Freeze-fight-flight responses in perpetrators of violent attacks and their victims

Authors:
Aggression research group: Radboud University Nijmegen

Drs. I. Brazil, Dr. M. Hagenaars, Drs. V. Ly, Drs. N. Kwaks, S. Jellema, Drs. M. Vries, Dr. R. Verkes, Dr. E. Bulten, Drs. K. von Borries, Prof. Dr. K. Roelofs

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Summary

Recent violent attacks in the Netherlands have highlighted the importance of understanding the behaviors of the perpetrators and their victims. According to the Nationaal Coördinator Terrorismebestrijding en Veiligheid (NCTV), advancing the knowledge on the possible explanatory roles of the fight-or-flight response may provide valuable information for guiding the development of policies regarding violent attacks. To this end, the Research and Documentation Centre (WODC) of the Ministry of Security and Justice commissioned a literature review and an experimental study on the possible roles of freeze-fight-flight responses in explaining the behavior observed in perpetrators of violent attacks and their victims, with a specific focus on attacks carried out by violent radicalized loners (Dutch: gewelddadige geradicaliseerde eenling). The results are presented in this report.

This report provides an overview of the major psychological and neurobiological characteristics of freeze-fight-flight responses and their possible value in explaining the behavior of a violent radicalizedloner before, during and after attacks. The results show that the distinction between reactive (automatic) and instrumental (planned) aggression is valuable in understanding offender behavior. More specifically, freeze-fight-flight responses seem to account for the reactive aggressive behavior seen in violent radicalized loners. However, they do not provide an explanation for the violent radicalized loners’ instrumental aggressive behavior prior to the attack. The aggressive behavior (fight) observed in these individuals is planned and goal-directed, which is typical for instrumental rather than reactive aggression. Therefore, we additionally investigated whether a different concept could provide a more suitable description of this type of fight behavior and have developed a concept we termed focus. Focus denotes a phase characterized by planning, rigidity and increased fixation on a clearly defined goal and seems to be facilitated by processes leading to isolation and radicalization in the period before the attack.

An analysis of six cases supports the idea that focus is a useful concept indeed. In each case, the period prior to the attack was marked by a series of goal-oriented events and a strong fixation on the goal. We also found empirical support for the notion that instrumental aggression is associated with characteristics of focus, namely an increased fixation on goal-directed behavior. Violent offenders scoring high on instrumental aggression show reduced interference of emotions on goal-directed behavior. These effects are especially prominent in violent offenders who have high scores on instrumental aggression combined with low scores on anxiety. Although the findings suggest that focus is a useful concept, direct empirical support is lacking. Therefore, claims based on this concept should be interpreted with care.

In summary, the main conclusion from the current study is that automatic freeze-fight-flight reactions do not provide a framework for detecting violent radicalized loners before carrying out violent attacks. However, focus-related behaviors such as radicalization, isolation and fixation on a defined goal can be regarded as indicators that are useful for early detection. Signaling behavior indicating the emergence of radicalization (e.g. on the Internet) and a decrease in social contacts, as well as detecting signs that someone is becoming increasingly fixated on obtaining information on a specific subject, could contribute to the development of policies regarding early detection of violent radicalized loners.
In contrast to violent radicalized loners, automatic freeze-fight-flight responses do provide an explanation for the behavior of victims during and after violent attacks. Individual characteristics of the (potential) victim such as stress sensitivity, personality traits and neurobiological factors influence whether or not these automatic responses occur with excessive intensity. After the attack, some victims exhibit behavior that parallels the focus behavior seen in the violent radicalized loner. These victims become fixated on the trauma, keep regarding the threat to be constantly present and have only one goal: avoiding situations that remind them of the trauma. This rigid fixation and the associated behavior preclude the victim to reflect and correct his/her views. Thus, freeze-fight-flight reactions do provide useful handles for developing policies concerning victim assistance. Preventive interventions could include offering general information and training of appropriate responses during a fictive attack. After an attack, victims seem to benefit the most from receiving support in processing the trauma, especially if there is a rigid fixation on the trauma and increased avoidance behavior.