

**UNIVERSITY OF TARTU
DEPARTMENT OF ENGLISH STUDIES**

**AN ANALYSIS OF ESTONIAN GAMING STREAMERS' ENGLISH-
ESTONIAN CODE-SWITCHING
MA thesis**

LOORE LIFLÄNDER

SUPERVISORS: Lect. REELI TORN-LEESIK

Assoc. Prof. VIRVE-ANNELI VIHMAN

**TARTU
2020**

ABSTRACT

Examining contact effects in language use helps to better understand contact-induced language change as well as the interaction between specific languages. The parallel use of at least two languages in one utterance is called code-switching. The use of code-switching allows for structural and semantic impact, which may result in new and interesting combinations. This MA thesis discusses English-Estonian code-switching in the Estonian online gaming community with the aim of answering two research questions: how do Estonian gamers use English code-switches in their Estonian utterances and can a cross-modal effect of code-switching be determined.

This thesis consists of an introduction, two core chapters, conclusion, a list of references, and two appendices. The first chapter covers the theoretical background on code-switching, analysis frameworks, and previous studies relevant to the topic. The analysis models applied in this thesis are that of the Code Copying Framework and the Matrix-Language Framework. The second chapter presents the analysis of English-Estonian code-switching based on the videos of three content creators. These consist of both spoken and written text which were transcribed and are presented in the appendix. The conclusion summarises the findings and suggests further possible research.

TABLE OF CONTENTS

ABSTRACT	2
LIST OF ABBREVIATIONS.....	4
INTRODUCTION.....	5
1. THEORETICAL BACKGROUND.....	9
1.1 Defining Code-Switching	9
1.2 Motivations for Code-Switching.....	10
1.3 Analytic approaches to Code-Switching	12
1.4 Analytical frameworks.....	15
1.4.1 Matrix Language-Frame Model.....	15
1.4.2 Code-copying Framework (CCF)	18
1.5 English-Estonian Code-Switching	21
1.5.1 Language Structure	21
1.5.2 Research on code-copying in blogs and vlogs	23
1.6 Code-switching in gaming	28
2. ANALYSIS OF CODE-SWITCHING IN ESTONIAN GAMING STREAMS	32
2.1 Data collection.....	32
2.2 Data analysis.....	34
2.2.1 Global copies	41
2.2.2 Selective Copies.....	53
2.3 Discussion	57
2.3.1 Cross-Modal effects of Code-Switching	57
2.3.2 Comparison with previous research.....	59
CONCLUSION.....	63
REFERENCES	66
APPENDIX	71
Transcriptions of the Estonian gaming streams.....	71
RESÜMEE	88

LIST OF ABBREVIATIONS

CS – Code-Switching

MM – Markedness Model

CA – Conversation Analysis

MLF – Matrix Language-Frame Model

CCF – Code-Copying Framework

ML – Matrix Language

EL – Embedded Language

L1 – First Language

L2 – Second Language

CA – Conversation Analysis

MC – Mixed Copy

GC – Global Copy

SC – Selective Copy

INTRODUCTION

The contact between languages is an integral part of the development of language. In fact, the mutual influence of multiple languages can occur within large language communities as well as within small subgroups. In order for the influence to have some significance, the speakers should have at least partial understanding of the second language in the form of expressions and phrases (Kostenko 2007:5). This interaction of multiple languages can occur in the form of code-switching (CS). CS is the parallel use of at least two languages in one utterance. CS allows for one to insert any lexical items, longer phrases or grammatical structures from one language to another.

As noted by Kask (2016: 80) the English-Estonian language contact has intensified since 1991 after Estonia regained its independence and Estonian has seen a gradual increase of English loan words and expressions. Kask (2016) also states that: “apart from studies on conventionalized lexical borrowings in Standard Estonian and a handful of MA theses [...] exploring the impact of English in internet communication” the investigation of English-language impact on Estonian has not been extensively researched. Furthermore, Kask reasons that various internet-based language communities are of interest to a wide range of scholars who are, for instance, concerned with virtual communities, innovative language use and language contacts.

This MA thesis focuses on the impact of English on Estonian in the Estonian online gaming community by analysing the contact-induced change in the speakers’ language use through CS. It is the hypothesis of this thesis that the language use in the online gaming community can provide a unique window into individual language use, multilingual repertoire as well as the entrenchment of English patterns and the evolution of multilingual speech (Backus, 2012). The hypothesis derives from the theory that the online gaming streams belong to a monolingual asynchronous genre (Zenner et al. 2018: 51).

In most western gaming communities, the jargon used in gaming derives from English. The reason being, that the in-game content in most western games is in English. Therefore, the game terminology, text spoken by non-player characters, instructions, quests, combat systems etc. are all in English. The player must be able to navigate within the game by learning and understanding at least a portion of the text provided. Another aspect to consider is communication between players within the game. Many massively multiplayer online role-playing games consist largely of teamwork and communication with other players. Often players are from different countries and one does not usually know another player's language. Hence, English is used as a lingua franca to speak to any player within the game. Therefore, most gamers acquire some basic knowledge of English and become well-versed in gaming-specific terminology when communicating with other players.

Gaming has been popularized to a large extent due to the emergence of new platforms such as Twitch and Mixer. Previously one could upload their gameplays onto YouTube, but this platform caters to all interests and gaming videos were much harder to come by. Nowadays, people upload live streams of themselves playing as well as pre-recorded content, such as tutorials, as a means to make a living. The audience for such content has increased substantially in the last ten years. Most people who stream use English as their linguistic tool to communicate with their audience. However, in Estonia there is a sizable community of streamers who use Estonian as their main language. The data for this thesis were collected from three content creators who mainly use Estonian to communicate with their audience. Two to three videos of each streamer were transcribed with emphasis on instances of CS.

The gaming streams are unique from the point of view of linguistic analysis because each stream provides unedited, authentic language use from both the speaker and the commentators. The nature of the streams allows for viewers to comment on what the gamer is doing in real-time. In some cases, the gamers are talented at multitasking and manage to focus

on the game and the comments simultaneously, communicating with their viewers freely. More popular streamers have many viewers commenting at the same time, which results in comments running past at a rapid speed. This prompts the commentators to write fast and communicate as quickly and accurately as they can. These aspects of the gaming streams result in an example of cross-modal communication. From an analytical point of view, the spoken text together with the written commentaries provide an interesting pair to study. The aim of this thesis is twofold: to analyse how global- and selective English copies impact the structure of Estonian phrases. Secondly, to discuss whether a cross-modal effect of CS can be determined.

The analysis is based on two models which take distinct approaches to CS: The Code-Copying Framework (CCF) by Lars Johanson and the Matrix Language-Frame Model (MLF) by Myers-Scotton. The MLF is based on principles which allow for the analysis of the morphosyntactic frame of an utterance. This approach is useful for analysing the structure and integration of CS. Johanson's analysis of code-switching leans towards a usage-based approach which incorporates cognition into the analysis of contact-induced language change (Verschik and Kask 2019: 2) as opposed to Myers-Scotton, whose analysis model is form-focused. According to Verschik (2019: 3) it has been empirically confirmed that "in language maintenance situations, lexical innovation precedes everything else followed by slight structural change." It is believed that the latter is due to the difference in the cognitive effort required for recognizing, processing and internalization of specific and abstract meaning (Verschik 2019: 4). Hence, the applicability of the CCF in terms of analysis could provide insight into the cognitive complexity with which the Estonian gaming community code-switches to English. The MLF provides tools for analysing how the embedded language units are integrated structurally, while CCF provides tools for looking at broader contact, not limited only to embedded other-language units.

The thesis is divided into three main chapters. The first chapter gives an overview of the theoretical background to CS, introduces the two models used for analysis, and provides insight into previously conducted research. The second chapter focuses on the data and its analysis. It is divided into subsections, the first of which describes how the data were collected, as well as the transcription process. Secondly, the chapter analyses the data using the CCF and MLF approaches. The Discussion section provides a comparison of the findings with those of previous research, as well as the implications and the limitations of this study. Lastly, the discussion is followed by a conclusion which summarises the whole thesis and suggests further possible research on the topic. The appendix of this thesis provides an overview of the whole transcribed material.

1. THEORETICAL BACKGROUND

1.1 Defining Code-Switching

Gumperz (1982: 59) defines Code-Switching (CS) as: “the juxtaposition of what speakers must consciously or subconsciously process as strings formed according to the internal rules of two distinct grammatical systems”. Myers-Scotton (1993: 1), on the other hand, refers to CS as alternations of linguistic varieties within the same conversation. In addition, Thomason (2001: 234) claims that CS can be used as an umbrella term referring several terms, including *code-mixing*; *code-changing*, *tag-switching*, *situational* and *metaphorical code-switching*. In this thesis the definition used is that of Myers-Scotton.

Myers-Scotton (2006) claims that the preference of one language variation over another within a conversation is determined by the speakers’ aims and the social peculiarities of the conversation. Myers-Scotton highlights various reasons as to why CS would appear in one community. One reason derives from classic diglossia, “a construct used to describe the situation under which two varieties of the same language are in use in the same nation but for different situations” (Myers-Scotton 2006: 149). In this case, one of the languages spoken is a variety that all native-born people acquire as their first language (L1). The other variety (sometimes varieties) are learned formally (i.e. through schooling) and are used in very specific situations. When allocating a community’s linguistic repertoire, Myers-Scotton (2006) uses the term “domain”. This means that the varieties spoken can be associated with different types of use or domains. For example, Myers-Scotton (2006: 149) differentiates between domains such as “home and “work”. Usually, due to the nature of how the L1 is acquired and due to the frequency of use by children and adults, the L1 becomes more associated with the home domain. Other interactions which incorporate the familiarity and informality of the home domain, such as shopping, are also included within the home domain (Myers-Scotton 2006: 149). Formal language use, such as one’s professional language, written work or public

speaking, can be associated with the work domain. In contrast to classic diglossia, Myers-Scotton (2006) notes that according to extended diglossia in some language communities the home domain is the one associated with education and formal occasions. The latter can happen when the home domain is not the L1 of the native-born citizens and, according to Myers-Scotton, in this case it almost never is the L1 of all the local citizens (Myers-Scotton 2006: 150).

1.2 Motivations for Code-Switching

CS can also derive from the speaker's own motivations in a particular context. When considering the speakers' motivations for CS, Myers-Scotton (2006: 150) refers to the two dimensions proposed by Brown and Gilman (1960) "power" and "solidarity". These concepts are the underlying factors influencing the linguistic choices speakers make. Myers-Scotton (2006: 150) defines solidarity as "an attribute of relationships that arises through a shared membership with another person." In other words, if a person shares a significant part of their life (such as family, work, important hobbies) with another, there is more potential for solidarity between the two. Power, on the other hand, is asymmetrical in nature and signifies inequality. A participant who has more power in the interaction, has control over the outcomes and factors that affect the other participant (Myers-Scotton 2006: 150). Solidarity and power are not mutually exclusive. Sometimes, these two attributes exist in the same relationship. For instance, a parent and a child can share solidarity whilst the parent has power over their child (Myers-Scotton 2006: 150). Another attribute of relationships is social distance which directly correlates to solidarity. Therefore, "how much social distance there is between speakers is related to how much solidarity they share and how great the power gap is between them" (Myers-Scotton 2006: 151).

Building on the concepts of 'power' and 'solidarity', Giles et al (1971) proposed two models for understanding speaker motivations. The First model is Communication

Accommodation Theory or simply Accommodation Theory. The key terms for this theory are “convergence” and “divergence”. The former refers to a process in which a person attempts to reduce social differences by adapting to the other person’s speech. The latter contradicts the method of adaptation, meaning that the speaker emphasises the social and non-verbal differences between them and their listener. The basic premise of Accommodation Theory, as stated by Myers-Scotton (2006: 155) is that “speakers tend to accommodate their speech to persons whom they like or whom they wish to be liked by, and they tend to diverge from those persons whom they don’t like.” This model suggests that the speakers’ linguistic choices are not solely reflective of who they are (in terms of their group membership), but also a product of what they wish to accomplish (Myers-Scotton 2006: 155). According to the Accommodation Theory, the speakers make choices with their listeners foremost in mind. Often, their choices are made to gain approval and to build solidarity with the listener. This theory is significant to CS because it can explain the motivation for CS to promote efficient communication or to achieve instrumental goals (Myers-Scotton 2006: 155). To illustrate, Myers-Scotton (2006: 155) uses the example of a salesperson who would accommodate their language choice according to the customer, not to garner approval but because there is a power dynamic where the customer has the advantage. The Accommodation theory is also relevant to gaming language use. Since the gaming community is often under scrutiny by the media or people who do not play games in general, the members exhibit a strong ingroup and outgroup mentality. Gaming specific jargon, typically derived from English, is often used to alienate non-gamers and to create a bond with like-minded individuals.

The second model which attempts to explain the choices for CS is called the Markedness Model proposed by Myers-Scotton in 1983. The MM is a speaker-centred model. While the Accommodation Theory is mainly concerned with convergence and divergence, the Markedness Model is more centred around the notion that speakers make choices because of

their own goals (Myers-Scotton 2006: 158). Markedness refers to the speakers' choice to use one linguistic variety over all other possible variations (Myers-Scotton 2006: 159). Within a conversation a speaker has the option to convey certain messages of intentionality by making, what is considered, a marked choice. Furthermore, speakers can take advantage of the associations that their addressees make between the spoken variety and the variety's distinctive uses and users. Additionally, individuals can base their conversational patterns on the speech associated with a specific social group thus, contributing to the conversation with their addressees in mind (Myers-Scotton 1998: 18). The choices speakers make can be considered as marked or unmarked, based on whether or not the chosen code is in accordance with the expectations of that language group. In short, an unmarked choice is what is expected of one in a certain language group, and a marked choice is the unexpected. According to Rose (2006) the use of a marked choice indicates a desire to send a meta-message which conveys more than the semantic content of words. "It conveys an intention to question or change aspects of the interaction." (Rose 2006: 16). Furthermore, Kostenko (2007: 11) claims that the markedness of a language-choice can be tested empirically: usually the unmarked variant is used more frequently compared to other possible variants. In the gaming for instance, the marked choice would typically be English terminology relating to games because they are universally understood by all parties. The unmarked choice would be when a gamer uses an Estonian equivalent for comical effect or sarcasm.

1.3 Analytic approaches to Code-Switching

In addition to focusing on the motivations for CS one can analyse CS from a syntactic perspective. In other words, one can focus on the placement and form of the interjected other-language items within a phrase. Poplack (1980) proposed three types of CS placement: intersentential, intrasentential and tag-switches. Tag-switching, sometimes called extrasentential switching, is the insertion of an element from another language into an otherwise

monolingual utterance outside of the grammar of a clause (Poplack, 1980). For instance: ‘nii, et *why not* onju’ is a tag-switch present in the data of this thesis. Intersentential switching occurs outside of the sentence or clause level, for example: ‘How many episodes is it? *Ainult kümme?*’ The last type of CS according to Poplack (1980) is intrasentential, which occurs when the speaker switches from one language to another variety at the clause, phrase, or word level, such as: ‘Milline *wonderful* kutsu!’. Sankoff and Poplack (1981) distinguished between two constraints regarding intrasentential CS: the Equivalence constraint and the Free Morpheme constraint.

According to the Equivalence constraint: “the order of sentence constituents immediately adjacent to and on both sides of the switch point must be grammatical with respect to both languages” (Sankoff and Poplack, 1981: 5). Under this constraint, allowable switch points are before and after tags, before predicate adjectives and between clauses (Sankoff and Poplack, 1981). Hamers and Blanc (1989) claim that if the languages used in one utterance are typologically different, intrasentential switches are more difficult to form. In the case of Estonian and English, both languages use the SVO word order, which allows for the speaker to use intrasentential switches under the equivalence constraint. Some difficulty may arise due to the use of English prepositions in contrast with Estonian postpositions.

The second constraint is the Free Morpheme constraint, which states that: “CS may not occur between a bound morpheme and a lexical form unless the latter has been phonologically integrated into the language of the bound morpheme.” (Sankoff and Poplack, 1981: 5). According to Koban (2012: 1175) these are not the only switch points when intrasentential CS may occur, claiming that as long as CS does not violate the grammar of either language, it may take place between sentences or clauses. Furthermore, Gumperz (1982) argues that if the languages are syntactically similar, switches can occur almost anywhere. On the other hand, if

the languages are very different syntactically, the switches occur between major constituents, such as noun phrases or clauses.

Auer (1984: 2) challenges Poplack's theories by pointing out that "code-switching is not merely a matter of linguistic well-formedness – it also has communicative content left unexplained by the analysis of syntactic surface constraints". Auer (1984; 1995; 1998) proposes a sequential analysis of CS called Conversation Analysis (CA). Auer (1998: 4) argues that CS should be analysed under the framework of contextualisation cues. Auer (1998) claims that the situated meaning of CS can be determined by first, understanding the macro dimensions of CS and second, by conducting a sequential analysis. He goes on to explain his theory thusly:

there is a level of conversational structure in bilingual speech which is sufficiently autonomous both from grammar (syntax) and from the larger societal and ideological structures to which the languages in question and their choice for a given interactional episode are related. The partial autonomy of conversational structure in code-switching is shown, for example, by the fact that switching is more likely in certain sequential positions than in others [...] It is also shown by the many ways in which code switching can contextualise conversational activities, for examples on the level of participant constellation, topic management, the structure of narratives, etc. (Auer 1998:4).

Auer (1984) distinguishes between two advantages of the conversation analytic approach compared to other approaches. On the one hand the analysis prioritises the sequence of the conversation taking into consideration the influence of the turns. On the other hand, CA does not allow for the external analyst to impose their interpretation. The reason being that the CA always directs its focus back to the speakers' "mutual understanding of their utterances as manifest in their behaviour" (Auer, 1984: 6).

When considering the different approaches to CS analysis, Backus (2001) proposes the notion of semantic specificity. He claims that most literature dealing with the grammatical aspects of CS emphasize the importance of the structural integration of CS disregarding the motivations for using these elements over other possibilities (Backus 2001: 125). Semantic specificity is most commonly associated with proper names, figurative language, or lexical items belonging to the domain of culture (Backus 2001). However, other items can also be

semantically specific. Semantic specificity can be enhanced by varying connotations in different languages (Backus 2001). In addition, semantic specificity is relative. This means that items which are not specific in some context may become so in another. For instance, if a speaker has experience with a specific domain in a given language, the lexical items referring to this domain would be semantically specific and are more likely to come from that language (Backus 2001: 134). This notion is particularly important in the context of the given thesis because gaming jargon consists largely of semantically specific items.

In addition to the theories discussed above, grammatical approaches to CS have also been suggested by a number of scholars including Myers-Scotton and Johanson. The next section introduces two such approaches on which the analysis of this thesis is based.

1.4 Analytical frameworks

This section will discuss two models that provide a theoretical framework according to which the data of this thesis are analysed. The first is a form-focused model introduced by Myers-Scotton called the Matrix Language-Frame Model. The second is a usage-based approach developed by Johanson, called the Code-Copying Framework.

1.4.1 Matrix Language-Frame Model

Myers-Scotton (1997) proposed the Matrix Language-Frame Model (MLF) to explain the structures of CS within sentences. The MLF differentiates between the matrix language (ML) and the embedded language (EL). Usually, the ML is the unmarked choice in a language community and often the speakers' L1 (Myers-Scotton 2006). However, as mentioned in the previous section, there are domains where the L1 is not used as the main conversational tool. In these instances, the ML can be any variety that is most common in that domain. ML can be determined according to the frequency with which the morphemes of that language are used in an utterance. Ultimately, the morphemes of a ML are used more often. Furthermore, the MLF analyses each utterance separately, wherein the ML can vary between utterances.

