# *Skoutti tulee westistä! An analysis of anglicisms in the context of video games.*

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**Abstract**

The purpose of this study is to present an overview of two concepts: language borrowing, in which a language borrows a concept from another language and completely assimilates it into itself and codeswitching, in which a multilingual speaker temporarily switches into another language to express themselves better than they could in the primary language of the contact situation. The study is based on data gathered from the conversations of two Finnish boys aged 16 and 14 over a period of a month as they are playing video games with either each other or with other Finnish speakers. As a result approximately 12 hours of spoken Finnish has been analyzed for foreign elements, which then have been written down and analyzed in the context of both borrowing and codeswitching. In order to properly understand the motives of the players in question, interviews were conducted to establish some of the reasons for their linguistic choices.

The traditional viewpoint regarding these subjects considers borrowing and codeswitching separate, with recent research texts suggesting that they may simply be differing parts of a continuum. As Finnish and English are part of very different language families and do not share a very long history of influence between each other, the aim of this study was to fill an apparent void in research between these two specific languages and to build a continuum between these two concepts.

Finnish is a morphologically rich language, and as such morphologically assimilates practically all English elements that it encounters. If a sentence was spoken in Finnish, practically all of the codeswitches exhibited a degree of assimilation. The study compares the differences in the level of phonological, syntactical and morphological assimilation of anglicisms and attempts to combine these observations with answers from the interviews.

The results of the study verify some of the theoretical concepts while simultaneously proving that in the context of Finnish and English borrowing and codeswitching share common elements and can be considered to exist on a continuum rather than being two separate subjects. A model of this continuum as seen by the author is presented at the end of the study, accompanied by examples from the data.

**Tiivistelmä**

Tämän tutkielman tarkoitus on tutkia kahta kontaktilingvistiikan käsitettä: kielen lainaamista sekä koodinvaihtoa. Kielen lainaamisessa vieraan kielen elementti sulautetaan puhujan käyttämään kieleen, jolloin sitä kohdellaan kuten kielen omia elementtejä. Koodinvaihdossa puolestaan puhuja vaihtaa hetkellisesti käyttämäänsä kieltä välittääkseen ylimääräistä informaatiota tai merkitystä mihin tilanteen pääkieli ei välttämättä pystyisi.

Tämän tutkielman aineisto on kerätty kahden pojan keskusteluista, mitkä on käyty videopelien lomassa. Iältään pojat ovat 14 sekä 16 vuotta ja molemmat puhuvat äidinkielenään suomea. Yhteensä noin kahdentoista tunnin pituisista nauhoituksista on kerätty englannin kielestä peräisin olevat ilmaisut, jonka jälkeen niitä on analysoitu sekä lainaamisen että koodinvaihdon näkökulmista. Lisäksi pelaajia haastateltiin heidän tekemiensä valintoja koskien, jotta olisi mahdollista muodostaa johtopäätöksiä erilaisista lainaustilanteista.

Perinteisen näkökulman mukaan koodinvaihto ja lainaaminen eroavat toisistaan, mutta uudemmat tutkimukset pohtivat mahdollisuutta näiden keskinäiseen jatkumoon. Koska suomen ja englannin kielten yhteinen historia on suhteellisen tuore, eikä vastaavanlaista tutkimusta vaikuta löytyvän suuressa mittakaavassa, tämän tutkielman tavoite on täyttää tämä aukko ja tarjota näkökulma näiden kahden kielten vuorovaikutukseen. Tavoitteena on lisäksi muodostaa teoria edellä mainitusta jatkumosta.

Suomen sijapäätteet tekevät kielestä vahvasti sulauttavan, joka muokkaa käytännössä jokaista englannin kielestä peräisin olevaa elementtiä jollain tapaa. Tämän takia tutkimuksen kysymykseksi muodostui, miten lainaamisen ja koodinvaihdon eroja voidaan luokitella. Tutkielma pyrkii vastaamaan kysymykseen vertailemalla fonologisia, syntaktisia ja morfologisia eroja englantilaisperäisien sanaluokkien, kuten esimerkiksi substantiivien, adjektiivien ja verbien välillä.

Tutkielman tulokset vahvistavat joitakin lähdemateriaalin olettamuksista sekä samanaikaisesti todistavat koodinvaihdon ja lainaamisen välillä olevan jatkumon suomen ja englannin kielien osalta. Tutkielman loppuosassa on esitetty kirjoittajan näkemys tämän jatkumon koostumuksesta esimerkkien kera.

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## 1. Introduction

The effect English has had in recent years upon a multitude of languages cannot be underestimated. As a *lingua franca* of international communication, English has met most of the world's languages. This has resulted in English adopting words and phrases from these languages as well as introducing new elements to them. While the way English itself has adopted new phrases is certainly intriguing, this research will focus primarily on the way English syntactic features and the associated pronunciation rules have established themselves within the framework of other languages. As a result of Finnish being my first language, I have chosen to study this phenomenon by focusing only on the various elements and features that the Finnish language, and particularly the variety of Finnish used by my so-called test subjects, has borrowed from English.

The aim of this thesis is to analyse what types of Anglicisms are integrated into Finnish and especially how they take on the Finnish grammatical, lexical and phonetical conventions. While the scope of this study is limited to approximately 12 hours' worth of material recorded from just two native speakers of Finnish, I hope to find consistent features that would clarify which aspects of English are retained as they are inserted into the context of Finnish language, if such elements exist. I consider the topic very relevant in the globalized world of today where the average native Finnish speaker is rapidly becoming more competent in English and therefore manifesting more visible signs of interaction between these two languages. Advances in technology have played a crucial part in bridging Finnish and English, and it could be argued that increased competence in English can be attributed to the way native speakers of Finnish are exposed to English language earlier through the media of television, movies, video games and the Internet. Because of this the material for this thesis has been gathered from the communication that took place between two video game players.

While video games in general have been present for quite some time now, the developing technology has allowed them to become far more than they used to be. While early video games may have consisted of just two paddles trying to keep a ball away from their own side of the screen, modern games have writers, directors, hundreds of developers and occasionally a casting budget that rivals some movies. What all this means is that video games have developed into a medium that has a measurable impact on those who take part in it. Modern video games no longer must leave their contents to the imagination of the players but can and do present their imaginary worlds in a form that is simply asking for immersion. While the very first games could have been compared to a childish game of tag, modern games can be compared to books and movies and therefore have at least a comparable effect on those who take part in it. This is one of the reasons that video games were chosen to be the medium in which the data of the thesis takes place. The other is the fact that video games were the medium which got me and undoubtedly a lot of others interested in language. In 1997 a game by the name of Final Fantasy VII was released. The game had a heavy focus on its story, which is consistently rated by critics as one of the best stories of its era. The game could easily take over a hundred hours to complete, had zero voice-acting and the very heavy emphasis on written dialogue between the characters meant that 7-year old me had to learn English just in order to complete the game.

This educational factor of video games has historically not been studied to a great extent as some may still view video games as entertainment for children. Recent developments and the ever-increasing nature of the medium have hastened some progress in this area, resulting in the educational effects of these games having been under a lot of scrutiny. Understandably, several studies focusing on the general effects on the developing minds and particularly the role of the games in the field of language acquisition have taken place. While the focus of this thesis is on how these effects can possibly be seen in the spoken Finnish of two adolescent gamers, I hope to divine consistent forms that could

have broader applications. In a way, the data I have gathered represents a small slice of modern Finnish language and the way it has, and will, evolve.

In this thesis I am going to present the data by first discussing the Anglicisms themselves before dividing them into categories. I intend to showcase the way English words have been integrated into Finnish by analysing the extent of their integration through pronunciations; e.g. which pronunciation forms and rules from English are retained and which are superseded by the rules of Finnish. As these Anglicisms are spoken within a Finnish framework I expect that they will mostly conform to the pronunciation rules of Finnish. Therefore, it could be possible that the features that do remain share some similarities with the Finnish language, despite the apparent differences between these two languages. While I feel that the pronunciation rules of Finnish are important in order to understand Anglicisms better, I intend to mainly focus on the identifiable English features present within my data. I hope to utilize this data to show that an evolving language such as the Finnish spoken by the players of this study borrows for a multitude of reasons, but to also show that the borrowings it does are not always similar. Though the competence of the players themselves did not change during the 30 days of data gathering, they switched between completely assimilated English elements and completely unassimilated elements as the situation around them demanded it.

The study is organised in a way that should allow readers to first learn about the historical theories about borrowing and codeswitching, before delving into a few of the problems these models face in the context of Finnish. After the theoretical part I intend to explain the methodology of this study before presenting the findings themselves. While I expect most of the borrowings to show a great degree of phonological integration into Finnish, I will focus on those borrowings that do not follow these to the same extent.

## 2. Theoretical framework

In this section I intend to present the most important topics and concepts regarding the borrowing and pronunciation of English elements within the Finnish language. In order to achieve this, I will go through some of the concepts critical to the scope of this study followed by the theoretical frameworks around the interaction between languages. The main element of this study will take place within the scope of contact linguistics. As I hope to show in the following paragraphs, the data on which this thesis is based requires a slightly different approach due to the shared first language of the speakers in my data. Therefore, I aim to focus on various theories around linguistic interference, borrowing and codeswitching in general. A section will be devoted to answer the question *why* of borrowing, specifically in the context of video games as a specialist language. Finally, I aim to outline the differences between these two specific languages by describing both their similarities and differences mainly regarding their pronunciation.

As anglicism has been chosen for the cover term of this study, I feel that it is probably the most important aspect of this research that must be defined before proceeding into the data. *Oxford English Dictionary* defines Anglicism as a

> word or phrase borrowed from English into a foreign language:
>
> the French have as an irritating Anglicism: un toast.

While the concept of anglicisms includes long-established words that have been a part of the Finnish lexicon for almost half a decade, these anglicisms were ignored in favour of more recent elements which were still finding their place in the lexicon of the players. For example, the word *potti* is defined by Pulkkinen (1984) as an anglicism specifically with the meaning of a cash pot found in a lottery or a card game. Were this word to appear in the data with this specific

meaning it would not be included as it has been a part of the Finnish lexicon for over 75 years (p. 134). The reason it is included is that the players have adapted its usage to include a clay pot used for planting flowers or a larger vase which can be broken to access the contents within. Focusing on the newer anglicisms means that the study is dealing mostly with an evolving language that is still finding its words and meanings. As such, the main criteria for the anglicisms chosen was their level of integration into the Finnish that the players natively spoke. I admit that the definition of new and old among the anglicisms present in the data is not very scientific and can fluctuate as time goes on, but the deciding factor upon choosing whether to include or exclude an anglicism from the study was the level of foreignness it exhibited to me. It should be noted that there are words present within the data that could be argued to be of non-English origin such as /pre:miumeille/, as English has borrowed the word premium from Latin, in which it is written as 'praemium'. However, if it can be reasonably assumed that the players have encountered the word in the context of a video game in English, these words are classified as anglicisms for the purposes of this study. In order to properly understand the way these anglicisms have been introduced into the speech of the players there are a few theoretical elements of linguistics that should be considered before proceeding into either the theory or the data itself. In these sections I will briefly outline the theoretical concepts central to the study of linguistics in general before proceeding to the specific items important to this study.

## 2.1 Contact Linguistics

As a theoretical concept, Contact Linguistics is concerned with the evolution of languages through shared cooperation, interference and dynamics. In short, whenever two languages meet and interact the event takes place within the theoretical framework of Contact Linguistics. As Winford (2003) writes, "Whenever people speaking different languages come into contact, there is a

natural tendency for them to seek ways of bypassing the communicative barriers facing them by seeking compromise between their forms of speech" (p.2).

In order to understand the focus of this study a brief overview of the history of the theoretical framework is in order. As the history of Contact linguistics starts from the 19th century it stands to reason that the focus of it has mostly been the spoken interactions of various groups that have been, in ways, forced to coexist and break down these barriers that Winford is writing about. The focus in the field of contact linguistics seems to have shifted gradually from the early viewpoints held by some which stated that mixed languages did not even exist into a more open-minded viewpoint that debates the rigid structures of language categorization (Thomason & Kauffman 1988, pp. 1-4). In fact, some of the earliest studies in the field of contact linguistics have been about various interlanguages, pidgins and creoles that have come into existence out of necessity in situations of intercultural encounters (Winford 2003, p. 7).

Here we arrive at a crossroads of sort as the data in this thesis does not include people speaking different languages seeking to bypass communicative barriers. The research within this thesis is interested in how two people speaking the same native language change and adapt their shared language while interacting in a medium consisting of another language. As such, some of the broader concepts of contact linguistics such as mixed languages, pidgins and creoles fall outside the scope of this thesis. However, the language maintenance aspects of contact linguistics are very relevant to this study. In this manner, Finnish acts as a recipient language that is influenced by English, the source language in question. There seems to be varying different ways of describing these linguistic elements, with some writers preferring terms such as donor, recipient, copier or even replica (Sakel & Matras, 2007, p. 1). However, in the context of borrowing this study will use the terms recipient language or RL, and source language or SL as these seem to be most commonly used in the research literature (Winford 2003, p. 12). In this scenario English acts as a source language that supplies the elements being integrated into the spoken Finnish of the players in the data, while Finnish acts as a recipient language that appropriates these elements and

adapts them in both phonological and morphological fashion to suit its established rules.

As the notion of language has been tied heavily to the culture that speaks it, it is understandable that certain nationalistic tendencies have sought to maintain an image of a pure language that is unaffected by the languages of neighbouring cultures. This aversion to change has also been present in the natural progression of the language from one generation to other, as language purists sought to maintain the language that they saw as proper (Aitchison 1981, pp. 8-11) with loanwords possibly representing somewhat alien values and an incompatibility with the perceived values of the recipient language and culture (Backus 2013, pp. 25) . Therefore, as the study of languages in contact has progressed throughout the 19th and 20th centuries, various terms have been used to describe the way languages from separate linguistic families affect each other. There seems to be discussion even today over the correct nomenclature, with some writers choosing to use a more positive word *influence* to describe these foreign elements in the language, whereas the common denominator of the earlier research seemed to be interference. The word itself seems to carry predetermined notions about the value of the foreign elements which is one of the reasons some writers seem to shy away from its use, but it is used in this study as it seems to be the term used by Thomason & Kaufman whose work is referenced by practically all of the relevant research literature and which forms the basis for theories presented after it. Adams (2003) offers a counterpoint by using interference to only stand for unintentional interference in the second language of the speaker or the writer and contrasts it with codeswitching or borrowing, which in his viewpoint shows linguistic competence (p. 28).

Adams' view is at least partly based on Thomason & Kaufman (1998), since they posit that interference can be further split into two distinct groups: borrowing and substratum interference (p. 38). Substratum interference is in line with Adams' viewpoint as it mainly concerns the way a group of speakers acquire a new language in an imperfect manner, bringing in phonological and morphosyntactic elements from their native language into the target language.

As such, this specific description of the term interference is of little importance to the study at hand. Borrowing, on the other hand, is exactly what this study aims to further explore. As Sakel and Matras (2007) define it in the preface of their book: “we use the term “borrowing” as a cover-term for the adoption of a structural feature into a language as a result of some level of bilingualism in the history of the relevant speech community” (p. 1). While the concept of bilingualism in the context of the players will be analysed further in section 2.5, our cover term *anglicism* should be established as a borrowing by now.

