

**“YOU MAY DISCARD KOLME KORTTIA”: A CASE STUDY
ON UNIVERSITY STUDENTS’ USE OF CODE-SWITCHING
IN AN INFORMAL SETTING**

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Master’s Thesis

University of Jyväskylä

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English

Spring 2024

UNIVERSITY OF JYVÄSKYLÄ

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Title "You may discard kolme korttia": a case study on university students use of Code-Switching in an informal setting	
Subject: English	Level: Master's Thesis
Month and year April 2024	Number of pages 40
<p>Abstract: Nykymaailmassa monikielisiä ympäristöjä esiintyy yhä enemmän. Monikieliset puhujat hyödyntävät koodinvaihtoa liikkuaikseen sulavasti näiden kielellisten tilojen välillä. Aiemmat tutkimukset koodinvaihdosta ovat tukineet mm. koodinvaihtoa tyylillisenä valintana ja koodinvaihdon hyödyntämistä luokkahuoneessa (ks. esim Thompson 2011, Ali et al., 2023), mutta koodinvaihdon ja yhteisöjen käyttämän kielen välistä yhteyttä ei ole juurikaan tutkittu. Tämä tutkimus täyttää tätä tutkimusaukkoa</p> <p>Tässä työssä tarkastelen koodinvaihdon käsitteen moninaisuutta ja tekijöitä, jotka vaikuttavat sen toteutumiseen käytännössä. Käsittelen myös monikielisyyden käsitettä luodakseni kehyksen koodinvaihdon tarpeelle ja tarjotakseni kontekstin koodinvaihdolle. Teoriaosuuden päätteeksi käsittelen yhteisöjen sisäistä kielenkäyttöä ja tarkastelen tarkemmin pelaajien käyttämää kieltä.</p> <p>Tutkimuksessa analysoitava data on kerätty videoimalla yliopisto-opiskelijoiden (n=4) pelaamaa <i>Unstable Unicorns</i>-lautapeliä. Analysoin dataa sisällönanalyysin keinoin luokittelemalla datassa esiintyvät koodinvaihdot omiin ryhmiinsä ja tekemällä johtopäätökseni niiden pohjalta. Nämä tulokset osoittavat, että pelaajien välinen keskustelu vaikuttaa kaikkien osallistujien kielenkäyttöön sekä aiheuttamalla koodinvaihtoja toisissaan, että imitoimalla toistensa kielenkäyttöä.</p> <p>Tutkimuksen tuloksien mahdollisena hyödyntämiskohteena pidän kielenopettamisen alaa, mutta ennen tuloksien hyödyntämistä lisätutkimusta koodinvaihdon tyypeistä vastaavissa ympäristöissä, sekä erilaisten taustojen omaavien osallistujien käyttämästä koodinvaihdosta vaaditaan.</p>	
Keywords code-switching, bilingualism, affinity spaces	
Depository University of Jyväskylä	
Additional information	

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1. Introduction

There have been a great number of studies on code-switching, but their settings are mostly focused on language learning, so they are set in a classroom environment (see for instance Ali et al., 2023). For the studies that are not focused on language learning, their focus is on code-switching itself (see for instance Thompson, 2011; Montes-Alcalá, 2024). Combining the idea of community languages and code-switching is infrequent, but it has been examined before (see for instance Menggo et al., 2023). Despite previous studies, the field is rather unexplored.

For these reasons this study's setting is outside of a classroom, and it is focused on a particular community's language use. This study is made to set a precedent for future studies that aim to inspect community-based language use and code-switching in an environment where that language can be used as a language to switch to and from to.

In our contemporary world, multilingual environments are increasingly abundant. To help them navigate these environments, multilingual speakers utilise code-switching. To understand what the term code-switching means, its complex and diverse characteristics are discussed to great extent and given context through examination of the causes for code-switching. This examination is done by analysing the language used over a board game called *Unstable Unicorns*.

The data for this study was collected by recording a video of four university students playing *Unstable Unicorns* and the analysis aimed to find out how and why they engaged in code-switching during they gameplay session. The purpose of this study was to gather information about university students' habits related to code-switching and create a general understanding of it for future studies to develop further.

I will begin by exploring the term code-switching, its definitions, reasons for occurring, and how it is triggered in speech. After delving into code-switching, I will discuss the concept of bi- and multilingualism and their related aspects and how multilingual environments affect code-switching. Lastly in my framework I will inspect the language use of communities and explore the language used in the gaming sphere, since board games are a central element of this study. After creating the theoretical framework for the study, I move on to describing the

data and methods used in this study. I will justify why I gathered the data via video recording and why it was analysed by using content analysis. Having described the methods and data collection I move on to analysing the data. Finally, I conclude the study by reflecting on the results of the analysis and give my suggestions for further studies on the subject.

2. Code-switching

In this study, by code-switching (CS hereafter) I will be referring to more than one language appearing in a single utterance by one speaker (Gardner-Chloros, 2009, p.4, Thompson, 2011, p.4). I will, however, discuss the multifaceted nature of the term to create a comprehensive image of CS. Bullock and Toribio (2009, p.189) advocate CS to be a clear sign of bilingualism that can be used to determine the speaker's ability to alternate between languages. They further explain that CS is the culmination of the speaker's ability to concurrently manage the cognitive, social and linguistic factors of the languages they use. Cognitive factors deal with ability to select the language in use, linguistic factors are connected to the speaker's proficiency with the languages they switch between, and social factors explain why the switch occurs (Bullock & Toribio, 2009, p.189).

Gardner-Chloros (2009) explains the convoluted history of the term *code-switching* by claiming that it is merely a construct created by linguists to describe data and that it is composed of two ambiguous parts: *code* and *switching*. According to Gardner-Chloros (2009, p.11), *code* has been used as an umbrella term that includes languages, dialects, styles etc. and is generally used to cover multiple branches of *language*, while *switching* has gone through multiple definitions ranging from a two-state switch that can be flicked on or off to a more modern view that the switching of languages can be more freely controlled by the speaker. Since *code* can refer to multiple different branches of language, I will restrain to using it to refer to language or style in this study for the sake of clarity. Reasoning behind including style in the definition of *code* in this study stems from the thought that even though CS might mainly be used to refer to the emergence of two or more languages in a single sentence or conversation, as it has been defined by Gardner-Chloros (2009, p.4), it can also be seen as an equivalent to monolingual style-shifting (Thompson, 2011, p.2). This monolingual switching of styles is also acknowledged as a variant of CS by Gardner-Chloros (2009, pp.67-68) when discussing script-switching between the Japanese writing system.

It is important to note that CS most often occurs in bilingual situations including dialogue, which is due to regularised language and predetermined text usually having a set language with scarce occurrences of CS (Kootstra et al., 2009, p. 131). Kootstra et al. (2009, p.132) also mention that a central goal of dialogue is to reach a mutual understanding of the matter at hand,

which they further explain to be made possible by regulating and adjusting their language to their conversational partner. Even if this notation by itself is not connected to CS, it resembles the idea presented by Lubliner & Grisham (2017, p.1), which states that bilingual people are adept at shifting between language for communicational purposes. I will discuss bilingual speech and the concept of bilingualism in further detail in Chapter 3, Bi- and multilingualism. Combining these thoughts with Gardner-Chloros's (2009) explanation of *code* including multiple branches of language, one could argue that CS could be used in a dialogue to help the participants to achieve a common goal of mutual understanding by filling the gaps created by the lack of common language.

2.1. Nature of code-switching

CS is a natural result of two languages interacting with each other through language contact (Gardner-Chloros, 2009, p.30). Kootstra et al. (2009, p.130) note that language interaction in bilingual speech is often studied through CS, since there are not many other behavioural patterns that display it as openly. One of the realms where this kind of study can be used is the realm of language procession and bilingual language production (Marian, 2009, p.161). CS is often associated with or compared to loan words or *borrowings*, since single-word switches are the most common form of CS, in various scenarios according to Gardner-Chloros (2009, p.30). They proceed to explain that loan words tend to originate from single-word occurrences of CS, which may have occurred for various reasons (Gardner-Chloros, 2009, pp. 30-32). I will discuss these reasons in their own section later in this study. Gardner-Chloros (2009, p.31) suggests that even if loan words originate from CS, they might change their form substantially while the speakers of the receiving language integrate the word into their language before stabilising as a loan word. This integration is often morphological or phonetic and it transforms the switched word by using the morphology or phonology of the speakers L1 (Gardner-Chloros, 2009, p.32), for example, the English verb "to reflect" has been morphologically altered to fit the Finnish language as "reflektoida". One possible explanation for this is given by Bullock and Toribio (2009, p.190), who suggest that bilingual speakers might reflect their own monological language production to CS, which results in these changes in the switched word. Marian (2009, p. 165) suggests that this kind of alteration of words between languages originates from the speakers applying the rules of one language to another language. Bullock

& Toribio (2009, p.204) advocate that cross-lingual influence emergent in CS is not predetermined nor systematic, but rather volatile in nature, since the influence can either affect either one of the languages or just one of them. Gardner-Chloros (2009, pp.11-12), however suggests that CS is something that is ever-present in a bilingual conversation rather than something that can be turned on or off at will. This is an important distinction to keep in mind when discussing the causes for CS occurring.

