

Certainty and uncertainty markers in manager-employee communication

Bachelor Thesis

Céline Michon



Radboud Universiteit Nijmegen

Abstract

This research examines whether language markers, specifically uncertainty markers and certainty markers, have an effect on the perception of the written communication of a manager. Authoritativeness, sociability, trustworthiness and competence are the tested aspects for the perception of the manager. After first reading an e-mail written by a manager containing either no markers, uncertainty markers or certainty markers, participants answered questions about the perception with regard to the authoritativeness, sociability, trustworthiness and competence of the manager. The results show that there is no significant effect of language markers on the perception of authoritativeness, sociability, trustworthiness and competence. However, the small trend that could be seen is that no markers scored highest for all four variables, with certainty markers as runner up, except for sociability, where uncertainty markers was the runner up. The data suggest that a text containing either uncertainty markers or certainty markers will be perceived less positive than a text containing no markers.

Keywords

Uncertainty, certainty, authoritativeness, sociability, trustworthiness, competence

Céline Michon – s1003514
Bachelor Thesis
Saskia van Putten
International Business Communication
Radboud University

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Introduction

It is important for managers to know how to communicate well in order to get the wanted message across to the employees. Even when the manager is very eloquent, certain use of words can influence the way the receiver evaluates the message, because communication can be perceived in multiple ways. Particular words in that communication can influence the perception, such as markers of uncertainty or certainty. It might thus be valuable to know in what ways these markers influence the perception of the communication to be able to get the correct message across to the audience. Therefore, the current research will look at the difference in perception between uncertainty and certainty markers in communication. The type of uncertainty markers that will be used are hedges. Hedges are words like kind of, sort of, probably, etc. This study will focus on the communication from a manager towards the employees. It will thus assess the characteristics of the manager that are perceived through the managers' communication. The perceived characteristics will be measured through the dependent variables authoritativeness, sociability, trustworthiness and competence.

The assessment of uncertainty markers in communication is not an uncommon topic in the linguistic research field. Research tested multiple types of uncertainty markers or powerless language. Uncertainty markers and markers of powerless speech are the same. Yet, powerless language refers to communication containing multiples markers of uncertainty, whereas uncertainty markers refer to the specific markers of powerless speech such as hedges (kind of, sort of, etc.), hesitations (uh, eh, etc.), tag questions (isn't it, right, etc.), etc. Previous investigations have conducted research about how these language markers could have an effect on the perception by showing texts containing these language markers to the participants. These texts may either be written communication or a transcript of spoken communication. Researchers either put the markers of powerless language all together in a text (Hosman & Siltanen, 2011) or they use separate texts for the different types of uncertainty markers (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994; Blankenship & Holtgraves, 2005). On the other hand, other research just tested one type of uncertainty markers (Haleta, 1996; Durik, Britt, Reynolds, & Storey, 2008). The present research will only use one type of uncertainty markers to be able to compare the effect of the uncertainty markers and the certainty markers in the communication. Furthermore, when only

using one type of uncertainty markers it is easier to replace them with certainty markers in a text.

Not only the amount of uncertainty markers and the way they are tested differ among studies, also the type of powerless language markers are divergent. Some only tested for hesitations (Haleta, 1996), while others tested only for hedges (Durik et al., 2008). A study by Bradac and Mulac (1984) tested for seven different types of markers (hedge, tag questions, intensifiers, polite language, hesitations, deictic and powerful language). Another study merely tested hedges, hesitations and tag questions (Blankenship & Holtgraves, 2005), while a study by Hosman (1989) included hesitations, hedges and intensifiers as uncertainty markers. Hosman and Siltanen (1994) used the same uncertainty markers, but they added tag questions to their investigation. As reasoned above, the current study will follow Durik et al. (2008) in using only one type of uncertainty markers, namely hedges.

Hedges, just like hesitations and tag questions, are uncertainty markers that make a message more powerless than when a message would not contain these uncertainty markers. When a message is powerless, it means that the message can come across as less coherent and that the speaker can be rated as having less power (Bradac & Mulac, 1984; Hosman, 1989). The effect of hedges has been similar to other uncertainty markers such as hesitations (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994; Blankenship & Holtgraves, 2005). According to Durik et al. (2008) there are two types of hedges, namely academic and colloquial, everyday hedges. Academic hedges are words like probably and possibly, while colloquial hedges are words such as sort of and kind of. Hyland (1998) further classified common academic hedges into adjectives and adverbs (probably, possibly, etc.); judgmental verbs (suggest, imply, etc.); evidential verbs (appear, seem, etc.) and modal verbs (may, should, etc.). The current study will use adjectives and adverbs and modal verbs.

Another type of marker that has been tested frequently is intensifiers. The studies that have included intensifiers as markers of powerless language (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994) showed that these have differing results than the other markers of uncertainty, like hedges and hesitations. Intensifiers are words that strengthen a statement, such as really, very, etc. Previous researchers (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994) showed that intensifiers, like powerful language (lacking any markers), have a positive effect on the evaluation of the communication. Therefore, the present research will not treat intensifiers as uncertainty markers, but as markers of certainty. However, it will not be called powerful language, since powerful language in many of the investigations means lacking any markers (Bradac & Mulac, 1984;

Hosman & Siltanen; 1994, Haleta, 1996; Blankenship & Holtgraves, 2005), whereas the current study will be using markers of certainty.