The MLF has three main premises (Myers-Scotton 2006: 243). The first premise is that the ML and the EL do not participate equally in sentence structure. The second premise is that not all morpheme types come equally from the ML and the EL. This premise limits the EL to a very specific type of participation. The third premise is that both the ML and the EL are always active or “on” as Myers-Scotton (2006: 243) describes it. Myers-Scotton (2006: 243) also notes that the last premise is not supported by empirical evidence but rather the patterns in CS offer strong indirect support for the premise. Nevertheless, much psycholinguistic work since 2006 has provided more direct support for the notion that a bilingual’s languages are always activated to a greater or lesser degree.

Within the MLF, the criteria for ML and EL are structurally based, wherein the ML “provides abstract grammatical frames where ELs are inserted” (Namba 2004: 2). The MLF divides bilingual clauses into three distinct categories (Namba 2004: 2; Kostenko, 2007: 11):

- a) ML islands which consist of only ML morphemes and are under the control of ML grammar.
- b) Mixed constituents that incorporate both ML and EL morphemes.
- c) EL islands well-formed by EL grammar, which are inserted into an ML frame. The EL islands are under the constraints of ML grammar.

Within the framework of MLF it is important to draw the distinction between content and system morphemes (Namba 2004: 2). Unlike content morphemes (nouns, verbs, adjectives and some prepositions), system morphemes (function words, inflections etc.) are employed only from the ML and their function is to build grammatical frames. They also express the relation between content morphemes whose main purpose is to “express semantic and pragmatics aspects and assign or receive thematic roles” (Namba 2004: 2). Content morphemes can be taken from both the ML and the EL (Namba 2004: 3).

The MLF is built upon three principles: the Uniform Structure Principal, the Morpheme-Order Principal, and the System Order Principal. The first principal is not specific to the MLF but rather provides a ‘mega-backdrop’ (Myers-Scotton 2006: 242) to the whole MLF model. The other two are at the very heart of the model itself, proposed by Myers-Scotton (2006: 244). The next paragraphs summarise these three principles.

The Uniform Structure Principal is considered by Myers-Scotton (2006) as the backbone of the MLF. The reason being that the Uniform Structure Principal can be applied universally to monolingual language as well as bilingual language (Myer-Scotton 2006: 242). The principle states:

A given constituent in any language has a uniform abstract structure and the requirements of well-formedness for this type must be observed whenever the constituent appears. In bilingual speech, the structures of the ML are always preferred, but some EL structures are allowed if ML clause structure is observed (Myer-Scotton 2006: 243).

The Uniform Structure Principal assumes importance when two or more grammatical structures are possible in one clause. According to this principle, the structure of only one language is preferred. For example, in the context of this thesis, the majority of clauses contain Estonian as the ML and English as the EL. According to the Uniform Structure Principal the English insertions should adhere to Estonian clause structure.

The Morpheme-Order Principle assumes that in ML+EL constituents consisting of singly occurring EL lexemes and any number of ML morphemes, the surface morpheme order will be that of the ML (Myers-Scotton 1993: 83). The System Morpheme Principle assumes that in ML+EL constituents all system morphemes which have grammatical relations external to their head constituent will come from the ML (Myers-Scotton 1993: 83).

Although this thesis is mainly concerned with the MLF, it is important to note that the MLF has been refined and extended into a version called the 4-M model which was proposed by Myers-Scotton and Jake (2000, 2001). The 4-M model does not change anything in the MLF

model. Its purpose is to refine the divisions between content and system morphemes as well as offering a more precise explanation of some of the CS data covered by the MLF (Myers-Scotton 2006: 267).

1.4.2 Code-copying Framework (CCF)

The CCF was developed by Johanson (1993, 2002.) and has been used in much of the work on code-switching in Estonia in the last decade. This model is based on the assumption that linguistic elements of a language (i.e. code) are copied to another. The CCF considers aspects of CS which many other models, such as the MLF, do not. Mostly, the MLF discusses the lexico-grammatical or lexical phenomena; in other words, what happens to the structure when another language is inserted (Verschik and Kask 2019: 5). Yet, other contact phenomena that do not involve lexical elements from another language are not considered. The CCF considers all contact phenomena within the same framework. This means that the term CS is broadened to include examples where a phrase might not include any foreign items but have a foreign argument structure (Johanson 2002: 9). According to Johanson (2002: 8) erroneous metaphors such as borrowing, transfer or switching confuse our understanding as each of these terms have the connotation that something is taken away from one language. In fact, Verschik and Kask (2019: 6) claim that there is no evidence of ‘switching’. Instead, what happens is that “a stem, a stem together with grammatical markers, an expression, meaning, or order of elements” is copied from one language to another (Verschik and Kask 2019: 6). The copied elements can retain properties of the original, but they are different from the original, becoming either more or less frequent over time (Verschik and Kask 2019: 6). Code copying can be understood as a cognitive process as it is a metaphor for the procedure that occurs in a multilingual speaker’s mind (Johanson 2002: 9). According to Johanson (2002: 289) copies of elements from code B are inserted into code A. Code A is usually the speaker’s first language whilst code B is the second language. According to Verschik and Kask (2019: 6) copying can

happen in both directions from L1 to L2 and vice versa. If the code is copied from L1 to L2, it is called imposition and if copying occurs from L2 to L1, it is called adoption. When a speaker uses longer autonomous stretches of another language, it is called code alteration (CA) (Verschik and Kask 2019: 6). At times it may be difficult to determine the basic code “since any linguistic elements of the same model are used.” (Verschik and Kask 2019: 6).

According to the CCF all linguistic items can be categorized according to four properties: material, semantic, combinational and frequential (Johanson 2002: 292). Material properties are sound features such as phonotactic patterns including: pronunciation, accent, stress and intonation. Verschik (2008: 171) notes that in written data material properties can also include orthography. At times English words may be written as if they were Estonian, for example ‘millal twitchi *striim* tuleb?’. Semantic properties include lexical meaning, whereas combinational properties refer to the order of elements such as word order, government, agreement etc. Frequential properties refer to how often the item or pattern is used (Verschik and Kask 2019: 6). Verschik and Kask (2019) use the concept of a continuum to illustrate code-copying properties. On one end of the continuum, all properties can be copied resulting in “borrowing” or “code-switching” according to the traditional terminology (Verschik and Kask 2019: 7). An example of such copying can be seen in this sentence used by a gaming streamer who is addressing their viewers (‘S’ indicates *speaker*). The CS has been marked in boldface and italics:

1) S: mõnel inimesel on huvi näha kuidas ma siin ***level-dan*** ja asju teen.

‘Some people are interested in seeing how I level up here and do other stuff.’

The word *level* has been copied by the speaker by using morphosyntactic integration in a way that is called a global copy (GC). Verschik and Kask also highlight the example:

2) S: Seal oli kaks ***huge*** torti.

‘there were two huge cakes there.’

(Verschik and Kask 2019: 7)

Huge is a GC from English (Verschik and Kask 2019: 6). In this case Verschik has noted that the addition of markers and inflections is not a criterion for GC. The next step on the continuum discussed by Verschik and Kask can be identified as what are commonly called “loan borrowings”, “structural borrowings or “convergence” but in the CCF are referred to as Selective copies (SC). To illustrate, consider the phrase: ‘do not beat around the bush’. A Selective Copy of this idiomatic expression might be: ‘ära peksa ümber põõsa’. This is a word-for-word rendition of the English phrase, whereas an equivalent ‘ära räägi ümber nurga’ could have been used in this case. According to Verschik and Kask, the CCF considers word-for-word renditions of idioms and fixed expressions as semantic combinational copies. The latter already sets the CCF apart from other CS models such as the MLF. The third type of copies are called mixed copies (MC) which occur in multi-word items (fixed expressions, idioms, particle verbs etc.) that in combination make a semantic whole (Verschik and Kask 2019: 6). An example that is given is ‘hard-working’ which could be copied into Estonian as ‘hard-töötav’ (Verschik and Kask 2019: 7).

Overall, both theories provide important and unique insights into the specifics of CS. Take for example the sentence ‘seal oli kaks *huge* torti’. According to the MLF one can note that in this phrase the ML is Estonian and the word ‘huge’ is inserted as an unchanged EL island. The copy should be under the constraints of the ML grammatical constraints. The Estonian sentence would be ‘seal oli kaks suurt torti’, the word ‘suur’ needs a partitive singular ending to compliment the noun ‘torti’. In this case ‘huge’ does not receive the Estonian partitive singular ending and so, does not agree with in case with the noun ‘torti’. This is a violation of the System Morpheme Principle. Consider the same phrase according to the CCF. One can distinguish that ‘huge’ is a morphemically simple GC. The copy is inserted into an equivalent position: the word

‘huge’ is equivalent to the word ‘suur’ in its placement in the sentence as well as its semantic properties. The copy does not contain any material reconstruction or combinational properties. However, ‘huge’ does have an affective function because it is an emotive word: therefore, it contains semantic properties. The latter is an example of how two models can be used to analyse a copy. This thesis will attempt to utilise both theories in order to gain a more comprehensive picture of CS within the Estonian gaming community.

1.5 English-Estonian Code-Switching

This section discusses the congruences and dissimilarities of English and Estonian grammar and introduces some key studies for the context of this thesis. The chapter is divided into two sub-sections: the first section will focus on the structure and grammar of English and Estonian, the second section will examine two articles: one by Verschik and Kask (2019), and the other by Kask (2016).

1.5.1 Language Structure

This thesis focuses on two languages, English and Estonian. These languages are not related, as one is Germanic and the other Finnic; however, according to Vihman (2016: 182) their similarities and differences allow for structural conflict as well as innovative combinations. A notable difference, as stated by Erelt (2003) is that English is analytic, while Estonian is fusional-agglutinative. Vihman (2018: 5) states that “a combination of postpositions, prepositions, and cases are used in Estonian to signal the adverbial meanings usually encoded by prepositions in English”. One of the main differences between English and Estonian is how they signal argument structure. English uses rigid word order, whereas Estonian uses a complex system of morphological case-marking with more flexible, pragmatically sensitive word order. On the other hand, one similarity between the two is that in English, the surface word order is SVO which is also the most frequent order used in Estonian. In contrast, adverbial order differs between the languages (Vihman 2018: 5).

When considering English-Estonian CS, it is of importance to discuss Estonian case endings in detail. The reason being that often English EL islands are under the constraints of Estonian grammatical structures, resulting in the addition of Estonian case endings to English switches. Vihman (2016) investigated CS with verbs and provided an overview of core verb morphology. Later, in 2018 Vihman researched CS with nouns.

Vihman (2016) considers the difference of Estonian and English verb paradigms. In English, generally verb markings signal tense or aspect. The suffix ‘-ed’ is used to signal past tense and present tense is usually given null inflection. Additionally, English verbs can function as nouns with the participle ‘-ing’ which “is a frequently used verb form which neutralises other grammatical information in the lexical verb, leaving person, tense and number marking to the auxiliary” Vihman (2016: 182). In contrast, Estonian uses a total of eleven distinct verb endings (Vihman 2016: 182). Furthermore, the Estonian verb system is nearly agglutinative (Erelt 2003), meaning that one affix marks the past tense and another set of similar affixes mark person or number in both present and past tense. What is more, the first and second person morphemes are identical in both the present and the past tense unlike the third person markings which are all unique (Vihman 2016: 182). Estonian verb paradigms also often include stem changes, Vihman (2016) introduces these briefly, however Blevins (2007), Erelt et al (1995) and Viks (1992) go into further detail to explain how the stem changes are applied. In the context of this thesis it is important to note that stem changes occur without the need for in-depth grammatical analysis.

According to Vihman (2018) nouns provide a greater contrast with English, since only English pronouns show any case-marking. When English-Estonian CS occurs, often speaker must make a decision regarding the stem form. On the one hand, embedded words can be base forms without any encoded morphological information. On the other hand, the words may involve stem changes implicating the EL inflectional paradigm. When an uninflected base stem

from English is used in an Estonian ML phrase, sometimes the embedded word must be transformed into an appropriate vowel-final stem. The following example is taken from Vihman (2016: 190) to indicate such a change:

- 3) Issi kui me käisime arstis siis ma **choose.i-si-n** selle *sparkly* konna.
 ‘Daddy, when we went to the doctor’s then I chose this sparkly frog.’

The speaker uses an English base from of the verb ‘choose’ with the added combined Estonian affix ‘-isin’, which indicates two things: the first ‘i’ is added to transform the base ‘choose’ into an appropriate vowel-final stem, and the suffix ‘-sin’ is added to indicate the past tense and first person singular form (Vihman 2018: 11). Similar to the example above, the use of the vowel ‘i’ as a means to transform an English word into an appropriate vowel-ending stem is fairly common and can be seen in the data of this thesis as well.

1.5.2 Research on code-copying in blogs and vlogs

Estonian has been previously influenced by German and Russian, and even to some extent by Finnish. Many expressions and colloquialisms used today have stemmed from these languages. Estonians began to use English more proficiently after regaining its independence in 1991, this was largely facilitated by the emergence of the internet and the social-media culture (Verschik and Kask 2019: 5). Backus (2012) and Matras (2009; 2012) claim that contact linguistics should be concerned with the language use of an individual in addition to multilingual communities, because contact induced change in language starts from a multilingual individual. The investigation of contact induced changes between English and Estonian have been researched, although Verschik and Kask (2019) claim that there is still much that has not been extensively discussed. Some examples of previous research include: the study of conventionalized lexical borrowings in Standard Estonian (Leemets 2003); the use of English in Estonia based on collecting and analysing self-reported data (Ehala and Niglas 2004; Liiv and Laasi 2006; Tammemägi and Ehala 2012); studies about English in higher education

and attitudes towards it (Soler-Carbonell 2014; Soler-Carbonell et al. 2016); English as a Lingua Franca in Estonian-Russian communication (Soler-Carbonell 2015); as well as research into the CS of specific word-types in English and Estonian (Vihman 2016; 2018). Additional research into English-Estonian CS based on the CCF, has been done extensively by Anna Verschik. Some of her latest work, together with Helin Kask, has been focused on the use of CS in English-Estonian blogs and vlogs. Since blogs and vlogs share some notable parallels to gaming streams, it would be useful to consider the findings of Verschik and Kask for the purposes of this thesis.

Although the context is different, both fashion and gaming have jargons derived from English that have been adopted into Estonian. Additionally, both have become popular international social media communities. Moreover, both sources present spoken and written data which can be analysed using similar methods. In the words of Anna Verschik (Zenner et al 2018: 51) fashion blogs belong to a monolingual asynchronous genre, therefore: “blogs provide a window into individual language use, multilingual repertoire, entrenchment of English items and patterns, and evolution of multilingual speech” (Zenner et al 2018: 51). It is the hypothesis of this thesis that video streams along with their commentaries in the gaming genre will also provide such insight.

Considering previous research into English-Estonian CS, Verschik and Kask claim that usually one can detect a clear preference over insertions vs. alternations in contact linguistic literature “depending on the sociolinguistic setting and the structural properties of the languages involved” (Verschik and Kask 2019: 1). They claim however, that previous research suggests that in blogs there is no preference over insertions vs. alternations. Furthermore, they note that most previous studies have observed the preference over using GC compared to SC or MC but have not given any explanation as to why.

To analyse fashion blogs and vlogs Verschik and Kask used a bottom-up usage-based approach. They combined a cognitive angle with the CCF with the aim of providing a holistic view on contact-induced language change (Verschik and Kask 2019: 1). They were interested in the statistics of how often speakers would use GC, SC, MC. The definitions and explanations for each of these copies can be found under section 1.2.2 where the theory of the CCF is discussed. Verschik and Kask (2019) compared 750 blog entries and 5,5 hours of vlogs. The results of their data are in agreement with previous research, indicating that GC heavily prevail over other type of copying. The type of GC which were used most frequently were specific lexical items, discourse particles or fixed expressions that have the same function as particles. The following examples illustrate the types of GC found in their data (Verschik and Kask 2019: 17):

- 4) Mu teised mustad *skinny jeans-id* läksid ka katki reisil.
'My other pair of black **skinny jeans** got ripped during the trip.'
- 5) Kui sa lähed juuksurisse ja küsid *ombret*, siis sa ei saa seda *look-i*.
'If you go the hairdresser and ask for an **ombre**, this is not the look you will get.'
- 6) *Oh god*, miks ma alati oma vloge nii koledalt alustan?!
'**Oh god**, why do I always start my videos in such a terrible way?!'

When considering Selective Copies and Mixed Copies, Verschik and Kask (2019) found that SC are more likely to appear in vlogs, whereas MC are more likely to appear in blogs. They assume that SC and MC are used less because of their abstract nature which require more cognitive effort and time for entrenchment and conventionalization (Verschik and Kask 2019: 1). In addition, they note that CS is denser in vlogs because the genre is oral which allows for spontaneity and authenticity, unlike the highly edited written genre of blogs (Verschik and Kask 2019: 1). The types of SC found in both are loan translations with the prevalence of fixed expressions and idioms (Verschik and Kask 2019: 25). The following examples illustrate some of the SC found in their data (Verschik and Kask 2019: 14-15)

- 7) Kui **reaalne** see saab olla, et 1. september on juba homme?
‘How **real** can it be that September 1st is already tomorrow?’
- 8) Pluss need **khuulid** naised all pool, kes rokivad kartsuvat roosat **nagu poleks homset**.
‘Plus these **cool** women down below who enjoy bright pink like there is no tomorrow’

Verschik and Kask (2019) claim that their findings are striking because of the implications which are in conflict with the suggestions made by Thomason and Kaufman (1988) and Thomason (2001). Verschik and Kask claim that according to Thomason and Kaufman “in language maintenance situational lexical items from L2 appear first, followed by semantic extensions, loan translations, phonological and prosodic changes and moderate structural borrowing (argument structure, word order, etc.)” (Verschik and Kask 2019: 25). They argue that the previous statement is empirically true; however, it is not clearly defined when non-lexical impact appears. This stems from the fact that researchers often observe contact-induced changes to language after both lexical and non-lexical changes are present and completed. Based on research conducted by Tsitsipis (1998: 34), situations like the one Verschik and Kask describe “may provide a more detailed picture of chronology because changes are on-going, or continuous” (Tsitsipis 1998: 34). In conclusion, based on their findings, Verschik and Kask (2019) suggest that structural change in a variety would presuppose some cognitive reconstructing, which will probably occur after a certain period of time needed for entrenchment (Verschik and Kask 2019: 26).

The same approach to CS was used by Kask (2016), who also investigated the use of CS in fifteen Estonian fashion, beauty and lifestyle blogs. Although the research topic is similar to the last article, the results of this article can provide some additional insight which is relevant for this thesis. The data were gathered from blogs written in 2012-2016. Kask (2016) also applied the CCF as an analysis framework. The aim was to determine how many and what type of copies were employed and the potential reasoning behind each choice was. The results indicate that once more, GC are the most frequently used in blogs (90.5%), followed by MC

(7.5%) and ending with SC (2%). Similarly to the findings of Verschik and Kask (2019), blogs exhibit more MC than spoken data. Kask (2016) also claims that “when informants are more proficient in the model code, they utilise more SC” (Kask 2016: 96).

