

“What a pity, there are so many errors!” What mistakes really matter to consumers?

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Abstract:

In a context of intensification of the use of professional writing and decrease in spelling performance of students and employees, our study aims to highlight how spelling and typographical errors on a commercial website may impact a company and the brand.

1991 respondents were randomly assigned to one of three conditions (no errors, typographical errors and spelling errors) when visiting a website. Results suggest that they only identified typographical ones and that this kind of errors had a detrimental impact on both the attitude towards the brand and trust in the website. By using a sub-sample of people being able to really spot the errors, we also demonstrate the negative impact of spelling errors. Implications for companies are discussed.

Keywords: spelling and typographical errors, brand attitude, website trust

Track: Digital Marketing & Social Media

1. Introduction

Spelling deficiencies have become a growing concern for companies because of the time spent on writing at work (Moatty & Rouard, 2010). Marketing professionals have ranked writing skills number one on the list of essential skills needed for a successful career in marketing (Taylor, 2003). Often considered only as an educational issue, spelling deficiencies reality is quite different. Indeed, they are known to also have a detrimental impact for organizations and therefore are a real issue for both public institutions and private companies. Mistakes would generate huge remediation costs supported by the companies (estimated annually at \$ 3 billion by the National Commission on Writing in 2004), and decrease consumers' buying intentions (Stiff, 2012).

As a result, writing skills are among the most requested by organizations (Anderson & Gantz, 2013) and writing skills are widely acclaimed by managers and recruiters, but paradoxically insufficiently mastered by employees (Jones, 2011).

However, research on the impact of spelling deficiencies on brand and/or company perception remains limited in a context of dramatic increase in online firm-customer interactions. The objective of this research is to evaluate the impact of both typographical (also defined as keyboard errors) and spelling errors (grammar and lexical errors) existing on a commercial website on the perception of the brand and the website.

1.1.Literature Review

Since the 1990s, the impact of spelling errors on website visitors has been investigated and several researchers showed that spelling errors affect the perception of internet users (Molich & Nelson, 1990). They were identified as being an obstacle to the trust of website visitors (Koehn, 2003), resulting even in the raise of suspicions about the reliability of the information provided (Liu & Ginther, 2001). And the presence of typographical errors may result in the decrease of the credibility score of websites (Fogg et al., 2001) and the decrease in reviewers' credibility also (Hilbrink, 2017).

Everard and Galletta (2005) also showed that websites containing typographical errors would be less valued by consumers in terms of perceived quality than those containing none. In the end, the latter would express lower buying intentions because their confidence in the organization would be altered (Koehn, 2003), which may induce a decrease in the amounts consumers would be willing to pay (Schemo 2004).

Spelling errors may even have an influence on the perceived quality of a text and the image of its author (Jansen & Roo, 2012; Stiff, 2012). Comments containing spelling errors on sites are perceived as less valid than correctly spelled ones (Schindler & Bickart, 2012). A recent study has shown that grammar mistakes in online hotel reviews have negative effects on consumer attitudes towards the hotel but also on intentions to book (Hilbrink, 2017), confirming the effect of mistakes left on consumer opinions on online sales (Ghose & Ipeirotis, 2011).

However, the notion of misspelling is subject to different interpretations according to the studies. In some (Jessmer & Anderson, 2001), spelling errors are a mixture of grammar errors (punctuation, chords) and typographical errors (omission or reversal of letters); in others only spelling errors are included as explanatory variables (Carr & Stefaniak, 2012; Stiff, 2012). Finally, in some research, only typographical errors are manipulated and described as "spelling errors" (Everard & Galletta, 2005). We therefore wanted to distinguish two types of mistakes in our research according previous studies ((Min, Wilson, & Moon, 2000; Queen & Boland, 2015): spelling errors (lexical and grammatical errors) and typographical errors (inversion, forgetting letters) in order to measure their respective impact on attitudes and behaviours. Indeed, research conducted in other contexts concluded that there is a differential impact of the type of errors: the negative impact of spelling errors is significantly higher than the effect of typographical errors or keyboard errors (Martin-Lacroux, 2017; Queen & Boland, 2015).

The objective of this research is to evaluate the impact of the presence of spelling and typographical errors on a commercial Internet site. What is their impact on brand attitude, website trust and behavioural intentions? To answer these questions an online experiment was conducted.