Next to the type of uncertainty markers used in the communication, the field in which the communication takes place could also influence the perception of the uncertainty and certainty markers in the message. Some research has been done about powerless language in the academic field (Haleta, 1996; Blankenship & Holtgraves, 2005). Blankenship and Holtgraves (2005) used a message about comprehensive exams to test the persuasion of different markers of linguistic powerlessness. Their results showed that in general markers of powerless speech, especially hedges and hesitations, have a negative effect on persuasion. One difference with the current study is the context in which the study of Blankenship and Holtgraves (2005) took place. The present investigation will take place in a professional context, whereas the study by Blankenship and Holtgraves (2005) took place in an academic context. This could result in differences in the outcomes of their study and the current research, since the academic world is more accustomed to the use of uncertainty markers in its communication (Durik et al., 2008) and therefore has a different perception of these markers than the professional world. Another difference is that Blankenship and Holtgraves (2005) focused on the persuasiveness of the communication, while the present study will focus on the evaluation of the communicator, because a manager does not only want to persuade the employees into doing something, a manager also wants to come across as a person who is capable for the job.

Another investigation that took place in the academic field was done by Haleta (1996). Haleta (1996) investigated the initial impressions and uncertainty reductions of students for powerless and powerful language used by teachers during the first class. She showed that students evaluated the teacher who used powerful language higher in the dimensions of dynamism, status and credibility than teachers who used powerless language. In the same direction, students reported to have a higher level of uncertainty when powerless language was used compared to the utilization of powerful language. The relationship between students and the teachers can be seen as a classic example of a superordinate-subordinate relationship. Since the relationship between students and teachers could be seen as comparable to the superordinate-subordinate relationship between managers and employees, the difference between uncertain and certain language could evoke similar effects. However, the different contexts, academic versus professional, could evoke differences that possibly overshadow the similar relationship between teacher-student and manager-employee.

There has been other research about the perception of superordinate-subordinate communication, but then the focus was on the perception of the communication of the person in a lower power position by the person in a higher power position. For example, a study in the context of job interviews (Bradac & Mulac, 1984) focused on the employer's perception of the future employee, using seven different forms of language. In their second study, they included the variable: the job interviewee's desire to appear sociable or to appear authoritative. They also investigated which of these seven forms was perceived as powerful and effective. Since both the current research and the research by Bradac and Mulac (1984) took place in the professional context, one could expect the results of both studies to be similar. However, instead of evaluating the person in the lower power position, the participants will be asked to evaluate the person in the higher power position, which could evoke different results by overshadowing the similar context. Furthermore, they suggested that it could be expected that the job interviewee wants to appear authoritative, since it could be the typical purpose of an employment interview. The same could be expected from managers, since they are in a higher power position, the participants could expect that they have a desire to appear authoritative.

Not only the perception of the person in a lower position by a person in a higher power position is important, but also the other way around, thus the employee's perception of the manager. Research has been done about the evaluation of managers. Effective management is often evaluated by the skills that the managers possess or should possess (Shipper, 1991; Shipper & White, 1999; Shipper & Davis, 2002). For example, one of these investigations (Shipper & Davis, 2002) tested employees' attitudes towards the initiating skills and interactive skills of managers. There is even an official survey to assess the qualities that a manager possesses, namely the Survey of Management Practices, which Shipper and Davis (2002) also used in their investigation. Where these researches focused on the actual skills that the managers possess or should possess, the present study will focus on the skills or characteristics of the manager that are perceived through communication. Therefore, authoritativeness, sociability, competence and trustworthiness will be utilized, since these characteristics may be easier to assess through the communication of the manager.

Trustworthiness is included, because this variable is not investigated yet before in the context of speech style and language markers. However, it is a characteristic that a manager should possess that can be tested through the manager's communication. Furthermore, trustworthiness may be a characteristic that can be expressed through written communication, which can be influenced by the language markers used in that communication. On the other

hand, competence has been used before in previous research (Hosman & Siltanen, 2011). Hosman and Siltanen (2011) used competence as one of their dependent variables to test the perception of the speaker. The researchers showed that tag questions hurt the perceived competence of the speaker, while high argument quality messages produced a more positive speaker perception. Hedges did not lead to significant effects on speaker perception. The difference between the current study and the investigation by Hosman and Siltanen (2011) is that their result section mainly focused on tag questions, whereas the present study will only focus on hedges instead of both hedges and tag questions. Furthermore, the researchers also tested argument quality, while the current investigation is only interested in the effect that the uncertainty and certainty markers could have on the perception of the manager.

The variables of *authoritativeness* and *sociability* are frequently used within the research into powerless and powerful language (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994). Bradac and Mulac (1984) used *authoritativeness* and *sociability* as an independent variable with the desire to appear sociable or the desire to appear authoritative of the job interviewee. Their results showed that the attitude towards powerless language is more positive when the job interviewee had the desire to appear sociable, whereas *authoritativeness* was harmed by the use of powerless language. Hosman (1989) and Hosman and Siltanen (1994) both used *authoritativeness* and *sociability*, among others, as dependent variables. Hosman's results (1989) showed that hedges lower the evaluation of *authoritativeness*, while hesitations lower both the evaluation of *sociability* and *authoritativeness*. The results of Hosman and Siltanen (1994) demonstrated that the presence of hedges or hesitations resulted in lower evaluations for *authoritativeness*. Since the results for *authoritativeness* and *sociability* are quite consistent among the investigations, the present research will also test these as dependent variables to be able to compare with the above-mentioned investigations.

The effect of uncertainty and certainty markers has never been tested before in relation to communication of a manager to the employee in previous research. Moreover, the focal point will be four different aspects (*authoritativeness*, *sociability*, *trustworthiness* and *competence*) of how the communicator is perceived whereas previous research mostly has focused on only one or two dependent variables. Given these reasons, the proposed study will concentrate on the following question:

RQ: What is the effect of certainty markers and uncertainty markers in a manager's written communication to employees on how managers are perceived?

The perception of the managers will be assessed through the four different aspects of authoritativeness, sociability, trustworthiness and competence.

