Stefan Bulatović*, Anja Schüppert and Charlotte Gooskens

**Receptive multilingualism versus ELF: How well do Slovenes understand Croatian compared to Croatian speakers’ English?**

Receptivna višjejezičnost i ELF: Koliko dobro Slovenci razumiju hrvatski u odnosu na engleski jezik hrvatskih govornika?

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**Abstract:** This study investigates the degree of intelligibility of Croatian and Croatian speakers’ English for native Slovene listeners. For the purposes of the present experiment, 18 native speakers of Croatian were recorded narrating two short films in their mother tongue as well as in English. Each of the 135 participants, whose L1 is Slovene, listened to a recorded Croatian speaker retelling one story in their native language and another in English. The intelligibility of the two communicative modes was measured using multiple-choice questions. Overall, the level of comprehension was found to be higher for English than for Croatian. Two extralinguistic factors (border proximity and language preference) were also considered so as to gain a deeper insight into the nature of the intelligibility of English as a lingua franca (ELF) and receptive multilingualism as two potential mediums of communication between Croatian and Slovene speakers.

**Keywords:** intelligibility, receptive multilingualism, ELF, communication, closely related language

**Apstrakt:** U ovom istraživanju ispituje se u kojoj mjeri izvorni govornici slovenačkog razumiju hrvatski u poređenju sa engleskim jezikom kojeg produkuju hrvatski govornici. Za potrebe sprovedenog eksperimenta snimljeno je 18 izvornih govornika hrvatskog kako pripovijedaju dva kratka filma na svom maternjem jeziku, kao i na engleskom. Svaki od 135 učesnika, čiji je prvi jezik slovenački, slušao je po jednom snimljenog hrvatskog govornika kako pripovijeda radnju

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Communication between speakers of different first languages usually takes place in one of three ways: (i) using a lingua franca such as English, (ii) interacting in the mother tongue of one of the interlocutors, or (iii) exchanging information in a multilingual constellation known as receptive multilingualism (ten Thije and Zeevaert 2007), whereby each of the interlocutors speaks their own L1. While native speakers of typologically unrelated languages are as a rule forced to resort to the first or second mode of interlingual communication, speakers of closely related languages may also employ the third option as a way of engaging in an interaction. In some parts of Europe, such as in Scandinavia (Braunmüller 2007; van Bezooijen and Gooskens 2007; Schüppert 2011), in the Czech Republic and Slovakia (Sloboda and Nábělková 2013), or in the countries that once comprised the Socialist Federal Republic of Yugoslavia (Greenberg 2004), this has been a common form of intercultural contact. Yet, the success of communication by means of receptive multilingualism is contingent on the genetic proximity of the languages in question and, hence, on the degree of their mutual intelligibility. The closer languages are linguistically, the greater the chance that speakers will be able to achieve mutual understanding (Gooskens 2007).

It is widely recognized that English has been by far the most dominant foreign language in Europe, with 97.3% of all EU secondary school pupils studying it as a subject (Eurostat news release 2017). However, only 41% of young Europeans (18–34 years) say they speak English well enough to be able to have a conversation (European Commission 2012). The percentages in these self-report surveys range considerably across EU member states, with many Europeans being likely to face communication problems when confronted with
situations where they need to use English. In such circumstances, speakers of closely related languages might attempt to achieve mutual comprehension by employing their own mother tongues as a communicative medium. Even if the interlocutors whose L1s are closely related do speak English, it is not clear whether communication is likely to be more successful through interaction in their respective native languages or in English as a lingua franca, which is exactly what the present study aims to explore. In particular, we examine how well Slovene native speakers understand Croatian compared to English produced by the same speaker. Needless to say, the outcomes of this study are rather language-specific and therefore other language combinations might yield different results.

1.1 Motivation for the study

European Union citizens are bound to interact frequently with speakers of different L1 backgrounds, not just in official situations, but also in numerous informal encounters, given that freedom of movement is one of the fundamental values enshrined in the EU constitution (Draft Treaty Establishing a Constitution for Europe 2004). However, in spite of frequent interactions with speakers of various mother tongues, communication among EU citizens is not always successful for many reasons, the major one being that interlocutors do not always share a common language.

In 2007, the European Commission’s High Level Group on Multilingualism published a report addressing communication issues in the European Union (European Commission 2007). The report noted a lack of knowledge on interlingual communication possibilities in Europe and called for a more thorough investigation into the potentials and limitations of English as a lingua franca (ELF) and receptive Multilingualism (ReMu). Drawing on the conclusions of the High Level Group on multilingualism, the current paper aims to empirically investigate communication options for native speakers of two closely related languages in Europe by comparing the intelligibility of Croatian and Croatian speakers’ English for Slovene native speakers. The ultimate goal of the investigation is not only to explore the potential of the two modes of communication, but also to set a basis for future research, with the aim of providing guidance for language policies in the European Union.

1 The term “Croatian speakers’ English” will be used throughout this paper to refer to English produced by native Croatian speakers in order to encapsulate its distinctive features.
2 Background

Croatian and Slovene are South-Slavic languages that are mutually intelligible to a high extent (Golubović 2016). As many authors (e.g. Ivić 2001; Kapović 2017) have noted, language varieties spoken across the territory of the former Yugoslavia form a dialect continuum, with Slovene being structurally and lexically distinct from the languages stemming from Serbo-Croatian, namely Bosnian, Croatian, Montenegrin and Serbian. Despite these linguistic differences, it is generally accepted that Slovenes understand Serbo-Croatian standard varieties sufficiently well to make sense of spoken or written discourse, although younger generations in Slovenia are thought to be less able to understand (Serbo-)Croatian compared to those who grew up in the Socialist Federal Republic of Yugoslavia (Fras 2012).

