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A sociolinguistic study on emotional communication

The influence of gender and emotions on the presence of codeswitching in hotel reviews

Sanne Klerks (s1020872)

Faculty of Arts

Department of Communication and Information Studies, Radboud University

Supervisor: Dr. S.N. Barasa

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Abstract

Online reviews are often of great importance for organizations as reviews show them how consumers experience the products or services offered. Moreover, online reviews may help companies to solve possible problems and manage their image and online reputation. Business intelligence tools often help review analysts to analyse consumers' evaluative comments, but these software programs are not able to analyse codeswitching as well as the nature of such an evaluative comment. This study investigated by means of a corpus analysis of Spanglish reviews on TripAdvisor whether there is a correlation between the type of codeswitching and the type of review and whether gender differences in emotional behaviour play a role. The results showed that neither emotions nor gender influence the type of codeswitching, i.e. organizations should consider reviews but not the type of codeswitching, nor the gender of the reviewer as these do not influence the valence of the review.

Keywords: codeswitching, Spanglish, gender, emotions

Introduction

Online reviews are of great value to companies and institutions. An online review is not only a resource to provide organizations with information about how consumers have experienced the offered products or services, it is also an instrument to remedy possible problems that might damage a company's reputation. Due to the rise of social media, blogs, and forums where products and services from different companies are compared, companies nowadays no longer have complete control over their image and reputation. Currently, an organization's reputation is thus largely determined by consumers.

A study by Bronner and Willemsen (2012) has shown that websites on which products and services are evaluated have a major impact on the formation of consumers' opinions. While "word-of-mouth" communication has a major impact on consumers' opinions, communication via online platforms, also known as electronic "word-of-mouth" (eWOM), occupies a close second place in influencing consumer behaviour (Brothers et al., 1992). Communication via online platforms refers to how individuals can communicate with each other via the Internet. It can be either asynchronous in which sender and receiver reply at different times, such as e-mail and discussion forums, or synchronous where interaction takes place in real-time, such as online live chats (Levy, 1997). The so-called electronic "word-of-mouth" (eWOM) is not only an excellent advertising tool, but it also offers several advantages that face-to-face "word-of-mouth" cannot offer, such as speed, ease, and the ability to quickly reach a wide audience (Leskovec et al., 2007).

It is for an organization therefore essential to closely audit the online messages generated by their consumers. An organization can, for instance, discover whether possible reputation damage is caused by negative comments from consumers or not. With the information the company obtains from this analysis, it can take appropriate measures to resolve or even prevent reputational damage. Nowadays there are special software programs (business intelligence tools) to help organizations manage their online reputation, e.g. Leximancer and Centim (Steenkamp & Rensburg, 2016). By using sentiment analyses, the software programs examine how consumers use language to express their opinions (Pang & Lee, 2008). However, when reviewing a product or service, consumers use language as an evaluative function, leading to the question of whether the nature of their message is positive,

negative, or neutral.

The aforementioned software programs have been developed for the English language meaning that the database is exclusively based on data derived from English texts. When such programs are used to analyse texts in other languages, the texts are frequently automatically translated by online translators like Google Translate. While this implies that the actual message of reviews that are written in another language than English is likely to get lost, it also means that organizations have more difficulties examining how consumers express their opinions in these reviews. Moreover, currently, a great part of the world population can communicate in two or more languages due to growing globalization (Da Silva et al., 2007). Individuals who speak multiple languages are also referred to as multilinguals (Cruz-Ferreira, 2010; De Groot, 2011). A unique, yet common occurrence for multilinguals is that they sometimes choose to alternate between languages in the same conversation or context when speaking or writing, a phenomenon which is also known as ‘codeswitching’ (Fallis, 1976; Myers-Scotton, 1995). Nilep (2006) changed the definition of codeswitching to the selection or alternation of linguistic elements, i.e. the contextualization of talk in speech acts.

Due to the ever-growing group of multilinguals, it is highly likely that multilinguals use codeswitching in their evaluative comments. The use of codeswitching in evaluative comments makes it even more difficult for companies to manage their online reputation since the software programs do not analyse codeswitching as these programs are based on the English language and use online translators to translate languages other than English.

