A helping hand? Effects of interpersonal touch on emotion processing

Marvin Ganz, Lilly Hartmann, Tabea Waßmuth, Prof. Georg W. Alpers, PD. Dr. Antje B. M. Gerdes

(Universität Mannheim)

There exist many studies examining the effects of emotion processing in clinical and subclinical samples. While many would assume from personal experience that interpersonal touch can play a role in emotional processing and regulation, e.g. for support or consolation, only a limited amount of studies focused on the connection between interpersonal touch and emotion processing.The underlying mechanisms and the clinical relevance of the effects of interpersonal touch on emotion processing remain unclear. To gain better knowledge in this area of research, we conducted an experiment exposing one group (n= 21) to interpersonal touch of an unknown person and the other group (n = 20) to the mere presence of an unknown person while watching emotional pictures. After each picture participants rated their experienced valence and arousal caused by the picture. Additionally, we gathered data of galvanic skin response (GSR) and facial electromyography (EMG). Unexpectedly, findings suggest that touch leads to higher levels of corrugator muscle (EMG) activity for negative, neutral and positive pictures. Moderation analysis revealed that this effect is stronger for participants with higher social anxiety. According to these findings, it seems that interpersonal touch is not always an entirely positive and soothing experience, but it may have a stressing effect on some people. When confronted with emotional situations, interpersonal touch of an unknown person may enhance the negativity of the experience and hence worsen the emotion regulation of people. This may be an important practical implication for physical contact in health care systems, for example.

Encoding and recognition of person identity during threat: A multinomial modeling approach

Maximillian Frank[1], Sabine Schellhaas[1], Dr. Nina R. Arnold[1], Hernán González Cruz[2], Dr. Florian Bublatzky[1] *([1] Central Institute of Mental Health, Medical Faculty Mannheim, University of Heidelberg, Germany, [2] Department of Psychology, School of Social Sciences, University of Mannheim)*

A threatening context facilitates perceptual processing, which in turn is suggested to support memory encoding and recollection of context information. For instance, better memory has been found for affective words which were encoded during threat compared to safety conditions. Based on this, we examined face identity learning as a function of verbally instructed threat or safety. In two studies, participants (N=64 and 76) completed two sessions, in which 96 face pictures (divided in four subsets A, B, C, and D) were presented. During the encoding session, faces from Set A, B and C were presented with different background colors each once for 1s or 6s (Study 1 or 2). To trigger aversive anticipations, Set A was shown with a specific color (e.g. blue) which was instructed to signal threat of receiving shocks. In contrast, Set B and Set C (e.g. yellow/green) were presented without further instructions, however, implying safety to the participants. During the second recognition session, all pictures (old Sets A, B, C and the new Set D) were presented intermixed and a source memory (blue/yellow/green background or new) task was performed. Individual parameter estimates of item (face identity) and source memory (threat or safety context) as well as guessing parameters were obtained via hierarchical multinomial processing tree modeling. Preliminary results show that the mere verbally instructed threat compared to safety context was rated as more unpleasant, arousing and threatening. Recognition performance for items as well as for sources, however, did not vary as a function of aversive anticipations. Hierarchical multinomial model based parameter estimates did not reveal