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AUTHOR Geen, Russell G.
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ABSTRACT

The literature on human aggression is large and diverse. Some of it is theory-driven, but much of it dwells on solving social problems rather than on building general models and research paradigms. This paper examines some of the research programs and theoretical emphases in aggression research and presents theory convergences to see how these intersections may generate hypotheses for future research. The discussion here centers on two assumptions: (1) Aggression is not a scientific term; it is a lay term and is used to describe a number of functionally different behaviors, all having in common the infliction of harm upon another person; and (2) Affective aggression is a response to some event or change in the environment, or to the mental representation of such an event. Some of the variables involved in human aggression are discussed so as to elaborate the processes that may be involved. Many aggression sequences begin with impulsive aggressive reactions to provocation and culminate in the learning of aggression as deliberate behavior. What then follows is a characteristic way in which the person construes subsequent social situations, making that person more or less likely to react aggressively to future provocations. (Three diagrams present examples of aggression theory models. Contains 35 references.) (RJM)

Human Aggression: Current Theories and Research

An invited address given to the annual convention of the American Psychological Association, Los Angeles, August 12, 1994

by

Russell G. Geen
University of Missouri

Most of what I will present in this talk follows from two basic assumptions. They are:

1. Aggression is not a scientific term; it is a lay term taken from everyday English and it is used to describe a number of functionally different behaviors, all having in common the infliction of harm upon another person. In the animal kingdom, several kinds of aggression have been observed (Moyer, 1976), e.g., predatory, maternal, territorial. Among humans we may also note certain distinctions, e.g., angry retaliation, self-defense, and aggression carried out for purposes of coercion, punishment, and profit. It is customary among those who study aggression humans to observe two broad distinctions: (1) angry, or affective, aggression in which harming the victim is main motive of the aggressor, and (2) instrumental aggression, which may or may not involve strong emotions but is motivated primarily by concerns other than the harmdoing itself. I will concentrate mainly on affective aggression, because this is the one that is most commonly studied. These two kinds of aggression are, of course, not mutually exclusive.

2. Affective aggression is a response to some event or change in the environment, or to the mental representation of such an event (e.g., a memory of having been insulted). Most people who deal with human aggression do not consider the behavior to be spontaneous, but reactive. Some studies have reported spontaneous "seizure-like" rage related to underlying brain pathology (e.g., Pontius, 1984). These are intriguing investigations, but they involve intensive case studies of relatively small numbers of people and must be considered preliminary studies.

Furthermore, even some of the studies from this literature suggest that brain pathology may serve more as a predisposing variable than as a determinant of aggression, and that events must elicit actual aggressive behavior (Lewis et al., 1985). I will likewise treat biological factors in aggression as contributors to a disposition to aggress, given suitable provocation, or, as I have called them elsewhere (Geen, 1990), part of a group of "background variables".

The literature in human aggression is large and diverse. Some of it is theory-driven, but much of it is addressed more to solving social problems than to building general models and research paradigms. My original aim when I accepted this invitation was to try to draw some conclusions that would hold across the whole range of aggression studies and point in the direction of a theoretical integration. It took little time to drop this idea, however. The literature proved to be too diverse to permit easy generalizations. However, I did see some convergences among research programs and theoretical emphases, and what I have finally brought here today are a few observations on these convergences and how they may generate hypotheses for future research.

I will present these observations in the form of some diagrams in which I have spelled out at least a few of the variables currently generating interesting and important research on human aggression. These do not constitute a formal theoretical model but rather a device that may be useful in organizing information. I have made a third simple assumption in creating these diagrams: that aggression involves a sequence of processes beginning with a provocation and terminating in some act of harmdoing. We will concentrate on just two of those sequential processes. One involves an immediate, impulsive reaction to the provocation; the other, coming shortly thereafter, involves cognitive processing.

