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# **Emotions and the Type of Code-switching in a Corpus of Dutch-English Online Hotel Reviews**

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## **Abstract**

Few studies on code-switching in written discourse have taken into account the role of emotionality on code-switching. Emotions were found to influence the use of code-switching. Therefore, this study investigated the effect of positive, negative, and neutral emotions on the type of code-switching used in online reviews and provides further observation on motivations for code-switching. A corpus analysis of 123 Dutch-English hotel reviews taken from the Tripadvisor.com website was performed. Findings showed that positive reviews included relatively more intra-sentential code-switching than neutral reviews, but not more than negative reviews. Intra-sentential code-switching was also the most frequently used code-switching and the main motivation for reviewers to code-switch was ‘Anglicism’. In addition, negative reviews tended to be longer than positive reviews. The findings demonstrated conclusions that were further discussed. Implications of these results and recommendations for future research are presented.

### *Keywords:*

Code-switching, written discourse, electronic communication, reviews, intra-sentential, inter-sentential, word affixation, bilingual, multilingual, emotionality

## Introduction

Due to the rapid growth of globalization and the advances in technology, it has become incredibly easy to interact with different people from all over the world. This increase in interaction and discourse with people from different countries leads to a rise of bilingual and multilingual speakers as well. Moreover, considering the fact that English is spoken by the majority of the population, bilingualism is almost considered as normal nowadays (Marlina & Xu, 2018). As a bilingual or multilingual speaker, it is easier for these speakers to switch from one language to another language in the same conversation or interaction. This phenomenon is also known as code-switching (CS). Code-switching is an interesting phenomenon and can be studied from several perspectives, such as from a linguistic, sociolinguistic, or psycholinguistic perspective. For this reason, there is no agreed definition for code-switching. For example, Vladimirovna, Sergeevna, Mikhailovna and Victorovna (2018) define code-switching as the process of transition of an individual from one language to another during a communicative act in order to convey their communicative intentions more clearly. Another definition by Grosjean (1982) describes code-switching as the alternate use of two or more languages in the same utterance or conversation. Similar to that, Myers-Scotton defines code-switching as “the selection by bilinguals or multilinguals of forms from an embedded variety (or varieties) in utterances of a matrix variety during the same conversation” (1993, p.3). Considering the fact that Myers-Scotton is involved in large numbers of research on code-switching, this study will follow the definition of Myers-Scotton (1993) to avoid any confusion.

When speakers code-switch, there is always a matrix language – embedded language opposition. In other words, when bilinguals use two languages in bilingual speech, there is no equal activation of these two languages in their brain. The matrix language, also known as the dominant language, is the language in context and sets the grammatical frame of such speech. On the other hand, the embedded language is the inserted language and participates largely by supplying lexical items (a single word, a part of a word, or a chain of words; e.g. *dog, key holder, by the way*) that are integrated into that frame (Myers-Scotton & Jake, 2009; Myers-Scotton, 2002, p.16). Examples with Dutch being the matrix language and English the embedded language are “In mijn *kitchen* heb ik altijd een koelkast” [In my kitchen I always have a refrigerator] (*Ex1*); “Zou je mij de *salt* kunnen aangeven, alstublieft?” [Could you please pass me the salt?] (*Ex2*); or “Ik heb nog bestek en kommen *by the way*, dus dat hoef je niet meer te kopen” [I still have cutlery and bowls by the way, so you do not have to buy that anymore] (*Ex3*).

Within code-switching, three different types can be identified: intra-sentential CS, inter-sentential CS, and word affixation (e.g., Poplack, 1980; Pfaff 1979). Intra-sentential code-switching is if the code-switching occurs in one sentence, as in *Ex1-3*. Inter-sentential code-switching occurs if a switch from one language variety to another language outside the sentence or the clause level is made, as in “Zullen we eten halen? *I am very hungry*” [Should we get some food? I am very hungry] (Koban, 2013). In addition, code-switching can also occur as a word affixation as either a prefix, suffix, or infix, as in “kooking” [cooking]. The distinction between these types of code-switching suggests that one type of code-switching could be used more often than the other type. For example, a study by Koban (2013) looked at code-switching patterns of Turkish-English bilinguals via face-to-face interviews and found that intra-sentential code-switching was the dominant type of code-switching, with inter-sentential code-switching being less produced.

