

# How Emotion Regulation and Emotion Regulation Strategies Influence Attention During Driving

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## **Summary:**

Emotion regulation refers to our efforts to influence emotions in ways we think will increase the chance that they will be helpful rather than harmful. This paper focuses on how emotion regulation and emotion regulation strategies influence attention during driving by the help of the Process Model by James J. Gross and the Regulatory Flexibility Model by Bonanno and Burton. Using the previously mentioned models, this paper illustrates certain strategies that could be used to effectively regulate emotion during driving.

## **How emotion regulation and emotion regulation strategies influence attention during driving**

Nine percent of fatal crashes, 15 percent of injury crashes, and 15 percent of all police reported motor vehicle traffic crashes in 2019 were reported as distraction-affected crashes.

Most of the issues that cause distraction-affected crashes are talking on the phone, fidgeting with the vehicle's entertainment system, feeling sleepy, getting lost in one's own thoughts and many more but I would like to argue how emotion regulation is a factor of distraction during driving. Young adults fail to down regulate happiness, people with driving phobias fail to down regulate anxiousness, people fail to down regulate anger which leads to road rage- all these examples are instances when people fail to down regulate their emotions which play a role in distracting them from the task they are performing, i.e. driving, causing them to cause an accident due to the loss of focus on the road. First, I will summarize the Process Model by James J. Gross followed by the Regulatory Flexibility Model by Bonanno and Burton to provide a framework for the research paper. Then, I will talk about the consequences of emotion regulation failure and emotion misregulation. Finally, I will discuss the strategies that could be used to effectively regulate emotion during driving.

But what is emotion regulation? - Emotion regulation is the term generally used to describe a person's ability to effectively manage and respond to an emotional experience (Gross, 1990; Gross, 2013). Down regulation of emotion is the ability to decrease and minimize the intensity of emotional experience (Gross, 2013). The Process Model by James J. Gross specifies how emotions are generated and regulated. It enlists a number of strategies that could be used to have healthy emotion regulation. Emotion may be regulated at five points in the emotion generative process: (1) selection of the situation, (2) modification of the situation, (3) deployment of attention, (4) change of cognitions, and (5) modification of experiential, behavioural or physiological responses. The first four families of strategies are classified as antecedent-focused, because they are employed before the emotional response. The fifth family is response-focused as it is used after the emotional response has been activated. Moreover, the antecedent-focused strategies are described as more

effective (as they change the emotion itself) than the response-focused ones (that change the emotional reaction produced after the emotion has already been experienced). Gross also mentions emotion misregulation in his article which means that the emotion regulation strategies fail to regulate emotion in the correct way. For example: If a person is angry while driving and tries to down-regulate his anger to calm himself down but ends up using a strategy that does not work the way he thought it would and instead of calming down he gets more angry which results in him becoming more aggressive leading him to drive rashly.

While the process model is the main article I will be referring to, I will also be referring to a newer model by Bonanno and Burton, the Regulatory Flexibility Model. As the research on emotion regulation has moved forward, researchers have often argued that certain strategies for emotion regulation were more effective or healthy than others. For example, reappraising a situation would be considered healthier than distracting oneself from it. However, Bonanno & Burton seem to disagree as they stress that emotion regulation strategies are not inherently "good" or "bad." Their effectiveness depends upon the context a person is in and the skill set of that person. They see emotion regulation as a skill that develops over a lifetime and note that there can be significant individual differences in this ability. They call the ability to engage emotion regulation regulatory flexibility. Bonanno and Burton mention the "Fallacy of Uniform Efficacy" in their article, which means that the efficiency of a regulation strategy cannot apply the same emotion regulation technique to all the contexts and expect it to work in the same way as the impact of emotion regulation is not uniform. The three sequential components of the regulatory flexibility model are (1) context-sensitivity, (2) repertoire, and (3) responsiveness to feedback. The first step is to be sensitive to the context, which means evaluating demands and opportunities. The second step is to select an appropriate regulatory strategy from the repertoire. The third step is to monitor the feedback and modify it as needed. On monitoring, one could opt to maintain the strategy if they thought it was working efficiently, adjust that strategy if they thought it was working correctly but needed a few adjustments, end the strategy if they felt it was wrong and was not working effectively, and select a new regulatory strategy as required.

The connection between the Process Model of emotion regulation and the Regulatory Flexibility Model is that emotion regulation is different in each individual and can vary from person to person. It is noted in both articles that there was little consistency in the use of coping strategies across situations, and so the consequence/reactions differed among individuals. It is also important to note that the context will vary quite a bit from person to person as well and because the context of driving is a bit more limited, we may experience driving under different circumstances, but there are constraints that make it more similar than different.