Codeswitching can occur in four ways: inter-sentential, intra-sentential, tagging, and word affixation. Inter-sentential codeswitching involves the alternation of the use of languages between sentences in the same conversation and intra-sentential codeswitching concerns the alternate use of languages within a sentence (Fallis, 1976; Grosjean, 1982; Myers-Scotton, 1995). Intra-sentential codeswitching can be reflected in both codeswitching of a word as well as through affixation. If codeswitching is done through affixation, it is also referred to as codeswitching through word affixation, which involves combining grammatical elements (e.g., a prefix and a root) of different languages in a single word (Stefanich et al., 2019). The following conversational example between two bilingual English-Spanish speakers illustrates the difference between inter-sentential codeswitching, intra-sentential codeswitching, and codeswitching through word affixation.

I would love to have dinner with you [English]. *Pero no pienso que tenga tiempo hoy* [Spanish]. Maybe we could arrange something for tomorrow. [English] (**Inter-sentential**).

Translation: [I would love to have dinner with you. *But I do not think I have time today*. Maybe we could arrange something for tomorrow?]

What is your *abuela* [Spanish] doing? (**Intra-sentential**).

Translation: [What is your *grandmother* doing?]

This is really *sobrevalued*. [English] (**Word affixation**)

Translation: [This is really *overvalued*.]

Ultimately, codeswitching can also occur in terms of tagging. Tag-switching concerns the alternation between languages in a tag phrase or word (Hegde et al., 2010). The following example illustrates the use of codeswitching in terms of tagging.

He does not like to swim [English], *tú sabes* [Spanish]? (**Tagging**)

Translation: [He does not like to swim, *you know*?]

Since an online review is an essential source for companies to gain knowledge about the strengths and weaknesses of their products and/or services, it is crucial that companies can understand the message of a review. Online reviews are often unstructured by nature and if consumers also use codeswitching, it can be quite difficult for review analysts to interpret the reviews correctly, especially without the help of business intelligence tools (Robson et al., 2013). Online reviewing platforms often do provide the possibility to indicate the type of review with rating scales, in other words, whether an evaluation is intended to be positive, negative, or neutral. In general, reviews that score four or five stars on a five-star scale are considered positive, reviews with a rating of one or two stars are considered negative and reviews rated with three stars are considered neutral (Chua & Banerjee, 2015). However, using codeswitching can cause misunderstandings if the content of the review seems to contradict the rating of the review. To help organisations manage their online reputation in ways that business intelligence tools cannot, the present study focuses on the relationship between the type of review and the type of codeswitching.

The present study specifically focuses on so-called Spanglish reviews, which are

reviews that contain a morphosyntactic and semantic alternation between the Spanish and American English languages. The Spanglish language is mostly used by Latino communities in the United States of America. Focussing on the Spanglish language is particularly interesting since it has become a part of the Latin American identity. However, for anyone outside the Latin American community, Spanglish is difficult to understand, especially if the Spanish language is not mastered. Furthermore, considering that Spanish and English are the most dominant languages worldwide, focussing on the Spanglish context is significant (Pountain, 1999).

Codeswitching has been prominently researched over the past 30 to 50 years. Linguists have examined spoken codeswitching in great detail. Part of these studies focused specifically on the use of codeswitching in Spanglish interactions (Prego-Vázquez, 2007; De Socarraz-Novoa, 2015). The study conducted by De Socarraz-Novoa (2015), for instance, was based on earlier studies on codeswitching but was limited to a specific situation: the workplace. The study focused on the form in which codeswitching can take place and the meaning that multilinguals attach to codeswitching since it can cause complications when employees interact with their customers (Prego-Vázquez, 2007). De Socarraz-Novoa (2015) concluded that employees used codeswitching, among others, when expressing their raw emotion. However, it is not clear whether the use of codeswitching is related to a certain type of emotion or not, in other words, whether codeswitching is only used in combination with positive emotions, in combination with negative emotions, or whether there is no relation between the use of codeswitching and the valence of the emotion.