Previous research has found multiple functions of code-switching in both spoken and written discourse. For example, Van der Walt (2009) showed several functions of code-switching in English language learning classes. Code-switching was mostly used to clarify meaning (e.g. to provide instructions or to explain errors) and for affective purposes (e.g. to accommodate or to create distance from conversational partners). Furthermore, other studies done by Myers-Scotton (1995), Myers-Scotton & Jake (2009), and Scotton & Ury (1977), provided additional motivations for code-switching. The motivations they named were to strengthen solidarity; to show multiple identities; to add aesthetic effects; to play with words; to request the meaning of vocabulary and expressions; to bridge a social gap; and to ask for accommodation. Regarding motivations for code-switching in written discourse, these are to some extent similar to the motivations for code-switching in spoken discourse. For instance, Duah & Marjie (2013) showed that pervasive code-switching in written discourse may be triggered by social factors and motivations, which are frequently observed with code-switching in spoken discourse. Their findings presented that code-switching was used as a means to decrease or increase the social gap; to display multiple identities; and for emphasis.

Motivations for code-switching were also examined in electronic communication. Barasa (2016) analyzed whether code-switching in electronic communication is equivalent to code-switching in bilingual speech, in terms of spontaneity, motivation, and discourse functions. She identified four motivations for code-switching: creativity, accuracy, rapidity, and least effort. Based on the motivations for code-switching of Barasa (2016), Gammaldi (2016) examined code-switching in blogs written by Italian expats living in the Netherlands.

Gammaldi (2016) recognized five additional motivations for code-switching: exhibition, emphasis, Anglicism, self-censorship, and reported speech. Furthermore, a study by Halim & Maros (2014) examined the motivations of code-switching in Facebook interactions and found that code-switching, for example, occurs to serve reiteration, clarification, emphasis, and to indicate emotions. The latter was found to occur when, e.g., expressing frustration or criticism.

The aforementioned motivations of code-switching share similarities to some extent and also provide an insight in the motivations of code-switching in both spoken and written discourse. Nonetheless, the finding of Halim & Maros (2014) that code-switching is also used as a means to indicate emotions was an outstanding finding compared to other motivations. This offers an interesting area of research, namely the relation between emotionality and code-switching. To date, very little research has been done on whether the emotions of a person also contribute to the use of code-switching.

One study that did explore emotionality in code-switching, is the recent study by Williams, Srinivasan, Liu, Lee & Zhou (2020). In this study, the authors explored why bilinguals code-switch when they are emotional. They looked at this from a cooperative control perspective, meaning that more than one language can be part of a speech-language and, therefore, a control mechanism is required to select words in the appropriate language for speech output. They suggested that increased emotion may interfere with cooperative control processes involved in language selection, thereby increasing the frequency of code-switching. In other words, more instances of code-switching can be expected when there is an increased emotion. Therefore, based on the findings of Williams et al. (2020), it can be implied that emotionality does influence on the use of code-switching.

As was discussed earlier, previous research found many motivations for code-switching in written discourse and also in electronic communication. Yet no research has been done on code-switching in online reviews, which also belong to electronic communication. The internet has become an increasingly popular place for consumers to share their reviews about products. These reviews are a form of electronic word-of-mouth (eWOM). eWOM can be defined as any statement made by potential, actual or former consumers about a product or service, which is made available to anyone who can access the Internet (Hennig-Thurau, Gwinner, Walsh & Gremler, 2004, p. 39; Robson, Farshid, Bredican & Humphrey, 2013). These online reviews can be used as a tool for consumers to help their decision making. However, online reviews are not only convenient for consumers, but they are also invaluable to any business or company. Reviews help organizations to follow consumer experiences with their products or services and it also allows the organization to determine its reputation more efficiently. As a result of