Let's look first at the instigators, or eliciting conditions, in aggression. We know, of course, that several such instigators among humans have been identified in past research. Thirty years ago dozens of experimental studies established that frustration, insult, and intepersonal attack are reliable elicitors of aggression. Later on, a number of studies identified stressors in the environment, such as noise, heat, and air pollution to be effective elicitors of aggression, even when the target was not considered to be responsible for the stress in any way. Zillmann

(1988) has defined aggression as a response to any condition that threaten's the well-being of the person. More recently, aggression has been linked to depressed mood states (Berkowitz & Troccoli, 1990; Julian & McKenry, 1993). Finally, Berkowitz has shown that physical pain can be an antecedent of aggression (e.g., Berkowitz & Heimer, 1989). This literature has been reviewed in a paper by Berkowitz in Motivation and Emotion (Berkowitz, 1993b).

FIGURE 1 ABOUT HERE

What do all of these antecedent conditions have in common? One possibility is that they all produce increases in negative affect. Berkowitz (1989; 1983a) has proposed a cognitive-neoassociationist model to explain a person's initial reaction to provocation. Any stimulus that elicits negative affect, including interpersonal provocation, may serve as an antecedent of aggression. Thus such conditions as frustration, insult, and attack all elicit negative affect as initial reaction. At this level cognition is required only to recognize the stimulus. But provocation does not necessarily evoke aggression; it may generate an escape response. Thus, the immediate response to increased negative affect is expressed in the old phrase popularized by Walter Cannon: fight or flight.

What determines whether aggression or escape will be the outcome? Berkowitz (1993a) proposes that both tendencies are elicited simultaneously but that one usually tends to be more powerful than the other. Which of the tendencies dominates depends on (1) the person's genetic endowment, (2) prior conditioning and learning, and (3) the recognition of aspects of the situation that facilitate or inhibit aggression. It is therefore at this point that biological factors may make their largest contribution, by helping to determine the probability with which the person will react with impulsive aggression. Studies showing a relationship between hormones and aggressive behavior (e.g., Berman, Gladue, & Taylor, 1993; Gladue, 1991) and twin studies that reveal a heritability component in aggression (e.g., Ghodsian-Carpey & Baker, 1987; Rushton, Fulker, Neale, Nias, & Eysenck, 1986) are probably best understood as reflecting an immediate, preconscious response tendency to aversive stimulation.

FIGURE 2 ABOUT HERE

Following certain current associationist models of memory (e.g., Bower, 1980), Berkowitz goes on to assert that negative affect elicits associated cognitive and emotional states and expressive motor patterns linked to it along directional pathways. Hypothetical "nodes" in the organization of memory include not only cognitive units (thoughts and ideas) but also related affective states and expressive motor patterns. Thus, Berkowitz argues, any increase in negative affect elicited by situational conditions activates related thoughts (either hostility or ideas of escape), affect (anger or fear) and motor tendencies (aggression or flight). An important corollary of the theory is that activation of the network at any point creates a spreading effect that activates associated nodes. Thus, for example, anger can be elicited by (1) an increase in negative affect, (2) thinking aggressive thoughts, or (3) aggressive behavior.

This theory has several implications for the study of aggression. First, it defines anger as a parallel process in impulsive aggression and not as an antecedent condition. Second, it provides a theoretical explanation for individual differences in aggressiveness and the so-called "aggressive personality" in terms of the extent and degree of development of the associative network. Some recent studies by Bushman (e.g., Bushman & Geen, 1989; Bushman, 1994) have shown that highly aggressive males make a greater number of aggressive-hostile associations than do less aggressive men to both aggressive and neutral verbal and pictorial stimuli. Third, the cognitive neoassociationist analysis may explain the often-reported connection between aggressive behavior and prior exposure to violence in the media (Berkowitz, 1984).

For now, however, we must turn to another question: at what point, and for what reason, does aggressive behavior become subject to the effects of cognitive processes? Berkowitz has suggested that cognitive control mechanisms are activated if and when the person shifts his or her attention toward ongoing automatic processes. In an experiment showing this, Berkowitz and Troccoli (1990) found that subjects in whom a depressed mood had been induced were less inclined to help another person than were happier subjects, but only when their attention was directed away from how they felt. Subjects who had been instructed to concentrate on their feelings were equally helpful whether in a depressed or a happy state.

