Seriously?! Prevalence and motives of using emojis in job-related communication and their effect on perceived executive characteristics

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ABSTRACT

Digitalized communication has provoked significant changes in human interaction culture, affecting private as well as work-related settings. Often, emojis or emoticons are used to enrich and disambiguate written messages. The aim of the present experiment was to investigate prevalence and motives of using emojis or emoticons in job-related written messages, as well as their potential effects on impression formation. Participants read an e-mail presumably written by a male supervisor demanding the timely completion of an important task. They described the sender as lower in assertiveness, but higher in warmth when the message was enriched with emojis or emoticons, respectively, as compared to a third condition with plain text. These results replicate prior findings on effects of emojis on the ascription of leadership competences. No differences emerged between the emoji vs. emoticon conditions, nor were there any differences in prevalence, usage motives or impression effects according to participants' gender. Self-report data indicate a highly mindful and context-sensitive use of emojis or emoticons, according implications for future research are discussed.

Key Words: emoji, emoticon, text messages, e-mail, professional communication

1   Introduction and aim of the present study

The vast growth of messenger services over the last decade (Statista 2018) came along with an increasing diversity and usage of icons available to enrich text messages as well as e-mails. Emojis – colloquially in an overgeneralizing way also referred to as "smileys" - are small, usually colored and unchangeable icons illustrating objects, activities, and, most importantly, emotional states (e.g., 😋 or 😰), whereas the term emoticon refers to the expression of mimic reactions via a combination of symbols available on a standard keyboard (e.g., :-) or :-o)) (Ganster, Eimler, Winter & Krämer, 2013). Both serve a variety of purposes in compensating for the absence of para- and nonverbal information in written communication: Their major aim is to represent gestures (e.g., thumbs up), mimics (smile, frown, blushing), and other cues that may amplify or alter tone and meaning of a message, e.g. by expressing irony (e.g., Thomson & Filik, 2016; for a detailed overview of the literature on functions of emojis, see Aretz, 2018). Some studies show that female users include more emojis in their messages (Fullwood, Orchard & Floyd, 2013; Oleszkiewicz et al., 2017; Tossell et al., 2012), others found no gender differences (Luor, Wu, Lu & Tao, 2010; Ogletree, Fancher & Amp). Not surprisingly, the use of smileys seems to contribute to impressions of warmth (Glikson, Cheshin & van Kleef, 2018), perceived friendliness (Taesler & Janneck, 2010), and overall sympathy (Byron & Baldrige, 2007; Ganster et al., 2012; Wall, Kaye & Malone, 2016). On the other hand, using "textspeak" (emoticons and abbreviations) in a self-

description has been found to generally lower assessments of conscientiousness (Fullwood, Chen-Wilson, Chadwick & Reynolds, 2015).

The focus of the present study lies on the effects of emoji and emoticon use in job-related communication. While their functions are considered to be largely the same as in private communication (Skovholt, Grønning & Kankaanranta, 2014), using emojis or emoticons in professional settings may be perceived as inadequate (Ganster et al., 2013). Whether they still unfold their positive effects or rather backfire is likely to depend upon relationship history and familiarity between sender and recipient, among other factors. Wang, Zhao, Qiu und Zhu (2014) found that negative performance feedback at the workplace is buffered by positive emoticons, as these increased attributions of underlying good intentions (see also Holzki, 2018). Eimler, Ganster & Krämer (2013) observed in an experimental setting manipulating emoji use and presumable gender, that the use of emojis increased an executive's perceived empathy (an effect emerging for male executives only), but lowered perceived assertiveness (an effect emerging regardless of the target person's gender).

The aim of the present study is to replicate and extend these findings on using supplementary emotional cues in job-related communication. Although widely regarded was somewhat interchangeable in research settings, a direct comparison between emojis and emoticons could yield further insight into their respective effects. For instance, compared to emoticons, emojis seem to have a somewhat stronger impact on recipients' commitment and mood

(Ganster et al., 2012). Such an effect is likely to spill over and affect impression formation about the sender of a message, which will also be investigated. Moreover, we sought to extend the data-base on self-reported differences in using emojis, as well as to further explore the potential impact of such differences on effects emojis have on impression formation in the job context.