## 2.2 Borrowing

Thomason & Kaufman (1988) present a model that outlines the various degrees of changes present in the recipient language and go on to explain the conditions necessary for each degree of borrowing. While the focus of their research has been more on building a comprehensive explanation for various situations of language contact, their ideas are a good starting point for explaining the borrowing of English to Finnish. The following table has been summarized to fit the model into a cleaner version.

*Table 1. Borrowing scale (Thomason & Kaufman 1988, pp. 74-76)*

| Borrowing Scale | | |
|---|---|---|
| Degree of Contact | Level of Borrowing | Examples |
| 1. Casual contact | Lexical borrowing only | Content words |
| 2. Slightly more intense contact | Slight structural borrowing | Function words |
| 3. More intense contact | Slightly more structural borrowing | Adpositions |
| 4. Strong cultural pressure | Moderate structural borrowing | Word order changes |

| | | |
|---|---|---|
| 5. Very strong cultural pressure | Heavy structural borrowing | Prefixes in a language that had none |

While their model goes on to explain the rather open-ended definitions of degrees 3-5, for the purposes of this study degrees 1 and 2 are the most important and therefore they will be examined more thoroughly. In casual contact, only lexical items are borrowed and even then non-basic lexicon is borrowed before basic vocabulary mainly due to either "prestige borrowings between separated populations—without widespread bilingualism among borrowing-language speakers—and with borrowings into the languages of superordinate groups from those of numerically inferior subordinate populations (who may or may not be shifting to a superordinate group's language)" (Thomason & Kaufman 1988, p. 77). They go on to describe how these cases of casual contact usually result in comparatively few borrowed loanwords and list English loanwords in scientific and technological areas as an example of a situation where minimal structural interference takes place. These distant borrowings between separated populations can also result in surprisingly heavy influences in the lexicon of the recipient language partly due to the ease of global communication, mass media and internet, allowing two very different languages to interact in an easier fashion. As such, the status of English as a lingua franca of intercultural communication makes it a prime example of a distant language effecting a language from a completely different language family (Winford 2003, p. 31).

In degree 2, or slightly more intense contact, the amount of lexical borrowings intensifies and starts to include function words that do not carry inherent meaning by themselves. Linguistic structures that are similar between languages start to become shared and some minor foreign features may also enter the recipient language. Some phonological interference takes place mainly in the loanwords themselves as they do not become fully assimilated into the recipient language and rather maintain some of their own phonological conventions.

Nevertheless, most of the loanwords are still assimilated completely and the effects of the source language on the structures of the recipient language remain minimal. (Thomason & Kaufman 1988, pp. 79-82). Degrees three through five are interested in cases where the recipient language is truly moulded by the source language; native language constructions are lost as complete morphosyntactic structures are borrowed and in extreme cases the recipient language effectively begins to die through a long process of language attrition, which usually takes several generations to finally happen. These changes have not yet taken place in Finnish at least from an English language viewpoint, and it is doubtful that they would ever truly and completely take place as the differences between English and Finnish as languages are vast. The notion of structural interference being very minimal was mainly consistent throughout this study. The only notable structural change was the addition of the English passive *you* that is not a feature of Finnish. While it is undeniable that the passive construction is an example of structural interference and a result of an extended period This development is consistent with modern Finnish and not a special feature of the players in this study. As such, it was left outside of the scope of the study and not given any further focus. At the time this study has been conducted the language contact situation between Finnish and English in general alternates around degrees one and two depending on the social context of the situation. This viewpoint is reinforced by Sandøy's (2013) findings, as according to her study of loanwords (or imports as she chooses to call them), in a corpus of newspaper articles from 2007 the vast majority of borrowed foreign elements in Finnish where from English (85%) and of those borrowings, nouns made up 94,3% of the data (p. 232). Therefore, the study's focus on the lexical borrowings exclusively should be justified.

Before moving on into why these borrowings take place, a framework must be established for various types of loans. According to Matras & Sakel (2008), loans can be generally split into matter loans (MAT) and pattern loans (PAT) based on their purpose in the language they are integrated in. MAT-borrowings take on a

certain degree of morphological forms as well as phonological forms, whereas in PAT-borrowings it is rather the pattern of the element in question that is borrowed and not the morphology (p. 15). Haspelmath (2009) refines these terms into material borrowings and structural borrowings and includes foreign concepts represented in native words into structural borrowings (p. 39). The scientific scope of anglicisms include these loan shifts and translations, as can be seen in the word *sotakirves* (tomahawk or a war hatchet, Pulkkinen [1984, p. 157]) which consists of two separate Finnish words and contains no English morphemes. However, as outlined in the introduction to this section the focus of this study is on the material borrowings, and as such if a word like *sotakirves* were a part of the recordings, it would have been left out of the data. It should be noted that the word did make it into the data in the form of /hætsetin/ (hatchet + Finnish genetive form -in), which can be counted as a material borrowing. In order to further analyse these material borrowings, a part of Winford's (2003) table on classification of lexical contact phenomena is presented. While Winford makes no distinctions between material and structural borrowings, I have omitted native creations, loan shifts and loan translations from the table as they are categorised as structural borrowings according to Haspelmath (2009, p. 39).

*Table 2. A classification of lexical contact phenomena (Winford 2003, p. 45)*

| Types | Processes involved | *Examples* |
|---|---|---|
| 1. "Pure" loanwords | Total morphemic importation of single or compound words | *rendezvous* |
| | Varying degrees of phonemic substitution | *chinchibiri* |
| | Possible semantic change | Dutch *corner* |
| 2. Loanblends | Combination of native and imported morphemes | |
| 2a Derivational blend | Imported stem+native affix | PG *bassig* Eng. boss + Germ. -ig |
| | Native stem+imported affix | Jap. *ichigo-edo* "strawberry" +ade |
| 2b Compound blend | Imported stem+native stem | PG *blaumepie* "plum" + pie |

As stated above the Anglicisms present in this study are *loan words* borrowed from the English language. While the table presented above is mainly concerned with already established loanwords that have become accepted in the recipient language, there is no reason assume that relatively new and underused loanwords would not follow similar structures. After all, if they were to become established borrowings, they would be able to be placed in this table all the same. At first glance most of the anglicisms found in the data could be classified as loanblends, but due to Finnish featuring a very robust set of case affixes, most of the anglicisms have merely been morphologically assimilated to the Finnish grammar. All three processes involved with pure loanwords can be found in the data, as the anglicisms usually exhibit total morphemic importation save for the Finnish word final vowel ending, which will be described later in section 2.4. Some phonemic substitution also takes place as these loanwords contain phonemes that are not native to the Finnish language in addition to consonant patterns that would not be possible in native Finnish words. Finally, semantic change also takes place due to the evolving nature of the language in question. A good example of this is the utterance /snɑipperi/ (sniper), which in its native English form only means the actual shooter. In the context of video games this utterance has been broadened to also include the weapon, i.e. the sniper's rifle.

Derivational blends, e.g. words made up by combining either a native steam with an imported affix or vice versa, were rare in the context of the study, with none being found in the 12 hours of research data. A possible reason for these is the lack of English affixes present in the vocabulary of the players or the earlier mentioned case system that allows Finnish to form basically any case form out of a simple imported stem. Compound blends, in which a compound word consists of stems from two different languages, however, were plentiful. These cases show a degree of integration into the recipient language compared to "pure" compound loanwords due to the usage of two words of mixed code being used to form a single word (Rayfield 1970, p. 60). A good example of these situations can be found by contrasting two loans made by player 1 while playing Terraria.

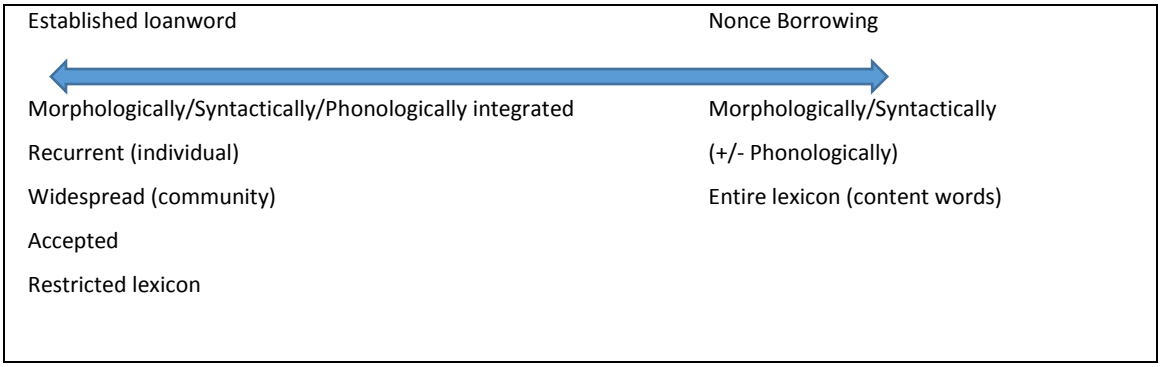
As he is going through the chest containing his character's gear, he reads the names aloud to compare them. He uses the utterances *orikalkkumipaita* (oricalchum shirt) and *molten breastplate* (phonetic spelling is left out to simplify the appearance of the words, but the latter utterance is at least partly phonologically assimilated) to describe two of them. As these two items are both breastplates in the tooltip provided by the game, why does the player choose to turn one of them into a loanblend while essentially switching codes briefly into English with the other one? This specific example will be brought up again in the analysis.

With this example in mind, what then makes a loanword? According to Poplack, Wheeler & Westwood (1987) as cited by Boztepe (2003), loanwords are established borrowings that recur throughout the speech community that uses them. For a word to initially become a loan word it must first become established as a borrowing (p. 6). These loan words usually abide by the rules of the target language (in this case Finnish) by adopting its phonetic features and morphemes native to that language (Hoffer 2005, p. 53). According to Thomason & Kaufman (1988) in borrowing situations such as these the first elements that are borrowed are lexical. Words, expressions and other items are made into stems in the native language of the speakers and subjected to the grammatical rules and affixes of the borrowing language. As discussed in the earlier section, in these situations, structural features are very rarely borrowed, and they usually require a longer time period and extensive bilingual competence to take place (p. 38). Finally, according to Aitchison (1987) borrowed elements are usually easily detachable from their original language and therefore prepositions and other grammatical morphemes are very rarely borrowed. Aitchison also states that most of the loan words are nouns because they do not affect the structure of the borrowing language as they can be freely modified with native morphemes, but verbs and adjectives may be borrowed in this fashion as well (p. 142).

What happens then, when the utterance used by the borrowing speaker is not an established loan? The data for this study contains a plethora of examples that

were made up on the spot based on the speakers' shared knowledge of both English and Finnish languages and immediately accepted by the other player in the context of the game they were playing. While the players themselves cannot be classified as bilingual in the strictest sense of the word, they have a solid grasp of English due to both extensive schooling and various mediums where they interact with the English language daily. This language competence allows them to use their skills in language to adopt unestablished nonce borrowings from an external source language during their communication (Winford 2003, p. 41). Presented below is a table outlining the differences between established loanwords and nonce borrowings.

*Table 3. The continuum for levels of borrowing in codeswitching utterances (Poplack, Wheeler & Westwood 1987 as cited by Boztepe 2003, p.7)*




As can be seen above, the greatest difference apart from the level of acceptance and usage is as follows: while established loanwords are completely integrated into the recipient language, nonce borrowings may or may not exhibit phonological assimilation. According to the research literature interference from the source language is usually minimal as the phonological rules and conventions of the recipient language supersede that of the source language (Rayfield 1970, p. 85). While this argument holds true with the clearly established loanwords and some of the nonce borrowings, the data also contains pronunciations that approximate their original English counterparts and, in some cases, even duplicate them completely, as can be seen in the utterance /griin/ (green) made by Player 2. When asked to read aloud a piece of English text containing this

word, he pronounced the word in a way that was very, if not completely like the earlier pronunciation he had made while speaking Finnish, down to the Finnish rolled /r/ which no native speaker of English would produce (Morris-Wilson 2004, p. 118). If Rayfield's (1970) observations were to hold true, that would mean that this utterance is not a borrowing at all, but rather a temporary switch into English completely, as the same element is present in the speaker's English. This fits in with the opinions of Kristiansen & Zenner (2013), who go on to describe nonce borrowings as "incidental, transient borrowings that are practically equivalent with single-word code switches" (p. 4). While special attention will be given to the cases where these rules are bent in section 4 as I present the data and the findings that can be drawn from them, it is important to define the theoretical differences in completely integrated language elements and those in which the English and Finnish languages are used simultaneously.

### 2.3 Codeswitching

In order to fully understand the extent of language integration into other language another concept must be analysed and compared to borrowing. Whereas borrowing was earlier defined to be an introduction of a language element into another language, codeswitching can be defined as a "the alternate use of two or more languages in the same utterance or conversation" (Grosjean 1982, p. 145). The depiction presented by Grosjean is very open and allows for multiple different interpretations. It should be noted that the earlier definition of borrowing also fits in this categorisation, and therefore such inclusiveness seems to be needed as the description seems to be very hard to defining. Compared to borrowings, in which the borrowed word follows the morphological, syntactical and phonological rules of the borrowing language, codeswitches represent a temporary switch into a different language. While the study of codeswitches has mainly focused on larger chunks of language and the sociolinguistic implications of these switches, in order to compare them to the anglicisms present in the study a brief dive into smaller codeswitches is necessary. As Halmari (1997)

states “The shorter the stretches of the other language items are, the more likely it becomes that these switches are called by some name other than codeswitching” (p. 166).

Most of the research literature used for this study seems to base their starting point in Shana Poplack’s (1988) definition of codeswitching being “a word or sequence of words which remains phonologically, morphologically and syntactically unadapted to Spanish could be considered English, i.e. a codeswitch from Spanish” (p. 221). According to Auer (1995) as cited by Winford (2003), codeswitches can be further divided into four different patterns, with the first pattern focusing mainly on conversational codeswitches where the speakers use language switches to indicate the switching of topics. The second pattern uses codeswitching as a medium to navigate different language options until a consensus language is reached. The third pattern uses codeswitching as an “unmarked choice” in a way that makes it practically impossible to decipher the base language used from among the codes that the speaker uses to preserve ambiguity. (pp. 103-105)

According to Winford (2003) pattern number four, however, refers to intra-sentential or intra-clause code switching in which most of the utterance originates from one language, called the Matrix Language or ML. The code switch in these utterances can be as small as a single word from another language, called the Embedded Language or EL. Whereas in cases of borrowing the terms SL and RL were used to indicate the origin of the loaned utterances, in the case of codeswitching a different set of terms is necessary to highlight the fact that competent bilingual speakers are switching between different codes. Pattern four codeswitching can result in ML or EL islands of multiple words within the utterance, or merely a single EL morpheme within the ML structure. (p. 105). These codeswitches are of key importance to the study at hand, as they do not change the language of the interaction. The Matrix Language dominates the utterance by setting the grammatical rules of the sentences in question, with the Embedded Language mainly providing lexical elements (Myers-Scotton 2002, p. 16) but the utterance does not have to be separate from the matrix language to

constitute a codeswitch. This contrasts with the earlier research of Poplack and others, who consider pattern four codeswitching to require multiple constituents from the Embedded Language due to the concept of equivalence constraint (which will be discussed at length in the following paragraphs), therefore invalidating single morpheme switches from discussion (Winford 2003, pp. 105-106). In the codeswitching cases presented in section 4, the Matrix Language of the interaction is decidedly Finnish with English acting as the Embedded Language.

