

Effect of Emoticons on Perceived Emotionality and Memory for Words

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Abstract

Electronic communication has increased substantially and along with it the use of emoticons. But, there has been little research investigating the impact of emoticons on cognition. We paired neutral words with positive, negative and neutral emoticons to determine if emoticons affect memory for and emotional responses to words. Results indicate that emoticons influence participants' self-reported emotional response to neutral words when they are displayed with an emoticon: words with negative emoticons were rated as more negative while words with positive emoticons were rated as more positive than words paired with neutral emoticons. There was no effect on memory for or participants' emotional ratings of words that had been presented with emoticons. Therefore, it appears emoticons may communicate emotion, but they do not have lasting effects.

Introduction

Of 40 MWSU students surveyed

- * 90% use emoticons in electronic communications.
- * 97.5% believe emoticons influence communication.

Few studies have examined the effects of emoticons on our emotional interpretation of words.

But there is evidence that emotions tied to emoticons can be transferred to words (Lo, 2008).

Love 😊 more positive than Love 😐

Death 😞 more negative than Death 😐

Other studies have shown that emotion can enhance memory. Emotional words are spontaneously remembered better than neutral words (e.g., Kissler, Herbert, Peyk, & Junghofer, 2007).

Emotional words

Happiness
Death

Neutral words

Chair
Telephone

Do emoticons influence cognition?

- * Affect emotional ratings of words
- * Improve memory for words

Methods

Participants

40 college students (15 male, 25 female) participated in the experiment. The average age was 21 years, all participants were native English speakers with one being bilingual.

* Participants reported the types of electronic communication they regularly use: 90% use Facebook and text messaging, 75% use email.

* 65% reported using emoticons on a daily basis.

Materials

A separate survey was used to collect information regarding participant use of electronic communication and emoticons.

Ratings Task – 60 neutral and 40 emotional words (20 positive, 20 negative). These were paired with positive, negative, or neutral emoticons.

Memory Task - 100 additional words (60 neutral and 40 emotional) were selected as fillers (unstudied items).

Emoticons

	Positive	Negative	Neutral
Punctuation	:)	: (: -
Face	😊	😞	😐

Procedure

Ratings Task 1

	1	2	3	4
	very neg.	slightly neg.	slightly pos.	very pos.
House	😊			
Cake		:)		
Ant			😞	

Surprise Memory Task

* Do you remember seeing this word? (words were presented without emoticons)

Ratings Task 2

* Same rating as Ratings Task 1, but words were presented without emoticons.

References

- Kissler, J., Herbert, C., Peyk, P., & Junghofer, M. (2007). Buzzwords: early cortical responses to emotional words during reading. *Psychological Science, 18*, 475-480.
- Lo, S. (2008). The Nonverbal communication functions of emoticons in computer-mediated communication. *CyberPsychology & Behavior, 11*, 595-597.

Results

Emotional Rating of Neutral Words

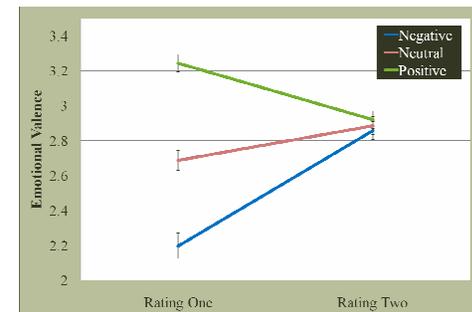
Within-subjects, repeated measures ANOVA

Rating 1

Main effect of emotion $F(2,38) = 52.39, p < .001$

Pairwise comparisons revealed significant differences between each of the three levels of emotion, all $p_s < .001$

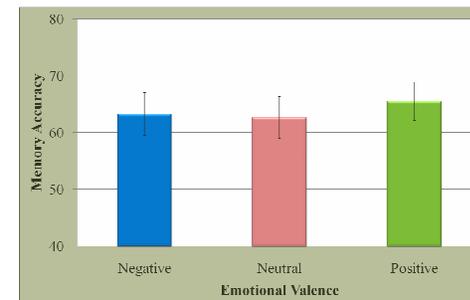
Rating 2 – No main effects or interactions



Memory for Neutral Words

Within-subjects, repeated measures ANOVA

No main effects or interactions



Conclusions

* Emotional ratings of neutral words were affected by emoticons.

Farm :) more positive Farm: (more negative

* Emoticons convey the intended emotion, but that emotion does not improve memory and it only lasts a short time.