In a subsequent study, Berkowitz and Troccoli (cited by Berkowitz, 1993b) found that male subjects who had been instructed to think about something other than their feelings were more hostile in their descriptions of another person during a cold-pressor treatment than those who concentrated on their reactions to the painful stimulus. If we concede that subjects in this study had no reason to downgrade the person being described, then their behavior in the self-focus condition indicates greater cognitive control than their behavior in the non-self-aware condition.

The processes that Berkowitz describes are best understood as primitive, preconscious ones. Berkowitz (1988, 1993a) has stated clearly that the initial impulsive reaction to negative affect is only a potential first stage in aggression. The anger, hostile thoughts, and aggressive motor patterns evoked at this stage are "rudimentary". Beyond this point, cognitive processes play an important role in further aggression. When we begin to consider the role of cognitive processes in aggression, we must begin by noting a truism: aggressive acts, like any others, have consequences. The initial response to provocation or conflict is therefore either an escape or a "hitting" reaction. Years ago, Seymour Feshbach (1964) made a useful distinction between this initial "hitting" and "hurting". The very young child enacts only a reflex-like motor action when frustrated or provoked, but then s(he) gradually learns that this behavior is aversive to others and can be used to control others. Hitting thus becomes hurting, which is motivated.

The processes involved in the development of aggressive motivation are familiar from motivation theory and involve the variables of expectancy and value. Aggression that is rewarded produces an increased expectancy that such behavior will be useful in the future under similar conditions and also enhances the perceived value of the behavior. The expectancy-value analysis of aggression has received some empirical support. Perry, Perry and Rasmussen (1986) asked children to express their level of confidence that various types of outcome would follow aggressive behavior. Children who had been classified on the basis of peer ratings as highly aggressive were more confident than their less aggressive counterparts that aggression would produce tangible rewards and would also cause other people to stop behaving in aversive ways. High expectancies of desired outcomes following aggression were therefore shown to be related to levels of general aggressiveness. In a subsequent study, Boldizar, Perry and Perry

(1989) found that peer-rated aggressiveness also predicted the values that children associated with the outcomes of aggression. Children rated as high in aggressiveness attached greater positive value than did less aggressive children to "control of the victim" resulting from aggression against the latter. In addition, highly aggressive children placed less negative value on such outcomes as the victim's suffering, threat of retaliation, rejection by peers, and negative feelings about themselves. In short, children who were highly aggressive saw more good outcomes arising from aggression, and fewer bad ones, than less aggressive children. Boldizar et al. (1989) also showed that girls differed from boys in the values they placed on the outcomes of aggression, being less likely than boys to value positive outcomes and more likely to reject negative outcomes.

Expectancy and value are the determinants of an immediate incentive or motivational state (Kornadt, 1984). It has been argued that children use information regarding the consequences of aggression to develop internal standards of right and wrong and to regulate their behavior according to such standards (e.g., Perry, Perry, & Boldizar, 1990). Over time, the standards, the situational stimuli that activate them, and the behaviors that result become routinized into cognitive scripts that prescribe behavior under appropriate conditions (Huesmann, 1988).

FIGURE 3 ABOUT HERE

The end result of this social learning process is a child who will be described by teachers, peers, and other observers as "aggressive". What are the consequence of this? In Figure 3 I have sketched out just a few that have been established in the literature. One is that highly aggressive children manifest what has been called a hostile attribution bias (Dodge & Coie, 1987). When provoked by another child in situations in which the latter's intentions are ambiguous, the aggressive child is relatively likely to attribute malicious intent to the other; such an attribution may arouse a desire to retaliate andhence evoke aggression (Ferguson & Rule, 1983). The hostile attribution bias has been found in adults as well as in children (Holtzworth-Monroe & Hutchinson, 1993). The formation of hostile attributions is only one of a number of outcomes that can be the result of deficits in social information processing among aggressive people. Dodge (1986) has described a sequence of acts involved in social interactions, beginning with attention to, and encoding of, information about the other person and ending with a decision as to how to respond to the latter. At

