



Freezing Effect and Bystander Effect: Overlaps and Differences

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Introduction

Slide 1: The bystander effect and freezing phenomenon share similarities, in that they result in inaction and an inability to intervene. However, they also have distinct differences. Although both are significant in social psychology, there has been a lack of systematic comparison between these two concepts.

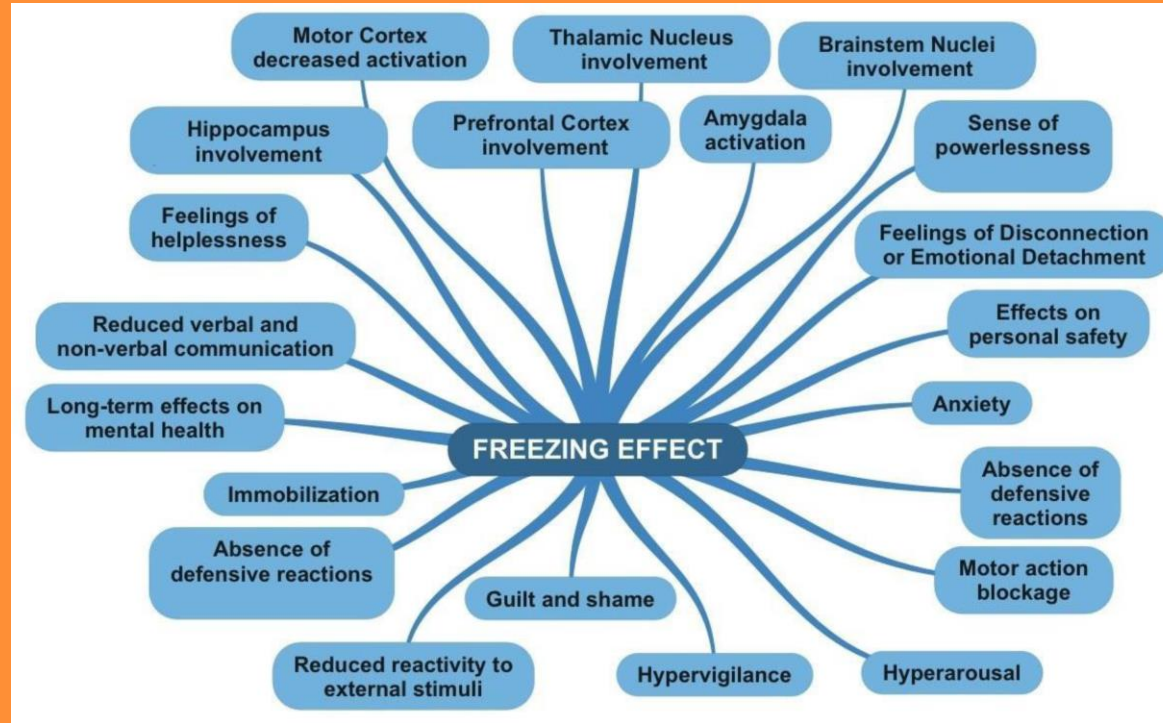
History

Slide 2: Cannon was the first to write about two strategies to approaching threatening events/stimuli in emergency situations: the fight or flight response. The FFS was revised in 2000 into the FFFS (fight–flight–freeze system) by Gray and MacNaughton, who included the behavioral response of immobilization (freezing) as a response to aversive stimuli. The fight–flight–freeze system orchestrates these adaptive responses to aversive stimuli. This system is composed of a repertoire of defensive behaviors: immobilization (freezing), rapid evasion (flight), and aggressive confrontation (fight).

Definition and New Discoveries

Slide 3: As a passive and defensive response to a stressful event, freezing is characterized by a reduction in body movements, bradycardia (a decrease in heart rate), and an increase in muscle tone. It is also believed to enhance the processes related to perception and attention, which help in identifying the signals that will reveal suitable subsequent actions. The concept of fight or flight as a human reaction to stress was established in the 1920s, but the idea of freezing as a third response only gained attention about half a century later and has not been thoroughly explored. In the animal kingdom, freezing in response to threats can be seen as an effective tactic, akin to feigning death in dangerous situations. In humans, however, freezing often translates to a paralysis of sorts, marked by an inability to communicate, respond, or engage in any action of self-defense or preservation.

Leading Figures



Slide 4: Upon perceiving a threat, the brain activates a range of neural pathways to cope with the stressor; the autonomic nervous system (ANS) plays a key role in this process. During the freeze response, both branches of the ANS, the sympathetic and parasympathetic nervous systems, are engaged. It is important to recognize that freezing's physiological characteristics are a blend of both these systems, and that the dominant system of the two fluctuates.

