Smileys, Gender, and First Impressions in Professional Computer-Mediated Communication: A Follow-up Study

Sanne E. A. Frederiks

Supervisor: Dr. T. M. Erle

Second assessor: B. Jaeger

Bachelor thesis

Tilburg University

July 2020

Wordcount: 7830

Abstract

First impressions play an important role when forming impressions of strangers and these impressions are mainly shaped by a person's perceived warmth and competence. Stereotypically, females are perceived as warmer and males as more competent. In face-to-face interactions, people form perceptions of others based on faces and people who smile appear more likable. In (professional) computer-mediated communication, smileys can be used to simulate this role of facial expressions. Earlier research found smiley usage as inappropriate in an online formal setting. However, in a replication study, this negative connotation was not found. Instead, smiley usage in first impressions made a person appear warmer and more desirable as a colleague, independent of gender. The current study aimed to discover whether messages including a smiley (compared to plain text) influence perceptions of warmth, competence, and boss desirability of males and females in leadership positions. This was examined by having the participants evaluate several e-mails sent on behalf of new male or female leaders. Half of the e-mails included a smiley, half did not. Results of this study show that senders of messages including a smiley are evaluated as warmer; however, a sender's perceived competence seems not affected by a smiley. Further, contradicting the expectations, senders of messages with a smiley are found more desirable to work for. This effect appears partly mediated by the sender's perceived level of warmth. Surprisingly, there seem no effects for gender. To conclude, smileys might be beneficial in first impressions for leadership positions, but more research is necessary.

Keywords: Online Business Communication; First Impressions; Leadership Positions; Smileys; Gender Stereotyping

Smiley, Gender, and First Impressions in professional computer-mediated communication: A Follow-up Study

Humans are social animals who want to be liked by others (Baumeister & Leary, 1995). To establish this, most people agree that first impressions are important and that to make a good first impression, a person ought to smile. However, there is ample research supporting this. In todays globalized world, most first impressions are formed in computer-mediated contexts where a person's face, and thus smile, is not available as a source of information (Schulze, Schultze, West, & Krumm 2017; Weisbuch, Ivcevic, & Ambady, 2009). In text-based computer-mediated context, the closest thing to a face is the smiley. Here, we test whether smileys are like smiles and how they affect first impression formation, specifically at work. Research on this topic is particularly important since first impressions are critical for the attitudes and behaviors we form towards others and, by this, they are influential on various social outcomes (Harris & Garris, 2008; Kuzmanovic et al., 2011; Todorov, 2017). For instance, when meeting new people, first impressions play a role in the continuation of friendships or whether you are being hired for a job.

According to DeLamater, Myers, and Collett (2018), we form impressions of others by associating information of a person's behavior to the schema of familiar or similar people. Consequently, the process of impression formation is a quick and spontaneous evaluation (Kuzmanovic et al., 2011). However, processing information efficiently does not necessarily mean that information is evaluated accurately. In particular, making such inferences increases the likelihood of eliciting bias (DeLamater et al., 2018; Bordalo, Coffman, Gennaioli, & Shleifer, 2016). In first impression formation, people often tend to fall prey for first impression bias (Lim, Benbasat, & Ward, 2000, p. 115). An example of this bias is that people wearing glasses typically are perceived as intelligent (Leder, Forster, & Gerger, 2011). When meeting someone new, the first thing evaluated without verbally expressing is

someone's visual appearance (Bar, Neta, & Linz, 2006; Naumann, Vazire, Rentfrow, & Gosling, 2009). In particular, a person's facial expression, which appears as the most accessible information about someone's personality at that time (Engell, Haxby, & Todorov, 2007; Hassin & Trope, 2000). Based on facial expressions, a person who expresses happiness informs the environment to be approachable, while someone who expresses anger gives the implication of wanting to be avoided (Adams, Ambady, Macrae, & Kleck, 2006). Further, first impressions are affected by emotional expressions like smiles (Van Kleef, 2016). People who smile are evaluated as more trustworthy, attractive, competent, and warm (Andrzejewskia & Mooney, 2016; Van der Geld, Oosterveld, Van Heck, & Kuijpers-Jagtman, 2007; Ozono et al., 2010).

However, the continuously growing importance of computer-mediated-communication in the workplace does not enable personality judgments based on faces (Schulze et al., 2017; Weisbuch et al., 2009). A potential solution to simulate the role of facial expressions in computer-mediated communication is the smiley. Fang and Rajkumar (2013) posit that nonverbal cues possibly reduce the previously mentioned first impression bias, and since a smiley is a nonverbal cue (Tigwell & Flatla, 2016), using it may result into online communication becoming more comprehensible and less prone to misinterpretation. Later research by Lohmann, Pyka and Zanger (2017) on smileys and emotional contagion found that emotions expressed in digital smileys affect the feelings of the person receiving the smiley. Furthermore, a recent study by Erle, Schmid, and Martin (2020) found that text messages that included a smiley increased the perceived valence and emotionality of this text message. Hence, a smiley may indeed be analog to a real smile and, accordingly, utilized to nonverbally express emotions and feelings in computer-mediated communication.

While many factors influence the way we initially evaluate someone, the characteristics of 'warmth' and 'competence' are postulated to shape the overall impression

people form about others (Cuddy, Glick, & Beninger, 2011; Fiske, Cuddy, Glick, & Xu, 2002; Fiske & Neuberg, 1990; Goodwin, 2015). Cuddy, Fiske, and Glick (2008) describe a warm person as trustworthy, sincere, kind, moral, and friendly. Someone perceived as competent is described as effective, skilled, confident, and intelligent (Cuddy, Fiske, & Glick, 2008, as cited in Glikson, Cheshin, & Van Kleef, 2018). Congruent with gender stereotypes, women are generally perceived as warm but low on competence, while men are seen as less warm but more competent (Diekman & Eagly, 2000; Caprariello, Cuddy, & Fiske, 2009; Fiske et al., 2002). Besides, people who are perceived as both warm and competent appear to be admired by others (Fiske et al., 2012).

Furthermore, according to Fiske et al. (2002), perceived status seems to positively correlate with a person's perceived level of competence. However, research by Ashton-James, Tybur, Griesser, and Costa (2019) showed that evaluations of warmth and competence for individuals executing a high-status job are congruent with the previously mentioned gender stereotypes. Eagly and Karau's Role Congruity Theory (2002), explains that these stereotypical judgments are caused by a specific expectation-role fit; a greater conflict leads to a more negative evaluation of a person. This conflict causes gender backlash against women to be prominent in higher-status jobs (Rudman, Moss-Racusin, Phelan, & Nauts, 2012; Rudman & Phelan, 2008).