These pattern four codeswitches have been named in various ways, with Auer (1986) choosing to call them transfers rather than true codeswitches due to their structurally defined point of return into the original language after their completion (p. 26), and others calling them codemixes instead in order to differentiate them from patterns one through three. While the discussion about their naming conventions seems to be still ongoing codeswitching can be divided into roughly two different categories based on their level of usage within the speech event. Patterns one through three can be classified as inter-sentential codeswitches, which encompasses events happening at the level of separate sentences, whereas pattern four consists of the intra-sentential switches. By using these terms, the study hopes to draw attention away from the naming of these codeswitches and instead analyse their contents. Intra-sentential switches which exhibit a degree of assimilation can be further defined as nonce borrowings, which allow the speaker to momentarily use another language without truly switching into it, all the while acknowledging the usage of the word and possibly drawing additional attention to the fact (Poplack 1988, p. 237). These nonce borrowings are essentially single morpheme codeswitches that exhibit the same level of morphological assimilation as general borrowings but are phonetically unassimilated into the matrix language (Halmari 1997, p. 16). These nonce borrowings could be said to offer a link between an established borrowing and a true codeswitch, particularly those of patterns one through three. As such the concept of nonce borrowings seems difficult to establish. While some of the research literature considers the concepts of codeswitching

and borrowing to be separate from each other, nonce borrowings seem to exist in the realm of both just to explain away anomalies without properly looking at their meaning for a unified classification of codeswitching and borrowing simultaneously. The difference in their level of assimilation is based on the relative consistency of their usage, as an important distinction of a nonce borrowing is its lack of widespread use. It could be argued that a more consistent usage of the terms could result in a greater level of integration and allowing the nonce borrowing to become an established borrowing, removing it from the realm of codeswitching. The amount of nonce borrowings in a speech event typically increases with the competency of the speakers and is generally a result of social conventions and needs rather than true lexical demand (Winford 2003, p. 40).

While some of the abovementioned research literature deals with the interaction of Finnish and English in general, the differing definitions of various terms presents a challenge when discussing the specific interaction of Finnish as a matrix language and English as an embedded language. As the concepts of borrowing (=morphological, syntactical and phonological integration) and codeswitching (=two different codes being used interchangeably) are somewhat clear cut, the problem lies in between these two concepts. The fact remains that a group of speakers may in one moment use their competence in another language to borrow elements and in another moment engage in codeswitching. This problem is highlighted even further in Finnish-English, which uses these nonce borrowings to a greater degree than most of the other languages. Halmari (1997) argues that the concept of nonce borrowing is difficult to use in American Finnish, as most intra-sentential switches are morphologically integrated into the matrix language. She goes on to write that “The characteristic feature of Finnish-English codeswitching is that the switched items are very often morphologically assimilated to Finnish. In its rich morphological system, Finnish has some fifteen different cases for nominal inflection (Karlsson 1987, pp. 22-23) which appear to combine smoothly with English words” (p. 59). Halmari has therefore chosen to

use the phonological representation of the codeswitch as the deciding factor in the question of whether an intra-sentential switch truly is a codeswitch or rather an established borrowing. The definite judgment on the status of the Embedded Language is made even more difficult due to two separate constraints, the free morpheme constraint and the equivalence constraint, which have been originally proposed by Sankoff and Poplack (1981) according to Winford (2003, p. 128)

The free morpheme constraint argues that bound morphemes cannot be switched and if they are, they must be phonologically integrated. At least in American Finnish-English this Free Morpheme Constraint does not seem to hold due to excessive morphological integration and results in intra-sentential switches where the English stem of the utterance is used in a phonologically unassimilated way and immediately followed by Finnish affixes pronounced according to their own phonological rules. An example of such behaviour in the research literature is the word *lunchboxiin* (into the lunchbox), in which the phonologically unassimilated English noun is immediately followed by the Finnish singular locative case (Halmari 1997, p. 76). The equivalence constraint argues that constituents can only be exchanged into similar constituents from another language. This should mean that single morpheme switches are possible as well, but according to Winford (2003), Sankoff and Poplack simply acknowledge the fact without providing any further examples and essentially state that "there is no code switching involving simple morphemes" (p. 128). Several researchers have provided extensive counterpoints to the equivalence constraint (Winford 2003, pp. 130-131) and they can also be found in the Finnish of American speakers (Halmari 1997, p. 78-80). These contrasting examples necessitate another model to analyse codeswitching in intra-sentential sentences. A possible answer can be found in the matrix language described earlier in the case of pattern four codeswitches. These belong to the Matrix Language Frame or MLF-model proposed by Carol Myers-Scotton (1993), which is based partly on psycholinguistic research that seeks to establish how a speaker sets and moulds the sentential form of the utterance to suit their needs (Winford

2003, p. 140). Winford (2003) goes on to describe the critical aspects of the MLF model as follows:

*Table 4. Matrix Language Frame (Winford 2003, p. 140)*

1. The Matrix Language Hypothesis: The ML sets the morphosyntactic frame for ML+EL constituents.
    a. The morpheme order principle: Morpheme order must not violate ML morpheme order.
    b. The system morpheme principle: All syntactically relevant system morphemes must come from the ML.
2. The blocking hypothesis: The ML blocks the appearance of any EL content morphemes which do not meet certain congruency conditions with ML counterparts.
3. The EL island trigger hypothesis: Whenever an EL morpheme appears which is not permitted under either the ML hypothesis or the blocking hypothesis, the constituent containing it must be completed as an obligatory EL island.

The EL implicational hierarchy hypothesis. Optional EL islands occur; generally they are only those constituents which are either formulaic or idiomatic or peripheral to the main grammatical arguments of the sentence.

These hypothesis rules allow for morphologically integrated intra-sentential codeswitches to take place in ML utterances at a single morpheme level. As discussed earlier, the ML of the examples in the data of this study is decidedly Finnish, and therefore according to the Matrix Language Hypothesis all relevant integrated morphemes must come from the Finnish language and conform to the standard morpheme order of Finnish. Due to the differences in Finnish and English languages (which will be further looked at in section 2.4), the blocking hypothesis should prevent the addition of English content morphemes without an EL island triggering. Exceptions to this rule can still be found even in the data

of this study, as can be seen in the utterance /pi:ʊiŋssit/ (bee wings) from the game *Terraria*. While it should be noted that the word in question does not abide by the rules of codeswitching due to its phonological assimilation into the Finnish language and should therefore be considered a Finnish word, the differences in pronunciation between /pi:ʊiŋssit/ and /bi: wiŋs/ are not extreme enough to greatly disturb the MLF hypothesis. The English voiced plosive /b/ has been replaced with the Finnish voiceless plosive /p/ which can also be found in the English word /spɪn/, while the central approximant /w/ is replaced with a labiodental approximant /ʊ/ (A more complete list of differences in pronunciation can be found in section 2.4). If this utterance were to be considered a codeswitch for the purposes of the MLF model, it seems to violate the system morpheme principle which states that all system morphemes should come from the ML, or in this case, Finnish. Broken down, this utterance consists of the English structure bee+wing+s with an English plural morpheme s. However, an additional finnish morpheme +it has been added to the end, which also signifies a plural form. If all the system morphemes were to come from the ML, the utterance should in fact be presented as *bee wing+it.* Myers-Scotton & Jake (2001) have therefore revised their model to account for this by splitting morphemes into four different categories. According to this 4-M model, content morphemes may be taken from either ML or EL, but systemic morphemes can be split into early, bridge and outsider categories (p. 219). They continue by describing early system morphemes, such as the aforementioned plural morpheme *s* as those which can be borrowed from the EL as well as the ML, bridge morphemes such as prepositions, determiners and quantifiers as those which are rarely borrowed, and outsider system morphemes as those which can never be taken from the EL (p. 215). On the other hand, Halmari (1997) cites an earlier viewpoint, which states that “the EL affix may have been "analysed as part of the stem" (Myers-Scotton 1993b)” (p. 88). While Myers-Scotton may have refined this theory further, in this particular case this observation most likely holds true as the utterance results from a player reading the name of an item given to him by the game – bee wings – and decoupling the EL plural

morpheme from the content morpheme would have taken additional effort from the player.

With the critical terms of language maintenance, borrowing and codeswitching examined and some of their flaws discussed, it should be noted that the constant evolution of language means that these terms and the items categorised under them are not set in stone. The critical difference in determining which language an utterance belongs to seems to be its pronunciation (Rayfield 2017, p. 85; Halmari 1997, p. 171). Therefore, the usage of an EL element in the matrix language can and does change over time and increasing usage heightens the familiarity of the speakers with the word. This can result in foreign codeswitches originally being used as inter-sentential chunks or longer EL islands within an intra-sentential codeswitch becoming nonce borrowings with Finnish morphology and finally established borrowings and loanwords as they become phonologically assimilated. The Borrowing Scale of Thomason & Kaufman introduced earlier in section 3.1 also reinforces this concept, as the cultural influences of the embedded language are not a constant but rather can vary over time. As such, these linguistic notions form a continuum on which they can be used in varying ways by speakers of varying competence in different situations as they are needed (Halmari 1997, p. 18). Adams (2003) shares some of these concerns by drawing attention to the fact that "hard and fast rules cannot be laid down for distinguishing between codeswitching and borrowing" before explaining that distinctions can be made between clear cut examples of either phenomena (p. 27). Also, according to Halmari (1997), "Treffers-Daller (1991) and Lauttamus (1990, 1991, 1992) also suggest that codeswitching and borrowing could be looked at as basically the same phenomenon" (p. 170). Later sections of this study hope to open this concept further based on the data gathered and find a way to explain the differing concepts in a concise manner. For the purposes of this study I intend to focus on intra-sentential codeswitches rather than inter-sentential, concise codeswitches into English. Examples of these will be given and briefly touched upon, but only in the context of shorter switches. Same could be said of longer passages of English

words within a Finnish sentence where most of the content morphemes came from the EL rather than the ML. These usually took place in response to an English lexical item or a series of them within the game. Examples of these types of codeswitches will be given as the data is presented as well.

## 2.4 Finnish in comparison with English

Finnish as a Finno-Ugric language differs greatly from the Indo-European English language (Ethnologue, 2013). As a result, most of the words borrowed from English change as they are integrated to the framework of Finnish. Due to Finnish and English belonging to completely different language families, they differ greatly in nearly all aspects of language (such as syntax and phonology) from each other. Before moving on to the material or the analysis of it, the differences between these two languages should be briefly outlined in order to make assumptions regarding the reasons behind some of the Anglicisms present within the data. As the earlier theoretical framework has shown, the focus of this study is on the phonological and the morphological elements and therefore these are the foci of this section. While the players show in their speech elements approximated from American English, they have also been exposed to British English through the school system and BBC programs according to their own words. Therefore, differences between these systems will be briefly outlined as we go along. Due to the study looking primarily at the adaptation of these EL elements into Finnish, the focus should be on their level of assimilation into Finnish first, and the origin of the phonological presentation second.

To start with the phonological elements, Finnish has eight vowel sounds (/i/, /e/, /y/, /ø/, /æ/, /ɑ/, /o/ and /u/) that are orthographically presented in a consistent fashion. This means that a written letter practically always corresponds to a specific phoneme (Suomi, Toivanen & Ylitalo 2008, p. 20). This is in stark contrast with the twenty vowel sounds of RP, which can be split into 12 vowels and 8 diphthongs, or sliding vowel sounds that begin from one phoneme and glide into another (Morris-Wilson 2004, p. 136 & p. 146). According to Ogden (2009), while

there are still some discussions about the amount of vowel sounds in American English, it can be said that there are fewer than in RP (p. 67). The diphthongs present a unique difference when compared to the Finnish language, as all Finnish diphthongs can be split into two separate vowel phonemes which were listed above (Suomi, Toivainen & Ylitalo 2008, p. 23). These contrasts regarding the number of vowel sounds between the two languages combined with the Finnish concept of vowel harmony (the front vowels /y/, /ø/ and /æ/ cannot be placed in the same words as the back vowels /u/, /o/ and /ɑ/) should mean that Finnish does not accept foreign vowel phonemes readily and would rather approximate them by combining the phonemes that it already has.

For the consonant phonemes, the distinction is not that simple to make. Again, English contains a greater number of consonant phonemes than Finnish in both RP and American English. According to Suomi, Toivainen & Ylitalo (2008), Finnish consonant phonemes, can be presented in paradigms, as can be seen in table 6. Each set of groups represents an increasing amount of usage with all Finnish speakers using the phonemes of group number 1, and group 5 being used by the least number of speakers.

*Table 5. Groups of Finnish consonant morphemes, adapted from Suomi, Toivainen & Ylitalo (2008, p. 25)*

| |
|---|
| Group 1. /p t k s h l r m n j ʊ/ |
| Group 2. All of the above + /ŋ/ |
| Group 3. All of the above + /d/ |
| Group 4. All of the above + /f/ |
| Group 5. All of the above + /b g ʃ/ |

Whereas the most basic vocabulary of the Finnish speaker does not include any of the phonemes from groups 2-5, Suomi, Toivainen & Ylitalo (2008) identify

young age, living in an urban environment and a high degree of foreign language knowledge as some of the key aspects towards using the greatest amount of consonant phonemes in a person's spoken Finnish. They go on to describe the phoneme /ʃ/ as being the most scarce of the phonemes presented and hypothesize that this is a result of both the scarcity of words containing the orthography <sh> and the Finnish tendency to turn them in established loanwords into a simple <s> spelling as can be seen in the word pair *shock* – *sokki* (p. 37).

The final significant feature of Finnish in comparison to English is its agglutinative nature. According to Rehm & Uszkoreit (2012), Finnish features a total of 15 case endings that can be assigned by adding morphemes to the end of a word. These building blocks can be combined, resulting in longer words than many other languages, including English. As a result, Finnish nouns may have up to 2000 different forms with some verbs reaching over 12 000 inflection forms. These strong morphemic elements allow Finnish to build new words out of existing words for various purposes, resulting in a language that can quickly adapt new forms (p. 11). In addition to these, Karlsson (1983) and Savinainen-Makkonen (2001) also include the following differences: Finnish language prefers open final syllables (i.e. those that end with a vowel) compared to the English words which mostly end with a consonant. This results in the stem form /i/ being commonly added to the Anglicisms as they are integrated into Finnish language as can be seen in the following words from the data: /snɑipperi/ (sniper) and /skoutti/ (scout). Finnish is also further distinguished from English in its way of using the length of consonant phonemes such as /k t p/ as the only difference between certain words, as can be seen in the words *matto* (carpet) and *mato* (worm). Even though these two words appear similar and could be presumed to carry a similar meaning, they do not have anything in common.

## 2.5 Bilingualism: when one language is not enough?

In order to be able to divide the differences between borrowing and codeswitching a brief look into the meaning of language competence must be taken. While the traditional concepts of codeswitching seem to agree that a degree of bilingualism is necessary in order to fluently use another language to carry additional meanings in a word, do the players need to be fully bilingual in order to be able to switch codes? Halmari (1998) writes in her analysis of American Finnish-English codeswitching that "This brings us back to the ideal but probably unrealistic assumption that bilinguals only codeswitch while monolinguals only borrow" (p. 171), which suggests that some bilingual competence is naturally required in order to codeswitch.

