

A DESCRIPTIVE MODEL OF  
AGGRESSION AND NONAGGRESSION  
WITH APPLICATIONS TO  
CHILDREN'S BEHAVIOUR

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## PREFACE

The purpose of the present study was the construction and testing of a descriptive model for interindividual differences in aggressive and nonaggressive behaviour. The volume contains two parts. The first investigation concentrates on human aggressive behaviour. The theoretical frame of reference consists of an integration of different theoretical approaches, where the main emphasis is, however, laid on learning theories. The second investigation endeavours to integrate the findings concerning aggression with a more general description of individual patterns of behaviour in situations generally instigating aggression. Aggression in different forms is then understood as only one of the alternative patterns of coping with noxious situations.

I carried out this study at the Department of Psychology in the University of Jyväskylä. Professor Martti Takala, Head of the Department, has followed the progress of my study from its very beginning. I wish to express my deep gratitude to him for all the encouragement, advice, and comments I have received in different phases of my work.

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## INTRODUCTION

The definition of human aggressiveness is more problematic than that of simple forms of motivated behaviour, as is revealed in the treatments by McNeil (1959), Buss (1961), Berkowitz (1962), Feshbach (1964), Pepitone (1964), Kaufman (1965), et al. Most problems of definition may be referred to the question on how many and on what kind of postulated concepts the explanation of aggression is based.

In Bindra's psychology of motivation (1959) integrating the empirical S-R approach and the neurophysiological approach an attempt was made to define the classes of motivational activities with no reference to factors underlying observed behaviour. Bindra adopted the view that »it is unnecessary and futile to postulate drives, motives, instincts, or any other end-determining systems in order to account for the various motivational phenomena» (p. 19). In place of this, Bindra considered it meaningful to categorize activities »conjointly in terms of the responses involved and the objects or events with respect to which they may be said to be directed» (p. 291). According to him, aggression and withdrawal are designed to alter the stimulus situation, and they constitute one category — the others are: general activity and exploration, eating, drinking and sexual activity, and maternal behaviour. The psychological problems of the goal-directed aspect of behaviour deal with (1) the origin of directed activities; development, which can be attributed to constitutionally determined species, strain, and individual differences; and (2) the occurrence of directed activities at a particular time, determined by habit strength, sensory cues, arousal level, and the state of blood chemistry.

Bindra's material concerning aggression dealt mainly with animal behaviour. In experiments on animals the definition of aggressiveness has generally not been very problematic. For instance, Lagerspetz (1964) used the term aggressiveness »to designate the frequency and/or intensity of aggressive behaviour in mice» (p. 9). Furthermore,

limitation of aggression to one class of behaviour is relatively clear on the basis of the quality of responses.

The application of this approach to human aggression is complicated by several factors, of which the following examples may be given. Hormonal effect on behaviour is rather direct in animals, but at a higher stage of development it is inhibited by controlling effects of the neocortex and by habits determining activities even when considerable changes take place in the internal balance (Takala, 1963). The process of learning responses is more complicated in human than in animal behaviour as a consequence of identification and model learning. Early experiences affecting the development of responses are much more varied in children than in the young of a particular animal species. The specific responses involved in certain goal-directed activities are much more diversified in man than in animals because of the great variety of means of expression available. The interpretation of the sensory cues affecting the occurrence of a response at a particular time is more complicated in man than in animals because of a highly developed associative memory. Together factors of this kind contribute to the occurrence of a great variety of aggressive behaviours, which makes it difficult to define aggression as a coherent class of activities in terms of stimuli and responses.

As for explanatory concepts, the dynamic theories of aggressiveness differ from Bindra's approach. According to the psychoanalytic theory aggression can be described either by stressing the reactive nature of aggressive urges employed by the self-preservative tendency of the ego-instincts, or as one of the two basic human instincts (the death instinct and the life instinct). In the psychoanalytic view of the structure and development of personality canalization and neutralization of special aggressive energy play a central role. Consequently a great variety of acts, even nonaggressive in regard to external criteria, can be explained on the basis of aggressive energy. In this case it is not possible to define aggressiveness as a class of activities of a similar quality. The concept of aggressive energy is also contained in the hydrodynamic instinct model presented by Lorenz, in which it is defined as neural energy, as discussed by Hinde (1959). On the basis of the concepts of motive or need, comparable with that of drive, aggression has been explained by many other theorists (Murray, 1938; et al.). According to instinctual or drive-oriented theories, every individual has an instigation to aggression, which even manifests itself in exclusively symbolic forms.