Previous research on the effects of smileys in CMC

The effects of smileys in virtual first impression formation is studied by Glikson et al. (2018). Specifically, they examined the effects of smiley in a formal setting vs. an informal setting at work. Participants had to read an e-mail that was sent on behalf of the new team member. This e-mail either included a smiley or not and was sent with respect to a staff meeting (formal context) or social gathering (informal context). Based on this e-mail the participants had to rate the appropriateness of the e-mail and the sender's perceived warmth

and competence. The results of their research showed that in the informal work-related context, senders of messages including a smiley were perceived as warmer. On the other hand, in the formal work-related context, the sender seemed incompetent when their message included a smiley and smiley usage was seen as inappropriate. Besides, Glikson et al. (2018) found that senders of e-mails with a smiley were more often perceived to be female. The participants were asked whether the sender named "Alex" was male or female. However, earlier research shows that this name is more often perceived as a feminine name by females compared to males and that this name is not judged as the most gender-neutral name (Van Fleet & Atwater, 1997). Given that slightly more than half the participants in Glikson et al. (2018) was female, this finding seems congruent with earlier findings on gender-neutral names. Next to this, "Alex" can be either a woman's name or a man's name. It could have been the case that participants did not know which gender to assign, and therefore, randomly chose one of the two genders. Further, since smileys in text messages were inappropriate and made a person seem incompetent, people could have said that "Alex" was a female since women were stereotypically viewed as less competent than men. Therefore, conclusions regarding gender perceptions in smiley usage remain unclear.

Aiming to improve and expand this research, Jorna (2020) conceptually replicated the study by Glikson et al. (2018). In her study, the effects of smileys in virtual first impressions were examined in a professional context. Participants had to read eight e-mails that were sent on behalf of a new member of the team. Half of these e-mails were messages with a smiley and half of these e-mails consisted of plain text only. Besides, gender-congruent names were displayed at the end of the e-mail to test whether gender moderated the effect of smiley on colleague desirability. These e-mail exchanges consisted of a colleague-to-colleague interaction. Jorna (2020) found, in contrast to the formal context in Glikson et al. (2018), that the sender's perceived competence was not affected by smiley usage and that smileys were

not inappropriate by definition. Besides, the sender of a message including a smiley was found to be warmer and more desirable as a colleague. Further, male and female senders were not perceived differently. Nevertheless, the names that were used to manipulate gender were only stated once, supposing they might not have been prominent enough to be noticed by the participants. This could explain why these results were not in line with gender stereotypes.

The present study

The present study investigates the influence of smileys and gender on virtual first impressions. More specifically, this is examined in professional computer-mediated text-based communication since previous studies argue that smileys are inappropriate in this context (Derks et al., 2007; Glikson et al., 2018). Besides, this research aims to enhance and expand research by Glikson et al. (2018) and Jorna (2020) to gain a broader understanding of smiley usage in professional computer-mediated communication. Similar to Jorna (2020), the current study will experimentally manipulate gender by using gender-congruent names to find out if female senders are perceived differently than male senders. Additionally, the senders of the messages will be individuals in high-status positions to determine how male and female senders in these positions are affected by sending a message that includes a smiley. More specifically, the senders will be manifested as individuals in leadership positions. Concretely, the current study examines whether in professional computer-mediated text-based communication, messages including a smiley (compared to plain text messages) sent by a male vs. female in a leadership position affect the recipient's perceptions of the sender's personality. In order to investigate this, smiley and gender will be used as independent variables and competence, warmth, and boss desirability as dependent variables.

Hypotheses

In the current study, participants will have to evaluate e-mail exchanges from their new leader on three characteristics: Competence, Warmth, and Boss desirability. To examine

the effects of smiley and gender on these three dimensions, the following four hypotheses have been constructed.

Concerning first impressions, Glikson et al. (2018) posited that smiley usage in a formal work-related context was viewed as inappropriate and that smileys negatively impacted the sender's perceived competence. Therefore, it is expected that senders of messages including a smiley are perceived as less competent compared to senders of plain text messages. Further, considering the earlier mentioned gender stereotypes where men are perceived as more competent than women (Fiske et al., 2002), especially in high-status jobs (Ashton-James et al., 2019), it is expected that this effect is stronger for female senders (Hypothesis 1).

Secondly, in face-to-face interactions, people who smile are perceived as warmer (Andrzejewskia & Mooney, 2016). Besides, congruent with gender stereotypes, females are typically perceived as warmer than males; even when executing a high-status job (Ashton-James et al., 2019; Fiske et al., 2002). Therefore, it is expected that the senders of messages including a smiley in professional computer-mediated communication are perceived as warmer and that this effect is stronger for female senders (Hypothesis 2)

Furthermore, Glikson et al. (2018) observed that smiley usage in online communication within a professional context had additional negative consequences for the sender (e.g., less sharing of information) and that the sender's low perceived competence marginally mediated this effect. Jorna (2020) replaced information sharing by colleague desirability since it can be determined easier in first impressions. As the present study focuses on leadership positions, this variable is rephrased into boss desirability to find out how desirable a sender is evaluated to work for. Given that women are stereotypically judged ass less competent than men (Ashton-James et al., 2019; Fiske et al., 2002) and that competence is more crucial in a professional setting than warmth (Rudman et al., 2012; Varghese et al.,

2018), it is expected that smileys in a message will contribute to lower boss desirability scores and that this effect is stronger for female senders (Hypothesis 3).

Lastly, Rudman et al. (2012) and Varghese et al. (2018) found competence to be fundamental for hirability judgments of professional positions. Since the current study is framed in a work-related setting including leadership positions, it is expected that the effect of smileys on boss desirability will be mediated by the sender's perceived competence and that this mediation is stronger for females than for males considering gender stereotypes (Hypothesis 4).

Method

For the current study, I conceptually replicated and adapted a recent study by Jorna (2020), which itself was based on previous work by Glikson et al. (2018). The present study had a 2 (Gender: Female vs. Male) by 2 (Smiley: Smiley vs. No Smiley) within-subjects design. The variables Warmth, Competence, and Boss desirability constituted the dependent variables. The study was carried out online, using the program Inquisit Web and all materials are available at: https://osf.io/bwnpk/. The experiment was approved by the Ethics ReviewBoard of the School of Social and Behavioral Sciences.

Procedure

At the beginning of the study, participants were informed that the aim of the study was to investigate how people perceive e-mails. The duration of the study was approximately 10 minutes. After informed consent and basic demographic data (gender, age, and level of eyesight) of the participants were obtained, participants were instructed to imagine that they would now be reading e-mail messages sent by a new colleague who recently took on a leading position in the participant's place of employment and that they had to form a first impression of him or her. Once the participants read all instructions, the first e-mail was presented. The e-mails that were used derived from Jorna (2020), which were pre-tested to be

task-oriented and professional in tone to avoid any external perceptions of warmth and competence (see Appendix B). Further, the e-mails were no longer than four sentences so that, in the Smiley condition, the smiley was prominent enough. The current experiment was a direct replication of Jorna (2020) with one adjustment: The relation between the sender and receiver was socially ranked. While the study of Jorna (2020) used messages based on a colleague-to-colleague interaction, the current study employed e-mail exchanges between a leader and subordinate within a socially constructed group. By means of this, a sense of hierarchy difference was established. The e-mails were sent on behalf of a leading figure since in high-status positions gender backlash against women appears most prominent (Rudman & Glick, 1999; Rudman & Phelan, 2008). To ensure the status difference would be as clear as possible, the following sentence was added before each e-mail: “X will be your new boss. He/ She sent the following e-mail to you and your colleagues”. Additionally, within the e-mail, the sender introduced him- or herself as the new leader of the team. This introductory sentence was followed by a minor work-related matter. For example, how to contact the sender or via what medium to communicate. The sentence structure of these work-related matters was slightly different from Jorna (2020) considering the fact that how individuals communicate provides others with information about the social relationship and the hierarchy within a group (Diamond, 1996). As an example of this difference, in one of the e-mails from the study by Jorna (2020) a colleague asked to plan a meeting. In the present study, however, a boss instead informed their employees about a planned meeting.