Both studies have greatly contributed to the theoretical framework of codeswitching in spoken communication. However, research on codeswitching in written communication is scarce, except for a few studies mentioned below, despite that codeswitching in written communication frequently occurs, especially in online communication. Being able to understand codeswitching in (online) written communication, however, can be very essential, because, especially in written communication, understanding codeswitching is perceived to be difficult by, among others, review analysts. Since it is more difficult for a consumer to convey the actual emotion of the message through written communication than through spoken communication, the use of codeswitching in written communication often leads to misunderstandings (Prego-Vázquez, 2007). Although online reviewing platforms often

provide the possibility to indicate with rating scales whether an evaluation is intended to be positive, negative, or neutral, the use of codeswitching in the content of a review may seem contradictory to the rating of the review. As a consequence, review analysts perceive difficulties understanding the actual message of the review, particularly because business intelligence tools do not analyse codeswitching.

Furthermore, understanding codeswitching in (online) written communication is fundamental, because several studies have shown that results of studies on codeswitching in spoken communication cannot be generalized within codeswitching in written communication (Hinrichs, 2006; Barasa, 2016). One of the studies that has contributed much to this area is the study of Barasa (2016). This study focused on whether the results of studies on codeswitching in spoken communication can be generalized within codeswitching in Computer-Mediated Communication (CMC). To do so, Barasa (2016) analysed various forms of text messages between university students. These text messages included messages such as SMS text messages, e-mails, Instant Messages, and messages on social network sites such as Facebook and YouTube. The messages were analysed in terms of their spontaneity, motivation, and discourse functions. The study concluded that codeswitching in spoken communication and codeswitching in online written communication can be seen as two unique matters and therefore cannot be compared with each other. Hinrichs (2006) researched the motivation that bilingual Jamaicans have for codeswitching between English and Creole and concluded, similarly to Barasa (2016), that the results of studies on codeswitching in spoken communication cannot be generalized within codeswitching in written communication. This conclusion implies that, although codeswitching has been extensively investigated, research on codeswitching in specifically written communication is scarce and needed.

Finally, it is important to understand codeswitching in online written communication as communication via online platforms has become increasingly important in everyday life. Online platforms being important in everyday life is due to the continuously evolving technology and the emergence of social media as these make communicating with one another more accessible. Interaction by means of online platforms is more flexible and richer than spoken communication in terms of the different forms in which it can take place (Romiszowski & Mason, 1996). Accordingly, online communication is an attractive manner of communicating and has therefore been fully integrated into everyday life.

For the reasons that codeswitching in written communication often causes misunderstandings, the use of codeswitching daily occurs on all kinds of online platforms and because little research has been done on the subject, Montes-Alcalá (2007), Negrón Goldberg (2009), Halim and Maros (2014), and Caparas and Gustilo (2017) focused on codeswitching in online written communication. Montes-Alcalá (2007) focused on whether bilingual individuals would freely switch languages when writing a blog, on when they codeswitch, and on why they codeswitch. The study concluded that bilinguals particularly use codeswitching when the other language lacks an exact equivalent of the word they are looking for, for emphatic reasons and as a way of expressing their cultures as well as their languages. Additionally, Caparas and Gustilo (2017) had the same results in their study in which they examined, among others, the motivation of Facebook users for codeswitching in online communication. Furthermore, Halim and Maros (2014) examined the functions that codeswitching has in Facebook interactions and found that it serves several functions. Codeswitching mostly served as “quotation, message qualification, clarification, emphasis, and as an indication of emotion” (p. 128). Halim and Maros (2014) concluded that all Facebook users that participated in the study used codeswitching to intensify their interaction. Because of these studies, review analysts know, in addition to the different types of codeswitching, more about why codeswitching is used. However, the question remains how consumers use codeswitching to express their emotions in reviews since this is significant to know for review analysts to be able to interpret reviews that include codeswitching correctly.

Negrón Goldberg (2009) focused on the emotions bilinguals experience while codeswitching. The study focused specifically on Spanish-English codeswitching in e-mail communication. Negrón Goldberg (2009) concluded that participants were more likely to feel professional communicating in English, their second language, than when communicating in their native language. On the contrary, communicating in the native language, Spanish, was associated with intimacy and informality. Koven (1998; 2001; 2007) got similar results when examining the emotions participants experience when they tell the same story in another language. Koven (1998; 2001; 2007) concluded that participants performed another role of their characters in the stories when speaking in another language although the stories were the same in both languages.