While the players are not bilinguals in the strictest sense of the word as they do not possess equal skills in both Finnish and English, they can converse in English in an understandable manner. This was tested by holding short conversations on some of their language choices in English and while some of their vocabulary regarding English in general was lacking, they were able to use the EL elements of their spoken Finnish in an English conversation to a completely acceptable degree. While their spoken Finnish is influenced by the local dialect that has several borrowed several lexical elements from Swedish, English is clearly their second-best language as they themselves rate their Swedish comprehension as severely lacking. A quick attempt at initiating a conversation in Swedish showed that their opinion had not been exaggerated. As such, they are not bilingual, but neither are they truly monolingual. Oksaar (1999) describes a person as a multilingual "when he has the ability to use here and now two or more languages (dialects, sociolects) as means of communication in most situations and to switch from one to the other, if necessary" (p.6). Matras (2009) concurs by stating that "All this suggests that multilingual speakers do not 'block' or 'switch off' one of their languages when communicating in another, but that they have the full, complex linguistic repertoire at their disposal at all times" (p. 5). He goes on to offer a viewpoint that bilingualism is not a simple binary

attribute, but rather a continuum on which all the various differing skill-levels can be placed upon (p. 111).

*Table 6. Dimensions of the codeswitching-borrowing continuum, Matras (2009, p. 111)*

| | | |
|---|---|---|
| Bilinguality | | |
| bilingual speaker | ←→ | monolingual speaker |
| Composition | | |
| elaborate utterance/phrase | ←→ | single lexical item |
| Functionality | | |
| special conversational effect, stylistic choice | ←→ | default expression |
| Unique referent (specificity) | | |
| lexical | ←→ | para-lexical |
| Operationality | | |
| core vocabulary | ←→ | grammatical operations |
| Regularity | | |
| single occurrence | ←→ | regular occurrence |
| Structural integration | | |
| not integrated | ←→ | integrated |
| codeswitching | ←→ | borrowing |

Matras (2009) also suggests that while codeswitching and borrowing can be looked at as two separate concepts, they share a continuum in a similar fashion to the abovementioned concept of bilingualism (p. 115). While this does not give a definitive answer to the intricacies between codeswitching and borrowings, it gives this study the following framework to categorize a codeswitch: If a speaker with lingual competence chooses to replace a word easily available to him with a special utterance for the sake of stylistic choice, the loaned element approaches codeswitching. Likewise, if an unassimilated loan occurs once in the course of the data, similar deductions can be inferred.

True Finnish-English bilingualism is not the focus of this study, as the interest lies in the players ability to adapt their knowledge of the foreign elements around

them to converse in a meaningful way with one another while they are focused on performing another task. As can be seen in the quotes present in this section, some multilingual capacity is needed to be able to use language to make any social context flow in a better way. This flow is needed especially in the context of video games, where the meaning that the words are supposed to convey must occasionally be transmitted at a fast tempo as the players are seeking to overcome an obstacle or choose the right weapon for the situation at hand (Piirainen-Marsh 2008, p. 142). In order to achieve these goals, languages may turn to other languages to relay this information in an easily understandable manner. Matras (2009) lists three reasons for multilinguals to borrow: to fill gaps in their own lexicon with elements from other languages, to address the societal needs of the speaker to achieve a higher level of prestige due to another language, and as a result of cognitive pressure that makes it inconvenient to maintain the separation of the two languages. This results in languages generally preferring to borrow words that they do not already possess or those that have a different meaning that is more suitable to the matter at hand. As such, the borrowing of core words that the language already has is a sign of either prestige borrowing or a degree of codeswitching (p. 152).

## 3. Research process

The material for the research has been gathered from two teenage boys aged 16 and 14. From here on I will refer to them as Players 1 and 2 respectively. I acknowledge that I cannot consider any results that this research produces as completely definitive and applicable to Finnish language as a whole because of the limited scope of test subjects and their similar background. The players are brothers living in the same household and thus speak Finnish in an almost identical fashion. They have lived their entire lives in the South-western region of Finnish Lapland and as a result their normal spoken Finnish deviates somewhat from the traditional rules of the language. While they have been exposed to English for a long time, their geographical proximity to the Swedish border and the regional dialect influences their spoken Finnish.

The age difference is of some importance since Player 1 has studied English for two more years than his younger brother and may therefore have a better academic understanding of English. Based on my own experiences, however, I would rate their skills in the English language as not too far apart from each other. Their way of pronouncing Anglicisms is similar, which I would argue to be the result of them having played these games together for quite some time and therefore having produced a lexicon of their own that they use in gaming. While this prevents this study from being a definitive study on the evolution of the Finnish language, it also gives an opportunity to study the lexicon of these players in depth.

Due to the nature of the medium (i.e. video games), the Anglicisms that can be found in the data differ greatly from those present in usual day-to-day conversation, and the majority of the anglicisms can be classified as game specific utterances. Because of this I have decided to briefly outline the games played in the recordings and the respective types of words associated with them. During the recordings, the players played five different games that can be divided into four genres: two first person shooters, one massively multiplayer

online game, a two-dimensional world building game and a traditional role-playing hack and slash game.

Most of the recordings focus on **DayZ**, a survival shooter game which places the player in a zombie-infested Russian countryside, where they must hide from not only the zombies but also other player who are more likely to kill the player character and rob his corpse than to offer assistance. *DayZ* is a so-called sandbox game which gives the player freedom to do anything he desires and there are no objectives to achieve other than survive. DayZ is usually played on a persistent server world that is running most of the day. As players log in, they start where they last logged off, meaning that the safe hideout that the players built the day before might have been overrun by zombies or destroyed by other players. This also means that the number of players simultaneously playing on a server could be as high as 100. Even though there are lots of players, the game world is so open that it is completely usual to encounter no or very few players, making each encounter with another player a tense affair. This also means that the game is sometimes very leisurely, allowing players to plan their activities in peace. On the other hand, once action takes place it is very frantic albeit short-lived, as a single shot can easily kill a player.

DayZ also does not have significant amounts of voice acting, meaning that most of the data present in the game is in written form and therefore should not affect the pronounced communication of the players. This also means that compared to other, more fast-paced shooting games, *DayZ* contains a large amount of written material, which results in a multitude of idle mumblings as the player handles various items within the game. These utterances are almost completely performed in English with occasional Finnish sentences inserted between them. In the end DayZ was responsible for a multitude of longer codeswitching elements, but they are of lesser importance to the research compared to codeswitching elements present within Finnish sentences. It should also be noted that the players are able to hear the conversations of nearby people and are also able to talk to complete strangers, but during the recordings

the players chose not to speak to any strangers. This meant that they did not have to switch to English during their gameplay.

**Battlefield 3** was another heavily played shooter game within the recordings. It bears the hallmarks of the stereotypical online shooter game in which players must fight each other in a confined area for the duration of the round. The game features three factions (The United States, People's Republic of China and the Russian Federation) fighting for control of set objectives. The fact that the Chinese and Russian forces do not fight against each other in the game means that in every match of the game half of the players are playing American characters. This, combined with the fact that the characters are voice-acted, means that the players receive more audio feedback from the game and might therefore affect their communication. It should also be noted that even though two of the three factions should not be speaking English, the developers of the game have seen fit to have the Chinese and the Russian soldiers speak English with either a Russian or an Asian accent by default. Therefore, the amount of spoken English found within a game is unusually significant compared to other games. When comparing the games found in data with each other, Battlefield 3 has the most spoken English as the player characters are constantly talking with each other, relaying orders and even cursing as they are engaged in combat with other players.

Battlefield 3 produced the most anglicisms, partly because the frantic action forces the players to communicate more efficiently than other, slower paced games. It could be argued that this faster pace and the increased requirement for communication leads to a manner of language that uses the expressions that are the most comfortable for the player to utter, as he simply does not have the time to express himself more eloquently. It should also be noted that in these first-person shooters the players altered their manner of speech more within the recording compared to other types of games. As the players encountered new elements during the game session their utterances sometimes changed depending on the situation, leading to them finding new ways to convey information to each other in the most efficient and comfortable manner

possible. This resulted in some of the borrowings having varying pronunciations and even different words for the same borrowed element.

First person shooter games, however, were not the only genre present within the data. The players also favoured **World of Tanks,** a massively multiplayer action game set during the Second World War. In this game the players must choose a tank from a time period ranging from the First World War to the Cold War from any one of the major factions of these conflicts. After that the players are matched up in two teams of 16 players with each side being composed of tanks from roughly the same time period. The game ends when one of the teams achieves their objective or destroys the tanks on the opposing team. In contrast to the fast pace of the previous games, the combat in World of Tanks can sometimes feel very glacial as the players are using machines whose real-life equivalents have been obsolete for quite some time now. The game is also notable for its minimalistic visual interface: while in battle the players are not shown any text that could influence their speech. It should also be noted that while the menus are in English, the descriptions of equipment and vehicles used by the players are in their original languages. This results in a distinct lack of English in the game and removes a lot of the idle mumbled borrowings that the players used in other games.

The players also played a two-dimensional world building game called **Terraria**. In the game players are put into a randomly generated world in which they must gather materials, build structures and items and explore the world and survive the monsters within. Terraria and Day Z could both be categorised as survival games, but while DayZ focuses on the survival aspect, the main theme of Terraria is building and creating. The game is also a bit lighter in tone compared to the previously discussed zombie title, as the graphics are light and reminiscent of earlier games from the end of the 20$^{th}$ century. Terraria also features many items and features that the player must use to progress in the game, which results in a large amount of written material that the player must read. Terraria also does not have any voice acting, meaning that any dialogue that takes place is also available only in written form.

The same can also be said about the last game played in the data, **Titan Quest**. Titan Quest is a classical "hack and slash" role playing game with a top down view. The visual presentation of Titan Quest is very different from Terraria and the game is part of a separate genre, but their methods are similar. The lack of voice acting, a similar focus on inventory and items and a greater amount of dialogue compared to Terraria means that these two games feature an extensive library of written text that the players must navigate and ponder to proceed forward in the most efficient manner. This means that these games were responsible for a plethora of codeswitching as the players switch between their native language and the language of the game to read instructions and text given to them by the game. While these codeswitches will be touched upon both in the theory section and as I go through the data, the focus of this thesis will be more on the elements showing greater degrees of integration to the spoken Finnish of the players.

The data was gathered by using the standard Windows recording software on their computers that they used simultaneously with their usual communication software, TeamSpeak. The players were instructed to record their gaming sessions with the software and these recordings were then collected afterwards. Since I had only asked for their permission, the voice of any other players they were playing with was not recorded. Due to this the recordings only contain the voice of the two players. While this means that I cannot fully understand the context in which the players are speaking, for most of the recordings the players are playing by themselves. In cases where they are speaking with other players, I feel that limiting the scope to just two speakers whose backgrounds are known results in more consistent data and avoids the possibility of further anomalies. The recordings also contain only the discussions of the players and not the game itself. Therefore, any events within the game that prompted the discussion remain uncertain. However, I was confident that any context should be able to be inferred from the discussion tapes and should the need arise I would ask the players to elaborate on any Anglicisms that did not seem to make any sense. In the end, the data was simple enough to make sense of. After the players had

submitted the recordings and I had had a chance to listen through them, marking the anglicisms, they were also interviewed about their choices. In these interviews I asked them to elaborate on their thought process during these moments and explain why they chose to borrow a word or utterance in the way they did. Their answers will be used in the analysis to explain some of these choices.

The data consists of recordings made in a timeframe of about a month from September to October in 2014. During this time, the players recorded 20 sessions ranging from 22 minutes to 12 hours and 5 minutes. This meant that by the end of October the data consisted of almost 50 hours of recordings, and I told the players that the amount recorded would suffice as I figured that any features consistent enough to be of importance would have already been recorded by that time. I chose ten of these recordings with a total runtime of approximately 12 hours as my data, listened through the recordings and transcribed any anglicisms into phonemic forms (for example /spɑʊni/). As this study hopes to contrast intra-sentential codeswitching with borrowing, inter-sentential codeswitches were not included in the data. For the sake of comparison, I have included a few examples of these as they were also present in the recordings. If the players used the same anglicism again during the recording, duplicate uses were not notified if they were identical or had a different set of Finnish system morphemes in the end, as the stem of the word remained the same. If there was a degree of alteration in the stem of the word or a marked difference between the presentation of the complete utterance, it was added to the data in order to compare possible reasons for the differences in use. In the interest of variety and a simple way of showcasing the various Finnish system morphemes, if the word was assimilated when it was first used in the recordings, that was the form it was written in the data. As the words are presented, they will be translated in parentheses to English. In cases where the literary definition of the translation differs from the intended one, the abbreviation *lit.* will be used to describe this.

Because this study focuses primarily on the pronunciation of Anglicisms, I made no distinction between new loans and established loans, as I felt the distinction to be both unnecessary and mainly up to my own notions of what counts as an established video game term and what does not. However, it should be noted that truly established loanwords that had already become a part of the Finnish lexicon were excluded from the data due to their complete assimilation into the recipient language. The data still contains a few established loanwords in cases where the players used the loanword specifically in the context of the video game and I felt that the word had undergone possible semantic change due to the context it was placed in (see table 3). The recordings themselves were not transcribed, as most of the communication takes place in Finnish, which is not the focus of this thesis but some of the context around interesting borrowings has been preserved to allow for further discussion about the context of the word and why it is borrowed the way it has been.

Before moving into the analysis of the anglicisms themselves, a brief overview of the gathered materials is necessary. I chose to represent the data in phonemic form and particularly in Finnish phonemes because I assume that for the purposes of this study that these borrowings have become a part of the test subjects' Finnish and therefore can be represented with Finnish phonemes. This means that in cases of phonological congruency between the two languages, approximations of the English phonemes will be represented in Finnish phonemes. In cases where the players are without a doubt switching into another code and using phonemes foreign to the ML, English phonemes will be used instead. After all, the native language of these players is Finnish. At no point in the sessions recorded did they speak with any foreigners, meaning that they interacted only with native Finnish speakers. While they occasionally did borrow from English for extended periods of time, sometimes switching completely into English, the pronunciation of these extended codeswitches is not the focus of this thesis, as they used English to the best of their abilities. In these cases they did exhibit substratum interference from their native language into their spoken English, as can be seen for example in the brief mention about the

Finnish rolled /r/ at the end of section 2.2, but that is not the focus of this study. I chose not to transcribe the anglicisms into more accurate square brackets due to several reasons, chief of which is the fact that the players speak a north-western dialect of Finnish which affects the way they pronounce even completely Finnish words. Again, as the focus is on the EL elements, rather than the ML elements, this means that the data should be easier to process and analyse.