2.2. Reasons for code-switching

In this subchapter, I will focus on the reasons for CS occurrences. My purpose is to explore the different external and internal reasons for why the CS process is started in the brain. CS can emerge in speech for multiple reasons. These reasons include for example forgetting a word in the target language and switching to a language in which the speaker has the same word in mind, or as a way for the speaker to “buy time” while they are trying to find a way to express a sentence in the target language (Gardner-Chloros, 2009, p.2). According to Thompson (2011, p. 7), this lack of words can be a source of insecurity for a speaker, so they might try to avoid CS in their speech. Mirroring this idea of avoiding CS to not to stand out, we can see the emergence of CS being the result of mutual trust, familiarity and sense of community between the speakers. Two other reasons for CS are mentioned by Gardner-Chloros (2009), the first of which is to add new, equivalent lexical options to diversify one’s speech. This form of CS can emerge in situations where the speaker wants to put emphasis on their expression by repeating a word or a larger part of the utterance in another language and is often used by bilingual parents to give brief instructions or orders to their children, according to Gardner-Chloros (2009, p. 32). The last reason for CS given by Gardner-Chloros (2009, p.32; see also de Bot et al. 2009, p.93; Bullock & Toribio, 2009, p.203) is using a word from another language, because there is no equivalent option to describe a concept accurately in the language that they are currently using. The development of single-word code-switches to loan words often originates from this kind of CS. These reasons help us understand the intrinsic motivation behind CS, but as Kootsra et al. (2009, p. 131) have mentioned, CS most often occurs in conversational situations. For this reason, I must further explore how other factors affect CS and what kind of reasons for CS arise from those factors.

While Gardner-Chloros (2009) gives insight into the reasons of CS that are related to the speaker's language proficiency and lexical choices, the effect of conversational partners, setting and style are left unexplored. To begin with, de Bot et al. (2009, p.89) state that when a speaker has made the decision to communicate, they have already made a decision about the language or languages used in that utterance. How these languages are determined, will be discussed later in the section *triggering code-switching*. For now, the essential part is that the language choice has been made when the speaker has decided to communicate. The reason for choosing a language to produce utterances with can depend on many different factors. Since CS is common for bilingual speakers, they are accustomed to a state, where both of their languages are highly activated (de Bot et al., 2009, p.86). De Bot et al. (2009, p.86) also mention that speakers typically use the language that is the most appropriate for the situation and setting. If we assume that a bilingual speaker chooses their language between their L1 and L2 when deciding on which language they will use in a certain setting, we can make a further assumption that a multilingual speaker makes a similar decision, but with the difference that there are more available languages to choose from. By making these assumptions, we can apply de Bot et al.'s (2009, p.86) idea of bilinguals' state of two highly activated languages to multilingual speakers as well.

Kootstra et al. (2009, p. 137) explain that language activation is connected to environmental factors, such as the situation and conversational partners, and that the speakers adjust their language uses depending on what is appropriate for the situation. One reason for choosing to switch languages, presented by Marian (2009, p.165), is the speaker's familiarity with discussing the topic in different languages. If for example, an individual is asked to discuss a topic in a language different from the language that they are familiar with discussing that topic in, they are more likely to code-switch due to the lack of familiarity with the topic in the target language. Lubliner and Grisham (2017, p.2) provide an example on this phenomenon, where two bilingual students discussed their personal matters in Spanish and switched into English when discussing their studies. The reason for CS can also stem from the conversational partners or the addressee of the speaker. If the speaker knows that the person that they are talking to prefers a certain style a speaking, they will mimic their speech patterns to connect with them (Thompson, 2011, p. 5). However, it is important to note that according to Thompson (2009, p. 7), CS can be either intentional or unintentional, even if the speaker is aware of the existence of other styles, they might not notice that they are switching between languages and styles.

2.3. Triggering code-switching

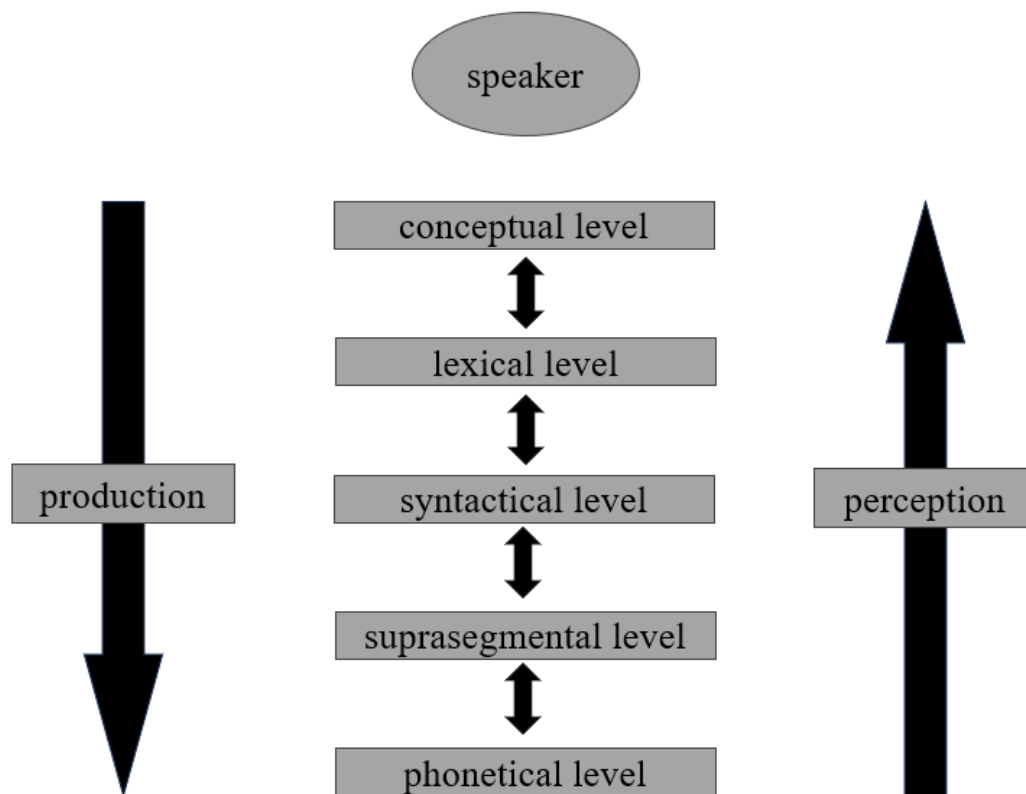
In this subchapter, I will discuss the process of CS from the viewpoint of language production. De Bot et al. (2009, pp.85-88) present that CS is a special form of language use that is used by bilingual speakers if it is appropriate for the setting. This interpretation coincides with Gardner-Chloros's (2009) perception of the nature of CS being ever-present and Kootstra et al.'s (2009, p.132) notion of participants in a conversation pursuing a common understanding of the subject matter. De Bot et al. (2009 p.86) compare CS to a *critical state*, which is a term used in physics to describe a system where an increasing number of stimuli will cause the system to trigger. This idea stems from the line of thinking that CS is unpredictable by nature and an occurrence of CS cannot be foreseen (de Bot et al., 2009, p.85).

According to de Bot et al. (2009, p.100), the type of CS, where the switch occurs due to lack of proficiency, is more common among infrequent *switchers*, whereas the CS used among habitual *switchers* is fundamentally different due to high activation of both languages. Since both of the languages used in a habitual bilingual CS situation are highly activated, de Bot et al. created a model to explain the triggering of CS (2009). Their proposed model is based on the following principle:

We propose that in particular in situations in which CS is normal, language selection is not purely a top down activity caused by factors like stylistic constraints or relative availability of elements. Selecting an element from the other language may lead to the activation of elements from that language at other levels. At different stages of the production process, elements have to be selected. The most important ones are the lexical concepts, words, syntactic procedures, discourse, gestures, syllables and sounds. (de Bot et al., 2009, p.89)

This model assumes that language production is divided into different stages starting at the conceptual level as an intention to communicate and progresses gradually into an utterance. Each of these stages has a chance to trigger CS either in that stage alone or start a chain of triggers that spreads to the other levels as well which can result in an utterance, where for example a word from the speaker's L2 is inflected as a word in their L1, such as the word "random" being inflected as "randomi". These initial triggers in a single stage of language production come from external stimuli that are perceived by the speaker. An example of such situation could be the speaker seeing a word in their L2 in written form and then proceeding to

create a vocal utterance, where the L2 word is pronounced using sounds from the speakers L1, inflecting the word according the rules of the L1 or applying stress, tone and possible gestures that might be associated with the L1. De Bot et al. (2009) further explain that since both languages are highly activated in a bilingual CS setting, the dominant language in each step determines the language of the output of that step. As is shown in Figure 1, de Bot et al.’s model implies that both perception and production play a part in triggering CS, which is supported by Marian’s (2009, p.162) claim that a bilingual speaker’s languages interact on multiple stages during both, production and comprehension. This model is helpful in understanding and analysing individual occurrences of CS, but since it relies on external stimuli, it does not explain why CS occurs in speech.



adapted from de Bot et al. (2009: 91)

Figure 1. Visualisation of de Bot et al.’s model of triggering CS.

3. Bi- and multilingualism

As discussed above, CS occurrences are most common in conversational situations between bilinguals (Kootstra et al., 2009, p. 131). To define bi- and multilingualism in the context of this study, we must further discuss possible definitions for them. The affixes *bi-* and *multi-* allude to the coexistence of two or more languages, but before examining the coexistence of multiple languages and what it entails, we must take a step back and briefly investigate the term *language*. In everyday life, we use the word *language* to refer to the way of expressing ourselves through spoken or written means. This definition is then used to differentiate languages between each other based on whether the perceiver understands the producer. In most scenarios, if the perceiver understands the producer, they share a language, if they do not, then they use different languages. Garcia and Wei (2013, pp.6-8) discuss how the view of language has evolved from a system consisting of symbols and signs that refer to a concept, to a deeper understanding of a complex structure that is constantly changing through human interaction. Canagarajah (2012, p.1) describes *monolingual* view of language use as being most efficient when common norms are obeyed and that deviations from these norms are seen as ineffective. Understanding that *language* is heavily affected by its users, and that it is more than just the words used to communicate is crucial in understanding how languages interact in multilingual communication.

