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Types of Dutch-English code-switching in Nederlandstalige hotel reviews

Bachelor Thesis

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Abstract

Over the past decades, multilingual interaction has become more of a standard than an exception (e.g. Hall and Nilep, 2015). With this increase in multilingual interaction, *code-switching* has become a common phenomenon in physical and online interaction. Code-switching can occur in three different types: intra-sentential, inter-sentential and word affixation. Research has shown that code-switching is related to emotional communication (Dewaele, 2013) and the Communication Accommodation Theory (Giles, 1974). This study investigated whether there is a relation between the type of emotion communicated, the Communication Accommodation Theory and the type of code-switching (intra-, inter-sentential and word affixation) used. Therefore, a corpus analysis of TripAdvisor hotel reviews (negative, 1 bullet reviews; neutral, 3 bullet reviews; positive, 5 bullet reviews) containing Dutch-English code-switching has been conducted. The reviews were of hotels located in the United States, the Netherlands, and countries where neither Dutch nor English was the primary language. Reviews are expected to contain code-switching since emotion is communicated. Research on this specific matter can help review analysts to be able to interpret better what the presence and use of code-switching mean in rating and the intended emotion communicated in reviews. Results showed that inter-sentential code-switching occurred more in positive reviews than in neutral reviews. Previous research of Van der Heijde (2019) suggested that clarification is a function of inter-sentential code-switching, which may explain the result of this study. Furthermore, the results confirmed a relation between code-switching and the Communication Accommodation Theory since Dutch-English code-switching occurred more in American hotel reviews than in reviews of Dutch hotels. By code-switching to English, the reviewer may be accommodating to the hotel's location. Overall, this study resulted in interesting findings regarding Dutch-English code-switching in online hotel reviews.

Introduction

Traditionally, interaction has been conceptualized as a conversation occurring in one single language. However, an increasing amount of research into sociocultural linguistics shows that multilingual interaction is becoming a standard instead of an exception (e.g. Hall and Nilep, 2015; Marácz and Adamo, 2017; Blommaert, 2010). This finding is likely to be an effect of the increasing social diversity and globalization (Hall and Nilep, 2015), which is partly due to the rise of the internet and social media. As a result, cultural and linguistic diversity has become more prominent and resulted in multilingual interaction in physical and online communication. As a result of multilingual interaction, multiple languages in one conversation have become a standard in spoken and written communication. This type of language behaviour is also known as code-switching (CS).

Code-switching can be defined as: "the use of two or more linguistic varieties in the same conversation or interaction" (Myers-Scotton and Ury, 1977, p. 5). In other words, code-switching takes place when a person alternates between two or more codes (languages) in the same speech act. It can occur in different settings and takes place in different forms, e.g. intra-sentential (e.g. word and phrase), inter-sentential (e.g. sentence and intersection) and word affixation (e.g. morpheme, affix and suffix). Due to the increase of multilingual interaction, code-switching has become an essential part of society. It helps people to stay connected with different societies and to feel more comfortable within different societies.

Code-switching is a relevant aspect of linguistics and research, plenty of research has been done about it. Code-switching has been defined in previous research as: "the alternation of two languages" (Valdes Fallis, 1976); "the use of more than one language by communicants in the execution of a speech act" (Di Pietro, 1977); "the alternate use of two or more languages in the same utterance or conversation" (Grosjean, 1982); and "the practice of selecting or altering linguistic elements so as to contextualize talk in interaction" (Nilep, 2016). This enumeration gives a view of what code-switching in general entails. However, as mentioned before, it can occur in different forms and with different motivations.

Previous research has attempted to treat code-switching systematically. Blom and Gumperz (1972) classified two types of how and when code-switching occurs. These two classifications are 'situational' and metaphorical' switching. Situational switching includes shifting for the topic and is based on the societal consensus that a particular language is assigned to a specific cluster of topics, places, persons or intention. According to Blom and Gumperz (1972), a situational switch would represent a shift in one of these clusters. On the other hand, metaphorical switching would represent switching codes to emphasize or draw attention. Other

researchers considered Blom and Gumperz (1972) perception problematic since it is defined externally and from an analyst's perspective (e.g. Auer, 1984).