Ever since the foundation of Yugoslavia – or the Kingdom of Serbs, Croats and Slovenes, as it used to be called in the first decade of its history – Serbo-Croatian had enjoyed a privileged status in all the republics, including Slovenia. Although the 1974 constitution guaranteed all citizens the right to use any of the

2 Serbo-Croatian used to be the official language in the former Yugoslavia until the country’s dissolution in the early 1990s. Following the break-up, the independent states that were once part of Yugoslavia named their official languages after their respective nations (i.e. Bosnian, Croatian, Montenegrin and Serbian). As these varieties emerged from a single language, they share the same linguistic system and are mutually intelligible to a very high degree, which is why some linguists (e.g. Kordić 2010) consider them as the standard varieties of the pluricentric Serbo-Croatian language. These varieties are now codified separately in the four centres, whereby each of the nations sets out its own standard norms. Furthermore, over the past two decades the sociolinguistic situation in the four successor states has been fraught with both covert and overt nationalism, with many political figures and even linguists claiming that these languages are fundamentally different. Under the guise of “linguistic correctness,” the national governments as well as the media have often insisted on maintaining or even increasing linguistic differences between these varieties in order to reinforce the integrity of their own, thus undermining mutual intelligibility (Greenberg 2004; Kordić 2010). However, these prescriptive interventions often deviate from the actual usage, which is why they are perceived by many as artificial and imposed (Bugarski 2018). On March 30, 2017, a group of prominent linguists, intellectuals and civil society activists from Bosnia and Herzegovina, Croatia, Montenegro and Serbia signed the Declaration on the Common Language (see Bugarski 2018), which states that people in the four ex-Yugoslav countries speak a common pluricentric language with four mutually intelligible standard varieties. In other words, the Declaration acknowledges the right of the four countries to name their respective varieties as they wish, while accepting the fact that the four languages together form a pluricentric language in the same way as English, French, German, Portuguese or Spanish. The Declaration has drawn mixed reactions from the public in each of the countries, which suggests that further discussion is required on the overall sociolinguistic situation in the former Yugoslavia.
languages spoken in the territory of Yugoslavia, in truth it was Serbo-Croatian that prevailed in both public and private domains. The dominance of Serbo-Croatian was particularly evident in the Yugoslav government, administration, diplomacy, the army and the media, whereas other national languages such as Slovene were highly marginalized (Stabej 2007; Gorjanc 2013).

In the years following the Second World War, Slovenia became increasingly populated with workforce from other former Yugoslav republics. Given the prestigious status of Serbo-Croatian, Slovenes often tended to accommodate to newcomers from Croatia, Bosnia and Herzegovina, Montenegro or Serbia by speaking “the language of the majority,” which is why many Slovenes grew up bilingual (Požgaj Hadži et al. 2013). It was then that ReMu became part of the sociolinguistic reality in Slovenia, taking into consideration Slovenes’ passive or active competence in Serbo-Croatian and certainly their tolerance for this kind of communication (Stabej 2007).

Furthermore, Serbo-Croatian was also a compulsory subject in Year 5 of primary school, but formal instruction only served as a basis for informal language acquisition which took place outside the classroom (Požgaj Hadži et al. 2013). After Slovenia declared independence from Yugoslavia in 1991, Serbo-Croatian was no longer taught at school. In fact, in the first years of independence, Serbo-Croatian evoked such negative attitudes in Slovenia that many were hesitant to speak it for fear of stigmatization. Another reason for negative evaluative reactions towards Serbo-Croatian was the fact that the language was de facto dead, while any discussions about the new standard varieties were inevitably fraught with political implications (Požgaj Hadži et al. 2013). The negative perceptions of the four successor languages to Serbo-Croatian are gradually fading away and these varieties are now becoming treated just like other foreign languages. Yet, Slovenes have remained exposed to Croatian and other standardized varieties of Serbo-Croatian to a higher or lesser degree, particularly through mass media, film, music and the Internet (Fras 2012).

Through history, Slovenes maintained extensive contact with Serbo-Croatian speaking communities (Stabej 2007), so it comes as no surprise that Slovene was largely influenced by (Serbo-)Croatian, especially in terms of lexicon (Greenberg 2006; Orešnik 2006). Furthermore, linguistic interaction between Croatian and Slovene is also evident at the dialect level, given that the Kajkavian and Čakavian dialects of Croatian form a transition towards Slovene (Greenberg 2006). In fact, the Kajkavian dialect, which is mainly spoken in the north-west area of Croatia, has many features in common with Slovene, especially with the north-eastern dialects spoken in the regions of Prekmurje and Prlekija, including
the interrogative/relative pronoun "kaj" (‘what’), decomposition of intervocalic *
į > rj and neocircumflex retraction (Greenberg 2000; Kapović 2017).

Taking into account all these historical facts and the underlying sociolin-
guistic situation in Slovenia, it is reasonable to expect that many Slovenes, even
the younger generation, have at least receptive competence in Croatian at a
certain level. This especially applies to Slovene speakers residing in the vicinity
of the frontier with Croatia, as cross-border contact between the two speaker
communities is almost inevitable.