2 Method

2.1 Questionnaire and experimental design

The first section of the questionnaire assessed participants' mode of employment, position, company size and industry, gender and age. Following Aretz (2018), participants were then asked to indicate whether they use text messages, messenger services or e-mails in their working environment at all, and if so, how often they include emojis in each of these channels (7-point scale from 1 = very frequently to 7 = never). In addition, they provided an assessment on how frequently they do so when communicating to superordinates, subordinates, or colleagues, respectively. In the next section, they were presented with five statements on mindfulness of emoji usage at the workplace (e.g. "Whether I use emojis in professional communication depends on my communication partner's status") and five statements on motives for emoji usage at the workplace (e.g. "I use emojis to indicate humor"), as adapted from Aretz (2018; for the full text of all items, see Table 1).

In a next step, participants were presented with an e-mail message as presumably sent by an executive to one of his employees, and they were asked to form an impression of that executive. This message was presented in screen-shot-layout and differed in content, depending on experimental condition. In the emoticon condition, it read: "Dear Mr. Fischer, the project for client XY must be accomplished next week :/ As you are already running late, I urgently ask for first results :) See you tomorrow ;)". In the emoji condition, it read: "Dear Mr. Fischer, the project for client XY must be accomplished next week 😏 As you are already running late, I urgently ask for first results 😊 See you tomorrow 😉". In the neutral condition, it read "Dear Mr. Fischer, the project for client XY must be accomplished next week. As you are already running late, I urgently ask for first results. See you tomorrow.". Participants were then asked to rate the executive on 14 personality characteristics referring to sympathy, assertiveness, professionalism, and the like (for the complete list of items and their factorial structure, see results section) by indicating how much they apply on 6-point-Likert scales (1 = does not apply at all, 6 = fully applies). Finally, participants were thanked and provided the opportunity to contact the experimenters via e-mail for further details on the study's purpose or a summary of the results.

2.2 Sample and procedure

The questionnaire was made accessible online via the survey platform unipark from 21st of November to 12th of December 2018 and promoted by means of personal contacts and social media channels. The overall procedure took about seven to ten minutes. A total of $N = 268$ complete data sets could be collected, 38 of which had to be excluded from further analyses because participants indicated they were currently not gainfully employed, a prerequisite defined at recruitment to ensure they can meaningfully relate to the scenario provided. Among these, $n = 120$ (53%) classified their gender as male, $n = 107$ (46%) as female and three as diverse (1%). As we were interested in exploring differences according to traditional gender categories, and with regard to the very different subsample sizes and corresponding statistical problems, we decided to restrict all further analyses to participants categorizing themselves as male or female. The remaining sample used for further analyses thus consists of = 227 data sets.

Age ranged from $min = 17$ to $max = 62$ years ($M = 31.56$, $Md = 26$, $SD = 12.02$). A total of 25 (11%) participants were apprentices or doing an internship, 32 (14%) were student employees, 115 (51%) employees and 55 (24%) executives. Among these, 23 indicated to hold a lower management, 24 a middle and 8 an upper management position. Among the executives, $n = 12$ (22%) were female. Though certainly not representative of the overall working population, the sample covers a wide range of branches such as heavy industry (15%), commerce and consumption (5%), finance and insurances (24%), health sector (12%), craftsmanship und services (13%), media & marketing (8%), construction (8%), education and social services (3%), logistics (3%), research & development (4%), energy (2%), IT (1%), gastronomy and tourism (1%), and others.

3 Results

3.1 Self-report data on prevalence and motives for using emojis in job-related communication

About half of our participants ($n = 119$; 52%) indicated to use emojis or emoticons in job-related communication, while the other half ($n = 108$; 48%) stated not to do so. Based on the subsample of emoji- or emoticon-users, Table 1 shows prevalence of emoji use as a function of addressee's hierarchical status and participants gender. In contrast to some, but in line with other prior findings, the use of emojis or emoticons does not differ according to gender in the present sample. The only significant difference emerged in frequencies of emoji use with subordinates, which is likely to go back to far less females being in superordinate positions and therefore actually having subordinates.