When looking at code-switching on the syntactic dimension, a distinction between three types can be made. According to Myers-Scotton (1993), code-switching can be divided into 'intra-sentential code-switching' and 'inter-sentential code-switching'. Intra-sentential code-switching entails all the code-switching within the same sentence, starting with the single morpheme level to higher levels. Switches from one language to another between sentences instead of within are classified as inter-sentential code-switching. Other research by Poplack (1980) added the classification 'word affixation' to that as well. These three types (intra-sentential, inter-sentential and word affixation) of code-switching will be the classification used for the variable 'types of code-switching' in this study.

Code-switching can occur for different reasons. According to Myers-Scotton and Ury (1977), there are two main reasons why speakers switch codes in a conversation, firstly "to redefine the interaction as appropriate to a different social arena" (Myers-Scotton and Ury, 1977, p. 6). The second reason is "to avoid, through continual code-switching, defining the interaction in terms of any specific social arena" (Myers-Scotton and Ury, 1977, p. 6). These reasons suggest that back and forth code-switching symbolizes the speaker's ambiguity about which social arena is the most suitable for carrying out the conversation. The study defined three social arenas that can be interchanged: the identity arena, the power arena and the transactional arena. The social arena is indicated at the beginning of a conversation by the speakers' initial roles taken. At any moment in the conversation, the speaker may switch to another linguistic variety that identifies with another arena. This results in a redefinition of the social arena, and the speaker disassociates the conversation from the previous arena (Myers-Scotton and Ury, 1977).

Other research suggests that code-switching only occurs because a person's linguistic capabilities in a specific language are insufficient. According to the research of Grosjean (1982), this was indeed mentioned as a reason by some Spanish-English bilinguals. When these bilinguals were asked 'why do you code-switch?', their answer was: lack of knowledge.

Thus, bilingual proficiency influences whether a speaker code-switches or not, but it also influences on the type of code-switching used. For example, Poplack (1980) suggested that bilinguals who are non-fluent prefer inter-sentential code-switching, and fluent bilinguals prefer intra-sentential code-switching. This relation between bilingual proficiency is also suggested by Holmes (2000), who found that proficient bilinguals mostly use intra-sentential

code-switching. In contrast, less proficient bilinguals more often use inter-sentential code-switching.

Furthermore, code-switching is also suggested to be related to the communication accommodation theory (CAT) of Giles (1971) and can be seen as an aspect of accommodation (Bissoonauth and Offord, 2001). The communication accommodation theory suggests that people adjust their communicative behaviours during social interactions between people from different cultural or demographic groups. According to Giles (1971), the communication accommodation theory is when people try to emphasize or minimize the social difference between themselves and the person they are interacting with. In order to do so, one may use adjustments through either verbal communication or gestures. Code-switching is a perfect example of one of those adjustments.

Besides the swift in the social arena, bilingual proficiency and the Communication Accommodation Theory, there are other psychological and sociological motivations for code-switching. Research by De Socarraz-Novoa (2015) attempted to identify code-switching motivations in a multilingual workplace (Spanish-English). The results showed three main reasons and meanings behind code-switching: face-saving, expressing raw emotion, and separation of work and private life. In De Socarraz-Novoa's (2015) research, face-saving occurred when the speaker is aware that a listener is not as comfortable and confident in their English proficiency. Thus the speaker feels obliged to talk in Spanish around this person. The second reason was expressing raw emotion, which refers to someone's instinctual reaction to any accustomed situation. Often, these are impulsive expressions and emotions which are challenging to translate. Lastly, code-switching can occur in order to separate work and private life. Especially the motivations 'expressing raw emotion' and the 'Communication Accommodation Theory' mentioned above are interesting for this study.