As regards foreign language competences of Slovene speakers, some studies
have revealed that English and Croatian are the most frequently spoken second
languages in Slovenia. According to the 2012 European Commission Special
Barometer entitled “Europeans and their Languages,” as many as 92% of
Slovenes claim they are able to speak another language in addition to their
mother tongue, which puts them in the top five European nations when it comes
to multilingualism (European Commission 2012). Moreover, in the long-term
perspective, Slovenia ranks third among EU member states whose citizens
have practical skills in at least two foreign languages (67%), just behind
Luxembourg (84%) and the Netherlands (77%) (European Commission 2012:
13). Not surprisingly, the two most commonly spoken foreign languages in
Slovenia include Croatian (61%) and English (59%).

2.1 English as a lingua franca

It is widely accepted that English acts as the de facto lingua franca in Europe
(Cogo and Jenkins 2010). The concept of English as lingua franca (ELF) refers to
a constellation in which speakers of different first languages use English as the
chosen medium of communication (Seidlhofer 2011). ELF is generally regarded
as a communicative mode in its own right rather than a deficient variety of
English as spoken by its native speakers. In fact, most ELF interactions take
place between speakers whose L1 is not English, which is why conformity to
native speaker norms has little relevance in communicative situations involving
ELF. As Seidlhofer puts it, ELF is “a language which has no native speakers”
(Seidlhofer 2001: 146) and hence accommodation and negotiation strategies are
considered far more important for successful ELF communication than native-
like English usage. Hülmbauer and Seidlhofer further build on this premise by
suggesting that ELF is not the same as the codified English language, but rather
“a phenomenon which is based on ‘an (open) source code’ [of English], but
activated as adaptive mode” (Hülmbauer and Seidlhofer 2013: 391).
ELF started to receive attention from scholars during the early 1980s. In these initial stages researchers mostly focused on various aspects of intercultural contact between non-native speakers of English (Meierkord 2012), and it was only in the 2000s that ELF research gathered pace, with a host of theoretical, empirical and corpus-based studies published since then (see, for example, Jenkins 2000; Seidlhofer 2001, Seidlhofer 2011; Cogo and Dewey 2012; Mauranen 2012; Deterding 2013).

One of the fundamental issues in ELF communication is that of intelligibility. Inevitably, the success of an interaction in English between speakers of different L1 backgrounds will ultimately depend on how well the interlocutors can understand each other. In this respect, intelligibility can be approached from various perspectives: whether the interlocutors are able to recognize sounds, words or utterances, whether they are able to grasp the meaning of a word or utterance, or whether the listener can correctly decipher the intention that the speaker is trying to convey in an utterance.

While previous research has focused on different aspects of ELF, including phonology, lexico-grammar and pragmatics (Jenkins et al. 2011), research on the intelligibility of ELF is still in its early stages. Overall, ELF intelligibility may be affected by different linguistic and extralinguistic factors. These factors include but are not limited to the speaker’s pronunciation (Jenkins 2000; Deterding 2013), grammar (Meierkord 2004; Deterding 2013), vocabulary (Seidlhofer 2011; Deterding 2013) and the degree of familiarity between ELF interactants (Smit 2010). In ELF interactions involving solely non-native speakers, pronunciation issues seem to create the most serious difficulties in comprehension (Jenkins 2000). Lack of familiarity with vocabulary can also be a consistent source of intelligibility problems in ELF communication, while non-standard syntax tends not to present a significant barrier to understanding (Seidlhofer 2004; Meierkord 2004).

When it comes to ELF communication between native speakers of Slovene and Croatian, it may be expected that Slovene speakers are likely to benefit from phonemic inventories intelligibility benefit (Bent and Bradlow 2003), given that the phonemic inventories of Slovene and Croatian are very similar (see Greenberg 2000). This term refers to “the benefit afforded by a shared interlanguage between a non-native talker and listener” (Bent and Bradlow 2003: 1600), which suggests that speakers who share the same L1 are likely to have similar speech production of a lingua franca. In line with this theory, Wang and van Heuven (2003) found that English phonological features encoded by Chinese and Dutch native speakers respectively were identified more successfully by listeners who had the same L1 background, indicating that shared native
sound systems may offer an advantage to listeners in decoding the speaker’s non-native mode.

### 2.2 Receptive multilingualism

The concept of receptive multilingualism (ReMu) refers to a multilingual discourse constellation in which speakers of different L1 backgrounds speak their respective native languages and are still able to understand each other without resorting to a lingua franca (Rehbein et al. 2011). Although such a form of linguistic interaction is a long-standing communicative practice, it was only in the second half of the twentieth century that it began to attract interest from researchers. One of the first scholars to investigate this phenomenon was Scandinavian linguist Einar Haugen (1966), who provided an account of this mode of communication among native speakers of Danish, Norwegian and Swedish and named it *semi-communication*. The notion of semi-communication later came to be known as *intercomprehension* (Berthele 2007) and * plurilingual communication* (Lüdi 2007). Yet, the terms that seem to have established themselves in the more recent linguistic literature include *receptive multilingualism* (e.g. ten Thije and Zeevaert 2007; van Bezooijen and Gooskens 2007) and *lingua receptiva* (e.g. Bahtina and ten Thije 2012).

Previous research into ReMu has shown that this communicative approach is frequently applied in a variety of contexts, including border regions, institutional discourse and inter-generational interactions (Rehbein et al. 2011). As Verschik (2012) proposes, ReMu does not necessarily entail interactions that rely on the genetic relatedness between the interactants’ mother tongues (inherent ReMu), but it also refers to situations in which speakers of less closely related languages make use of some acquired knowledge of each other’s language of communication (acquired ReMu). However, most scholarly literature on ReMu is concerned with communication between native speakers of closely related languages and investigates linguistic and extralinguistic factors affecting mutual intelligibility.