Kask (2016) suggests that GC were used in blogs because of semantic specificity or pragmatic meaning. Furthermore, GC were usually nouns or noun phrases. Kask (2016) reasons that the copies were used in three different instances: when there was a lack of an equivalent in Estonian, the model code element marked something unique or important to the informant, or when there was contact with a new culture or field. (Kask 2016: 96). The following examples illustrate the type of GC that were found in the data (Kask 2016: 89)

9) Sügise üks märksõnu on *layering*.
‘One of the keywords for fall is **layering**.’

10) soe kuid siiski sügisene *look*
‘Warm, yet autumnal **look**’

In Kask’s (2016) research the second most used type of copies were MC. Kask (2016) argues that this may be because MC are compounds containing one globally copied element and element in the ML, which is a transitory stage between GC and SC. In addition, Kask states that “In mixed copies the global copying appeared due to semantic specificity and selectively combinational properties were copied” (Kask 2016: 97). Some examples of MC found in the data are as follows:

11) neid näete juba üsna pea *outfit-i* postitustes
‘You will see them soon in an outfit posts.’

12) Õrnas *nude-roosas* toonis mahukas käekott unikaalse disaini ja ilusate detailidega.
‘A capacious handbag in **nude-pink** with unique design and beautiful details’
(Kask 2016: 95)

The least frequently used codes according to Kask (2016) were SC. She suggests that the use of selective codes requires more proficiency in English and is a step forward from the use of MC (Kask 2016: 97). Some examples of SC found in the data are as follows (Kask 2016: 94):

13) ma olen täitsa olemas, elus, Tallinnas, hea tervise korras nüüd ja superõnnelik+ **toredate inimeste poolt ümbritsetud.**

‘I’m here, I’m alive, in Tallinn, in good health now and super happy + *I’m surrounded by nice people.*’

14) veel palju parem on kohale minna, asub PTI Group firma kontorist **kõndimiskaugusel.**
‘It’s much better to go there personally, it is **within walking distance** from PTI Group’s office.’

Overall, both articles provide good insight into English-Estonian CS within a monolingual asynchronous genre. The findings of these two articles can provide interesting comparisons with the data collected for this thesis despite the contextual difference of fashion and gaming. According to the research conducted by Verschik and Kask (2019; 2016) one can expect gaming content creators and their commentators to primarily use GC. In order to explore this theory further, the next section will discuss previous research into gaming-related CS.

1.6 Code-switching in gaming

The language use of the video and computer game community has not been extensively researched. One of the reasons may be its relatively new emergence in the social media platforms. The pioneer platform for video game streaming, Twitch, had its official beta launch in 2011. Before its creation streamers and content creators would use the platform YouTube, which is not exclusively directed toward gaming content, therefore other more popular content often shadowed gaming streams and let’s plays. Nevertheless, a few BA theses and journal articles can be found on the topic of gaming content creators’ language use, with some focus on CS. This section will introduce three papers which focused on gaming content creators’ CS specifically. The analysis models used by these three authors are that of Poplack and Auer.

The first was written by Boes and Vinh-Hung (2017), who investigated French-English CS in gaming forums. Their analysis was based on Poplack's theories on CS types, focusing on the Equivalence constraint (see section 1.1). Boes and Vinh-Hung (2017) focused on the sociolinguistic and pragmatic perspective of CS. From that standpoint, they concluded that CS in French-English gaming forums is mainly used for practical and immersive purposes (Boes and Vinh-Hung 2017: 20). Furthermore, they note that their data displayed a superficial grammatical incoherence which may be the case because written language in the gaming forums has grammatical constraints set looser than usual (Boes and Vinh-Hung 2017: 20). Boes and Vinh-Hung (2017: 20) argue that "phonology more than morphology has to be respected in order to be understood by the community". Their findings also suggest that Poplack's Equivalence constraint was observed, however they applied it on a short scale. Boes and Vinh-Hung (2017:20) recognise that their sample was small and not representative of the gaming community as a whole. With this in mind, they suggest conducting further research and applying the Equivalence constraint on a whole set of data.

The following two BA theses were written by Finnish authors whose aim was to apply Auer's CA (see section 1.1) as a basis for analysing CS in video recorded gaming content. A key difference between the two studies stems from the type of gameplay the authors have decided to analyse. On the one hand, the first thesis, by Kärnä (2015), analysed excerpts of a conversation between two boys aged 15-16 while playing the massively multiplayer online role-playing game (MMORPG) Final Fantasy IX. Kärnä (2015) chose this game because it is highly immersive and promotes interaction within the game itself and in the real-world. Kärnä (2015) emphasises the importance of the in-game language setting, which is English, because of its artificial setting that encourages the use of English between two Finnish players who would not be inclined to use English as a conversational tool in any other real-world situation. On the other hand, Myllärinen (2014) analysed a single content creator who primarily engaged in

conversation with their audience. The data for this thesis were gathered from the platform YouTube. Myllärinen (2014) chose a content creator who played the PlayStation 3 game *The Last of Us*. The ML for this study was consistently Finnish since the content creator was directing the videos towards a Finnish audience. Myllärinen (2014) also included an interview with the content creator to reflect on the analysis of CS from another viewpoint.

The results of Kärnä's (2015) research indicate that the gamers found interesting and innovative ways to utilise English in their otherwise Finnish conversations. Kärnä (2015) claimed to have noticed unexpected variations of words and sentences related to a situation-specific language use. Similar to the findings of Verschik and Kask (2019), Kask (2016), and Vihman (2016; 2018), Kärnä notes that English words in the form of EL islands were often altered according to Finnish ML grammatical constraints. Myllärinen (2014) is in agreement with Kärnä (2015). Myllärinen (2014) also found various categories into which one might place the instances of CS used by gaming content creators: code-switching in immersive gaming events, gaming-related vocabulary in insertions, repetition of written instructions, imitation of character talk, exclamations and trash talk and meta discourse (Myllärinen 2014: 71). Kärnä (2015) also suggests some explanations as to why speakers utilised English CS in their utterances. The first argument stems from the nature of MMORPGS which can contain fast-paced and exhilarating content. While engaging with such content, the players do not have time to look up or think of alternative gaming-related words in Finnish, therefore it is convenient to use the English terminology which is readily available and understood by all parties (Kärnä 2015). The second argument is that speaker's often use English switches to enrich their conversation. At times, the English expression or word carries a connotation unmatched by a Finnish alternative (Kärnä 2015). The third argument made by Kärnä (2015) is that English switches were used as contextualization cues, such as changing a topic, drawing attention to a specific detail, or negotiating turns. The fourth and final argument also stems from the nature

of the MMORPG gameplay, namely the creation and characterization of one's in-game character. Kärnä (2015: 33) noted the following: "Many times English is used to signal a footing of 'I as the game character talking in the game', whereas Finnish is used to signal 'I as a player talking about the game' [...]. In other words, code-switching functions as a multitude of voices". Another layer of analysis was added by Myllärinen (2014) utilising an interview with the content creator for the purposes of self-reflexion and to learn more about the content creator's linguistic background. Myllärinen (2014) suggests that such an interview can be a helpful tool to provide a more well-rounded analysis of the speaker's CS. The implications of the interview were that the speaker is often using CS subconsciously.

Each of these papers provide some insight into the general reasons and tendencies for CS in the gaming genre. However, none of these theses provided a structural or syntactic analysis of CS. The aim of this thesis is to take the ideas of previously conducted research and investigate the topic further focusing on syntactic, structural and semantic analysis of CS in the gaming genre. Incorporating the MLF into the analysis will aid in examining CS from a more form-focused angle.

2. ANALYSIS OF CODE-SWITCHING IN ESTONIAN GAMING STREAMS

This chapter focuses on a close examination of CS in Estonian gaming streams. The aim of the analysis is to answer two research questions. The primary concern is how Global- and Semantic English copies impact the structure of Estonian phrases; secondly, whether a cross-modal effect of CS can be determined. The chapter is divided into four sections. The first section describes the method and sources for data collection. The second part introduces the findings and gives a general overview. The third part of the analysis brings specific examples of Global Copies and Selective Copies, respectively. Each example is examined based on the theoretical frameworks of the MLF, CCF, and the definitions coined by Poplack. Finally, the chapter presents a discussion of the findings in comparison with previously conducted research.

2.1 Data collection

This thesis approaches the analysis of CS by examining the language use of Estonian gaming content creators. This choice was inspired by the works of Verschik and Kask who have extensively researched CS in Estonian fashion blogs and vlogs. Both in gaming and fashion the genre specific jargon derives from English. This is the case for many computer- and video games because most western games have English as their main within-game language. The terminology, text spoken by non-player characters, instructions, quests, combat systems, etc. are presented in English. Another aspect to consider is communication between players within the game. Many massively multiplayer online role-playing games consist largely of teamwork and communication. Players are often from different countries and one might not know another's language. Hence, English is used as a lingua franca, to speak to any player within the game. For these reasons, navigating within the games is made easier if one has some knowledge of English.

Although many streamers strictly speak English so as to reach a wider audience, there is a sizable Estonian gaming community that utilises both Estonian and English during their

recorded gameplay. Within the gaming community certain terminology and expressions have become commonplace enough that regardless of the game an individual plays they will understand and relate to the jargon. Consequently, most Estonian gaming content creators who actively participate in conversation with other players or their viewers are more likely to use certain English terminology instinctively as it is universally and easily understood by all parties.

Gaming streamers are somewhat different from other content creators as their content is often broadcasted live not pre-recorded. The live broadcasts are called streams and the people who record themselves are called streamers. The gaming streams contain unedited and spontaneous language from both the speakers and the commentators. The three main platforms for gaming content are Twitch, Mixer and YouTube. The data for this thesis were gathered from Twitch and YouTube. The streams can last for many hours (some of the longer ones up to 12-15h). The videos also have a commentary section which can be accessed by all viewers and each comment appears in real-time. Usually the more experienced content creators are able to follow their viewers' commentary and interact actively with their audience. After a stream is finished, it is saved onto the platform and it may be re-watched at any given time. Re-watching will mean that no new comments will have any effect on the video; nevertheless, the whole video with the existing comments will run exactly as it did when it was first recorded. YouTube usually allows content creators to keep their recorded gameplays indefinitely, whilst Twitch deletes videos after a certain amount of time has passed. The appeal of having interactive live broadcasts of one's gameplay is twofold. First, the viewers are actively incorporated into the gameplay and their suggestions and opinions can make a difference in how the gamer plays the game, making the content more enjoyable and personal for a number of people. Second, many viewers also enjoy the authentic experience of watching an unedited version of their favourite content creator and witnessing their honest reactions.

Three Estonian content creators were chosen for analysis. Two to three videos (ranging between 2 – 11 hours) of each creator were transcribed selectively with emphasis on instances of CS. Since the ML for most videos is Estonian (with the exception of one streamer, who occasionally switches the ML from English to Estonian), the transcriptions have been made in accordance with the Estonian conversation analysis method (Eesti Vestlusanalüüsi Meetod). The video material in total extended slightly over twenty-four hours. For the purposes of this thesis, of those twenty-four hours around ten were transcribed. The transcribed material represents a sample from each video where CS was most prevalent. Examples of the transcriptions can be found in the appendix. For the purposes of anonymity, the Streamers' and commentators' names have been omitted.

The unedited, authentic use of language in the gaming streams along with their commentaries can provide a unique window into CS. Considering that the ML for the speakers is Estonian, it is interesting to determine if and how much CS occurs beyond the genre-specific terminology. In addition, since there are two mediums of language (spoken and written), it could be important to note whether or not a cross-modal effect of CS takes place.

2.2 Data analysis

As previously mentioned, the data collected for this thesis reflect the use of CS by three Estonian streamers and their viewers. Out of all the videos chosen, a sum of ten hours was critically analysed. The aim of the transcriptions was twofold: on the one hand, the focus was on recording specific instances of spoken CS uttered by the streamers. On the other, the transcriptions present the running commentary which appears in the chat. Any cases of CS in the latter were marked in bold. The transcribed data presents 341 comments and 243 spoken phrases in all. Out of all the comments 40 included CS. The spoken phrases were chosen for their inclusion of CS, therefore 125 out of 243 utterances contained CS. The phrases which did not include CS were often a part of an ongoing discussion and necessary to add for context.

Broadly speaking, each example of CS presented in the data can be categorized into two groups: Global Copies (GC) and Selective Copies (SC) (see section 1.2.2). The CCF considers GC all instances of CS which are the result of borrowing or switching according to the traditional definitions. SC are unique to the CCF as they consist of loan translations, structural borrowings, and convergences, aspects which are not discussed in the MLF or by Poplack. Figure 1 illustrates how many GC and SC were found in the data overall. Some of the copied items may have appeared more than once. For instance, the GC ‘key’ was used 16 times in the comments and 6 times by the speakers.

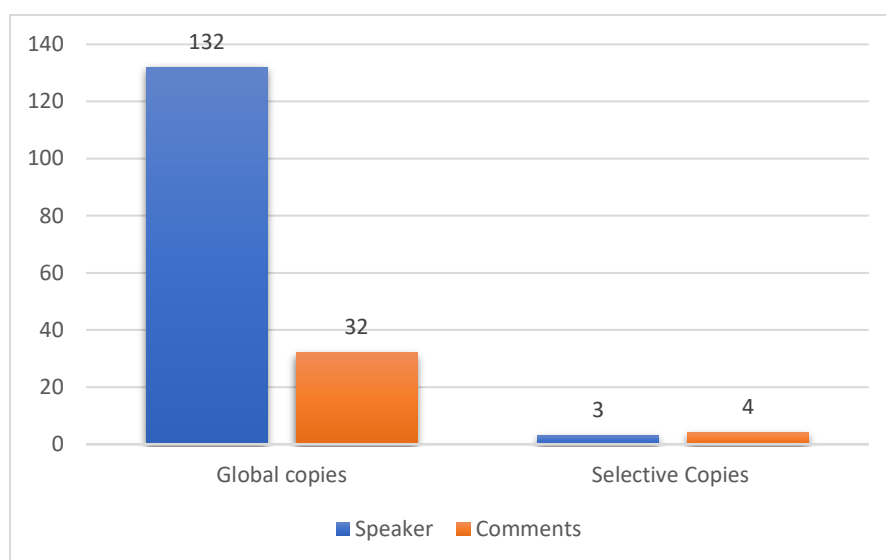


Figure 1: number of GC and SC in both spoken and written data

As seen in figure 1, the data indicates that GCs heavily prevail over SC both in the comments and spoken utterances alike. GC made up 77% all copies. of When considering previous research on the topic, some of which are presented in this thesis, the predominance of GC over SC is to be expected. One explanation derives from the notion of semantic specificity (Backus 2001) (see section 1.3). The terminology and concepts associated with video- and computer games are likely to be coined in English and spread among the gaming community. The GC found in the data were either nouns, verbs, adjectives or adverbs, figure 2 illustrates the number of one-word copies of each.

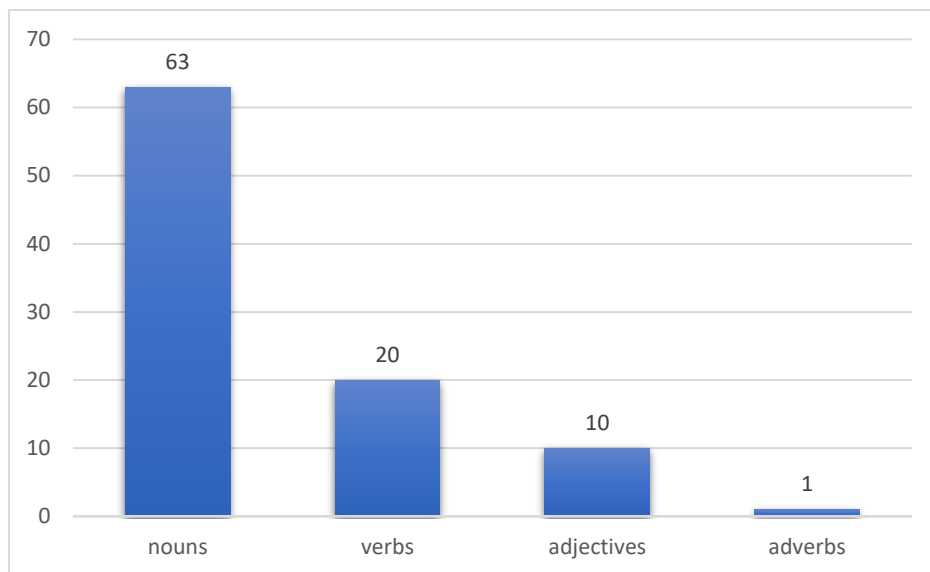


Figure 2: Number of nouns, verbs, adjectives, and adverbs as GC

Literature regarding the frequency of nouns, verbs, and other parts of the sentence used in CS (Myers-Scotton 2005; Verschik and Backus 2012; Vihman 2016) have suggested that nouns show the highest rates of CS. Here, once more, one can consider semantic specificity. Nouns are more likely to be contextually specific lexical items, whereas other parts of the sentence such as verbs and adjectives carry more functional information. Furthermore, Vihman (2016) notes that verbs are switched less because they form the semantic and syntactic core of the predicate, often providing the structure of the clause.

The importance of semantic specificity can be determined when comparing contextually specific gaming-related copies to other possible GC. Figure 3 illustrates the number of gaming-related nouns, verbs, adjectives and adverbs in contrast with not gaming-related copies of the same type.

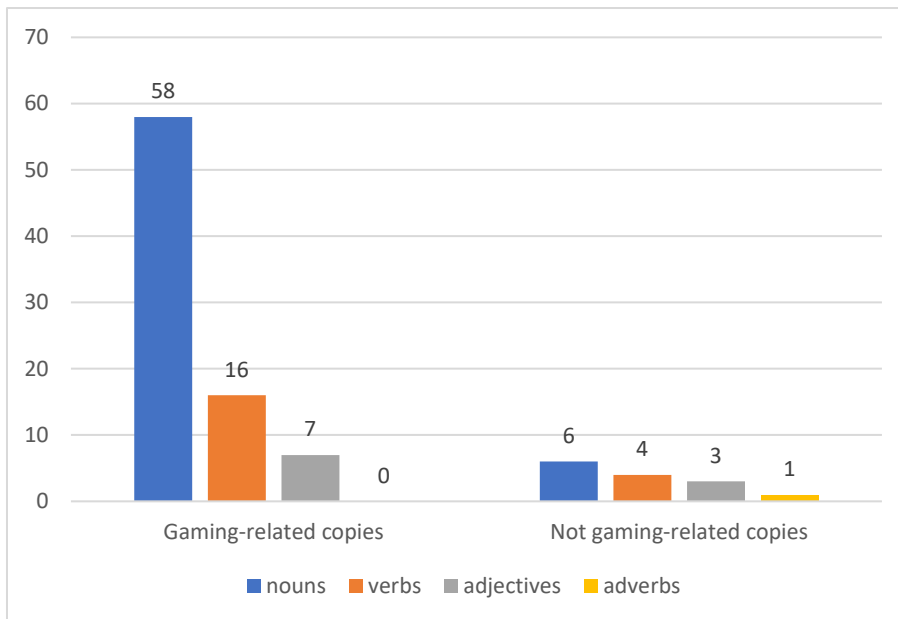


Figure 3: number of gaming- and not gaming-related POS

The use of gaming-related nouns is overwhelmingly predominant compared to any other copy. Out of all the nouns copied by the speakers and viewers 90.3% were gaming related. Furthermore, they also made up 71.6% of all the gaming-related copies. These results indicate that semantic specificity has a strong correlation with the type of copies speakers use. Although by a much smaller margin, nouns were also more frequently used for not gaming-related switches. In both categories, verbs were the second most frequent copies, leaving only a handful of adjectives and one not gaming-related adverb. The results are in agreement with previous literature on CS, confirming that indeed regardless of the jargon or domain, nouns show the highest rates of CS.

