, Zagreb

The spread of new communication technologies is producing extensive effects on many aspects of communication, but also on languages. Apart from new 'varieties' found on the Internet, SMS text messages are also emerging as a specific 'variety'. In this paper one of the language-specific features found in SMS text messages in Croatian is analysed, namely, the use of the Croatian past tense – the aorist. More specifically, the aorist has undergone changes in SMS text messages, changes both in meaning and usage, which in turn have made it a specific feature of the 'variety' itself.

1. Introduction

It has become a recognized fact that the emergence and spread of new communication technologies is producing far reaching effects not only on important aspects of communication, but also on language and languages. Especially during the last decade linguists, but also sociologists, anthropologists, politicians, etc, have voiced fears about the impact of the communication technologies on language, for it has become obvious that "new" linguistic and communicative phenomena are evident on the Internet, and in the specific communication provided by the text messages of the short messaging service (SMS) on mobile phones.

Despite the awareness that a new breed of communication has evolved, analysis of its various aspects are still in their beginnings. The most comprehensive analysis so far of the linguistic and communicative changes occurring on the Internet can be found in



David Crystal's book *Language and the Internet* (2001), although he himself quite rightly stresses that his analysis is at best "a first approximation" (Crystal 2001 : 6). One comes to truly understand this claim when faced with "new" linguistic phenomena that simply do not fit readily into traditional linguistic notions and categories.

2. New 'Varieties' in Communication Technologies

In his book, Crystal (2001 : 6-10) identifies and analyses four different 'varieties', as he calls them, found on the Internet: the language of e-mail, the language of chat groups, the language of virtual worlds and the language of the Web. Although the above 'varieties' differ in many respects, they each in turn reflect different properties of what Crystal (2001 : 18) calls *Netspeak*:

There is a widely held intuition that some sort of Netspeak exists – a type of language displaying features that are unique to the Internet, and encountered in all the above situations, arising out of its character as a medium which is electronic, global and interactive.

When one views language found on the Internet, at first glance it appears to be a conglomeration of what we traditionally call 'speech' and 'writing'. However, a more thorough analysis shows that Netspeak is no mere conglomeration of these mediums, but an extremely complex phenomenon. Crystal (2001 : 47-48) quite rightly claims that we are faced with emergent registers and that the traditional dichotomy between 'speech' and 'writing' can be misleading when analysing various properties of Netspeak since:

Netspeak is identical to neither speech nor writing, but selectively and adoptively displays properties of both. ... Netspeak is more than an aggregate of spoken and written features ... it does things that neither of these mediums do, and must accordingly be seen as a new species of communication.

Crystal's (2001:24-48) analysis of Netspeak in comparison with the traditional notions of 'speech' and 'writing' is particularly valuable because it not only shows how varieties found on the Internet do in fact represent new evolving communication species, but also provides a framework for analysing other similar communicative linguistic phenomena in new technologies such as SMS text messages.

2.1. SMS Text Messages

The usage of mobile phones, and with them SMS text messages, has also been gaining ground steadily during the last decade. Just like personal computers, mobile phones have become an integral part of everyday living and communication in the modern world.



More specifically, SMS text messages are also being used more and more for a number of reasons. To name but a few, text messages are by far a cheaper way of communicating than by actual calls. Secondly, they provide a more ‘indirect’ or more ‘discrete’ way of contacting someone since with mobile phones one is very often not sure where the person we are trying to reach actually is, and whether the call will disrupt some activity or meeting. Thirdly, the sender of the message may want to keep the communication ‘short’ and simply relay some information without wasting time on prolonged, extended phone conversations.

Linguistically speaking, SMS text messages also manifest very interesting features which again are primarily the result of the *tension* between what are apparently features of ‘speech’ and ‘writing’ on the one hand, and by the technological nature of mobile telephony medium on the other. When compared to the different varieties of Netspeak, SMS text messages come closest to the language of chat groups found on the Internet,¹ since both share a number of common properties, the most dominant being an overall ‘conversation-like’ framework which at first glance seems to place them closer to what is traditionally understood by ‘the spoken medium’.

However, these two varieties also differ substantially. Even if we consider Crystal’s (2001 : 129) concise description of ‘chatgroups’

Chatgroups, ..., typically involve several people, with message-exchanges often anonymous, continuing indefinitely, and dealing with a wide and unpredictable range of issues.

the major differences become apparent instantly. SMS text messages involve two people, not several; the message-exchanges are as a rule not anonymous (or if so very rarely); the exchanges do not as a rule continue indefinitely and are restricted in length due to technological limitations, that is, due to limitations of space provided on the mobile phone for the message itself. In other words, the type of communication and language found on the SMS displays specific features of its own. And while certain properties can be found in ‘chatgroups’, many others provide a firm basis for claiming that SMS text messages are in fact a specific variety in themselves.