Ever since Haugen’s seminal work, research on ReMu has largely focused on inter-Scandinavian communication, or more precisely, on Danish, Norwegian and Swedish (see, for example, Zeevaert 2004; Delsing and Lundin Åkesson 2005; Braunmüller 2007; Gooskens 2007; Kürschner et al. 2008; Schüppert 2011). The mutual intelligibility of other Germanic languages has also been investigated (cf. van Bezooijen and Gooskens 2007; Beerkens 2010; Swarte 2016; Gooskens and van Heuven 2017). Outside the Germanic language family, ReMu has been studied by Jensen (1989) for Spanish and Italian, by Sloboda and

Mutual intelligibility between Croatian and Slovene has been explored by Golubović and Gooskens (2015) in an experimental investigation. Using a variety of methods, such as a written translation task, a spoken and written cloze test as well as a picture-pointing task, they attested a high level of mutual intelligibility between Croatian and Slovene. However, intelligibility was found to be asymmetric, as Slovene speakers were more successful at understanding Croatian than Croatian participants were at comprehending Slovene. In a wider study, Golubović (2016) notes that this might be partly due to the fact that lexical distances (i.e. the percentage of non-cognates) between Croatian and Slovene could be regarded as being asymmetric: while a native speaker of Slovene encounters 22.9% non-cognates when confronted with spoken or written Croatian, the proportion for a native speaker of Croatian when confronted with spoken or written Slovene is 25.8%. On the other hand, Croatian speakers benefit from orthographic (19.6% vs 15.3%) and morphological distances (17.3% vs 14.2%), while phonological and syntactic distances between these two languages are symmetric.

2.3 ELF versus ReMu

There have not been many attempts to explore ELF and ReMu in conjunction with each other, including in the Croatian-Slovene context, which is to some extent understandable, as research into both concepts is still relatively new. Despite the fact that both approaches strive for successful communication, the two modes have mainly been looked at independently and from different perspectives.

Taking into consideration their common communicative goals, as well as the intercultural contexts in which they are employed and the pragmatic strategies used in interactions, a thorough comparison between ELF and ReMu appears justified. This was effected in a theoretical study by Hülmbauer (2014), who argues that ELF and ReMu are by no means mutually exclusive, but in fact can be complementary to each other (cf. also MacKenzie 2014). She notes that while ELF is a well-established communication mode between speakers of different first languages, ReMu is very much dependent on the interactants’ communication history, which is why the latter approach first needs to be negotiated in order to be used in intercultural encounters. Furthermore, while Rehbein et al. (2011) suggest that ELF and ReMu are focused on the speaker and
hearer, respectively, Hülmbauer (2014) maintains that both modes contain a productive and receptive component. While, to the best of our knowledge, the comparison of the two modes has not been tested empirically among the Slavic languages, there have been some notable efforts to compare the effectiveness of ELF and ReMu among the Germanic languages, particularly in Dutch-German interactions. To explore the success of communication using ELF and ReMu respectively, Blees et al. (2014) tested Dutch and German students using a problem-solving task involving four different maze puzzles, whereby two mazes were solved by the participants using ELF (the lingua franca mode) and two by having them speak their respective native languages (the receptive mode). Their findings suggest that ELF was more effective than ReMu, which the authors attribute to the participants’ self-reported English proficiency being higher than the passive knowledge of their partner’s native language. Additionally, ReMu was found to involve a much higher cognitive cost, as the participants struggled to achieve alignment in order to reach mutual understanding.

2.4 Research question

The present study aims to establish whether ELF or ReMu is more likely to enable effective communication between Croatian and Slovene native speakers, as well as to check whether and to what extent certain extralinguistic factors may contribute to the intelligibility of the two modes. Due to the limited scope of the paper, we only examined how well Slovenes understand Croatian compared to English produced by Croatian native speakers, and not vice versa. As we were mainly interested in investigating the degree of intelligibility between speakers and listeners who are likely to travel and find themselves in a situation where they have to opt for either ELF or ReMu, we decided to focus on young, well-educated participants (see Section 3.2 for speaker details and Section 3.5 for participant details). However, this meant that our participants were likely to have an above-average proficiency level of English. We therefore opted to compare the potential of using ELF with the possibility of employing ReMu in a language pair where receptive competences could be expected to be rather high, i.e. Croatian–Slovene (Golubović and Gooskens 2015; Gooskens et al. 2018). The main reason why we chose Croatian and Slovene was the fact that they belong to languages that are relatively intelligible in the ReMu mode, which gives this communicative approach a fair chance even among young people (while their English proficiency is considered higher than that of older generations). Investigating the most successful Slavic combination reported by
Golubović and Gooskens (2015) and Golubović (2016), i.e. Czech and Slovak, however, would not give a relevant picture, as these languages are so closely related that their respective native speakers normally have hardly any problems understanding each other. Moreover, it needs to be kept in mind that our choice of speakers and listeners further limits the generalizability of the study.

Specifically, the following research questions are addressed in the present article:

1. How well do Slovene native speakers understand Croatian compared to Croatian speakers’ English?
2. Does the ability of Slovene speakers to understand Croatian and Croatian speakers’ English depend on how close they live to the Croatian border?
3. Does Slovene speakers’ preference for a communicative mode depend on how well they understand Croatian compared to how well they understand Croatian speakers’ English?