Another aspect to consider is the structural integration of copies into ML phrases. For this, instances of CS were divided into three categories: tag-, inter- and intrasentential switches. These definitions were coined by Poplack (see section 1.3) and help to determine whether switches occurred within or outside of the clause level. Figure 4 illustrates the number of phrases uttered by the speakers or written in the comments containing either tag-, inter- and intrasentential switches.

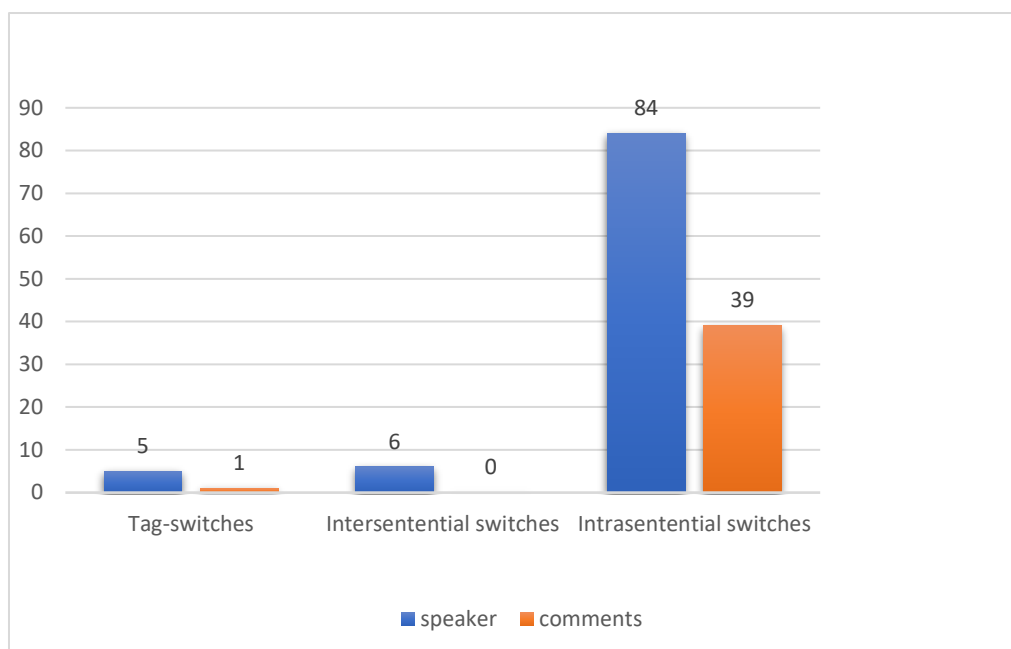


Figure 4: Number of phrases containing tag-, inter-, and intrasentential switches

The data indicates that overall intrasentential switches were the most common, with 123 phrases containing at least one example of intrasentential CS. Tag- switches were also used in both spoken and written form. Only intersentential switches were not used by the viewers in the comments. It could be argued that the latter is due to the fast-paced nature of the live commentary section, where people often write with one sentence. Furthermore, most of the examples of intersentential switches used by the speakers were provided by one content creator who spoke with full sentences switching between Estonian and English because her audience largely consisted of English-speaking viewers. To further illustrate tag-, inter- and intrasentential switches, the next few paragraphs will introduce examples of each.

Since intrasentential switches were the most common, the first example (15) examines one such instance.

- 15) S: Kas keegi saaks mulle *confirm-i-da* kui palju maksab Steamis hetke seisuga GTA4?
 ‘Can someone confirm [for me] how much GT4 costs in Steam at the moment?’

When considering intrasentential switching, one of the constraints that must be observed is the Equivalence constraint (Sankoff and Poplack 1981). According to the Equivalence constraint, the word order which immediately precedes and follows the switch point must be possible in both languages (Sankoff and Poplack 1981; Koban 2013). In example (15) the sentence structure of the English equivalent ‘can someone confirm how much GTA4 costs’ would be AuxPronVAdvDetNV. This is similar to the Estonian word order, with the exception of the allative case of the pronoun *mulle* ‘me’ immediately preceding the switch point in Estonian. One could translate the original phrase as ‘can someone confirm for me how much [...]’; however, in this case the word order immediately before and after the switch point would deviate from the Estonian. In this case, the Equivalence constraint would only be partially observed. In contrast, an example of an intrasentential CS that observes the Equivalence constraint perfectly is illustrated in example (16).

16) S: see on *chest armour*, oo vaata kui *nice*.
 ‘This is **chest armour**, oh look how **nice**.’

In example (16), the English and Estonian word order is exactly the same. The words directly preceding and following the switch point are also grammatically equivalent.

Tag-switches were used both by the speakers and the commentators. Overall, there were only six cases of tag-switches with some expressions being repetitive or very similar. The speakers mainly used tags such as ‘oh well’, which were used in two instances. The next example (17) illustrates one possible tag-switch.

17) S: No ja siis mingi suve lõpus või septembris tuleb alles järgmine, *well then*.
 ‘So and then like at the end of summer or September the next one comes, **well then**.’

Intersentential switches were not prevalent in the data. In most cases, longer stretches of English were used when reading a text or instruction provided by the game. Cases such as these were not considered CS because the speaker is not communicating their own ideas, simply

reading off a screen. The instances of intersentential CS presented in figure 4 were all found in the spoken data. One such instance is portrayed in example (18). Here one person is speaking to their audience. At first she addresses them in English then, mid-thought, she switches to Estonian.

18) S: How many episodes it was supposed to have in total? Have they even announced that? *Viis vä? Jahm. Aga no samas neil ole ole ju need episoodid ette tehtud [...]*

‘Five? Yeah. But at the same time they do not have these episodes premade’

In examples 15 – 18 one can detect that each speaker is addressing their viewers directly. In general, the data indicate an ongoing conversation between the streamer and the viewer. Often discussions over various topics arise or the streamers would see a comment and briefly react to it. Because of this ongoing dialogue, one of the objectives of this thesis was to discuss whether an instance of CS in the comments would prompt the speaker to switch and vice versa.

In some cases, this cross-modal effect of CS is recognizable. For instance, example (19) illustrates how a question from the comments prompted the speaker to use a GC. The written commentary is indicated with a ‘W’ and the speaker with ‘S’.

19) W: Mitu **like** sa kavatsed saada selle videoga
‘How many likes are you planning on getting’

S: Keegi küsis, et mitu **like-i** ma kavatsen selle videoga saada, tead ma pole kunagi mõelnud niimoodi, et ma tahaks selle videoga **like-e** saada. Et kohe ei oskagi vastata nii imelikule küsimusele, mitu **like-i** sa kavatsed saada nagu see oleks minu kavatseda, ka et kui palju inimesi **like-i-vad** või, et ma ei saa aru sellest küsimusest.

‘Someone asked how many likes I am planning on getting, you know I have never thought of it that way, that I would want to get likes with this video. So I don’t even know how to answer such a weird question, how many likes am I planning on getting, as if its up to me how many people like or, I don’t understand the question.’

A few similar examples can be seen in the data. Usually the comments affect the speakers’ use of language. It was rare to find cases where the speaker would influence anyone in the

comments. All in all, cross-modal effect of CS did occur but not significantly enough in this sample to draw general conclusions.

In this section a general summary of the data was presented. The findings indicate that GC and nouns specifically were used most often. Additionally, the copies were usually embedded as intrasentential switches. In the next sections in-depth analysis of specific examples of GC and SC will be presented. This is necessary to better comprehend the grammatical aspect and motivations behind CS in the data.

2.2.1 Global copies

In the next subsections various examples of GC will be discussed in greater detail. First the focus will be on gaming-related GC. Then, the focus will shift onto not gaming-related GC. The last section will introduce the concept of pragmatic particles and their use throughout the data.

Gaming-related GC

In the section 2.2 it was noted that the most common GC were gaming related. Following from this, the next few examples will discuss gaming-related nouns, verbs and adjectives in greater detail. First, the analysis will focus on three nouns which are all gaming-related GC. Examples 20 – 22 present phrases spoken by the streamers commenting on the game using in-game terminology to refer to a non-player character or item of interest. The nouns presented in these examples are ‘dungeon’, ‘quest’, ‘chat’, and ‘supply crates’.

20) S: Teeme natukene *quest-e* ja siis võib-olla teeme ka natukene *dungeon-i-t*.
‘Let’s do a few **quests** and then maybe also a (little bit) **dungeon**.’

21) S: Ei ole mingi vajutat kaks klikki ja saad *dungeon-isse*. Ikka passid tükk aega siin kuskil *chat-is* ja küsid, kas keegi tahab minna koos sinuga keldrisse või ei taha. Noh eks see keldrivärk ole siuke.
‘It’s not like you click twice and get **into the dungeon**. Still you wait somewhere here **in the chat** and ask if someone wants to go with you to the dungeon or not. Well, the dungeon stuff is like that.’

- 22) S: Mingi *supply crate-i-d* on siin.
 ‘Some kind of **supply crates** are here.

In these examples, one can notice a distinct pattern on Estonian suffixes added to the English copies. The Uniform Structure Principle and the Morpheme Order Principle introduced in section 1.4.1 within the MLF, claim that in a clause the structure of only one language will be preferred. This is evident in examples 20 – 22, where Estonian is the ML according to which the grammatical constraints are imposed on the English insertions. Example (20) contains two types of GC with Estonian case endings. The first is the word ‘quest’ has been modified with the plural partitive case ending ‘-e’. When considering the English word ‘quest’ in the context of gaming, then it has a very specific meaning. A quest is a task always given by an NPC which can contain various objectives. Quests usually range between anything from long and tedious errands to lore expanding story-based adventures. The term ‘quest’ has become synonymous with roleplaying games to the extent that no Estonian translation can substitute the term successfully.

The second word in example (20) is ‘dungeon’ which has been given the Estonian partitive case ending ‘-t’. Before the partitive case ending is added, the speaker also modifies the stem by adding the vowel ‘-i’. To that effect, the new stem ‘dungeon-i’ is an appropriate vowel-final stem according to the Estonian grammatical constraints which can in turn take the partitive suffix. Similarly to the term ‘quest’, ‘dungeon’ in gaming has a very specific meaning. A dungeon is hardly ever a prison or torture cell. Instead, it is a labyrinth-like area either in- or outdoors with multiple puzzles and enemies. The player must navigate their way through the dungeon and in the end, they usually fight a difficult enemy called a boss. Since no Estonian translation can correctly convey the meaning in this context because of semantic specificity, the speaker has used the GC. It is also interesting that after using the English version of the word repeatedly, at one point, after the speaker has established what he is referring to with the English term, he uses the Estonian word ‘kelder’ (example 21) for a comical effect. Although

the word ‘kelder’ (cellar) does not have the connotations of a gaming dungeon, one can infer from the context what the speaker means, therefore attributing a new connotation to the word.

In example (21), the speaker has once again applied Estonian case endings to game-related words. Another use of ‘dungeon’ in the first phrase has taken the Estonian illative case ending ‘-sse’ (such as ‘lähme keldrisse’). The second GC is the word ‘chat’ which can be replaced with the Estonian ‘kommentaarium’ or ‘vestlus’. ‘Chat-i-s’ has been modified with the Estonian inessive case ending ‘-s’ (in English ‘in the chat’). For both examples the original English stem ‘dungeon’ and ‘chat’ have been modified with the addition of the suffix ‘-i’ creating a new appropriate vowel-final stem. This step is necessary, as mentioned in section 1.5.1, due to the grammatical constraints of the Estonian case marking. The steps taken to alter an English copy indicate that both the Uniform Structure Principal and the Morpheme Order Principle are observed.

Similar word modifications, with the addition of the stem-vowel ‘-i’ and an Estonian participle- or case ending can be seen in example (22). Example (22) portrays the use of a GC in combination with an Estonian plural ending. The noun ‘crate’ has first been modified with the stem vowel ‘-i’ and then with the Estonian suffix ‘-d’ instead of the English ‘-s’ to indicate plurality. ‘Supply crate’ is an object in the game with the name clearly marked, therefore prompting CS but following the constraints of the ML. CS from English into Estonian is facilitated by the fact that the surface order of both languages is SVO. According to the morpheme-order criterion (Myers-Scotton 1993: 83) the surface morpheme order in the utterance will be that of the ML. It is easier to fit a GC into the ML if the word would be in a similar place in the phrase if one were to say the phrase in the EL. For instance, take example (20) ‘teeme natuke *quest-e*’ (‘let’s do a few quests’) in both languages the word ‘quest’ is situated at the end of the phrase following the basic order VDetN.

The next GCs to consider are gaming-related verbs. Once more three different examples will be analysed. The verbs that have been copied are ‘heal’ (example 23), ‘to camp’ (example 24) and ‘to no life’ (example 25). In each of these examples one can immediately recognise a familiar pattern discussed in the previous paragraphs. Every copy here contains the Estonian stem vowel ‘-i’ and an Estonian suffix. In example (23) the streamer has used the word ‘heal’ in combination with the Estonian verb ending ‘-ma’ to indicate that his character is not at full health and must react accordingly.

23) S: Pean nüüd natuke *heal-i-ma* ennast ja siis pikutama
 ‘I have to heal myself a little bit and then rest’

The game often prompts the use of ‘to heal’ as most items with healing properties would bear the notification ‘this heals an x-amount of points’. In addition, when one’s health is falling low, a notification often appears stating ‘heal yourself’, although the speaker could easily have replaced ‘heal’ with the Estonian ‘ravima’. There is a conscious decision made to use the more common and well-known terminology in English as most game savvy people would understand the connotation of ‘to heal’ much more naturally than the Estonian equivalent. In similar fashion, example (24) illustrates a copy that has taken a new meaning due to semantic specificity.

24) S: *Miner-ina* sa lihtsalt mingi *camp-i-d* mingit kohta. Sõidad järgmisesse kohta *camp-i-d* jälle mingit kohta.
 ‘As a miner you just **camp** some place. Drive to another place, again **camp** some place.’

The overall concept ‘to camp a place’ sounds strange in the original sense of the word. Nevertheless, in the context of gaming this specific use of the word ‘to camp’ is justified. In gaming, when the players claim to ‘camp’, it means to spend an extended amount of time in one area either killing or looting NPC’s in order to gain experience or gather specific items. For instance, one may say “I will camp at location X for two hours”. In the case of example (21) the speaker is using the word ‘camp’ with this connotation in mind since there is no Estonian

equivalent which is universally understood by gamers. The GC ‘camp-id’ is also a combination of the English verb ‘camp’ with the Estonian second-person participle ending ‘-d’. The third example (25) takes one step further from single-word copies and introduces an interesting expression used in the gaming jargon.

25) S: olen suht *no life-i-nud* seda kogu oma vaba aja.
 ‘I have been no-lifeing this for all of my free time.’

The expression to ‘no-life’ means spending time doing one activity for an extended period. The most common use of this expression in English is “I have been no life-ing this game for two weeks” meaning that the person has been playing so vigorously as if they have no other life. In English it is a very common expression used among the gaming community, although the expression is used in other communities as well. It may appear that the connotation of ‘no life’ is derogatory or negative, yet it is often used by the community as a means to brag about their dedication to gaming. In the example (25) the speaker combines the English expression with the Estonian participle ending ‘-nud’ which indicates the past.

The least common gaming-related GCs were adjectives. However, some interesting examples could be found and will be discussed in the next paragraphs. Examples 26 – 28 present adjectives that are often heard in gaming communities. Two of these, ‘hardcore’ and ‘noob’, are more general and used widely across all game-types. The third example ‘vanilla’ is more specific to one certain game called World of Warcraft, although it is used in other contexts as well.

26) S: *Classic*-us olid siis eraldi *skill-id* ka relvadele, et ikka siuke *hardcore* värk.
 ‘the classic had separate skills for each weapon, so it was pretty **hardcore** stuff.’

27) S: Et aga saame hakkama, et kõige hullem *noob* ei ole. Nii, et ei ole hullu.
 ‘So then we will be fine, I am not the worst type of **noob**. So, no worries.’

28) S: Aga üldiselt ei ole mul ühtegi *add-on-i* nagu näed kõik on väga *vanilla*.
 ‘But as you can see in general, I do not have any add-ons, as you can see everything is very **vanilla**.’

Example (26) contains a few GC, however here the focus is on the word 'hardcore' as this is an example of an adjective used as a GC. The word 'classic' and 'skill' are directly influenced by the game. The term 'classic' is used to refer to the variation of the game World of Warcraft which the streamer is playing. The word 'skill' is one of the most common game-related terms used throughout all games. Yet, the word 'hardcore' was a switch unprompted directly by the game. The adjective may have been adopted into Estonian gamers' vocabulary from computer games in general. 'Hardcore' is often the last and most difficult setting one can use before starting a game, it is also used to describe something that is in general very difficult to achieve in a game or as an endearing adjective saying something is 'hardcore' in other words 'cool' or 'special'.

The following example (27) presents the adjective 'noob'. In the form of a noun 'noob' is a derivate of the word 'newbie' and is often used in computer-related jargon to describe an inexperienced person. In Estonian as well as English the word retains the same material properties, as it is pronounced as /nüb/. Here the speaker is claiming not to identify himself as a 'noob' meaning that they believe they have adequate skill and knowledge of the game. The term 'noob' has garnered such frequent use in the gaming community that it has almost become an inseparable part of the gaming slang. Often the word is used as a derogatory term when a co-player is either lacking skill, speed, or overall knowledge of the unspoken rules of gaming. The connotations of this word are deeply intertwined with gaming culture, therefore making it an impossible task to replace the word with an Estonian translation.

The last example 'vanilla' (28) is similar to 'hardcore' and 'noob' in that it can also be used as a general term in most games. However, it has a very specific meaning in the game World of Warcraft. 'Vanilla' in gaming refers to the basic version of the game, meaning that the game has no added content and the gamer does not use any add-ons that would help the player achieve higher levels at an accelerated rate. In the case of this game, 'vanilla' refers specifically to a

point in time when only the base version of the game existed before the expansion “World of Warcraft: The Burning Crusade”. The content creator is trying out a new version of the game that is meant to replicate the original base version. By using the term ‘vanilla’ he is simultaneously achieving two goals: expressing that this is in fact the original World of Warcraft base game and emphasising that he does not use any cheat codes or add-ons to make the game easier. In this case no Estonian translation would suffice to convey the same meaning.

In some instances, the switches contained more than one type of word. One of the more interesting cases is presented in example (29).

29) S: No *soul crusher*, ma *crush-i-n* su {--} ära praegu, su nägu on *crush-i-tud*, nii.

‘Well, soul crusher, I am crushing you right now, your face is crushed, ok.