To further elaborate on this conclusion, Pavlenko (2006) asked participants whether

they felt like a different person when speaking in a different language. The study discovered that most of the participants perceived the first language as “real” and “natural” and the second language as “fake”. The study, therefore, concluded that many multilinguals feel different when switching languages. Pavlenko (2006) speculated that this conclusion would be caused by multilinguals feeling more comfortable in their native language since they are more proficient in this language. Dewaele and Nakano (2013) have further investigated this issue by comparing the emotions participants experience when communicating in different languages. They concluded that participants felt less logical, emotional, and serious, and more fake and different in languages other than their native language, which was due to their self-perceived proficiency, confirming the speculations of Pavlenko (2006). Participants feeling less serious when communicating in a different language suggests that bilinguals are more likely to codeswitch when they experience positive emotions towards a service or product than when they experience negative emotions. It is likely that consumers want to be taken seriously more quickly if they want to convey negative feelings. This suggestion leads to the following hypothesis:

H1. Bilinguals are more likely to codeswitch in reviews when they experience positive emotions than when they experience negative emotions.

However, the studies that focused on codeswitching in emotional communication were conducted based on codeswitching in spoken discourse (Koven, 1998; 2001; 2007; Pavlenko, 2006; Dewaele & Nakano, 2013). As several studies have shown, the results of studies on spoken discourse cannot be generalized within written discourse since spoken discourse and written discourse are two distinct entities (Hinrichs, 2006; Barasa, 2016). The theoretical framework concerning the use of codeswitching in emotional communication in written discourse is thus rather small and needed. The present study focuses therefore on the use of codeswitching in emotional communication in written discourse. In the present study, emotion is referred to as: “any mental experience with high intensity and high hedonic content” (Cabanac, 2002, p. 79).

Blogs, Facebook posts, and e-mails are all mediums in which one can convey emotional communication. Another medium in which one can convey emotional communication is by means of online reviews. A review is defined as a product information

channel created by consumers which is based on their personal usage experience (Chen & Xie, 2008). In addition to online reviews being a source for organisations to manage their online reputation, online reviewing can also be an outlet for consumers' emotions in terms of experiences they have with a certain product or service. Furthermore, reviews can influence consumer behaviour since many consumers acquire knowledge about a certain product or service which, subsequently, influences their purchase intention.

The expression of emotions, however, differs by gender. Since gender differences in the expression of emotions could affect how reviews should be interpreted, review analysts need to know more about the gender differences in emotional behaviour. In general, men are more likely to use online platforms for communicating and expressing their opinions than women, even though women generally express their emotions more often than men (Allen & Haccoun, 1976; Block, 1983; Sprecher & Sedikides, 1993). Furthermore, whereas men are more likely to express emotions assertively, women tend to express their emotions in a kind and passive tone even though they report emotions more intensely than men (Brebner, 2003; Rollero et al., 2019). Nevertheless, more research is needed to confirm these results.

In addition to the manner of expressing emotions, gender differences can be found in language use. Overall, men tend to be angrier in their expressions than women (Brody, 1985). Many studies have demonstrated that men and women express their emotions differently. However, no research has yet been done into whether these differences can also be found in reviews despite reviews being a commonly used medium for expressing emotions. The present study, therefore, aims to examine whether there is a relationship between the gender of a reviewer and the type of a review (positive, negative, or neutral). Based on the findings of Brody (1985), Brebner (2003), and Rollero et al. (2019), the following hypotheses are proposed:

H2a. Female consumers are more likely to post a positive review than male consumers.

H2b. Male consumers are more likely to post a negative review than female consumers.

The aforementioned gender differences in emotional communication also raise the question of whether there are gender differences concerning the use of a certain type of

codeswitching. Knowing whether there are gender differences in the use of different types of codeswitching may be important for review analysts to consider to be able to interpret reviews correctly. Gulzar et al. (2013) examined among other things whether there are inter-sentential patterns to be found in the use of codeswitching of female and male teachers but could not find any significant differences between these two genders. The correlation between gender and type of codeswitching (inter-sentential, intra-sentential, tagging, and word affixation) remains inconclusive. The present study focuses therefore also on the correlation between these two genders and the type of codeswitching.