In total, the participants were presented with eight short e-mails. Four e-mails included a smiley, with half of these e-mails sent by a male leader and the other half sent by a female leader. The remaining four e-mails did not include a smiley and half were sent by a male or female, respectively. All e-mails contained different names congruent to the sender’s gender (see Appendix B). After reading every e-mail, participants were asked to answer twelve

questions rating the sender's perceived warmth, perceived competence, and desirability as a boss. Every e-mail message was displayed at the top of the page when the participants had to answer the questions so that the participants knew which e-mail he/ she was currently assessing. Once the last trial of the experiment had been assessed on these three variables and the participants were thanked for their participation, they provided their Prolific ID and thereby, the study ended.

Sample

Participants were recruited online using the platform Prolific Academic. In advance, a power analysis was conducted to determine the sample size. To pursue power of .80, a sample size of at least 146 participants was required (for more details see www.osf.io/bwnpk). Ultimately, 147 individuals participated in this study. After controlling for missing values and other possible concerns, no participants were excluded from the analysis. A total of $n = 86$ participants identified as men, and $n = 61$ identified as women. Participants' age ranged from 17 to 60 years old ($M = 25.31$, $SD = 7.75$). All of the participating individuals gave informed consent to participate in this study.

Manipulated variables

Gender. Gender was manipulated by presenting the sender's name in the e-mail. Different from Jorna (2020) the following sentence was added before every e-mail: "X will be your new boss. He/ She sent the following e-mail to you and your colleagues". By adding this sentence, the sender's gender was manifested twice to make sure that the manipulation was as clear and effective as possible. The variable Gender was manipulated within-participants with two conditions: male vs. female. The gender that was presented in the e-mail, male or female, was randomized for each participant. Meaning that in total the participants read eight e-mails with half of them sent by a female and the other half sent by a male. The same English and gender-congruent first names were displayed as in Jorna (2020). These names were selected

on two criteria to prevent that participants would potentially get biased by them. First, an age range between 30 and 45 was anticipated for the participants. Based on this range, names between 2000 and 2010 were selected to ensure the probability that participants personally knew someone with one of the selected names was at a minimum. Second, the names were selected to be popular to make sure that the participants could clearly recognize and differentiate male names from female names. The eventually used names were provided through an online database (Appendix B).

Smiley. Smiley was manipulated by showing an e-mail with or without a smiley. In the e-mail, the pictorial form of a basic smiley was used, which Microsoft Outlook provides automatically whenever the user types ":)" (Segoe UI, U+1F60A). Considering the fact that smileys have been evaluated as inappropriate in a professional context (Glikson et al., 2018), each e-mail contained one smiley instead of multiple. Besides this, research by Derks et al. (2007) showed that emoticons are used less often in task-oriented settings. Displaying more than one smiley might, therefore, be too much out of context and viewed as even more inappropriate. The variable Smiley was manipulated within-participants with two conditions: Smiley vs. No-Smiley. The presented messages, with or without smiley, were randomized for each participant. Meaning that in total the participants read eight e-mails with half of them containing a smiley and the other half not containing a smiley.

Measured variables

Warmth. Warmth was assessed with the same five items ($\alpha = .75$; see Appendix A) that were used in Jorna (2020) and Glikson et al. (2018). The items 1 to 3 were originally constructed by Fiske et al., (2002) and the items 4 and 5 by McAllister (1995). An exemplary item for this scale is: "I can share with the sender personal problems and difficulties". Participants had to rate all warmth items on a 7-point Likert scale from 1 "entirely disagree" to 7 "entirely agree".

Competence. Competence was assessed with the same six items (α = .76; see Appendix A) that were used in Jorna (2020) and Glikson et al. (2018). The items 1 to 3 were originally constructed by Fiske et al., (2002) and the items 4 and 5 by McAllister (1995). An exemplary item for this scale is: "The sender is capable to work effectively". Participants had to rate all competence items on a 7-point Likert scale from 1 "entirely disagree" to 7 "entirely agree".

Boss desirability. Boss desirability was measured on a 7-point Likert scale from 1 "not likely at all" to 7 "extremely likely". The following question was asked to the participants: "How likely is it that you would want to work with this person?".

Results

All analyses were performed in SPSS or using the SPSS PROCESS macro (Hayes, 2013). To test Hypotheses 1–3, three separate repeated-measures ANOVAs were used with Gender (Female vs. Male) and Smiley (Smiley vs. No-Smiley) as the independent variables and Competence, Warmth, and Boss desirability as the dependent variables, respectively. To test Hypothesis 4, a moderated parallel mediation framework applying model 7 by Hayes (2013). All analytical decisions had been pre-registered (for more details, see https://osf.io/24xw7).

Competence

Competence ratings were subjected to a 2x2 ANOVA with the factors Smiley and Gender. Hypothesis 1 was that the senders of e-mails including a smiley would be rated as less competent than the senders of plain text messages and that this effect would be stronger for female senders. This hypothesis would be supported by a significant interaction between smiley and gender. However, there was no significant interaction of Smiley and Gender on perceived competence, $F(1, 145) = 2.26$, $p = .135$. Further, there was neither a significant main effect of Smiley, $F(1, 145) = 2.94$, $p = .089$, nor Gender, $F(1, 145) = 0.72$, $p = .398$.

Additionally, as stated in the preregistration, post-hoc paired-samples t-test were used to test for differences between the two messages (Smiley vs. No-Smiley) within Gender. First, there was no significant difference found for male senders between messages that included a smiley (M = 4.81, SD = 0.76) and plain text messages (M = 4.85, SD = 0.82); $t(145) = 0.54$, p = .592. In contrast, for female senders there was a significant difference found between messages that included a smiley (M = 4.69, SD = 0.89) and plain text messages (M = 4.86, SD = 0.79); $t(145) = 2.35$, p = .020, d = 0.3), see Figure 1. The results of the post-hoc paired-samples t-test indicated that for females, messages including a smiley were perceived differently than plain text messages, while for males there was no difference between messages with and without a smiley.

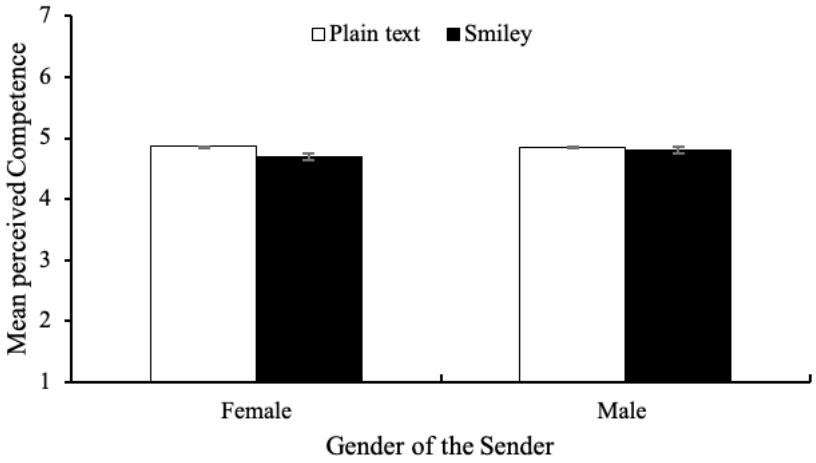

Figure 1. Comparison of the means for using smileys or not on Competence.