Based on previous research on authoritativeness (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994) where authoritativeness mostly was hurt by the use of uncertainty markers and powerful language was seen as the most authoritative, one could expect that certainty markers and no markers will have a positive influence on authoritativeness:

H1: The evaluation of authoritativeness will be higher when the communication contains no markers in comparison with communication that contains certainty markers or uncertainty markers.

H2: The evaluation of authoritativeness will be higher when the communication contains certainty markers in comparison with communication that contains uncertainty markers.

Since previous research showed that sociability is less harmed by uncertainty markers than authoritativeness is (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994), one could expect that:

H3: The evaluation of sociability will be higher when the communication contains no markers in comparison with communication containing uncertainty markers or certainty markers.

H4: The evaluation of sociability will be higher when the communication contains uncertainty markers in comparison with communication containing certainty markers.

Since there has been no previous research on the evaluation of trustworthiness with regard to uncertainty and certainty markers in the professional context, the following question is formulated:

Sub-question 5: Is there a difference in the evaluation of trustworthiness between communication containing uncertainty markers, certainty markers or no markers?

A previous study that investigated the effect of uncertainty markers on the perception of the speaker with the variable competence (Hyland & Siltanen, 2011) did not find a statistically significant effect of hedges on the perceived competence of the speaker. However, Hyland & Siltanen (2011) combined hedges with a low or high level of tag questions and a low or high level of argument quality. The effect of the tag question or the argument quality might have overshadowed the effect of the hedges. Considering that in the current investigation solely hedges are used, the effect of the hedges on the perceived competence might lead to statistically significant results, unlike the study by Hyland & Siltanen (2011). Therefore, the following question is formulated:

Sub-question 6: Is there a difference in the evaluation of competence between communication containing uncertainty markers, certainty markers or no markers?

Method

Materials

The independent variable to test the research question was markers of uncertainty or certainty in a message from a manager to an employee. The independent variable had three levels: markers of uncertainty, markers of certainty or no markers. Uncertainty markers are words used in communication to express uncertainty about particular statements. The markers of uncertainty that were used in the study were the hedges possibly, probably, potentially, could, might and may. Certainty markers are words used in communication to express certainty about a particular statement. One example of certainty markers could be intensifiers, however intensifiers were not the only type of certainty markers that was used, since intensifiers are words to strengthen a statement, whereas words to express certitude also were included. The markers of certainty that were used in the study were clearly, surely, definitely and certainly.

The independent variable was operationalised through three different texts. One text containing uncertainty markers, one text containing certainty markers and one text containing no markers. The text with the markers of uncertainty and the text with the markers of certainty both contained the same number of markers and they were as far as possible placed in the same spot, to prevent any undesired or unexpected outcomes due to the number or the placement of the markers. Both the texts with the uncertainty and certainty markers

contained eight markers. The text was an e-mail from a manager to the employees concerning the Covid-19 crisis. The e-mails can be found in appendix 1.

Subjects

In total there were 97 subjects: 30 for the version with no markers in the e-mail, 33 for the version of the e-mail with certainty markers and 34 for the version with uncertainty markers in the e-mail. The participants were second-language speakers of English in the age of 19 till 28 years old. The mean age was 21.62 with a standard deviation of 1.63. In table 1 the distribution of the mean age and standard deviation per version can be seen. Of the 97 participants, 58 identified themselves as female, which made 59.8%, and 39 identified themselves as male, which made 40.2%. A non-significant Chi-square test showed that gender was equally distributed across the three groups ($\chi^2 (2) = 2.13, p = .344$). Second-language speakers of English were chosen out of convenience, since the survey and e-mail were both in English, but the participants at disposal were mainly second-language speakers of English. The participants were asked to rate their own English level on a scale of 1 to 10, which gave a mean of 7.52, a standard deviation of 0.92 and a range between 4 and 9. This means that the English of the participants was good enough to be able to rate an English e-mail.

Table 1. The means and standard deviations of the age distributed among the different versions of the e-mail.

	N	Mean	Standard Deviation
No markers	30	21.50	1.28
Certainty markers	33	21.36	1.62
Uncertainty markers	34	21.97	1.88
Total	97	21.62	1.63

Design

A between-subjects design was used with language markers as independent variable and four dependent variables: authoritativeness, sociability, trustworthiness and competence. The participants were only exposed to one level of the independent variable, namely with

uncertainty markers, certainty markers or no markers. The group that read the e-mail with no markers functioned as a control group.

Instruments

The dependent variables that were used to answer the research question are authoritativeness, sociability, trustworthiness and competence. The participants gave their perception towards the manager through written communication regarding these variables. The dependent variables were assessed through a set of 7-point Likert-scale questions, consisting of the points: Strongly disagree (1) – Disagree (2) – Somewhat disagree (3) – Neither agree nor disagree (4) – Somewhat agree (5) – Agree (6) – Strongly agree (7).

The variable of authoritativeness was tested with the following sub-questions: The manager seems powerful, the manager seems authoritative, the manager seems confident and the manager seems strong. The words powerful, authoritative, confident and strong were based on the operationalisation of the dependent variable authoritativeness in a study about the evaluation of different powerless and powerful speech styles by Hosman (1989). The reliability of authoritativeness comprising four items was good: $\alpha = .86$. Consequently, the mean of all four items was used to calculate the compound variable authoritativeness, which was used in further analyses.

Trustworthiness was tested through the following questions: I trust the manager, the manager seems reliable and the manager seems honest. Again, the words trust and honest were based on the research by Hosman (1989). The researcher used the terms honest and trustworthy to test the dependent variable of character. In the current investigation, these words were used to assess trustworthiness, because trustworthiness is a more specific term than character. Character was not tested, but because both terms were used to test the same variable they could be seen as equivalent. Moreover, the word character could be confused with personality and would thus also include aspects such as personality traits which were not tested with the variable of trustworthiness. The word reliable can be seen as a synonym for both trustworthiness and honesty. The reliability of trustworthiness comprising three items was good: $\alpha = .84$. Consequently, the mean of all three items was used to calculate the compound variable trustworthiness, which was used in further analyses.

