The Influence of Emoticons on New Product Evaluation

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Emoticons are widely used to compensate for the lack of nonverbal elements in the communication process. Extant literature focuses on the benefits of using emoticons in a computer-mediated communication (CMC) context, whereas this research aimed to investigate the influence of emoticons on a new product evaluation and explore a potential boundary condition of emoticon use. A user guide for a new product was designed to examine the effect of emoticons in the knowledge acquisition context. The results showed that emoticons influence product attitude mediated by fluency elicited by emoticons, which in turn affects a product's perceived competency. Furthermore, the need for cognition (NFC) moderated the sequential multiple mediations; as NFC increased, perceived fluency decreased, implying that the goal of the information search is a potential boundary condition. Specifically, when the purpose of the information search was to acquire knowledge, using emoticons reduced fluency experience, resulting in low perceived product competency and a less favorable product attitude.

Keywords: ELM, emoticons, fluency, need for cognition, paralinguistic cues, user guide

INTRODUCTION

With the prevalence of mobile devices such as smartphones, tablet PCs, and laptops, computer-mediated communication (CMC) has emerged as a major means of communication. According to recent data, people use CMC to stay connected with friends and family; over 95% of them achieve this goal by using chat and messaging apps, as well as social network services, with 50% also reporting using e-mails (DataReportal, 2022). Although these communication modalities help people communicate and connect, one distinct characteristic of CMC is the lack of nonverbal cues such as speed and tone of speech, subtle facial expressions, and gestures that play substantial roles in conveying meaning (e.g., Hegstrom, 1979; Mehrabian & Ferris, 1967). To fill this gap, people began to adopt nonverbal signs or visual paralinguistic cues within messages to add a touch to communications. Emoticons, emojis, and smileys are examples of such visual paralinguistic cues, and their number increased exponentially along with the expansion of CMC (Buchholz & Richter, 2021). In the strict sense, an emoticon (e.g., :-), ;-)) is defined as a textual depiction of a facial expression conveying a sender's emotion (Reevy et al., 2010). However, it has been used interchangeably with the terms "emoji" and "smiley," referring to any textual and pictorial representations of the sender's emotions (e.g., Walther & D'Addario, 2001). In this study, the word "emoticon" will be used as an inclusive term referring to "emoticons," "emojis," and "smileys." The extant literature on the use of visual paralinguistic cues examines its influence from various perspectives: the affective influence on the role of emoticons in business e-mails (Riordan, 2017; Skovholt et al., 2014), a gender difference in emoticon rendering (Butterworth et al., 2019), motives for using emoticons (Prada et al., 2018; Tseng & Hsieh, 2019),

the effect of emoticons on attitude and impression formation when reviewing products and services (Manganari & Dimara, 2017), and the persuasiveness of a message (Qiu et al., 2016). Although there is a wealth of literature on the impact of emoticons in different communication contexts, studies on the underlying mechanism of how emoticons work are scarce.

The primary goal of this study is to investigate the influence of emoticons as a visual paralinguistic cue in a marketing communication context, where text is the primary mode of communication. Product information such as specifications, features, and user guides are examples of text-based simplex communication in which the sender is the producer, and the receiver is the consumer. While product reviews, text messaging, and e-mails all involve some synchronous or asynchronous interaction between sender and receiver, reading a user guide containing product features and specifications is a unique communication situation in that the readers must rely on verbal cues to interpret and comprehend the message. Would emoticons increase the persuasiveness of messages and aid consumer comprehension? If so, how does it work, and what is a boundary condition for using emoticons? To answer these questions, a one-page user guide containing product features of a fictitious new product was designed, and the influence of emoticons on product attitudes was examined.

LITERATURE REVIEW

Emoticons

It is well-documented that people use both verbal and nonverbal cues when communicating (Mehrabian, 1970; Mehrabian & Ferris, 1967). Although text-based CMC is a convenient mode of communication, it lacks nonverbal elements evincing the sender's emotions. To compensate for these shortcomings, people who use text-based digital communication have adopted emoticons as surrogates. As with other paralinguistic cues, such as subtle facial expressions, vocal characteristics, and bodily gestures, the extant literature focuses on how and why emoticons are used. It also demonstrates that emoticons facilitate communication by hinting at the senders' emotional state: emoticons used in business e-mails lead to more positive or less negative interpretations (Skovholt et al., 2014); emoticon-enriched word of mouth increases message's persuasiveness (Qiu et al., 2016); and online reviews with emoticons are regarded as more credible and useful (Manganari & Dimara, 2017), as well as improves attitudes toward the web site (Cui et al., 2010). Recent fMRI research demonstrated that emoticons are nonverbal paralinguistic cues that enrich communication (Yuasa et al., 2011). Yuasa et al. (2011) demonstrated that when participants were given a message containing emoticons, the same brain region that was activated during face-to-face communication was stimulated. Interestingly, the brain region activation pattern observed under emoticon-enriched message conditions was similar to the pattern noted in a voice pitch processing condition (Suzuki, 2003). Furthermore, a study (Tseng & Hsieh, 2019) that examined underlying factors driving emoticon use from a self-concept perspective found that perceived congruity between the emoticon and self-image influences behavioral intention (e.g., word of mouth). As per research findings, metacognitive experiences such as familiarity and perceived ease of use enhance behavioral intention and promote a positive experience.

