

The Effect of Physical Enclosing on Negative Emotion Regulation

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Abstract

The research investigates whether the physical experience of enclosing an emotional laden stimulus can help regulate negative emotions. In three studies, we show that the act of enclosing relieved corresponding negative emotions. Using recalled negative experience such as regrettable decisions and unsatisfied strong desires in Studies 1A and 1B respectively, we showed that emotion negativity was reduced for participants who put the write-up of such experience inside an envelope. Study 2 found similar effects of enclosing on emotions after reading a sad story, but further demonstrated that enclosing a stimulus unrelated to the story did not have the same effect.

In three studies, we had shown that people attained certain closure over negative events by putting materials relating to the event into the envelope. In study 1, we showed that people felt less bad about a decision that they regretted a lot in study 1A (a strong desire that they could not satisfy in study 1B) if they put the recalled event (desire) into an envelope. Experiment 2 found that people felt less negative after reading a sad story print on a paper after putting the paper into the envelope. However enclosing an unrelated task did not soothe emotional reaction.

Despite wishes to feel happy and positive, negative emotions—often triggered by the memory of past experiences—come back to haunt us. How can we stop our mind from being distracted by intrusive memories of negative experiences and get closure?

Memory researchers have discussed the concept of cognitive inhibition and found that an explicit instruction to inhibit an unwanted thought may actually increase the accessibility (and hence recall) of the concept (Wegner et al., 1987). Similarly, literature on emotion regulation has suggested that suppression of negative emotional reactions can backfire (Gross, 1998; Wegner, Erber & Zanakos, 1993). However, other than deliberately trying hard to forget, lay people do seek remedies by physically locking things up. For instance, a self- help website on how to deal with a broken relationship advises readers to “put everything that reminds you of your ex in a box and seal it...” (Pant, 2007). Do these behavioral strategies to put physical closure on objects work? The premise that physically enclosing and sealing emotion-related items will help people attain psychological closure over emotional experience stems from recent research on embodied cognition and metaphors. We report the results of three experiments which showed that sealing an emotional laden object into an envelope could relieve the related negative emotions people experienced as a result.

In study 1A, eighty students were randomly assigned to the two conditions. In both conditions, participants were first asked to recall a recent decision that they felt greatly regretful. In one condition, after participants recalled the event, they were instructed to put the questionnaire into an envelope before they handed back the questionnaires; in the other condition, participants were simply asked to hand back the questionnaires. In the second task, participants reported how they felt about the event along four negative emotion scales: regretful, guilty, sad, and worried, all anchored from 1, not at all, to 5 extremely. The four negative emotions were averaged to indicate how negative participants felt about the event at the moment the measurement was taken (Cronbach's $\alpha=.79$). A simple *t* test of the treatment factor revealed that participants who put the recalled event into the envelope felt less negatively ($M=2.00$) about the event than those who just handed back the recall task without an envelope ($M=2.52$, $t(1, 78)=2.42$).

Study 1B was different from 1A along the two aspects. Rather than recalling a regrettable experience, participants were instead asked to report something they wanted to do very badly but could not do it. Second, the study was conducted in the dorms on campus. On specific emotional reactions towards the strong desires, people who were given an envelope to put their questionnaire into felt much less negative on almost all single items that were measured (Sad, disappointed, unsatisfied, anxious $t_s(1, 37)>2.33$, $p_s<.05$). In addition, in terms of mental disturbance they felt over their strong desire, those people who experienced the physical closure did feel less distracted or unsettled towards it ($t(1, 37) >2.25$, $p_s<.05$).

Study 2 tested whether the difference was driven by the action of putting things into envelope (in the similar fashion as how catharsis works for some negative emotions) or due to the fact that the specific emotion laden material was put to a symbolic closure. The main test had three conditions, and all conditions needed to complete three tasks in the same sequence and at the same pace. In the first task participants were asked to read a recent news report on the death of a baby. The second task, which was totally irrelevant to the news, measured how college students made a few daily hypothetical decisions. In the last task participants were asked to report how they felt at the moment.

In the first condition, every completed questionnaire was collected back by the experimenter before the next questionnaire was handed out (i.e., control condition). In the second condition, after participants completed the first task, they were given a small envelope and instructed to put the task completed into the envelope. After experimenter collected all envelopes, the second questionnaire would be handed out, followed by the third task (i.e., the condition where physical closure was specified at the emotional event). In the third condition, participants they were given a small envelope to put the second task in and handed it back before they were given the last questionnaire (i.e., the condition where physical closure was acted on unrelated task).

The three negative emotions measured have a relatively high correlation (Cronbach's $\alpha=.90$), and were averaged to indicate how negative the sad story made participants feel. Helmert contrasts were conducted first and showed that after participants

put the emotional laden materials into the envelope ($M=2.90$), the negative emotions they felt were significantly less than the rest two conditions ($F(1, 77)=3.89, p<.05$). However, the difference between the control condition and the experimental condition where participants were asked to put an unrelated task to the envelope did not differ on the reported emotional states ($M_{\text{control}}=4.28; M_{\text{unrelated}}=4.12, F(1, 77)=.32, p>.80$).

It is known that the body is closely tied to the processing of emotional information (Niedenthal et al., 2009). Therefore, it is reasonable to expect that bodily experience may also be pivotal in the regulation of emotions. While supporting theories on embodied cognition and embodied emotion, our results took one step further to show that people's emotion regulation process can indeed be facilitated by taking a physical action on the emotional laden materials. The experiments demonstrated that the abstract mental state such as psychological closure over an event appeared to rely on the sensory-motor experiences brought by the simple act of enclosing