Both, Canagarajah (2012) and Garcia and Wei (2013) credit globalisation and international commerce for the increased blending of languages. While Garcia and Wei (2013, p.9) use *contact zones*, meaning spaces where speakers of different languages interact and through which languages mesh, as an example situation of language blending, Canagarajah (2012, p.2) discusses migrants taking their languages with them to different environments, and in doing so creating new possibilities for language interaction. These two examples are not mutually exclusive since a migrant interacting with locals in their new environment creates natural *contact zones* through everyday interaction. These two examples are used here to create an image of a world where, as Garcia and Wei (2013, p.9) remark, older, more rigid definitions of language are harder if impossible to apply. In this world, where languages engage, speakers are required to accommodate to each other's linguistic abilities to maintain a conversation, which, as Kootstra et al. (2009, p.132) explain is necessary to reach a common understanding. Further language mixing happens when people use different languages for school, work,

hobbies etc., since all of those fields might have a different language of operation, as exemplified by Lubliner & Grisham (2017, p.2). This constant language mixing in multilingual speakers' lives generates an enormous and complex storage of linguistic abilities, which, according to Saidi et al. (2017, pp.90-91), is continuously affected by internal and external factors. Living in these environments, where multiple languages are in concurrent use, leads organically into the situation described by de Bot et al. (2009, p. 99), in which the speakers' languages are highly activated and prone to triggering a CS.

3.1. Linguistic identity

Bi- and multilingual speakers' known languages constitute to how they identify themselves linguistically, and CS can be used by groups of people to create unity and a sense of belonging between speakers (Thompson, 2011, pp.6-7). This can be seen as a result of the idea presented by Canagarajah (2012, p.16) of how shared resources, such as language, are important for communities due to them having the positive effect of giving affirmation and empowerment to the members of the social groups that use them. Canagarajah (2012, p.16) further explains that these functions also apply to languages outside of what I described before as everyday languages. Based on this understanding of the value and importance of a shared language to a community, we can claim that a broad linguistic repertoire can be seen as an opportunity for a speaker to access multiple communities. It is important to note that even if linguistic ability creates an opportunity to enter a community, it does not grant immediate access. This access to a community requires for the new member-to-be to be able to engage in everyday interactions of the community and act according to the norms of the community (Forrester, 2015, p.202) This is due to languages being heavily affected by human interaction and entering a community requires the understanding of the customs of that community (Garcia & Wei, 2013, p.8).

Saidi et al. (2009, pp. 74-75) argue that bilingual speakers' knowledge of a language is a more complex system than the combination of their knowledge over two separate languages. Combining this idea with Lubliner and Grisham's (2017, p.2) thought of multilingual speakers possessing a vast linguistical knowledge comprised of all of their known languages and dialects, we can gain a sufficient understanding of how a multilingual speaker's linguistic

capabilities are formed. These capabilities can then be used by the speaker to express themselves and their identity (Canagarajah, 2012, p.2; see also Gardner-Chloros, 2009, p.3). This thought of speakers utilising their linguistic repertoire to express themselves is corroborated by Montes-Alcalá's (2024) study, which suggests that using multiple languages together is necessary for multilingual speakers to fully express themselves linguistically. Having considered the importance of languages to communities and individuals alike, we can draw a conclusion that they are both a unitive factor for a community and a vehicle of identity for an individual.

3.2. Code-switching in multilingual environments

As I discussed earlier in chapter 2.3, de Bot et al. (2009, p. 86) considered CS to share similarities with *critical states*, where any external stimulus might cause a code-switch to trigger. The relevance of this comparison when discussing bi- and multilingual speakers stems from Garcia and Wei's (2013, p.13) claim that multilingual speakers can access all their languages anytime, since they remain active even if they are not being actively used in the conversation. This claim of languages remaining active is supported by de Bot et al. (2009, p. 100) and Saidi et al. (2009, p.90), but they both have their own remarks on the matter. De Bot et al. (2009, p.100) note that the high activation of multiple languages that leads to said *critical state* is common among habitual *switchers*, whereas those who are not accustomed switching, usually must resort to switching to get their message through. Saidi et al. (2017, p. 90) for their part stress that upholding the active state of multiple languages consumes the speaker's cognitive resources significantly. This strain on cognitive resources might cause limitations to the individual's linguistic capabilities in the situation. According to Saidi et al. (2017, p.90) this strain varies based on how closely the languages are related:

Conversely, processing phonologically distant words, even at higher proficiency levels, remains effortful and therefore consumes more cognitive resources, resulting in the recruitment of attentional control and working memory processing areas of the brain, in order to manage interference and competition between L1 and L2 lexical representations. As a rule, distantly related languages (e.g., Persian and French) impose a greater cognitive load on the system than closely related languages (e.g., Spanish and French), and this is so even at matching (high) proficiency levels. (Saidi et al., 2017, p.90)

In a multilingual setting speakers might try to avoid CS, since there exist negative views on CS in the society that can be a source of insecurity for the speaker (Thompson, 2011, p.7). However, CS can be purposeful or not, where a habitual switcher might not realise how much they switch (Thompson, 2011, p.7) and non-habitual speakers might not have other options but to CS, due to circumstances. These circumstances for non-habitual switchers can be the lack of proficiency (de Bot et al., 2009, p.100), distant relation between the languages (Saidi et al., 2017, p. 90) or, as discussed in chapter 2.2, the unfamiliarity with the matter in target language (Marian, 2009, pp.163-164). Aside from not realising how much of CS they utilise, habitual speakers might find themselves in a situation, where the cognitive load caused by upholding multiple languages (Saidi et al., 2017, p.90) causes the critical state to trigger a code-switch (de Bot et al., 2009, p.86). These unintentional switches might make the speaker uncomfortable, and drive them to seek out communities, where CS is acceptable. Luckily for the speakers, CS can be used to identify communities similarly to languages (Thompson, 2011, pp. 6-7) and can act as a shared resource in a community (Canagarajah, 2012, p.16). While CS can be unintentional and still work as a shared resource, Menggo et al.'s (2023) study shows that CS can be used intentionally to enhance the communicative properties of the speakers' messages through avoiding misunderstandings.

3.3. Translanguaging

Since code-switching as a term has a convoluted history (Gardner-Chloros, 2009) and in this study I have used code-switching as a term to refer to more than one language appearing in a single utterance by one speaker. It is still important to acknowledge another term, *translanguaging*. While code-switching refers to the emergence of two or more languages or styles in communication (Gardner-Chloros, 2009, p.4), *translanguaging* refers to one's ability to fully utilise their linguistic abilities for communication (Lubliner & Grisham, 2017, p.1). Translanguaging helps individuals to conform to the linguistic needs of a situation by flexibly moving between languages based on the subject matter and who they are talking to (Lubliner & Grisham, 2017, p.2). This correlates to Garcia and Wei 's (2013, p.42) view of translanguaging as a way for an individual to smoothly move between meaning-making systems. Garcia and Wei (2013, p.28) expand the idea of translanguaging being confined to

movement between only languages to other ways of meaning-making, such as gestures, sounds and visual cues.

4. Community languages

In the previous chapter I discussed the importance of a shared language for a community. Since people tend to enjoy sharing their views with other people through socially constructed communities (Canagarajah, 2012, p.16, see also Balteiro, 2019, p. 41), I want to examine how language is used in these kinds of in-group conversations.

Pratt (1991) introduces the concept of *contact zones* as “social spaces where cultures meet, clash and grapple with each other”. *Contact zone* as a term was used by Pratt (1991) to highlight the inequality of speakers in multilingual social spaces, since one language and its speakers would be in a dominant position in relation to the others. Canagarajah (2012, p. 26) claims that all spaces are contact zones and that communities should not be considered as homogenous groups. They then move on to explain that the modern relations between languages allow for more flexible use of language, which is one of the reasons that CS is so prevalent in many communities (Canagarajah, 2012, p. 26). Garcia and Wei (2013, p.9) note that contact zones are more often virtual ones in the modern world, which coincides with Balteiro’s (2019, pp. 40-42) description of communication on online forums. On these forums, the community or in-group in the dominant position might use such specified language or jargon that a person outside of the community might have trouble understanding the language used or feel completely excluded from the community (Balteiro, 2019, p.42). The use of this kind of specialised language creates a linguistic power imbalance between individuals in the community that resembles Pratt’s (1991) description of a contact zone. In order for a potential new member of a community to join and be accepted to the community, they must have enough knowledge of the in-group’s language use to interact with the community on an everyday level (Forrester, 2015, p.202). To gain this kind of knowledge of a community’s internal language use entails skills in multiliteracy and pre-existing interest or knowledge of the subject matter of the community’s common object of interest.

A sense of community can also be achieved through *imagined community*. *Imagined communities* were originally defined by Benedict Anderson (1991, pp. 5-7) as a sense of belonging among the members of a nation. The idea behind the concept of *imagined communities* is that (Anderson, 1991, pp. 5-7) all members of the nation will never know or even meet most of the other members of their community, but still consider them as part of the

same nation. While Anderson's original concept refers to nations and nationalism, I would argue that it is applicable to communities inside and between nations, since Anderson himself (1991, p. 6) notes that communities should be distinguished by the means they are imagined rather than by their genuineness. If we consider the concept of imagined communities to apply to all communities, we can view aspects, such as shared language or common object of interest as a unifying factor, which can then lead to either formation of a community or to a new member joining a community.