Table 1: Prevalence of emoji / emoticon use in job-contexts according to participant's gender and addressee status

		male	Female	test
use at all	yes	62	57	X²(1) = 0.10, p = .75, ns.
	no	58	49	
with supervisor	yes	36	27	X²(1) = 1.36, p = .24, ns.
	no	26	30	
with colleagues	yes	59	56	X²(1) = 0.87, p = .35, ns.
	no	3	1	
with subordinates	yes	38	16	X²(1) = 13.22*, p < .01
	no	24	41	

In addition, participants using emojis / emoticons at all had been asked to indicate how frequently they incorporated them in different types of messages (1 = never, 7 = very frequently). As can be seen in Table 2, icons are used in text messages sent via the messenger service whatsapp more often than via regular text messages or via e-mail. A 3 (message type: e-mail vs. whatsapp vs. text message) x gender (male vs. female) ANOVA with repeated measures on the message type factor shows that this difference is statistically significant ($F(2, 116)$ = 81.06, $p < .01$, eta² = .58). Again, no substantial gender differences emerge ($F(1, 117)$ = 0.15, $p = .70$, eta² = .001), nor is there any indication of an interaction effect ($F(1, 117)$ = 0.07, $p = .93$, eta² = .00).

Table 2: Means and standard deviations (in brackets) of emoji / emoticon use in the job-context according to message type and participant's gender (1 = never, 7 = very frequently)

	male	Female
e-mail	3.37 (1.95)	3.16 (1.73)
whats-app	5.49 (1.76)	5.83 (1.71)
text message	3.20 (2.09)	3.38 (2.31)

Table 3 shows the statistics on self-reported motives for and attitudes on emoji use at work for male and female participants, respectively. A MANOVA shows that there is no indication of any systematic significant differences between male and female participants in the present sample ($F(10, 104)$ = 0.41, $p = .92$, ns., eta² = .04), and simple contrasts confirm that result (all t-values < 1.05, all p's > .29).

Table 3: Means and standard deviations of motives for and attitudes towards emoji use according to participants' gender

item	male	female
Whether I use emojis first of all depends on how familiar the recipient is to me.	5.19 (1.02)	5.33 (0.97)
Incorporation of emojis very much depends upon the occasion of communication, that is, the topic of the message.	4.84 (1.23)	5.05 (1.11)
I make conscious use of emojis.	5.03 (0.91)	4.89 (1.33)
I use emojis depending on the status of my communication partner.	4.20 (1.36)	4.40 (1.43)
I decide to make use of emojis depending on whether the sender / recipient uses emojis in his messages.	4.15 (1.44)	4.14 (4.42)
I use emojis to soften a message or put it into perspective and thus lower a sharp tone in written messages (e.g., a winking smiley after stating: „You missed the meeting today.")	4.36 (1.49)	4.19 (1.34)
I use emojis to emphasize my feelings.	4.58 (1.21)	4.50 (1.35)
I use emojis to stress a message and thus add rigour to written messages (e. g. an angry smiley after stating "You missed the meeting today.")	3.52 (1.71)	3.19 (1.63)
I use emojis to emphasize humor.	5.07 (1.14)	5.18 (0.88)
I use emojis to illustrate a statement (instead of the word phone, I put in a phone icon).	2.71 (1.59)	2.63 (1.55)

Obviously, in the present sample, male and female motives and attitudes towards using emojis consent in that they use emojis more often to express humor, to express one's feelings or to soften a message rather than to add rigour or for illustrative purposes. Also, men and women claim to make conscious use of emojis to a similarly high extend, and to tailor their emoji use to the overall occasion as well as to the recipient's status and communication behaviour.