eWOM, organizations no longer have full control over their image and reputation. For that reason, this study focuses on online reviews and, more specifically, whether the emotions of the reviewer affect the type of code-switching that is used. The emotionality of the reviewer is based on the number of stars a review was given (type of review). In other words, reviews with one star are considered as having negative emotions (negative/dislike); reviews with three stars are considered as having neutral emotions (neutral); and reviews with five stars are considered as having positive emotions (positive/like). In addition, emotionality is also analyzed based on whether the code-switched elements are positive, negative, or neutral.

The present study looks at code-switching in online reviews with Dutch as the matrix language and English as the embedded language. Little research has been done on the role of emotions on the type of code-switching and, more specifically, in online reviews. Therefore, this present study contributes to the already existing literature on code-switching in written communication, but more importantly how emotions affect code-switching. As already mentioned, consumers largely affect an organization's reputation, therefore, reviews should also be interpreted at a deeper level, because reviews are important for consumers to determine whether they want to purchase something or make use of the organization's service. Thus, this research aims to examine whether the type of review (like, dislike, neutral) affects the type of code-switching in consumer reviews. The theoretical overview presented in this section leads to the following set of research question and sub-questions:

*RQ: Does the type of review (like, dislike, neutral) have an effect on the type of code-switching used in the review?*

**Sub Q1:** What is the relation between the emotional judgement of the code-switched element and the type of review?

**Sub Q2:** What is the dominant type of code-switching used in reviews?

**Sub Q3:** What is the most frequently used motivation for code-switching?

**Sub Q4:** To what extent does the type of review affect the length of the review, the length of the code-switched element, and the number of code-switched instances?

## Method

### *Materials*

To set out this study, a corpus analysis was conducted. This study examined hotel reviews from the website Tripadvisor.nl. TripAdvisor, Inc is an American travel platform that mostly shows reviews of hotels and restaurants and other travel-related content ("US Press Center | About TripAdvisor", 2019). The Dutch website of TripAdvisor, Inc was used, because Dutch was the language in context. To make sure that the corpus had a reliable representation, a selection of criteria was made for the reviews. First of all, the reviews were gathered from the beginning of 2015 up to February 2021, so that recent reviews were also taken into account. Secondly, these reviews consisted of two different languages only (bilingual code-switching), with Dutch being the matrix language and English the embedded language. Thirdly, the review included at least one of the following types of code-switching: intra-sentential; inter-sentential; and/or word affixation. Lastly, only reviews with either a one, three or five-stars rating (out of five) were included in the corpus analysis. Reviews with two or four stars were not included, because these could not be classified as either a positive or negative review, nor as a neutral review.

Regarding the coding for the variable "code-switched element", a code-switch was considered as intra-sentential if the code-switching occurred in one sentence; as inter-sentential if a switch from one language variety to another language outside the sentence or the clause level was made; and as a word affixation if the code-switch occurred as either a prefix, suffix, or infix. "Emotionality" was analyzed by looking at if the code-switched element was positive, negative, or neutral. Additionally, emotionality of the reviewer was also based on the type of review. The type of review was considered as a *like* if it had a five-star rating (positive/like); it was considered as a *dislike* if it had a one-star rating (negative/dislike); and it was considered as *neutral* if it had a three-star rating (neutral). Furthermore, the motivations for code-switching were categorized into: *quotations*, *emphasis*, *Anglicism*, *communicating irony*, *reiteration*, or *other*. The motivations were based on the motivations by Gammaldi (2016), Duah & Marjje (2013), and Halim & Maros (2014).

The final corpus consisted of 123 reviews. No random sampling was used, because the chance to randomly select a review without any code-switched elements was very high and, therefore, the reviews were selected. However, once all reviews with code-switched elements were collected in the corpus, each review had an opportunity to be chosen equally.