The behavioural approach to aggressiveness contains the assumption that aggressive activities are learned as responses to stimulus

situations. With the S-R theory as a starting point the drive elicited by a stimulus rather than the instincts has been considered the source of aggressive impulse. The instinctual view has been replaced by other explanatory concepts such as the well-known and controversial concept of frustration.

The frustration-aggression hypothesis derived from Freud's earlier view of the reactive nature of aggressive urges has been expressed in behavioural terms by Dollard, Doob, Miller, Mowrer, and Sears (1939). The criticism against the hypothesis has focused on the problems of the operational definition of frustration (Lawson, 1965; et al.) and on the one-to-one relation between frustration and aggression (Kaufman, 1965; et al.). According to the discussion by Geen (1968), Buss (1961, 1966) has also attacked the hypothesis by stating that »frustration is at best a weak antecedent of aggression», whereas Berkowitz (1962, 1965), when defending the hypothesis, has stated that »frustration is the major determinant of aggression». The definition of frustration by Berkowitz is broader than that by Buss, but their opinions differ also on the problems of whether frustration (without personal attack) elicits aggressive responses, and whether attack elicits more aggression than frustration.

In the frustration-aggression hypothesis most attention has been paid to defensive (just) aggression, but on this basis no explanation can be made of offensive (unjust) aggression, which is a more important indicator of aggressiveness at the common sense level (Minturn, 1967; et al.). In the earlier form of the S-R behaviour theory (Hull, 1943) the interpretation of behavioural motivation has been based on the immediate determinants of the tendency to respond, on drive, and the S-R habit. Due to the revisions by Hull (1952) and Spence (1956) dealing with incentive motivation and processes of anticipation as the determinants of the impetus to respond, the revised S-R theory is more valid in the explanation of molar behaviour and in the interpretation of interindividual differences in aggression.

Another explanatory model of motivated behaviour which stresses the role of stimulus variables is Miller's (1944, 1959) theory of approach-avoidance conflict presented within the conceptual framework of the S-R behaviour theory. The approach tendency is sustained by a drive stimulus which has its origin in the internal physiological condition. The avoidance tendency is motivated by fear, an acquired drive. The intensity of the aggressive approach tendency can be operationally measured by the strength of the negative experiences an individual is willing to accept in order to produce a goal-response. With the principle of stimulus generalization taken into account, the theory

of approach-avoidance conflict has been employed to explain displacement of aggression.

Displaced aggression is one form of human aggression resulting from inhibition of direct aggression. It presupposes appraisal of the situation. Because of the complex, controlled nature of human behaviour the connection between stimulus and response is not directly predictable. This view has been taken into account in the Expectancy x Value theory of motivation by Tolman, Lewin, and Atkinson (Atkinson, 1964). The theory of social learning by Rotter (1954) has been constructed on the same foundation. Man's cognitive qualifications for appraising a situation make his behaviour less dependent on physiological drive than is possible for lower species. Man is able to inhibit or attenuate aggression according to situational requirements. Intellectual and rational factors as determinants of behaviour have been emphasized in the cognitive models for dealing with motivational phenomena, e.g. in Festinger's (1957) theory of cognitive dissonance.

The above mentioned appraisal processes not only modify aggressive behaviour but also play a central role in the development of an individual's behaviour so that it takes nonaggressive forms. A further analysis of this process is made in the second part of this report.

In developmental psychology the term differentiation has been used to refer to the fact that an individual's behaviour acquires various forms during his life. Investigations testing the hypothesis on the differentiation of interindividual differences (Heinonen, 1963; et al.) in intellectual abilities have shown that a slight degree of differentiation often occurs, although the results have not been consistent — a possible consequence of the homogeneity of the subject groups, characteristics of the tests, etc. (Heinonen, 1964, 244). According to the corresponding hypotheses it can be assumed that differentiation also takes place in emotional behaviour, i.e., aggressive responses are gradually differentiated from diffuse expressions of negative affect to a specific kind of environmental stimulus. An individual's abilities to express himself develop, and he learns how to make more accurate discriminations between stimuli. According to the behavioural theory, however, reinforcement is the essential factor in the development of aggressive habits. The responses of every child are under the continuous control of his parents and other persons. Aggressive behaviour can be reinforced, eliminated, or given a more socially desirable direction. From his environment a child also adopts most of the patterns of behaviour which he tests and which, if reinforced, remain in his store of responses. On account of its noxious consequences aggressive behaviour is seldom really rewarded. Indifference and the

reaching of one's goal are sufficient reinforcers, and a number of secondary reinforcers may, in addition, be conditioned to the goal-responses.