3.2 Effects of emoji use on perceived executive personality characteristics

One of the major goals of the present study was to examine the effects of additional emoticon and emoji use as compared to plain text on impression formation in a job-context. Participants read a brief message by an executive to one of his subordinates and were asked to rate the sender on 14 trait adjectives. For reasons of data reduction, these 14 items were submitted to a standard main component analysis (varimax rotation) that yield two

clearly interpretable components, cumulatively explaining 63.79% of the overall variance. The first factor (34.22% VE) represents *assertiveness* and subsumes the items reputable (.87), determined (.86), authoritarian (.86), serious (.85), professional (.82), self-confident (.71), reserved (.54) and untrustworthy (-.50). The second factor (29.57% VE) represents *warmth* and subsumes the items sympathetic (.88), friendly (.86), agreeable (.81), open (.78), sensitive, (.76), and socially skilled (.76). The items were aggregated accordingly by calculating the arithmetic mean for each of the two factors.

These scores were submitted to a 3 (experimental condition: text with emoticons vs. text with emojis vs. text only) x 2 (trait dimension: assertiveness vs. warmth) ANOVA with repeated measurement on the second factor. The ANOVA yield a significant main effect of experimental condition ($F(2, 224) = 21.62$, $p < .01$, eta² = .16), and a significant main effect of the within subjects factor trait dimension ($F(1, 224) = 24.73$, $p < .01$, eta² = .10). As expected, these were qualified by significant two-way-interaction ($F(2, 224) = 80.05$, $p < .01$, eta² = .42): In both, the emoticons and the emoji condition, the sender was perceived as higher in warmth than in assertiveness, whereas this pattern reversed in the text only condition. Here, the sender was characterized as higher in assertiveness than in warmth. The interaction pattern is illustrated in Figure 1. Planned contrasts show that the difference between trait dimensions is significant in each experimental condition (emoticons: $M_{assertiveness} = 2.84$, $SD = 0.96$ vs. $M_{warmth} = 4.04$, $SD = 0.99$, $t(76) = -8.39$, $p < .01$; emojis $M_{assertiveness} = 2.95$, $SD = 0.67$ vs. $M_{warmth} = 3.91$, $SD = 1.00$, $t(69) = -6.77$, $p < .01$; text only: $M_{assertiveness} = 4.53$, $SD = 0.82$ vs. $M_{warmth} = 3.54$, $SD = 0.80$, $t(79) = 8.02$, $p < .01$).
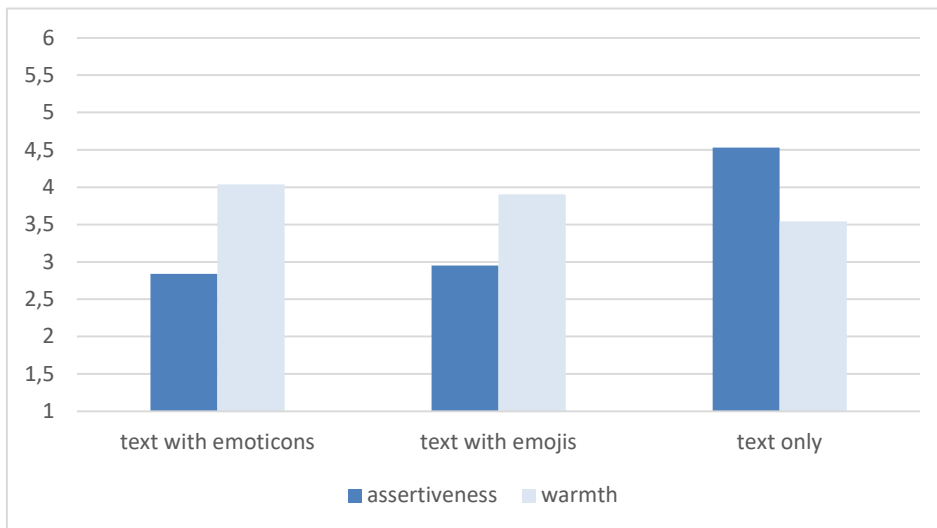

Figure 1: Attribution of assertiveness and warmth to the message sender as a function of experimental condition

Adding participant's gender (male vs. female) as a third, explorative factor yield neither a significant main effect ($F(1,221) = 1.17$, $p = .28$, *ns.*, eta² = 0.005) nor any indication of a three-way interaction ($F(2, 221) = 0.10$, $p = .91$, *ns.*, eta² = .001).