Fluency

Fluency is a subjective metacognitive experience associated with the ease or difficulty felt while processing information (Oppenheimer, 2008; Schwarz, 2004). Research shows that experiencing fluency signals familiarity with the stimuli, which causes a positive shift in affect, biasing subsequent information processing to more positive outcomes (Winkielman et al., 2003; Winkielman & Cacioppo, 2001). Similarly, according to the feeling-as-information theory, such an incidental feeling acts as an implicit cue in influencing the judgment and evaluation of an event (Schwarz, 2012). A large body of research on fluency has also demonstrated its broad influence on judgment and evaluation (Forster et al., 2013; Hansen et al., 2008; Reber et al., 1998, 2004; Sanchez & Jaeger, 2015). For instance, instruction written in a difficult-to-read font increases the estimated time needed to complete a task (Sanchez & Jaeger, 2015), lowers the prototypicality of a product in a categorization task (Oppenheimer & Frank, 2008), attenuates the perceived

truthfulness of a statement (Reber et al., 1998), and even influences construal level by promoting the distal perception of stimuli (Alter & Oppenheimer, 2008; Oppenheimer et al., 2014).

The aforementioned studies and other research also suggest that fluency's impact on judgment and evaluation is implicit. To illustrate, when Sanchez and Jaeger (2015) measured both fluency and perceived difficulty, they found that fluency, a metacognitive experience caused by a difficult-to-read typeface, predicts time estimation rather than perceived difficulty, which is a cognitive by-product. In addition, when the source of fluency was made salient, participants over-corrected stimulus category membership in an attempt to disregard fluency's effect (experiment 3, Oppenheimer & Frank, 2008).

Emoticon and Fluency

An emoticon is a paralinguistic cue that facilitates text-based communication by filling in the gaps of missing nonverbal components in the communication process. Given the continuous growth and spread of mobile devices, it is understandable that literature on emoticons focuses primarily on their influence in computer-mediated duplex communication. Although many companies use emoticons in mobile and internet advertising to grab consumers' attention, research on the impact of emoticon usage in simplex communication context is limited. This study aims to better understand the emoticons' impact in a product consumption situation in which users are exposed to a producer-created message that lacks real-time interaction. Specifically, a user guide for a high-tech product was adopted to investigate the influence of emoticons in a situation where the message content is relatively difficult and unfamiliar.

Extant research demonstrates that the presence of context-congruent emoticons increases fluency (Daniel & Camp, 2020) and creates an illusion of truth or strengthens perceived truthfulness (Tsai & McGill, 2011; Unkelbach, 2007; Unkelbach et al., 2011; Yan et al., 2016). Tsai and McGill (2011) showed that fluency could either increase or decrease confidence depending on the participants' information processing orientation. Specifically, in experiment 2, when participants were engaged in a feasibility-focused information search, looking for immediate solutions, fluency elicited by font legibility signaled thorough information processing. However, when participants were desirability-focused and sought long-term benefits, fluency indicated insufficient effort. Remarkably, the assessed confidence was independent of the content difficulty and a function of the experienced intensity of fluency. In a real consumption environment, depending on consumption goals and individual traits, some consumers read a user guide to use the product immediately with minimal effort or prefer not to read it, whereas others read it to learn and understand the product more before use. Such behavioral differences are well explained by the need for cognition (NFC), a personality variable that captures an individual's inclination toward thinking activities (Cacioppo & Petty, 1982). According to the NFC construct, those with high NFC make judgments and evaluations by paying attention to relevant arguments, whereas those with low NFC rely on heuristics or incidental cues. This statement is in line with the elaboration likelihood model (ELM) of persuasion (Petty & Briñol, 2012), which states that high NFC individuals take the central route, searching for cues pertinent to the subject, whereas those with low NFC use the peripheral route, relying more on incidental cues. Accordingly, people with low NFC are expected to be more susceptible to the emoticons' elicited fluency whereas such non-essential information (i.e., emoticons) expected to cause less fluent experience (e.g., Tsai & McGill, 2011) in high NFC individuals.