2.2. Possible approaches to the analyses of ‘varieties’ in communication technologies

When faced with the analysis of any of the new ‘varieties’ found within the realm of communication technologies, one comes across numerous phenomena which can roughly be divided into *universal* characteristics of the variety regardless of whether we are dealing with English or Croatian, or other languages, and those which belong to what may be termed as *language-specific* features.

¹ Crystal (2001: 129) uses the term *chatgroups* generically for various kinds of “multi-party conversation online, either synchronously, in real time, or asynchronously, in postponed time”. For an extensive analysis of chatgroups see Crystal (2001:129-170).



For instance, chatgroups in both English and Croatian manifest the same overall structure and features that are a reflection of the electronically bounded type of communication which in many ways differs from the specific complexities of everyday conversations. Here, we are specifically referring to features such as the specific nature of turn-taking, responses that may be instantaneous or appear after long stretches of time, or the lack of intonational properties found in real verbal exchanges. Or, if we take the 'written' medium as a reference point, then the specific use (very often lack) of punctuation provides interesting grounds for analyses. Furthermore, the extensive use of different kinds of acronyms, different kinds of ellipticality of 'sentences' or 'utterances' are without a doubt features which mark this specific 'variety', and what is more function in different ways than in the 'traditional' mediums.

On the other hand, one comes across *language-specific* phenomena that appear as characteristics of specific languages used in for instance chatgroups on the Internet, or in SMS text messages. The aim of this paper is to describe and provide explanations for the emergence of one such language-specific phenomenon found in Croatian SMS text messages.

3. The Spread of Mobile Phone Technology in Croatia

The use of mobile phones has become extremely widespread in Croatia. Statistics show that mobile phones have within the last couple of years become a dominant means of communication. A little over 4.3 million inhabitants of Croatia use over 2.5 million mobile phones, which is an extremely high percentage even by European standards.² Thus it is not surprising that the SMS text messages are used a great deal as a means of communication, but what is surprising is the extent of their usage.

More precisely, the average Croatian mobile phone user sends over 70 messages per month, while the European average is 25 messages per month.³ The above data shows that the SMS is a widespread form of communication in Croatia with a very high intensity of use, by far higher than in other European countries.

A number of reasons are probably in the background of this phenomenon. The first and most frequently stated by SMS users is that the text messaging system is by far cheaper than calls made by either mobile or fixed phones.

SMS users also frequently state that text messages are a more 'discrete' way of communicating since we very often do not know where the person we want to reach actually is, and if busy or unavailable, our addressee can answer the text message at some later time.

² Statistics show that Croats are buying by far more mobile phones than fixed phones.

³ I am indebted to Tatjana Holjevac, M.S., for the above statistical data. Mrs. Holjevac was president of the Board, and Chief Executive Officer of VIPnet, one of the two major mobile phone companies in Croatia, for over 10 years. At present she is Assistant Minister in the Maritime, Traffic and Communications Ministry of the Republic of Croatia.





The third reason for such extensive usage of SMS text messages in Croatia probably lies in the fact that the Internet, or more specifically e-mail, is by far less used in Croatia than in other European countries. Namely, the number of personal computers used by Croatians is increasing at a much slower rate due to financial reasons.

More precisely, according to official statistics, 37% of Croatian households have a personal computer, and 27% have access to the Internet, while in comparison 81% have mobile phones.

4. SMS text messages in Croatian

Even a brief overview of texts found in Croatian SMS text messages, in our case a corpus of text messages collected during the last two years,⁴ shows that one can quite readily identify certain features which mark SMS text messages as a new species of communication. One truly begins to appreciate this claim when faced with linguistic 'novelties' that defy traditional definitions and usages.

Future, more comprehensive, analyses of this new 'variety' will have to deal with many distinctive features that we find in SMS text messages. Apart from major issues such as the relationship between this type of text and the traditional notions of the 'spoken' and 'written' mediums, these analyses will have to provide explanations and characterizations for phenomena such as specific grammatical constructions, ellipticality of a very distinct kind, extensive usage of swear words and their discourse function, and in the case of for instance Croatian, extensive usage of English words that in many cases do not adhere to the rules of linguistic borrowing and adaptation of English loan words in Croatian.