Further analyses were conducted in order to explore whether the effect of emoticon or emoji use on the perception of assertiveness vs. warmth may be strengthened or softened by one's own communication habits concerning emoji use in job-related settings. This would correspond to a three-way-interaction between experimental condition, trait dimension, and overall emoji use as assessed by a binary yes- vs. no-item at the very beginning of the questionnaire (see Table 1). However, an according 3 x 2 x 2-factorial ANOVA with repeated measures on the second factor revealed no indication for such an effect ($F(2, 220) = 0.82$, $p = .44$, ns., eta² = .007).

4   Discussion

The fast and further increasing popularity of digitalized communication has provoked significant changes in human interaction culture, affecting private as well as work-related settings. The aim of the present study was to investigate current prevalence of and attitudes on using emojis or emoticons in job-related written messages, as well as their potential effects on impression formation. Prior work on the issue has shown that using emojis in the context of work may on the one hand be perceived as inadequate (Ganster et al., 2013) and lower a sender's perceived assertiveness, but on the other hand increase perceived empathy, at least for male executives (Eimler et al., 2013).

These findings could be replicated in the present study: Participants read an e-mail presumably written by a male supervisor demanding the timely completion of an important task. They described the sender as lower in assertiveness, but higher in warmth when the message was enriched with emojis or emoticons, respectively, as compared to plain text. Although emojis have been reported

to affect recipients' commitment and mood to a stronger extent than emoticons (Ganster et al., 2012), these two experimental conditions did not differ here. Although emojis are probably aesthetically more appealing to most users and available in a wide variety on smart-phones and e-mail-clients, their symbolic, meta-communicative impact does not seem to exceed that of "old school" emoticons as can be created on any standard keyboard. A more differentiated picture may emerge, once the emojis employed reflect facets or depth of emotional states and other meta-cues that can't be expressed by emoticons, thus covering additional functions, over and above generally signalling a somewhat more familiar communication mode.

In the present sample, we found no indication of substantial gender differences in self-reported frequency of emoji usage, self-reported motives for or attitudes towards emoji use. The only difference emerged on the use of emojis in communicating with subordinates. With regard to the gender asymmetry in leadership positions, this does most likely reflect a lack of opportunities (i.e., no formal subordinates) rather than differences in actual communication style between male and female participants. However, this does not imply that gender differences are generally negligible. We rather consider it likely that different gender constellations may produce differential use of emojis by means of mutual adaptation to norms as are "negotiated" during communication processes. Each participant in a written interaction may feel a different need for disambiguating verbal messages, set different priorities concerning affiliative functions vs. information exchange, and hold other preferences that could in part be systematically gender-specific. Moreover, it seems plausible that people shape their behaviour not only according to their own needs and preferences, but also to the – suspected – needs and preferences of the other(s). To form and apply expectancies (or meta-assumptions) about the expectancies others may hold towards us is a major way to reduce complexity and stabilize dynamic interactions within social systems (Luhmann, 1984). Thus, a female sender may be more likely to add a smiley to a message addressing a new female colleague rather than a male – and be it only to avoid the impression of being flirtatious with the latter.

In line with these ideas, participants on average report a highly mindful application of emojis, including sensitively adapting towards occasion, recipient's status and recipient's own communication behaviour. These self-report data are, however, likely to be substantially affected by social desirability. It seems unlikely that anyone would indicate not to care about these factors when communicating with others. Thus, it is an interesting question for future research, in how far and under which circumstances participants indeed spontaneously extract and apply descriptive norms about emoji use when joining an ongoing written digital conversation, e.g. in whatsapp groups, chat-rooms, or e-mails with more than one recipient. To compare such norms for private vs. job-related contexts will also of interest with regard to the on-going removal of boundaries between work and leisure as another major consequence of digitalization and seemingly permanent communicative availability.

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