Competence was tested through the following questions: the manager seems competent and the manager seems knowledgeable. The terms competent and knowledgeable were based on research by Hosman and Siltanen (2011). The researchers tested the competence of the speaker with these terms, among others. Therefore, it could be said that

these terms were also fit to test the competence of the writer of the message. The other terms that were used in the study by Hosman and Siltanen (2011) were used for different dependent variables in the present research, for example the term likeable was used to assess sociability and the term trustworthy was used to assess trustworthiness. The reliability of competence comprising two items was good: $\alpha = .85$. Consequently, the mean of the two items was used to calculate the compound variable competence, which was used in further analyses.

The dependent variable of sociability was tested with the following sub-questions: the manager seems pleasant, the manager seems likeable, the manager seems good-natured and the manager seems sociable. The words pleasant, likeable, good-natured and sociable were once again taken from Hosman (1989). The reliability of sociability comprising four items was good: $\alpha = .90$. As a consequence, the mean of all four items was used to calculate the compound variable sociability, which was used in further analyses.

Procedure

The subjects were asked personally to participate in the study. An online questionnaire was used, created with the tool Qualtrics. To distribute the survey a URL-link was sent to the participants, with three different links for the three different questionnaires for every level of the independent variable. There was no financial reward or other incentives for participating in the study. The experiment was conducted on an individual basis. In the introduction of the questionnaire the participants were told that filling in the survey would contribute to the bachelor thesis of five students. Furthermore, it shortly explained what was expected from the participant and it stated how long the questionnaire would take. After that, the participants were told that the survey was voluntary and anonymous and they were asked for consent. Right before the questions started, it was once again explained what was expected from the participants, this time more in detail. Participants were told that they were going to read an e-mail written by a manager after which they would have to evaluate the manager. The participants were asked to put themselves in the employee's position. After reading the e-mail, the questions about the four dependent variables authoritativeness, trustworthiness, competence and sociability were asked. Following the questions on the dependent variables, the participants were asked to rate the English level of the manager on a scale of 1 tot 10, whether the e-mail sounded natural and if not, why not and to rate their own level of English on a scale of 1 to 10. After this, a general question was asked about what they thought the purpose of the study was. At last, the age and gender were asked.

The procedure was the same for all participants, the only thing that differed between the three groups of participants was the e-mail they had to read.

Statistical treatment

To test whether the version of the e-mail with no markers, uncertainty markers or certainty markers had an effect on authoritativeness, sociability, trustworthiness and competence, four one-way ANOVA's, with Bonferroni post-hoc tests were done. Furthermore, a Chi-square test was done to test whether the naturalness of the e-mail differed for the different versions.

Results

The general research question of this study is: 'What is the effect of certainty markers and uncertainty markers in a manager's written communication to employees on how managers are perceived?'

Authoritativeness

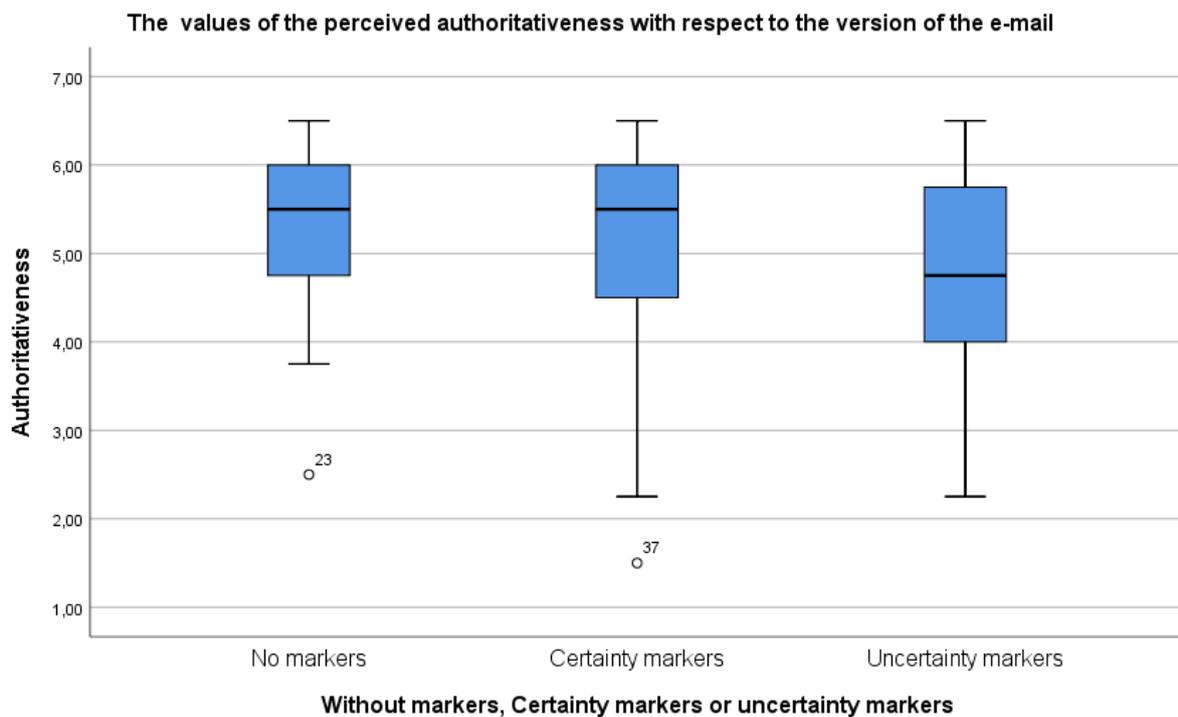
The hypotheses regarding authoritativeness are: 'The evaluation of authoritativeness will be higher when the communication contains no markers in comparison with communication that contains certainty markers or uncertainty markers' and 'The evaluation of authoritativeness will be higher when the communication contains certainty markers in comparison with communication that contains uncertainty markers'.