3 Method and design

As this study is concerned with comparing two possible means of communication between speakers of closely related languages, we aimed at modelling spontaneous speech as much as possible, while still being able to control for content, form, formality, familiarity and approximate length of speech samples in order to ensure that these are comparable across the speakers and, even more importantly, across the two communicative modes (ELF vs ReMu). For this reason, it seemed most appropriate to compare the intelligibility of ELF and ReMu using semi-spontaneous speech, in which interlocutors produce language freely on a given topic and whose content and form are controlled to a large degree by the nature of the task. Semi-spontaneous speech production is also recommended by Gooskens (2013), as it simulates a natural situation in a controlled setting, although she points out that this type of task makes it difficult to use the same material for different test languages due to priming effects.

3.1 Stimuli

In order to elicit semi-spontaneous speech, researchers have used a variety of different visual materials as prompts for narratives, including cartoon strips (e.g. Skehan and Foster 1997; Yuan and Ellis 2003; Tavakoli and Foster 2011), silent
videos (Schmid 2002) or map tasks (Anderson et al. 1991). We opted to use two different silent videos as prompt materials for the retellings in order to be able to employ a Latin square design (see Section 3.4).

A number of criteria had to be considered when selecting videos to be narrated, including length, ease of interpretation and pace of the action. The following two videos were chosen as prompts:
A. The man and the thief by Joel Plunkett. This video is 4.59 minutes in length.
B. Faith by Eugene Ramos. This video is slightly longer (5.32 minutes), not counting the opening and closing credits, which were cut from the version that was shown to the speakers.

3.2 Recording process

To create the stimulus material for the experiment, native speakers of Croatian were recorded retelling the two videos in question. Crucially, every speaker retold videos in Croatian and English (as used by Croatian speakers), but never retold the same video in both languages. This design was chosen in order to avoid the effect of task repetition, as research suggests that repeating a narrative retelling task results in increased structural complexity and fluency (e.g. Bygate 2001). Instead, half of the speakers narrated video A in Croatian and video B in English, while the other half of the speakers narrated video A in English and video B in Croatian.

Before the retelling tasks, the speakers were presented with a background questionnaire in their native Croatian via the SurveyGizmo online platform. They were asked about their age, sex, level of education, the country they grew up in, languages spoken at home, possible periods of life spent abroad and the use of and exposure to English.

The speakers were asked to watch the videos carefully only once and then describe the events in the film from the beginning to the end. Those retellings were recorded using the audio editing program Audacity. During the recording process, the speakers were presented with ten screenshots of the specific video to help them remember as many details as possible, as well as to ensure that they did not divert from the storyline too much while narrating the plot. Every speaker retold the first video in Croatian and the second one in English. The

6 The videos were embedded in the SurveyGizmo platform, meaning that the speakers were not redirected to the YouTube website.
videos were presented in randomized order to make certain that about half of
the speakers’ recordings were retellings of video A and the other half retellings
of video B.

A total of 30 native speakers of Croatian were recruited for the purposes of
recording and they were all female, so as to control for the effect of gender on
voice quality (see Bradlow et al. 1996). All the speakers were undergraduate
students from different subject areas at the University of Zagreb. We excluded
language students, as speakers specializing in languages might have a better
linguistic repertoire than their peers from other disciplines. The recording pro-
cess took place in a phonetic laboratory of the university using a microphone.
During the recording, the speakers could not use any external help, nor were
they allowed to take notes.

The mean age of the selected speakers was 20.1 ($SD = 1.9$). All of them had
grown up in Croatia and their first language was Croatian. In addition, they had
started learning English at school as an L2 at the average age of 7 and none had
lived abroad for more than a month.

3.3 Selection and preparation of the recordings

Speakers were only selected for the experiment if both recordings (i.e. English
and Croatian) fulfilled our selection criteria:

- a maximum of 4:00 minutes in length, in order to prevent fatigue in
  listeners;
- following a roughly similar storyline, with each mentioning specific events
  or important details in the film, as these elements were the ones that
  listeners were asked questions about.

Accordingly, from the set of 30 candidate speakers, we selected 18 whose
retellings would be used in the experiment. For the sake of balance, nine of
the selected speakers were those who narrated video A in English and video B in
Croatian, whereas the other nine talkers were the ones who narrated video A in
Croatian and video B in English.

In order to reduce the effect of memory differences in listeners, we decided
to cut the retellings into six fragments each. Some of the fragments were further
reduced by removing pauses, repetitions, false starts or unnecessary parts,
provided that this did not affect the content and intelligibility of the narrative.
The fragments varied in length and lasted between 7 and 35 seconds. The
intensity of the recordings was aligned as much as possible, so all the fragments
were set at approximately 65 db.
3.4 Listening task

Prior to the experiment, the participants were presented with a background questionnaire, which included questions on their age, sex, level of education and first language, as well as where they had grown up and whether they spoke another language at home. They were also asked to rate their own English proficiency on a 5-point Likert scale. All instructions and questions were given in the participants’ native Slovene.

The experiment was divided into two parts, namely Task A and Task B. Both tasks were introduced by a short text without revealing any details about the content. Task and speaker assignment was random and so was the language. This means that the listeners were presented with either Task A or B first, with the narrative being told in either English or Croatian (Latin square design), which resulted in four groups of participants (I, II, III, IV), each starting with different tasks and languages. Every participant heard only one speaker, i.e. one retelling in English and one retelling in Croatian. Table 1 illustrates this design: group I consisted of 32 participants, group II of 31 participants, group III of 31 participants and group IV of 41 participants.

Table 1: The four task–language combinations (I, II, III, IV) in the design.