## 4. Analysis

Now that the different theoretical frameworks have been presented, a few assumptions of the data and a brief section on the terminology used regarding the data in the following sections are in order before it can be presented. As the various dissenting opinions over the historical theories, particularly those of Poplack (1987, 1988) showed, there is a still discussion going on over the nature of borrowing and codeswitching as either separate or similar phenomena. While the study of both of these concepts is still ongoing and deserves all the attention it can get, the aim of this study in particular is to show that while the analysis of these two concepts can and should differ greatly, they should still be able to be considered a continuous spectrum rather than separate processes governed by separate mechanics. This does not mean that the earlier theories are completely wrong, and they will be referred to where applicable. As this study hopes to provide a model that can combine the concepts of borrowing and codeswitching, the earlier discussed concepts of source language and recipient language, while completely valid in the context of borrowing, will be left aside. My initial assumption is that Myers-Scotton's (1993) MLF hypothesis should hold true and therefore in the following sections Finnish will be designated the Matrix Language or ML and English as the Embedded Language or EL. The MLF hypothesis should hold in the case of phonologically, structurally and morphologically assimilated borrowings as well due to the absence of EL system morphemes and as such these terms will be used with clear cut borrowings as well. The cover term *anglicism* will be used to refer to the EL elements found in the data.

### 4.1 Anglicisms in numbers

In the end, the material analysed contained over 300 separate English morphemes embedded into the matrix language in 261 intra-sentential instances of borrowing or switching code. They can be divided into three different

categories based on their length, as can be seen in Table 7 below. The categorization was done based on the level of assimilation within the utterances: if an EL island contained EL content morphemes that all had ML system morphemes and exhibited a great degree of the grammatical rules of Finnish, they were considered to be loans that could stand alone and were therefore categorized as multiple instances of single words. A good example of this is the short utterance /*spaʊnaan medikkinæ*/ (I am going to [re]spawn as a medic), which simultaneously acts as a great example of the Finnish inflection system and its ability to fit the meaning of multiple English words into just two. In this case both the verb and the noun have been morphologically assimilated into the ML and were found separately in the data. Due to this, they were categorized as single words that just happened to follow each other due to the needs of the speaker, rather than an EL island. This can be contrasted with the utterance /tænk distroiereille/ (for tank destroyers), in which the word *destroyers* shows light degrees of both morphological and phonological assimilation, but the initial content morpheme *tank* shows neither. In this case as well the player was asked to read a passage of an English text containing the word *tank*, and he pronounced it in a way that was consistent with the earlier utterance. Finally, the word *tank* did appear in the recordings several times in its established loan word form /tankki/, which has been a part of the Finnish language for over a hundred years (Pulkkinen 1984, p. 167) and was therefore not included in the body of anglicisms analysed. As such, this utterance was classified as an EL island with a length of two words. Compound loanblends such as /orikalkkumipɑitɑ/ that clearly flowed as a single word in the speech of the players were counted as a single word, while those that did not were considered EL islands.

*Table 7. length of intra-sentential anglicisms*

| single words | two words | three or more words |
|---|---|---|
| 183 (70%) | 65 (25%) | 11 (5%) |

Since the aim of this study is to provide some evidence of codeswitching and borrowing taking place on a spectrum rather than being two distinctly separated categories, these anglicisms must be looked at from the perspectives of both. All these anglicisms took place as an EL element in a sentence where the ML was decidedly Finnish, and if the theories of Sankoff & Poplack hold true, this would mean that at least the single word utterances must be borrowings instead of codeswitching. This is made even more difficult once we consider that according to their own conventions, borrowings must exhibit phonological, structural and morphological assimilation into the recipient language in cases of borrowing. The concept of nonce borrowing, which was discussed earlier in the theoretical framework both in the context of borrowing (see table 4) and codeswitching, was their way of explaining these anomalies away by separating these EL elements that are practically switches from the codeswitches themselves and combining them with borrowings. Before attempting to categorize the anglicisms on a spectrum ranging from inter-sentential codeswitching to established borrowings, a further look at these intra-sentential EL elements is required.

Of the 183 single-word anglicisms, nouns make up most of the data. This is to be expected, as they are both the simplest form of language for Finnish to morphologically assimilate due to its properties as language and because the most common reason for borrowings is the need to designate lexical meanings for new items that the players may come across. While nouns are the most prominent class, the single word anglicisms also contain adjectives and verbs in a lesser degree. This distribution follows the "hierarchy of borrowability" as presented by Winford (2003) as the easiest borrowings are those that do not form too tightly bound bonds:

"nouns > adjectives > verbs > prepositions > co-ordinating conjuctions > quantifiers > determiners > free pronouns > clitic pronouns > subordinating conjuctions" (p. 51).

The single word anglicisms contained no prepositions nor did they contain any of the other morphemes found in the hierarchy of borrowability. This was to be expected, as the main purpose of a system morpheme is to quantify the

surrounding morphemes and the blocking hypothesis of the MLF model prevents EL system morphemes from appearing with ML content morphemes (see table 4). When the player does use an English system morpheme, this should be always followed or preceded by an English content morpheme. The single word anglicisms were numerically divided between nouns, adjectives and verbs in the following fashion:

*Table 8. Categories of single word anglicisms*

| nouns | adjectives | verbs |
|---|---|---|
| 146 (79%) | 12 (6%) | 27 (15%) |

When looking at the single word anglicisms, the hierarchy does not seem to completely hold, as verbs have been borrowed more than adjectives. This is most likely due to differences in the Finnish language rather than an anomaly of the study itself, as Winford (2003) himself states that "the borrowing hierarchy … may be fully representative of all situations (p.51)". If this is the case, what causes the number of verbs to be over double that of the adjectives? As was highlighted in section 2.4, Finnish is an agglutinative language and therefore already possesses the means to turn practically any noun into a verb simply by using it as a stem and adding an infinitive marker to it, as can be seen in the native Finnish word pair *tuli* (fire) and *tulittaa* (to fire). A similar process has taken place in some of the anglicisms of the data, as can be seen in the word /lɑgittɑɑ/ (to lag), in which a noun anglicism *lagi* (lag) has been fitted with the infinitive marker +ttaa. Finnish can also morphologically assimilate EL verbs in the same way, as can be seen in the anglicism /sprintɑtɑ/ (to sprint+ata). If the utterance /lɑgittɑɑ/ would have been assimilated from the EL verb 'to lag', it stands to reason that it might have been assimilated into /lɑgɑtɑ/ in a similar fashion. The players were asked during the interview to judge whether they would accept the utterance /lɑgɑtɑ/ as an alternative to /lɑgittɑɑ/ and they did. While they could not really explain why they felt that the "twice assimilated" form felt more appropriate to use, they stated that they would probably keep using that form in the future as well.

The hierarchy of borrowability becomes more applicable once the EL islands are broken down into their constituents, with adjectives overtaking the verbs once again (table 8). It should be noted that a large reason for this is the amount of EL elements that have been prompted by a written text present in the game. While there are adjective+noun EL islands that were not based on an in-game description, such as /onesot killejæ/ (one-shot kills), most of these combinations were a result of the players simply reading the name of an item, enemy or a character straight from the screen, as can be seen with /mekɑnikɑl ʊørmi/ (mechanical worm, an item used to summon an end-game boss in Terraria). As a result, out of 76 EL islands, only 6 could definitively be said to have been created without a written or spoken input by the game itself. This means that the data also complies with the EL implicational hierarchy hypothesis of the MLF model, which states that "optional EL islands…are only those constituents which are either formulaic or idiomatic or peripheral to the main grammatical arguments of the sentence (Winford 2003, p. 140)". The 70 EL islands that have been prompted by game text could certainly be categorized as formulaic or idiomatic. The EL islands that were at least partly organic creations by the players showed a degree of both repetition and familiarity as the players did not merely rely on the written text found in the game. The interesting part of these EL islands is that once they are broken down and added to the pool of anglicisms, additional systematic morphemes enter the mix.

*Table 9. Categories of all anglicisms*

| nouns | adjectives | verbs |
|---|---|---|
| 260 (78%) | 38 (11%) | 27 (8%) |
| prepositions (of, on) | conjunctions (and) | determiners (the, no) |
| 5 (1,5%) | 1 (<1%) | 2 (<1%) |

Eight EL system morphemes were found in the complete data. As the ML of all the sentences in which they appeared is Finnish, the EL island trigger hypothesis

of the MLF model states that constituent containing it must be completed as an obligatory EL island. This holds true across the data. The preposition *of* was the most frequent system morpheme, but it took place only within an EL island between two EL content morphemes (the elder of Helos, shrine of healing, call of duty[1] ). As with other EL islands, the ones featuring system morphemes were also heavily influenced by the game text as can be seen in the utterances /sɑve æn eksit/ (save and exit) and /frɑme skip on/ (frame skip on), which are read aloud from the visual options section of Battlefield 3. Curiously the two determiners found in the data were not a result of a visual or an auditory prompt by the player but rather used according to the players' own initiative.

If one were to look at the data gathered as a whole, the anglicisms would seem to follow both the phonological and morphological rules of Finnish to a great degree. This is to be expected due to the ML of these interactions being Finnish. However, in the following section I intend to present some of these rules based on observations within the data and the degree of which they are followed. If borrowing and codeswitching truly are merely different points in a common scale, the level of assimilation present in these anglicisms should allow them to be placed more accurately on that scale. If a common method of assimilation for borrowings can be established, a word that has not been assimilated as completely should be able to be considered closer to a codeswitch than a word that has been assimilated totally.

### 4.2 Morphological assimilation

In this section I will briefly go through the main categories for the anglicisms (nouns, adjectives, verbs) and discuss the level of morphological assimilation they exhibit. As the system morphemes of the data unsurprisingly display no morphological assimilation, they are left out of the discussion. While most of them should conform to the established rules, some exceptions are to be

[1] The pronunciation of these utterances does not matter at this point and as such these words are presented in their written form for ease of reading.

expected. These exceptions will be given some further thought as they happen. This section will proceed in a reverse order by starting with the least occurring major anglicism group i.e. verbs and finishing with the most occurring i.e. nouns. The EL system morphemes will be looked at immediately afterwards.

### *4.2.1 Verbs*

As was discussed in the earlier section, Finnish already has an established method for creating new verbs that was used in the creation of these anglicisms. To recap, it can either morphologically assimilate an EL verb morpheme, or build a new verb construction out of an EL noun. Both are done by adding an ML system morpheme, or an infinitive marker, to the end of the EL content morpheme. This is usually done by adding the affix *+ta* to a word, as can be seen in the assimilated verbs /sprintɑtɑ/ (to sprint) and /snɑipɑtɑ/ (to snipe). These assimilated forms can be further conjugated according to the Finnish syntactic rules, as can be seen in /hiilɑtɑɑ/, which is the passive indicative present tense form of the anglicism *hiilata* (to heal). It should be noted that to be grammatically correct Finnish this utterance should be pronounced /hiilɑtɑɑn/ but the word final -n- is left out due to the speakers' regional dialect. Additionally, even though this conjugation is a passive form and therefore requires no subject, it was used in the following manner in a sentence:

*"hei nyt hiilataa noita"* (hey let's heal those now)

If the Finnish syntactic rules were to be followed completely, the verb should be conjugated as the plural first person present tense imperative *hiilatkaamme*. While the focus of this study is on the continuum of borrowing and codeswitching, this is a good example of a language evolving and some of the established conventions being abandoned particularly in the casual speech of young adults. These conjugation rules allow for even more extreme departures from the basic form of the anglicism, as can be seen in the form /rɑpettɑmmɑɑn/ from the sentence *"päästään rapettamaan vihuja nyt oikein*

*kunnolla" (*we can rape those enemies properly now*)*. First of all, despite the extreme violence of the statement, player 2 is merely referring to the informal concept of "base rape" found in Battlefield 3, in which one team is trapped in their starting area without any means to break free easily, allowing in easy kills for the other team. Secondly, this word is a good example of the level of assimilation exhibited by some of the verbs as over half of the EL utterance consists of ML system morphemes, making the utterance seem like an established borrowing. This same utterance is given more thought in section 4.2 from a phonological standpoint.

Of the 27 verbs present in the data, only two showed a distinct lack of Finnish morphological assimilation: /reenɑme/ and /join/. Both verbs came from Battlefield 3 and were spoken by player 1 as commands to his little brother:

*"rename se solttus ja mennään"* (rename your soldier and let's go)

*"join jo, ei tässä oo koko päivää"* (join already, we don't have all day)

In both utterances zero morphological assimilation takes place. Even though the anglicisms lack EL system morphemes as well, as the translations show the English content morphemes have no attached system morphemes to begin with. It could be argued that when comparing two languages with such wildly differing level of agglutination, the absence of morphological features from the ML that should take place is a sign of codeswitching. When interviewed, player 2 felt that he would have added the case form +a to both utterances, resulting in /reenɑmeɑ/ and /joinɑɑ/. Player 1 concurred and explained that a possible reason for the forms he chose was the way he had seen the words just before using them in a sentence. In the former case, he had been the one who had googled how to change the user id and sent the link to the rename form to player 2. In the latter, he had just pressed the big yellow 'JOIN SERVER' button and was worried the server would become full before player 2 could join. Nevertheless, the lack of morphological assimilation suggests that these two anglicisms are further away from the concept of established borrowings than those that exhibit such assimilation.

### *4.2.2 Adjectives*

Regarding adjectives, the most common way Finnish morphologically assimilates them is by adding a word final vowel, which was *-i* in the case of all the single word adjectives that showed assimilation[2]. Of the adjectives present in the data, those that took place within an EL island consistently lacked any morphological assimilation in cases where they were immediately followed by an EL noun. The one exception was the utterance /skeleton praimi/ (skeleton prime), in which the adjective 'prime' is a part of an enemy's title and the final word of the EL island. In this case the adjective was immediately followed by ML content morphemes and therefore subjected to the same treatment as the other assimilated adjective anglicisms that were placed before ML content morphemes. Some adjectives, such as /postpæts/ (post-patch), were not assimilated in these situations. This anglicism took place in the beginning of a recording after a major patch has been released to Battlefield 3 by player 1 as he stated that

"tää on ensimmäinen postpatch nauhotus" (this is the first post-patch recording)

The word shows no morphological assimilation whatsoever. When asked about this anglicism, player 1 compared it to the Finnish adjective *paras* (best) and contrasted these two words together by stating that *paras nauhotus* and *postpatch nauhotus* were similar in his view. After thinking about it for a while, he ventured that if he were to use that adjective again, /postpætsi/ might feel more suitable, though he was not sure. Comparatively player 2 used two single word adjectives that showed no morphological assimilation, but had a vowel ending by themselves: /rare/ (rare) and /male/ (male).

"Eiks toi oo aika rare?" (Isn't that pretty rare?)

In this example, the position of the anglicism in the sentence means that it needs no system morphemes to be understandable. If one were to replace the

[2] The utterance /updeitatut/ (lit. those that have been updated) was grouped with adjectives as it was used as such. It is a passive construction made from an assimilated verb and was therefore not considered as an adjective here.

adjective with a completely Finnish one, it would receive no inflections as well. The other example is more interesting:

"Mie teen kyllä male ukon" (I'll make a male character)

In this instance, the anglicism also receives no ML system morphemes, but based on its position in the sentence it should be inflected. When interviewed, player 2 initially saw no grammatical problems with this sentence, but when the anglicism was replaced with the Finnish adjective *miespuolinen* (male), he immediately said that it was wrong. After a moment he asked if the word should have been /mɑlen/ instead and immediately followed that it did not feel right. A probable reason for his confusion is the fact that the character creation screen he was on had given him the word male, and he treated it like a noun instead of an adjective. Following this train of thought, he probably would have accepted the word *mies* (man) as well, hyphenating it into a compound word *mies-ukon*, as in the context of the video game lexicon his *ukko* (lit. dude) appears to be a gender-neutral term.