In example (29) the speaker is promoted by the name of an NPC in the form of a noun ‘soul crusher’ to describe his attempt at killing said NPC with the term ‘crush’. This in turn results in the speaker using the GC ‘crush’ twice in combination with the Estonian participle ending. Myer-Scotton (2005: 333) claims that: ‘EL nonfinite verb forms, especially for the participles, from different languages always appear as holistic units in CS’. In this case however, the first use of the copy ‘crush-in’ (‘I am crushing you’) is formed according to the Estonian first-person singular present form and the second use ‘crush-itud’ (‘your face is crushed’) is used in the form of an Estonian past participle. The connotations of ‘I am crushing you’ are directly correlated with the word ‘to crush’ and therefore function in this sentence as a verb to replace ‘litsuma’ or ‘purustama’ in Estonian. In contrast, the connotations of ‘your face is crushed’ are twofold, one suggests that the speaker has finished his task of crushing and the other can be viewed as an adjective ‘you have a crushed face’. This example along with other evidence from previous research into English-Estonian CS suggest that participles are not always copied as holistic units. Vihman (2016: 194) provided examples of English-Estonian CS used by children which were also in clear violation of Myers-Scotton’s predictions about participles.

In addition to GC that were strictly related to gaming jargon, some examples of non-gaming related switches were also present. The next section will illustrate some examples of non-gaming related GC.

Non-gaming related GC

This section will introduce some examples of GC which were not prompted by the games, the jargon, or the community. These examples are portrayals of GC which have solidified their use in everyday communication to the extent that they are not connected to any specific genre.

The first example (30) is the adverb ‘proolly’. The speaker has copied the English adverb ‘probably’ in its colloquialized form ‘proolly’. The first mention in recorded data of the word ‘proolly’ according to the Corpus of Historical American English (COHA) was in the 1940s’. The word became popularised around 2000 and is now a common slang term used in spoken and written communication alike. The word derives from colloquial pronunciation and is not common in written communication in general, but rather specifically computer-mediated colloquial communication. The speaker’s choice to use this English colloquialism is not clear as nothing in the game or the comments prompted this switch. Perhaps it can be suggested that this word has simply found its way into the speaker’s everyday vocabulary through active participation in social media and English-speaking communities.

30) S: Ma **proolly** hakkann mingi neid *chat-i* loopima.
‘I will **proolly** start throwing them into the chat.’

Adjectives were also not as common as nouns or verbs, which is to be expected considering the findings of previous research (Verschik and Kask 2019; Kask 2016). However, some interesting cases were still present. The next two examples of GC are the adjectives ‘amazing’ (31) and ‘connected’ (32). Both examples are very similar since they are unchanged EL islands.

31) S: See on ikka *amazing* koht
 ‘This is really an **amazing** place’

32) S: Ta tahab teha kahte serverit, mis on omavahel *connected* ja see on nagu *good idea*.
 ‘He wants to make two servers which are **connected** and that is like a good idea.’

One of the more common reasons for CS is for affective purposes. Example (31) portrays the use of the adjective ‘amazing’ which is an emotional word and serves the affective function. However, the word ‘amazing’ in this context does not add any extra connotation nor does it connect with the audience in any unique way. Therefore, it is once again difficult to pin-point the speaker’s exact reason behind using the copy instead of the Estonian ‘imeline’. As suggested in example (30) ‘containing the word ‘prolly’, the copy ‘amazing’ may just be a common inclusion the speaker’s vocabulary. As previously noted, the word ‘amazing’ functions in this phrase as an EL island that is unchanged by Estonian grammar. However, it does observe Poplack’s Equivalence constraint. The words preceding and following ‘amazing’ are of the same grammatical function and meaning in both Estonian and English. The word ‘ikka’ emphasises two things: the extent to which the place is amazing and the conviction of the speaker that it is amazing. the word ‘really’ in the English translation achieves a similar effect. The word following ‘amazing’ in both languages is the semantically equivalent noun ‘place’.

In the second example (32) one can find two instances of CS: the adjective ‘connected’ and the expression ‘good idea’ consisting of an adjective and a noun. The focus here will be on the copy ‘connected’. The speaker is referring to the field of IT, explaining that within the game GTA4 one can create their own servers that preform like the game but with various peculiarities. Although the word ‘connected’ is not exclusive to the IT and gaming jargon it is used in these fields very often. In IT ‘connected’, ‘connection’ and ‘connect’ are often used in error messages about wi-fi connection, alerts about charging, when paring two or more devices, etc. Many people use the English factory settings instead of switching the language of their devices to their L1, therefore people might be more inclined to add a version of the word ‘connect’ into

their vocabulary as their devices familiarise them with this term. Similarly, in gaming versions of the word ‘connect’ are often used when wi-fi is needed for the game to start, when picking a server to play in, and when reaching out to other players. Considering these aspects, it is not surprising that an avid computer game streamer would utilise this term without an external prompt. The placement of the switch is embedded according to the ML structure and could be replaced by the Estonian translation ‘seotud’ without disrupting the word-order of the rest of the phrase. The English translation is structurally identical enough that one could claim that the switch observes the Equivalence constraint and is in agreement with the System Morpheme Principle.

As a last example of non-gaming related copies, let us consider a verb. Example (33) presents a phrase where the speaker copies the verb ‘edit’ in the context of video modification.

- 33) S: pärast aga *edit-i-sin* oma [name omitted] kanalile videosid.
 ‘later I **edited** videos for my [name omitted] channel.’

The copy ‘edit’ is modified with the addition of an Estonian suffix. The alteration here is twofold: first, the speaker adds the vowel ‘-i’ to create an appropriate vowel-final stem from of the word edit; secondly, the speaker adds the suffix ‘-sin’ indicating the first-person past simple form. The structure of the ML dictates the placement of the verb ‘edit’ under the constraints of Estonian grammar. The switch observes the System Morpheme Principle and the Morpheme-Order Principle because the switch point occurs according to the word order of Estonian grammar and it is modified to compliment the Estonian verb structure. The overall word order is also similar enough in both languages that the Equivalence constraint is observed. The reason for the switch may be explained with a closer look at the context of the phrase. This speaker is claiming that in addition to making streams for his gaming-channel (which are unedited recordings) he also makes edited videos for a second channel. ‘Editing’ in this context has a specific meaning and importance. Video editing has become a popular hobby and vocation for

the younger generation, most people who talk about ‘editing’ are in the know that this refers to content meant for YouTube or other massive video sharing platforms. One could propose an Estonian translation ‘töötlemä’, but for some reason in this case the copy was preferred.

Pragmatic Particles

The category of GC also includes pragmatic particles. These are words and expressions used to fill gaps in discourse such as “like”, “Oh, well”, etc. despite seeming very similar to what we described earlier as tag-switching, pragmatic particles can also be fixed expressions and polysyllabic words such as ‘moreover’ or phrases such as ‘you know’ (Foolen 1996: 1). Foolen (1996: 2) states that pragmatic particles typically fulfil other linguistic functions as well. According to Verschik (2019: 11) pragmatic particles are often used as GC because they do not alter the meaning of a phrase, instead, they help to organize discourse and show the speaker’s attitudes. Backus and Verschik (2012) have also stated that pragmatic prominence facilitates GC. Furthermore, pragmatic particles are not specific to any genre and do not invite semantic specificity. They can be seen in blogs, vlogs, chat messages, commentaries, etc. (Igav 2013). According to Verschik and Kask (2019:12) various English expressions (such as ‘oh my god’ and ‘anyway’) have been conventionalized in Estonian discourse by the younger generation.

The following four examples present instances where pragmatic particles were used. In example (34), the speaker is adamant that he does not want to invest more than a hundred euros into gifting ‘keys’ (a specific item in the game that unlocks content) to his viewers, therefore he emphasises his unwillingness by repeating ‘no’ multiple times even after he has said ‘no’ in Estonian. This is an example of a pragmatic particle since the word ‘no’ here does not change the meaning of the phrase but it shows the speakers’ attitude and also fills in the gap in the train of thought the speaker lost for a moment.

- 34) S: aga rohkem ei jaksa rohkem ei *no, no, no, no* rohkem ei: aga noo sott::, hääküll.
 ‘but I can’t do any more no, no, no, no, no, no more: but well:, a hundred::, alright then.’

Example (35) is a pragmatic particle in the form of a tag expression. The use of ‘oh well’ was mentioned previously as one of the more common tags. It indicates that the speaker is slightly disappointed by the outcome whilst wrapping up the speakers’ thought. Although the speaker could have used an Estonian expression such as ‘mis teha’ or ‘mis seal ikka’, which have the same connotation of slight disappointment with general aloofness, for whatever reason the speakers’ felt on multiple occasions that ‘oh well’ better communicates what they mean to say at the given time.

35) S: ma oleks talle saatnud võibolla *oh well*.
 ‘I might have sent it to him **oh well**’

Pragmatic particles can also be used to emote. Example (36) illustrates a case where the speaker uses the English expression ‘wow’. On the one hand, the expression ‘wow’ has been adopted into Estonian vocabulary to replace expressions such as ‘oi’ or ‘ohoo’, which are all interjections with the aim of conveying surprise. On the other, unlike ‘oi’ or ‘ohoo’, one can use ‘wow’ sarcastically, in order to express how unimpressed one is with the other. In this case, the speaker is referring to the chat where there is an unusual number of comments saying ‘hello’ in Estonian. It can be inferred from the context and the tone of the speaker’s voice that ‘wow’ in this case is not meant sarcastically.

36) S: Jaa nii see elu on, jah tere kõigile *wow* kui palju teresid siin on.
 ‘And that’s how life is, yes hello to everyone **wow** how many hellos there are.’

Example (37) portrays a pragmatic particle that serves two purposes: first, like example (34) it is used to emote; second, it works as an onomatopoeic expression of the current action.

37) Noo nii *boom*, litaki näkku sulle
 ‘Okay boom, slap in your face’

The word ‘boom’ is used here as an interjection by the speaker to animate his action of hitting an NPC. The word ‘boom’ has onomatopoeic properties and is often used to voice explosive

and impactful actions. In this instance, the speaker uses two words to convey the same idea ‘boom’ and ‘litaki’; however, the onomatopoeia differs for both words: ‘boom’ sounds more resounding, deep and impactful while ‘litaki’ sounds crisper and sharper. In Estonian ‘litaki’ is similar in onomatopoeia and connotation to the English ‘slap’. Therefore, it is interesting that the speaker should choose those two as a pair to animate his actions.

The use of pragmatic particles by the speakers suggests that in gaming the overall vocabulary has surpassed only gaming-related terminology. There is evidence that speakers are able to utilise English expressions as a means of general communication and self-expression. The best examples of copies that support this idea are discussed in the next section, where the focus is on Selective Copies.

2.2.2 Selective Copies

In addition to GC, the CCF proposes another interesting aspect of CS which are called Selective copies (SC). SC are unique to the CCF, they encompass semantic extensions in one-word items and combinational semantic copies (refer to section 1.2.2). It has been noted in previous English-Estonian CS studies (Igav 2013; Kask 2016; Vaba 2010; Verschik and Kask 2019) that SC are the least frequent type of copying. The data for this thesis also supports that claim. As mentioned previously in section 1.4.2, SC are often described as loan borrowings or loan translations. However, according to a distinction drawn by Backus and Dorleijn (2009) CS can be divided into two categories. First category considers loan translations in a strict sense, where the overall meaning and combination of words is unaffected. The second category contains translations of multi-word items that involve changes in morphosyntax. Verschik and Kask (2019: 13) believe that this distinction is relevant since it allows for a closer look at SC. With this in mind, some examples of SC were found in the current data.

The first case of SC, illustrated in example (38), shows how SC can occur in idioms and fixed expressions. In this case the SC is a combinational copy of the expression ‘very nice’.

Although the expression ‘very nice’ can be translated into Estonian and used in various contexts such as ‘väga hea’ or ‘väga kena’ in this context either of these translations would work, but the copy was chosen probably for its affective content.

38) S: Ostsid eile siis särki ja väga *nice* väga *nice*
 ‘So you bought a shirt yesterday, very nice very nice’

The word ‘nice’ can have various connotations, for example it is often used to give approval to the listener (‘you killed that boss, nice!’) or to thank someone (‘nice! You bought my merch), and even to communicate excitement (He is coming, nice!). In this case, the use of ‘väga nice’ is used by the speaker to convey all of the above since the person they are referring to bought a shirt that was made by that content creator. Therefore, any Estonian equivalent of the word ‘nice’ would not suffice here as they would not carry the same semantic properties. By the same token, example (39) illustrates a combinational copy of the fixed expression ‘let’s check it out’.

39) S: Siin on mingi uus missioon ka lähedal. *Check-i-me* selle ka *out-i*.
 ‘Here is a some kind of new mission close by. Let’s **check it out**.

Here, the speaker has used the common English expression ‘let’s check it out’ in combination with Estonian, replacing the pronoun ‘it’ with the Estonian ‘selle’ and adding the Estonian adverb ‘ka’. In addition, the speaker adds the Estonian endings to the words ‘check’ and ‘out’. ‘Check-ime’ is a combination of the English verb ‘check’ and the Estonian first-person plural suffix ‘-me’, replacing the ‘let’s’ (=let us) in the original expression. ‘Out-i’ is a combination of the English adverb ‘out’ and the stem adaptation ‘-i’. When the speaker says “check-ime selle out-i” they can mean one of four things: to look at something, to familiarise themselves with something, to vacate a premise, or to buy something at the checkout counter. There is a small but significant difference in how one would use this expression in Estonian with the correct connotation. When the stem adaptation ‘-i’ is added to the word ‘out’, it gives the impression that the speaker is using the illative case ending meaning ‘we are checking it where?’: ‘we are checking it out’. In this case, the meaning of the SC would most likely coincide

with either buying something and checking it out or vacating a premise. If the speaker had used either one of the two following variations ‘check out-ime seda ka’ or ‘check-ime selle ka out’ without the ‘-i’ the intended connotation of ‘to familiarise themselves with something’ would be much more evident. Furthermore, in the original expression the pronoun ‘it’ is in the nominative case, yet the speaker is using it in the genitive case. The genitive case usually shows possession, whereas the speaker is trying to refer to something which in Estonian would usually mean that the pronoun is in the partitive case. Therefore, the phrase could be ‘check-ime seda ka out’. One could argue that there are numerous ways to express this sentiment in Estonian, all of which would put the pronoun into a different case for instance: the allative case ‘viskame **sellele** pilgu peale’ (let’s take a look at it), the nominative case ‘lähme vaatame milles **see** seineb’ (let’s check what it is about), and even in the genitive case ‘vaatame mis **selle** idee on.’ (let’s check what the point of it is). Nevertheless, none of these sentence structures are appropriate for this specific SC.

Another example of a fixed expression copied from English to Estonian is portrayed in example (40).

40) S: ma ei näe seda **point-i**, et mulle hakkavad kaheteist aastased pärast kirjutama et aa kuule sa *scammisid* et ma ei oskand kasutada seda *keyd* vaata, et ee ma pigem ei viitsi sellega tegeleda, mul on lihtsam minna Steami [...].

‘I don’t see the **point**, that twelve-year-olds will start writing to me after, that hey you scammed me, I didn’t know how to use that key see, so I’d rather not deal with it, it’s easier to go to Steam [...].’

In this example, the speaker has copied the word ‘point’ and added the partitive case ending ‘-i’. In addition, the speaker has copied the rest of the fixed expression word for word into Estonian. There is a case to be made that in Estonian the equivalent expression would be ‘ma ei näe sellel mõtet’ which also includes the metaphorical use of ‘to not see’ to convey ‘to not think’. However, there is a distinction to be made in how the speaker has worded the SC ‘ma ei näe seda point-i. In the Estonian variant the word ‘seda’ in this context would usually not be used in the partitive case. The speaker could have worded the expression ‘ma ei näe sellel point-

i' in which case the only difference from the Estonian variant would be the word 'point', meaning that the CS would no longer be a SC but rather the word 'point' would be a GC. Nonetheless, in this specific example the speaker has used the word 'seda' instead of 'sellet'. This small change alters the focal point of the phrase. The speaker's choices resemble the English variant more since he has opted to use the combination 'seda point-i' which shifts the emphasis onto the word 'point-i' taken directly from the English 'the point'.

One example of a SC was used by a commentator in the stream chat. While example (38) 'väga nice' was a combinational copy, this one (example 41) could be considered as a loan copy or borrowing.

41) W: [name omitted] lubas Istole ja Sariole tuule alla teha, neid **röstida**.
 '[he] promised to beat Isto and Sario by roasting them.'

The word 'röstima' has been used in this context with the connotations of the English word 'to roast'. When considering how the words are defined in dictionaries, Merriam-Webster offers the English verb 'roast' the definition 'to subject to severe criticism or ridicule' whilst the Estonian *Sõnaveeb* only offers 'röstima' the definitions associated with 'toasting' rather than 'roasting' in the current sense. Therefore, it can be implied that this new connotation is directly taken from the English variant. According to the CCF this is a semantic extension and can be considered as a SC.

The examples presented in this section provide an overview of how three Estonian gaming streamers utilise CS in their communication with their viewers. Additionally, the data reflect how viewers may use CS in the written commentaries accompanying the videos. The previous sections were mainly focused on providing a general overview of the data and in-depth analysis of specific instances of CS. The following section will discuss the findings of this thesis with previous research introduced in the theoretical background.

2.3 Discussion

The discussion of this thesis is divided into two subsections. First, it will revisit question of whether a cross-modal effect of CS could be determined. Second, it will compare the impact of English GC and SC on Estonian, discussed in section 2.2, with the research introduced in sections 1.5 and 1.6.

2.3.1 Cross-Modal effects of Code-Switching

The data collected for this thesis were unique in the sense that that one could make parallel analysis of spoken and written material. Both were authentic, unedited forms of communication. The spoken material was provided by the content creators who were conversing mainly with their viewers and commenting on the game. The written data was provided by the viewers in the commentary section. The nature of the commentary section is unique because the comments scroll past in real-time so for the streamer to notice a comment and respond to it, they must pay close attention. For those content creators who have a large following, the commentary is constantly running at a quick pace since as many as a thousand viewers might be commenting at the same time. This fast-paced stream of information also prompts the viewer to write quickly and without putting careful thought into the grammar of the comment, since often waiting too long may result in your comment popping up when the conversation topic has already moved on. Often when this is the case the streamer will disregard the comment and respond to whatever is most relevant at the given moment.

Keeping this in mind, one of the aims of this thesis was to investigate whether or not the commentaries and the streamers' language use influence one another. In other words, to see if there was a cross-modal effect of CS. Although in some cases the streamers and the commentators did switch often using the same word (when talking about 'keys' for example), it was difficult to pin-point which mode of conversation influenced the other. For the most part, when cross-modal CS occurred it was influenced by a unifying topic which included a gaming-

or streaming related term. For instance, a viewer would ask the streamer why their donations are not going through using the copy ‘donad’ (=donations) to which the streamer would answer using the same copy.

42) W: mul *donad* ei lähe läbi mis toimub
‘my donations are not going through what is going on’

S: Mu *donad* ei lähe läbi mis toimub? Ma arvan et su *donad* äkki tulevad läbi aga lihtsalt on mingi *queue* äkki vä, ma tõesti ei tea.

‘My donations are not going through what is going on? I think your donations maybe are coming through but simply there is some kind of queue maybe, I really do not know’

In this example (42), the speaker is clearly prompted by the comment. They read the comment and react to it using the same terminology. This copy is not used before or after the exchange. However, there were many instances where the streamer would use a plethora of gaming-related jargon or terminology without getting any responses from the commentaries. To illustrate: a streamer would describe the way dungeons are played in the game with no response including CS.

Very few examples of non-gaming or streaming related copies had a cross-modal effect. Usually when either the speaker copied a pragmatic particle or used a SC the comments did not reflect similar language use and vice versa. However, there were a handful of cases where an English comment would prompt an Estonian answer to include CS. In example (43), a viewer claimed in the comments:

43) W: just randomly **throwin** knife in the woods.