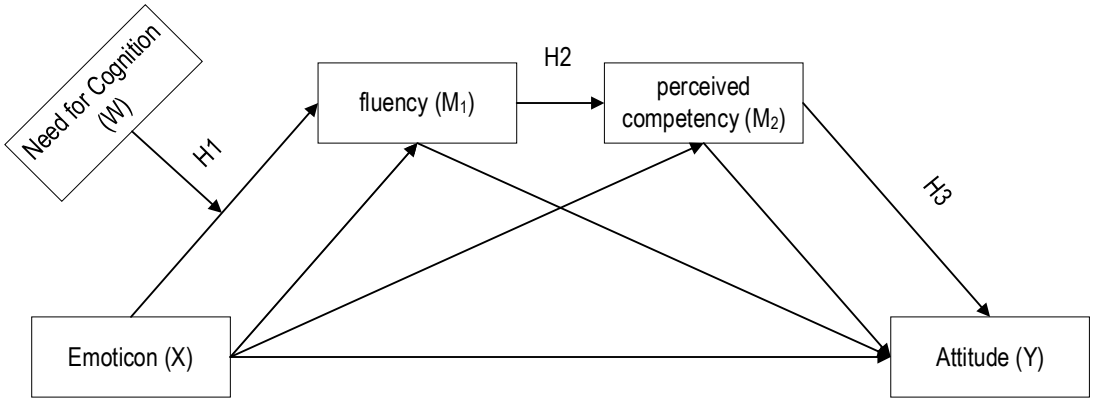
H1: *The presence of emoticons will elicit fluency, and NFC will moderate the effect of emoticons on fluency. The high NFC condition, in particular, will result in less perceived fluency.*

The user guide is an important document for consumers to find relevant product information (Smart et al., 1998, 2001), and it even affects perceived product quality (Gök et al., 2019). Therefore, if fluency promotes an illusion of truth and comfortable feeling (Tsai & McGill, 2011; Unkelbach, 2007; Unkelbach et al., 2011; Yan et al., 2016), people experiencing fluency are expected to interpret the positive metacognitive experience as a cue signaling a reliable, competent, and more useful item, leading to a positive product attitude. This observation leads to the two succeeding hypotheses. The conceptual diagram of the three hypotheses is also shown below (Figure 1).

H2: *Perceived fluency will influence perceived product competency.*

H3: *The emoticons' influence will be sequentially mediated by emoticon-elicited fluency and fluency-promoted perceived competency. Furthermore, NFC will moderate the effect of sequential mediation on attitude.*

FIGURE 1
MODERATED SERIAL MULTIPLE MEDIATIONS



EXPERIMENT

Target Stimulus

Initially, three products with varying degrees of familiarity were selected: a new motorbike dashcam, a new tablet PC, and a new Bluetooth earbud. Three one-page user guides without emoticons were created for each product, and a group interview was conducted with ten (10) undergraduate students to identify a relatively unfamiliar product. All participants agreed that the least familiar item was the motorbike dashcam, followed by the tablet PC and the Bluetooth earbud. Emoticons were then added to the user guide and tested to determine the appropriate number of emoticons to include. The goal was to embed just enough emoticons to invoke familiarity while avoiding conscious awareness of their presence. A previous study found that the saliency of paralinguistic cues influences emotional experiences associated with product and product competency perception (Wang et al., 2016). Specifically, if the intensity of the paralinguistic cue is high, it facilitates emotional engagement with a product while lowering perceived product competency. Therefore, the emoticon's intensity should be strong enough to initiate fluency but not too pronounced that it instigates conscious awareness of the emoticon's presence. To determine the intensity of paralinguistic cues in the user guide, user guides with a varying number of emoticons were designed and tested. As a result, a user guide with three emoticons was selected (see Appendix).

Methodology

To determine whether the use of emoticons in a user guide influences the overall product attitude, an online survey was conducted with 196 participants (96 female, 100 male). Participants were sent an online survey link and were randomly assigned to one of two groups: an experimental group (has a user guide with emoticons, 98 participants) and a control group (has a user guide without emoticons, 98 participants). The survey was introduced to the experimental group participants as a general marketing survey measuring consumers' interest in a new product. They were then asked to read a one-page emoticon-embedded user guide to learn about the product. Next, attitudes, perceived product competency, processing fluency, and NFC were tested in that order. The product attitude was measured using three questions modified from a previous study (i.e., Lepkowska-White et al., 2003) to fit this study: "I like the product in the user guide;" "I would like to recommend the product in the user guide to others;" and "I want to buy the product in the

user guide" (1 = *not at all* to 7 = *very much*). An attitude index was created by averaging the three items because their internal consistency was high (α = .85). Moreover, perceived product competency was assessed using two items: "The product in the user guide has the ability to implement its intentions" and "The product in the user guide is effective and useful" (1 = *not at all* to 7 = *very much*). Since the internal consistency of the two was high (α = .93), a product competency index was also created by averaging them, which was then used for analysis. Furthermore, fluency was evaluated using three items: "I think the above user guide is clear" (1 = *not at all* to 7 = *very much*); "It is difficult to understand the above user guide" (1 = *very much* to 7 = *not at all*, reverse coded); "I can read the above user guide fluently" (1 = *not at all* to 7 = *very much*) (Graf et al., 2018). Similarly, due to their high internal consistency (α = .87), a fluency index was produced by averaging the three, which was then used for analysis. The need for cognition was measured using a six-item scale (NCS-6) (Lins de Holanda Coelho et al., 2020). Lastly, for the manipulation check, the emoticons' perceived salience was assessed by the statement, "I remember seeing emoticons in the user guide" (1 = *not at all* to 7 = *very much*). The control group followed the same procedures with the user guide without emoticons.