several of the steps in this process aggressive persons are less effective in processing social information than less aggressive ones. For example, Gouze (1987) found that hghly aggressive children are less attentive to cues from other children than are less aggressive children. Slaby & Guerra (1988) have shown that high aggressiveness in adolescent boys and girls is associated with lower tendencies to seek information, and with tendencies both to generate fewer solutions and to foresee fewer consequences of aggression.

A third characteristic of aggressive people is their greater relative tendency to hold beliefs that support and justify aggressive behavior. In the study just mentioned, for example, Slaby and Guerra (1988) found that high aggressiveness in adolescents was associated with tendencies to agree with aggressive-supportive statements. One area of study in which aggressiveness has been closely linked to beliefs supporting violent behavior is that dealing with violence against women. Numerous studies have shown that battering and abusive males are more likely to endorse beliefs that support aggression (e.g., Hall & Hirschman, 1991; Malamuth, 1988; Stith & Farley, 1993) than are nonabusive men.

Another interesting idea that may prove to have important implications for the prediction of aggressive behavior has been suggested in a recent review by Guerra, Nucci, and Huesmann (1994) These authors have suggested that aggressive people may place a different moral construction on the provoking situation than nonaggressive people. Basing their reasoning on current "domain" theories of moral development, Guerra and her associates speculate that aggressive and nonaggressive people differ in terms of the different emphases that they place on the possible consequences of their aggressive acts, i.e., whether they think only in terms of the consequences of aggression for themselves, whether they consider the consequences for the victim, or whether they consider the consequences mainly in terms of social conventions. Thus, for example, an aggressive person, when provoked, may think more in terms of whether aggressive retaliation will make him or her feel good , or whether it is the "correct" thing to do, than in terms of the harm that it might do to the victim. This approach shows promise of answering some interesting questions about the "morality" of aggression.

The various consequences of "aggressiveness" shown in Figure 3 all

contribute to one general outcome: the cognitive construction that the provoked person places on the provoking situation. Cognitively oriented theorists (e.g., Zillmann, 1988) insist that it is this cognitive construction of the situation to which the person responds following provocation.

We should also note another promising new line of research that deals with cognitive representations of aggression and which may lead to some important conclusions on the old problem of sex differences in aggression. This work, by Ann Campbell and her associates in Great Britain (Campbell, 1993), indicates that men and women interpret their own aggressiveness in different ways. Whereas men tend to define their aggression as instrumental behavior carried out in pursuit of desired goals, women tend to regard aggressiveness on their part as emotionally uncontrolled behavior. Thus, while men characteristically see aggression as useful, women tend to react to it with guilt and repression. Campbell has reported a number of studies involving the use of a psychometric measure that she has developed in which these sex-linked cognitive representation of physical aggression have been found in adult samples (Campbell & Muncer, 1987; 1994). A subsequent study by Archer and Parker (1994) extends these findings by showing that the same sex difference is found in children of grammar-school age, indicating that the socialization process that underlies the typical male-female difference begins quite early in life. Archer and Parker have aso shown the same boy-girl difference in the case of indrect, verbal aggression. Thus, the tendencies of males to regard aggression as instrumental behavior and of females to regard it as undesirable emotionality appears to be a fairly general effect. I think that this line of research is quite promising in that it may add another dimension to the study of how cognitive representations of situations influence aggression.

I have discussed only a few of the variables involved in human aggression, yet I hope that I have given at least some indication of processes that may be involved. I think that the sequence that I have described here, beginning with impulsive aggressive reactions to provocation (which may be moderated by biological factors), and culminating in the learning of aggression as deliberate behavior, describes the way in which aggression becomes part of the person's behavioral repertoire. What follows is a characteristic way in which the person construes subsequent social situations, making that person more or less likely to react to future provocations with aggressive behavior. I think that

much of what we know about aggression today from research in natural settings -- regarding such important matters as domestic violence, criminal behavior, effects of the mass media, and violence against women -- can be assimilated to this general approach. These theoretical models have provided us with powerful tools for the analysis of human violence.

