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*The Role of Resolution of Emotional Goals
in Memory for Discrete Emotions*

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Description of Research:

TITLE:

The Role of Resolution of Emotional Goals in Memory for Discrete Emotions

In several contexts decision makers must rely on their memory for their past emotions. While sometimes such memory is non-conscious or reflects general positive or negative affect towards a target, other times people must tap into conscious memories of discrete emotions. For instance, when consumers describe their consumption experiences to others, they often will recall the discrete emotions elicited by such experiences. They may describe how angry they felt at a ticket agent due to a dissatisfactory service encounter, how happy they felt during a pleasant orchestra performance, or how disgusted they felt when eating an undercooked food item. Similarly, people who have experienced traumatic events, such as economic turmoil, life-threatening illness, or violent crime describe these experiences to psychiatrists, counselors, and other social service workers using their memory for the discrete emotions that the traumatic event triggered.

In this research we ask, why are some past instances of an emotion remembered accurately while others are exaggerated or minimized in retrospect? Prior research has found that motivated reasoning, coping strategies, and lay theories are all factors which impact how people remember their past emotions. Thus, prior research on memory for emotions has focused on meta-cognitive processes which account for how past emotions are reconstructed. We part ways from this research by shifting the focus to factors that impact the encoding and retrieval of past emotions. Specifically, we isolate the components of discrete emotions that lend to their memorability. These components include physiological responses, emotion-related thoughts, facial expressions, action tendencies, and actions taken to resolve emotional goals. Though actions taken to resolve emotional goals may not impact online emotional intensity, they are readily noticeable, lending themselves to better encoding of the emotion during the experience and superior retrieval of the emotion in retrospect. These actions serve to 'tag' the discrete emotion. On the other hand, though people may rely more on the other components to infer their current emotional state, these other components tend to decay in memory more quickly over time. As a result, they serve a disproportionately smaller influence in memory for emotions. When we set out in this investigation, we predicted that people would remember an emotional experience as more intense if they acted in ways to resolve the goal relevant to the discrete emotion than if they did not take such actions.

Research on memory for discrete emotions has guided the present investigation. Prior research has identified reconstructive processes, such as inferences based on current appraisals (Levine et al. 2001), post-event knowledge (Safer et al., 2002), and personality traits (Levine and Safer 2002) as impacting memory for past emotions. Coping processes following an emotional experience can also alter memory for the past emotional state (Wilson et al. 2003).

Although reconstructive processes account for many biases in memory for emotions, they may not explain fully how past emotions are retrieved or distorted. Memory research in other domains of investigation has also cited basic memory processes-- such as encoding

and retrieval --to explain how memory is distorted (see Schacter 1995 for a review). While these processes have been incorporated into research on memory for general affective valence and intensity (Fredrickson 2000), they have not yet been examined in the domain of memory for discrete emotions.

We investigate basic memory processes of encoding and retrieval of discrete emotions by focusing on components of these emotions, which arise as natural responses to an emotion. Our initial emotion of interest is disgust. Disgust has been shown to evoke a particular set of facial responses, physiological changes, and emotion-related thoughts. As well, people experiencing disgust have a goal of resolving the emotion by cleansing themselves. The act of cleansing does not necessarily impact the amount of felt disgust, but we hypothesized that this act would enhance memory for felt disgust since cleansing acts are easier to encode and retrieve than physiological changes, facial responses, and emotion-related thoughts.

In the first study of this research, we investigated participants' emotional reaction to a disgust-inducing film and tested their memory for emotion after a delay. Participants viewed a one-minute clip of an arm amputation, which had been shown in prior research to elicit disgust and little other emotion. Immediately after viewing this clip, participants responded with their emotional reaction to the film clip. As a between-participants design, some participants were instructed to wash their hands with a moist towelette before moving on to the next task, ostensibly an experiment in which they were required to have clean hands. After a thirty minute delay, all participants provided their memory for their emotional reaction to the film clip. They also provided an open-ended report on all of the procedures they had endured during the lab session. The results revealed that participants who did not wash their hands, as well as those who washed their hands and remembered this action reported high levels of disgust in retrospect. In contrast, participants who washed their hands but did not remember this act tended to under-report their prior disgust.

The results of the first study suggest a modification to the hypothesis we originally sought out to test. We now believe that actions taken to resolve an emotion's goals (here cleansing after feeling disgust) tends to reduce further thoughts about the emotion. Such decay in emotion-related thoughts is consistent with research on emotional carryover and the Zeigarnik effect, and it may explain why participants in the first study who resolved the emotional goal often reported feeling less disgusted in retrospect. However, these actions serve a countervailing force; they may serve as 'tags' that help to retrieve the initial emotion-related thoughts. Consistent with this hypothesis, participants who remembered that they washed their hands continued to recall high levels of disgust.

Our first study is suggestive of these effects, but due to the correlation-nature of the findings, this study does not provide causal evidence of the modified hypothesis. In our next study we will manipulate the accessibility of the resolution (here cleansing after feeling disgust) in a controlled between-participants design. We also hope to study people's reactions to neutral films, other stimuli that evoke disgust, as well as other stimuli that evoke other basic emotions. This research will be improved through presentation at academic conferences and feedback from the research community at Wharton.