Contrary to the expectations, these results suggest that the sender's perceived competence, for both males and females in leadership positions, was not affected when their message included a smiley when sending an e-mail to a subordinate. Therefore, Hypothesis 1 was rejected.

Warmth

Warmth ratings were subjected to a 2x2 ANOVA with the factors Smiley and Gender. For Hypothesis 2 it was expected that senders of e-mails including a smiley would be rated as warmer than the senders of plain text messages and that this effect would be stronger for female senders. This hypothesis would be supported by a significant interaction between smiley and gender. However, there was no significant interaction of Smiley and Gender on perceived warmth, $F(1, 145) = 0.70$, $p = .404$. Further, there was a significant main effect of Smiley, $F(1, 145) = 139.06$ $p < .001$, $\eta p^2 = .49$, but not of Gender, $F(1, 145) = 1.89$, $p = .172$. In contrast to the hypothesis, the increased warmth ratings of the sender for messages including a smiley appeared to be no different for male senders ($M = 4.93$, $SD = 0.79$) compared to female senders ($M = 4.94$, $SD = 0.85$); $t(146) = -1.67$, $p = .097$). Besides, for plain text messages, there was also no significant difference found between male senders ($M = 4.20$, $SD = 0.85$) and female senders ($M = 4.30$, $SD = 0.93$); $t(145) = -0.29$, $p = .772$. Meaning that for both plain text messages and messages including a smiley, there was no difference found between males and females for the sender's perceived warmth. See Figure 2 for mean warmth scores for male and female senders in leadership positions.

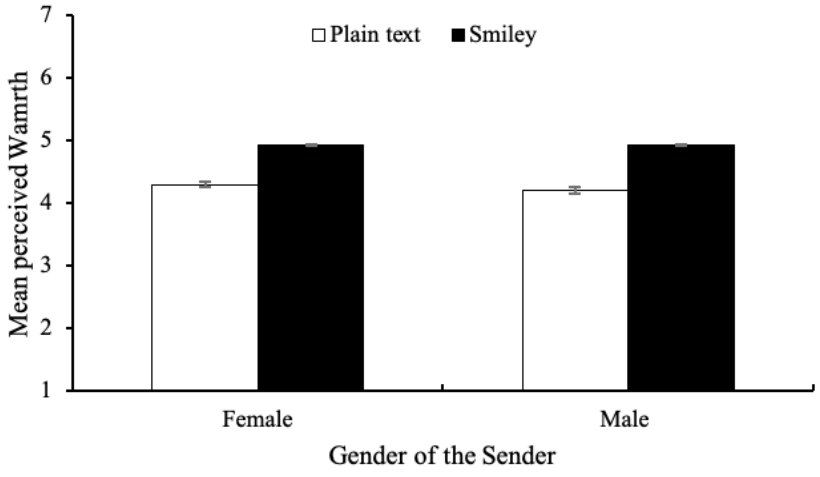

Figure 2. Comparison of the means for using smileys or not on Warmth.

In general, these results suggest that in leadership positions both male and female senders were seen as warmer when sending a message that included a smiley compared to a plain text message. This increase in warmth perceptions was found no different for males and females, meaning that the results were partly in line with Hypothesis 2.

Boss desirability

Boss desirability ratings were subjected to a 2x2 ANOVA with the factors Smiley and Gender. Hypothesis 3 was that senders of e-mails including a smiley would be rated as less desirable to work for than the senders of plain text messages and that this effect would be stronger for female senders. This hypothesis would be supported by a significant interaction between smiley and gender. However, there was no significant interaction of Smiley and Gender on perceived boss desirability, $F(1, 145) = 2.20$, $p = .139$. Further, there was a significant main effect of Smiley, $F(1, 145) = 32.79$, $p < .001$, $\eta p^2 = .18$, but not of Gender, $F(1, 145) = 1.14$, $p = .290$. Surprisingly, boss desirability ratings were evaluated higher for messages including a smiley ($M = 5.14$, $SD = 1.05$) compared to plain text messages ($M = 4.61$, $SD = 0.99$); $t(145) = -5.73$, $p < .001$. Also in contrast to the hypothesis, the increased boss desirability ratings of the sender for messages including a smiley was not different for male senders ($M = 5.23$, $SD = 1.11$) compared to female senders ($M = 5.05$, $SD = 1.27$); $t(145) = 1.87$, $p = .063$. Besides, for plain text messages, there was also no significant difference found between male senders ($M = 4.59$, $SD = 1.11$) and female senders ($M = 4.63$, $SD = 1.22$); $t(146) = -0.37$, $p = .714$. Meaning that for both plain text messages and messages including a smiley, there was no difference found between males and females for the sender's perceived desirability as a boss. See Figure 3 for mean boss desirability scores for male and female senders in leadership positions.

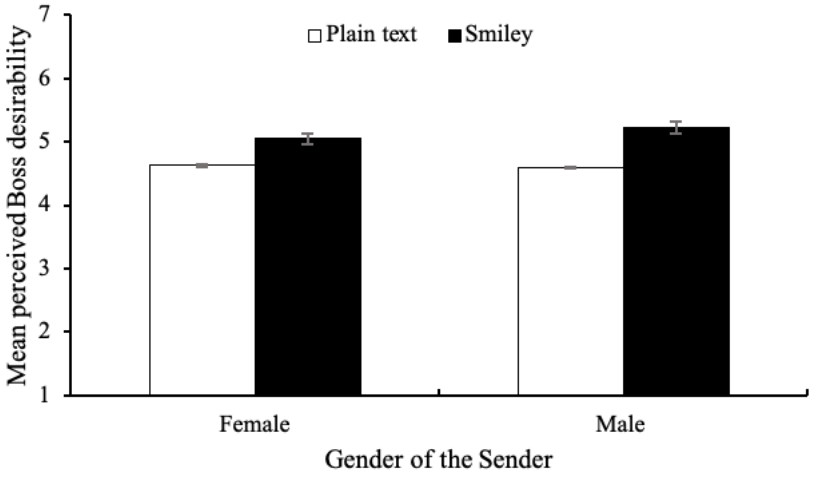

Figure 3. Comparison of the means for using smileys or not on Boss desirability.

In general, these results suggest that both male and female senders in leadership positions were found more desirable to work for when their message included a smiley compared to a plain text message. This increase in boss desirability ratings of the sender was found no different for male and female senders. By means of this, Hypothesis 3 was rejected.

Mediation

To test the final hypothesis, a moderated parallel mediation framework was used (model 7 by Hayes, 2013). Within this framework, Smiley was the independent variable while Boss desirability was the dependent variable. In between these two variables, Warmth and Competence constituted the mediators and Gender was the moderator of the link between smileys and the mediators. For this mediation, Hypothesis 4 predicted that the effect of Smiley on Boss desirability was mediated by the sender's perceived competence, and not the sender's perceived warmth (Hypothesis 4).