<table>
<thead>
<tr>
<th>First task</th>
<th>First language</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>English</td>
</tr>
<tr>
<td>A</td>
<td>32 (I)</td>
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<tr>
<td>B</td>
<td>31 (III)</td>
</tr>
</tbody>
</table>

The intelligibility of the retellings was measured using multiple-choice questions about the content of each fragment (see the Appendix). Specifically, the participants heard each of the six fragments once, followed by a question with four possible answers, only one of which was correct. There was no time limit to the questions, but the subjects could not proceed to the next fragment before selecting an answer.

All multiple-choice questions were pre-tested to evaluate their appropriateness and the level of difficulty. Eight volunteers took the test without hearing the

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7 Each participant was presented with the same multiple-choice questions, regardless of the assigned speaker or language mode.
narratives or watching the videos to ensure that none of the answers could be guessed using common sense. If a question was answered correctly by more than a half of these pilot test takers, the original distractors were revised.

After completing the two tasks, the participants were presented with a post-test attitudinal question in order to ascertain whether listener attitude might have had some bearing on intelligibility. Specifically, they were asked to opt for a language mode (ELF or ReMu) if they were to hear another story from the same speaker, by which we aimed to elicit preference for a communicative medium from our participants. Finally, at the end of the experiment the participants were given information about the scores they had achieved in both tests.

3.5 Participant data

The experiment was conducted online over the course of two months. As the target group were young people, particularly in their twenties, it was decided to use social media in order to get as many responses as possible from this population. To this end, a link to the survey was placed in a number of Facebook groups assembling university and high school students, along with a short engagement text inviting users to have their comprehension of Croatian and Croatian speakers’ English tested.

A total of 135 participants took part in the experiment, 86 of whom were female and 49 male. All of them declared themselves to be native speakers of Slovene and to have grown up in Slovenia. Besides native Slovene, 7 subjects said they spoke another language at home (German and Italian), as well as the Prekmurian dialect. In addition, 21 respondents (15.5%) reported having lived for more than a month in another country where they used English. Apart from these 135 participants who were involved in the experiment, two subjects who took the test indicated that they had been born in Montenegro and Macedonia, respectively, so we decided to exclude them from the analysis, as they might have been exposed to Serbo-Croatian varieties more than the rest of the group.

In order to ensure that participants had not been taught Croatian at school, the experiment targeted subjects under the age of 30. The mean age of the participants was 22.7 ($SD = 2.8$), ranging from 15 to 30 years. In terms of education, the majority of those tested (85.1%) either had a university degree or studied for a higher education qualification.

The last section in the background questionnaire was dedicated to contact with Croatian, assuming that the participants had not taken a course in Croatian outside of school. A large majority (87.4%) stated to having had some exposure to Croatian, be it frequent, occasional or rare. As regards place of residence, 31.9% of
the participants said they lived within 30 kilometres from the border with Croatia, which is not surprising given that Slovenia is rather a small country, with the Croatian-Slovene border stretching for approximately 670 kilometres.

4 Results

In order to investigate how intelligible Croatian and Croatian speakers’ English are to native Slovene speakers, we calculated scores for each language mode, regardless of speaker–listener pairings. This approach was adopted so as to shed light on the general ability of Slovene listeners to understand Croats of different speaker-specific characteristics and varying levels of English language proficiency. As mentioned above, an intelligibility score was established based on the number of correctly answered multiple-choice questions. Participants received 1 point for each correct answer, and since there were a total of six questions, the maximum score was 6. In order to improve the interpretability of our results, we converted the raw scores into percentages (e.g. score “0” corresponded to 0% and score “6” corresponded to 100%).

While some of the test items seemed to be quite challenging for the participants, there were questions which appeared relatively easy to answer correctly, thus giving rise to a ceiling effect on some of the questions. For example, questions 3, 4 and 5 in Task A were answered correctly by more than 90% of the participants. There could be several possible explanations for this: the questions were perhaps too simple, the distractors were not plausible enough or, simply, the participants had no difficulty understanding the fragments in question. Nonetheless, in both tasks there was at least one question that was difficult enough to help discriminate between participants who deal more successfully with either ELF and ReMu.

On the whole, the participants achieved very high scores in both ELF and ReMu tests. The mean intelligibility in the experimental part where Slovenes listened to Croats speaking English was 92.4% \((SD = 12.3)\), whereas the mean intelligibility obtained in the Croatian part of the experiment was 84.2% \((SD = 17.2)\). A paired samples \(t\)-test revealed that this difference was significant, \(t(134) = 4.8, p < 0.001\), two-tailed (see Figure 1). The observed effect size was moderate (Cohen’s \(d = 0.42\)).

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8 The complex construct of English language proficiency is not regarded here as conformity to native speaker norms, but rather as the ability to communicate ideas effectively using English as the code (see Seidlohofer 2011, 2018).
4.1 The influence of border proximity and language mode preference on intelligibility

Following the two intelligibility tasks, the subjects were asked whether they would prefer to listen to a speaker retelling a story in English or in Croatian if they could choose themselves. We were interested in finding out whether there was a systematic relationship between language mode preference and performance on the two tests. Furthermore, we were interested in whether habitual residence in the border region can be a predicting factor in Slovenes’ ability to understand Croatian. To this end, the survey also asked the participants to state whether they lived within 30 kilometres from the Croatian border, which helped create two groups of subjects – those who do and those who do not live in the vicinity of the border with Croatia.