A one-way analysis of variance showed no significant effect of Version on authoritativeness ($F(2, 94) = 1.87, p = .160$). Table 2 shows the values of authoritativeness with respect to the different versions. Figure 1 shows that the participants rated the managers' authoritativeness slightly higher when no markers were used instead of uncertainty markers or certainty markers. Furthermore, it shows that participants rated the authoritativeness of the manager slightly higher when certainty markers were used instead of uncertainty markers. However, since the effect was not big enough, it was not significant.

Table 2. The means and standard deviations of the perceived authoritativeness of the manager with respect to the different versions of the e-mail (1 = totally not authoritativeness, 7 = very authoritative).

	N	Mean	Standard Deviation
No markers	30	5.27	0.93
Certainty markers	33	5.06	1.24
Uncertainty markers	34	4.73	1.18
Total	97	5.01	1.14

Figure 1.



Trustworthiness

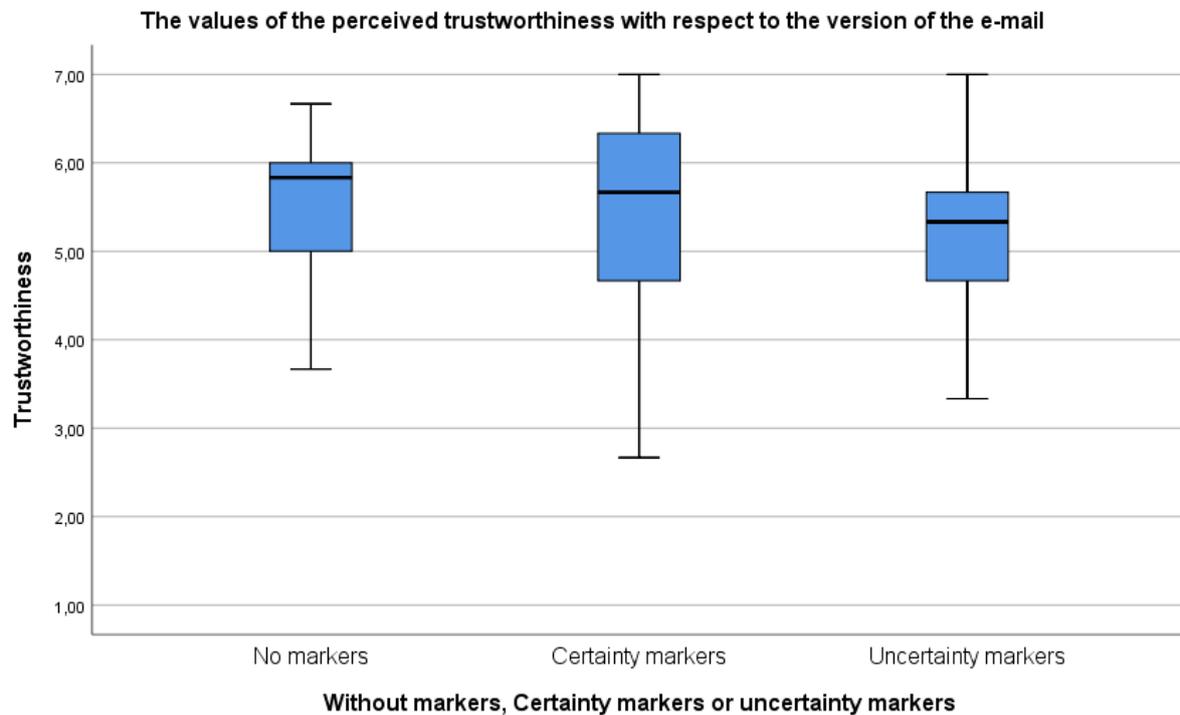
The research question regarding trustworthiness is: ‘Is there a difference in the evaluation of trustworthiness between communication containing uncertainty markers, certainty markers or no markers?’

A one-way analysis of variance showed no significant effect of Version on trustworthiness ($F(2, 94) = 2.04, p = .136$). Table 3 shows the values of trustworthiness with respect to the different versions. Figure 2 shows that the participants rated the trustworthiness of the manager slightly higher when no markers were used in the e-mail than when uncertainty or certainty markers were used. Next, it shows that the participants rated the manager's trustworthiness slightly higher when certainty markers were used in the e-mail than when uncertainty markers were used. However, supported by the statistics, the effect was not significant.

Table 3. The means and standard deviations of the perceived trustworthiness of the manager with respect to the different versions of the e-mail (1 = totally not trustworthy, 7 = very trustworthy).

	N	Mean	Standard Deviation
No markers	30	5.54	0.68
Certainty markers	33	5.30	1.16
Uncertainty markers	34	5.06	0.96
Total	97	5.29	0.97

Figure 2.



Competence

The research question with regard to competence is: ‘Is there a difference in the evaluation of competence between communication containing uncertainty markers, certainty markers or no markers?’

A one-way analysis of variance showed no significant effect of Version on competence ($F(2, 94) = 2.13, p = .125$). Table 4 shows the values of competence with respect to the different versions. Figure 3 shows that participants rated the manager’s competence slightly higher when no markers were used in the e-mail instead of certainty and uncertainty markers. Furthermore, it shows that the participants rated the competence of the manager slightly higher when certainty markers were used instead of uncertainty markers. However, statistically, the effect was not big enough to be significant.

Table 4. The means and standard deviations of the perceived competence of the manager with respect to the different versions of the e-mail (1 = totally not competent, 7 = very competent).