First, the moderation by Gender and the direct effects of Smiley and Gender on the mediators (i.e., Warmth and Competence) were tested. For the variable Competence, the results showed no significant moderation between Smiley and Gender on the sender's perceived competence, $t(1168) = -1.10$, $p = .270$. Further, there was no significant direct

effect found of Smiley, $t(1168) = 1.81$, $p = .056$, or Gender, $t(1168) = -0.75$, $p = .451$. For the variable Warmth, there was no significant moderation found between Smiley and Gender on the sender's perceived warmth, $t(1168) = -0.71$, $p = .475$. Further, there was a significant direct effect of Smiley, $t(1168) = 11.84$, $p < .001$, but not of Gender, $t(1168) = 0.98$, $p = .329$. This indicates that smiley usage in e-mail messages had a positive effect on the sender's perceived warmth, $B = 0.68$, 95% CI [0.57, 0.79], $SE = 0.06$, and that this link was not affected by the sender's gender.

The second step of the analysis was to test the direct effects of Smiley, Gender, and the mediators (i.e. Warmth and Competence) on the dependent variable Boss desirability. There was a significant direct effect for Smiley, $t(1168) = 3.25$, $p = .001$. In contrast to the expectations when controlling for all other variables, Smiley had a positive effect on the sender's perceived Boss desirability, $B = 0.20$, 95%CI [0.08, 0.33], $SE = 0.06$. In other words, when the messages included a smiley, the sender's perceived desirability to work for increased independent of the sender's perceived warmth and competence. Furthermore, the results showed a significant direct effect of Competence on Boss desirability, $t(1168) = 18.94$, $p < .001$, indicating that the sender's perceived competence had a positive direct effect on how desirable the sender was perceived to work for, $B = 0.63$, 95%CI [0.57, 0.70], $SE = 0.03$. For the final part of this step, the results showed a significant direct effect of Warmth on Boss desirability, $t(1168) = 17.79$, $p < .001$, meaning that warmth had a positive effect on boss desirability, $B = 0.59$, 95%CI [0.52, 0.65], $SE = 0.03$. In other words, when participants evaluated the sender as warmer or more competent, this sender is likely to be perceived as more desirable to work for as well. The intervals of the effect of Warmth, $B = 0.44$, 95%CI [0.38, 0.51], and Competence, $B = 0.72$, 95%CI [0.66, 0.79], do not overlap. Therefore, the effect of competence appeared somewhat stronger.

As the final step of the analysis, the conditional indirect effect of Smiley and Gender on the dependent variable were tested. There was no significant conditional effect for male senders on Boss desirability via Competence, *B* = -0.03, 95%CI [-0.13, 0.07], *SE* = 0.05, while for females, there was a (barely) significant effect on Boss desirability via Competence, *B* = -0.11, 95%CI [-0.21, -0.01], *SE* = 0.05. This suggests that for women, smiley usage e-mail messages decreased the sender's perceived level of competence, which subsequently negatively impacted how desirable she was perceived to work for. However, the moderation appeared to be statistically not significant for Competence, *B* = -0.08, 95%CI 0.23, 0.06], *SE* = 0.08. These results are contrary to what was expected, and thereby, Hypothesis 4 was rejected. Further, the results did show a significant conditional effect for male, *B* = 0.43, 95%CI [0.32, 0.54], *SE* = 0.06, and female senders, *B* = 0.38, 95%CI [0.27, 0.49], *SE* = 0.6, on Boss desirability via Warmth. Indicating that both male and female leaders who sent a message including a smiley were perceived as more desirable to work for and that this effect was partly explained by the sender's perceived warmth. Besides, the moderation of Gender via Warmth on Boss desirability was statistically not significant since zero lies within the interval, *B* = -0.05, 95%CI [-0.19, 0.08], *SE* = 0.07. Therefore, the conditional indirect effect was not different between the genders.

To conclude, the results showed that there was no mediation via competence which was not moderated by gender. However, there was a mediation via warmth which was also not moderated by gender, meaning that the mediation via warmth was equally strong for males and females.

Discussion

The current study investigated the impact of smileys in professional, text-based, and computer-mediated communication. Specifically, this study examined the effects of a smiley in e-mails sent by male and female leaders to subordinates on perceptions of warmth,

competence, and boss desirability. It was hypothesized that e-mail messages including a smiley would in general decrease a sender's perceived level of competence (Hypothesis 1), increase the sender's perceived level of warmth (Hypothesis 2), lead to lower boss desirability perceptions for the sender (Hypothesis 3), and additionally, that all these effects were stronger for female senders. Furthermore, for the fourth hypothesis, it was predicted that the effect of smiley on boss desirability was mediated by competence and, again, that this relation was stronger for female senders in leadership positions (Hypothesis 4).

The results suggest that e-mail messages including a smiley does not affect the sender's perceived level of competence and that this effect is not stronger for female senders. Instead, both male and female senders are not evaluated as less competent by the participants when the message included a smiley compared to plain text messages. This finding is in contrast to earlier research by Glikson et al. (2018), who found that smiley usage in e-mail messages was evaluated inappropriate in a professional setting and made the sender seem incompetent. Despite the fact that in the current study a power of .80 was ensured, this contradiction in results may not have existed if the current study had a higher power. More specifically, for competence, the p-values for the effect of smiley and the interaction of smiley and gender approach conventional levels of statistical significance. This means that had there been more participants and thus a higher power, these effects may have been significant. Subsequently, the conclusions for competence would then be similar to the ones in Glikson et al. (2018). However, these results are in line with a recent study by Jorna (2020) who found that, in a professional context, smileys did not affect the sender's perceived competence and that this effect was equally strong for male and female senders. Importantly, both the current study and Jorna (2020) contained bigger sample sizes than Glikson et al. (2018). Besides, a within-subjects design was used, while in Glikson et al. (2018), the design was between subjects. Given that the current study and the study by Jorna (2020) had bigger sample sizes

and used a within-subjects design, these studies have a higher power compared to Glikson et al. (2018). Therefore, the probability of accepting the correct hypotheses is higher than in these two studies, and thus, these results are more reliable.

Furthermore, even though gender backlash against females is found most common in high-status jobs like leadership positions, there is no significant effect for gender on perceived competence in the current study (Rudman & Glick, 1999); Rudman & Phelan, 2008). However, social roles for males and females have changed since the mid-twentieth century, which sequentially triggered a shift in gender stereotypes (Eagly, Natar, Miller, Kaufman, & Sczesny, 2020). A meta-analysis shows that in the past years, a stronger belief for gender equality in competence has grown. Nowadays, females are often perceived as more competent than they were in traditional views on competency. Given that males and females may not differ that much anymore in perceived competence, it would be plausible that the current study did not find gender differences for the senders' perceived competence.

Secondly, it is found that senders were evaluated as warmer when the message included a smiley compared to plain text messages. Besides, perceptions of warmth appear not stronger for female senders. However, this is inconsistent with stereotypical assumptions that females are viewed as warmer than males (Ashton-James et al., 2019; Diekman & Eagly, 2000; Fiske et al., 2002). This finding is also contrary to what Glikson et al. (2018) found in a formal work context. However, these results are, again, in line with Jorna (2020) who also found this effect. This indicates that smiley usage in a professional context may, after all, be seen as appropriate in both colleague interactions and in messages sent by a leader.