One final example of morphological assimilation regarding the adjective anglicisms bears mentioning. As player 1 is browsing through the graphical settings menus of a game, he uses the utterance /kuɑliti hɑi/ (quality high) to describe his settings to player 2. In this EL island the adjective shows no morphological assimilation, but immediately in the next sentence he ponders about switching the settings to ultra-high. As a result, he changes the anglicism completely and uses it as /ultrɑhɑikki/ (ultra-high) instead. A probable cause for this vowel assimilation is the written form of the word high, which contains a consonant cluster in the end. As no Finnish word ends with graphemes <gh>, a word final *-i* has been added to make the sentence flow. The question then becomes why the earlier EL island was not assimilated in a similar way? When asked, the player's reasoning was that if he had said 'ultra-high' in the same manner as he previously had used with 'quality high', it would have become *ultrahai* (lit. ultra-shark) and sounded stupid. These two adjective anglicisms offer a good glimpse into the theory of a continuum between borrowings and codeswitching. While it is debatable whether /kuɑliti hɑi/ is a true intra-

sentential codeswitch, it is clearly less assimilated into the ML compared to the utterance /ultrɑhɑikki/ and therefore closer to a codeswitch. While the reason behind the difference in their morphological assimilation is, in a word, petty, they have been used in a similar sentence by the same speaker in a short timeframe and still have taken different forms. When considering the codeswitching-borrowing continuum, the greater degree of assimilation and the increased usage of the adjective high should give enough evidence to allow these two anglicisms to be placed on the spectrum at different positions.

### *4.2.3 Nouns*

Nouns also exhibited the same open vowel ending that was discussed earlier with the adjectives. Similar parallels could be drawn to the adjectives, as in most of the cases the vowel ending chosen was *-i*. While an answer to the question why was not found from the research literature, a possible explanation could be the Finnish rules of vowel harmony that state that the back vowels /æ ø y/ cannot take place in the same word as the front vowels /ɑ o u/. /i/ is part of neither and can therefore be freely used in words containing either of these vowel groups. Examples of word final /i/ occurring include /snɑipperi/ (sniper), /geɑri/ (geari) and /rænkki/ (rank). Anglicisms that already ended with a vowel retained their original vowels and were integrated without any additional suffixes, as can be seen in the anglicism /hɑrdkore/ (hardcore, a difficulty setting where a single shot is usually lethal), which maintained a similar stem form as it was adapted into the inessive form /hɑrdkoressɑ/ (in hardcore). In the case of anglicisms appearing in their base, uninflected forms, some alteration was also visible: the aforementioned anglicism /snɑipperi/ (sniper) was used several times in the data and always carried the word final vowel morpheme even in its base form, whereas the anglicism /sɑidkʊest/ (sidequest) only received the word final vowel morpheme when inflected, as can be seen in the utterance "*monta sidequestiä sullɑ on?*" (how many sidequests do you have). Intra-sentential singular nouns always carried the correct system morphemes signifying the

Finnish inflection forms, with none exhibiting ungrammatical behaviour. As Finnish is an agglutinative language with a very heavy emphasis on system morphemes to force any word, foreign or native, to perform its given role in a sentence, and English achieves the same by combining prepositions with the words, I propose the following: in the case of Finnish and English a lack of ML system morphemes does not merely signify a half way point between the two languages, but rather an assimilation of sorts by the EL. This argument will be looked at further in section 5, but before that a look should be given to the actual EL system morphemes that did take place.

### *4.2.4 EL system morphemes*

Eight EL system morphemes took place in the data. Of these, four were the English possession preposition 'of', which appeared consistently in established EL islands according to the grammatical rules of English. These were already presented in the introduction to this section, but as a reminder they are *call of duty, shrine of healing* and *the elder of Helos.* These appearances are consistent with the EL island trigger hypothesis of the MLF model, as they are flanked by EL content morphemes in each appearance. *Shrine of healing* was counted twice in these calculations, as it appeared in two separate recordings with a completely different pronunciation. The other preposition found in the data was the preposition 'on', which took place in a sentence final position as player 2 was adjusting his settings: "*sitte vielä frame skip on"* (then also frame skip on). This was almost immediately followed by the lone EL conjunction 'and', which took place as player 2 exited the system settings menu: *"ja ei ku save and exit"* (and nothing but save and exit). While all the above examples show EL system morphemes, none of them were organically created. Rather, their appearance was caused by the video game showing a written prompt that either resulted in the player reading it aloud or referencing it later in the conversation. This causes the last two EL system morphemes to have an added significance. They are the two quantifiers 'no' and 'the', which took place without being prompted.

*"Katotaan vielä miltä näyttää nou filtteri"* (let's see what no filter looks like) took place as player 1 was browsing available servers in Battlefield 3. The server browser window allows the player to set any number of filters to find the exact map and game mode they desire to play. Unchecking all the possible filters shows all available servers, but there is no single button labelled 'no filters' to do this. As such, player 1 is switching into EL code to relay this information to player 2. Again, the MLF model and its hypotheses hold as the utterance is completed as an obligatory EL island and only the following EL content morpheme 'filter' shows ML system morphemes by having the word final *-i* that was previously discussed. According to the definitions of Poplack (1988), this morphological assimilation would signify that the EL island is not a codeswitch, but rather a borrowing or a nonce borrowing. While I agree that this is not a complete codeswitch, I would also argue that this is far closer to it than a multitude of the other examples discussed so far. The other quantifier 'the' shows similar features. It took place as player 2 was playing Titan Quest and entered a new area: "*pitää varmaan jutella the elder of Helokselle"* (we probably should talk to the elder of Helos). Again, the EL island shows ML assimilation only in the end of the island. However, the interesting part of this utterance is the fact that the quantifier 'the' has not been prompted by the game. The game character the player is talking about is identified by the game as *Diomedes – Elder of Helos*. As the village of Helos only seems to contain one elder, the quantifier follows the grammatical rules of English. When asked why he chose to add the quantifier 'the' to the sentence, player 2 had to be shown a screen capture of the game in order to believe that the quantifier was not written in the game. He said that adding the quantifier made the sentence feel more natural compared to leaving it out. As such, it could be possible that the upcoming EL island made the player switch into English and alter the prompted utterance based on his own knowledge of English. While the general phonological assimilations found in the data are discussed in the next section, it should be noted that this EL island shows complete phonological assimilation in its pronunciation /te elder of helokselle/. Combined with a marked degree of morphological assimilation due to the Finnish allative case ending *-lle,* which results in grade alteration to the

content morpheme ‘Helos’ that acts as a stem, should mean that this utterance is not codeswitch but a borrowing according to the earlier theories of the research literature. The interview proves, however, that the speaker is essentially switching codes to some degree while also assimilating the EL island to the ML.

## 4.2 Phonological assimilation

The aim of this section is to go over the ways the anglicisms are phonologically assimilated to the Finnish language by starting with the consistent assimilations before going over the anomalies and unassimilated elements. The pronunciation of the anglicisms was not generally based on the purpose of the word in question, as the Finnish language treats all graphemes in the same way while they are pronounced (Suomi, Toivanen & Ylitalo 2008, p. 20). Therefore, the features present were constant despite the word class present, and as such this section will first look at the assimilation of the consonant phonemes before moving onto the vowels. As these anglicisms are placed on the codeswitching-borrowing continuum, the same principle regarding the level of assimilation should hold: the greater the degree of assimilation, the closer the anglicism is to a borrowing.

### *4.2.1 Consonant phonemes*

As the Finnish consonant phonemes follow a paradigm based on the level of their appearance in the speech of different speakers (table 5), the players were asked to pronounce long established loanwords that contained the less used phonemes that take place in modern Finnish. As expected, they were able to use all 17 phonemes available, which are as follows: /p t k s h l r m n j ʊ ŋ d f b g ʃ/, with the first 11 being the most common and growing rarer towards /ʃ/. Therefore, if an anglicism that in native speech would be pronounced with a

phoneme that is available to the Finnish spoken by the players was pronounced with a more common phoneme, phonological assimilation must have taken place. A good example of this is the anglicism /poʊi/ (bow) used by player 2, which could have been pronounced as /boʊi/ without dipping into foreign phonemes. However, the player chose to replace a group 5 voiced plosive /b/ that only appears in loanwords with the group 1 voiceless plosive /p/, which appears in all types of words (Suomi, Toivanen & Ylitalo 2008, p. 35). While this feature took place in several anglicisms used by player 2, it was not constant as he also used the anglicism /biistiæ/ (beast + Finnish partitive -a), in which the phoneme /b/ was not assimilated into a /p/. When asked during the interview to explain the basis for these choices, he remarked that he found it funny to pronounce the words in a way that was closer to Finnish. This shows that while the reason for the assimilation is whimsical, the player knows the correct pronunciation and is using the anglicism to convey an additional meaning of humour to the discussion. Similar consonant assimilation also took place with the other group 5 consonants: in the anglicism /riikrout/ (regrowth) the plosive /g/ was assimilated into /k/ and in /riikenereissøn/ (regeneration) the fricative /ʃ/ was assimilated into /s/. Both anglicisms are also a good example of what phonemes Finnish loanwords can accept, as the /θ/ found in 'growth' and the /ʒ/ found in 'generation' were absent from all anglicisms in the data. In contrast, /g/ was found in anglicisms such as /ɑssigmenttiæ/ (assignment+ Finnish partitive -ä) and /ʃ/ took place in /puniʃɑɑ/ (to punish).

If an anglicism ending a consonant cluster and therefore gaining an /-i/ suffix is also pronounced with a voiceless plosive sound (/k p t/), the consonant is geminated before the final *-i*, as can be seen in the anglicism /medikki/ (medic). This is one of the most consistent assimilation features that can be found in the data and extends even to the fricative /f/ and sibilant /s/, as can be seen in /noulɑiffi/ (no-life) and /pleissi/ (place). As this is gemination is originally a feature of Finnish consonant phonemes, it does not take place consistently with the more foreign phonemes of the consonant paradigm presented earlier. A good example of both this and the increased assimilation brought about by the

frequency of use is the anglicism /enfieldi/ used by player 2 to refer to his current weapon, a Lee-Enfield rifle. He uses the weapon for a little over an hour during a game of Day Z, referring to it multiple times without geminating the plosive /d/ at any point. By the end of the recording, the /d/ is abruptly assimilated into a /t/ and the phoneme is immediately geminated, resulting in the more assimilated form /enfieltti/. When shown a picture of the weapon during the interview that took place several days after the recording, the player referred to the weapon again as /enfieldi/. As the frequency of use causes the increased degree of assimilation, the word moves closer to becoming an established borrowing rather than a nonce borrowing. Player 1, however, used a geminated /d/ in the utterance /melee spiiddiæ/ (melee speed+ vowel -i+ Finnish partitive -ä), showing that there are differences in the manners of assimilation between the two players.

In another example by player 2, the increased frequency resulted in a geminated /g/ instead of an assimilation into /k/. He consistently used the anglicism 'mag' to refer to the magazines which he loads his weapons with. While most of the time the word is pronounced simply as /mægi/ due to the voiced plosives usually receiving no gemination, there are two occasions where he duplicates the /g/ sound and pronounces the word as /mæggi/. This assimilation was not constant as the two instances where the geminated form took place were mixed in with the unaltered anglicisms. No mention of voiced plosive gemination could be found in the research data, which suggests that assimilation of this sort is rare. It could be argued that this assimilation could show signs of the player possibly integrating new features into his Finnish by applying the accepted use of consonant duplication in a new way by using it on a foreign voiced plosive as he would on his native voiceless plosive. Clearly the player does not consider the phoneme /g/ as foreign as it once may have been.

As an example of consonant gemination being a feature that appears in anglicisms that trend towards borrowings on the codeswitching-borrowing continuum, player 1 geminated the phoneme /t/ in the anglicism /dɑttɑɑ/ (data+ Finnish partitive -a). This is not a general feature of spoken Finnish, but rather a

part of the dialect spoken by the players, as according to Savolainen (1998) this sort of gemination takes place in Finnish dialects when a consonant is placed between a stressed short vowel and a long vowel, as can be seen in the used form /dɑttɑɑ/. When asked, the player replied that he considers the word to be a part of Finnish and as a result used it as such. As similar dialect-based gemination did not take place in other, less established anglicisms, the ability to integrate the anglicism into the everyday speech in this fashion distances it from codeswitching and allows this anglicism to be categorized as an established borrowing.

Finally, before moving into vowel phonemes, there were two instances of a non-native phoneme being used in an anglicism. The first occurred during a game of Battlefield 3, as the players were playing on a map called Flood Zone. This map features a flooded town situated next to a highway overpass that has remained above water. The highway is not marked in any way on the map and there are no flags to capture which means that the players are not reading from a prompt when they refer to the highway. This anglicism was consistently phonologically unassimilated, as the players pronounced it as /hɑiwei/. The second was the utterance found in the title of this study, as player 1 saw an enemy light tank attempting to flank the players' position during a game of World of Tanks and exclaimed: *skoutti tulee westistä! (*a scout coming from the west!). The anglicism was pronounced as /westistæ/. Even though Finnish language allows for the central approximant /ʋ/ to become [w] following a diphthong that ends with /u/ (Suomi, Toivanen & Ylitalo 2008, p. 31), this anglicism contains no such diphthong and therefore the pronunciation is foreign to Finnish. The pronunciation remained constant even when ML system morphemes signifying case were added to it and as such according to the arguments of Halmari (1997, p. 177) the lack of phonological assimilation should lead us to categorize it as a codeswitch, whereas Poplack (1988) would categorize this as a nonce borrowing.

### *4.2.2 Vowel phonemes*

The same general rule that has been repeated throughout this section holds for the vowel phonemes of the data: A greater level of assimilation into Finnish means a degree of unfamiliarity with the both the phoneme and the anglicism and places it closer towards borrowings on the continuum. Meanwhile, the ability to confidently use phonemes consistent with the English pronunciation exhibits a degree of multilingualism and pushes the anglicism towards codeswitching. As Finnish graphemes almost always represent a single phoneme and English graphemes may carry any number of different pronunciations, the players' degree of understanding and familiarity regarding these words means a great degree when analysing the extent of their assimilations. A good example of this alteration was the anglicism /rænkki/ (rank), which also took place as an assimilated version /rɑnkki/.

Graphemes representing the American English diphthongs /ou/ and /ai/ were generally unassimilated in frequently occurring words, which was made easier as their pronunciations could be easily approximated by existing Finnish phonemes. Good examples of these are the anglicisms /smoukki/ (smoke) and /snɑipperi/ (sniper), which were used in several recordings and had already achieved a level of familiarity with the players. These pronunciations were assimilated to a greater degree in less used words, which can be seen in the anglicism /stonelle/ (to a/the stone). Whereas 'smoke' maintained the /ou/ diphthong no matter the way it was inflected, its infrequently used rhyme pair 'stone' never received the diphthong and was always pronounced the exact same way it was written. A possible reason for this difference could be the differences in their usage amounts, but there is another explanation which came to light. Most of the uses of the anglicism *smoke* take place in games of either Battlefield 3 or Day Z. Battlefield 3 is extensively voice acted and as the default English-speaking faction of the game is the United States Marine Corps, the players are constantly exposed to the American English pronunciation of the word 'smoke'. The anglicism 'stone' contrastingly only took place in games of Terraria or Titan Quest, which contain less pronounced examples of the word and as such

contribute to the unfamiliarity of the players towards the word. This assumption was reinforced during the interview, as the players were able to recite from memory a voice line from Battlefield 3 and they pronounced it with a marked AmE pronunciation: “Poppin’ smoke!”