Emotion regulation failure or emotion misregulation can lead to divided attention, loss/lack of focus, distracted driving which causes an increase in the number of accidents. This happens due to the imbalance of emotions (which have not been regulated properly and so are at a high) which leads to distress causing the driver to get distracted. Emotion regulation failure or emotion misregulation can occur due to reasons like misinterpreting a situation, selecting an ineffective regulatory strategy and many more. Even a small error can cause a lot of damage and even lead to loss of life and so being cautious and learning to use proper emotion regulation strategies is crucial.

Building a robust repertoire is very essential not only for driving but also for other situations as having a larger number of emotion regulation strategies gives you the ability to choose from a variety of strategies which suits best for the situation one is in.

Situation selection is the ability to choose wisely in what situation you are putting yourself in. One should avoid being in a situation where emotion would be a problem in the first place. For instance- one should not have too many people in the car as if there are more people in the car the chances of getting distracted are higher but if one does end up putting himself in such a situation and it's too late to go back then one should wisely select strategies like reappraisal to balance out the situation and prevent it from getting worse. In this

context reappraisal could help by thinking that the other people in the car would also keep an eye on the road so the chances of something going wrong would decrease. Another instance is when one is going on a long journey and knows that he cannot drive for a longer period of time then he can opt to meditate before starting the drive, this would be helpful as mindfulness helps to keep focus.

Situation modification refers to taking actions that directly alter a situation in order to change its emotional impact (Gross, 2015). For instance- if there are more people in the car the driver could ask the passengers not to converse so that he could keep his focus on the road or if there was loud music playing in the car then the driver could turn the volume down in order to keep his attention towards the road.

Attentional deployment refers to directing one's attention with the goal of influencing one's emotional response (Gross, 2001). In other words, attention deployment, overall, means "deploying" or putting your attention "elsewhere". The strategy widely studied for attention deployment is distraction, "but aren't we talking about how distraction is bad when driving" this might be a question that pops into your head when you read my above statement and so to clear your doubt, I will use an example of how a person can use distraction in a manner where there is a positive outcome- someone is feeling sad because of something that might have happened earlier and so to clear his mind he goes on a drive. Now he will use distraction as a strategy to distract himself from his sorrows and deploy his attention towards the road. In this context the distraction is not from the road rather it is from the sadness he is feeling and so here distraction is a valid strategy. Nowadays, insurance companies have programs to encourage drivers to deploy their attention to the road. These programs reward good driving through monetary incentives like lowered car insurance rates.

Cognitive change refers to modifying one's appraisal of a situation in order to alter its emotional impact (Gross, 2001). Reappraisal is a form of cognitive change. It is the ability of an individual to reappraise or cognitively re-evaluate a potentially emotion-eliciting situation in terms that decreases its emotional impact

(Gross, 2001). The reappraisal strategy is widely used in emotion regulation. Although reappraisal is most commonly used to decrease negative emotion, it can be used to increase or decrease negative or positive emotions (Ochsner & Gross, 2005). For instance- a person with a driving phobia would re-evaluate (reappraise) their situation by thinking that it is safer to travel by car than by plane. By doing so, they would be able to down-regulate their anxiety and fear, making themselves calm down.

Response modulation refers to directly influencing experiential, behavioral, or physiological components of the emotional response after the emotion is well developed (Gross, 2001). For instance- if the person driving a car is angry then he can down-regulate his anger by taking deep breaths to calm himself down, or if the people in a car are overjoyed then their happiness can be down-regulated by taking deep breaths to bring the emotion level at a proper balance.

So, to conclude emotion regulation refers to our efforts to influence emotions in ways we think will increase the chance that they will be helpful rather than harmful (Gross, 2015). My research question- how emotion regulation and emotion regulation strategies influence attention during driving is answered by the above-mentioned strategies that are used to regulate emotions in different situations. The “Fallacy of Uniform Efficacy” mentioned by Bonanno and Burton in their article is one of the reasons why it is necessary to build a robust repertoire. The more strategy options one has in their repertoire, the more effective their emotion regulation will be. Often, an individual might use multiple strategies to regulate emotion effectively, so knowing which strategies can be used in what context is very important. And when performing a task like driving, where you are responsible for yourself and other people on the road, it is crucial to be focused on it. The problem/issues that remain today are that even though the consequences of distracted driving are gaining a lot of attention as the days go by, people still don’t take it seriously and don’t drive safely. There is a lot of scope in this field of research and future studies can explore why people don’t pay enough attention to this driving issue or what goes on in their head when they choose to ignore such an important problem. If I were to

continue my research on this topic, I would like to use methods like surveys to find out how helpful emotion regulation is during driving by having a certain number of people use emotion regulation strategies and contrast it with their way of driving before using these strategies and after using these strategies.

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