Manipulation Check

An independent t-test was used for the manipulation check. The perceived salience of emoticons between the control group (m = 3.00) and the emoticon group (m = 3.20) was not significant (t = -.897, d.f. = 194, $p > .1$). Although the salience level of emoticons seems to be relatively high in both the control group and the emoticon group, the result shows that the salience of emoticons in the emoticon group is at the same level as the one in the control group, suggesting a successful manipulation of the emoticons' saliency.

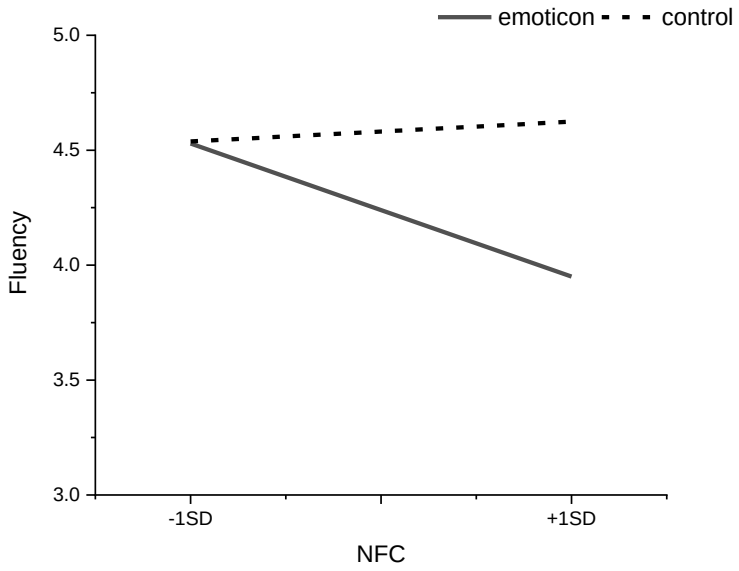
Results

To test the three hypotheses, a moderated serial multiple mediation analysis using the bootstrapping method in PROCESS Macro V4.0 was performed (Hayes, 2022). The bootstrapping analysis results (PROCESS Model 83) with 5,000 resamples and a 95% confidence interval revealed that (i) the indirect effect of emoticons on attitude was fully mediated by fluency and perceived competency and (ii) that the NFC's strength moderated the effect of mediators on attitude (Table 1).

Interaction Between User Guide Types (With Emoticon vs. Without Emoticon) and NFC on Fluency (H1)

The size of the indirect effect of the interaction between emoticon (X) and NFC (W) was .3273 and significant ($p < .05$). As predicted, the high NFC group experienced lower fluency (Figure 2). Interestingly, the fluency level evoked by emoticons is about the same as that of the control group, when NFC is low. One possible explanation is the stimulus's design characteristic. The saliency of emoticons in the user guide was designed to be non-diagnostic, and it may not be strong enough to elicit fluency even in a low NFC condition. However, if the emoticon is a subconscious peripheral cue, the low (vs. high) NFC group is expected to experience higher fluency under the emoticon-embedded condition. To investigate this further, an independent sample t-test was used for participants whose NFC falls outside of +/- 1 standard deviation (SD = 1.03, N_{low_NFC} = 17, N_{high_NFC} = 23). The result showed that the low NFC group experienced higher fluency (m = 4.88) than the high NFC group (m = 4.21), which was marginally significant (t = 1.87, d.f. = 38, p = .069). There was no difference in fluency perception between the emoticon groups (m_{emo} = 5.01, m_{noemo} = 4.93, $p > .1$).

FIGURE 2
MODERATION BY NFC



Fluency, Competency, and Attitude

A metacognitive experience such as perceived fluency influences evaluation regardless of the information's content (Fitzsimons et al., 2002; Menon & Raghubir, 2003; Schwarz et al., 1991). Attitude is a predisposition that is formed and shaped through a learning process. Considering that evaluation is a learning process, the valence of evaluation is expected to influence attitude. As predicted, quality perception fully mediated the effect of fluency on attitude. To thoroughly verify the mediation, an additional moderated mediation test was conducted with PROCESS Model 7. The result showed that when competency (M_2) was not in the equation, the indirect effect of emoticon (X), fluency (M_1), attitude (Y), and NFC (W) was significant (Table 2). However, when competency is introduced, the effect of fluency on attitude disappears, confirming complete meditation (Table 1).