The gender of the reviewer can be determined based on their profile picture and/or the gender reviewers have indicated on their profile. As the focus of the present study is on Spanglish reviews, gender can also be determined based on gender-biased adjectives if gender is not clear from the profile picture or the reviewer's profile. In Spanish, the form of the adjective (masculine or feminine) is the same as that of the noun to which it refers (Aragónés & Palencia, 2005). Adjectives ending in -o are masculine and adjectives ending in -a are feminine, meaning that if the reviewer refers to himself with an adjective ending in -o, the reviewer is considered male and if the reviewer refers to herself with an adjective ending in -a, the reviewer is considered female. The following conversational example illustrates the difference between masculine and feminine adjectives.

Estoy muy satisfecho con el servicio de habitaciones del hotel [Spanish] (**Male**).

Translation: [I am very satisfied with the hotel's room service].

No estaba muy contenta con el servicio de habitaciones [Spanish] (**Female**).

Translation: [Well, I was not very happy with the room service].

As the literature review demonstrates, there has been extensive research on codeswitching in spoken discourse. In particular, the relationship between codeswitching and emotional communication has been researched in great detail. Nevertheless, research on codeswitching in online written communication is scarce despite that it may be important for companies to have more insight into this subject to interpret evaluative comments about their products or services as correctly as possible. Hence, this study aims to further elaborate on this research area. The present study examines online reviews since these are of great value

for organisations to manage their online reputation, but the use of codeswitching in these reviews often causes misunderstandings. The study focuses specifically on hotel reviews to ensure that the different product or service categories that are reviewed are not a factor influencing the outcome of the study. In addition, the use of codeswitching and the type of review can also differ by gender due to gender differences in emotional behaviour. The purpose of this study is therefore to examine whether the type of codeswitching depends on the type of review and whether gender differences can be found. Consequently, the following main research question and sub-questions are investigated:

RQ. *“Is the type of codeswitching in hotel reviews based on the type of review?”*

RQa. Is there a correlation between the type of codeswitching and the type of review?

RQb. Is there a correlation between the presence of codeswitching and the valence of the review?

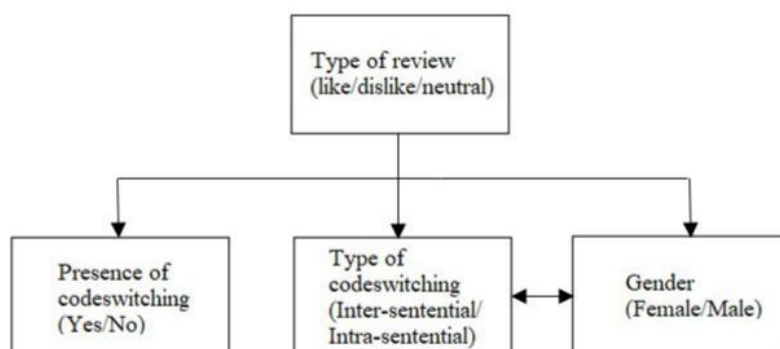
RQc. Is there a correlation between the gender of the reviewer and the type of review?

RQd. Is there a correlation between the gender of the reviewer and the type of codeswitching?

During this study, the conceptual model portrayed below was investigated (Figure 1). The model shows the variables of interest and the expected relationships between these variables to answer the main research question and the corresponding sub-questions.

Figure 1

Conceptual model



Method

Materials

To examine whether there is a correlation between the type of codeswitching and the type of review, three Dutch students at the Radboud University in Nijmegen performed a bilingual corpus analysis on Spanglish reviews. In the current analysis, 92 hotel reviews from the website TripAdvisor.com were examined of which nine were negatively rated (10%), 10 had a neutral rating (11%), and 73 were positively rated (79%). The average rating of all reviews was 2.70 which equates to a negative to neutral rating. Furthermore, 18 reviews contained inter-sentential codeswitching (20%), 73 contained intra-sentential codeswitching (79%), and one review contained tag-switching (1%). In the present study, all reviews published between 2004 and 2021 were considered.

All reviews have been retrieved from the website TripAdvisor.com as this website allows reviewers to set a profile picture which is one of the factors on which a reviewer's gender has been determined. In total, 33 reviews were written by female reviewers and 41 by male reviewers. Of the remaining 18 reviews, the gender was unidentifiable.