In order to investigate the influence of border proximity and language mode preference on intelligibility, we conducted a repeated-measures ANOVA with “test language” (English vs Croatian) as within-subject factor and with “border proximity” (binary variable: living either within or outside 30 kilometres from the border) and “language mode preference” (also binary: ELF or ReMu) as between-subject factors, and with “intelligibility” as the dependent factor. This analysis confirmed a highly significant ($p < 0.001$) main effect of “test language” ($F(1, 131) = 14.9$) in such a way that English was found to be more intelligible to the participants. The effect size of “test language” as within-subject factor was medium with $r = 0.32$. We found no significant main effect of either “border proximity” ($F(1, 131) = 0.49$, $p = 0.49$, $r = 0.06$) or “language mode preference” ($F(1, 131) = 1.17$, $p = 0.28$, $r = 0.09$). This indicates that

![Figure 1: Mean intelligibility scores on the ELF and ReMu tests.](image-url)
participants who live close to the border did not perform significantly differently from those who live further away, and that participants who prefer English over Croatian did not perform significantly differently from those who prefer Croatian over English.

Also, the interaction effect between those two between-subject factors did not contribute significantly to the model \((F(1, 131) = 0.58, p = 0.45)\), which indicates that overall the participants’ language mode preference was not significantly associated with how close they live to the border. Furthermore, neither the interaction effect between “test language” and “border proximity” \((F(1, 131) = 3.08, p = 0.08)\) nor the interaction effect between “test language” and “language mode preference” \((F(1, 131) = 1.92, p = 0.17)\) were significant.

However, we did find a significant three-way interaction effect between the main factor “test language” and the two between-subject factors “border proximity” and “language mode preference” \((F(1, 131) = 5.09, p = 0.03)\), as visualized in Figure 2.

![Figure 2: Three-way interaction of intelligibility scores between “test language” (x-axis), “border proximity” (separate lines) and “language mode preference” (separate plots).](image)

This three-way interaction effect indicates that the effect of “language mode preference,” which overall was not significantly associated with “border proximity,” significantly affected the degree of influence that “language mode preference” had on intelligibility scores. Specifically, only for those participants who preferred the ReMu language mode, living further than 30 kilometres away from the border to Croatia was associated with poorer intelligibility scores in the ReMu than in the ELF mode, while this difference was not observable among the participants living closer than 30 kilometres to the border. However, the effect size was low \((r = 0.19)\).
5 Discussion and conclusion

The goal of this experimental study was to investigate how well Slovene native speakers understand Croatian and English as produced by Croatian speakers. Given the genetic proximity of Croatian and Slovene, frequent interactions between speakers of these two languages, as well as the fact that Croatia and Slovenia share a long history of relations, the study sought to examine whether communication between Croats and Slovenes is more likely to be successful by resorting to ReMu or by using ELF.

A total of 135 Slovene native speakers took part in the experiment. As this study primarily aimed at testing the intelligibility of Croatian and English (as a lingua franca) for young people in Slovenia, all those who took part in the experiment were under 30 years of age. This population was not chosen arbitrarily, but to make sure that subjects had not received formal instruction in (Serbo-)Croatian during their schooling like most of those older than 30 had.

Despite the fact that many participants reached a score of 5 or 6 out of 6, it was still possible to make a distinction between the degree of intelligibility of Croatian and Croatian speakers’ English for Slovene native speakers. On the whole, the participants were more successful when they listened to a Croatian speaker narrating in English (mean percentage of correct answers: 92.4%) than when a story was told in Croatian (mean percentage: 84.2%). The difference between the scores on the two tests was significant, suggesting that Slovenes are likely to understand Croatian speakers’ English better than Croatian. However, the effect size was only moderate, which might (partly) be attributed to the ceiling effect in our results.

Furthermore, we looked at whether there is a relationship between the intelligibility in the two modes of communication and (i) the proximity of subjects’ habitual residence to the border and (ii) the preferred language mode. While our analysis did not reveal any significant main effect of border proximity or language mode preference, or significant interaction effects of these two factors with either Croatian or Croatian speakers’ English, there was a significant three-way interaction effect between intelligibility, border proximity and the preferred language mode. Even though the effect size was low and the conclusions should therefore be interpreted with some caution, these results suggest that Slovenes who live more than 30 kilometres from the border and prefer ReMu as a mode of communication with their Croatian neighbours actually have more difficulties understanding their interlocutors than all other groups. The fact that there was no significant main effect of preference for a language mode could be interpreted as being in disagreement with previous
studies which suggest that listeners with a positive attitude often score higher on intelligibility tests than listeners with a less positive attitude (e.g. Rubin 1992; Delsing and Lundin Åkesson 2005; Gooskens 2006). However, the literature remains fairly opaque on the causal relationship between attitudes and intelligibility, as there is only weak experimental support for such a hypothesis (e.g. Schüppert et al. 2015). Additionally, preference for a language mode (as an attitudinal dimension) need not necessarily be based solely on (anticipated) intelligibility, but might also be influenced by other factors such as social connotations (Trudgill and Giles 1978), which may affect our belief about the ability to understand a language and the effort we are willing to expend in order to decode it (for a discussion, see Giles and Niedzielski 1998).

As noted above, there are several possible explanations as to why the test yielded high scores in both language modes. First, the mere test format was conducive to high scores, as subjects were only required to recognize the correct answer among four offered options. We opted for a multiple-choice design, as such tests have been shown to exhibit high internal reliability (Brindley 1998) and enable precise and objective scoring of subjects’ performance. Previous research has shown, however, that participants tend to score higher on multiple-choice tests aimed at measuring intelligibility than, for instance, on cloze tests or open question tasks, since questions that require recognition tend to be easier than those aimed at language production (see, for example, Yorkston and Beukelman 1978; Berne 1993; Miller 2013). Apparently, the difficulty of the task was not entirely suitable for our participants, which led to content questions that appeared too easy to answer for the subjects, irrespective of the language mode. This, in turn, gave rise to a ceiling effect in the scores.