Further research of Dewaele (2013) into expressing emotion suggested that heightened emotionality is linked to an increased frequency of code-switching. Moreover, intense, sudden emotional outbursts may be expressed in a distinctive language than the original language spoken in the interaction (e.g. van Lancker and Cummings, 1999; Dewaele, 2004a, b). These findings are also strengthened by Pavlenko's (2005) and Dewaele's (2006) research, which suggest that multilingual speakers frequently choose their L1 to argue in.

As mentioned before, code-switching occurs in different forms and for different reasons. However, it also occurs in different settings as oral and written discourse, and physical and online interaction. Many studies on code-switching and expressing emotion and the Communication Accommodation Theory mentioned above focused on oral discourse.

However, Dewaele and Qaddourah's (2015) research regarding language choice in expressing anger also took written discourse into account. The results of Dewaele and Qaddourah's (2015) research suggested that the L1 was preferred over the L2 when expressing anger towards oneself, friends, parents, and strangers. However, when the participants expressed anger in letters, the L2 was preferred over the L1.

Dewaele and Qaddourah's (2015) research shows that the research results into oral discourse code-switching cannot be generalized to code-switching in written communication since there appears to be a significant difference in the language choice in expressing anger in spoken or written communication. Other research by Barasa (2016) supports this issue as well. Barasa (2016) concluded that code-switching in online social platforms cannot be generalized to code-switching in oral discourse but should be perceived and approached as a unique entity.

This study will be looking at Dutch-English code-switching in an online context. Previous research of Van der Heide (2019) into code-switching in a Dutch-English online community found differences in the function of intra-sentential code-switching compared to inter-sentential code-switching. The most frequent functions of intra-sentential code-switching were to fulfil a lexical need, add emphasis and quote a phrase or saying. Though inter-sentential code-switching was most frequently used for quoting a phrase or saying, add emphasis and clarification. This result suggests a difference in the function of intra- and inter-sentential code-switching in online discourse.

Other research showed that there is also a difference in the use of the different types of code-switching. For example, Caparas and Gustilo (2017) suggest that intra-sentential code-switching is used more frequently than inter-sentential code-switching in Facebook posts. This result aligns with Zenner and Geeraerts' (2015) research which found that Dutch speakers primarily code-switch on an intra-sentential level.

In general, research regarding oral discourse has shown a significant correlation between code-switching and emotional communication and code-switching and the Communication Accommodation Theory. However, these results cannot be generalized to written discourse since code-switching in written discourse must be treated as a unique entity (Barasa, 2016). Compared to research into code-switching in oral discourse, only little research about code-switching in written discourse has been done. Moreover, these previous studies regarding written discourse have not shown a relationship between a type of emotion communicated, Communication Accommodation Theory and a type of code-switching (intra-sentential, inter-sentential and word affixation). In order to investigate whether there is a

correlation between the type of emotion, Communication Accommodation Theory and type of code-switching, this study will investigate online hotel reviews.

Writing a review is a way of expressing emotions; therefore, it is likely to find code-switching in reviews. With the use of hotel reviews of different locations, it can be investigated whether the type of Dutch-English code-switching depends on the reviewer trying to accommodate to the language spoken at the hotel's location. Since the rise of the internet, the route to buying a product or a service has changed. Online customer reviews play a prominent role in this and are highly important for both companies and potential customers. These reviews are used as a source of product information that can guide consumers in their purchase choices and eventually make or break a purchase.

Since online customer reviews are such an essential part of society nowadays, it is precious to understand and interpret these reviews at a deeper level for both companies and potential customers. Research on this specific matter can help review analysts to be able to interpret better what the presence and use of code-switching mean in rating and the intended emotion communicated in reviews.

Therefore, the first research question of this study will investigate the relation between the type of code-switching and emotional communication by analysing Dutch hotel reviews on TripAdvisor.

RQ1: Is there a correlation between the type of code-switching (intra-sentential, inter-sentential and word affixation) used in hotel reviews and the type of review (positive/negative/neutral)?

