Single Social Defeats in Rats
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Published in:
Aggressive Behavior

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2001

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):

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animals were exposed to repeated defeat for different periods, the pattern of adaptation was highly regionally specific. In some areas, such as the lateral septum, the central and cortical amygdala, the lateral hypothalamic area, and the lateral and medial divisions of the paraventricular nucleus of the hypothalamus, \textit{c-fos} expression decreased with increasing exposure to defeat. However, in other areas, such as the prefrontal cortex, the raphe nuclei, and central grey, this decrease was not observed. Other areas such as the bed nucleus of the stria terminalis, the medial amygdala, the dorsal division of the paraventricular nucleus, and the locus ceruleus showed an initial decrease in the activity but later increased again. In conclusion, the present study shows that the brain adapts to repeated social defeat in a specific manner. Furthermore, studying animals over comparatively prolonged periods may yield a more complete picture of the dynamics of the neural response to chronic social stress. The implications of the changes in neural response to adaptation seen in other stress responses needs further research.

Effects of Aggressive Harassment on Male Copulatory Behavior in Japanese Macaques

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Disruption of a rival’s mating activity is a prominent strategy for intrasexual competition in many mammal species. The present study aimed to analyze the effects of aggressive harassment on different measures of male copulatory behavior in Japanese macaques (\textit{Macaca fuscata}). The subjects were adult monkeys living in a stable social group of 82 individuals. Two hundred forty copulations were recorded involving 68 different heterosexual pairs formed by 16 males and 26 females in 238 hours of observation. The data collection method was a combination of “focal group” and “complete record” techniques. A total of 62 episodes of aggressive harassment of consort pairs were recorded. The intensity of harassment displayed by the aggressors ranged from stare threat to physical attack. The frequency of aggressive harassment did not vary with the dominance rank of the consort partners ($F = 0.41, df = 3.65, \text{NS}$). To assess the impact of aggressive harassment on male copulatory behavior, the frequency of aggressive harassment was correlated with a number of different measures reflecting the efficiency of male sexual performance. The number of episodes of aggressive harassment suffered by each male correlated not only with the number of copulations interrupted before ejaculation because of overt interference ($r = 0.61, p < .005$) but with the number of copulations interrupted before ejaculation without any apparent reason ($r = 0.81, p < .0001$). In contrast, the frequency of aggressive harassment did not correlate with total of ejaculations ($r = 0.30$), the number of different females with whom each male was observed to ejaculate ($r = 0.31$), and the mean ejaculation latency ($r = 0.22$). It was hypothesized that, in a multi-male group living in a large enclosure with several visual barriers, high-ranking males have great difficulty trying to reduce a rival’s global mating success through aggression, even though aggressive harassment disrupts a consistent percentage of rival’s mount series.

Single Social Defeats in Rats: Temporal Dynamics of the Stress Response

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A single social defeat in male rats has long-term physiological and behavioral consequences. Depending on the parameter, changes may last from several hours up to days and weeks. This makes the model highly suitable for study of the temporal processes underlying the develop-
ment of affective disorders. Reduction in 5-HT neurotransmission and changes in the HPA axis are highly characteristic of affective disorders in human beings. Pharmacological challenge tests using serotonergic agonists demonstrate a gradually developing reduction of the corticosterone and hypothermia responses. A hyperresponsiveness of ACTH and corticosterone to a CRH challenge is initially observed. Concomitantly, a gradual reduction of the corticosterone feedback develops, as reflected by an enhanced ACTH and corticosterone response in the dexamethasone CRH challenge test. This is accompanied by changes in MR and GR binding having a different time course in different brain areas. Hence, HPA axis regulation changes gradually at various levels of organization. Despite these changes in regulation, plasma levels of corticosterone remain relatively constant after the defeat. The dynamic changes in behavior and physiology depend on the social housing conditions after the defeat. It seems that the absence of social support after the social defeat is essential for the development of depression-like symptoms in male rats. The temporal dynamic of the various stress parameters implies that the state of the animal shortly after the stressor differs from that seen several days or weeks later, i.e., the syndrome depends on time of measurement after the stress experience. Therefore, it is often misleading to label these symptoms as signs of human psychopathology. In fact, the social defeat model allows a detailed analysis of the cascade of events triggered by a traumatic life event. Understanding this cascade in terms of causal and sequential processes and the conditions that might speed up or delay its progressive character is relevant in understanding the etiology of human affective disorders.

SYMPOSIUM: RESPONDING TO POLITICAL VIOLENCE: HELPING ITS VICTIMS AND PREVENTING ITS RETURN

Organizer and Discussant: Karen Colvard
Harry Frank Guggenheim Foundation, New York, New York

Overview

This session considered attempts by local and international organizations to respond to political violence and to prevent its recurrence. A South African political psychologist analysed what the Truth and Reconciliation Commission (TRC) could and could not do to help South Africans remember the violence of apartheid in a way helping construct a new, more peaceful society. An American contrasted the successes of the international human rights movement in curbing violence by marginal states with its comparative failure to affect the behavior of the US government. A physician-anthropologist team contrasted activities of local elites and disaster-response agencies in treating victims of war in Sri Lanka with local healing and violence-control practices.

Dealing with the Aftermath of Political Violence in South Africa: Evaluating the Impact of the Truth and Reconciliation Commission

B. Hamber
Centre for the Study of Violence and Reconciliation, Johannesburg, South Africa

During the apartheid era, numerous South Africans, particularly within black communities, were severely traumatised by ongoing violence, oppression, and political violence.