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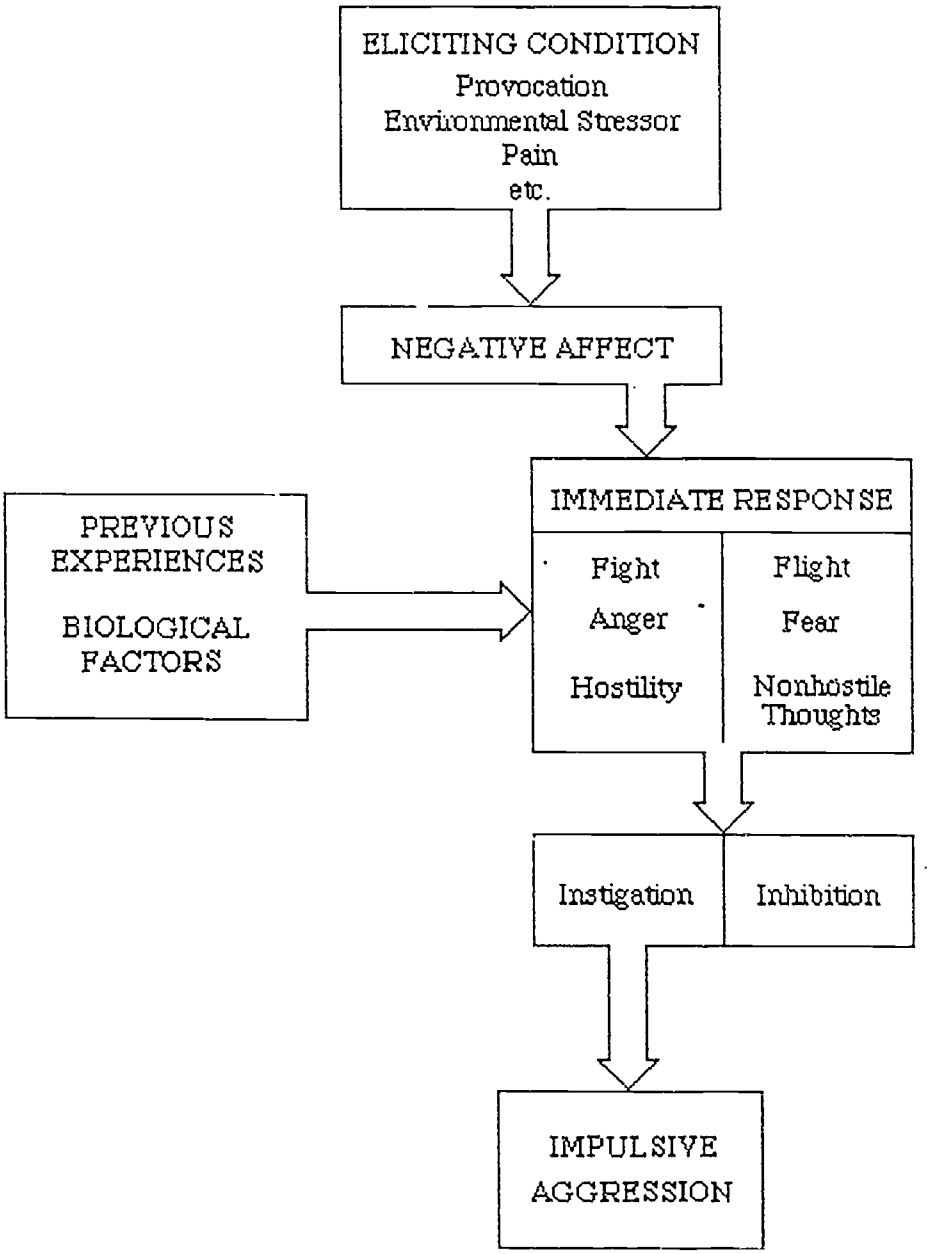