4.1. Multiliteracy

To understand how individuals can easily move between different meaning-making systems, which is a crucial skill for multilingual speakers, I must discuss the processes enabling such behaviour. Gee (2003, p.14) states that different modes of text require different literacies and understanding a mix of multimodal text requires a blend of literacies, thus called multiliteracy. Understanding the rules and conventions of a text or a mode of a text is required to be able to break them, for example to critique them (Gee, 2003, p.14), meaning that to form generally agreed upon linguistic practices to match the speakers' needs, an individual must have substantial linguistic abilities. Garcia and Wei (2013, p.28) present that multimodalities are a fundamental part of multilingual interaction and claim that the role of multimodality in communication will develop further as technology advances. Considering that translanguaging enables individuals to be creative with their meaning-making by helping them understand and conform to the norms of behaviour as well as break and challenge them (Wei, 2011. p.1223), this creativity can be seen being "locked" behind multiliteracy, since understanding different modes of meaning-making is an integral part of translanguaging. Fortunately, languages and knowledge of their social environment are typically acquired through children interacting with their guardians (Lee et al., 2009, pp.108-109). This acquisition happens due to *interactional instinct*, which drives humans to interact with others (Lee et al., 2009, p.9). Bickhard (2003, p.112) claims that the ability of humans to adapt to our surroundings has enabled us to comprehend increasingly complex social interactions through generations of evolution. Considering that seeking social interactions is natural for humans and that social interactions are a common factor between language acquisition and increased social comprehension, multiliteracy in social interactions could be seen as an inherent quality of a human. If we

consider that texts can be seen as a representation of a language and combine Gee's description of recognising different elements of texts (2003, p.14) to the idea of humans being able to adapt to the interactions surrounding them (Bickhard, 2003, p.112) we can argue that entering different linguistic communities is helped by competency in multiliteracy, since the speaker can identify features in the language or languages used in the target community and mimic them in order to seek out a sense of belonging (Thompson, 2011, p.5). Competency in multiliteracy is also strengthened by proficiency in intertextuality, which, according to Gee (2003, p. 108), entails that an individual experiencing and interacting with texts will help them with understanding similar texts in the future.

4.2. Affinity spaces

When discussing contact zones, imagined communities and interactions in communities via online spaces, such as forums, it is beneficial to take *affinity spaces* into account. *Affinity spaces* were originally introduced by James Paul Gee in 2004 as spaces centred around a shared interest that the members interact with. These spaces are most often developed around a product, such as a game or a movie and are created and maintained by fans by discussing the subject matter of the affinity space on a public forum, such as an internet forum (Gee, 2004, pp. 75-79). Affinity spaces could be considered as imagined communities, since the members of an affinity space will never interact with most of the other members of the space, similarly to imagined communities (Anderson, 1991, p. 5). Affinity spaces, however, are more dynamic groups than imagined communities as defined by Anderson in 1991, because affinity spaces are welcoming to new members and place great emphasis on sharing knowledge among the members (Gee, 2004, pp. 77-78).

In regard to contact zones, affinity spaces match both Garcia and Wei's (2013 p.9) and Canagarajah's (2012, p.26) notion of contact zones as spaces where different cultures and languages meet. Pratt's (1991) definitions of contact zones, as a space where linguistic inequality is prevalent, relation to affinity spaces is more contentious. On the one hand, affinity spaces are welcoming to new players and encourage members to share knowledge amongst the members (Gee, 2004, pp. 77-78), while on the other hand, the language used in an affinity space might be too specialised jargon that is inaccessible to new members (Balteiro, 2019,

p.42), which creates a linguistic imbalance described in Pratt's (1991) original description of contact zones. Furthermore, Canagarajah (2012, pp. 26.27) claims that people create new ways to communicate in contact zones to avoid the restrictions created by the lack of common language. Since Canagarajah (2012, p. 26) states that they consider all spaces contact zones, this phenomenon can be applied to affinity spaces as well. This language developed inside a community resembles the jargon and specialised language mentioned by Balteiro (2019, pp. 40-42).

4.3. Language of gamers

With an understanding of how language is used in specialised communities, such as affinity spaces, and understanding of how languages and their users interact in a multilingual environment, we can focus on the language used by a specific in-group. This more focused examination is done to give context to the previous discussion. The community, whose language use I will discuss in this chapter, is *gamers* - people who regularly play games.

Gamers use affinity spaces for multiple reasons, three of which coincide with the reasons for playing video games presented by Dalisay et al. (2014, pp. 1401-1402). Dalisay et al. (2014, pp. 1401-1402) present, that motivation for playing video games stem from three sources: social reasons, sense of achievement, and immersion. Where Dalisay et al. (2014, p. 1403) present that videogames themselves provide users with spaces for social interaction, Duncan (2012, pp. 177-184) suggests that users are engaging in conversations with each other through affinity spaces, where they discuss aspects of the game, such as gameplay tactics, their wishes regarding future updates to the game or speculations about the game's upcoming story. These interactions in the affinity spaces fulfil the social motivation for game play, since users get to interact with each other through collaborating, chatting, and sharing knowledge (Dalisay et al., 2014, p. 1401). While motivation of immersion is mostly experienced through gameplay (Dalisay et al., 2014, p. 1402), it can still emerge in affinity spaces from story speculation or theorising character customisation (Duncan, 2012). The motivation of achievements can also be achieved through affinity spaces by sharing their accomplishments on a video-sharing platform and gain fame or prestige in their community (Burgess et al., 2013, p. 23). While these studies are based on video games, I would argue that they apply to more traditional tabletop

games as well. While some aspects, such as future updates and immersing in a story are restricted to games that have continuous support from the publisher, such as an expansion packs for a trading card game or a curated campaign for a tabletop role-playing game, most of the conversations in affinity spaces are related to strategies and gameplay (Duncan, 2012, p. 181). Regardless of whether the affinity space is formed around a video game or a physical game, the language used in the space is a product of the community interacting with each other (Canagarajah, 2012, pp. 26-27), which is usually highly specialised and requires understanding of the game in question and the discourse regarding it (Balteiro, 2019, p. 43).

Balteiro (2019, pp. 53-54) characterised language used by gamers as homogeneous, since it is the unifying factor that the community can use to identify each other, similarly to how Canagarajah (2012, p.16) describes communities using language as a shared resource. The specific characteristics of gamer language mentioned by Balteiro (2019, p. 54) are relaxed attitude towards language use and frequent use of terminology, which consists mostly of abbreviations, technical gaming-related words, and colloquial expressions. Taking Canagarajah's (2012, p.15) notion of languages gaining identity through use in a specific context into account, gamer language could be considered to be its own language. If we consider gamer language to be its own language, then it can be code-switched to and from either stylistically or linguistically.

5. Present study

The aim of this study is to examine the use of CS by L1 Finnish speaking university students in an informal setting. The study was conducted in an informal setting as opposed to a language classroom setting to encourage the participants to use their linguistic repertoire more freely. In a language classroom setting the participants might have felt obliged to switch between their L1 and the target language of the class. Further reason for conducting the study outside of a classroom was that CS has been mainly studied in the context of a classroom (see for instance; Ali et al. 2023; Garcia and Wei, 2013; Lubliner and Grisham, 2017). The examination of the use of CS was done through analysing a video recording of the participants playing a board game. While some studies have been conducted, where communities' language use is included (see for instance; Montes-Alcalá, 2024; Menggo et al., 2023), the connection between CS and gaming has not been explored much. The board game used in this study was *Unstable Unicorns*, which is a strategic card game where the players try to gather an army of unicorns while stopping the other players from gathering an army of their own.

5.1. Data

There were four participants in the study, all of which have Finnish as their L1 and study in a Finnish university. They were informed on how their personal information was handled during and after the study and that they could withdraw from the study at any point. All participants consented to participating in the study. The participants were chosen from among university students, since their proficiency in English is presumably high enough to be categorised as habitual switchers (de Bot et al., 2009. p.100). The high proficiency in English is preferable for the purposes of this study, since if one of the participants happens to CS from Finnish to English, it will still be understood by other participants and does not cause a commotion that disturbs the study. The proficiency in English is also beneficial due to the cards in *Unstable Unicorns* having text in English. The participants knew each other before the study, which was beneficial for the study, since a group of total strangers might have trouble feeling relaxed in the setting and that might prevent them from natural language use.

The examination of the use of CS was chosen to be done through playing a game due to the gameplay situation providing situation for a critical state (de Bot et al., 2009, p. 86) to trigger. The game *Unstable Unicorns* was chosen for this study, since it requires the players to interact with each other verbally due to the players having to actively stop each other from winning the game by removing their game pieces from the play area. The game also has its own terminology with uniquely named, unicorn themed cards and play zones (e.g. “stable” and “nursery”) and sharing terms with other board or card games (e.g. “destroy” and “discard”). These terms also have their own Finnish terms in the rule book that was used when the rules were explained to the participants so that the participants have access to the key terms of the game in both Finnish and English.

The setting for the study was a gameplay session with the four participants as players of the game and I, the researcher, as a “judge” whose job is to explain the rules and answer any gameplay related questions from the players to keep the game moving forward smoothly. My partial participation makes the data collection method overt participant observation (Mligo, 2016, Instruments for Data Collection section, para 8). The participants’ language use was not instructed aside from me telling them to speak and act as they naturally would. The rule book of the game is in Finnish and the rules were explained to the participants in Finnish, while the game pieces only have English text. Since there was a possibility for me to affect the participants’ language use through my own language choices (Thompson, 2011, p. 5), I made the conscious choice to use only Finnish when explaining the rules and answering rules questions.

The study consisted of three parts. The first part was the explanation of the rules to the participants, the second was the participants playing the game and the third was a group interview with the participants immediately after the game. The interview was conducted in the same session as the gameplay to provide the participants with a chance to give their thoughts and notes on their own language use during the game. In addition to the participants reporting their thoughts, they were also presented with the following questions:

- How would you describe your proficiency in English?
- Do you consider yourself bi- or multilingual? If yes, which languages?
- Do you use English on your free time? How?