However, emotional communication is not the only motivation for code-switching. Previous research showed that people often use code-switching to talk and act more like those around them; it could be seen as an accommodation aspect related to Giles' Communication Accommodation Theory (1971). In hotel reviews, this could be represented by the reviewer accommodating to the language spoken at the hotel's location by code-switching to that language. In order to create a deeper understanding and interpretation of hotel reviews, it is interesting to analyse whether the location of a hotel can be a motivation for the reviewer to code-switch to the specific language of that location to accommodate.

Therefore, the second research question will analyse the relation between code-switching and the Communication Accommodation Theory by analysing Dutch reviews on

TripAdvisor of hotels in the Netherlands, the United States and countries where neither Dutch nor English is the primary language.

> *RQ2: Is the type of code-switching used in hotel reviews based on whether the hotel reviewed is located in the United States, the Netherlands or a country where neither Dutch nor English is the primary language?*

Method

Materials. In order to compare the difference in the use of code-switching between various types of reviews (positive/negative/neutral), a total of 123 hotel reviews from TripAdvisor posted from 2015 until 2020 were used for this corpus analysis. All reviews had a rating of either 5 'bullets' (positive), 3 'bullets' (neutral) or 1 'bullet' (negative) given by the reviewer. The reviews were from hotels in the United States, the Netherlands or countries where neither Dutch nor English is the primary language. The reviews were written in Dutch and contain Dutch-English code-switches classified as intra-sentential, inter-sentential or word affixation code-switching. The reviews were simple randomly selected. Thus, each review had an equal chance of being selected for the research as long as it satisfied the requirements.

     Procedure. All 5 members of the research group selected 25 reviews from TripAdvisor, which contained Dutch-English code-switching. 2 reviews were selected twice by two coders; therefore, these 2 reviews were left out and the total number of reviews was 123. All 5 independent coders coded all the reviews found by them, including the title. The coders were all students from Radboud University in Nijmegen, the Netherlands. Each coder was assigned 25 reviews to code as the first coder and 25 reviews to code as the second coder. Multiple variables were coded. Firstly, the variable 'number of bullets' was coded, the rating given to the hotel by the reviewer. When the reviewer gave one bullet to the hotel, 1 bullet was coded, and so on. The variable could have been assigned one of three codes (1 bullet, 3 bullets, 5 bullets; nominal measurement level). The hotel's name was coded; this could be found at the top of the webpage. Moreover, the location of the hotel was coded. This variable could have been assigned one of three codes (1 = USA, 2 = NL, 3 = non-Dutch/non-English; nominal measurement level) and could also be found at the top of the webpage where the review was located. The number of words of the review was coded; this was the sum of the number of words per review, including the title (ratio measurement level). Furthermore, the number of code-switches in a review was coded (ratio measurement level) and each individual code-switch as well. The length of the code-switching instance was coded by counting the total number of words of the

code-switch (ratio measurement level. Lastly, the type of code-switching was coded and could have been assigned one of three codes (1= intra-sentential, 2 = inter-sentential, 3 = word affixation). When the code-switch consisted of one or more words *within* the same sentence, the code-switch was coded as intra-sentential (see Example 1). It was coded as inter-sentential code-switching when it consisted of a complete (see Example 2) (Myers-Scotton,1993). A code-switch was classified as word affixation when only a part (e.g. affix or suffix) of a word was code-switched (see Example 3) (Poplack, 1980).

> *Example 1a.* "Het hotel heeft een afgesloten parkeergarage, iets waar wij ***happy*** mee
> waren met onze open Jeep."
>
> *Example 1b.* "Super hotel in ***the middle of the city***"
>
> *Example 2a.* "***Luxury and service from dusk till dawn***. Mooie ruime kamer van alle
> gemakken voorzien."
>
> *Example 2b.* "Wat een top hotel en team!! ***I will be back***."
>
> *Example 3a.* "Ja, dan zeggen ze dat je ge-***upgrade*** bent naar de luxe kamer."
>
> *Example 3b.* "De jus d'orange automaten waren verstopt (oftewel zijn niet vaak genoeg
> ge***serviced***).