Further, leaders are found not evaluated as less desirable to work for when their message included a smiley and this effect does not seem stronger for females. Instead, leaders are evaluated as more desirable to work for when their message included a smiley compared to plain text messages. Even though females are still assigned to more communal roles when

applying for a high-status job (Levanon & Grusky, 2016, as cited in Eagly et al., 2020), competence inequality has diminished over the past years (Eagly et al., 2020). Hence, perceptions of females in leadership positions, and thus gender backlash may have positively changed as well. These results are, again, similar to Jorna (2020), who found senders of messages including a smiley evaluated as more desirable as a colleague. This means that in a professional context, both colleague-to-colleague interactions and leaders sending a message to subordinates, seem to benefit from including a smiley in their e-mail.

Lastly, the analysis shows that the effect of smiley on boss desirability is not mediated by the sender's perceived competence. However, while not predicted but of relevance to note, the effect of smiley on boss desirability appears to be mediated by the perceived warmth of the sender, and this indirect effect seems equally strong for both genders. In Jorna (2020), the sender's perceived warmth also appears to mediate the effect of smiley on boss desirability. By means of this, the sender's perceived warmth positively affects the effect of smiley on boss desirability. This could mean that in vacancies for leadership positions or other jobs in a professional context, the requirement of being competent has to make place for being warm as well. Especially, since it may encourage internal interactions in the workplace and because of the sequential positive consequences for females. To gain more insight into the mediating effect of warmth and or competence, a replication of this study with more participants is needed.

In general, the current findings and the results in Jorna (2020) are contrary to what was found in a formal work context in Glikson et al. (2018). However, the present results are in line with findings by Glikson et al. (2018) in an informal work context. In this context, Glikson et al. (2018) found that smileys in text messages made senders seem warmer and that smileys did not affect the sender's perceived competence. This is also found in the current research and the study by Jorna (2020). Besides, Jorna (2020) found that colleagues were

perceived as more desirable when they sent a message including a smiley. Accordingly, the current research finds that leaders who sent a message with a smiley were perceived as more desirable to work for. As discussed above, perspectives within the workplace have changed. Possibly, the perception that the workplace is a highly formal setting has shifted as well, and that nowadays, the workplace is perceived as a less formal setting than it was traditionally.

Limitations

In the current study, gender was manipulated by closing the e-mails with gender-congruent names. In contrast to Jorna (2020), an introductory sentence including the sender's gender, was added before each e-mail. By adding this introductory sentence and thus manifesting gender twice, the sender's gender could be recognized more easily by the participants. Nonetheless, after completing the survey, the participants were not asked whether they had noticed any gender differences. Therefore, it is still doubtful whether the participants actively recognized the sender's gender and included this in their assessments. Complementary, by adding this introductory sentence, the hierarchy was mentioned twice, clarifying that the participants had to assess individuals in leadership positions. However, complementary to Glikson et al. (2018), the task-oriented setting could have been be less prominent because the survey was conducted online. By employing an online survey, participants could take part in the study from their device at any preferred location. Therefore, it would be valid to assume that most participants participated from home. It is essential to mention that this is especially likely with the current circumstances of social-distancing and staying at home as much as possible due to the worldwide COVID-19 pandemic. Given that the participants participated from their own familiar, and possibly not professional-toned environment, they might have assessed the e-mails based on an informal mindset. This could be prevented in the future by inviting participants to a professional-toned location to complete the survey. However, on the other hand, this will be more time-consuming.

Future research

Even though the current study implemented leadership positions to create a hierarchical difference between the sender and receiver of the e-mail, the results appear mainly in line with the results found in Jorna (2020), who did not apply a hierarchical difference between colleagues. Both studies found that messages including a smiley did not affect the sender's perceived competence but did increase the sender's perceived warmth and desirability as a boss/ colleague. However, Rudman and Glick (1999) and Rudman and Phelan (2008) state that gender backlash against females appears most frequent in higher-status jobs, supposing that if gender would influence the effect of smiley, it must be found in this higher-status context. Although this effect was not found, the p-value for the effect of smiley on the sender's perceived competence approaches a conventional statistical significance level. Besides, the pre-registered post-hoc tests suggest that it might be the case that messages including a smiley are perceived differently than plain text messages for females (but not for males). This suggests that had there been more participants, and by this a higher power, the effect of smiley may have been significant for competence. For the mediation, there is a significant indirect effect of smiley on boss desirability via competence for females but not for males. However, because the test for the moderation of gender was statistically not significant in the current study, the effect was concluded to be the same for males and females. Accordingly, for future research, it is recommended to replicate the current study with more participants to attain a higher statistical power.

Additionally, generational differences within the workplace may explain different perceptions of smiley usage in a professional context. Times change, and so do perspectives within the workplace. As discussed before, longitudinal research by Eagly et al. (2020) shows that perceptions of females have changed in a way that, among others, they are perceived more competent nowadays compared to earlier years. It could be the case that recent

generations have a more open-minded perspective on smiley usage in a professional context and females in leadership positions than their predecessor generations who possibly hold a rather traditional view on these topics. Therefore, future research could investigate whether, in a professional context, female workers and smiley usage are assessed differently by different age groups, and more specifically, what this difference exactly is.

Furthermore, it might be interesting to examine judgments about smiley and gender on first impressions in the workplace for different cultures. Robbins and Judge (2011, p. 100) state that, in face-to-face interactions, smiling is interpreted differently across cultures. Specifically, in individualistic cultures, people that smile are associated with being happy. On the other hand, in collectivistic cultures, smiling is related to sexual appeal. Besides, previous research by Fang and Rajkumar (2013) posits that first impression bias can be reduced stronger in American (individualistic) cultures compared to the Chinese (collectivistic) cultures. For these two reasons, it might be that using smileys could only be beneficial in professional computer-mediated communication in individualistic cultures. This can be examined using a mixed research design with one between-subjects factor (individualistic vs. collectivistic culture) and one within-subjects factor (smiley vs. no smiley). The same dependent variables as in the current study, could be used to examine differences in perceptions between the two cultures. As the current study manipulated gender to examine gender differences, this is not recommended in research that explicitly investigates cultural differences since gender may influence the impression formation of the participants (Xie, Flake, & Hehman, 2018). Practical information about different cultural perspectives on smiley usage would be beneficial for manners in multicultural work environments and companies with contacts worldwide.

Besides these difference in cultures across the world, there may also be different work cultures between companies. Specifically, these work cultures would result in different norms

about what is found appropriate in communication. As discussed earlier, Eagly et al. (2020) found that perceptions within the workplace have changed. Therefore, it might be the case that traditional fields of work, such as the car industry, hold a more traditional view on work-related communication and, therefore, would evaluate smiley usage as inappropriate. On the other hand, modern professions that are upcoming since the mid-twentieth century, may hold a more open-minded view on work-related communication and, consequently, find smiley usage appropriate in a work context. To examine this, a mixed research design could be used with one between-subjects factor (traditional industry employees vs. modern industry employees) and one within-subjects factor (smiley vs. no smiley). A better understanding of this possible difference between work cultures on perceptions of smileys in professional computer-mediated communication may prevent unpleasant consequences that might go together with sending a message with a smiley.