Such analyses will have to take into consideration the limitations that this communicative technology imposes on linguistic and communicative possibilities. Namely, one of the main features of the SMS is the limitation of message length imposed by the 'hardware' and 'software' of the technology itself. And it is precisely this limitation that determines, or is responsible for, some of the features of this 'variety' that distinguish it from traditional norms on the one hand, and new technological 'varieties' on the other. In other words, due to technical limitations we find the appearance of *shorthand forms*⁵ whose usage and meaning depart from present standard and even substandard usages in the Croatian language. One such phenomenon found in our corpus is the surprisingly

⁴ I would like to warmly thank my 3rd year students ('Discourse Analysis' seminar class, Department of English, Faculty of Philosophy, University of Zagreb), too numerous to thank individually, who have very diligently and with great enthusiasm collected over 500 SMS text messages in Croatian. The entire corpus collected has over 800 SMS text messages.

⁵ Various 'short-hand forms' and different kinds of ellipticality found in SMS text messages are often responsible for misunderstandings between users during message exchanges. The misunderstandings based on these features bring up the question of how far and in which ways can one reduce 'redundancy' as a feature of language in use, a very interesting theoretical question in itself.



frequent appearance of a specific and rarely used past tense of the Croatian language – *the aorist*.

5.The Croatian Past Tenses

Standard Croatian has four past tenses: *the perfect, the pluperfect or past perfect, the imperfect* (past continuous tense) and *the aorist*. Croatian also has verbal aspect, namely the perfective and imperfective, which together with the tenses combines into an intricate system similar to those found in other Slavic languages.⁶ Without going into the complex intricacies and nuances of meanings and possible usages of the Croatian past tenses, we will only highlight some of the basic, prototypical semantic features as well as the relevant structural i.e. morphological characteristics.

The *perfect* tense is without doubt the most frequently used past tense in contemporary Croatian. It is formed from the present of the auxiliary verb *to be (biti)* and the active past participle as in:

Petar	je	vidio	Ivana.
	[Aux. to be]	[past-p.]	
(Peter	saw	John)	

The Croatian perfect can be formed from both imperfective and perfective verbs, and thus from the point of view of meaning, it refers to actions that either lasted for some time in the past or were completed at some point in the past.

The *pluperfect* tense is a past tense denoting an action which has occurred before some other past action, and is also structurally complex like the perfect, since it is formed from the imperfect or perfect of the auxiliary verb *to be (biti)* and the active past participle. However, this past tense is stylistically marked and can be found primarily in literary texts, especially in older Croatian literature.⁷

Apart from the above mentioned pluperfect, both the *imperfect* and the *aorist* also belong to stylistically marked past tenses, that is, many grammars of standard Croatian claim that they can be primarily found in, especially, older literary texts. In other words, both the imperfect and the aorist belong to the past tenses of Croatian that are rare, or practically non-existent in contemporary informal speech and informative texts.⁸

⁶ For comprehensive and detailed descriptions of the Croatian verbal systems see Babić et al. (1991), Barić et al. (1990), Katičić (1991) and Maretić (1931).

⁷ Katičić (1986:61) quite rightly stresses that although the pluperfect is not a frequent tense in Croatian, one should be careful with strong claims that it is obsolete, since it does appear in contemporary Croatian literary prose.

⁸ For such claims see for instance Barić et al. (1990 : 413).





However, in comparison with the pluperfect, these two tenses are ‘simpler’ or more ‘compact’ structurally in the sense that they are formed from the present or infinitival stem of the verb plus the endings for singular and plural forms. More specifically, the imperfect is formed from stems of imperfective verbs plus the imperfect tense endings, as in for instance, ‘to read’ (*čitati*-imperfective):

Singular	Plural
1.čit – <u>ah</u>	1.čit – <u>asmo</u>
2.čit – <u>aše</u>	2.čit – <u>aste</u>
3.čit – <u>aše</u>	3.čit – <u>ahu</u>

The aorist, on the other hand is, prototypically formed from infinitival stems of perfective verbs with endings as in ‘to read’ (*čitati*-perfective), marked by the perfective prefix *pro*:

Singular	Plural
1.pročita – <u>h</u>	1.pročita – <u>smo</u>
2.pročita	2.pročita – <u>ste</u>
3.pročita	3.pročita – <u>še</u>

Accordingly, the *imperfect* typically denotes actions that lasted for some time in the past, or were repeated in the past, while the *aorist* due to the semantics of the perfective verbs, denotes actions which happened momentarily in the past.

The aim of the above concise presentation of Croatian past tenses is to pinpoint a number of features relevant for the present analysis. Firstly, three out of the four past tenses, namely the pluperfect, the imperfect and the aorist are stylistically marked, and are as a rule found in literary texts.⁹ Secondly, the perfect and pluperfect are structurally more complex since they are formed from auxiliary verbs and participles, while the aorist and imperfect can be seen as “compact” or “shorter” forms since they are formed from stems plus endings and are actually one-word constructions.

