

## The Effect of Emoticons in Synchronous and Asynchronous e-Negotiations

Evelyn Braumann<sup>1</sup>, Olga Preveden<sup>1</sup>, Sharjeel Saleem<sup>1</sup>, Ying Xu<sup>2</sup>, Sabine T. Koeszegi<sup>3</sup>

<sup>1</sup>University of Vienna  
Bruenner Strasse 72, 1210 Wien, Austria

<sup>2</sup>University of Innsbruck  
Universitaetsstrasse. 15, 6020 Innsbruck, Austria

<sup>3</sup>Vienna University of Technology  
Theresianumgasse 27, 1040 Vienna, Austria

[ying.xu@student.uibk.ac.at](mailto:ying.xu@student.uibk.ac.at), [sabine.koeszegi@tuwien.ac.at](mailto:sabine.koeszegi@tuwien.ac.at)

**Keywords:** emoticons, electronic negotiations, content analysis, experiment

As managers more and more interact and negotiate via computer, there is a need to better understand the impact of electronic communication media on social interaction (McKersie and Fonstad, 1997). Text-based communication offers the possibility to use so-called emoticons (standing for *emotion* and *icon*), i.e. textual expressions representing the mood or facial expression of the communicator. Studies on the functions of emoticons in textual messages show that emoticons can strengthen the impact of a verbal message (Walther and D'Addario, 2001), help to emphasize a meaning during message creation and interpretation (Crystal, 2001; Rezabek and Cochenour, 1998), and also clarify textual messages (Walther and D'Addario, 2001). In this light, emoticons fulfill similar functions as non-verbal displays in face-to-face communication (e.g. Derks et al., 2008; Erkman and Friesen, 1969; Harrison, 1973). However, research by Pendorfer and Koeszegi (2006) compare negotiation behavior in synchronous and asynchronous communication mode and find that negotiators in the asynchronous mode can control emotions better compared to negotiators in synchronous communicate mode who engage in more emotional and competitive debates.

In order to complement this research, we conducted a laboratory experiment using a 2x2 design (see Table 1) and tested the effect of six different types of emoticons (Smile, Sad, Laugh, Anger, Wink, and "No Idea") on communication processes and outcomes of synchronous and asynchronous negotiations using an e-negotiation system NSWAN developed for this purpose.

**Table 1.** Experiment Design and Subjects

•	• Emoticons	• No emoticons
• Synchronous	• 12 dyads (N= 24)	• 14 dyads (N=28)
• Asynchronous	• 18 dyads(N=36)	• 12 dyads (N=24)

The experiment was conducted in June 2009 at two Austrian universities. 112 students participated in the experiment and received performance-based credit points

for their university courses as incentive. A text-based electronic communication support system N-SWAN was specifically created for the purpose of this experiment and enabled participants to exchange, store and retrieve messages. The system can be used either asynchronously or synchronously and additionally enables two treatments with regard to the use of emoticons. The implemented emoticon feature allows to force users to add one of the six emoticons to a message (otherwise the message is not sent) which then is displayed prominently next to the message when received by the other party. When this feature is deactivated, subjects are neither asked to use emoticons nor are they provided with these emoticons. The implemented case was designed competitively. Students had to jointly decide on the Friday evening program (cinema, club or cleaning) according to their role description. Each negotiator had his/her role description and the role's preference was either cinema or club. Cleaning was an alternative choice with significantly less utility for both negotiators. Because emoticons (1) help communicators to emphasize the meaning of a message as well as to strengthen its impact, and (2) support receivers to interpret textual messages and clarify their meaning, we hypothesize that the use of emoticons positively influences the process (in terms of cooperative behavior) and outcome (in terms of agreements) of electronic negotiations. However, based on Pesendorfer et al.'s (2006) findings, we also hypothesize that this effect is mediated by communication mode. We expect to find a positive effect of emoticons only in asynchronous negotiations. Since asynchronous negotiations tend to be less emotional, the danger of escalating emotional statements is limited and emoticons can unfold their supportive function. In synchronous negotiations, on the contrary, we expect that the use of emoticons boosts (negative) emotions. We assume that this eventually results in more competitive behavior and less agreements.