Implications

Earlier research by Eagly et al. (2020) posits that stereotypical views of competency have changed over the years. It may be that the traditional idea of work as a highly formal setting has shifted, changing the workplace perceived as less formal than it used to be. Since smileys are perceived inappropriate in a formal setting but not in an informal setting (Glikson et al., 2018), it might be that in contrast to formerly, smiley usage nowadays does not have negative consequences in professional computer-mediated context. Instead, smiley usage could be beneficial in this context since it will make the sender seem warmer and more desirable as a colleague/ boss.

Furthermore, in a research paper by Edelman and Luca (2014) it is stated that communication in an online setting has the capacity to reduce racial discrimination since less information is available of a person's identity (e.g., age, race, and gender) than in face-to-face interactions. Given that there was minimal and less apparent information accessible about the

sender's identity in the current study, online communication via e-mails may also diminish gender stereotyping. This could be the reason that, in the present study, as well as in Jorna (2020), no effect was found for gender. Since gender backlash against women appeared most frequent in high-status jobs (Rudman & Glick, 1999; Rudman & Phelan, 2008), computer-mediated communication could possibly be used a protective factor against this backlash.

Conclusion

This research shows that by simply using a smiley in e-mail contact, individuals in leadership positions can, to some extent, control the way they are judged by others at first sight. Concretely, when using a smiley, leaders are evaluated as a warmer person and even as a more desirable boss. Furthermore, the positive effect of smiley on boss desirability is partially mediated by the sender's perceived warmth. The senders' perceived competence is not affected by smiley usage, and thus, there is no reputation at stake for using a smiley at work. However, apart from the effect of smiley, the sender's perceived competence did predict boss desirability. This means that the traditional essential characteristic of being competent in a higher-status job might need to change into both competence and warmth as a requirement. Furthermore, smiley usage appears not to be affected by the sender's gender. Importantly, these results and the results found by Jorna (2020) are in contrast to previous research on the effects of smileys in a professional computer-mediated context (Glikson et al., 2018). For this reason, more research is necessary to gain more understanding for smiley usage and which characteristic is more prone to leadership desirability. However, for now, if you want to be desired by your employees, try using a smiley!

References

Adams R. B., Ambady N., Macrae C. N., & Kleck R. E. (2006). Emotional expressions forecast approach-avoidance behavior. *Motiv. Emot. Springer, 30*(2), 179–188. doi:10.1007/s11031-006-9020-2

Andrzejewskia, S. A., & Mooney, E. C. (2016). Service with a smile: Does the type of smile matter? *Journal of Retailing and Consumer Services, 29,* 135–141. doi:10.1016/j.jretconser.2015.11.010

Ashton-James, C. E., Tybur, J. M., Griesser, V., & Costa, D. (2019). Stereotypes about surgeon warmth and competence: The role of surgeon gender. *PLoS ONE, 14*(2), 1–10. doi:10.1371/journal.pone.0211890

Bar, M., Neta, M., & Linz, H. (2006). Very first impressions. *Emotion, 6*(2), 269–278. doi:10.1037/1528-3542.6.2.269

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497–529. doi:10.1037/0033-2909.117.3.497

Bordalo, P., Coffman, K., Gennaioli, N., Shleifer, A. (2016). Stereotypes. *The Quarterly Journal of Economics, 131*(4)*,* 1753–1794. doi:10.1093/qie/qjw029

Caprariello, P. A., Cuddy, A. J., & Fiske, S. T. (2009). Social structure shapes cultural stereotypes and emotions: A causal test of the stereotype content model. *Group Processes & Intergroup Relations*, *12*(2), 147–155. doi:10.1177/1368430208101053

Cuddy, A. J., Glick, P., & Beninger, A. (2011). The dynamics of warmth and competence judgments, and their outcomes in organizations. *Research in Organizational Behavior, 31,* 73–98. doi:10.1016/j.riob.2011.10.004

Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map.

Advances in Experimental Social Psychology, 40, 61–149. doi:10.1016/S0065-2601(07)00002-0

DeLamater, J. D., Myers, D. J., & Collett, J. L. (2018). *Social psychology*. Retrieved from https://ebookcentral.proquest.com

Derks, D., Bos, A. E., & Von Grumbkow, J. (2007). Emoticons and social interaction on the internet: The importance of social context. *Computers in Human Behavior, 23,* 842–849. doi:10.1016/j.chb.2004.11.013

Diekman, A. B., & Eagly, A. H. (2000). Stereotypes as dynamic constructs: Women and men of the past, present, and future. *Personality and Social Psychology Bulletin, 26*, 1171–1188. doi:10.1177/0146167200262001

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109*(3), 573–598. doi:10.1037/0033-295X.109.3.573

Eagly, A. H., Nater, C., Miller, D. I., Kaufmann, M., & Sczesny, S. (2020). Gender stereotypes have changed: A cross-temporal meta-analysis of U.S. public opinion polls from 1946 to 2018. *American Psychologist, 75*(3), 301–315. doi:10.1037/amp0000494

Edelman, B. G, & Luca, M. (2014). Digital communication: The case of Airbnb.com. *Harvard Business School NOM Unit Working Paper, 14–054.* doi: 10.2139/ssrn.2377353

Engell, A. D., Haxby, J. V., & Todorov, A. (2007). Implicit trustworthiness decisions: Automatic coding of face in human amygdala. *Journal of Cognitive Neuroscience, 19*(9)*,* 1508–1519. doi:10.1162/jocn.2007.19.9.1508

Erle, T. M., Schmid, K., & Martin, J. D. (2020). The emotion as social information model in the 21st century: Smileys in digital communication. *Manuscript under review.*

Fang, X., & Rajkumar, T. M. (2013). The role of national culture and multimedia on first impression bias reduction: An experimental study in US and China. *IEEE*

Transactions on Professional Communication, 56(4), 354–371. doi:10.1109/TPC.2013.2251503

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology, 82*(6)*,* 878–902. doi:10.1037/0022-3514.82.6.878

Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. *Advances in Experimental Social Psychology, 23,* 1–74. doi:10.1016/S0065-2601(08)60317-2

Glikson, E., Cheshin, A., & Van Kleef, G. A. (2018). The dark side of a smiley: Effects of smiling emoticons on virtual first impressions. *Social Psychological and Personality Science, 9*(5)*,* 614–625. doi:10.1177/1948550617720269

Goodwin, G. P. (2015). Moral character in person perception. *Current Direction in Psychological Science, 24*(1)*,* 38–44. doi:10.1177/0963721414550709

Harris, M. J., & Garris, C. P. (2008). *You never get a second chance to make a first impression: Behavioral consequences of first impressions.* In N. Ambady & J. J. Skowronski (Eds.), *First impressions* (p. 147–168). Guilford Publications.

Hassin, R., & Trope, Y. (2000). Facing faces: Studies on the cognitive aspects of physiognomy. *Journal of Personality and Social Psychology, 78*(5)*,* 837–852. doi:10.1037//00223514.78.5.837

Jorna, S. (2020). *The influence of smileys and gender on impression formation in digital communication.* (Master's thesis, Tilburg University, Tilburg, The Netherlands).