	N	Mean	Standard Deviation
No markers	30	5.30	1.20
Certainty markers	33	4.98	1.25
Uncertainty markers	34	4.63	1.41
Total	97	4.96	1.31

Figure 3.



Sociability

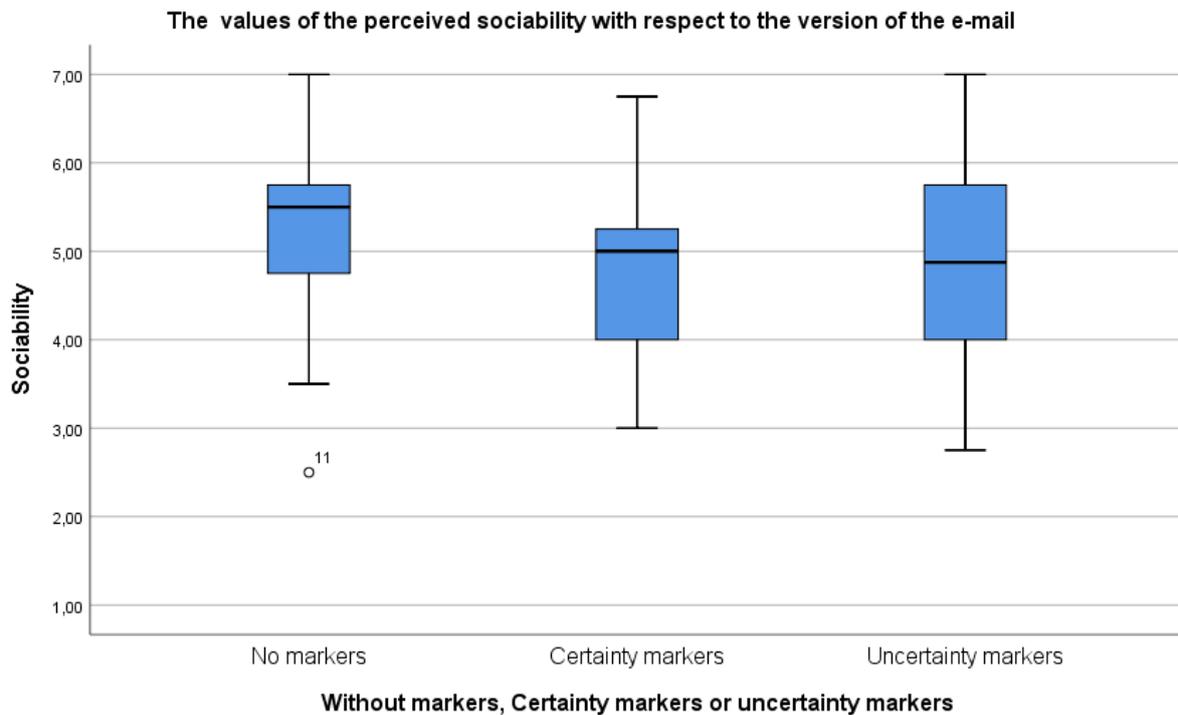
The hypotheses regarding sociability are: ‘The evaluation of sociability will be higher when the communication contains no markers in comparison with communication containing uncertainty markers or certainty markers’ and ‘The evaluation of sociability will be higher when the communication contains uncertainty markers in comparison with communication containing certainty markers’.

A one-way analysis of variance showed no significant effect of Version on sociability ($F(2, 94) = 1.82, p = .168$). Table 5 shows the values of sociability with respect to the different versions. Figure 4 shows that the participants rated the sociability of the manager slightly higher when no markers were used than when certainty or uncertainty markers were used in the e-mail. Next, it shows that the participants rated the manager's sociability slightly higher when uncertainty markers were used in the e-mail than when certainty markers were used. However, the effect was not big enough to be significant.

Table 5. The means and standard deviations of the perceived sociability of the manager with respect to the different versions of the e-mail (1 = totally not sociable, 7 = very sociable).

	N	Mean	Standard Deviation
No markers	30	5.23	0.95
Certainty markers	33	4.74	0.97
Uncertainty markers	34	4.86	1.17
Total	97	4.93	1.05

Figure 4.



Naturalness of the e-mail

A Chi-square test showed a significant relation between version of the e-mail and whether the e-mail sounded natural ($\chi^2(2) = 6.22, p = 0.045$). Participants who had read the e-mail with the certainty markers rated the e-mail more frequent as unnatural (54.2%) than participants who read the e-mail with no markers (16.7%) and those who read the e-mail with the uncertainty markers (29.2%).

Table 6. Distribution of the observed values for whether the e-mail sounded natural per version of the e-mail with the percentages (between parenthesis).

	Natural	Unnatural	Total
No markers	26 _a (35.6%)	4 _a (16.7%)	30 (30.9%)
Certainty markers	20 _a (27.4%)	13 _b (54.2%)	33 (34.0%)
Uncertainty markers	27 _a (37.0%)	7 _a (29.2%)	34 (35.1%)
Total	73 (100.0%)	24 (100.0%)	97 (100.0%)

Every different letter written as subscript denotes a subset of naturalness of the e-mail category whose column proportions do not differ significantly from each other at the .05 level.

Conclusion

Firstly, the current study has found no evidence for the hypothesis that a manager's authoritativeness was rated higher when no language markers were used in written communication than when uncertainty or certainty markers were used. Nonetheless, there is a trend that points in the direction that the manager's authoritativeness was slightly higher when no markers were used instead of certainty or uncertainty markers. Furthermore, there was no evidence found for the hypothesis that the perceived authoritativeness of a manager through written communication was rated higher when certainty markers were used in written communication instead of uncertainty markers. Notwithstanding, a trend points in the direction that a manager's authoritativeness was slightly higher when certainty markers were used instead of uncertainty markers. Both trends were not big enough to show a statistically significant difference between the three versions of the written communication on the perceived authoritativeness of the manager.