We applied content analysis on the data following the blue print created by Srnka and Koeszegi (2007). The negotiation transcripts were split into 3,651 communication units (thought units), with an excellent inter-coder unitization agreement measured by Guetzkow's  $U = 0.054$ . A category scheme with nine categories original from Koeszegi et al. (2008) was adapted and used for coding. The category scheme included the following nine main categories (see Table 2):

**Table 2:** Category Scheme

	Integrative	Distributive
Action	(1) Agree, Accept, Concede (2) Show Positive Emotion (3) Make a New Offer	(4) Reject or Disagree (5) Show Negative Emotions (6) Use Tactics or Threats
Information	(7) Provide Information (8) Request Information	(9) Use Persuasive Arguments

Inter-coder agreement of total coding decisions and Cohen's Kappa reached of 0.848 and 0.837, which is rated as "acceptable under most conditions" (Srnka and Koeszegi, 2007).

We ran multivariate ANOVAs to identify effects of independent variables, i.e. emoticon and communication mode on the dependent variable, negotiation behavior and outcomes and also included gender and role as independent factors into our analysis. The results show a significant effect of both, communication mode and emoticon treatment, on negotiation behavior. As expected, we find that in synchronous negotiations when subjects were forced to use emoticons, they use more competitive behavior with more rejections and less consenting communication. Furthermore, we find the same pattern of competitive behavior for asynchronous

negotiations when subjects were not forced to use emoticons. Surprisingly, there was no difference between treatments with regard to tactics and threats. However, information behavior was more competitive in both treatments without emoticons: subjects used here more persuasive arguments. We also tested whether this effect is stable over time and divided negotiation transcripts into two phases. In the first phase, the distributive phase, negotiators provided more information in both synchronous and asynchronous modes with emoticons. In the second phase, the integrative phase, in synchronous mode, the subjects used less positive emotions and more rejections in the emoticon treatment while these effects were reversed in the asynchronous mode. Finally, we find a significant difference between the two communication modes in negotiation outcomes with significantly more agreements in the asynchronous mode. As predicted, there is no direct influence of the emoticon treatment on outcome.

In summary, we show that emoticons affect negotiation processes in different ways in synchronous and asynchronous negotiations supporting our first as well as our second hypothesis that communication mode mediates the effect of emoticons on negotiation processes and outcomes.

## References

- Crystal, D. (2001). *Language and the Internet*. Cambridge: Cambridge University Press.
- Derks, D., Fischer, A. H., Bos, A. E. R. (2008). The Role of Emotion in Computer-Mediated Communication: A Review. *Computers in Human Behavior*, 24(3), 766-785.
- Erkman, P., Friesen, W. V. (1969). The repertoire of nonverbal behavior: Categories, origins, usage and codings. *Semiotica*, 1, 49-97.
- McKersie, R. B., Fonstad, N. O. (1997). Teaching Negotiation Theory and Skills Over the Internet. *Negotiation Journal*, 13(4), 363-368.
- Pesendorfer, E.-M., Koeszegi, S. T. (2006). Hot Versus Cool Behavioural Styles in Electronic Negotiations: The Impact of Communication Mode. *Group Decision and Negotiation*, 15, 141-155.
- Rezabek, L. L., Cochenour, J. J. (1998). Visual cues in computer-mediated communication: Supplementing text with emoticons. *Journal of Visual Literacy*, 18, 201-215.
- Srnka, K. J., Koeszegi, S. T. (2007). From Words to Numbers: How to Transform Qualitative Data into Meaningful Quantitative Results: Guidelines and Exemplary Study. *Schmalenbach Business Review*, 59 (January), 29-57.
- Walther, J. B., D'Addario, K. P. (2001). The Impacts of Emoticons on Message Interpretation in Computer-Mediated Communication. *Social Science Computer Review*, 19(3), 324-347.