Anglicisms which carried a written form that was at odds with the Finnish vowel harmony rules were also unassimilated, as the players could not just easily read the written pronunciation of the word in question. A good example of this is the word ‘player’, which was always pronounced as /pleijer/ in its base form. I hypothesize that the reason why the anglicism does not get the word final vowel *-i* is because of its incompatibility with the pronunciation rules of Finnish, which results in the players considering it a foreign element rather than a loanword and therefore treating it more like a codeswitch than a borrowing. By forcing the players to pronounce the word in a way that does not break the vowel harmony the language allows them to approximate the English pronunciation as a simple spelling pronunciation is no longer possible to accomplish. This in turn allows them to use English pronunciation as some of the diphthongs are virtually identical to their Finnish counterparts, resulting in an unassimilated approximation of the English pronunciation. Words involving a pronunciation containing phonemes foreign to the Finnish language were consistently assimilated and approximated with Finnish phonemes, as the players avoided using phonemes that were alien to them. While their knowledge regarding for example the schwa-sound /ə/ was not tested after the recordings or during the interviews, they probably did not even know of the existence of the phoneme.

### 4.3 Categorization of borrowings: the turn towards assimilation

In order to place the various borrowings on the continuum, a categorization of the meanings they seek to convey and the methods of their assimilation must be done. We have already established borrowings to exhibit a greater degree of assimilation into the matrix language compared to codeswitches, but when a

borrowing exhibits both morphological and phonological assimilation, how do we determine the degree of assimilation between loanwords? Winford (2003) categorized loanwords into “pure” loanwords and loanblends, but can the level of their assimilation signify their place on the borrowing-codeswitching continuum? As total borrowing of morphological elements happens in a majority of the anglicisms present in the data, special attention should be given to the compound loanblends that do take place. A good example of a such an anglicism is /manamieheksi/ (lit. mana man+ Finnish translative system morpheme -ksi), which was used by player 1 in the utterance “meinasitko alkaa manamieheksi?” (were you going to become a mana man?). This anglicism is a compound loanblend because it consists of two separate content morphemes that originate from EL and ML respectively. While the word ‘mana’ is not an English word by origin, it has entered the lexicon of the players through the game and is considered an anglicism as such. The word *manamies* does not mean anything by itself, but player 1 uses it as an inventive way to describe the character of player 2, who is a spellcaster that uses the resource ‘mana’ to cast his spells. The important part of this utterance is the fact that player 2 understands the anglicism without any further explanation based on the context of their discussion about the characters they are using. As such, this loanblend is very much assimilated into the matrix language of the speakers syntactically, morphologically and phonologically and could be categorized as a borrowing. Its only flaw on the classical categorization is the relative rarity of the borrowing: it is coined during a short conversation to convey a specific meaning and discarded immediately after the conversation has ended and as such would be categorized as a nonce borrowing (table 3).

In another example, player 2 was choosing the equipment he would bring with him as he ventured away from the players’ shared home base in Terraria. As he goes through the equipment, he reads the names aloud and comments on their properties as he wonders what to bring. When he comes to an item called ‘magic quiver’, he turns it into a compound loanblend by translating the first part of the item and leaving the second part as it is. This results in the anglicism

/taikɑkuiver/, which then follows the normal Finnish inflection rules. When interviewed, player 2 felt that he could not come up with a proper sounding approximation of the English words magic and quiver combined, and instead sought to translate the expression. He was not sure what a quiver was, so he left it untranslated and instead came up with a compound loanblend. This anglicism stayed with the players and the base item in question was never referred to as anything other than a *taikakuiver* in their speech again. However, when one of the players got a modifier called 'angry' on their magic quiver, which increased the bonus damage granted by the item, the anglicism turned back into /ængri mɑgik kuiʋeri/. There was a noticeable pause between the words 'magic' and 'quiver', and the players quickly turned back towards the original anglicism *taikakuiver*. As such, two separate EL content morphemes force the previously ML element in between them to change in order to complete the EL island.

Finally, there is the contrast between the expressions /orikɑlkkumipɑitɑ/ (lit. orichalcum shirt) and /molten brestpleitti/ (molten breastplate). As discussed in section 2.2, both items' names are spelled out by the game. As the players discuss them, they turn one of them into a completely assimilated compound loanblend while the other becomes an EL island with minimal assimilation. When asked why he used the anglicisms in this fashion, player 1 gave his unfamiliarity with the concept of a molten breastplate as the reason why he switched code. When asked if he could describe what orichalcum was the answer was negative. The concept of it being a material from which the breastplate was made allowed him to process it and turn it into a completely assimilated loanblend. With all these examples combined it should be possible to suggest that the combination of ML and EL content morphemes results in an anglicism which is closer to a borrowing on the continuum.

The frequency of the borrowings also mattered in the context of the data. A few examples have already been presented regarding an anglicism becoming more assimilated as it was more frequently used. As Matras (2009) suggests, increased usage of a borrowed element should result in it becoming more integrated into a language and establishing itself as a proper loanword (p.113), a viewpoint that is

shared by Poplack et al. (1988) as can be seen in table 3. While the notion of frequency is not the only determiner for increased usage, each use of an anglicism in the data seems to influence the next time it appears in the data, resulting in interesting evolutions that follow a chain of sorts. Probably the best example found in the data is the one used for the concept of experience. Practically all the games played by the players use experience as a measuring tool that ensures that the players always have something to proceed towards. When the discussion revolves around experience for extended periods, the anglicism shows alteration. In an example when the players were discussing the experience gained in a match of World of Tanks, the first time the concept was introduced it was pronounced as /eksperienseæ/. This form shows morphological assimilation due to the Finnish partitive case ending /æ/, but otherwise it remains phonologically relatively assimilation free. As the players discussed it more the anglicism turned into /ækspeetæ/ (XP or eXperience Points), which was finally turned into /ekspɑɑ/ (exp). After the discussion around the concept ended, both abbreviated and evolved forms were still used, but the initial anglicism /eksperienseæ/ vanished from their vocabulary and was only used as a temporary codeswitch of sorts when it was presented to them by the game, whereas the more assimilated forms took place even outside the results screen of the game.

### 4.4 Codeswitching: why do the players switch codes?

The aim of this section is to highlight the problem of analysing nonce borrowings as 'non-established borrowings' through examples found in the data. As the players navigate through any number of problems and obstacles presented to them by the video game they are playing, they use a multitude of expressions that replace the core lexicon of their native Finnish. When these EL elements show signs of assimilation into the ML they should be considered borrowings in the traditional sense outlined by the research literature. In this section, with the help of interviews and opinions from the players, I intend to answer the question

of why the players codeswitch and what truly counts as a non-established borrowing.

It takes multilingual competence to be able to switch into another code and use it to convey meaning in a way that a native utterance would not be able to. When interviewed about the choices they had made particularly regarding the unassimilated forms discussed in the previous sections, the players insisted that for the most part they would have been able to express the things they were about to say in Finnish without resorting to English language. After thinking it over the biggest reason in their mind was that they felt that the words they had used were more appropriate in the context they appeared in. As discussed in the previous section, as the words the players used become more familiar to them, they assimilated them more towards the language they were speaking for most of the recordings. What then unites the expressions that were left over and received no such assimilation? As was established in section 2.5, borrowing usually starts with words that have no equivalent in the borrowing language, such as /trɑileri/ and moves into the core vocabulary of a language mainly through prestige. Codeswitching seeks to bridge two different domains and therefore can use replace a core lexical concept of another language to emphasize a point. This can be seen in the codeswitch /eksit/, which took place within the end of a very short sentence that was a hurried, spontaneous instruction to the other players.

*"Tuolla on eksit*" (There's an exit). The player could have used the Finnish expression *uloskäynti* (exit) or used a different word if the length of the word was the issue and he had no time for the longer utterance. Instead, he reached into his multilingual competence and pulled a word that he felt more appropriate in the context of an English-based video game. A similar situation arose later when the players were defending their base against an enemy attack and the player used the anglicism /wepøn/ as an exclamation to the other "ota wepon" (take a weapon). When interviewed on why he did not simply choose the shorter Finnish version *ase*, the player stated that the rifle his player character had been carrying did not feel like an *ase*, but rather a weapon. While

these words are not pronounced with a completely pure English, I assume that the differences between the correct pronunciation and the one present in the data are because of the extent of the players' knowledge of English and not because of Finnish. Because of this I will simply classify them as instances of codeswitching present within the data as they follow the phonological rules of English to a great degree.

A final example of intra-sentential single word codeswitching was found in World of Tanks, as the one of the players was using a German Jagdtiger tank destroyer. When referring to the tank destroyer, they call it /distroieri/ in short hurried sentences, or /tænk distroieri/ in situations where they have more time to consider their vocabulary. Both expressions are very close to the appropriate pronunciation of the word. As bilingual competence has been established to be the necessity for codeswitching, this example and the interview answers the players gave proves that they are switching code in this moment. When asked, neither of the players could give the Finnish name *panssarintorjuntavaunu* for a tank destroyer. Continued exposure to terms of armoured warfare in an English context has resulted in the players attaining a degree of bilingual competence that their native language is unable to cover, therefore necessitating a switch into this another code in order to convey this meaning to one another. Therefore, it could be argued that at least some of these codeswitches are not made due to convenience but because of the way the English utterance has temporarily become more natural than the Finnish one.

Similar cases of codeswitching due to necessity can be seen in the case of word pairs where both words were borrowed from English. The most noticeable English influence can be found in the longer word forms that consist of more than one borrowed word, as their close proximity to each other results in the first word following the rules of English to a greater degree than the second word that consistently includes the Finnish open vowel ending and the morphological structures of Finnish, as can be seen in /mein routtori/ (main rotor), for example. For the players the concept of a main rotor was a clear: a critical part that must be placed on a helicopter in order to make it fly in Day Z. In

the context of the game the switch was necessary as they had no Finnish expression to use regarding this part. After they had established what they were looking for, they were able to skirt around this problem by referring to the part as “se osa” (that part), but before that the switch into English allowed them to start the search. When asked if they knew the Finnish name for the part, they took a moment before guessing *päärоottori* in a very uncertain manner. While the guess turned out to be right, even I had to look it up to make sure that the technical term was correct. I feel that the true Finnish form of the word perfectly captures the concept of the continuum that I am trying to present, as the players are switching code to give meaning to a concept that they must grasp somehow in order to proceed. As the concept is alien to them, they switch codes into another language in which they have at least a slight understanding of the item in question, thus creating a codeswitch. If they were to use the anglicism to a greater degree, the word would probably exhibit a greater level of assimilation by dropping the unnecessary EL morpheme ‘main’ and replacing it with an ML equivalent while assimilating the phonemes of the part that has no easily replaceable ML equivalent, i.e. ‘rotor’. This should result in a completely assimilated established loanword *päärоottori* which is used by helicopter mechanics in Finland without any traces of codeswitching.

It should be noted that a nonce borrowing can truly be a temporary borrowing that does not take root and merely exists in the moment without any further usage as can be seen in the anglicism /protektioniɑ/ (protection), which was immediately rejected and replaced by the Finnish equivalent word *suojausta*. According to the players the word was mainly used because the game offered it to them in written text, but clearly when the initial prompt faded from their memory they reverted into the established and completely serviceable Finnish expression. As such I would agree that nonce borrowings do exist and their categorization depends both on their level of use and the ease of their replaceability.

## 5. Discussion: establishing the codeswitching-borrowing continuum

In this section I intend to briefly tie together the previously mentioned concepts before contrasting them with the theories presented in section 2 considering the elements found in the data.

Borrowing traditionally takes place because languages have need of new words, but in the case of the material that I have collected for this study the words with no apparent widespread Finnish equivalent are in the minority (e.g. ghillie, softata and various proper nouns). Instead, the majority of the words present within the data are words with a completely applicable Finnish equivalent that simply is not used, most likely because these English words carry a higher prestige for the players and they are able to use them in order to build slang expressions that promote a sense of being together by the virtue of understanding and using these words. Examples of these would be words such as /nu:ppi/ (newbie) and /mægi/ (mag[azine]). Most of these borrowings are a result of written prompts that are present in some of the games When the game clearly states that the character class you have chosen is the medic, it is understandable that as a result of the simple fact that the information is so easily provided and translation would require additional work, the word is borrowed merely because of convenience and the player states to any friends he is playing with that he is going to spawn as a medic by using loan words: *spavnaan medikkinä* vs. synnyn lääkintämiehenä. While the loan apparently takes place convenience, it is also helped by the previously mentioned prestige aspect of borrowing. When asked about this distinction, the players felt that within the game context and the English present the form "*spavnaan medikkinä*" felt more natural to them and the completely usable pure Finnish felt too official for their tastes. Peer pressure plays an important part in this aspect of borrowing as the players feel that they must maintain the established style of language within the circle of friends they play with.

It could also be argued that some of this borrowing takes place because of time constraints; the Finnish equivalents for the English words that the players

borrow are generally longer than the loan words, and therefore take up time that could be spent communicating additional information. The difference can be seen in words like /mortari/ as the Finnish equivalent (kranaatinheitin) has almost twice as many syllables as the English loan word. In this way borrowing serves as a utility and the loan words that the players use is improving their communication with each other. The players have used the loan words to build a community slang which also affirms their status as a part of the group and helps them communicate more effectively amongst each other.

These notions together with the data presented in the earlier sections suggest that the borrowing scale of Thomason & Kaufman (1988) is an apt starting point for the discussion regarding the intensity of the borrowing situations. Finnish is undoubtedly changing as a language as new items that need designating appear at an increased pace and the sharing of knowledge is expedited through various advances that allow instantaneous transfer of information through the internet, but I feel that the language is not threatened by these progresses and we are not headed towards a situation that would result in language attrition or death. The fact is that while the players use a multitude of borrowed elements in their speech during games, they are merely adapting to the situation that they are faced with and communicating in the context of a heavily English-based video game environment. They do use anglicisms outside the context of video games at an alarming pace according to their parents, but the frequency of English elements is very muted compared to their speech during gaming.

If we are to adapt the lexical contact phenomena of Winford (2003) to fit into a model of borrowing-codeswitching continuum, it can be safely said that anglicisms that feel more natural to the speakers, i.e. exhibit marked ML assimilation either in the form of phonological or morphological assimilation or a change in meaning are closer to becoming established borrowings that are used in wider contexts than just those of the players. If the data of this study were to be placed in front of a reader without any context, it would most certainly contain words that do not immediately show their meaning. Through extensive use they may become more accepted and shed the notion of being a ‘nonce

borrowing', as they were called by Poplack (1988). Even though the data of this study also contained borrowings that were a result of necessity or convenience during a moment and then immediately lost as the conversation moved on, I think that the data of this study has proved that these nonce borrowings should be instead considered as codeswitches. Halmari (1997) makes some good arguments towards the phonological presentation of an EL element being the definitive factor in the analysis between codeswitching and borrowing, but her corpus is a truly bilingual population of American English speakers who are forced to use English in their day to day lives when out of home. In the context of two native Finnish speakers whose English pronunciation occasionally approximates the performance of Finnish rally drivers, phonological assimilation cannot be considered the definitive trait of a borrowing opposed to a codeswitch. As could be seen in section 4.2 and the examples of phonological assimilation, very few of the examples present in this data truly approximate the correct pronunciations of English loanwords. It should be noted that the observations of Suomi, Toivainen & Ylitalo (2008) appear to hold in the case of practically all the Finnish phonemes. While I was unable to find definitive evidence of consonant gemination taking place with the foreign voiced plosives, the usage of the rarer phonemes in the speech of the players was consistent with their observations, resulting in lesser usage from the rarer phonemes, with only a single appearance by the rarest consonant phoneme /ʃ/.