Next, there was no evidence found for the hypothesis that a manager's sociability was rated higher when no language markers were used in an e-mail by a manager to employees than when uncertainty markers or certainty markers were used. Yet, a trend points out that the sociability of the manager was slightly higher when no markers were used in comparison with certainty or uncertainty markers. Thereby, the hypothesis that the sociability of a manager was rated higher when uncertainty markers were used in the e-mail instead of certainty markers was not supported by evidence. However, there is a trend that points in the direction that the manager's sociability was slightly higher when uncertainty markers were used in comparison with certainty markers. The difference between the three versions of the e-mail was not big enough to show a statistically significant effect on the perceived sociability.

Furthermore, to answer the question whether there is a difference in the evaluation of the perceived trustworthiness of the manager between written communication containing uncertainty markers, certainty markers or no markers, one could say that the trustworthiness of the manager was not rated higher when the written communication contained no markers in comparison with communication that contained certainty markers or uncertainty markers. Nonetheless, a trend points in the direction that a manager's trustworthiness was slightly higher when no markers were used instead of uncertainty or certainty markers. Furthermore, the current study shows no evidence that a manager's trustworthiness was rated higher when certainty markers were used in the written communication instead of uncertainty markers. Notwithstanding, a trend points out that the trustworthiness of the manager was slightly higher when certainty markers were used instead of uncertainty markers. Once again, the

effect was not big enough to have a statistically significant difference of the three versions of the communication on the perceived trustworthiness.

To answer the question whether there is a difference in the evaluation of the perceived competence of the manager between communication containing uncertainty markers, certainty markers or no markers, one could say that communication containing no markers was not rated higher in comparison with communication containing certainty or uncertainty markers. Yet, there is a trend that shows that the manager's competence was slightly higher when no markers were used in comparison with certainty or uncertainty markers. Thereby, there was no evidence that the competence of the manager was rated higher when certainty markers were used in the e-mail than when uncertainty markers were used. However, a trend points out that the manager's competence was slightly higher when certainty markers were used in comparison with uncertainty markers. The difference between the three versions of the e-mail was not big enough to have a statistically significant effect on the perceived competence of the manager.

Lastly, to answer the general research question of what the effect is of certainty markers and uncertainty markers in a manager's written communication to employees on how managers are perceived is that there is a trend that the manager was rated highest for all four variables, authoritativeness, sociability, competence and trustworthiness, on the written communication containing no markers in comparison with the communication containing certainty markers and uncertainty markers. Next, a trend shows that the evaluation of the manager was slightly higher when certainty markers were used instead of uncertainty markers, except for sociability, where the e-mail with uncertainty markers was rated slightly higher than the e-mail with the certainty markers. However, like already mentioned above, none of the differences showed to be statistically significant.

Discussion

The fact that there were no significant results is in accordance with Hosman and Siltanen (2011), whose results also did not produce statistically significant effects for hedges. Hosman and Siltanen (2011) explained this effect by stating that this is consistent with studies that found that some powerlessness markers have few effects in the presence of other powerlessness markers. However, this explanation does not apply to the current study, since only hedges were used. Thus, there are two other possible explanations for the fact that most of the results were significant. Firstly, the use of certainty markers and uncertainty markers in

an e-mail by a manager does not affect how the employees rate the manager's authoritativeness, sociability, competence and trustworthiness. Secondly, the use of certainty markers and uncertainty markers may influence the perception of the manager, but this did not show up in the present study due to properties of the stimulus material or the context that were different from previous studies.

The trend that could be seen is that the e-mail with no markers was generally rated slightly higher than the other two versions for all four variables. This could be traced back to the fact that the participants rated the e-mail containing the certainty markers significantly more as sounding unnatural than the e-mail containing no markers or uncertainty markers, however the majority still rated the e-mail with the certainty markers as sounding natural. Notwithstanding that no significant evidence is provided in the current study, there still could be an indication that managers are rated more positively when they do not use certainty or uncertainty markers, however further research is needed. The finding that written communication containing no markers is rated more positively is in accordance with other investigations (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994; Haleta, 1996) where communication with no markers had a positive effect on the evaluation. Despite the fact that Haleta (1996) conducted her research in a different context, namely in the academic field, the similar superordinate-subordinate relationship of professor-student and manager-employee could explain the similar results of the communication containing no markers. Furthermore, some of these investigations (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994) showed that intensifiers had a positive effect on the evaluation of the communication. Since intensifiers were included as certainty markers in this study, this positive effect could be seen to a certain extent in the way that the communication with the certainty markers was evaluated slightly more positive than the communication with the uncertainty markers for authoritativeness, competence and trustworthiness. The outcome that the communication with uncertainty markers has a negative effect is also seen among various studies (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994; Blankenship & Holtgraves, 2005). Furthermore, the effect that authoritativeness was harmed by the use of uncertainty markers in communication is also shown in some investigations (Bradac & Mulac, 1984; Hosman, 1989; Hosman & Siltanen, 1994). Bradac and Mulac (1984) stated for their research that the subject under investigation, the job-interviewee, might have had a desire to appear authoritative. It might be possible that managers could have the same desire, however that is not shown in the outcomes of the current study. Bradac and Mulac (1984) also showed that the communication with the uncertainty markers was more accepted for sociability, which

is in accordance with the present investigation. Therefore, the differing position of the subject under investigation, a person in a lower power position versus a person in a higher power position, did not overshadow the similar professional context of both studies.

Although the outcomes of the current research were all not significant, the small trends that could be seen are conform to the numerous studies in this research field.