To which the streamer later replied:

S: lapsik käitumine {--} see on nii tavaline. Keegi lihtsalt solvub nagu mingi eit siis ee: ja siis lihtsalt hakkab *throwima* nagu.

‘childish behaviour {--} that is so common. Someone gets their feelings hurt like some woman and ee: yes, just starts throwing you know.

These examples illustrate that a cross-modal effect of CS is possible and does occur. The findings indicate that the streamers were affected by the language use in the comments

significantly more than the comments were affected by the speakers. This is particularly true when the streamer is actively engaging with their audience and the discussion includes gaming-related English terminology. However, since the comment section is often flooded with unrelated remarks and the streamer does not always have the possibility to notice and reply to every comment, the cross-modal effect is not prevalent.

2.3.2 Comparison with previous research

The findings of this thesis support that of previous research conducted by Verschik and Kask (2019) and Kask (2016). Although their focus was on fashion blog and vlogs, the language use in gaming streams also falls into the monolingual genre. As illustrated in section 2.2, GC were the predominant option for most speakers and writers alike. Verschik and Kask (2019) also noted the prevalence of GC. They found that lexical items, discourse particles, and fixed expressions functioning as particles were copied the most. The same can be said for the findings of this thesis. As indicated in figure 3, gaming-related nouns were copied 1.6 times more often than all other possible copies. Kask (2016) analysed written data in fashion blogs and also concluded that GC were used most often. The implication is that semantic specificity plays a major role in CS.

Considering the structural impact of English CS in Estonian phrases, the data suggests that most GC adhere to the Morpheme-Order Principle and the System Morpheme Principle. This is significant because it implies that English copies are modified under the constraints of Estonian grammar. Therefore, copied items do not alter the argument structure of Estonian phrases in accordance with English syntax. Although Verschik and Kask (2019) and Kask (2016) did not use the MLF as a basis for analysis, parallels between their findings and those of this thesis can be drawn. Usually the copies were modified to be in grammatical agreement with the words preceding or following the switch point. The modifications typically included the addition of the stem vowel ‘-i’ and either an Estonian case- or verb ending. Few examples

of unchanged EL islands were also present, although they would still follow the Estonian surface morpheme order. GC enriched the speakers' language use by containing semantic properties such as denotative or connotative content elements. The CS used by the speakers and viewers either referred to specific names, items in the game or derived from general gaming jargon. Longer stretches of English were either used when reading texts in the games or communicating with viewers based on the language of their comments. Kärnä (2015) and Myllärinen (2014) also noted the same categories of copies emerge from their data. Emotive language such as trash-talking and exclamations were present in the data of this and Myllärinen's theses. Both Myllärinen (2014) and Kärnä (2015) pointed out that speakers would use Finnish to talk about the game with one another, whereas English was used to talk as character within the game. Such a distinction was not apparent in the findings of this thesis. Whether interacting with players in the game or with their viewers the extent to which the streamers used CS was relatively the same. Furthermore, Boes and Vinh-Hung (2017) noted that in gaming forums the language use was in agreement with the Equivalence Constraint. In addition, they noted that CS was used for immersive purposes and displayed superficial grammatical incoherence (Boes and Vinh-Hung 2017: 20). The difference between the data of Boes and Vinh-Hung (2017) and this thesis stems from the contrasting nature of live commentaries and discussion forums. Commentaries are often moving at a fast pace and work as a complimentary conversation tool next to the stream. Forums, on the other hand, allow for long stretches of written language and the opportunity to express oneself with no time limitations. This distinction sets the findings of this thesis apart from that of Boes and Vinh-Hung (2017), as CS was not used in commentaries as an immersive tool and there was little evidence of grammatical incoherence. Nonetheless, this data also represented a number of examples where the Equivalence constraint was observed.

SC had a more significant effect on Estonian sentence structure. In the data of this thesis, SC were either combinational semantic copies of idiomatic- and fixed expressions or loan translations. For instance, example (39) ‘*check-i-me* selle ka *out-i*’ is a semantic combinational copy that changes the Estonian argument structure. Nevertheless, SC was also incorporated as loan translations or semantic copies which did not directly affect the sentence structure, such as example (41) ‘röstima’. The data indicated only a few instances of SC, which is an aspect that both Verschik and Kask (2019) and Kask (2016) also noted in fashion blogs and vlogs. Verschik and Kask (2019) noticed that most SC in fashion blogs and vlogs were of loan translation type. Some SC also exhibited orthographical properties. In the comments, viewers sometimes used English words that retained the basic code hence they were written as if they were Estonian. One such example (44) is provided below.

44) W: Millal [name omitted] twitchi *striimi* teeb
 W: When will [name omitted] do a twitch **stream**

The word ‘striimi’ is the English word ‘stream’ but written according to how it sounds in Estonian. Similar examples were found by Kask (2016). In her findings, bloggers would use copies such as ‘snkiik piik’ (sneak peek) and ‘sheerin’(share) (Kask 2016: 89, 91). A few similar examples could be found in the data for this thesis. However, a majority of English words that the viewers wrote, such as ‘tiim’ (team) are already established as English loan words in the Estonian dictionary, therefore are not considered CS.

Since GC were the most prevalent in the data, it can be inferred that CS did not have a significant effect on Estonian syntax. Verschik and Kask (2019) also noted a similar outcome in their research. Their suggestion for a lack of structural impact is based on the assumption that it is too early in the development of multilingual cognition in English-Estonian language communities to observe more abstract meanings and conventions (Verschik and Kask 2019: 26). This hypothesis is supported by the fact that the international Estonian online gaming

community is relatively new. Hence, the English-Estonian language development is still in its early stages. However, the sample of CS analysed for this thesis is not representative enough to draw generalisations about the language use of the whole Estonian gaming community.

CONCLUSION

CS provides a unique window into contact-induced language usage. The aim of the present thesis was to analyse English-Estonian CS in Estonian gaming streams. The thesis introduced various definitions, motivations, and analysis theories for CS. In addition, it provided an overview of the congruences and dissimilarities of English and Estonian structure. The works of Verschik and Kask (2019) and Kask (2016) on fashion blogs and vlogs were used as a comparison for CS in gaming. Furthermore, previous research on gaming CS was contrasted with the findings of this thesis. The analysis aimed to answer two research questions: how do global- and selective English copies impact the structure of Estonian phrases and can a cross-modal effect of CS be determined. To address these, the video transcriptions of three Estonian gaming streamers and their accompanying commentaries were analysed based on the MLF and the CCF. The thesis included two main chapters. The first chapter introduced the theoretical background, whereas the second chapter was empirical.

This thesis considers CS according to the definition provide by Myers-Scotton which defines CS as the alternation of different language varieties in the same conversation. In the following subsection, motivations for CS are examined. Accommodation Theory and the Markedness Model were introduced. These models are essential for explaining how cognitive reasoning can factor into the linguistic choices of speakers. Furthermore, the definitions suggested by Poplack (1980), Conversation Analysis proposed by Auer (1998) and the theory of semantic specificity introduced by Backus (2001) were discussed. These analytical approaches are of significance to gain a better understanding of analytical approaches to CS. However, the main frameworks used as a basis for analysis in this thesis are the MLF and the CCF.

The significance of the MLF is that it provides a theoretical framework which allows for the analysis of morphosyntactic features of CS. The principle assumption of the MLF is

notion that two languages (in this case English and Estonian) participating in CS do not contribute equally to the morphosyntactic frame of a mixed constituent. To test that theory, the extent to which CS utterances adhered to the Morpheme-Order Principle and the System Morpheme Principle was analysed. In addition, the CCF was also applied as an analysis framework. The CCF allows for the consideration of switches which are not included in the MLF. These may include loan borrowings, semantic combinational switches as well as phonetic, and morphological copies. The CS exemplified in the data of this thesis was categorised according to the CCF into two groups, GC and SC.

The first chapter also introduced the similarities and differences of English and Estonian sentence structure along with previous research on the subject of internet-based communication genres. These included the works of Verschik and Kask (2019), Kask (2016), Boes and Vinh-Hung (2017), Kärnä (2015), and Myllärinen (2014). Verschik and Kask (2019) and Kask (2016) used the CCF to analyse the CS in fashion blogs and vlogs. Their findings are relevant to this thesis because fashion and gaming online communities share in that they both rely on English as the lingua franca and have a growing influence on social media platforms. The latter three focused on CS in gaming and provided insight into the research conducted within the genre of this thesis.

The second chapter provides an overview of the data collection process, analyses the findings, and discusses their implications in relation to the previous research introduced in chapter one. The findings provide empirical support of the theoretical view that the hierarchy of the sentence structure is that of the ML. In most cases the English copies were modified with the stem vowel ‘-i’ and an Estonian case- or verb ending to be in agreement with the Estonian grammatical structure as predicted by the MLF. GC in the form of gaming-related nouns were predominant in the data and usually functioned as modified EL islands. SC were used much less, but they exemplified the complexity with which two languages can be intertwined.

The inclusion of semantic, combinational and material properties in the data for this thesis suggest that the contact of English and Estonian in the Estonian gaming community is developing into a stage where more abstract concepts of CS may emerge. The findings of this thesis are limited by the number of videos used for analysis. Although the data consists of videos from three different content creators, the sample is not representative of the whole Estonian gaming community. Further research into the quantitative aspects of CS in the Estonian gaming community might deepen the understanding of this online language community as a whole.

REFERENCES

- Auer, Peter. 1984. *Bilingual Conversation*. Amsterdam: John Benjamins.
- Auer, Peter. 1995. The Pragmatics of code-switching: a sequential approach. In Lesley Milroy and Peter Muysken (eds.) *One Speaker, Two Languages: Cross-Disciplinary Perspectives on Code-Switching*, 115-135. Cambridge: Cambridge University Press.
- Auer, Peter. 1998. *Code-Switching in Conversation: Language, Interaction and Identity*. London: Routledge.
- Backus, Ad. 2001. The role of semantic specificity in insertional codeswitching: Evidence from Dutch-Turkish. In Rodolfo Jacobson (ed.), *Codeswitching Worldwide*, vol. II, 125–154. Berlin: Mouton de Gruyter.
- Backus, Ad. A usage-based approach to borrowability. Available at: https://pure.uvt.nl/ws/portalfiles/portal/30357235/TPCS_27_Backus.pdf, accessed May 2020.
- Backus, Ad., Margreet Dorleijn. 2009. Loan translations versus code-switching. In Barbara E. Bullock, Almeida Jacqueline Toribio (ed.). *The Cambridge handbook of linguistic codeswitching*, 75–94. Cambridge: Cambridge University Press.
- Backus, Ad., Anna Verschik. 2012. Copiability of (bound) morphology. In Lars Johanson, Martine Robbeets (ed.), *Copies versus cognates in bound morphology*, 1–32. Boston, Leiden: BRILL.
- Boes, Catherine., Bao Kim Vinh-Hung. 2017. GERMB-555: Code-Switching in Gaming Forums. Available at: https://www.researchgate.net/publication/324919198_Code-Switching_in_Gaming_Forums, accessed May 2020.
- Ehala, Martin., Katrin Niglas. 2004. Eesti koolinoorte keelehoiakud [Language attitudes among

- Estonian schoolchildren]. *Akadeemia*, 10: 2115–2142.
- Erelt, Mati. 2003. *Estonian Language*. (Linguistica Uralica, Supplementary Series 1) Tallinn: Eesti Akadeemia.
- Foolen, Ad. 1996. Pragmatic Particles. In Jan Blommaert, Chris Bulcaen (ed.) *Handbook of Pragmatics*, 1-22. Amsterdam/Philadelphia: John Benjamins
- Gumperz, John J. 1982. Conversational code-switching. In John J. Gumperz (ed.) *Discourse strategies*. Cambridge: Cambridge University Press.
- Hamers, Josiane F., Michel H. A. Blanc. 1989. *Bilinguality & Bilingualism*. Cambridge: Cambridge University Press.
- Igav, Reet. 2013. *Inglise-eesti koodikopeerimine Facebooki vestlustes [English-Estonian codecopying in Facebook conversations]*. MA thesis. Tallinn University, Tallinn, Estonia.
- Johanson, Lars. 2002. Contact-induced linguistic change in a code-copying framework. In Mari C. Jones, Edith Esch (ed). *Language Change: The Interplay of Internal, External, and Extra-linguistic Factors*, 285–313. Berlin: Mouton de Gruyter.
- Kaalep, Heiki Jaan. 2012. Eesti käänamissüsteemi seaduspärasused [Patterns in the declension system of Estonian]. *Keel ja Kirjandus*, 6: 418–49.
- Kask, Helin. 2016. English-Estonian copying in Estonian blogs. In Anna Vershik (ed.), *Philologia Estonica Tallinnensis*, 1: 80–101. Tallinn: Tallinn University Press.
- Koban, Didem. 2012. Intra-sentential and inter-sentential code-switching in Turkish-English

- bilinguals in New York City, U.S. *Procedia – Social and Behavioral Sciences*, 70: 1174-1179
- Kostenko, Anne. 2007. *Eesti nimisõnade morfoloogiline integratsioon vene-eesti koodivahetuses: TLÜ tudengite näitel*. Seminaritöö. TLÜ filoloogiateaduskond, eesti keele õppetool.
- Kärnä, Anna-Riikka. 2015. *Conversational code-switching in a video game context in Finland*. Bachelor's thesis. University of Jyväskylä Department of languages, English.
- Myers-Scotton, Carol. 1997. *Duelling Languages: grammatical structure in codeswitching*. Oxford: Clarendon Press.
- Myers-Scotton, Carol. 1998. *A theoretical introduction to the Markedness model*. Oxford University Press
- Myers-Scotton, Carol. 2006. *Multiple voices: An introduction to bilingualism*. Oxford: Blackwell.
- Leemets, Tiina. 2003. Inglise laenud saandivahetuse eesti keeles [English borrowings in Estonian on the turn of century]. *Keel ja Kirjandus*, 8: 571–584.
- Liiv, Suliko., Birgit Laasi. 2006. Attitudes towards the English language influence on Estonian. *Journal of Baltic Studies*, 37(4): 482–487.
- Matras, Yaron. 2009. *Language contact*. Cambridge: Cambridge University Press.
- Matras, Yaron. 2012. An activity-oriented approach to contact-induced language change. In Claudine Chamoreau, Isabelle Leglise (ed.), *Dynamics of Contact-Induced Language Change*, 17-52. Berlin: Mouton de Gruyter.
- Namba, Kazuhiko. 2004. An overview of Myers-Scotton's Matrix Language Frame model,

- available at: <file:///C:/Users/KLICK/Downloads/namba.pdf> last accessed: May 2020
- Poplack, Shana. 1980. Sometimes I'll start a sentence in Spanish y termino en Espanol: Toward a typology of CS. *Linguistics*, 18: 581-618.
- Rose, Suzanne. 2006. *The functions of codeswitching in a multicultural and multilingual high school*. Thesis. University of Stellenbosch
- Snakoff, David., Shana Poplack. 1981. A formal grammar for code-switching. Papers in Linguistics: *International Journal of Human Communication*, 14: 3-45.
- Soler-Carbonell, Josep. 2014. University language policy and language choice among Ph. D. graduates in Estonia: The (unbalanced) interplay between English and Estonian. *Multilingua*, 33: 413–436.
- Soler-Carbonell, Josep. 2015. Tallinn, a multilingual city in the era of globalisation: The challenges facing Estonian as a medium-sized language. In Emily Boix (ed.), *Urban diversities and language policies in medium-sized linguistic communities*, 85–111
- Soler-Carbonell, Josep., Taina Saarinen., Kerttu Kibbermann. 2016. Multilayered perspectives on language policy in higher education: Finland, Estonia and Latvia in comparison. *Journal of Multilingual and Multicultural Development*, 38: 301–314.
- Tammemägi, Anni., Martin Ehala. 2012. Koolinoorte keelehoiakud 2011. aastal. *Keel Ja Kirjandus*, 4: 241–260.
- Thomason, Sarah G. 2001. *Language Contact*. Edinburgh: Edinburgh University Press.
- Thomason, Sarah Grey., Terrence Kaufman. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley: University of California Press.

- Tsitsipis, Lukas D. 1998. *A linguistic anthropology of praxis and language shift: Arvanitika (Albanian) and Greek in contact*. Oxford: Clarendon Press
- Vaba, Marja. 2010. *Inglise-eesti koodikopeerimisest Tallinna Skype'i kontori kahe vestlusgrupi näitel [English-Estonian code-copying on the example of two chat groups at Skype Tallinn office]*. MA thesis. Tallinn University: Institute of Estonian Language and Culture.
- Verschik, Anna, Helin Kask. 2019. English-Estonian code-copying: Comparing blogs and vlogs. *Applied Linguistics*. Available at: https://www.academia.edu/39209490/English-Estonian_code-copying_Comparing_blogs_and_vlogs last accessed: May 2020
- Vihman, Virve-Anneli. 2016. Code-switching in emergent grammars: Verb marking in bilingual children's speech. *Philologia Estonica Tallinnensis* 1: 154–72.
- Vihman, Virve-Anneli. 2018. Language Interaction in Emergent Grammars: Morphology and Word Order in Bilingual Children's Code-Switching. Available at: <https://www.mdpi.com/2226-471X/3/4/40> last accessed: May 2020
- Zenner, Eline., Ad Backus, Esme Winter-Froemel. 2018. *Cognitive Contact Linguistics: Placing Usage, Meaning and Mind at the Core of Contact-Induced Variation and Change*. Mouton de Gruyter
- Zirker, Kelly, Ann Hill. 2007. *Intrasentential vs. Intersentential Code Switching in Early and Late Bilinguals*, MA thesis. Brigham Young University

APPENDIX

Transcriptions of the Estonian gaming streams

Stream 1	Comments
[no CS]	22:36 W: Tra kes istub queues mingi 30ndal kohal, 24 detsembri õhtul, et mingit roleplayd teha :D
23:45 S: Kas keegi saaks mulle ära confirm ida kui palju maksab Steamis hetke seisuga gta viis? S: Kui keegi suudab mulle selle ära confirm ida siis ää {--} isiklikult teeb väiksed järeleandmised eks ole kui nii võib öelda jaa ütleme nii, et öö küll öö südame {- -} ja pisaratega aga siiski ma arvan et jõuluõhtul võib anda mõned mängud keys chatti eks ole et kiiremad suudaks need siis ära krabada. S: Et mingisugused keyd võiks anda ju härrastele S: Muidugi sellega on nüüd nagu see lugu et öö ma ei tea kui pädevad kõik mu kaheteist aastased jälgijad on, kui te ütlete, et olete pädevad siis ää, variant on see et ma ostan tõesti all key shop ist need keyd või {--} S: Paneme mingisuguse ausa sotti, mingi ausa sotti võiks ju panna, aga rohkem ei jaksa rohkem ei no, no, no, no rohkem ei: aga noo sotti:, hääkül. S: Koer jääb kaks kuud toitmata aga te saate vähemalt GTA mängida ei mitte sada keyd , sotti eest keys id. Sada keyd ahh ahh, a bit too much, a bit too much . (...)	23:45 W: gta 5 free to play btw W: yooooo W: see aus laul W: Kutid! kaua sunrisel läheb whitelistiga ja kuidas teada annavad kas sain whitelisi or not? Ommitted comments (14) W:peaks imo W: steamis minu arust ei sa W: ouu isto, sa tead millal gta6 välja tuleb w W: Giftina peaks saama niipalju kui tahad osta. kindel pole W: saama W: tasapisi üks aaval W: üks haaval vist, lükka notepadi keyd lihtsalt, pohh W: @Istoprocentofficial sa ei saa steamis võtmeid, sa saad giftid!! W: add to card
27:33	W: oota paned ss key chatti?