All the variables were coded in an excel sheet, with every variable in a separate column. The first and second coder were not allowed to discuss the corpus until they coded the corpus. The coders had to code separately to not influence each other on the interpretation of the type of code-switching. After everything had been coded, the first and second coder compared the coding and decided on the final coding. Every difference had to be debated by the coders to reach a mutual agreement on the final coding. An agreement was coded as '1', and a disagreement was coded as '2'. When the coders disagreed, the first coder's initial coding was used.

The interrater reliability of the variable 'type of code-switching' was fairly low: $\kappa = .38$, $p < .001$.

Statistical treatment. In order to investigate the research questions, chi-square tests and one-way ANOVAs were conducted.

Results

To investigate research question 1: "Is there a relation between the use of code-switching in customer reviews and the type of review (positive/negative/neutral)?" a total of 123 hotel reviews were coded.

      Frequency of code-switching instances. The total number of code-switching cases found was 258, of which 218 cases were intra-sentential code-switching, 30 cases of inter-sentential code-switching and 10 cases of word affixation. The most frequently used code-switches were "basic", "staff", "parking" and "roadtrip".

      Type of reviews. The corpus contained 28 one-bullet reviews, 34 three-bullet reviews and 61 five-bullet reviews. In addition, 62 code-switching cases were found in one-bullet reviews, 68 in three-bullet reviews and 128 in five-bullet reviews. The number of words and code-switching cases and the length of the code-switches was investigated as well. Table 1 shows all the minimum and maximum numbers of these variables categorized per review type.

Table 1. *Minimum and maximum of number of words and code-switching instances per review and average length of code-switching instances in negative, neutral and positive reviews.*

	Negative reviews $n = 28$		Neutral reviews $n = 34$		Positive reviews $n = 61$	
	Min.	Max.	Min.	Max.	Min.	Max.
Number of words	35	458	37	317	29	330
Code-switching instances	1	6	1	9	1	5
Length code-switches (in words)	1	4	1	4	1	9

Table 2 shows further details regarding the mean and standard deviation of the review length, the number of code-switching instances and the average length of the code-switches per type of review.

Table 2. *Mean and standard deviation of number of words and code-switching instances per review and average length of code-switching instances in negative, neutral and positive reviews.*

	Negative reviews *n* = 28 *M (SD)*	Neutral reviews *n* = 34 *M (SD)*	Positive reviews *n* = 61 *M (SD)*
Number of words	137.19 (99.06)	120.25 (79.23)	92.34 (59.49)
Code-switching instances	2.27 (1.40)	1.88 (1.60)	2.08 (1.22)
Average length code-switches	1.81 (1.06)	1.59 (0.80)	2.19 (1.70)

A one-way analysis of variance showed a significant difference for the length of the review between the type of reviews (F (2, 114) = 3.62, p = .030). Negative reviews were longer (M = 137.19, SD = 99.06) than positive reviews (p = .038, Bonferroni-correction; M = 92.34, SD = 59.49). Other one-way analyses of variance showed no significant difference between type of review and number of code-switching instances (F (2, 114) < 1) and average length of code-switching instances (F (2, 114) = 2.09, p = .128).

Hotel location. The second research question to be investigated was: "Is the use of code-switching in customer reviews based on whether the hotel being reviewed is located in the United States, the Netherlands or non-Dutch and non-English spoken countries?" Out of the 123 reviews, 47 were of hotels in the USA, 37 in the Netherlands and 39 in non-Dutch and non-English spoken countries. The division of the code-switching instances concerning the hotel locations was: 108 cases in American hotel reviews, 69 in Dutch hotel reviews and 81 in other hotel reviews. Table 3 shows all the minimum and maximum numbers of these variables categorized per hotel location.