Figure 1. Outline of Berkowitz's Cognitive-Neoassociationist Model of Impulsive Aggression

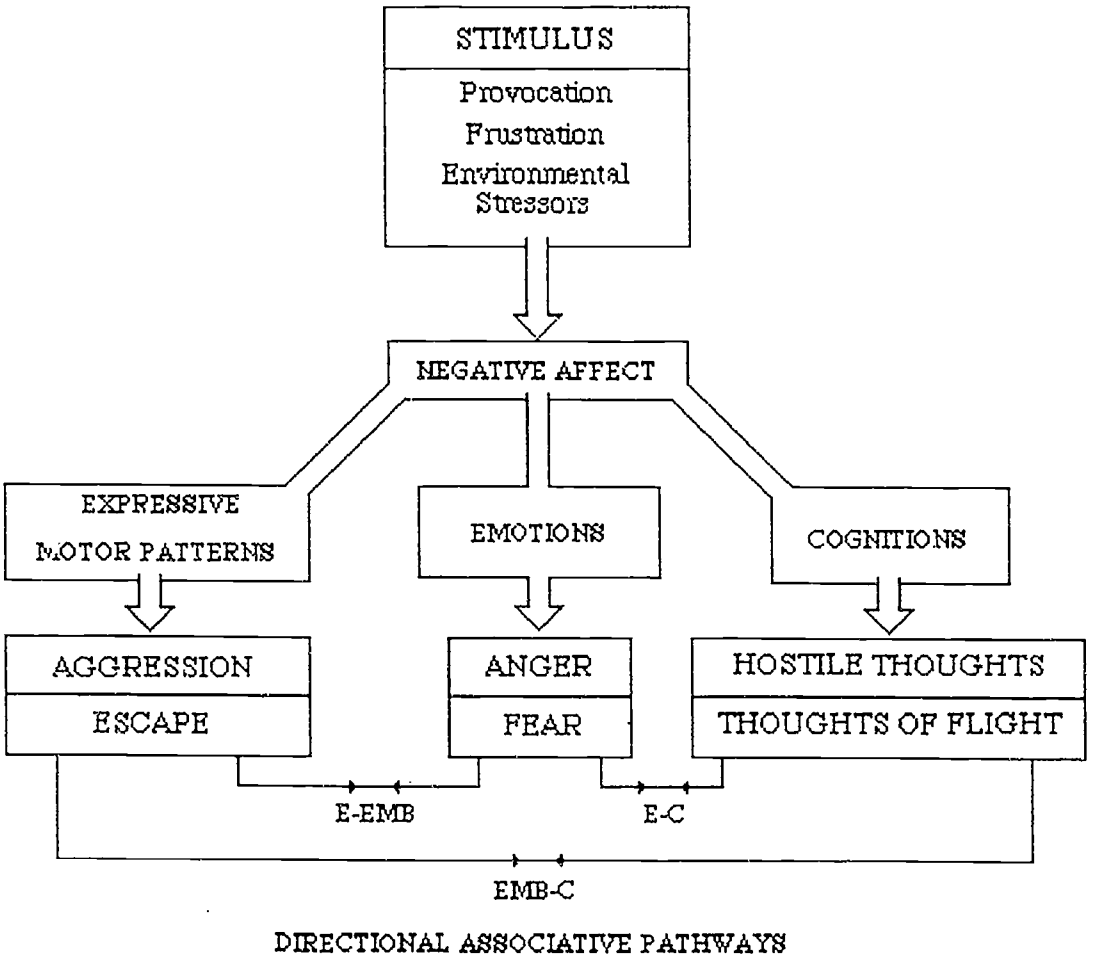

Figure 2. Descriptive Diagram of Processes in Cognitive-Neoassociational Theory of Impulsive Aggression (After Berkowitz, 1993)