<p>S: Muidu ma nagu üldse ei mänginud GTAd aga selle, selle RPga seoses küll</p> <p>S: Ma lähen vaatan kohe kuna ma olen hetkel queues (kuis) ja mul sittagi teha siis ma arvan et paneme esimesed lonksud.</p>	<p>W: kuidas kasutada keyd?</p> <p>W: steamist niisama ostes ei saa keyd</p> <p>W: isto kuule millal gta6 välja tuleb</p> <p>W: steamis ei saa ju võtmeid vaid gifte 😊 neid ei saa chatii panna</p> <p>W: Kuidas sa need keyd välja loosid? 😊 😊</p> <p>W: vaata yt lel</p>
<p>29:29</p> <p>S: <u>fortnite dances but they are best boosted.</u> Aitäh, kuna keyd tulevad? Kuna K-E-I tulevad. ää::,tegelikult ma just vaatasin all key shoppi kui me räägime siin mingisugusest ää, viiest eurost mis on siis nagu hinnavahe nendel keydel all key shop vs Steam siis ma ei näe seda pointi*, et mulle hakkavad kaheteist aastased pärast kirjutama et aa kuule sa scammisid et ma ei oskand kasutada seda keyd vaata. Et ee ma pigem ei viitsi sellega tegeleda, mul on lihtsam minna Steami, Steam'is välja osta need keyd mingi, mingi kümmekond tükki.</p>	<p>29:29</p> <p>W: ma 14. mingi scam</p> <p>W:väiksel pedel uus jõulu EP väljas!!</p> <p>W: häid pühi</p> <p>W: kuna keyd tulebad</p> <p>W:tulevad</p>
<p>37:57</p> <p>S: long time payment pay, seitsekümmend fees included ehk seitsekümmend kolm midagi, need on Steam keyd,</p> <p>S: Kuhu panen need key? ma proolly* hakkan mingi neid chatti loopima, ma arvan on kõige lihtsam, või siis teeme seda läbi mingisuguse Discord'i kaks varinati kas chat v Discord.</p> <p>S vaatajale: mu donad** ei lähe läbi mis toimub?, ma arvan et su donad äkki tulevad läbi aga lihtsalt on mingi queue äkki vä, ma tõesti ei tea.</p>	<p>37:57</p> <p>W: kuidas giveaway toimub</p> <p>Ommiyted comments (8)</p> <p>W: oot mingi giveaway or what</p> <p>W: kuhu paned need keyd</p> <p>W: kuna merch jõuab?</p> <p>Ommitted comments (17)</p> <p>W: mul donad ei lähe läbi mis toimub</p>

<p>59:08</p> <p>S: Kuidas ma saan Sunrise <i>whitelist</i> ankeedi, öö::: saata? Öö: võta alt öö: <i>descriptions</i>ist selle Sunrise'i selle (..) selle kurdi lingi selle ee: Discordi ja siis võtad sealt lingi ja siis saadki {--} põhimõttelt. Seal ei ole tegelt midagi rasket.</p>	<p>W: kuidas ma saan sunrise whitelisti ankeedi saata abi ?</p> <p>W: ctrl + n või m'iga saad ka vahetada</p> <p>W: kumb servu kas sunrise v vabariik</p>
<p>2:29:47</p> <p>S: [...] tegelikult on nagu see, et ee <i>miner</i> saab põhimõttelt sama raha mida saab taksojuht aga lihtsalt taksojuhi amet on nagu huvitavam, et sa nagu sõidad ringi vaata ja mingi müttad vaata. Et see nagu on nagu: meeldivam nagu tegevust on rohkem vaata. <i>Minerina</i> sa lihtsalt mingi <i>campid</i> mingit kohta. Nii. sõidad järgmisesse kohta <i>campid</i> jälle mingit kohta. Sest see sõidad jälle mingi edasi järgmisesse kohta <i>campid</i> seal vaata, et noh. See on nagu igav vaata.</p>	<p>W: rp koppa ette ei viska vaikselt juba?</p> <p>W: teeb jõulueri liveshow'd</p> <p>W: youtubes</p> <p>W: imo ainuie asi , mis kabal võiks olla , NPC tiba vähendada.</p> <p>W: kuidas saan sulle jõulu kingi saata tahan sulle saata 100€ euronicsi kinkekaardi</p> <p>W: ainuke*</p> <p>W: Smartpostiga</p> <p>W: töötab rp-s, sa pelad rp-d</p> <p>omitted (5)</p> <p>W: Nüüd jah, kolis youtube üle</p> <p>W: arusaadav...</p> <p>W: jne</p> <p>W: noja ta sai ju kicki sealt kolmnurgast kogu aeg, mis ta kanal on nüüd siis?</p> <p>W:tere kas juba <u>röstisid</u> [name omitted]</p> <p>W: kle , palju korter üldse maksis?</p>
<p>2:41:43</p> <p>S: Et ta teeb, vaata ta tahab teha kahte serverit, mis on omavahel <i>connected</i> ja see on nagu <i>good idea</i> aga praegu, miks</p>	

<p>inimesed seal serveris ei mängi on selle pärast, et ee seda ei ole veel tehtud ja teiseks on see, et kõik teavad, et see vana server nii kui nii läheb maha ja nende asjad ei jää sinna uude serverisse alles vaata.</p> <p>S: Nende, nende, raskelt teenitud rahad, relvad, autod, need asjad ei jää alles, ehk siis nad teevad täiesti <i>clean wipei</i> (kliin vaibi) ja siis ongi nagu inimestel ei ole juba eos motivatsiooni seal mängida vaata.</p> <p>S: Plus siin on nagu see, et siin on palju raskem neid ägedaid asju saada neid kortereid, neid autosid neid maju neid relvi, misiganes, mida näiteks teises serveris oli nagu ääretult lihtne ja siis ongi nagu see, et ää, et siin on nagu inimestel see <i>grindi</i> teema ka nagu suurem, et ta ei ole nagu kõige raskem, sest noh <i>come on</i>, ma olen ise mängind mingi kaks päeva ja mul on esimese päevaga sain selle uhke auto onju ja misiganes, et, et ee: ja mul raha, ja raha ja asju nagu liigub onju.</p>	
<p>Stream 2</p> <p>02.24</p> <p>S: Nii, aga mis mul siis vaja teha on, on siin mingeid pfts, asju tappa, <i>human skulle</i> ja {- -} saada.</p> <p>S: Aga liigume siis kuhugi <i>mountain lionite</i> poole {- -} <i>human skullide</i> poole ee, teeme natukene <i>questte</i> ja siis võib olla teeme ka natukene <i>dungeonit</i> kui me satume sinna aga klassikus oli kogu see majandamine hoopis teist moodi et ei ole mingi vajutad kaks klikki ja saad <i>dungeonis</i>se vaid ikka passid tükk aega siin kuski <i>chattis</i> ja küsid kas keegi tahab minna koos sinuga keldrisse või ei taha. Noh eks see keldrivärk ole siuke.</p> <p>S: Kuidas läheb v? tead pärsi hästi läheb. nüüd kus <i>WOW classic</i> on väljas siis ma olen suht <i>no life</i>inud seda kogu oma vaba aja. eile tegelikult ma olin päris kaua üleval mitte küll <i>WOW</i> pärast aga <i>editisin</i> oma Joosep teeb asju kanalile videosid. Ah näe</p>	<p>Comments</p> <p>02:24</p> <p>W: kuidas läheb?</p> <p>W: väga väike like</p> <p>W: ei ole igav</p> <p>W: kuna minecrafti stream</p> <p>W: nais mäng</p> <p>W: trer</p> <p>W: millal Minecrafti mängid</p> <p>W: [name omitted] miks ma ei saa chatti kirjutata teise knttoga</p> <p>W: mis täna teed</p> <p>W: tere [name moitted]</p>

<p>kiisu sai surma, ta oli kuidagi kerge tapmine, siin on ka inimesed v, ei ole inimesed.</p> <p>S: Mul vaja inimeste päid sellepärast et mingi <i>undead</i> tahtis mingi päid millegi pärast, nii <i>mountain lion</i> lõuksi saad. selle <i>staffiga</i> on ikka nii kerge peksta neid mul on tegelikult kirves ka ma peaks just kirvega peksmist harjutama sest muidu juhtub siuke asi et kui ma kolmkümmend saan siis ma saan kirve kindlasti aga siis ma ei oska lüüa sellega, <i>classicus</i> olid siis eraldi <i>skillid</i> ka relvadele, et ikka siuke <i>hardcore</i> värk.</p> <p>S: Ma ei tea miks sa ei saa <i>chatti</i> teise kontoga kirjutada. oota ma natuke majandan siin asju, et ma näeks paremini nii nüüd ma näen <i>chatti</i> veits paremi. Nii väga hea.</p> <p>S: Kuna Minecrafti <i>stream</i>? Tulevikus ilmselt siin lihtsalt niimoodi käib, et tulevikus tulevad <i>streamid</i>. Nii, palju mul, mul on kolm <i>bloodi</i> olemas juba. nii.</p> <p>S: Miks ma Robolxi ei mängi? Arva ära miks, sest mulle ei meeldi see mäng.</p> <p>(...)</p> <p>S: peksame siin natukene neid <i>lioneid</i>, äkki keegi tahab (koha nimi) <i>keepi</i> teha, see on siin lähedal ka <i>dungeon</i> et, hea oleks, aga jaa hüljatute guildis on päris hea teha, tere tere kõigile siin.</p> <p>S: Aga praegu need <i>classicu</i> serverid on ikka täiega täis, no: seda mängu, seda <i>classicut</i> ma olen sellest ajast peale mänginud kui see välja tuli ehk siis nädal aega umbes. et ee jam, kuigi siin ja need serverid ja <i>queued</i> on nii suured oo ei: <i>allience</i> on siin ta on kolmkend kolm ei hakka mässama.</p>	
<p>6:50</p> <p>S: Nii, mõmmisid mul vaja ei ole, kas siin oli jälle mingi {--} mul on vaja kindlasti mingisuguseid inimesi nüüd {--} siin on</p>	<p>6:50</p> <p>W: tere</p> <p>W: vissa</p>

<p>mingi karud ära tapetud aga neid <i>skinnida</i> ka ei saa.</p>	<p>W: teine</p>
<p>S: Noo nii <i>boom</i>, litaki näkku sulle, mis mu kirve <i>skill</i> on juba sada neli päris hea, mis mul üldse saab olla, v, vaatame kohe nii, <i>two-handed axeses</i>, sada kolmkend saab olla, teeme sada kolmkend ära selle asja ja siis ee ja siis elu läheb edasi.</p>	<p>W: tere W: Yeee W: essa W:jeee</p>
<p>(...)</p>	<p>W:Tere</p>
<p>S: no nii käes, aga pead ei saanud temalt, see on kurb. pean nüüd natuke <i>healima</i> ennast ja siis pikutama. saangi <i>chatti</i> lugeda samal ajal.</p>	<p>W: jah W: kolmas kekelt</p>
	<p>W:olin teine</p>
	<p>W: yoou</p>
	<p>W:tere</p>
	<p>W: 31</p>
	<p>W: mina olen haige</p>
	<p>W:like ka</p>
	<p>W: hakab juba</p>
	<p>W: tere</p>
	<p>W: hlo</p>
	<p>W: tere</p>
	<p>W: igav</p>
	<p>W: oooo</p>
	<p>W:nice</p>
	<p>W: tere tere</p>
	<p>W: kuidas läheb?</p>
	<p>W: väga väike like</p>
	<p>W: kuna minecrafti stream</p>
	<p>W: nais mäng</p>

	<p>W: trer</p> <p>W: millal Minecrafti mängid</p> <p>W: [name omitted] miks ma ei saa chatti kirjutata teise knttoga</p> <p>W: mis täna teed</p> <p>[4 comments omitted]</p> <p>W: kui kaua sa oled mänginud</p> <p>W: miks ma ei saa kirjutata</p> <p>W: kas kunagi ka vloge?</p> <p>W: mängi biksel 33d</p> <p>W: kui kaua kestab</p> <p>[3 comments omitted]</p> <p>W: noob lol</p>
<p>9:04</p> <p>S: Siin on kiisu, kiisu saab lõuksi, no mida sa lööd siin, oi keegi tahab <i>time-out</i> see saada vist jah, oota niimoodi jah väga hea, <i>time-out</i> saadud. Oh <i>bloodring</i> , viis <i>stamina</i>, mul on juba paremad, <i>spirit</i> ja {--} on praem kui need, <i>bloodring</i> on ka päris hea, <i>level</i> üheksatest oota ma vaatan kas mu sõrad on mängus, aa ei ole, ma oleks talle saatnud võibolla <i>oh well</i>, nii ah seal on veel üks kiisu, mul on siis inimesi ja kiisusid vaja.</p> <p>(...)</p> <p>S: Otsid eile siis särge ja väga <i>nice</i> väga <i>nice</i>.</p> <p>(...)</p> <p>S: ooh, ooh, mingi vesti said, see on <i>chest armour</i>, oo vaata kui <i>nice</i>, kuule see näeb väga hea välja jätan selle alles ja mingi {--}</p>	<p>9:04</p> <p>W: ok</p> <p>W: mängusaare tunnet</p> <p>W: kui kaua kestab</p> <p>W: naaaaaais kanal</p> <p>W: ma ostisin eile sinu särge see on väga äge</p>

<p>a muidu mul on kahte ühesugust nagu kapuutsi ka üks on sinine ja teine punane, ma ei tea kumb teile rohkem meeldib mulle meeldib punane.</p>	
<p>22:28</p> <p>S: Keegi küsis, et mitu <i>likei</i> ma kavatsen selle videoga saada. Tead ma pole kunagi mõelnud niimoodi, et ma tahaks selle videoga <i>likee</i> saada, et ee kohe ei oskagi vastata nii imelikule küsimusele, mitu <i>likei</i> sa kavatsed saada nagu see olek minu kavatseda, ka et kui palju inimesi <i>likeivad</i> või, et ma ei saa aru sellest küsimusest.</p> <p>S: Kui hea ma selles mängus olen, ütleme niimoodi keskmiselt hea, ma kõige halvem ei ole ja kõige parem ka ei ole, et aga saame hakkama, et ee kõige hullem <i>noob</i> ei ole. Nii, et ee ei ole hullu.</p> <p>S: kedagi teist ei olud lähedalgi kes saaks, tegelt ma oleks pidanud {--}, <i>oh well</i>.</p>	<p>22:28</p> <p>W: mis sulle minecrafti juures meeldib</p> <p>W: kas mäng on onlines ja Saab inviteta</p> <p>W: sa oled maailma parim Youtuber</p> <p>W: su mõeldud maisi snäkid on nii head</p> <p>W: mis mäng se on</p> <p>W: Palun ütle et sa ei ropend [name omitted]</p> <p>W: küsimusi ja vastuseid tuleb ka?</p> <p>W: mis Youtuber sulle kõige rohkem meeldib</p> <p>W: millal te rust streami teete</p> <p>W: kas sul on lemmikloom</p> <p>[4 comments omitted]</p> <p>W: mitu like sa kavatsed saada selle videoga</p>
<p>34:26</p> <p>S: Oh <i>scroll of strenght</i> vä, nüüd ma olen tugev, tugev poiss.</p> <p>Ei taha kõnet teha Discordis, kõne teen võib olla ainult siis kui tuleb <i>dungeon</i> grupp ja siis nendega koos kellega <i>dungeonis</i> aga üldiselt <i>streami</i> ajal ma väldin sest kõigil on mingid mikrofonid mis kõlavad nagu röstrid, ja siis seda ee ei ole hea kuulata eriti veel kui on <i>voice activation</i> ja siis inimestel on mingi mai tea puhur käib seal taga ja klöbistavad ja.</p> <p>(...)</p> <p>S: Ja ma olen (koha nimi) praegu ja <i>questin</i>, (koha nimi) koos me vist midagi teha ei saaks.</p>	<p>34:26</p> <p>W: MIS SU LEMMIK MÄNG</p> <p>W: mul maja ess mingi palju herilasi</p> <p>W: kes on artur teeb asju</p> <p>W: aaga skypei</p> <p>W: miles seta mängita saab</p> <p>W: sa hillsbradis questimas prg?</p> <p>W: miilal minecraft</p>

	<p>W: [name omitted] ma ünyxia tahad kõne teha discordis?</p> <p>W: Miks sa ei mängi koooss Joeli ja oliverika</p> <p>W: kas sul naine on</p> <p>W: mul läks 4 mini et tupa sada</p> <p>W: mhm</p> <p>W: jeps ok ss</p> <p>W: lihtsalt whispi mind kui teed sfk uuesti</p>
<p>1:09:51</p> <p>S: A nüüd ma pean seda Stanleyle <i>feed</i>ima. Kuidas ma <i>feed</i>in seda Stanleyle? See on Umpi ju, kus Stanley on? <i>A feed it to</i> Stanley, kas ma lugesin õigesti vä? Ah misasja, <i>venomous spitters slain</i> ja <i>creepers slai</i>- selle <i>questi</i> võib <i>abandon</i>ida tegelt aga ei, <i>elixir of pain, north, south west</i>, okei, <i>abandon</i>ime selle praegu ja võtame pärast selle <i>questi</i> uuesti, sest siin tuleb teha asju.</p> <p>S:A nüüd ma jooksen siis ää, Shadowfang <i>keepi</i> või? vaatame kui kaugel teised on, (loeb ette koha nimed) okei neil läheb kõvasti aega, siis võime selle ära teha küll. <i>elixir of pain</i> ja kus on Stanley.</p> <p>S: Aa ei Stanley on siin, aa no mai tea ta jääb tee peale, nii et <i>why not</i> onju.</p>	<p>1:09:51</p> <p>[2 comments omitted]</p> <p>W: ma hakkan sama questi just tegema lulw Elixir of Pain</p> <p>W: game</p> <p>W: World of Warcraft</p> <p>W: mul sünnitas kass külje alla</p> <p>[2 comments omitted]</p> <p>W: sa overwatchi pelad?</p> <p>[2 comments omitted]</p>
<p>1:30:08</p> <p>S: No saame hundist jagu. Saime, väga hea nüüd see tõllakas. A ta on immuunne maagiale muidugi kui tal see roheline asi peal on.</p> <p>4:41:37</p> <p>S: Nii, okei mu on hunnik <i>leather</i>it üle. Ää, hmm. Tee <i>shout out</i> sellele, mida hetkel jood!</p>	<p>W: Fortnite NoobCmon proovige ise teha enda kodulehe ja stuffi. naq for real see ei ole lihtne</p> <p>W:Kas keegi vanameest läheb vaatama</p> <p>W: Mänguvälja ikka</p> <p>W:tean</p> <p>W: Ma ei suuda mängunurka taluda sest seal on [name omitted]</p>