Table 3. *Minimum and maximum of number of words and code-switching instances per review and average length of code-switching instances in reviews of American, Dutch and other hotels in non-Dutch and non-English spoken countries.*

	American reviews $n = 47$		Dutch reviews $n = 37$		Other reviews $n = 39$	
	Min.	Max.	Min.	Max.	Min.	Max.
Number of words	35	371	37	458	29	330
Code-switching instances	1	9	1	5	1	6
Length code-switches (in words)	1	9	1	5	1	7

Table 4 shows further details regarding the length of the review and the number of code-switching instances per type of review.

Table 4. *Mean and standard deviation of number of words and code-switching instances per review and average length of code-switching instances in reviews of American, Dutch and other hotels in non-Dutch and non-English spoken countries.*

	American reviews $n = 47$ *M (SD)*	Dutch reviews $n = 37$ *M (SD)*	Other reviews $n = 39$ *M (SD)*
Number of words	131.29 (88.36)	142.45 (90.41)	96.91 (72.78)
Code-switching instances	3.50 (2.41)	2.44 (1.39)	2.99 (1.55)
Length code-switches	1.76 (1.30)	1.76 (1.11)	1.81 (1.39)

A one-way analysis of variance showed a significant difference for the length of the review between the locations of the hotels reviewed (F (2, 247) = 6.15, p = .002). Reviews of non-Dutch and non-English hotels (M = 96.91, SD = 72.78) were shorter than American hotel reviews (p = .019, Bonferroni-correction; M = 131.29, SD = 88.36) and Dutch hotel reviews (p = .004, Bonferroni-correction; M = 142.45, SD = 90.41). Another one-way analysis of variance showed a significant difference for the number of code-switching instances between the locations of the hotels reviewed (F (2, 247) = 6.28, p = .002). American hotel reviews (M =

3.50, *SD* = 2.41) contained more code-switching instances than Dutch hotel reviews (*p* = .002, Bonferroni-correction; *M* = 2.44, *SD* = 1.39). A final one-way analysis of variance showed no significant difference for the length of the code-switches between the locations of the hotels reviewed (*F* (2, 247) < 1).

   Distribution of the different types of code-switches. A Chi-square test analysed whether there is a relation between the type of code-switching and the type of review (positive, negative or neutral). The Chi-square test showed a significant relation between type of code-switching and type of review ($\chi^2(4)$ = 10.25, *p* = .036). As shown in Table 5, inter-sentential code-switching occurs more in positive reviews (18%) than in neutral reviews (4.4%). The code-switching cases in negative reviews did not contribute to the significant relation between type of review and type of code-switching used.

Table 5. *The distribution of the types of code-switching in negative, neutral and positive reviews.*

	Negative reviews		Neutral reviews		Positive reviews	
	n	%	*n*	%	*n*	%
Intra-sentential	55	88.7%	62	91.2%	101	78.9%
Inter-sentential	4	6.5%	3	4.4%	23	40.0%
Word affixation	3	4.8%	3	4.4%	4	3.1%

Another Chi-square was conducted to analyse whether there is a relation between the type of code-switch and the hotel location. The Chi-square test showed no significant relation between type of code-switching and hotel location ($\chi^2(4)$ = 5.56, *p* = .234). Table 6 shows the exact distribution of the types of code-switching in reviews of American, Dutch and non-Dutch and non-English hotels.

Table 6. *The distribution of the types of code-switching in American, Dutch and non-Dutch and non-English (other) hotels.*

	American hotels		Dutch hotels		Other hotels	
	n	%	*n*	%	*n*	%
Intra-sentential	97	89.8%	57	82.6%	64	79.0%
Inter-sentential	8	7.4%	8	11.6%	14	17.3%
Word affixation	3	2.8%	4	5.8%	3	3.7%

Conclusion and discussion

The first research question aimed to investigate whether there is a relation between the type of code-switching (intra-sentential, inter-sentential and word affixation) used in online hotel reviews and the type of review (positive/negative/neutral). In order to answer this research question, a corpus analysis of hotel reviews on TripAdvisor was conducted. The results showed a significant relation between type of code-switching and type of review. Inter-sentential code-switching occurred significantly more in positive reviews than in neutral reviews. Negative reviews, however, did not contribute to the relation between type of code-switching and type of review.