## ***Procedure***

Five undergraduate students analyzed the consumer reviews of the given corpus. Each student analyzed 25 different reviews and the students identified the type of review based on how many stars were rated. Every review was coded by two independent students on five variables: the length of the code-switched element (ratio measurement level); the type of code-switched element (intra-sentential, inter-sentential, or word affixation; nominal measurement level); the emotional judgement of the code-switched element (positive, negative, or neutral); the code-switched word (nominal measurement level); and the motivation for code-switching (quotations, emphasis, Anglicism, communicating irony, reiteration, or other; nominal measurement level). The number of code-switched elements was the sum of code-switched elements in a single review.

The data that was coded was listed in a codebook. A compiled dataset was created to combine all the different codebooks of the student. After the coding sessions, the reliability of the coding was analyzed with Cohen's Kappa, as nominal variables were used. For the second round of analysis, the codebook of a coder was exchanged with another coder to analyze whether there was an agreement or disagreement between the length of the code-switched element ("CS\_length"); the type of the code-switch that was given to the code-switched element ("CS\_element\_type"); the emotional judgement of the code-switched element; ("CS\_emotional\_judgement") and the motivation for code-switching ("CS\_motivation"). After the second round of analysis, the coders came together to compare their coding and they then decided on the final coding of all four variables. In case of any differences, the coders had to reach a mutual agreement. An agreement was coded as '1' and a disagreement was coded as '2'. In case of a disagreement, the final coding of the first coder was used. The researchers eventually completely agreed on all the codings of the code-switched element(s) on the four variables. Table 1 shows the results of the agreement analysis. The overall agreement is moderate, indicating that the quality of the coding is adequate. The agreement of the motivation for code-switching as well as the indication of the type of code-switching are the lowest, which is probably because of the fact that these are two very subjective variables.

**Table 1** Results of agreement analysis

	<b>Kappa score (with all <math>p &lt; .001</math>)</b>
CS_length	.60



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CS_element_type	.38
CS_emotional_judgement	.51
CS_motivation	.37

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### ***Statistical treatment***

The data were analyzed using the chi-square ( $\chi^2$ ) test statistic and one-way analyses of variances. Chi-square tests were used to analyze the relationship between the independent variable (type of review) and type of code-switching, number of code-switched instances, length of the code-switched element, the emotional judgement of the code-switched element, and the motivation for the code-switching. One-way ANOVAs were conducted to analyze differences in the independent variable (type of review) on number of words used in a review, number of code-switched instances, and the average length of the code-switched elements.

## Results

The main purpose of this study was to examine whether the type of review (like, dislike, or neutral) had an effect on the type of code-switching used in the review (intra-sentential, inter-sentential, or word affixation), with Dutch as the matrix language and English as the embedded language.

### 1. Type of review and type of code-switching used in the review

**Table 2** The relation between the type of review (dislike, neutral, like) and the type of code-switching (intra-sentential, inter-sentential, word affixation)

			Rating in bullets			
			1 (dislike)	3 (neutral)	5 (like)	Total
final code-switch type	intra-sentential	n	55a	62a	101a	218
		%	88.7%	91.2%	78.9%	84.5%
	inter-sentential	n	4a, b	3b	23a	30
		%	6.5%	4.4%	18.0%	11.6%
	word affixation	n	3a	3a	4a	128
		%	46.3%	76.7%	40.0%	49.6%
Total	n		62	68	128	258
	%		100%	100%	100%	100%

A chi-square test was performed to examine the relationship between the type of review and the type of code-switching used in the review. The relation between these variables was significant ( $\chi^2(4) = 10.25, p = .036$ ). Reviews with 5 stars (like) were found to include more inter-sentential code-switching (18%) compared to reviews with 3 stars (neutral) (4.4%). Reviews with 1 star (dislike) did not contribute to the significant relation between type of review and type of code-switching used in the review.