Second, taking into consideration the aforementioned Slovenes’ English competences and the fact that English and Croatian are the two most widely spoken second languages in Slovenia, high scores on both tests are hardly surprising. If we add to this that our participants on average started learning English at the age of 9 and keeping in mind that this language is a mandatory subject in both primary and secondary school, it is quite reasonable to assume that overall ELF comprehension does not represent a major problem, especially if the interlocutor is a speaker of a related language, whereby some kind of interlanguage speech intelligibility benefit might be a contributing factor. In this context, although our study aimed at establishing whether speakers of Slovene are more likely to communicate successfully with a speaker of Croatian using their native language or ELF, the results suggest that both modes can work extraordinarily well. What is more, these findings indicate that ReMu and ELF in Croatian-Slovene communication need not be regarded as mutually exclusive,
but in fact employed as complementary to each other, which is in line with what Hülmbauer (2014) proposes at a general level.

Third, the participants’ high scores on the English part of the experiment could also be accounted for by the intelligibility of English produced by the speakers who narrated the two videos. In consultation with two language specialists (native and near-native English speaker), it was concluded that the recorded Croatian speakers generally displayed a high level of English proficiency (i.e. the effective use of English linguistic resources), which may have facilitated intelligibility for listeners of a similar language background. While a detailed description of Croatian speakers’ ELF is beyond the scope of this paper, it can be reasonably hypothesized that these speakers produced the Lingua Franca Core features (see Jenkins 2000) with a high degree of accuracy, which consequently enhanced intelligibility for Slovene listeners. Such a description needs to be addressed in future research.

Overall, the present article is a contribution to the existing body of literature on ReMu and intelligibility of closely related languages, as well as to the intelligibility of ELF in non-native speaker interactions. To our knowledge, this is one of the very few studies dealing with communication between Croats and Slovenes. What also makes this piece of research different from other studies is the fact that it tested the intelligibility of (semi)-spontaneous speech produced by speakers of a closely related language, thus giving importance to the listener ability to understand spoken discourse as it occurs naturally, while still preserving control of the content of the narrative generated by an array of speakers. Still, it also appears vital to investigate communication between Croatian and Slovene speakers using the two modes in a natural setting, so as to gain an insight into pragmatic strategies and communicative practices employed by interactants, as well as to understand how factors such as shared communication history or individual speaker repertoires impact mutual comprehension.

This study is not without its limitations, of course. For instance, the speech samples used in the experiment varied in length and structure, which made it difficult not just to formulate identical questions about them, but also to draw broad generalizations about the degree of their intelligibility for listeners with a related language background. Also, the scope of this project did not allow us to investigate intelligibility in the opposite direction, i.e. how well Croatian speakers understand Slovenes when the latter speak their L1 and English, which would have provided us with an indication of whether intelligibility between these two language combinations is symmetric or asymmetric.

To conclude, this paper will hopefully be a stimulus for further empirical investigation into communication between speakers of closely related languages.
by means of ReMu and ELF, especially when it comes to quantitative studies. Keeping in mind the European Union’s policy on promoting linguistic diversity while still insisting on learning foreign languages, the outcomes of this research could provide an additional input for creating language policies in Slovenia.

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**Appendix**

**Task A:**

**Question 1**

**What is the girl doing at the beginning of the story?**
- She is waving at someone on the train.
- She is meeting someone at the train station.
- She is running to catch the train.
- She has just got off the train.

**Question 2**

**Why is the girl taking so long to buy the ticket?**
- She is looking for money.
- A man asked her to help him buy a ticket.
- The ticket machine is faulty.
- The person in front of her is slow.

**Question 3**

**What happened while the girl was sitting next to the boy?**
- The girl started crying.
- A man stole the girl’s purse.
- The girl started listening to music.
- The boy fell asleep while reading a book.
Question 4

How did the girl get her bag back?
☐ The boy took it from the thief.
☐ The girl managed to catch the thief.
☐ The police caught the thief.
☐ The thief dropped the bag.

Question 5

What did the girl do when the boy returned the bag to her?
☐ She couldn’t stop crying.
☐ She gave the boy a hug.
☐ She kissed the boy.
☐ She offered the boy a reward.

Question 6

What do we learn at the end of the movie?
☐ The girl gave the boy her phone number.
☐ The boy and the girl kissed on the train.
☐ The girl robbed the boy.
☐ The boy mistakenly gave the girl his wallet.

Task B:

Question 1

What do we learn at the beginning of the movie?
☐ The boy feels lonely.
☐ The boy does not have enough food.
☐ The boy is excited about his new job.
☐ The boy lives with two roommates.

Question 2

What happened while the boy was walking after work?
☐ He met a friend.
☐ He found a skateboard.
☐ He started crying.
☐ Someone pushed him.
Question 3
What did the boy lose when he fell on the ground?
- Keys
- Phone
- Ring
- Glasses

Question 4
What did the boy find when he was leaving the house?
- A letter
- A dog
- A new pair of glasses
- A Bible

Question 5
What was written on the note he saw in the park?
- A job advertisement.
- Someone was looking for a dog.
- A call for a skateboarding competition.
- A quote from the Bible.

Question 6
How does the movie end?
- The boys wins a money prize.
- The boy becomes rich.
- The boy found a new apartment.
- The boy lives together with the dog’s owner.

References


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