Previous research of Van der Heide (2019) found a significant difference in intra- and inter-sentential code-switching functions. Van der Heide's (2019) research showed that intra-sentential and inter-sentential code-switching have similar functions. However, inter-sentential code-switching is used to add clarification, while intra-sentential code-switching is not. A possible explanation for why inter-sentential code-switching occurred more in positive reviews than in neutral reviews could be derived from Van der Heide's (2019) study. The reviewer may be more likely to clarify a positive review than a neutral review. For example, a reviewer who had a positive experience could be more likely to explain and describe these positive experiences during a stay in a hotel than a reviewer who had a neutral experience in a hotel. This could explain why inter-sentential code-switching occurred more in positive than neutral reviews in this current study. However, to prove this, more research has to be done since there can be other factors, such as bilingual fluency, that caused these results.

For example, Poplack (1980) and Holmes' (2000) studies implied that fluent bilinguals prefer to use intra-sentential code-switching and less fluent bilinguals prefer inter-sentential code-switching. It could be possible that the bilingual fluency of the reviewers has influenced

the results of this research since the bilingual fluence of the reviewers has not been studied in this study.

Additional analyses of general variables – e.g. length of review and number of code-switching instances – have been performed. The results showed that negative reviews were significantly longer than positive reviews. This is not in line with previous research of Rozin, Berman and Rozyman (2010), which suggested that more words are needed in order to communicate a positive judgement than when communicating a negative judgement.

Furthermore, no significant difference was found for the length of code-switching instances between the review types. In addition, no significant difference in the number of code-switching instances between the review types was found. This is not in line with previous research, e.g. De Socarraz-Novoa (2015) and Dewaele (2013). These previous studies all found that code-switching occurred when expressing emotions. Dewaele (2013) even found that heightened emotionality is linked to an increased frequency of code-switching. Based on this result, it was expected that the total number of code-switching instances would be significantly more in positive and negative reviews than in neutral reviews.

Looking at the frequencies of the types of code-switching, it is noticeable that intra-sentential code-switching occurred the most in general, even though this difference was not significant. This is in line with previous research. For example, Zenner and Geeraerts' (2015) research showed that Dutch speakers primarily use intra-sentential code-switching. Furthermore, this result is also in line with previous research of Caparas and Gustilo (2017). They found that intra-sentential code-switching occurred more than inter-sentential code-switching in Facebook posts.

The second research question of this study aimed to investigate whether there is a relation between the type of code-switching and the location of the hotel being reviewed (the United States, the Netherlands, or non-Dutch and non-English spoken countries). The results showed no significant relation between these two variables. Furthermore, the different types of code-switching were relatively equally distributed over the reviews of the different hotel locations.

However, results did show that American hotel reviews contain more code-switching instances than Dutch hotel reviews. This result is in line with the research of Bissoonauth and Offord (2001), who implied that code-switching could be seen as an aspect of the Communication Accommodation Theory of Giles (1971). Code-switching from Dutch to English in American hotel reviews can be seen as an adjustment of the reviewer's communicative behaviour to minimize the social and cultural difference between themselves

and the hotel. Thus, this result implies that code-switching is part of the Communication Accommodation Theory. Moreover, the location of a hotel could motivate the reviewer to code-switch to the specific language of that location to accommodate. An example of a code-switching case that was found multiple times in the reviews of American hotels was the word *'downtown'*. Using the word *'downtown'* instead of the Dutch word *'centrum'* could resemble the reviewer's adjustment to minimize social and cultural difference with the hotel in America.