## 2. Type of review and the emotional judgement of the code-switched element

**Table 3** The relation between the type of review (dislike, neutral, like) and the emotional judgement of the code-switched element (positive, negative, neutral)

			Rating in bullets			
			1 (dislike)	3 (neutral)	5 (like)	Total
final emotional judgement	positive	n	3a	9a	54b	55
		%	4.8%	13.2%	33.6%	21.3%
	negative	n	22a	13a	3b	38
		%	35.5%	19.1%	2.3%	14.7%
	neutral	n	37a	46a	82a	165
		%	59.7%	67.6%	64.1%	64.0%
Total	n	62	68	128	258	
	%	100%	100%	100%	100%	

A chi-square test was performed to examine the relationship between the type of review and the emotional judgement of the code-switched element. The relation between these variables was significant ( $\chi^2 (4) = 51.71, p < .001$ ). Reviews with 5 stars (like) were found to include more positive code-switched elements (33.6%) compared to reviews with 1 star (dislike) (4.8%) and 3 stars (neutral) (13.2%). In addition, reviews with 1 star (dislike) (35.5%) and reviews with 3 stars (neutral) (19.1%) were both found to include more negative code-switched elements compared to reviews with 5 stars (2.3%).

### 3. Frequency of type of code-switching by type of review

**Table 4** Distribution of type of code-switching (intra-sentential, inter-sentential, word affixation) by type of review (dislike, neutral, like)

	Negative reviews (dislike)	Neutral reviews (neutral)	Positive reviews (like)	Total
Intra-sentential	52	60	98	210
Inter-sentential	4	3	23	30
Word affixation	3	3	4	10
Total	59	66	125	250

As shown in Table 1, the number of intra-sentential code-switching was 210 whereas inter-sentential code-switching occurred only 30 times and word affixations with an even less amount of 10 times in total. Intra-sentential code-switching had the highest amount in all three types of review.

### 4. Motivations to code-switch

**Table 5** Frequency of different motivations to code-switch

		N = 250
		Frequency (percent)
Valid	Anglicism	106 (42.4%)
	Emphasis	36 (14.4%)
	Quotation	12 (4.8%)
	Reiteration	7 (2.8%)
	Irony	4 (1.6%)
	Other	85 (34%)

As shown in Table 2, the most frequent motivation for reviewers to code-switch was because of Anglicism. This motivation was also chosen when there was a Dutch equivalent of the English word, but it is common to use the English word instead.

**5. Type of review and number of words, number of code-switched instances, and length of code-switched elements**

**Table 6** Means and standard deviations (between brackets) for the number of words used, number of code-switched instances, and length of the code-switched elements for type of review (negative, neutral, positive)

	Negative reviews n = 26 <i>M (SD)</i>	Neutral reviews n = 32 <i>M (SD)</i>	Positive reviews n = 59 <i>M (SD)</i>
Number of words	137.19 (99.06)	120.25 (79.23)	92.34 (59.49)
Code-switched instances	2.27 (1.40)	1.88 (1.60)	2.08 (1.22)
Length code-switched element	1.81 (1.06)	1.59 (0.80)	2.19 (1.70)

A one-way analysis of variance showed a significant effect of Type of review on the number of words used in a review ( $F(2, 114) = 3.62, p = .030$ ). The number of words used in a review was higher for negative reviews ( $M = 137.19, SD = 99.06$ ) than for positive reviews ( $p = .038$ , Bonferroni correction;  $M = 92.34, SD = 59.49$ ). There was no difference between the number of words in negative reviews and neutral reviews ( $p = 1.000$ , Bonferroni correction), nor in neutral reviews and positive reviews ( $p = .281$ , Bonferroni correction).

A one-way analysis of variance showed no significant effect of Type of review on the amount of code-switched instances in a single review ( $F(2, 114) < 1, p = .551$ ).

Another one-way analysis of variance showed no significant effect of Type of review on the average length of the code-switched element ( $F(2, 114) = 2.09, p = .128$ ).

## Discussion and Conclusion

The purpose of this study was to investigate the effect of the type of review (dislike, neutral, positive) on the type of code-switching (intra-sentential, inter-sentential, word affixation) used in the respective review. This was examined in a corpus analysis with hotel reviews taken from the Tripadvisor.com website. This study contributes to new insights on the use of code-switching by reviewers in negative, neutral, and positive reviews.