Apart from the requirement that all reviews should contain codeswitching, each review had an equal chance of being included in the sample. Both the use of codeswitching in the content as the use of codeswitching in the title of a review were considered. The sample was collected by means of stratified random sampling. Furthermore, all reviews consisted of Spanish reviews with English codeswitch elements. Consequently, a random sample had been taken from the group that met these requirements. Because the sample was randomly selected, the corpus is representative of the universal population.

Procedure

The reviews were coded by three third-year students International Business Communication at the Radboud University in Nijmegen. To be able to codify the variables, each variable has been assigned to one, three, or four codes. The variable 'type of review' was assigned as one of three codes (like, dislike, neutral; nominal measurement level). Reviews were considered positive ('like') if they scored four or five stars out of five stars, and negative ('dislike') when they scored one or two stars out of the possible five stars. This implies that reviews containing expressions as 'really nice' or 'great service' but rated with one or two stars were considered

negative and these expressions were thus considered sarcastic. Furthermore, if reviews were rated with three stars, they were considered neutral reviews.

The variable 'gender' has been assigned as one of three codes (female, male, unknown; nominal measurement level). The gender of the reviewers was based on their profile picture, the gender they had indicated on their profile, and/or gender-biased adjectives. All genders other than male and female were examined during the present study. If the gender of the reviewer was found to be unidentifiable, it was coded as 'unknown'.

Finally, the variable 'type of codeswitching' has been assigned as one of four codes (inter-sentential, intra-sentential, tagging, word affixation; nominal measurement level).

After each student collected a sample of at least 25 reviews, each student analysed and coded this sample according to the type of review (1 = like, 2 = neutral, 3 = dislike) and the gender of the reviewer (1 = female, 2 = male, 3 = unknown). Afterwards, one student coded all 92 reviews according to type of codeswitching (1 = inter-sentential, 2 = intra-sentential, 3 = tagging, 4 = word affixation). When the first coder finished this procedure, the second coder coded the complete sample with the same coding scheme without knowing the responses of the first coder, so that each review had been independently evaluated by two coders. After the second student had coded the reviews, the degree of agreement was established using Cohen's Kappa index. The interrater reliability of the variable 'Type of codeswitching' between coder 1 and coder 2 was acceptable: $\kappa = .74, p < .001$.

To improve the robustness, durability, and reliability of the coding scheme, the two coders discussed the final codifications in case there were differences between the responses of the first and the second coder. After discussing the final coding, the coders established the degree of agreement between the variables 'Type of codeswitching coder 1' and 'Final coding type of codeswitching'. The interrater reliability between the coders of the variable 'Type of codeswitching' was good: $\kappa = .90, p < .001$.

Statistical treatment

Firstly, to be able to analyse the average of the rating of the reviews, the Primary First option was enabled so that the rating of each review was only counted once. Afterwards, the possible correlation between the type of codeswitching and type of review, the presence of codeswitching and the valence of the review, the gender of the reviewer and type of

codeswitching, and gender of the reviewer and type of review were analysed by conducting several chi-square analyses.

Results

To investigate the possible effect of type of review and gender on the type of codeswitching, and the possible correlation between gender and the valence of the review, several Chi-square analyses were conducted of which the results are presented in this section.

Firstly, a Chi-square analysis was conducted to evaluate whether there is a relation between the type of codeswitching and the type of review (RQa) of which the results are presented in Table 1. The Chi-square test showed no significant relation between type of codeswitching and type the review ($\chi^2(4) = 3.85, p = .427$).

Table 1

The relation between the type of codeswitching and the rating of the review measured with Count and % within Rating Reviewer.

			Rating Reviewer			
			1	2	3	Total
Final Coding Codeswitching	Inter-sentential	Count	1 _a	0 _a	17 _a	18
		% within Rating Reviewer	11%	0%	24%	20%
	Intra-sentential	Count	8 _a	10 _a	55 _a	73
		% within Rating Reviewer	89%	100%	75%	79%
	Tagging	Count	0 _a	0 _a	1 _a	1
		% within Rating Reviewer	0%	0%	1%	1%
Total		Count	9	10	73	92
		% within Rating Reviewer	100.0%	100.0%	100.0%	100.0%

Note. Each subscript letter denotes a subset of Rating Reviewer categories whose column proportions do not differ significantly from each other at the .05 level.