- Do you play games? If yes, are they single- or multiplayer games? Do you engage with the communities outside of those games?

The questions were asked one by one, and each participant answered a question before the next question was asked. The questions were asked after the game so that they would not affect the participants' behaviour or language use during the gameplay. They were also presented with an opportunity to bring up any observations they might have made during the gameplay session.

This structure of the researcher facilitating a group of participants with a focus on interaction and group dynamics resembles a focus group (Denscombe, 2014, p.189 and Mligo, 2016, Chapter 3 para 10).

5.2. Methods

The data was collected via video recording, since the audio from the conversation is crucial for the study and the visual component of a video recording helps analysing the interactions within a board game, since it would be difficult to keep track of all the moving pieces of a board game through a recording with only audio. Additionally, having a video recording enables the analysis of gestures as well as other body language. The recording of the situation let me also to focus on the session and answer the participants' questions while still recording information (Mligo, 2016, Instruments for Data Collection section para 14). The data was later transcribed for further inspection.

The analysis method used for this study was content analysis, since I analysed individual occurrences of CS in the recording (Denscombe, 2014, p.283-284). I noted each instance of CS that occurred in the recording and divided them into categories based on for example if the switch happened from English to Finnish or Finnish to English, whether the switch was triggered by seeing the word in written form on a card or by not remembering the word in the language currently spoken. The participants were also profiled based on their answers to the questions presented after the game. This categorization was done to see if certain types of switches are done by certain type of people. These categories for both, the CS occurrences and the participants were established in the data and did not require inference from the researcher, which made the choice of content analysis the most fitting for this study (Denscombe, 2014,

p.285), as opposed to discourse analysis, where the focus is on the implied meanings rather than more objectively observable aspects (Denscombe, 2014, p. 288-289). The analysis in this study was supported by raw numbers and percentages in the form of graphs.

6. Results and analysis

This study aims to examine the use of CS and I will perform this examination through the questions of how and why. This is done by first characterising the participants to create context for the CS occurrences in the data. The participants are characterised based on the answers they gave to the questions presented in the data-section in chapter 5. I will now proceed to create profiles for the participants.

6.1. Characterising the participants

The first participant, who I will call player 1 from now on, describes their English skills as sufficient for their needs, which include understanding English course material for their studies at the university and consuming media, such as movies, series, and music in English. They mention however that there is room for improvement, especially on the side of English production since they do not actively produce English in their free-time activities. By their own description, player 1 is multilingual with Finnish, English and French with a clear L1 in Finnish, while still feeling ownership over English and French. They have little experience in gaming, and they have not engaged with the general gaming community in spaces like affinity spaces.

The second participant, player 2 from now on, refers to their English skills as “pretty good”, based on their ability to hold up a conversation in English even with friends, who have English as their L1. Where player 1 used their prowess in academic English as one of their measures for their English proficiency, player 2 mentions academic English as their weak point. Similarly to player 1, player 2 states to engage with contemporary media, mostly through their smartphone. Player 2 considers themselves as bilingual with Finnish and English based on their previous interactions in English and they feel that they could manage everyday interactions in English. They have a lot of experience in the field of gaming through numerous years of playing games and engaging with communities formed around those games, they however mention that these experiences are not recent.

The third participant, henceforth player 3, is so confident in their English abilities that they claim that their comprehension and vocabulary are broader in English than in Finnish, even if

Finnish is their L1. They mention that their comprehension is better than their production but they still state that they could easily live in a country, where English is the most used language, which concurs with their claim to consume 80% of their media in their free time in English. The high proficiency in English is also their reasoning for claiming to be bilingual in Finnish and English. They have a lot of experience in gaming, mainly from fantasy-themed board games, which are rarely translated into Finnish, which feeds back into consuming media mostly in English. Even with a lot of experience in gaming, player 3 does not have much experience in engaging with the gaming community.

The last participant, who I will hereafter call player 4, claims their English skills to be excellent due to them being an English student at the university, having lived in the US and their English being called excellent by native speakers. Due to their self-described native-like proficiency in English, the media that they consume during their free time is mainly in English. Player 4 does not consider themselves bilingual despite their high proficiency, due to their own definition of bilingualism differing from the definition given in this study. They define a person to be bilingual, if they are native speakers of both languages, which is why they do not consider themselves bilingual. They have a little experience in gaming through video games but their interest in gaming is not large enough to have engaged with the gaming community.

Overall, the participants offer a variety in linguistic abilities and English proficiencies. By comparing how each of the participants engage in CS and reflecting on the theoretical framework, I am aiming to investigate, which factors affect CS occurrences the most. Based on these descriptions, the participants can be divided into categories. Players 2 and 3 can be grouped as gamers due to their vast knowledge gained from experience, whereas players 1 and 4 could be classified as non-gamers, since they lack the same knowledge about gaming that players 2 and 3 have. On the other hand, the participants can be placed on a linear scale based on the number of the languages they feel a sense of ownership over. By this categorisation player 1 would be at the other end of the scale by identifying as trilingual and player 4 would be on the other end of the scale due to them not identifying as bilingual. Players 2 and 3 would be in the middle of this scale due to them both identifying as bilingual.

6.2. Creating an outline for the analysis

The levels of CS analysed in this study are lexical and morphological since they are the most prevalent levels in short-form speech production. Phonetic level is also prevalent in this context but distinguishing phonetical switching from an accent or the commonly used rally English, is difficult and beyond the scope of this study. While there are examples in the data of CS occurring on the phonetical level, such as pronouncing “mother goose” as /mother gu:se/ instead of /'mʌð.ə gu:s/, they only occur when switching from L1 to target language and they are thus accompanied by at least lexical switching. And since according to de Bot et al.’s (2009) model, the phonetical level of CS is the last possible level of CS triggering in speech production, it is highly unlikely that the phonetical level by itself would cause a CS to trigger. Because this study aims to understand the reasons for CS triggering in an informal setting, the phonetical level can be ignored while analysing the data.

English to Finnish switches in this study refer to using a central game term, referring to terms that were mentioned in the handbook, and provided by the judge in Finnish and English, e.g. “destroy, “discard” and “sacrifice”, in Finnish instead of English. Another situation that is considered a CS occurrence from English to Finnish is switching from English to Finnish while reading a card text in English, for example in the sentence “you may discard kolme cards” there happens a switch from English to Finnish during the word “kolme”, meaning “three”. The possible reasoning behind this example sentence will be discussed later in this analysis.

6.3. Interpreting findings

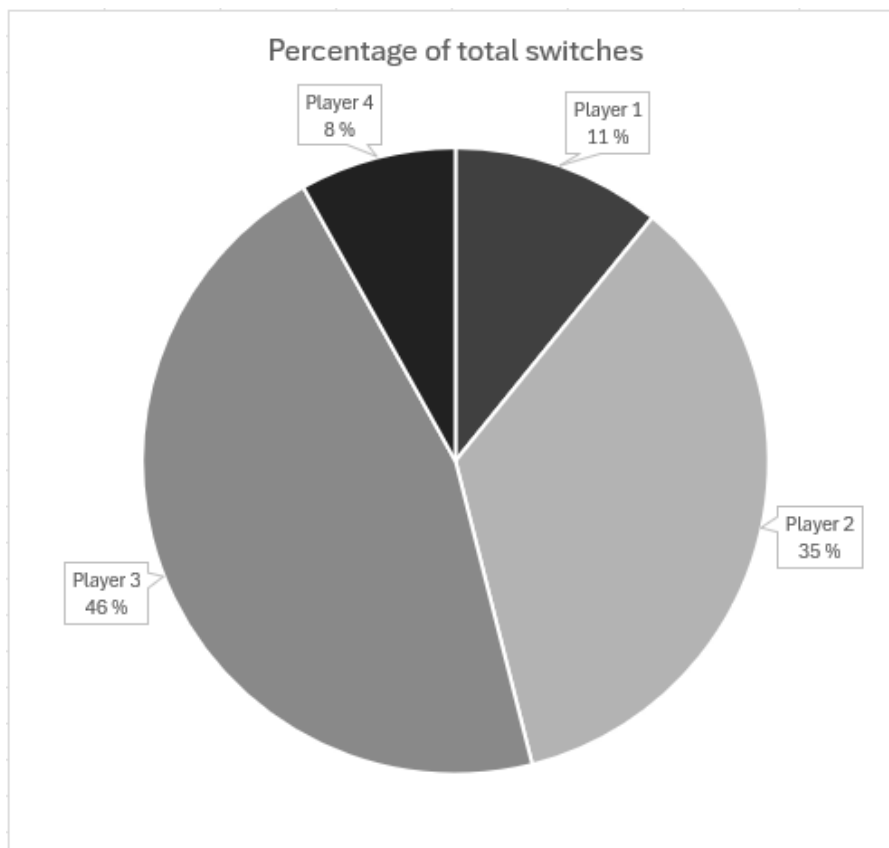


Figure 2: The distribution of total number of CS occurrences.

As can be seen in figure 2, the amount of CS occurrences is not evenly distributed among the four participants. There are a multitude of possible reasons for this phenomenon, so additional data is needed for any conclusive results. To gain this data, each participant was timed for the time they spent speaking over the gameplay session. This timing was done through taking time while listening to the video recording, so it does not take the word count or the speed of speech into account. The purpose for this timing was not to gather the exact word count for each of the participants, but rather to compare the amount of time they spent speaking to the amount of time they engaged in code-switching (Figure 3). The idea is to give context to the number of CS occurrences for each participant. Utterances caused by active listening are also excluded and only active time speaking is timed.