In the first place, with regard to the main research question, results showed a significant relationship between type of review and type of code-switching. Positive reviews included relatively more intra-sentential code-switching than neutral reviews, but not relatively more than negative reviews. In other words, this suggests that intra-sentential code-switching occurs more often when people have positive emotions than when they have neutral emotions, but not when they have negative emotions.

In relation with the main research question, sub Q1 tested emotionality by analyzing whether the code-switched element was positive, negative or neutral and if these would differ within the types of review. Results showed that reviews with five stars (positive/like) included relatively more positive code-switched elements than reviews with one star (negative/dislike) and three stars (neutral). In addition, both reviews with one star and three stars included relatively more negative code-switched elements than reviews with five stars. This finding shows a positive correlation of emotionality of the code-switched element and the number of stars given by the reviewer. However, neutral reviews were also shown to include more negative code-switched elements than positive reviews, indicating that when a reviewer is neutral about something, he/she will also use more negative code-switched elements than positive code-switched elements. Previous studies have only examined why code-switching occurs when speakers are emotional (e.g. Williams et al., 2020; Sánchez & Pérez-Garcia, 2020), but not what type of code-switching is used with different types of emotions. Therefore, the findings give new insights on what role emotions play in what type of code-switching is used.

In regard to sub Q2, data showed that intra-sentential code-switching was represented in great numbers compared to inter-sentential code-switching and word affixations. This finding is in line with the study by Koban (2013). He explored the code-switching patterns of Turkish-English bilinguals via face-to-face interviews (spoken discourse). The results of his study showed that intra-sentential code-switching was dominant and that less inter-sentential code-switching was produced. The difference between the study by Koban (2013) and the

present study, however, is that this study examined written discourse through electronic communication. Nevertheless, a similar result was found. This could indicate that in both spoken and written discourse more intra-sentential code-switching is used. However, this is merely an expectation because no statistical test was conducted to examine this.

Regarding the most frequently used motivation for code-switching (sub Q3), ‘Anglicism’ was found to be the predominant motivation for code-switching. This motivation was also agreed to be chosen as a motivation when the coders found the code-switched element to be an English word that is commonly used in the Dutch language, regardless if it had a Dutch equivalent or not. Examples of such words were ‘basic’, ‘roadtrip’, ‘parking’, and ‘staff’ (see Appendix 1). A possible explanation for ‘Anglicism’ being the most frequently used motivation could be that English is also a language of education in the Netherlands. Sobhale (1988) also indicated this to be a reason for Xhosa people to code-switch to English. Nowadays, English-medium instruction at universities is also more common and English is used as a *lingua franca* in many organizations. As a result, Dutch people get in contact with the English language a lot, resulting in an increase of the use of English words in their everyday life as well. This result supports the already existing literature (e.g. Gammaldi, 2016; Halim & Maros, 2014) that Anglicism is a common motivation for people to code-switch to English.

Concerning sub Q4 about the relationship between type of review and the amount of code-switched instances found in the review, no significant effect was seen. This is not in accordance with previous findings by Williams et al. (2020). They suggested that increased emotion may result in an increase of the frequency of code-switching as well. In this study, being emotional could equate to the one star (negative emotionality) or five stars (positive emotionality) that were given by the reviewers. Therefore, it can be implied that both negative and positive reviews would have more code-switched instances than reviews rated with three stars (neutral reviews). This was not found in this study. A possible explanation for this could be that Williams et al. (2020) observed emotionality by examining real-time facial emotions of the bilinguals. The present study, on the other hand, did not examine emotionality via (real-time) facial expressions, but only indicated the emotionality of the reviewer by basing it on the number of stars given to the review. Emotionality should not solely be based on the number of stars a reviewer gave. In addition, it is possible that reviewers did not write the review immediately after they had visited the hotel, but wrote the review at a much later time. The negative or positive emotions they had with their experiences at the time of happening were likely to be more intense compared to when they wrote the review. The reduced emotionality at the moment of writing could, therefore, result in fewer instances of code-switching.