One of the limitations was that there was no pre-test done. Because of this, it was not possible to test the naturalness of the e-mail and the correct number and placement of the markers beforehand. However, during the survey it was asked whether the e-mail sounded natural to participants and if not, why not. Most participants noticed that there was something off about the e-mail with the certainty and uncertainty markers, noticing that some words were used more often or that the flow of the text was not good. Notwithstanding, this did not influence the perception of the manager, since there was no significant effect found of the certainty or uncertainty markers on authoritative, sociability, competence and trustworthiness. Moreover, for all three versions of the e-mail the participants rated the e-mail more frequently as natural than sounding unnatural. However, when a pre-test would have been used, it could have helped to make the stimulus material more representative of a real-life communication. Moreover, a manager was asked to write an e-mail for this study, so the e-mail was not a real communication sent to employees. If a real communication from a manager to the employees would have been used, the naturalness of the e-mail would have possibly been preserved more. Another explanation for the loss of naturalness of the communication is that the e-mail was originally written in German and later translated into English. A last limitation could be the relatively small sample size compared to other research. If the sample size would have been bigger, it probably would have represented the population better. All these limitations could also be possible explanations for the lack of significant results, since they effected the properties of the stimulus material.

Future research could take into account that a pre-test can be useful in this kind of research to make sure that the material used is as natural as possible. Moreover, since this research only focused on written communication, it could also be interesting to look at spoken communication from a manager to the employee to be able to see whether the effect of the uncertainty and certainty markers will differ in spoken communication, because a big part of the communication between a manager and employee occurs verbally.

In conclusion, in this research there was no effect of uncertainty and certainty markers on the perceived authoritative, sociability, competence and trustworthiness of the manager in the written communication of a manager to the employee. However, this does not

mean that this subject is closed and unimportant for further research. Even though the effect in this investigation was too small to be significant, future studies could find outcomes that could be relevant for the professional working floor.

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Appendix 1

E-mail without markers

Dear colleagues,

The situation:

The outbreak of the novel Coronavirus (COVID-19) has become a worldwide pandemic. The authorities have ordered far-reaching protective measures to slow the spread of COVID-19 until at least mid-April.

For our travel agency, this has consequences, both internally and externally. The external consequences will be:

- Flights are cancelled, which means that we will lose clients.
- Given that most hotels are currently dealing with a very high cancellation rate, we will lose a large part of the reservations costs already paid to hotels

What we can do internally:

In order for this crisis to pass as quickly as possible, we have to take some measures.

Encounters/meetings with more than 2 persons are prohibited by national authorities.

Considering this and other lockdown conditions, we are all asked to contribute to the decrease of the infection rate by staying at home – as you already know.

How to conquer the challenge:

Please take any chances during your home office time to stay interconnected and to stay in touch with our customers and business partners.

For that, please make yourself familiar with virtual communication tools, such as WebEx, skype business, MS Teams, ...

Please make sure to contribute in your regular online team meetings and share relevant information. This way we will be able to continue most operations.

We will not be getting back to normal work any time soon.

Please feel free to contact me in case you might have any questions or ideas on how to improve and overcome the current challenge.

Thank you for your contribution and your comprehension.

Sincerely,
[Name of the manager]

E-mail with certainty markers

Dear colleagues,

The situation:

The outbreak of the novel Coronavirus (COVID-19) has become a worldwide pandemic. The authorities have ordered far-reaching protective measures to slow the spread of COVID-19 until at least mid-April.

For our travel agency, this **surely** has consequences, both internally and externally. The external consequences will **definitely** be:

- Flights are cancelled, which **certainly** means that we will lose clients.
- Given that most hotels are currently dealing with a very high cancellation rate, we will **definitely** lose a large part of the reservations costs already paid to hotels.

What we can do internally:

In order for this crisis to pass as quickly as possible, we **clearly** have to take some measures.

Encounters/meetings with more than 2 persons are prohibited by national authorities.

Considering this and other lockdown conditions, we are all asked to contribute to the decrease of the infection rate by staying at home – as you **surely** already know.

How to conquer the challenge:

Please take any chances during your home office time to stay interconnected and to stay in touch with our customers and business partners.

For that, please make yourself familiar with virtual communication tools, such as WebEx, skype business, MS Teams, ...

Please make sure to contribute in your regular online team meetings and share relevant information. This way we will **definitely** be able to continue most operations.

We will **definitely** not be getting back to normal work any time soon.

Please feel free to contact me in case you might have any questions or ideas on how to improve and overcome the current challenge.

Thank you for your contribution and your comprehension.

Sincerely,
[Name of the manager]

E-mail with uncertainty markers

Dear colleagues,

The situation:

The outbreak of the novel Coronavirus (COVID-19) has become a worldwide pandemic. The authorities have ordered far-reaching protective measures to slow the spread of COVID-19 until at least mid-April.

For our travel agency, this **could** have consequences, both internally and externally. The external consequences will **possibly** be:

- Flights are cancelled, which **probably** means that we will lose clients.
- Given that most hotels are currently dealing with a very high cancellation rate, we will **potentially** lose a large part of the reservations costs already paid to hotels

What we can do internally:

In order for this crisis to pass as quickly as possible, we **might** have to take some measures. Encounters/meetings with more than 2 persons are prohibited by national authorities. Considering this and other lockdown conditions, we are all asked to contribute to the decrease of the infection rate by staying at home – as you **may** already know.

How to conquer the challenge:

Please take any chances during your home office time to stay interconnected and to stay in touch with our customers and business partners.

For that, please make yourself familiar with virtual communication tools, such as WebEx, skype business, MS Teams, ...

Please make sure to contribute in your regular online team meetings and share relevant information. This way we will **probably** be able to continue most operations.

We **will probably not** be getting back to normal work any time soon.

Please feel free to contact me in case you might have any questions or ideas on how to improve and overcome the current challenge.

Thank you for your contribution and your comprehension.

Sincerely,

[Name of the manager]