1.2.Methodology

In order to measure the impact of errors on brand attitude but also more generally on the company, an experimental plan has been developed. In collaboration with undergraduate students of an e-marketing bachelor, two e-commerce websites (tote bags and kitchen utensils) were created and manipulated to vary the type of errors present on these sites. Thus, three different versions were built for each of the two sites: a version without errors (N = 737), a version with typographical errors (N = 632) and a version with misspelling and grammatical errors (N = 622).

1991 Respondents (43.7% male, $M_{age} = 41$ years) of an online panel were randomly assigned to one of the six website versions (2 brands, 3 versions for each brand). After visiting the site for a minimum period of time, participants wrote down their thoughts about the website they just visited. Several variables were then measured: attitude toward the brand (Holbrook & Batra 1987, Cronbach's $\alpha = .94$, $M=4.99$, $SD=1.39$, 4 items, 7-point scale ranging from 1 = completely disagree to 7 = completely agree), trust toward the website (Loiacono et al., 2002; Jarvenpaa, Tractinsky & Saarinen, 1999, Cronbach's $\alpha = .93$, $M=4.32$, $SD=1.4$, 5 items, 7-point scale ranging from 1 = completely disagree to 7 = completely agree), behavioural intentions (*revisit and repurchase*) (Limayem, Khalifa & Frini's, 2000, Cronbach's $\alpha = .98$, $M = 3.05$, $SD = 1.73$ 3 items, 7-point scale ranging from 1 = completely disagree to 7 = completely agree), the amount respondents would be willing to spend for the products sold on the website and their declared spelling level. Manipulation checks served to control if respondents really noted the presence of mistakes on the website they were exposed to and if they noted the right types of mistakes.

1.3.Results

We first tried to understand the results by taking into account the total sample. Analysis of variance results show no impact of the type of errors respondents were exposed to on the amount they are willing to pay ($F(2,1267) = 0.39$, $p=.67$ ns). In order to analyse more precisely the impact of errors on brand attitude, trust and behavioral intentions, we proceeded a CFA-SEM multigroup analysis, comparing latent means on the full sample. Results comparing the impact of a website with errors to the website version without any mistakes show a significant impact of typographical faults but no effect of spelling mistakes.

IV	DV	Latent means /var (multigroup CFA SEM) mean diff.	Fit indices	Post-hoc Test (Tukey HSD)
Errors	Att_brand	Ortho (ref) = 0/1.56 Sans faute = 0.06/1.48 Typo = -0.19/1.50	Chi ² (18) = 23.4 ns CFI = .99, TLI = .99 Rmse = .032 (p=0.37), SRMR = .016	NE ^a -O : $p = .64$ NE-T : $p < .001$ O-T : $p = .018$
Errors	Intentions	Ortho (ref) = 0/3.27 Sans faute = - 0.06/3.04 Typo = - 0.29/2.86	Chi ² (28) = 21.6 ns CFI = .99, TLI = .99 Rmse = .0 (p=1), SRMR = .01	NE-O : $p = .80$ NE-T : $p = .036$ O-T : $p = .009$
Errors	Trust	Ortho (ref) = 0/1.96 Sans faute = 0.13/1.76 Typo = - 0.39 /1.97	Chi ² (44) = 40.5 ns CFI = .99, TLI = .99 Rmse = .0 02 (p=1), SRMR = .028	NE-O : $p = .18$ NE-T : $p < .001$ O-T : $p < .001$

a: NE = No errors

Table 1: Impact of mistakes on brand attitude, behavioural intentions and trust toward the website (total sample)

This is a surprising result, meaning that Internet users only locate typographical errors. These results do not vary if we take into account the declared spelling level of respondents.

But what about their real spelling skills? We decided to choose a sub-sample composed exclusively of respondents who really noted the presence or absence of mistakes on the website they were exposed to and who identified correctly the type of mistakes they were confronted with. This sub-sample called “apt” is composed of 1270 respondents (41.6% male, Mage = 40.7 years).

First, we checked the Anova for the amount respondents are willing to pay. Results show a significant impact of mistakes on this variable ($F(2,1267) = 4.15, p = .016$). Post-hoc tests (Tukey HSD) however indicate that this effect is only significant for typographical errors (spelling (M=20.3) vs. no errors (M=22.5): difference = -2.19, $p=0.276$; typo (M=19.2) vs. no errors: difference= -3.31, $p=0.014$; typo vs. spelling: difference= -1.12; $p=0.741$).

Results are even more interesting if we look at the perception of the website and the brand. As shown in table 2 below, when people are able to notice the presence of spelling errors, their presence has a huge impact on the perception of the brand. We observe similar results for trust toward the website and behavioral intentions.