Additional analyses showed a significant difference in the review length between the three locations of the hotels reviewed. Reviews of hotels in non-Dutch and non-English spoken countries were shorter than American and Dutch hotel reviews. A possible explanation for this could be that the reviewer was less familiar with the language spoken at the hotel's location and did not feel the urge to write an extensive review for the hotel. Lastly, no significant difference in the length of the code-switches was found between the three locations of the hotels reviewed. For every hotel location group, more than half of the code-switching instances consisted of only one word. This is in line with previous research of Dongen (2017), who investigated Dutch-English code-switching in tweets and found that 53% of the code-switches consisted of just one word.

Limitations and recommendations. Multiple limitations can be assigned to this study. First, since this study is only based on Dutch-English code-switching, it is not easy to generalize the results to a broader area. Dutch people are, in general, no native speakers of English, which means that the English proficiency is lower than the Dutch proficiency (Van Onna & Jansen, 2006). However, the frequent use of intra-sentential code-switching compared to inter-sentential code-switching suggests that reviewers had high proficiency in English (Poplack, 1980; Holmes, 2000). Finally, because bilingual fluency has not been taken into account in this study, it remains unclear whether the sample used was a good representation of the Dutch community in general.

Lastly, a final limitation of this study is that the intercoder reliability was fairly low. All coders should have discussed better when to code something as a code-switching case. The Dutch language has adopted a substantial number of English words that are now a standard in the Dutch language and society, also known as loanwords (Van der Sijs, 2009). An example of such a loanword coded for this study is *'hottub'*, which could be coded as a code-switching case. However, one could also consider this a word integrated into the Dutch vocabulary since it is not translatable to Dutch. There was no explicit agreement made between the coders whether to code these loanwords as code-switching or not. Therefore, incorrectly coding loanwords may have caused the low intercoder reliability.

Another possible effect of the many loanwords the Dutch language has, is the relatively high number of intra-sentential code-switching cases. Intra-sentential code-switching may happen more often in Dutch to English than in another language due to the many English loanwords the Dutch language has.

Further research could focus on exploring the relation between the type of code-switching used and its emotion expressed with it. It is known that the expression of emotions influences on the use of code-switching (e.g. De Socarraz-Novoa, 2015; Dewaele, 2013). However, not so much research has been done about the influence of emotion on the code-switching type. This present study aimed to do this and began with investigating the relation between emotion and type of code-switching, which resulted in a significant effect. However, it remains challenging to state why this result occurred. As explained earlier, the result could also be caused by the bilingual fluency of the reviewer, which is known to affect the type of code-switching (Poplack, 1980; Holmes, 2000), but was not taken into account in this research. In order to attain more understanding about the relation between emotion and type of code-switching, more research into this, while taking bilingual fluency into account, should be done.

Moreover, it would be interesting to conduct this research in different languages. As mentioned before, the Dutch language has adopted many English loanwords. This could have affected the total number of intra-sentential code-switching instances. Previous research of Broersma (2009) showed that code-switching occurs more often between strongly related languages, like Dutch and English, than languages less strongly related like Moroccan Arabic and Dutch. The results of the present study may differ when executing it for two less strongly related languages. Therefore, it could be interesting to execute this study with Mandarin-English code-switching to see whether the results show a similar relation between emotion and type of code-switching. The Chinese language is relatively minimal influenced by the English language compared to other linguistic communities (Hall-Lew, 2002).
If this research would be executed for two different languages, one that does not have loanwords from the other language, it could give a better and more reliable result.

To conclude, the results showed a relation between the emotion of a review and the type of code-switching used. Inter-sentential code-switching occurred more in positive reviews than in neutral reviews. However, future research is necessary in order to get a better understanding of this relation. Furthermore, the results implied that code-switching is a part of the Communication Accommodation Theory since code-switching occurred more in reviews of American hotels than in Dutch hotel reviews. Overall, this study resulted in some interesting

findings regarding Dutch-English code-switching in online hotel reviews. Therefore, it contributed to the extensiveness of research into code-switching in written discourse.

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Appendix A. Statement of own work

Sign this *Statement of own work* form and add it as the last appendix in the final version of the Bachelor's thesis that is submitted as to the first supervisor.

Student name: _____ Janne Rutten _____

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