As for the most critical part of this study, the borrowing-codeswitching continuum, the MLF model by Myers-Scotton (1993) holds in the case of both borrowings and codeswitches. Any EL system morphemes are completed as obligatory EL islands and optional EL islands take mainly take place with idiomatic expressions or readily presented longer concepts that the players are reading aloud. Therefore, I feel that the data of this study pushes heavily towards the assumption that EL elements are integrated into the ML based on a set of rules. Finally, in order to build the borrowing-codeswitching continuum, the theory by Matras (2009) offers an excellent building block. While his work includes bilingualism as a sliding scale, I feel that any differences found in the

approximation of the phonemes should be included in the theory of the continuum. As such, presented below is the borrowing-codeswitching continuum with examples from the data. I have used the theories outlined in the earlier chapters combined with the gathered data to outline a basic form for the continuum. During the interviews, the players were asked to consider which elements of their speech felt more Finnish than others and these answers were also used to formulate a continuum. The scale starts from pure, undeniable codeswitching and ends with established loanwords.

(1) Inter-sentential codeswitching consists of clearly established separate sentences in which the speaker clearly switches into another code for the duration of the entire sentence. Many examples of this sort of switching were found in the data and a few examples have been included in the appendix. A good example of this is the answer player 1 gave to player 2 in response to a question asked in Finnish: “Well, nobody knows”. The utterance is pronounced and presented completely in English.

(2) Intra-sentential codeswitching in general was one of the focal points of this study. While the data does contain some clear-cut examples of code-switching, no completely unassimilated EL elements were found in an intra-sentential position. As such, I agree with Halmari (1997) that intra-sentential codeswitches where the ML is Finnish must exhibit the required ML system morphemes regarding the Finnish case endings, even though I disagree with the notion that any degree of phonological assimilation disqualifies an anglicism from the concept of codeswitching. Nevertheless, phonologically unassimilated elements such as /hɑiwei/ (highway) and /wepøn/ (weapon) are closer towards codeswitching than similar anglicisms that exhibit a degree of assimilation such as /rænkki/ (rank), in which the consonant phoneme is geminated and a word final /i/ is added. As established in the previous sections, repeated usage tends to move the anglicism towards the borrowing part of the spectrum as can be seen with /rɑnkki/ (rank), in which the phoneme representing the grapheme <a> has been assimilated completely. This section also includes all the EL islands present in the data, as

the longer switches into EL demand that they be categorized here. Within this group they can slide around based on their level of assimilation, with switches like /te elder of helokselle/ being closer to a true codeswitch than /possessed ɑrmorit/ due to EL system morphemes being present in the island. This comparison was made by the players as they were asked which expression felt more Finnish to them, and I agree with their assessment.

(3) Established codeswitches should be separated from the lesser used codeswitches and considered as a blend of prestige and function borrowing. For example the players used the anglicism /smoukki/ for a very specific purpose in the context of a smoke screen created by a smoke grenade to provide a cover for their movements in combat situations. If the players ran into a fire, they used the general Finnish word *savu* for the smoke created by the fire. As such this codeswitch serves a specific purpose for which no readily apparent Finnish word has not yet formed. Time will tell if the players keep using this anglicism in this specific context, and if they do it has a chance of becoming an established borrowing. If it is replaced by a Finnish alternative later, it remained a codeswitch.

(4) Nonce borrowings, while rare, did appear in the form of temporary codeswitches that took place and were immediately replaced by a native form. The example /protektioniɑ/ that was mentioned in section 4.4 is a good example of this. While the word does exhibit assimilation, it lacked the relevancy to keep itself in the discussion and supplant a core vocabulary word from the ML, and as such was only present in a singular codeswitch.

(5) Assimilated loanwords that were composed of only EL content morphemes can be categorized as the next category. These typical exhibited a greater degree of repetition within the data compared to the codeswitches and consisted of examples such as /hosti/ (host) and /skoutti/ (scout).

(6) Compound loanblends should be categorized as a separate category due to their greater extent of assimilation, mainly because of the ML content morpheme present within that turns the anglicism markedly towards Finnish. While the players were unable to explain what orichalcum was, they felt confident enough in their understanding of the matter to use in as a

compound loanblend in anglicisms such as /orikɑlkkumipɑitɑ/ (orichalcum shirt). These anglicisms are very close to being an expression of the native language by themselves, as the various breastplates of Terraria went through a continuum by themselves based on the players' familiarity with the material the breastplate was made of. Molten breastplates were treated like a codeswitch, orichalcum breastplates became a compound loanblend and an iron breastplate was just a *rautapaita* (iron shirt).

(7) Established loanwords are the final category on the continuum and consist of words that should be to a degree understandable even to a monolingual speaker of Finnish. While general established loanwords were excluded from the data, I have included a few of the context specific established loanwords in Appendix 1 to demonstrate the kinds of words we are talking about. Good examples of these anglicisms include the words *hakkeri, bugi* and *boonus.* These words have become a part of the Finnish lexicon because readily available ML content morphemes do not simply exist that could serve their function. As such, I would wager that any monolingual Finnish speaker could explain these concepts, whereas those that take place higher in the borrowing-codeswitching continuum require both a degree of bilingualism and a healthy dose of context-related clues to decipher.

With my interpretation of the borrowing-codeswitching continuum presented, I would like to argue that in the context of Finnish and English, a lack of ML system morphemes does not simply mean that the word is unassimilated, but rather that the word has been assimilated by the EL. As such, when looking at the codeswitches and borrowings present in this data, special care should be taken when looking at their morphological presentations. While the concept of frequency cannot merely be correlated with the raw numbers of occurrence by the anglicisms, there is a correlation between the level of assimilation, the frequency of use and interference from the video game. Anglicisms that are used often exhibit a greater degree of assimilation unless the game repetitively gives the players visual or auditory prompts towards the EL presentation of the word in question. As such, it could be argued that often used anglicisms tend to turn

towards assimilation in cases where this interference does not take place, as can be seen when contrasting the words ‘smoke’ and ‘rank’. The EL pronunciation of ‘rank’ is not as prominent in the games, and therefore as the amount of usage increased the pronunciation /rɑnkki/ appeared alongside /rænkki/. ‘Smoke’, meanwhile, never received a Finnish based pronunciation such as /smoke/ in the recordings.

## 6. Conclusion

The aim of this study was to present the traditional theories of codeswitching and borrowing taking place on separate axis and contrast them with some of the newer theories that attempt to blur those black and white notions into some shades of grey. While research literature regarding the general concepts of bilingualism, codeswitching and borrowing was plentiful, I found it hard during my initial phase of fact finding to find resources that dealt specifically with the integration of Finnish and English and almost none that tackled the questions I had posed in the context of video games, probably due to the relative youth and unfamiliarity of the medium in question.

The borrowed elements that the players have begun to use in the Finnish that they speak in the context of video games simultaneously show the established conventions regarding the use of Anglicisms and open possible new routes for the Finnish language to develop. This can be seen in the way some of the words found in the data treat foreign sounds in a manner that traditionally has been only reserved for native Finnish phonemes. I feel that this in turn means that the foreign features of English are becoming more accepted and that the effect English will have on Finnish in the future will most likely keep increasing. The presence of the codeswitching elements within the data shows that teenagers of today do not hesitate to switch into English even within their daily communication between friends, and that with the help of the right context they may even completely switch over to English instead of merely using borrowed words and expressions.

I feel that more research should be done on this area, even within my data, as there are some elements, which I have dismissed as anomalies that should be studied in a more specific way. The full data found in Appendix 1 still contains a multitude of separate anglicisms not used as examples in this study that could be analysed in this matter and perhaps even more interesting discoveries and support for the theory I have proposed could be found within. Additional research regarding the matter could be perhaps achieved by interviewing the

players in a thorough manner or by recording further interactions between them and their friends. I also believe that by analysing the full 50 hours of data some additional observations could be made, but I consider the amount I have transcribed as enough for this study. My aim was to present an overall depiction of the data and focus on the concepts and anomalies that I found while simultaneously attempting to bridge the concepts of codeswitching and borrowing together into a single working theory. While the reasons behind the usage of these anglicisms warrant further study, I felt it best to focus on their presentation in the data and build the theory up from there.

Overall, I wish that this research and hopefully this study in general have given the reader a better understanding of the linguistic aspects of both Finnish and English and allowed an exploration of the rules of the languages through concrete examples. The data contained a few unusual instances of borrowing that could not be found in any of the research literature I laid my hands on, such as the gemination of the voiced plosive /g/. I hope that these items should provide a good starting point for any future research into more specific matters regarding both the pronunciation of Anglicisms and extent of their integration into Finnish language, and that the ideas presented within raised some interest in the matter at hand.

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**Appendix 1: Complete list of anglicisms present in the data**

**SINGULAR NOUNS (148)**

/serʊeri/
/rekonilla/
/supportilla/
/medikillæ/
/unlokki/
/mortari/
/laʊille/
/rushi/
/toʊi/
/skari/
/launtseri/
/spottinki/
/inʊenttoorista/
/inʊaan/
/kilstriikin/
/feisbuuk/
/ʊideo/
/preemiumeille/
/haiwei/
/defenderi/
/origin/
/snaipperi/
/biikkoni/
/hardkore/
/onlainissa/
/ʊinsesteri/
/bugi/
/hakkeri/
/heliressi/
/raŋefainderit/
/pækkiæ/
/hætsetin/
/nu:ppi/
/direktiin/
/hosti/
/spaʊni/
/bandaken/
/huntteri/
/gearia/
/pleissi/
/tsiitteri/
/pasʊordi/
/dattaa/
/editorissa/
/satselia/
/jetillæ/
/stiimi/
/eksit/
/skoutti/
/grouppi/
/suitin/

/wepøn/

/suuisaidi/

/mægi/

/mæggi/

/smoukit/

/ghillie/

/enfieltti/

/enfieldi/

/battlelokki/

/russi/

/attakkeri/

/rænkki/

/rankki/

/mapissa/

/mappi/

/gædgettiæ/

/assigmenttiæ/

/skuadi/

/mortari/

/leʊeli/

/maknu:milla/

/maʊi/

/hullia/

/eŋkine/

/traileri/

/heedsotteja/

/spaiʊare/

/spyiʊare/

/orikalkkumia/

/orikalkkumipaita/

/orikalkkumikypæræt/

/bækraundia/

/ʊaterʊare/

/skini/

/defensseæ/

/adamantite/

/muuʊmenttia/

/kobaltkypæræ/

/kopaltti/

/taikakuiver/

/potteja/

/arroʊeita/

/ammomies/

/piiʊiŋssit/

/merkantti/

/fiiliksissæ/

/boksissa/

/luumi/

/saamilliæ/

/prøpleemia/

/paussille/

/westistæ/

/dresseri/

/pætsin/

/biistmæni/

/journali/

/klikata/

/siftiæ/

/alttia/

/ekspaa/

/ækspeetæ/

/eksperienseæ/

/stonelle/

/biistiæ/

/poʊi/

/akroa/

/riikenereissøn/

/spiidi/

/klerikin/

/saidkʊest/

/portaalin/

/potioni/

/tsestistæ/

/satyyri/

/staffin/

/manamieheksi/

/maagi/

/klubi/

/harnessi/

/energy/

/poari/

/kaʊe/

/puildi/

/kuardi/

/riikrout/

/øʊeernessiin/

/haakeja/

/hæk/

/heloja/

/brute/

/boonus/

/sosiaalissa/

/kontrols/

/settiŋs/

**NOUN+NOUN (39)**

/orikalkkumi lekkiŋssit/

/orikalkkumi ripiitterit/

/kauntter straikkia/

/dei tseta/

/kanister selli/

/repair tooli/

/kil asisti/

/proksimiti skanni/

/tiim fortressia/

/alise pækki/

/kamo klothiŋi/

/smouk grenade/

/servise staar/

/tænk distroiereille/

/tiim killi/

/kombat skouppi/

/kaar spaʊni/

/bluud pækki/

/militari beissi/

/laitniŋ buutsit/

/hermes buutsit/

/obsidian sieldi/

/frost lekkiŋssit/

/frost helmetti/

/melee spiiddiæ/

/raŋgers emblemi/

/juŋle siidejæ/

/silʊer bulletit/

/airon orea/

/pæts notes/

/sell ʊalue/

/storake area/

/pattle markkeri/

/armor hændliŋkiin/

/heltti potioni/

/mana riikeneration/

/battle aʊaarness/

/energi liitsi/

/skilli triin/

**ADJECTIVE+NOUN (24)**

/onesot killejæ/

/dual ʊieldi/

/mobile artillerille/

/mein routtori/

/huntiŋ naif/

/single pleijer/

/termal optiks/

/aksessory visible/

/laki horsesoestakaan/

/mekanikal ʊørmi/

/kritikal sæænsi/

/kritikal tsænse/

/adamantite helmetti/

/vanderiŋ traʊeller/

/skeleton praimi/

/griin trettiæ/

/possessed armorit/

/kristal stormi/

/molten brestpleitti/

/lether bhrestpleitin/

/kopper aksea/

/protektiʊe karlandi/

/slou spiidi/

/armored brestpleitti/

/troupled ʊillakeri/

/auto sortti/

/kualiti hai/

**DETERMINER + NOUN (1)**

/nou filtteri/

**LONGER UTTERANCES (11)**

/supression kill assisti/

/mein routtor assembly/

/kaal of dutia/

/save æn eksit/

/ængri magik kuiʊeri/

/juŋle kræss siidejæ/

/jellyfis daiviŋ keari/

/frame skip on/

/te elder of helokselle/

/srine of healiŋ/

/srain of hi:linki/

**VERBS (27)**

/spaʊnaan/

/agrosi/

/abortata/

/diskonnektaa/

/sprintata/

/snaipata/

/lagittaa/

/luuttimassa/

/hiilataa/

/rapettammaan/

/puniʃaa/

/nouskopea/

/riifuellaan/

/softatessa/

/konnektasi/

/bugittaa/

/kræssæsi/

/reename/

/stækkææ/

/difiittaa/

/riiforkettaa/

/reeforkettaa/

/ritriiʊata/

/inʊitoin/

/join/

**ADJECTIVES (12)**

/blækki/

/noulaiffi/

/postpæts/

/rare/

/male/

/industriali/

/ultrahaikki/

/anhouleja/

/griin/

/updeitatut/

/kommoni/

/raŋedi/

/rankedia/

/protektionia/

/multipleijer/

**EXAMPLES OF INTER-SENTENTIAL CODE SWITCHING**

(Answer to a question) Well, nobody knows.

(Singing) Nobody knows, my sorrow

(Exclamation) By gods!