The data from figure 3 reveals that the percentage of total CS occurrences is tied to the time spent speaking, meaning that the participants, who talked more, also engaged more with CS. This data, however, gives context to what extent each participant engaged with CS. Based on

the data from figure 2 alone, it seems that player 3 engages in CS almost six times more often than player 4, while the data from figure 3 reveals that the difference is not quite as large. If we take a closer look at figure 3, we can calculate that player 3 engages in CS every 6 seconds, while player 4 switches on average every 13 seconds. The difference between the most and least frequent switchers is still remarkable but not as immense as figure 2 would let on to understand. Since it is natural that people assume different roles in a social situation, the amount of speech produced is also different between the participants. Even with the additional data from figure 3, it is still apparent that players 2 and 3 switch the most, while players 1 and 4 switch the least.

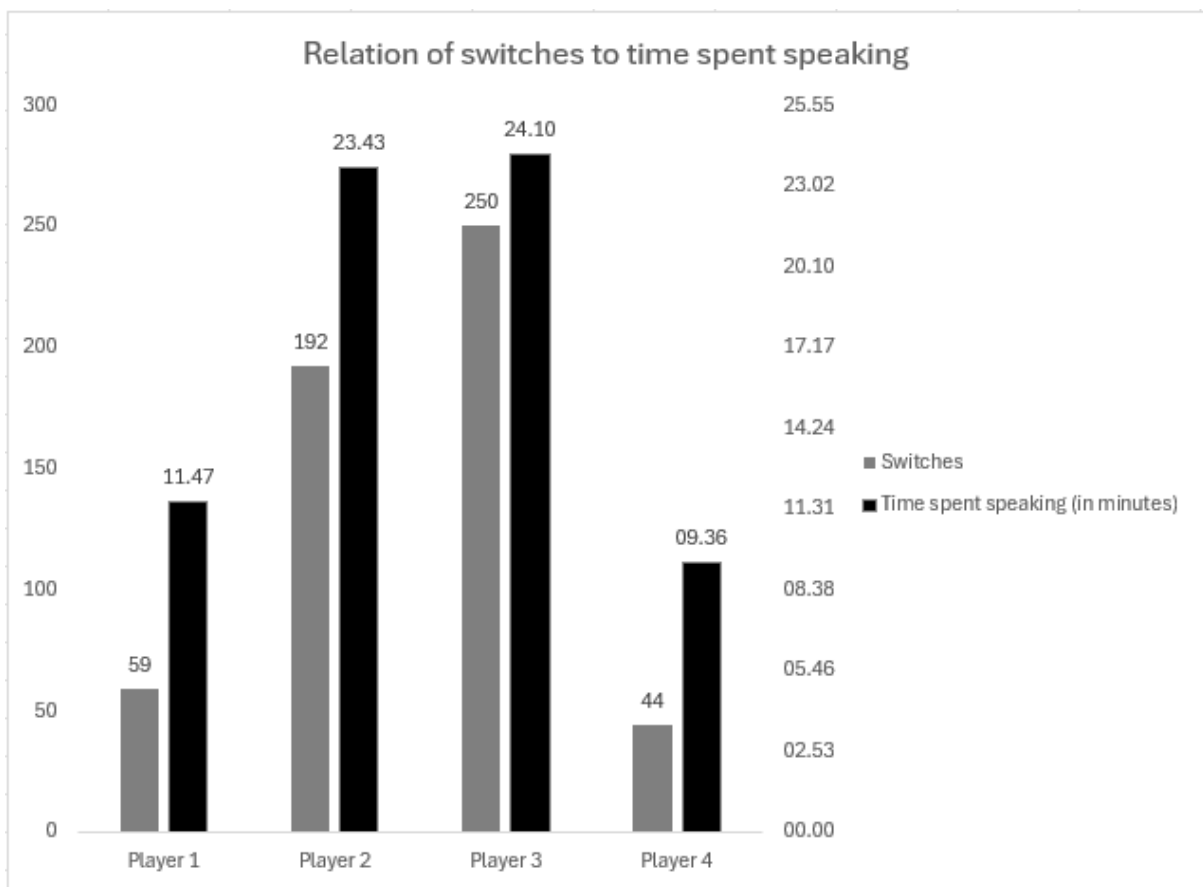


Figure 3: Visualising the relation between each players' CS occurrences and the time they spent speaking during the gameplay session.

As both figures 2 and 3 show, players 2 and 3 switch the most among the participants, moreover, they also spend the most time speaking. A possible explanation for this is that since players 2 and 3 have the most experience in gaming, they feel the most familiar with a gaming environment, which can be reflected to Gee's (2003, p. 108) notion of intertextual proficiency. Observations made from the video recording concur with this explanation, since players 2 and

3 made remarks that *Unstable Unicorns* shares similarities with a popular card game *Magic: the Gathering*. They understood the rules of the game more quickly than players 1 and 4 and asked more advanced questions through the game. Players 1 and 4 also asked more questions about the rules and were more hesitant about their gameplay decisions.

Players 2 and 3 seem to be a part of the same in-group, of *Magic: The Gathering*, and use of language from that group appears to function as a unifying factor, coinciding with Thompson's (2011, pp. 6-7) and Canagarajah's (2012, p.16) ideas of communities' use of language as a unifying shared resource. Both participants use English and Finnish terms relating to *Magic: The Gathering* as corresponding terms to *Unstable Unicorns* and use them in the place of the key terms of *Unstable Unicorns*. Examples of this replacements are: "graveyard" instead of "discard pile", "kenttä (battlefield)" instead of "talli (stable)". This might be due to terms "destroy", "sacrifice" and "discard" being shared by both games, in addition to the activation of related language use due to *Unstable Unicorns* and *Magic: The Gathering* both being card games. This is another example bolstering the applicability of Gee's (2003, p.108) theory of intertextual familiarity.

6.3.1. Morphological switching

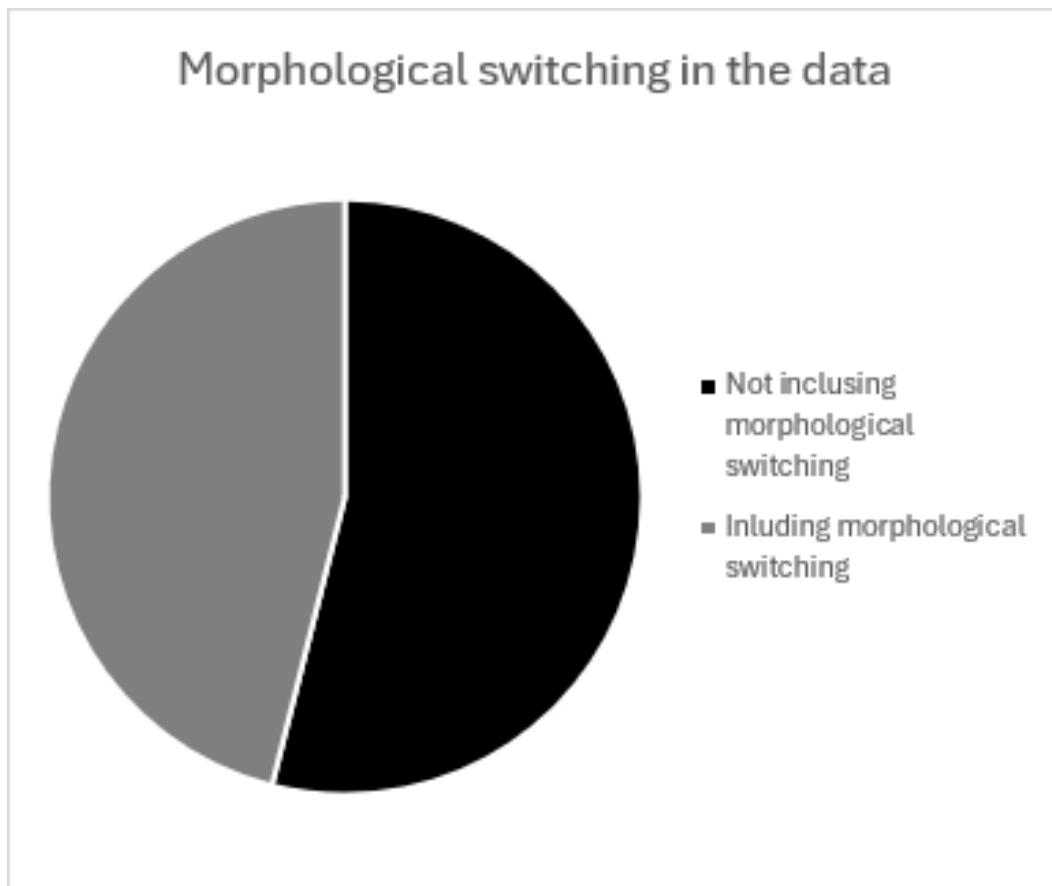


Figure 4: Ratio of morphological switches to non-morphological switches.

Regarding morphological switching, which according to figure 4 is included in almost half of the switches in the data, the use of card names as verbs could arguably be akin to a CS triggering on a conceptual level (de Bot et al., 2009, p. 89), since the perception of the card shifts from the card name depicting the image on the card to something that is actively used to take a game action. As an example of this, I will use a card called “Rhino”, which has an effect in the game that happens at the beginning of the player’s turn, who is controlling “Rhino” as an example. Since the effect of the card is not a mandatory effect, the player has the choice of whether or not to use it. During one of the participant’s turns, they state that “en taida *rhinottaa* ketään tänään” (“I probably won’t *rhino* anyone today”), which is an example of not only morphological CS, but also this shift from a card name to a verb. This kind of fundamental shift in meaning making might originate from the gaming sphere, where such colloquial and relaxed expressions are common (Balteiro, 2019, p.54), which is further supported by the

thought that gamers are accustomed to discussing gameplay strategies (Duncan, 2012, p. 181), where they might come up with linguistic shortcuts such as this example to move the discussion on more effectively. Morphological switching only occurs in single-word or single-phrase switches, which suggests that it mainly happens in circumstances, where the speakers treat the switch similarly to loan words and conjugate them according to their L1 grammar rules. Examples of this include sentences such as “haluutko discardaa ekana”, where the word “discard” is conjugated as if it were a Finnish word and “uhraan annoying flying unicornin”, where the phrase “annoying flying unicornin” is a CS from Finnish to English and the whole phrase is treated as a loan word and the last word of the phrase is conjugated according to Finnish grammar rules.