Lastly, with regard to sub Q4 about the type of review and the total number of words used in a review, Rozin, Berman, and Rozyman (2010) suggested that, in general, more words were needed to emphasize a positive judgement. This implies that positive reviews would be longer than negative reviews. However, the finding of this study shows the opposite. Results showed that negative reviews tended to be longer than positive reviews. A possible explanation for this could be that with reviews people may want to emphasize their negative experience, making the review much longer compared to positive reviews. They might need more words to explain the reason why they are negative about the service, or what happened that resulted into the negative rating of the review. In other words, negative reviews may need more explanation with regard to why it was rated as negative compared to positive reviews.

Although this study contributes to new insights on the use of code-switching with regard to the different types of code-switching, this study also contained limitations. First of all, the coding for emotionality of the code-switched element was based on individual judgment, making the judgement very subjective. No guideline was used to determine the coding of the emotionality of the code-switched element. In addition, only reviews of the Tripadvisor.nl site were analyzed, which could influence the external validity of this study. In order to increase the external validity, it is suggested for further research to also include reviews from other websites such as Booking.com or Priceline. Furthermore, the emotions of the reviewer were difficult to observe, because emotionality was only based on the number of stars of a review and on whether the code-switched element was positive, negative, or neutral. On top of that, there might have been a long time gap between reviewers experiencing the actual emotions and when they actually write the review, making the actual emotions more complex to examine. Future research could examine facial expressions of reviewers at the moment of writing the review, for example, via the use of an experiment.

It should be acknowledged that the findings only reflect the differences between Dutch-English code-switching in online hotel reviews. For future research, it would, therefore, be advisable to investigate whether equal findings will be found in a country where English is not a common language to use in daily life, e.g. Vietnam. Furthermore, online reviews belong to asynchronous communication, which might lead to a lesser extent of code-switching compared to synchronous communication. For that reason, it might be interesting to analyze other electronic communication such as customer service webchats, which belong to synchronous communication, to find out if the emotions of the customer also play a role in the use of different types of code-switching in the webchat.



Being one of the first to study the effect of emotions on the use of the type of code-switching, this study provides a structure for future research. To this day, very little research has been done on the role of emotionality on the type of code-switching that is used. Previous research found many motivations for code-switching, but neglected the importance of what impact emotions could have on code-switching. Therefore, this study presents an introduction on further research on emotionality and code-switching.

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## Appendices

### Appendix 1. Most frequently used code-switched elements

**Table 7** Top five most frequently used code-switched elements in the reviews

		N = 258
		Frequency (percent)
Valid	basic	6 (2.3%)
	parking	4 (1.6%)
	roadtrip	4 (1.6%)
	staff	4 (1.6%)
	trendy	4 (1.6%)

### Appendix 2. Statement of own work

CIW English

#### Statement of Own Work

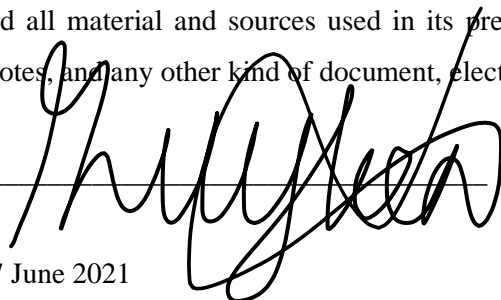
Student name: Thuy Tien Nguyen  
Student number: 1025694  
Course code and name: Bachelor's Thesis (LET-CIWB351-IBC-2020-SCRSEM2-V)  
Lecturer: Dr. Sandy Barasa  
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I certify that this assignment/report is my own work, based on my personal study and/or research and that I have acknowledged all material and sources used in its preparation, whether they be books, articles, reports, lecture notes, and any other kind of document, electronic or personal communication

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Date:

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