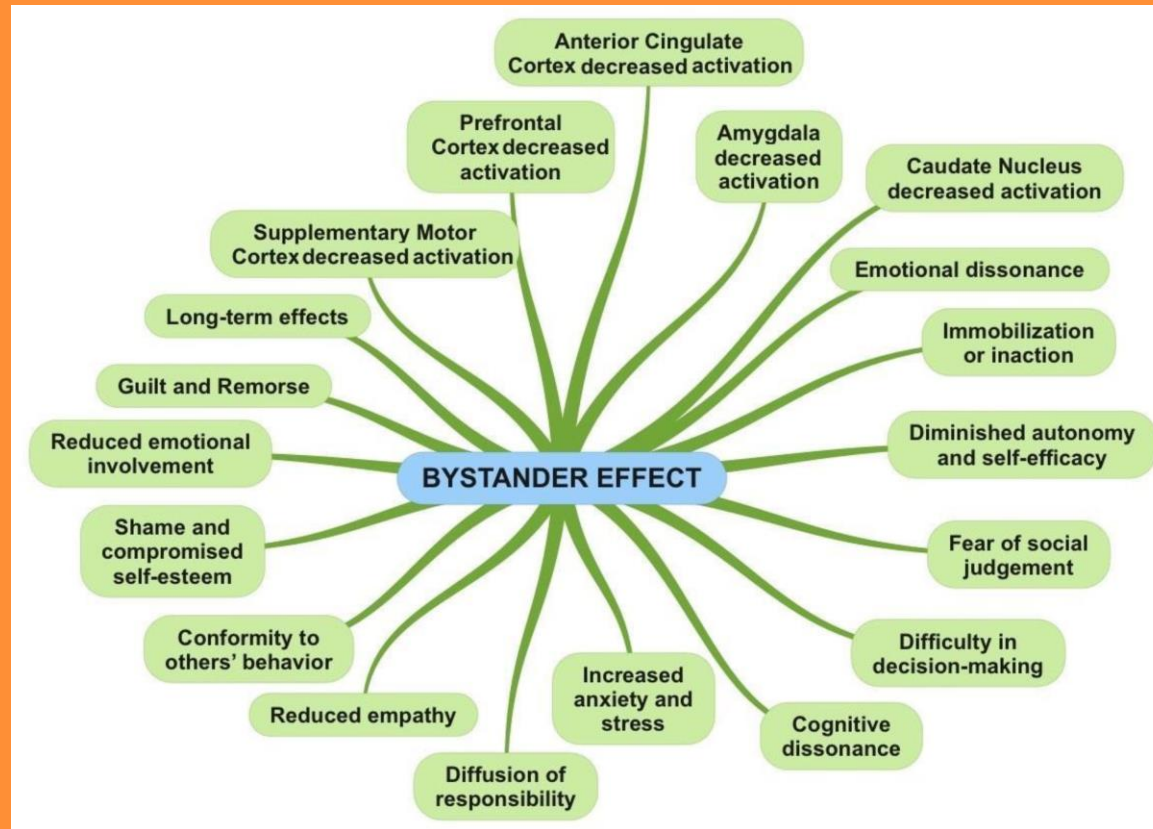
Definition of the Bystander Effect

Slide 5: The phenomenon of bystander inaction, commonly referred to as the bystander effect, is a psychological and social condition which occurs when an individual observing an emergency fails to assist the person in distress. This phenomenon is closely associated with the number of observers present; as the number of bystanders increases, the likelihood of any one individual providing help decreases.

History

Slide 6: As is well known, psychologists John Darley and Bibb Latané were pioneers in empirically demonstrating how the presence of other people influences individual reactions in emergency situations. Their research was motivated by the 1964 case of Kitty Genovese, a New York woman who was tragically stabbed to death near her home in Queens. Thirty-eight people observed the incident from their homes, alerted by Genovese's screams, but many of these witnesses believed that their individual intervention was unnecessary, assuming that "someone else must have seen more and already called the police," a phenomenon later called the "diffusion of responsibility".

Leading Figures



Slide 7: The brain areas which are involved in the bystander effect are prefrontal cortex, amygdala anterior cingulate cortex, supplementary motor cortex, and caudate nucleus. There are also psychological consequences with potentially long-term effects, such as increased anxiety and stress, reduced empathy, and guilt and remorse.

Conclusions

Slide 8: Today, news reports often cover cases of bullying, cyberbullying, and other extreme situations where, despite the presence of witnesses, intervention is not always timely. In some cases, there is proactive intervention, while, in others, bystanders do not intervene, either due to the bystander effect or the freezing effect. As such, this same inaction can be interpreted in two different ways. This study allows for a better understanding of the underlying implications and overlapping aspects of both phenomena and how they can lead to avoidance behaviors in emergency situations. Therefore, this study proves to be enlightening across multiple domains compared to other studies that do not make comparisons between the two phenomena and address them separately.