IV	DV	Latent means /var (multigroup CFA SEM) mean diff.	Fit indices	Post-hoc Test (Tukey HSD)
Errors	Att_brand	Ortho (ref) = 0/1.68 Sans faute = 0.412/1.46 Typo = 0/1.42	Chi ² (18) = 36 * CFI = .99, TLI = .99 Rmse = .03 (p=0.51) SRMR = .037	NE ^a -O : $p < .001$ NE-T : $p < .001$ O-T : $p = 1$
Errors	Intentions	Ortho (ref) = 0/2.81 Sans faute = 0.32/3.03 Typo = - 0.15/2.63	Chi ² (31) = 323** CFI = .99, TLI = .99 Rmse = .00 (p=1) SRMR = .02	NE-O : $p = .038$ NE-T : $p < .001$ O-T : $p = .26$
Errors	Trust	Ortho (ref) = 0/1.97 Sans faute = 0.54/1.64 Typo = - 0.24 /1.84	Chi ² (44) = 50.3 ns CFI = .99, TLI = .99 Rmse = .002 (p=0.9) SRMR = .04	NE-O : $p < .001$ NE-T : $p < .001$ O-T : $p = .035$

a: NE = No errors

Table 2: Impact of mistakes on brand attitude, behavioural intentions and trust toward the website (sub-sample)

2. Discussions and conclusion

Our results confirm prior research on the impact of errors on websites. We show an important effect of typographical errors on brand perception and trust toward the website. On the contrary, spelling errors are not noticed by all respondents, even if they declare having a good spelling level. Two main reasons may explain this. First, we did not ask respondents to focus on spelling errors but to evaluate a merchant website. They may not have paid attention to this aspect (Williams, 1981). Second, they may not have sufficient skills to identify correctly spelling mistakes (Jansen & Roo, 2012). Respondents only spot errors easily identifiable by a spell checker (Figueredo & Varnhagen, 2005).

However, if we concentrate on respondents able to spot these errors, the effect of spelling mistakes becomes significant even if typographical errors remain more impacting. Their negative effect in terms of attitudes and behavioral intentions is really deleterious. Take as an example trust toward the website. Means for the three conditions (no errors: 4,58; spelling: 4,05; typ: 3,82) show an important negative impact for both types of errors.

To conclude, table 3 below shows a comparison between the effects of mistakes in the two samples.

<i>Dependant variables</i>	<i>Significance of effect for spelling errors*</i>		<i>Significance of effect for typographical errors*</i>	
	<i>Total sample</i>	<i>Apt sample</i>	<i>Total sample</i>	<i>Apt sample</i>
<i>Amount</i>	No	No	No	Yes
<i>Brand Attitude</i>	No	Yes	Yes	Yes
<i>Intentions</i>	No	Yes	Yes	Yes
<i>Trust</i>	No	Yes	Yes	Yes

**website with errors compared to websites with no errors (reference)*

Table 3: Summary of significance of effects according to the type of mistakes

Our results are coherent with Cox, Cox and Cox (2017), showing that those who read a review with typographical errors (which may signal carelessness) rated the reviewer significantly lower on trustworthiness than those who read a review with spelling errors (which may indicate cognitive challenges). In addition, the perceived expertise of the reviewer who made typographical errors was significantly lower than that of the reviewer who made no errors. The effect of errors is known to be stronger for readers who are more accurate, who detect errors in a text (Morin-Lessard & McKelvie, 2017)

This research demonstrates that errors count well when Internet users evaluate a website. However, this impact is not linked to their declared level of spelling. Indeed, there is no significant difference between the declared level of spelling between those who noticed the mistakes and those who didn't ($F(1, 1989)=,000, p=655$). Nevertheless, for those who are able to spot the mistakes, the impact is important. We need to further explore if the samples are different in terms of demographical variables, but it seems that no differences of education, age or gender exist.

This sub-sample represents only 64% of our total sample, which is also a confirmation that spelling level is decreasing. Moreover, the question of spelling enjoys a status considered by some sociolinguists as overvalued (Millet, Lucci, & Billiet, 1990; Wynants, 1997) and also a high media coverage.

Concerning the limitations of this study, we could first mention that we worked with fictive brands and websites and that the websites were limited versions. In addition, only two product categories were analysed. And as Bart et al. (2005) underlined, the influences of the determinants of online trust are different across site categories and consumers. Therefore, additional research should be undertaken to explore these facts.

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