Kuzmanovic, B., Bente, G., Von Cramon, D. Y., Schildback, L., Tittgemeyer, M., & Vogeley, K. (2012). Imagining first impressions: Distinct neural processing of verbal and

nonverbal social information. *NeuroImage, 60*(1)*,* 179–188. doi:10.1016/j.neuroimage.2011.12.046

Leder, H., Forster, M., & Gerger, G. (2011). The glasses stereotype revisited: Effects of eyeglasses on perception, recognition, and impression of faces. *Swiss Journal of Psychology, 70*(4), 211–222. doi.:10.1024/1421-0185/a000059

Lim, K., Benbasat, I., & Ward, L. (2000). The role of multimedia in changing first impression bias. *Information Systems Research, 11*(2), 115–136. doi:10.1287/isre.11.2.115.11776

Lohmann, K., Pyka, S. S., & Zanger, C. (2017). The effects of smileys on receivers' emotions. *Journal of Consumer Marketing, 34*(6), 489–495. doi:10.1108/JCM-02-2017-2120

Naumann, L. P., Vazire, S., Rentfrow, P. J., & Gosling, S. D. (2009). Personality judgments based on physical appearance. *Personality and Social Psychology Bulletin, 35*(12)*,* 1661–1671. doi:10.1177/0146167209346309

Ozono, H., Watabe, M., Yoshikawa, S., Nakashima, S., Rule, N. O., Ambady, N., & Adams, R. B. (2010). What's in a smile? Cultural differences in the effects of smiling on judgments of trustworthiness. *Letters on Evolutionary Behavioral Science, 1*(1)*,* 15–18. doi:10.5178/lebs.2010.4

Robbins, S. P., & Judge, T. (2011). *Organizational behavior* (15th ed.). Upper Saddle River, NJ: Prentice Hall

Rudman, L. A., & Glick, P. (1999). Feminized management and backlash toward agentic women: The hidden costs to women of a kinder, gentler image of middle managers. *Journal of Personality and Social Psychology, 77*(5), 1004–1010. doi:10.1037/0022-3514.77.5.1004

Rudman, L. A. , Moss-Racusin, C. A., Phelan, J. E., & Nauts, S. (2012). Status incongruity

and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology, 48*, 165–179. doi:10.1016/j.jesp.2011.10.008

Rudman, L. A., & Phelan. J. E. (2008). Backlash effects for disconfirming gender stereotypes in organizations. *Research in Organizational Behavior, 28,* 61–79. doi:10.1016/j.riob.2008.04.003.

Schulze, J., Schultze, M., West, S. G., & Krumm, S. (2017). The knowledge, skills, abilities, and other characteristics required for face-to-face versus computer-mediated communication: Similar or distinct constructs? *Journal of Business and Psychology, 32,* 283–300. doi: 10.1007/s10869-016-9465-6

Tigwell, G. W., & Flatla, D. R. (2016). Oh that's what you meant! Reducing emoji misunderstanding. *Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct* (pp. 859–866). doi:10.1145/2957265.2961844

Van der Geld, P., Oosterveld, P., Van Heck, G., & Kuijpers-Jagtman, A. M. (2007). Smile attractiveness. Self-perception and influence on personality. *Angle Orthod, 77*(5)*,* 759–765. doi:10.2319/082606-349

Van Fleet, D. D., Atwater, L. (1997). Gender neutral names: Don't be so sure! *Sex Roles, 37,* 111–123. doi:10.1023/A:1025696905342

Van Kleef, G. A. (2016). *The interpersonal dynamics of emotion: Toward an integrative theory of emotions as social information.* Cambridge, England: Cambridge University Press.

Varghese, L., Lindeman, M. I. H., & Finkelstein, L. (2018). Dodging the double bind: The role of warmth and competence on the relationship between interview communication styles and perceptions of women's hirability. *European Journal of Work and*

Organizational Psychology, *27*(4), 418–429. doi:10.1080/1359432X.2018.1463989

Weisbuch, M., Ivcevic, Z., & Ambady, N. (2009). On being liked on the web and in the "real world": Consistency in first impressions across personal webpages and spontaneous behavior. *Journal of Experimental Social Psychology, 45*(3)*,* 573–576. doi:10.1016/j.jesp.2008.12.009

Xie, S. Y., Flake, J. K., & Hehman, E. (2018). Perceiver and target characteristics contribute to impression formation differently across race and gender. *Journal of Personality and Social Psychology, 117*(2), 364–385. doi:10.1037/pspi0000160

Appendix A

The items measuring perceived warmth:

1. The sender is nice
2. The sender is positive
3. The sender is honest
4. I can share with the sender personal problems and difficulties
5. I can share with the sender personal dreams and hopes

The items measuring perceived competence:

1. The sender is hardworking
2. The sender is professional
3. The sender is highly motivated
4. The sender is committed
5. The sender has the knowledge and competence required to conduct the project effectively
6. The sender is capable to work effectively

Appendix B

The eight e-mail messages used as stimuli in the questionnaire. These text messages were presented either with or without a smiley.

Used female names: Sophie, Isabella, Emily, Hannah, Madison, Ashley, Alexis, & Samantha.

Used male names: Jackson, Ethan, Lucas, Liam, Jacob, Nicholas, Andrew, & Daniel.

Sophia will be your new boss. She sent the following e-mail to you and your colleagues:

You
Dear colleagues,
My name is Sophia. From next week on, I will be leading the new project. Our first meeting will be Monday 11:00 AM. See you then.

Isabella will be your new boss. She sent the following e-mail to you and your colleagues:

You
Dear colleagues,
I am Isabella. Today is my first working day as the new head of the sales department. From now on you can reach me through phone and email. 🙂 I hope to hear from you.

Ashley will be your new boss. She sent the following e-mail to you and your colleagues:

You
Dear colleagues,
I am Ashely. Today is my first working day as the new head. I scheduled a meeting for Monday 11:00 AM to meet all of you. See you then.

Alexis will be your new boss. She sent the following e-mail to you and your colleagues:

You
Dear colleagues,
I am Alexis. I just started working as the new head of the finance department. Are there any appointments this week I need to know of? 🙂 Please let me know.

Lucas will be your new boss. He sent the following e-mail to you and your colleagues:

You
Dear colleagues,
I am Lucas. From next week on, I will be leading the new project. Which medium do you prefer to use to communicate about this project? Please let me know.

Liam will be your new boss. He sent the following e-mail to you and your colleagues:

You
Dear colleagues
My name is Liam. I am the new head of the marketing department. Currently I am preparing my project presentation. 🙂 I will send you the file tomorrow.

Nicholas will be your new boss. He sent the following e-mail to you and your colleagues:

You
Dear colleagues,
I am Nicholas. Today is my first working day as the new head. I scheduled a meeting for Monday 11:00 AM to meet all of you. See you then.

Daniel will be your new boss. He sent the following e-mail to you and your colleagues:

You
Dear colleagues,
My name is Daniel. From this week on, I will be leading the new marketing project. Is it possible to plan a meeting tomorrow 11:00 AM? 🙂 Please let me know.