TABLE 1
MODERATED SERIAL MULTIPLE MEDIATION

	Fluency		Competency		Attitude	
	β	SE	β	SE	β	SE
Emoticon	-.9576	.6287	-0.0391	0.1093	-0.0659	0.1185
NFC	-.6159*	.2409	-	-	-	-
Emoticon x NFC	.3273*	.1484	-	-	-	-
Fluency	-	-	0.7723***	0.0505	0.0997	0.0814
Competency	-	-	-	-	0.7360***	0.0780
Constant	6.3838	1.0148	0.9759	0.2588	0.5178	0.2908
	R^2 = .0654 F(3, 192) = 4.4799**		R^2 = .5542 F(2, 193) = 119.9711***		R^2 = .5555 F(3, 192) = 79.9822**	

Note: *p<.05, **p<.005, ***p<.001

TABLE 2
MODERATED MEDIATION

	Fluency		Attitude	
	β	SE	β	SE
Emoticon	-.9576	.6287	-0.0946	0.1429
NFC	-.6159*	.2409	-	-
Emoticon x NFC	.3273*	.1484	-	-
Fluency	-	-	0.6681***	0.0660
Constant	6.3838	1.0148	1.2361	0.3386
	R^2 = .0654 F(3, 192) = 4.4799**		R^2 = .3497 F(2, 193) = 51.8824***	

Note: *p<.05, **p<.005, ***p<.001

GENERAL DISCUSSION

This research aimed to understand the impact of emoticon use in a unique marketing communication context where text is the primary mode of communication, as well as to explore a potential boundary condition of using emoticons as paralinguistic cues. The saliency of emoticons in the user guide employed in this study was determined to be insignificant in simulating the subconscious nature of nonverbal cues. Drawing on ELM, NFC was adopted to examine the pattern of the emoticons' impact on fluency experience. The findings revealed that fluency elicited by emoticons influences perceived product competency, and NFC, as predicted, moderates the effect of fluency on emoticons. The higher (vs. lower) the NFC, the lower (vs. higher) the perceived fluency, leading to a less (vs. more) favorable product attitude. This result conceptually replicates a previous study's (i.e., Cesario et al., 2004) finding that people have metacognitive experiences of feeling right or good when they are engaged in an information search where the content and the goal are aligned. Moreover, the user guide is a document that consumers look for when they want to better understand a product or solve problems. In this context, irrelevant information, such as emoticons in the user guide, would have hindered information processing, specifically for high NFC individuals, resulting in low fluency experiences and unfavorable product attitudes.

Although people with low NFC experienced higher fluency than those with high NFC, the results showed that the fluency elicited by emoticons for low NFC people is, at best, on par with the control group. Additional analysis of samples whose NFC values fall outside of +/-1 standard deviation revealed that people with low NFC experienced higher fluency than those with high NFC, but the difference was only marginally significant. The participants were given the task of reading the user guide and learning about the product. This explicit instruction might have promoted a relatively strong knowledge acquisition goal even among low NFC individuals, causing them to seek more goal-relevant information and unconsciously avoid irrelevant details, which resulted in less fluent information processing. Existing literature indicates that fluency experience causes a positive shift in emotional valence (Winkielman et al., 2003; Winkielman & Cacioppo, 2001), resulting in a less negative evaluation for negative events (Williams et al., 2014; Williams & Bargh, 2008). On the contrary, disfluency elicited by incongruent information processing has been reported to result in a more negative evaluation (Torelli et al., 2012). These findings illustrate that metacognitive experiences cause emotional valence to shift in either positive or negative directions. In addition, appraisal theories posit that current emotional states influence subsequent information processing (Smith, 1989; Smith & Ellsworth, 1985). Therefore, in the context of knowledge acquisition, it is possible that the incongruence between the information search goal and a personal trait, such as NFC, led participants to experience less fluency, resulting in low perceived product competence and a less favorable attitude

toward a new product. Additional research that measures participant emotion is then necessary to verify this observation.

As predicted, the fluency elicited by emoticons did affect product attitude, and the moderated sequential mediation was confirmed. One notable finding is that the current study revealed the potential boundary conditions of emoticon use. Expanding on the extant literature on emoticons, this research also showed that the use of emoticons does not always increase fluency experience but can decrease it in a particular context. Furthermore, as discussed, the fluency experienced by low NFC individuals is, at best, the same as that of the control group. When acquiring new information, the content's familiarity creates a positive metacognitive experience of feeling good in general. However, it seems that the presence of emoticons, even on an unconscious level, impedes fluent information processing, such as when the consumers' information-search goals are knowledge acquisition and problem-solving. These outcomes illustrate that the use of emoticons should be strategically determined to achieve an intended communication goal.