Subsequently, another Chi-square analysis was conducted to examine whether there exists a relation between the gender of the reviewer and the rating of the review (RQc). As presented in Table 2, the Chi-square test showed no significant relation between gender and type of review ($\chi^2(4) = 3.50, p = .479$).

Table 2

The relation between the gender of the reviewer and the rating of the review measured with Count and % within Rating Reviewer.

			Rating Reviewer			
			1	2	3	Total
Gender	Female	Count	3 _a	1 _a	29 _a	33
		% within	33%	10%	40%	36%
		Rating				
		Reviewer				
	Male	Count	4 _a	6 _a	31 _a	41
		% within	45%	60%	42%	44%
		Rating				
		Reviewer				
	Unknown	Count	2 _a	3 _a	13 _a	18
		% within	22%	30%	18%	20%
		Rating				
		Reviewer				
	Total	Count	9	10	73	92
		% within	100%	100%	100%	100%
		Rating				
		Reviewer				

Note. Each subscript letter denotes a subset of Rating Reviewer categories whose column proportions do not differ significantly from each other at the .05 level.

Finally, a Chi-square analysis was conducted to evaluate whether there is a correlation between the gender of the reviewer and the type of codeswitching used in the review (RQd) of

which the results are presented in Table 3. The Chi-square test showed no significant relation between gender and type of codeswitching ($\chi^2(4) = 2.60, p = .626$).

Table 3

The relation between the type of codeswitching and the gender of the reviewer measured with Count and % within Gender.

			Gender			
			Female	Male	Unknown	Total
Final Coding Codeswitching	Inter-sentential	Count	7 _a	6 _a	5 _a	18
		% within Gender	21%	15%	28%	20%
	Intra-sentential	Count	26 _a	34 _a	13 _a	73
		% within Gender	79%	83%	72%	79%
	Tagging	Count	0 _a	1 _a	0 _a	1
		% within Gender	0%	2%	0%	1%
Total		Count	33	41	18	92
		% within Gender	100.0%	100.0%	100.0%	100.0%

Note. Each subscript letter denotes a subset of Gender categories whose column proportions do not differ significantly from each other at the .05 level.

Conclusion

The findings of this study reveal that there is no correlation between the type of codeswitching and the type of review which indicates that the type of codeswitching and the type of review are not dependent on each other. Furthermore, 72 out of the 92 reviews (79%) were positively rated. This is over three-quarters of the analysed reviews which implies that H1, stating that bilinguals are more likely to codeswitch in reviews when experiencing positive emotions than when they experience negative emotions, has been accepted.

Additionally, against all expectations, no correlation was found between the gender of the reviewer and the rating of the review, and between the gender of the reviewer and the type

of codeswitching used, which means that both H2a and H2b were rejected. Thus, gender differences in emotional communication do not affect the type of codeswitching used nor the valence of the review.

All in all, the findings demonstrate that the type of codeswitching does not depend on the type of review and that gender differences in emotional behaviour do not affect the type of codeswitching as well as the type of review.

Discussion

Codeswitching in spoken communication has been extensively researched, but research on codeswitching in written communication is scarce. The present study aimed to further elaborate the theoretical framework of codeswitching in written communication by analysing hotel reviews from TripAdvisor to help review analysts interpret reviews as correctly as possible allowing organisations to manage their online reputation.

In answer to research question A, there was no connection between the type of codeswitching and the type of the review, i.e. the type of codeswitching used in a review (inter-sentential, intra-sentential, word affixation, or tagging) is not related to the review's valence. Review analysts, therefore, do not have to take into account the type of codeswitching used in a review to interpret a review correctly, as the type of codeswitching does not affect the rating that reviewers give. It is therefore also not a problem that business intelligence tools such as Leximancer and Centim do not analyse codeswitching and the specific types of codeswitching (Steenkamp & Rensburg, 2016).