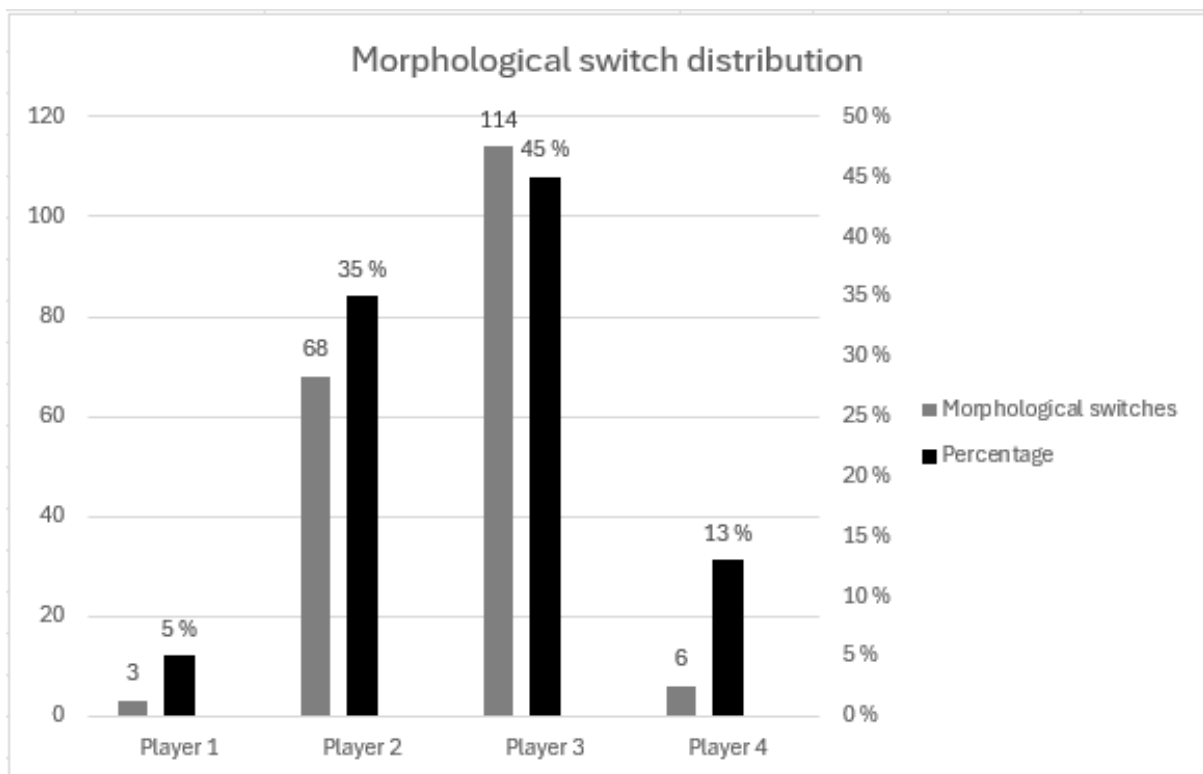


Figure 5: The distribution of CS occurrences including morphological switching.

As figure 5 shows, the participants classified as gamers switch considerably often morphologically, the non-gamers do very rarely. This difference arises as the distinction between “upgrade-kortin (an upgrade card)”, which is used mainly by non-gamers and “upgreidin”, which is mainly used by gamers. While I discussed a possible reasoning for gamers morphologically switching more often, the reason for non-gamers morphologically

switching less must also be explored. Especially player 1, who identifies as trilingual, who only morphologically switched three times, might possess a high enough linguistic proficiency due to them claiming ownership over three languages to knowingly abstain from morphologically switching. Considering Saidi et al.'s (2017, p. 90) statement about multiple active languages consuming more cognitive resources, player 1 might be used to more intensive strain on their cognitive reserves, since they are more accustomed to moving between meaning-making systems. Player 4 on the other hand might be accustomed to creating a clear distinction between Finnish and English, due to their deep familiarity with English due to their studies and their confidence in their own linguistic abilities. The argument of heightened linguistic capabilities appears to be applicable for both players 1 and 4 and it is supported by Garcia and Wei's (2013, p. 13) claim of multilingual speakers' ability to access any of their languages at any time. It is worthy of noting that towards the end of the video recording, the morphological switching was more common even among the non-gamers, which would suggest that Thompson's (2011, p.5) theory of conversational parties mimicking each other to create to seek unity among each other.

6.3.2. Switching from English to Finnish

When comparing the Finnish to English switches to the English to Finnish switches (figure 6), it is noticeable that the amount of total CS occurrences correlates directly with the switches from Finnish to English, but it does not correlate directly with the number of switches from English to Finnish. Whereas the absence of morphological switching could be attributed to high linguistic proficiency and the number of total switches could stem from experience in the field, based on the characterising of the participants, the heightened number of English to Finnish switches by players 1 and 3 does not correspond to any grouping of participants. Thus, these deviations must be inspected based on the players' characterisation.

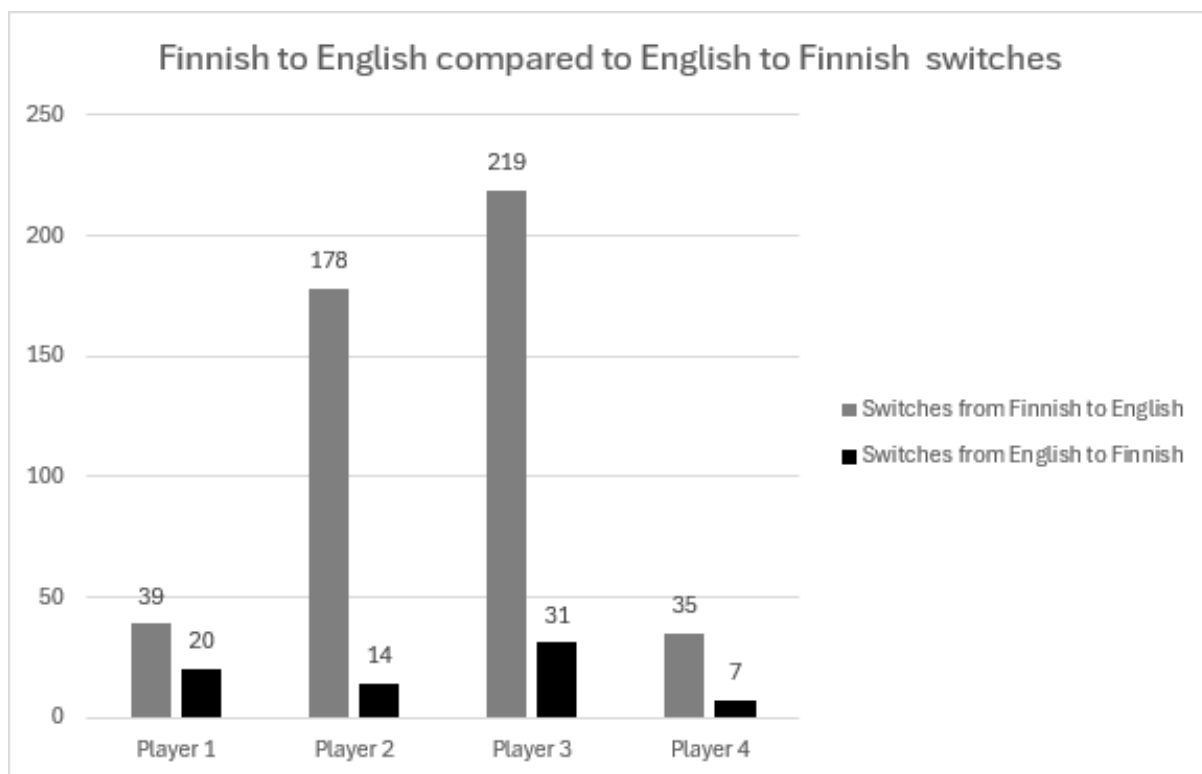


Figure 6: Comparing the number of Finnish to English occurrences to English to Finnish occurrences.

Player 3 seems to translate game terms arbitrarily. They use both Finnish and English interchangeably when referring to terms such as “unicorn”, “discard” or “upgrade”. This might be due to them being in a linguistic critical state (de Bot et al., 2009, p. 86), where their CS occurrences are unpredictable. This critical state may be achieved through the combined effects of familiarity with the gaming sphere and high proficiency in English. Additionally, player 3 uses short idiomatic phrases such as “oh no” as reactions to other participants’ comments, which could be a sign of habitual switching (de Bot et al., 2009, p.100), which is caused by the high activation of multiple languages. Since player 3 is most likely a habitual switcher, they might not be aware that they engage in CS, as stated by Thompson (2011, p. 7).