Although this paper adds to the emoticon literature by presenting a potential boundary condition of emoticon use, it also led to additional research avenues. The saliency of this study's emoticons was limited to a subconscious level. Thus, comparing the emoticons' influence at different salience levels (i.e., subconscious, just noticeable, and noticeable) would reveal distinct boundary conditions of emoticon use. Furthermore, the stimulus used in this research was considered a specialty product. Hence, along with investigating the emoticons' different levels of saliency, examining their influence on commodities, as well as the patterns between the perceived level of fluency and the strength of the shift of emotional valence, would enhance our understanding of emoticon use.

REFERENCES

Alter, A.L., & Oppenheimer, D.M. (2008). Effects of Fluency on Psychological Distance and Mental Construal (or Why New York Is a Large City, but New York Is a Civilized Jungle). *Psychological Science, 19*(2), 161–167. https://doi.org/10.1111/j.1467-9280.2008.02062.x

Buchholz, K., & Richter, F. (2021). *Infographic: In 2022, global emoji count could grow to 3,460*. Statista Infographics. Retrieved from https://www.statista.com/chart/17275/number-of-emojis-from-1995-bis-2019/

Butterworth, S.E., Giuliano, T.A., White, J., Cantu, L., & Fraser, K.C. (2019). Sender gender influences emoji interpretation in text messages. *Frontiers in Psychology, 10*, 1–5. https://doi.org/10.3389/fpsyg.2019.00784

Cacioppo, J.T., & Petty, R.E. (1982). The need for cognition. *Journal of Personality and Social Psychology, 42*(1), 116–131. https://doi.org/10.1037/0022-3514.42.1.116

Cesario, J., Grant, H., & Higgins, E.T. (2004). Regulatory Fit and Persuasion: Transfer From "Feeling Right." *Journal of Personality and Social Psychology, 86*(3), 388–404. https://doi.org/10.1037/0022-3514.86.3.388

Cui, N., Wang, T., & Xu, S. (2010). The Influence of Social Presence on Consumers' Perceptions of the Interactivity of Web Sites. *Journal of Interactive Advertising, 11*(1), 36–49. https://doi.org/10.1080/15252019.2010.10722176

Daniel, T.A., & Camp, A.L. (2020). Emojis affect processing fluency on social media. *Psychology of Popular Media, 9*(2), 208–213. https://doi.org/10.1037/ppm0000219

DataReportal. (2022). *Digital 2022 Global Digital Overview*. Retrieved from https://datareportal.com/reports/digital-2022-global-overview-report

de Holanda Coelho, G.L., Hanel, P.H.P., & Wolf, L.J. (2020). The Very Efficient Assessment of Need for Cognition: Developing a Six-Item Version. *Assessment, 27*(8), 1870–1885. https://doi.org/10.1177/1073191118793208

Fitzsimons, G., Hutchinson, J., & Williams, P. (2002). Non-conscious influences on consumer choice. *Marketing Letters, 13*(3), 269–279. Retrieved from http://link.springer.com/article/10.1023/A:1020313710388

Forster, M., Leder, H., & Ansorge, U. (2013). It felt fluent, and I liked it: Subjective feeling of fluency rather than objective fluency determines liking. *Emotion*, *13*(2), 280–289. https://doi.org/10.1037/a0030115

Gök, O., Ersoy, P., & Börühan, G. (2019). The effect of user manual quality on customer satisfaction: The mediating effect of perceived product quality. *Journal of Product & Brand Management*, *28*(4), 475–488. https://doi.org/10.1108/JPBM-10-2018-2054

Graf, L.K.M., Mayer, S., & Landwehr, J.R. (2018). Measuring Processing Fluency: One versus Five Items. *Journal of Consumer Psychology*, *28*(3), 393–411. https://doi.org/10.1002/jcpy.1021

Hansen, J., Dechêne, A., & Wänke, M. (2008). Discrepant fluency increases subjective truth. *Journal of Experimental Social Psychology*, *44*(3), 687–691. https://doi.org/10.1016/j.jesp.2007.04.005

Hayes, A.F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* Guilford Publications.