However, this simplicity must not be misinterpreted as to how contemporary Croatian speakers conceive these two tenses. It is worth noting that many speakers of Croatian, especially the younger generations, find it often very difficult to readily distinguish between the aorist and the imperfect. The main reason for this is that these tenses are not in everyday use and have to be learnt as a part of the grammar of Croatian. Secondly, there are exceptions to the above described prototypical uses of the two tenses¹⁰, and these

⁹ For an excellent analysis of these three tenses as stylistic literary devices see Težak (1970). In this paper the author shows how the famous Croatian writer Ivana Brlić Mažuranić exploits the expressiveness of the above grammatical forms in order to achieve a high level of literary style.

¹⁰ See for example Katičić (1986 : 56-59).



exceptions blur in a sense the clear distinctions in past meanings, making it truly difficult at times to be sure whether one is dealing with the aorist or the imperfect. And thirdly, the similarity of the morphological endings, and here we are especially referring to the first person singular, can be seen as an additional feature that causes difficulties in distinguishing the two tenses. Thus, it is not surprising that Croatian students consider these two tenses as being a particularly hard part of Croatian grammar.

6. The Aorist in Croatian SMS Text Messages

The analysis of the corpus of Croatian SMS text messages uncovered quite a few unusual features from the point of view of standard, accepted grammatical notions. One of them, was without a doubt the appearance of the *aorist* in informal message exchanges, very much like informal everyday conversations. What is more, the aorist, or at least a past tense that looked like the aorist in form, appeared quite frequently considering its restricted use as described in the previous section. More specifically, approximately fifty messages contained this past tense.

At this point it should be noted that the corpus is comprised of messages sent and received (or answered) by both male and female speakers of Croatian ranging in age from 20 to 60 years. These users of the SMS technology can be considered to be highly educated since we are dealing with messages sent by students and professionals of different kinds, professors, etc. Linguistically speaking, the messages are almost as a rule, informal types of communication, most often between persons that obviously know each other very well, such as friends or family members. Thus, it is not surprising that we find in them reflections of all the three major dialects of Croatian and their specific urban varieties.¹¹ The appearance of various dialectal forms is in accordance with the informality of the exchanges, as well as the familiarity that obviously exists between the message senders and receivers. However, none of the above factors can be connected with the appearance of *the aorist* in concrete SMS text messages found in the corpus, since we find this tense in messages sent by both males and females regardless of age, and regardless of the dialectal or urban variety of Croatian used, as can be seen from the following examples:

¹¹ The three major dialects of Croatian are *štokavian*, *čakavian*, and *kajkavian* – the names of the dialects being based on the forms of the interrogative-relative *what*, that is, *što*, *ča* and *kaj* respectively.

Standard Croatian is based on the Štokavian dialect, but should not be fully equated with it since it has undergone its own specific development during the last couple of centuries.





- (1) *Vidjeh* te pred faxom
AORIST-'to see'
(I *saw* you in front of the faculty building)
[female professor, 50 years old]
- (2) Pa kaj si radila u tramvaju u 20 do 8? ja tek sad *progledah*
AORIST - 'to open one's eyes',
'to awake'
(What were you doing in a tram 20 to 8? i just *opened my eyes*)
[male professional, 40 years old]
- (3) Bok! *Nadjoh* onu knjigu, kad hoces.
AORIST-'to find'
(Hi! I *found* that book, when you want.)
[female student, 21 years old]
- (4) A: Kaj da krenem? il ce bit kasnjenja?
B: polako. nikamo ti se ne zuri
A: E pa *krenuh!* ajd, put pod noge
AORIST-'to leave'
(A: Shall I leave? or will you be late?
B: take it easy. you're not in a hurry
A: Ah, *I've left!* Come on, on your way)
[A and B, female students, 20-21 years old]
- (5) *Saznah* da si u Grčkoj
AORIST-'to find out'
(I *found out* you were in Greece)
[male student, 24 years old]

The appearance of the aorist in examples such as these is very unusual, since the style of communication is highly informal. Even in informal real-life conversations one would not expect to hear the aorist being used, and the above examples would as a rule contain the Croatian perfect tense for expressing the past:

- (1a) *Vidjela sam* te pred faxom.
PERFECT-'to see'
- (2a) Pa kaj si radila u tramvaju u 20 do 8? ja *sam* tek *progledao*
PERFECT-'to open one's eyes', 'to awake'
- (3a) Bok! *Našla sam* onu knjigu, kad hoćeš.
PERFECT-'to find'





- (4a) E pa *krenula sam!* ajd, put pod noge
PERFECT-‘to leave’
- (5a) *Saznao sam* da si u Grčkoj.
PERFECT-‘to find out’

In other words, in examples such as these, the more structurally complex Croatian perfect has been replaced by the aorist simply because of its shorter, more ‘economical’ form. This of course is the result of on one hand limitations of space (especially relevant in longer text messages), and on the other, the aorist provides a quicker way of ‘writing’ the ‘spoken’ message text. Thus, the aorist used in such a way in SMS text messages can be said to be a shorthand form, denoting a kind of generic past tense, far removed from the traditional use of the aorist in stylistically marked texts.