Whereas player 3’s English to Finnish switches likely originate from a relaxed attitude towards language use, player 1 is more reserved with their language use to such extent that one third of their CS occurrences are switches from English to Finnish. When they read a card out loud for the other players, they try to abstain from using English to the extent of their abilities. As an example of CS utilised by player 1 is the sentence:

“tää on sillee et jos tää kortti on mun tallissa vuoron alussa ni mä saan **discard** kaks korttia ja tuhota yhden yksisarviskortin”

”this is like if I have this card in my stable at the beginning of my turn, I get to discard two cards and destroy one unicorn card”

This brief switch to English is done to help move the conversation forward, rather than out of necessity created by lack of linguistic proficiency, similarly to non-habitual switchers (de Bot et al., 2009, p. 100). The trigger for the switch was written text in the card (de Bot et al., 2009, p. 91) that player 1 was translating into Finnish. Player 1 themselves mentioned during the group interview that the rules being explained to them in Finnish affected their language use and that they would not have translated the words into Finnish themselves, which indicates mimicry, as Thompson (2011, p.5) described.

6.3.3. Switching based on the subject matter

As figure 7 shows, all the participants switch mostly based on *Unstable Unicorns* and the total number of CS occurrences correlates directly with the number of switches originating from the game. Since there is a direct correlation between game-related switches and total switches and

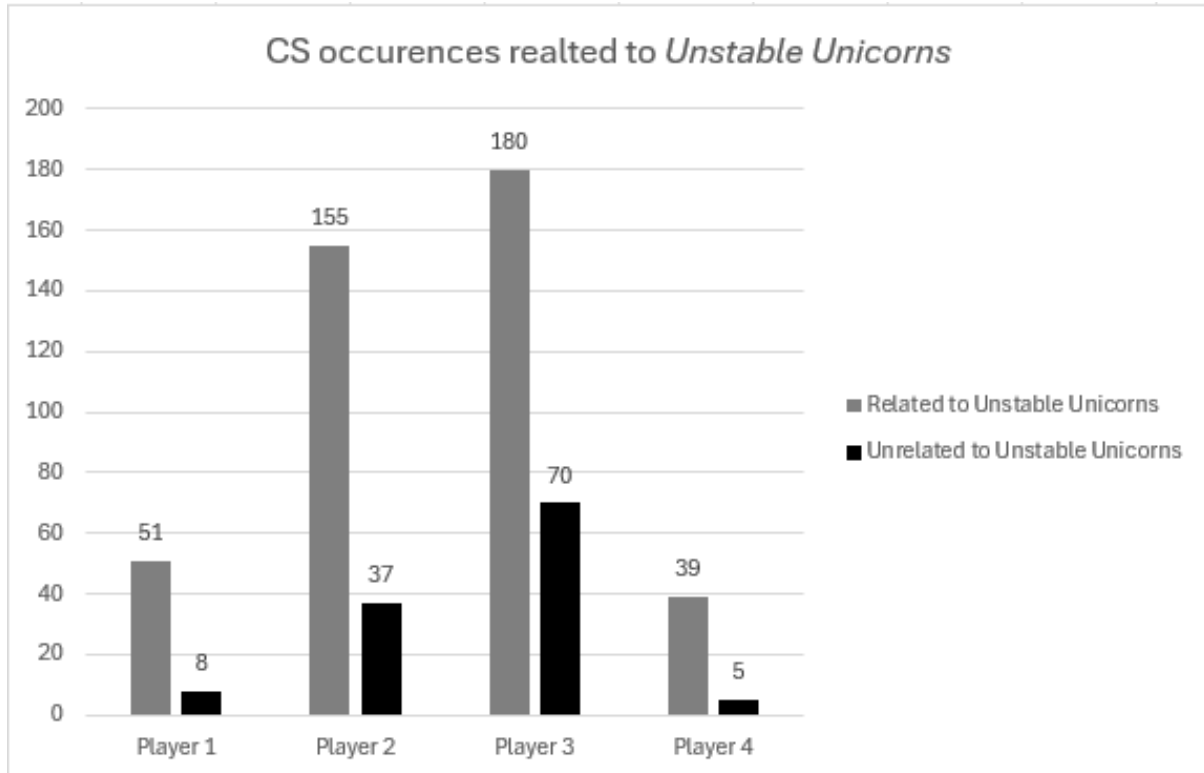


Figure 7: CS occurrences stemming from *Unstable Unicorn*.

the ratio between the game-related and non-game-related switches between participants are not excessive, it can be assumed that they switch for similar reasons. Since the game is in English and most of the switches made by the participants are either key terms, card names or the participants reading card text aloud, the most probable reason for switching is seeing and hearing English produced by the game. In de Bot et al.'s model for triggering CS (2009, p. 91), this would originate from perceiving the lexical, syntactical and phonetical levels, through key terms, reading card text and other participants reading the cards aloud respectively.

From an alternative perspective, the game pieces of *Unstable Unicorns* being printed in English and the participants having Finnish as their L1 create a natural contact zone (Pratt, 1991), where the participants are forced to be between Finnish and English. The contact zone created this way has a linguistic imbalance between the two languages, where English is in a dominant position, since the game pieces exist only in English. The imbalance is alleviated by the instruction booklet offering Finnish alternatives for the key terms, but the cards cannot be played without a sufficient proficiency in English.

Finally, the gameplay session creates its own form of a miniature affinity space (Gee, 2004), where the conversation is centred on the game. Having a central focus on *Unstable Unicorns* provides an explanation for why a majority of CS occurrences are related to the game. Including Canagarajah's (2012, p. 26) statement about communities forming a coherent language by any means available to them, it is understandable how a word like "rhinottaa" ("to rhino") makes sense.

7. Conclusion

In this study, I have explored the multifaceted nature of code-switching, its applications and the reasons for it occurring. I have delved into bilingualism and how it affects the environments where code-switching occurs. Lastly, I have analysed the language use of communities and language as a tool for self-expression. Using theories gathered from these fields I have analysed a video recording of a gameplay session of a board game called *Unstable Unicorns* to determine how the players of a board game utilise code-switching in their speech.

The findings regarding morphological switching suggest that speakers with a more casual approach to language use tend to often switch morphologically. Considering that speakers with high linguistic awareness, which is gained through interacting with multiple languages or extensively interacting with one language, tend to switch less morphologically but since all participants have high linguistic abilities, morphological switching should not be attributed to the lack of linguistic ability but rather the attitude toward the language on an individual level.

Analysing the switches from English to Finnish enforces de Bot et al.'s (2009) theory of code-switching being caused by the speaker being in a critical state, where any external stimulus might trigger a switch. This enforcement, however, is undermined by the find that linguistically more aware speakers have the cognitive resources (Saidi et al., 2017) to abstain from switching. Based on the study, the linguistically aware speakers only abstained from switching due to the judge presenting the key terms and rules to the participants in Finnish. This would suggest that heightened linguistic awareness does not cause the abstaining from switching, but rather enables it.

The discoveries concerning switching based on the subject matter imply that the characteristics of the speaker do not affect the way that they switch when they are speaking about the game, meaning that the more a speaker switches in a situation, the more they switch relating to the subject matter. This is caused by a feedback loop where perceiving more English from the game and switches from other players, the participants are more prone to trigger more code-switches, according to de Bot et al.'s (2009) model. The need for switching is, however, created by a power imbalance between Finnish and English, since a person with no English proficiency cannot play the game, due to the game pieces being only in English.

These finds collectively further suggest that heightened linguistic capabilities and abilities grant the speaker a better control over their code-switching. Furthermore, Thompson's (2011) idea of conversational mimicry needs to be accounted for with all of the aforementioned findings, since further along in the video recording all differences between participants are alleviated through the participants mimicking each other either consciously or subconsciously. The mimicry does not eliminate the differences, but rather alleviate them.

Outside of the realm of code-switches, the finding that the gamers' proficiency and previous experiences from gaming transfer into games that they have never played, concurs with Gee's (2004) theory about intertextual proficiency.

While this study was purposefully removed from a classroom context, I find the most suitable context for utilising the results in language teaching. While the theoretical background does not take language learning into account, I would assume that the effects of mimicry and intertextual proficiency would be beneficial in the field of education. Moreover, the emergence of a contact zone created by the Finnish speakers interacting with an English subject matter shares similarities with a classroom setting, where Finnish students interact with English textbooks. A classroom differs from a contact zone depicted by Pratt (1991), since neither of the languages is in a subjugated position, since the teacher and the textbooks offer tools for the students to understand the text. The applicability of the results must be further explored in future studies.

One of the strengths of this study is that it includes participants with variable backgrounds, which resulted in data from multiple forms of code-switching. Receiving a great amount of data of different varieties left the insight into any specific form of code-switching as shallow. This is why I suggest that future studies should focus either on singular type of code-switching or limit their participants to a single category, which would result in a deeper understanding of the type of selected code-switching or the behaviour of the selected group of participants.

Another strength is the selection of suitable data gathering and analysis methods. I am suggesting that future studies focusing on the authentic use of code-switching would use videotaping as the method of data collection, since the researcher can focus on ensuring that the data collection proceed as planned rather than splitting their focus between writing notes and upholding the setting for the data collection. Content analysis as the analysis method is

also suitable, since the numerical data gained from counting the CS occurrences reveals which participants switch the most and in which ways. There could, however, be another analysis method paired with content analysis to further analyse the code-switches observed in the study.

The study's weaknesses include the lack of focus in any specific type of CS, which resulted in a shallow understanding of many types of CS instead of achieving a deeper understanding of any type of CS. The study could also have included more participants or participants from different backgrounds, for example a university of applied sciences or people who have already moved on to work life. Having more participants with more diverse backgrounds could result in less homogenous results.

Future studies could also change the subject matter from board games to another subject matter. Since gaming language is already stylised (Balteiro, 2019) and gamers are prone to code-switching, the setting of board games, or any other games for that matter, are associated with code-switching per se, another subject matter for the study could be seen as beneficial.

Overall, code-switching and its benefits and applications should be further explored, since the modern world is full of contact zones, affinity spaces and other chances to engage in code-switching.

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