Hegstrom, T.G. (1979). Message impact: What percentage is nonverbal? *Western Journal of Speech Communication*, *43*(2), 134–142. https://doi.org/10.1080/10570317909373961

Lepkowska-White, E., Brashear, T.G., & Weinberger, M.G. (2003). A Test of Ad Appeal Effectiveness in Poland and The United States - The Interplay of Appeal, Product, and Culture. *Journal of Advertising*, *32*(3), 57–66. https://doi.org/10.1080/00913367.2003.10639136

Manganari, E.E., & Dimara, E. (2017). Enhancing the impact of online hotel reviews through the use of emoticons. *Behaviour and Information Technology*, *36*(7), 674–686. https://doi.org/10.1080/0144929X.2016.1275807

Mehrabian, A. (1970). A semantic space for nonverbal behavior. *Journal of Consulting and Clinical Psychology*, *35*(2), 248–257. https://doi.org/10.1037/h0030083

Mehrabian, A., & Ferris, S.R. (1967). Inference of attitudes from nonverbal communication in two channels. *Journal of Consulting Psychology*, *31*(3), 248–252. https://doi.org/10.1037/h0024648

Menon, G., & Raghubir, P. (2003). Ease-of-Retrieval as an Automatic Input in Judgments: A Mere-Accessibility Framework? *Journal of Consumer Research*, *30*(2), 230–243. https://doi.org/10.1086/376804

Oppenheimer, D.M. (2008). The secret life of fluency. *Trends in Cognitive Sciences*, *12*(6), 237–241. https://doi.org/10.1016/j.tics.2008.02.014

Oppenheimer, D.M., & Frank, M.C. (2008). A rose in any other font would not smell as sweet: Effects of perceptual fluency on categorization. *Cognition*, *106*(3), 1178–1194. https://doi.org/10.1016/j.cognition.2007.05.010

Oppenheimer, D.M., Alter, A.L., Shah, A.K., & Alter, A.L. (2014). Fluency and Psychological Distance. *Proceedings of the Annual Meeting of the Cognitive Science Behaviour*, *30*(23), 1047–1050.

Petty, R.E., & Briñol, P. (2012). The Elaboration Likelihood Model. In *Handbook of Theories of Social Psychology: Volume 1* (Vol. 22, Issue 1, pp. 224–245). SAGE Publications Ltd. https://doi.org/10.4135/9781446249215.n12

Prada, M., Rodrigues, D.L., Garrido, M.V., Lopes, D., Cavalheiro, B., & Gaspar, R. (2018). Motives, frequency and attitudes toward emoji and emoticon use. *Telematics and Informatics*, *35*(7), 1925–1934. https://doi.org/10.1016/j.tele.2018.06.005

Qiu, L., Wang, W., Pang, J., & Jiang, Z. (2016). The persuasive impact of emoticons in online word-of-mouth communication. *Pacific Asia Conference on Information Systems, PACIS 2016 - Proceedings*.

Reber, R., Schwarz, N., & Winkielman, P. (2004). Processing fluency and aesthetic pleasure: Is beauty in the perceiver's processing experience? *Personality and Social Psychology Review*, *8*(4), 364–382. https://doi.org/10.1207/s15327957pspr0804_3

Reber, R., Winkielman, P., & Schwarz, N. (1998). Effects of Perceptual Fluency on Affective Judgments. *Psychological Science*, *9*(1), 45–48. https://doi.org/10.1111/1467-9280.00008

Reevy, G., Ozer, Y.M., & Ito, Y. (2010). Encyclopedia of emotion (Vol. 1). In *Encyclopedia of emotion*. ABC-CLIO. Retrieved from http://ezproxy.parkland.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=348687 Available to Parkland users

Riordan, M.A. (2017). Emojis as Tools for Emotion Work: Communicating Affect in Text Messages. *Journal of Language and Social Psychology*, *36*(5), 549–567. https://doi.org/10.1177/0261927X17704238

Sanchez, C.A., & Jaeger, A.J. (2015). If it's hard to read, it changes how long you do it: Reading time as an explanation for perceptual fluency effects on judgment. *Psychonomic Bulletin & Review*, *22*(1), 206–211. https://doi.org/10.3758/s13423-014-0658-6

Schwarz, N. (2004). Metacognitive Experiences in Consumer Judgment and Decision Making. *Journal of Consumer Psychology*, *14*(4), 332–348. https://doi.org/10.1207/s15327663jcp1404_2

Schwarz, N. (2012). Feelings-as-information theory. In *Handbook of theories of social psychology* (issue 1, pp. 289–308).

Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology*, *61*(2), 195–202. https://doi.org/10.1037/0022-3514.61.2.195

Skovholt, K., Grønning, A., & Kankaanranta, A. (2014). The Communicative Functions of Emoticons in Workplace E-Mails: :-). *Journal of Computer-Mediated Communication*, *19*(4), 780–797. https://doi.org/10.1111/jcc4.12063

Smart, K.L., DeTienne, K.B., & Whiting, M. (1998). Customers' use of documentation: The enduring legacy of print. *Proceedings of the 16th Annual International Conference on Computer Documentation*, pp. 23–28. https://doi.org/10.1145/296336.296344

Smart, K.L., Whiting, M.E., & DeTienne, K.B. (2001). Assessing the Need for Printed and Online Documentation: A Study of Customer Preference and Use. *Journal of Business Communication*, *38*(3), 285–314. https://doi.org/10.1177/002194360103800306