	<p>W: sirendi parem on mänguväli</p> <p>W: mängunurk on halb</p> <p>W: maa armastan kanalit mänguväli</p> <p>W: Meeldib mõlemad</p> <p>[10 comments omitted]</p> <p>W: Tee shoutout sellele mida hetkel jood</p> <p>W: siode !</p> <p>W: sa oled tore ma olen su fänn</p>
Stream 3	Comments
<p>33:59</p> <p>S: <i>How many episode it was supposed to have in total? Have they even announced that?</i> Viis vä? Jahm. Aga no samas neil ole ole ju need episoodid ette tehtud nad hakakvad alles nüüd tegema seda järgmist siis see võtab raudselt jälle mingi, Oi mai pand tähele. Uuk. Võtab raudselt jälle mingi kolm-neli kuud aega nagu. Wow, is <i>Fin your new friend now?</i> Aa detsembris. No ja siis mingi suve lõpus või septembris tuleb alles järgmine. Ehh, well then.</p> <p>(...)</p> <p>S: Aa, kakskend kaks august okei. Seda episoodi nad tegid suht kaua minu arust, millal me mängisime seda teist. Ma oli nagu päris tükk aega tagasi, oh may god have fun. You have fun, take care, I'll see you later maybe. Where is everybody. You again! Go away from the trash! you cute though, why cannot move. I got stuck! Hõõ, did I glitched out? Are you kidding me, no I didn't. Where is everybody though? Veebruaris vist oli äh. Oii. {--} Someone forgot the bra hanging in here. definitely not mine. Maybe they up here.</p>	<p>31:13</p> <p>W: FailFish</p> <p>W: just randomly throwin knife in the woods</p> <p>W: LUL</p> <p>W: wtf is dat kiddo</p> <p>W: puberty already?</p> <p>32:52</p> <p>W: just wait till he starts dating monkaS</p> <p>Omitted (1)</p> <p>34:04</p> <p>W: 5 imo</p> <p>Omitted (1)</p> <p>W: yea 5</p> <p>W: jep viimane tuleb 3 dets 2019</p> <p>34:45</p> <p>W: 4 tuleb 22 aug</p>

	<p>W: atm nii announced</p> <p>35:22</p> <p>W: going out, have fun [name omitted] Love</p>
<p>50:44</p> <p>S: Which life is strange do you like the most so far. Oops. Dead by Daylighti mingil päeval vä? Dunno. Mingi aeg tahaks aga, aga ma ei oska öelda, millal. Oh yea, it looks like its faster when I'm hitting exactly the edge here. I would like to go New Orleans too. Definitely not because of öö, because of watching The Originals</p> <p>Kappa. 80CS</p>	<p>[comment omitted]</p> <p>W: nub</p> <p>48:35</p> <p>W: I think it's like dbd [name omitted] hitting it right on the edge will give more progress</p> <p>48:40</p> <p>W: tänks mees</p> <p>48:53</p> <p>[2 comments omitted]</p> <p>49:08</p> <p>W: i know [name omitted] Love zoodyyLove</p> <p>W: :zoodyyLove</p> <p>W: [name omitted] mingi päev dbd ka?</p> <p>W: played it</p>
<p>S: [...] wait that's toilets? Why would you even have like actual toilet like if you freaking live in the woods so you can just go to the woods. Wait where do I have to go where was the lake?</p> <p>(...)</p> <p>S: But yea like I dunno, I kinda enjoyed it. Yea I know off stream, but it's also like I'm mostly still paying attention it's just like, I don't wanna like be quiet either to the chat. Ok, was this the way? No this is the way I came from.</p>	
<p>1:39:01</p>	<p>1:37:39</p>

<p>siis saate ka meie Minecrafti serverisse ligi. Siis on meil pood.mänguväli.ee kus saate ää osta meie nänni ja see toetab ka meie tegemisi see muidugi tähendab seda, et me saame siis videoid edasi teha ja nii edasi, et ää siukesed võimalused on, tere kõigile kes tulevad.</p>	<p>[comment omitted] W: kas sa täna minecrafti teed</p>
<p>S: Jaa nii see elu on, jah tere kõigile wow kui palju teresid siin on. Uskumatult palju teresid. Aga ja täna mängime siis WOW'i, sest WOW'i ma mängin nii kui nii ma läksin siis uude serverisse WOW'is, ää tegin munga endale void elf munga. Siuke näeb välja siis, level seitsemümmend prägu ja me lähme Northrendi, Northrendi selle pärast, et Northrendis on head questid. Ja mu lemmik alasse, ää ma sain ka siukse huvitava asja nägu näete. pft:: fööniks. (...)</p>	<p>W: Sub 2 Pewdiepie W: sama W: mis siis juhtub kui laevale pääsed W: loooohh W: Ära karju! W: [name omitted] kas Minecraft fännidega streami võiksid teha W: tere W: mis tegema hakkad</p>
<p>S: Ma ühinesin siis ee Eesti guildiga ka, milleks on siis ee Legion Estland, Mai jõua järgi talle vist, camoon laev ei. Ei! mul on sind vaja laev. Mul on sind vaja miks sa, miks sa lahkud mu juurest. Laev, ei! Äkki ma jõuan peale veel, äh! Laev, pls, pls, Ma jõudsin peale! Ma jõudsin peale! Perfektne, uuh! Yes! Usukumatu, mai uskund, et ma peale jõuan aga näed. No näed.</p>	<p>W: millal uus minecrafti video tuleb [comment omitted] W: Millal [name omitted] twitchi striimi teeb W: kas sa täna maini teed</p>
<p>S: No nii nüüd me jõuamegi. Howling Fjordi, vaadake seda ilusat ala, see on lihtsalt uskumatult äge, mingi põlev laev on siin, perfektne lihtsalt, tuleme kuskilt tunnelist sisse ja põhimõtteliselt .nhh nii. (...)</p>	<p>W: Mis asi see on?????? W: yay W: tee minuga minecrafti W: mida sa tegema hakkad joosep</p>
<p>S: See on ää, see on siis ää Northrendis üks esimesi alasid viikingite moodi Howling Fjord, üks mu lemmik alasid WOWis üldse. Parim muusika. Järgmine ala siit kõrvalt on Grisly Hills, mis tegelikult muusikaga nagu on veel parem aga need kaks ala on ühed parimad alad mängus.</p>	<p>W: tere [name omitted] mulle meeldivad su videod</p>
<p>S: No nii, aa tegelikult mu on oksjon houseist mingisugune meil kadunud</p>	

<p>S: Nii, oota kas see, aa see teeb siin tunnelis siukse ringi ka veel, okei. Mis-mis need laeva inimesed teevad siin? Tsau! EI tea ta lihtsalt mingi sosistab siin kõrval kellelegi, a näe mingi gnoom munk on siin. Level kakskümmend üheksa, mis ta level kahekümne üheksana siin teeb? Siin saab alles 68na mingeid asju teha. Aga noh, ou keegi campab siin, mingi camp fire on.</p>	
<p>05:35 S: Nii kohe me jõuame sadamasse lõpuks, siuke laeva sõit aga see on täiega äge, see on siis Upgrade keep täiega lahe place. Oi siin on isegi mingid, otototot oot kes see siin on, mingi, McGoyver vä? McGoyver on siin vä, päris lähe. No nii siin kohe esimene quest, mida sa tahad?</p>	<p>W: ma e saa millegi pärast mõnda teje videot vaadata? :-(W: jou [name omitted]! W: sa parim W: iou W: miss W: tere kõigile W: fml W: jou W: kas sulle se mäng meeldib W: millal kavatsete teha Subnautica below zero seeria W: mängi koos fännidega Minecraft plz W: Millal oliver striimib? W: Tsau joosep W: kes mängib robloxi W:ontere W: onmina W: Halb on roblox</p>
<p>10:35</p>	<p>W: ty vastamast W: wow see minecraft?</p>

<p>S: Kolmekümne tuhande <i>subi setup</i> video ve? Pekki saingi surma, loe veel <i>chatti</i> onju, ee::, <i>setup</i> video maitea kas see on nii huvitav. Nu tule siia. Nii okei, see missioon sai tehtud, vaatame kes nüüd on mulle veel mingit missioon?</p> <p>(...)</p> <p>S: Nii, <i>complete quest</i>, ma pean mingeid skaute päästma hakkama. Sul rohkem missioone ei ole mulle vä?</p> <p>(omitted)</p> <p>S: see on ikka <i>amazing</i> koht, aa see muusika (ka?) parim lihtsalt.</p>	<p>W: you</p> <p>W: mis sa selles streamis tegema hakkad</p> <p>W: game</p> <p>W: ma olen otanud seeda kuna sa live d</p> <p>W: kas täna veel video?</p> <p>[3 comments omitted]</p> <p>W: sul on lähedad lendavad loomad</p> <p>W: mis mäng se on?</p> <p>W: mida sa tegema hakkad selles streamis</p> <p>W: tehke 30 tuhande subid setup video</p>
<p>13:36</p> <p>S: Ee, millised need välja näevad? Oo lahe mõök. Aga ma võtan selle <i>staffi</i> ja siis <i>disenchantin</i> selle. Nii kolm <i>captured Valgaride prisoners</i>, okei. Aa ja nüüd ma saan (rohkem?) missioone ka väga hea.</p> <p>(omitted)</p> <p>S: Mingi <i>supply crateid</i> on siin. Nüüd, vee all. Vihkan veealuseid kohti ja missioone ja värke. Üldse ei meeldi. No nii, eks siis võtame neid kaste ja värke ja elu on ilus, ma loodan, et mul õhk otsa ei saa.</p> <p>(omitted)</p> <p>S: Noo nii, nüüd saab minna siis ää, siia aa missiooni ära anda. Kes see tahtiski, see vend tahtis. Näe võta oma <i>reagent</i> (reigent) <i>pouch, deageing pouch</i> (?). Okei mingi aa mingi asja tahab nüüd, väga hea et ma siit läbi tuln.</p> <p>(PAUS)</p> <p>S: Oota siin on ka mingi missioon kuskil, min on <i>harpoon operation manual</i> peaks siin olema kuskil aga kus? Selle tüübi käes</p>	<p>[2 comments omitted]</p> <p>W: mis classiga sa mängid</p> <p>[2 comments omitted]</p> <p>W: palju teie income kuus umbes on</p> <p>W: ok</p> <p>W: tere</p> <p>W: on küll</p> <p>W: QjaA pls</p> <p>W: you kuis</p> <p>W: kas sa pupgi mängid</p> <p>W: ma fake</p> <p>W:noob</p> <p>W:ma trollan</p> <p>W:millal uus striim tuleb</p> <p>W: miks on su streami mänguks pandud minecraft</p>

<p>vä? Selle tüübi käes vä? Aa see on hea küsimus. Siin kuskil peaks olema.</p>	<p>W: ei</p> <p>W: mängi fps shooter mängu</p> <p>W: trolla</p> <p>W: kus te oma mängukantsis</p> <p>W: tee apex legends ist video [name omitted]</p> <p>W: [name omitted] kas sa mängid maagiga??</p>
<p>23:17</p> <p>S: Nii liigume ilusti siia poole edasi. Aga ikkagi see näitab alla, kuhugi, miks ta alla näitab ma ei saa aru? Kuuled vä? A u ma vaatasin valele poole. Oi keegi subis väga hea thanks. Tänud subi eest, sub on väga hea. Ää, a siin on need captured prisonerid. Ahah sain puuri võtme, siin puuris on keegi, okei väga hea.</p> <p>S: Nii, a see on maja sees siis kuskil. Äe, siin on mingi uus missioon ka lähedal. Chekkime selle ka outi. Skaut, no skaut mis sa räägid muga.</p>	<p>23:17</p> <p>W: tänud subi eest!</p> <p>[11 omitted comments]</p>
<p>39:10</p> <p>S: Sacred artifact peaks siin olema kuskil ta ütleb. Ää, maitea, ma pean lugema seda shining lighti veel. Nii, dūdūdū. The artifact was hurled into the den far below us. Et see on all kuskil okei. Lähme siis alla.</p> <p>(...)</p> <p>S: Aa, aga see selleks see mull ongi hea, see lihtsalt repellib need tüübid ära nagu, et nad mulle kallale ei tule. Perfecto Decaprio. Väga hea. Nii, see artifact on siin. Sacred artifact.</p> <p>(...)</p>	<p>W: palju õnne lähe katakombitesse</p> <p>W: mina näiteks vastasin vist sinu eest et minecrafti täna ei tule</p> <p>W: ära ropenda</p> <p>W: ärge antke halba eeskuju seda vaatavad ka väga noored</p> <p>W: jah lobeta muidu mu ema ei luba seda vaadata kuna sa roben Lili endi</p> <p>[8 comments omitted]</p> <p>W: kui vana sa oled</p> <p>W: oled kunagi private serverites m2nginud</p>

<p>S: Ei <i>private</i> serveris mängime ei ole päriselt mängime. sest see ei ole päris mäng, see on järele tehtud. Ja tavaliselt seal on natuke teised reeglid ka, et saab kiireini <i>levele</i>id või, või-või kergemalt mingeid asju teha. No see ei ole ikka nagu see päris asi vot ja tegelikult see on illegaalne ka vot nii, et vot.</p> <p>(...)</p> <p>S: No <i>soul crusher</i>, ma <i>crushin</i> su {--} ära praegu, su nägu on <i>crushitud</i>, nii.</p>	<p>W: [name omitted] huvitav et teised tüübid on selles mängus suured aga sina oled väike aga väga väga VÄGA tugev</p> <p>W: millal läbi saab</p> <p>W: no tere</p> <p>W: oled parim youtuber</p> <p>W: ei oota</p> <p>W: kus su see sober on kellega kunagi maini mangisid???</p> <p>W: kas private serveris mängimine ei olegi päriselt mängimine</p> <p>W: ma m2ngin ise private serveris wow wotlk</p> <p>[3 comments omitted]</p>
<p>44:28</p> <p>S: Ää: mul mingid <i>add-on</i>id on et kui bossi võitlus on siis karjub mulle, mis <i>spell</i> tuleb nüüd. Aga üldiselt ei ole mul ühtegi <i>add-on</i>i nagu näed kõik on väga <i>vanilla</i> ajaa mapi jaoks on mul ka, et neid mingeid {--} leida. Selle jaoks on mul ka see mingi <i>add-on</i>. Aga põhimõtselt on suht <i>vanilla</i> kõik jaa.</p>	<p>W: kas sa oled warlockika kaa mänginud</p> <p>W: mind viskas välja</p> <p>W: pean kahjuks korras ära minema</p> <p>W: miks</p> <p>W: ei tee stotheriga</p> <p>W: kas kasutad mingeid addoneid ka või lihtsalt stock</p> <p>W: palju maksab world of warcraft</p> <p>W: Oskad sa öelda palju sa maksad iga kuu et mängida WoW</p>

RESÜMEE

TATU ÜLIKOOL

ANGLISTIKA OSAKOND

Loore Lifländer

An Analysis of Estonian Gaming Streamers' English-Estonian Code-Switching

Eesti arvutimängude voogesitajate Inglise-Eesti koodivahetuse analüüs

Magistritöö

Aasta: 2020

Lehekülgede arv: 90

Annotatsioon:

Selle magistritöö eesmärk on uurida inglise- ja eesti keele vastastikust mõju, keskendudes koodivahetusele ja koodikopeerimisele. Magistritöö analüüsib inglise- ja eesti keele vahelist koodivahetust Eesti arvutimängu voogesitajate videomaterjalide põhjal. Analüüsiks on valitud kaks mudelit, mis käsitlevad koodivahetust erinevalt: Lars Johanson Koodi Kopeerimise Mudel ja Carol Myers-Scottoni Maatrikskeele Raamistiku Mudel.

Keskendudes erinevate Eesti arvutimängu voogesitajate videomaterjalidele ning neid täiendavatele vaataja kommentaaridele üritatakse leida vastust kahele uurimisküsimusele. Esiteks, kuidas mõjutavad inglise keelsed täielikud koopiad (*global copies*) ja valikulised koopiad (*selective copies*) eesti keelsete fraaside struktuuri. Teiseks, kas kirjaliku ja suulise teksti vahel leidub ristmodaalset efekti. Antud töö koosneb sissejuhatusest, kahest peatükist ja kokkuvõttest.

Sissejuhatus kirjeldab koodivahetust, töö eesmärke, analüüsitavat materjali ja meetodeid. Teoreetiline peatükk koosneb kuuest osast. Antakse ülevaade koodivahetust kirjeldavatest definitsioonidest, kõnelejate motivatsioonidest ning analüütilisest teooriatest. Samuti tutvustatakse inglise- ja eesti keele struktuurilisi sarnasusi ja erinevusi. Eraldi on ka välja toodud varasemad uuringud koodivahetusest vlogide, blogide, ja arvutimängude valdkonnast. Varasemate uuringute põhjal võib järeldada, et arvutimängude voogesitajad kasutavad peamiselt täielike koopiaid, mis tulenevad mängudega seotud terminoloogiast.

Empiiriline peatükk koosneb arvutimängude voogesitajate ja nende kommentaaride analüüsist ja arutelust. Analüüsi aluseks võeti Koodi Kopeerimise Mudel ja Maatrikskeele Raamistiku Mudel. Samuti kasutati Poplacki poolt pakutud terminoloogiat fraasis esineva kopeeritud üksuse asukoha defineerimiseks.

Analüüsi käigus selgus, et tulemused on kooskõlas varasemate uuringutega kinnitades et täielikud koopiaid on kõige enam kasutatavad. Kopeeritud üksused järgisid enamasti Maatrikskeele Raamistiku Mudelit. Inglise keelsetele koopiatele lisati eesti keele tüvevokaal 'i' ja käände- või tegusõna lõpp. Täielikud koopiaid esinesid lauses peamiselt eesti keele lausestruktuurile vastavalt. Valikulised koopiaid esinesid harva. Kombineeriti eesti- ja inglise lause struktuuri ning kopeeriti semantilise funktsiooniga üksuseid. Ristmodaalne efekt koodivahetusele oli märgatav juhtudel, kui voogesitaja suhtles aktiivselt vaatajaskonnaga. Peamiselt mõjutasid vaatajad kommentaaridega kõnelejat. Kopeeritud sõnad olid tavaliselt seotud mänguterminoloogiaga või voogesitusega. Üldiselt mõjutas ristmodaalne koodivahetus keelekasutust kõige vähem.

Märksõnad: Koodivahetus, koodikopeerimine, arvutimängude voogesitajad, koodi kopeerimise mudel, maatrikskeele raamistiku mudel, inglise keel, eesti keel

Litsents lõputöö reprodutseerimiseks ja lõputöö üldsusele kättesaadavaks tegemiseks

Mina, Loore Lifländer,

1. Annan Tartu Ülikoolile tasuta loa (lihtlitsentsi) minu loodud teose

An Analysis of Estonian Gaming Streamers' English-Estonian Code-Switching,

mille juhendajad on Lect. Reeli Torn-Leesik ja Assoc. Prof. Virve-Anneli Vihman

reprodutseerimiseks eesmärgiga seda säilitada, sealhulgas lisada digitaalarhiivi DSpace kuni autoriõiguse kehtivuse lõppemiseni.

2. Annan Tartu Ülikoolile loa teha punktis 1 nimetatud teos üldsusele kättesaadavaks Tartu Ülikooli veebikeskkonna, sealhulgas digitaalarhiivi DSpace kaudu Creative Commons'i litsentsiga CC BY NC ND 3.0, mis lubab autorile viidates teost reprodutseerida, levitada ja üldsusele suunata ning keelab luua tuletatud teost ja kasutada teost ärieesmärgil, kuni autoriõiguse kehtivuse lõppemiseni.
3. Olen teadlik, et punktides 1 ja 2 nimetatud õigused jäävad alles ka autorile.
4. Kinnitan, et lihtlitsentsi andmisega ei riku ma teiste isikute intellektuaalomandi ega isikuandmete kaitse õigusaktidest tulenevaid õigusi.

Loore Lifländer

24.05.2020