

Determinants of aggressive behavior

I-Ju Hsieh, Yung Y. Chen

Institute of Cognitive Neuroscience, National Central University

Background: Aggressive behavior can be defined as any behavior intended to hurt another person, and it is associated with many individual and social factors. Such maladaptive behavior is also the source of much emotional and economical cost to individuals and society. **Purpose:** This study examined the relationship between emotional regulation and inhibitory control in predicting human aggressive behavior. **Methods:** Eighty participants (41 males) recruited from the National Central University completed self-report measures of perceived stress, trait aggression, emotional regulation, and a stop signal task that assessed inhibitory control. We used a modified version of Taylor Aggression Paradigm (TAP) as a measure of direct physical aggression. Participants received increasing noise punishment in a computer game, which served as provocation. Retaliatory aggressive behavior is indicated by levels of punishment that participants gave in return to their opponents. **Results:** Controlling for gender, trait aggression, and psychological stress, results indicated a significant negative association between emotional control and aggression. Participants with better emotional regulation gave less punishment to their opponents. Results also indicated an interaction between inhibitory control and emotional regulation in predicting aggression. For participants with high inhibitory control, emotional regulation had little effect on their aggressive behavior. However, for those with worse inhibitory control, better emotional regulation was associated with significantly less aggression than worse emotional control. **Conclusions:** It appears that emotional regulation, which may be trained, could significantly benefit individuals with inhibitory control deficits. These results have implications for refining and targeting training and rehabilitation programs aimed at reducing aggressive behavior.