The above examples of the SMS aorist, although unusual from the point of view of accepted norm, can at least be said to be ‘grammatically correct’ in so far that the past tense is formed from perfective verbs with the appropriate endings. Apart from the numerous examples of the aorist, a number of examples of the imperfect were also found in the corpus, although rarely, and what is more only with the verb *biti* – *to be* as in:

- (6) A: Jesi li bio kod zubara?
B: *Bijah*
IMPERFECT-‘to be’
(A: Were you at the dentist’s?
B: I *was*.)
[student, 20 years old]

However, a number of examples that are tentatively ungrammatical, or borderline cases to say the least were also found. For example:

- (7) A: Jesi li obukao tamno odijelo
B: *Imah* tamno odijelo
PAST-‘to have’
(A: Did you put on a dark suit
B: I *had* a dark suit)
[A and B, wife and husband, 50 yers olds]
- (8) Nisam se moga javljat jer *vozih*
PAST-‘to drive’
[male professor, 58 years old]

Examples such as these defy straightforward explanations and classifications. For instance in example (7) one could also expect the form of the aorist to be possibly *imadoh*, although *imah* is possible but apparently rarer. The reason for this is that the verb ‘to have’ – ‘*imati*’ can have two forms: *imam* and *imadem*, and thus respectively the aorist forms are





imah and *imadoh*.¹² According to some Croatian scholars *imadoh* would be the more frequent form but claims such as this are in most part intuitive. The same applies to example (5) in which the verb ‘to find out’ – ‘*saznati*’ can again have two forms in the aorist ‘*saznah*’ and ‘*saznadoh*’. In example (8) the aorist form *vozih* comes from the imperfective verb *voziti* – to drive, and in this case opinions were divided whether this is incorrect grammatical usage of the aorist, or whether the imperfect tense is being used.¹³

Explanations such as the above can be seen as attempts to classify the forms used according to traditional grammatical approaches found in some Croatian grammars. However, since we are faced with a new ‘variety’ with rules of its own, and specific characteristics of its own, possibly a more plausible explanation presents itself, and that is, that the aorist ending *-h* is simply being used to mark the aorist shorthand form denoting generic past, regardless of the “correctness” of certain forms. More simply, the typical aorist ending becomes a general marker of past tense used by far more freely than traditional grammatical rules above.

7. Conclusion

The aim of the above analysis was to show that new ‘varieties’ emerging in communication technologies display interesting features not only on the level of *universal* characteristics but also on the level of *language-specific* features. Namely, the above discussion of the use of *the aorist* in Croatian SMS text messages shows that grammatical forms may undergo transformations of meaning and usage, and that these transformations can be directly linked to the interplay between language and various limitations of the communication technology itself. What is more, emergent features such as these then in turn become characteristic features of the ‘variety’ itself, in a sense proving that we are in reality faced with a new emerging species of communication.

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¹² For two forms of the same verb as special cases in Croatian see Brabec et al. (1961 : 144-145).

¹³ I am indebted to Nives Opačić and Ivo Pranjković (Department of Croatian Language and Literature, Zagreb University) as well as to Stjepan Babić (Croatian Academy of Arts and Sciences) for discussion of these examples.



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KOMUNIKACIJSKE TEHNOLOGIJE I NJIHOV UTJECAJ NA JEZIK: PRIMJER IZ HRVATSKOGA

Širenje novih komunikacijskih tehnologija uvelike utječe na razne vidove komunikacije, ali i na same jezike. Osim novih 'varijeteta' koje nalazimo na Internetu, analiza SMS poruka također ukazuje na činjenicu da je riječ o novom, specifičnom 'varijetetu'. U ovome se članku analizira jedno obilježje SMS poruka pisanih na hrvatskome jeziku, to jest, pojava i uporaba prošloga vremena – aorista. Točnije, aorist u SMS porukama doživljava promjene u značenju i uporabi, što ga s druge strane čini specifičnim obilježjem toga 'varijeteta'.