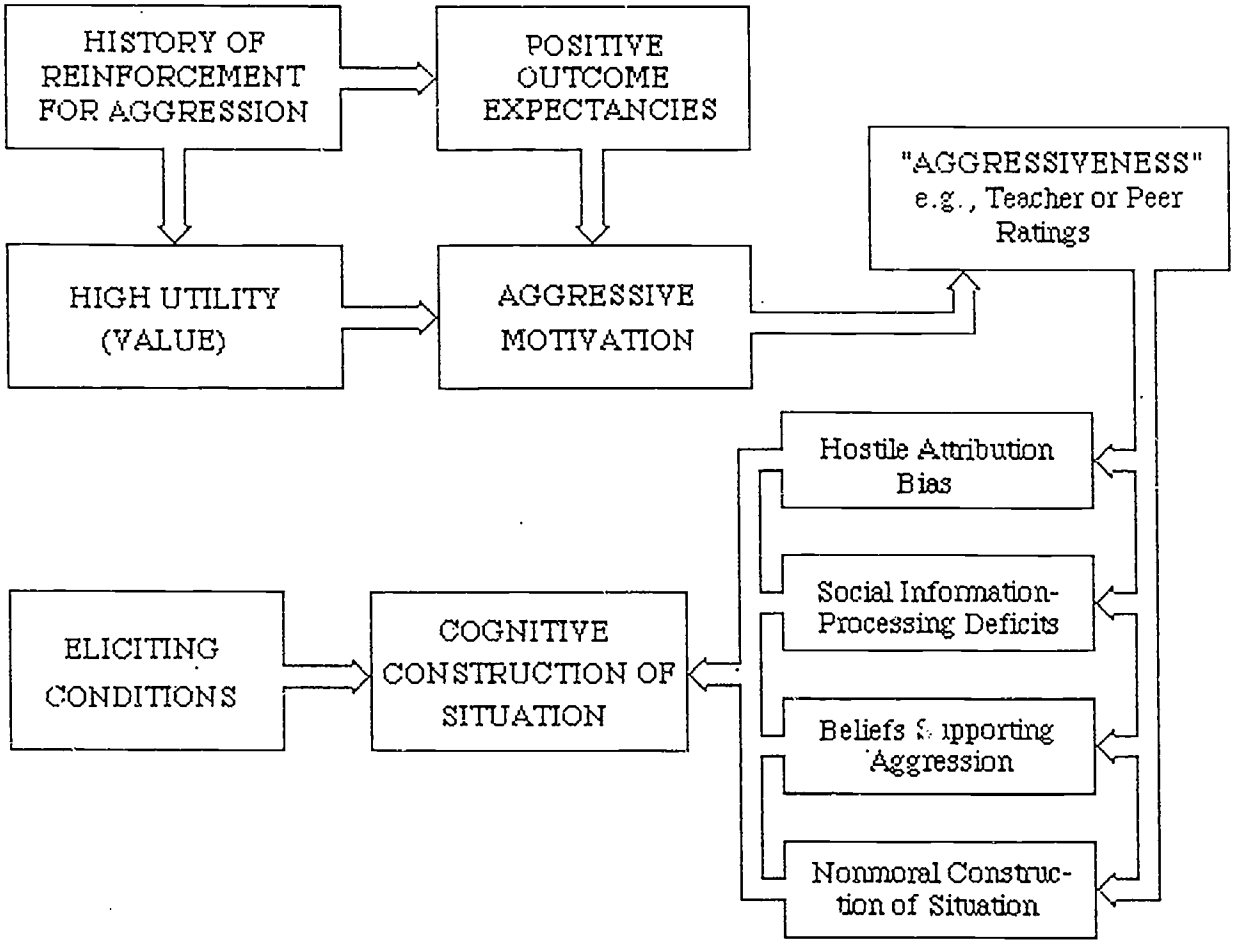

Figure 3. General Diagram of Social-Cognitive Processes in Aggression