Regarding research question B, Dewaele and Nakano (2013) concluded that participants feel less serious and emotional when communicating in a different language than their native language suggesting that bilinguals are more likely to codeswitch when experiencing positive emotions than when experiencing negative emotions. In answer to research question B, the present study has provided evidence for this suggestion as more than three-quarters of the reviews investigated (79%) consisted of positive reviews. This implies that in this case the results for spoken communication also apply to written communication. However, as Hinrichs (2006) and Barasa (2016) both stated that findings of studies on codeswitching in spoken communication cannot be generalized within written communication, this implication would require further investigation.

Furthermore, in answer to research question C, although Brody (1985) stated that men overall tend to express their emotions angrier than women, no gender differences were discovered in emotional behaviour expressed in online reviews. The results showed that there was no connection between the gender of the reviewer and the rating they gave to the hotel, indicating that the findings of the present study are not in line with the findings of Brody (1985). The difference in these findings can be explained by the fact that Brody's (1985) study was conducted almost 40 years ago. The rise of social media has caused a great change concerning the expression of emotional behaviour online since social media has become an important medium through which people express their emotions (Gaiind et al., 2019). It would therefore be interesting to replicate the study of Brody (1985) to verify whether the results are still valid and if there would still be a difference between those findings and the findings of the present study.

Concerning research question D, no relationship was found between the gender of the reviewer and the type of codeswitching, which is in line with the results of Gulzar et al. (2013) who could not find any significant differences between female and male teachers in the use of codeswitching. However, Gulzar et al. (2013) focused on the use of codeswitching in spoken communication. Since the present study focused on codeswitching in written communication and these results are not generalizable within codeswitching in spoken communication (Hinrichs, 2006; Barasa, 2016), the correlation between gender and type of codeswitching in spoken communication remains inconclusive. Moreover, as the results of Gulzar et al. (2013) cannot be used to extend the framework of codeswitching in written communication, further research should be carried out to establish whether the results of the present study can be generalized within other forms of written communication.

Additionally, the findings of the present study are not in line with the findings of Brebner (2003) and Rollero et al. (2019) who stated that women tend to express their emotions more intensely and in a more kind and passive tone. Based on the findings of Brebner (2003) and Rollero et al. (2019) it was expected that women would be more likely to post a positive review than male consumers. However, the findings of the present study were not in line with the findings of Brebner (2003) and Rollero et al. (2019). The difference in findings could be explained by the fact that the present study has not researched the tone that reviewers tried to convey through the reviews. Future research could therefore focus on the

relationship between the tone that the reviewer wants to convey and the rating of the review to determine whether these can be compared with each other and therefore whether the conclusion drawn is justified.

In answer to the main research question, the results have shown that the type of codeswitching in hotel reviews is not based on the type of review. In other words, the valence of the review, and thus the emotion that the reviewer wants to convey through the review, is not related to the type of codeswitching used in the review.

Although no differences were found between the type of codeswitching and the type of review, and the type of codeswitching and the gender of the reviewer, it must be mentioned that the sample of the present study did not consist of reviews that included codeswitching through word affixation as these could not be found. The aforementioned conclusions on research question D can therefore not be drawn for codeswitching through word affixation. Accordingly, future research should focus on codeswitching through word affixation to determine whether these conclusions can also be drawn for this type of codeswitching.

Another limitation of this study is that it exclusively focused on Spanglish reviews, meaning that the findings of the present study cannot be generalized within other language combinations. An interesting suggestion for future research would therefore be to explore whether the method used in this study demonstrates different results among different language combinations. Moreover, the present study exclusively focused on bilingual conversations while multilingual communities, communities that can communicate in more than two languages, often codeswitch among more than two languages (De Groot, 2011). It would therefore be interesting to examine whether the same findings hold in case of codeswitching among more than two languages.

On the whole, the findings in this study suggest that, since no gender differences have been found in both the type of codeswitching used as well as the type of review, review analysts do not have to consider gender when interpreting a consumer's evaluative comment. Additionally, review analysts do not have to consider the type of codeswitching to be able to interpret a review as correctly as possible, since the type of codeswitching used is not affected by the emotions a consumer wants to convey through a review. Thus, hotels should deal with reviews as these affect their online reputation, but they do not have to take into account the

type of codeswitching used and the gender of the reviewers as these factors do not affect the valence of the review.

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