Smith, C.A. (1989). Dimensions of appraisal and physiological response in emotion. *Journal of Personality and Social Psychology*, *56*(3), 339–353. https://doi.org/10.1037/0022-3514.56.3.339

Smith, C.A., & Ellsworth, P.C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, *48*(4), 813–838. https://doi.org/10.1037/0022-3514.48.4.813

Suzuki, K. (2003). An Event-related fMRI Study of Explicit Syntactic Processing of Normal/Anomalous Sentences in Contrast to Implicit Syntactic Processing. *Cerebral Cortex*, *13*(5), 517–526. https://doi.org/10.1093/cercor/13.5.517

Torelli, C. J., Özsomer, A., Carvalho, S. W., Keh, H. T., & Maehle, N. (2012). Brand Concepts as Representations of Human Values: Do Cultural Congruity and Compatibility Between Values Matter? *Journal of Marketing*, *76*(4), 92–108. Retrieved from http://www.jstor.org/stable/41714501

Tsai, C.I., & McGill, A.L. (2011). No Pain, No Gain? How Fluency and Construal Level Affect Consumer Confidence. *Journal of Consumer Research*, *37*(5), 807–821. https://doi.org/10.1086/655855

Tseng, T.H., & Hsieh, S.H. (2019). Determinants of emoticon usage in mobile instant messaging: A construal level theory perspective. *Behaviour & Information Technology*, *38*(3), 289–301. https://doi.org/10.1080/0144929X.2018.1531927

Unkelbach, C. (2007). Reversing the truth effect: Learning the interpretation of processing fluency in judgments of truth. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *33*(1), 219–230. https://doi.org/10.1037/0278-7393.33.1.219

Unkelbach, C., Bayer, M., Alves, H., Koch, A., & Stahl, C. (2011). Fluency and positivity as possible causes of the truth effect. *Consciousness and Cognition*, *20*(3), 594–602. https://doi.org/10.1016/j.concog.2010.09.015

Walther, J.B., & D'Addario, K.P. (2001). The impacts of emoticons on message interpretation in CMC. *Social Science Computer Review*, *19*(3), 324–347. https://doi.org/10.1177/089443930101900307

Williams, L.E., & Bargh, J.A. (2008). Keeping one's distance: The influence of spatial distance cues on affect and evaluation. *Psychological Science*, *19*(3), 302–308. https://doi.org/10.1111/j.1467-9280.2008.02084.x

Williams, L.E., Stein, R., & Galguera, L. (2014). The Distinct Affective Consequences of Psychological Distance and Construal Level. *Journal of Consumer Research*, *40*(6), 1123–1138. https://doi.org/10.1086/674212

Winkielman, P., & Cacioppo, J.T. (2001). Mind at ease puts a smile on the face: Psychophysiological evidence that processing facilitation elicits positive affect. *Journal of Personality and Social Psychology*, *81*(6), 989–1000. https://doi.org/10.1037/0022-3514.81.6.989

Winkielman, P., Schwarz, N., Fazendeiro, T.A., & Reber, R. (2003). The hedonic marking of processing fluency: Implications for evaluative judgment. In *The psychology of evaluation: Affective processes in cognition and emotion* (Issue 189, p.217). Retrieved from http://books.google.com/books?hl=en&lr=&id=t1h6AgAAQBAJ&oi=fnd&pg=PA195&dq=The+Hedonic+Marking+of+Processing+Fluency+:+Implications+for+Evaluative+Judgment&ots=bBAF2cME1Z&sig=rTkG0hA5dWElIhpQWzcUyWTyL7A

Yan, V.X., Bjork, E.L., & Bjork, R.A. (2016). On the difficulty of mending metacognitive illusions: A priori theories, fluency effects, and misattributions of the interleaving benefit. *Journal of Experimental Psychology: General*, *145*(7), 918–933. https://doi.org/10.1037/xge0000177

Yuasa, M., Saito, K., & Mukawa, N. (2011). Brain activity when reading sentences and emoticons: An fMRI study of verbal and nonverbal communication. *Electronics and Communications in Japan*, *94*(5), 17–24. https://doi.org/10.1002/ecj.10311

APPENDIX

USER GUIDE WITH EMOTICONS

Quick User Guide – Product Features

** Product sfeatures and package may change for product enhancement without any notification in advance.*

Features

- The state of the art 4K @ 60Hz recording capability.
- A new improved CCD sensor with an advanced post image processing algorithm capture scenes 📷 in details even in low light condition.
- Videos are recorded on a Micro SD card and can be played in any viewers commercially available.
- Realtime video upload and access from anywhere anytime by additional Anyview® ☁ cloud service subscription.
- Built-in GPS and accelerometer tracks driving information including the speed, location, and impact.
- Flexible mounting options are available: Helmet mount, handle mount, and arm mount.
- The product is water ☔ and dust proof rated at IP67.