Reinforcement history has a great influence upon individuals' response habits in stimulus situations, and differences in this history also have a great influence upon differences in individuals' response habits. Aggression in human behaviour cannot be considered as a class of activities separated from other forms of goal-directed behaviour, as is the case in animal behaviour. Aggressive behaviour has different modes, directions, objects, and aims, the aims being defined according to the classes of reinforcers. The quality of response habits is connected with an individual's behaviour in general, and the adoption of a particular form of aggression inhibits the occurrence of another form of aggression.

The fact that aggressive behaviour takes so many forms has resulted in a great number of analyses of the uniformity of aggressiveness. Either the problems have concerned the correlations between the aggression indices of different tests and their relationships to observations of behaviour, or the studies have been restricted to interindividual differences in overt aggression. The latter is one of the problems of this study. Previous investigations analysing aggression are more accurately discussed in Part I, Chapter 1. Typical of these analyses have been classifications of aggressive responses and examinations of the correlations between the classes. Apart from Mandel's (1959) study, the classification has not been connected with a theoretical approach.

Human aggressive behaviour is divided into more or less specific response classes which do not have any unitary physiological basis. The drive concept of aggression is not satisfactory to account for the different aspects of aggressive behaviour. Within the present study aggressive behaviour is considered as basically reactive, and offensive aggression is regarded as an aggressive habit adopted from reactive aggression through learning. The primary aggression is assumed to be directed at an initiatory object, but appraisal of the situation and inhibition of responses may transmute the reactions into indirect forms of aggression. The situational contexts of aggression, the cue-properties of aggression stimuli and the appraisal of the total situation should be stressed more than previously in the study of aggressive behaviour. Irrespective of its particular forms, aggressive behaviour is based on the same general learning principles. The learning process is determined by the general personal significance and the social consequences of aggression.

The present investigation comprises a descriptive model of aggressive behaviour (Chapter 2), in which an attempt is made to consider the variations in the direction, aim, and mode of the expression of overt aggression. Aggressive behaviour is used to mean instrumental responses, i.e. aggression (Buss, 1961). The 'motivational' aspects of aggression, such as anger (emotional reaction) and hostility (negative attitude), which may but need not necessarily be present in aggression, will not be considered. Here aggression is defined as an overt response considered aggressive by an observer. According to Buss's definition, a response is considered aggressive if it is observed to deliver noxious stimuli to another organism. Observations may be based on (1) immediate experiences, provided that the observer himself is an organism to which noxious stimuli are delivered, or (2) associations, if a sequence of events gives rise to associations with the motivational aspects of aggressive behaviour or with the noxious stimuli following the aggressive responses, when the observer as an outsider makes observations of the response and also of the stimulus situations preceding and following it.

In connection with the descriptive model of aggression hypotheses were made on the learning processes of different forms of aggression. The hypotheses concerned children's behaviour, on which empirical material was also based. The hypotheses concerning individuals' aggressive habits were derived by integrating different viewpoints selected from the theories of social learning, cognitive motivation, and personality traits. The theoretical frame of reference and the hypotheses are presented in Chapter 3.

The empirical examination endeavoured to verify both the descriptive model and the hypotheses behind it. The first problem of the investigation was to find out the applicability of the descriptive model in the description of individual aggressive habits:

- A. Do interindividual differences in behaviour correspond to the characteristics included in the descriptive model of aggressive responses? The model comprises the intensity, direction (direct/indirect), and aim (defensive/offensive) of aggression as dimensionally varying characteristics. Further, more specific discriminations can be made on the basis of the mode of aggression (physical, verbal, mimic).

The dimensions of the descriptive model were assumed to be related to the reinforcement history of individuals' aggressive habits. For the verification of the hypotheses based on the theoretical construction a

number of personality and social background variables were chosen and studied:

B. Do individual personality variables and social background variables have the hypothesized relations to the aggressive habits predicted on the basis of the descriptive model?

In global rating of aggressiveness different aggressive habits were assumed to be emphasized in different ways:

C. How essential are different types of aggressive habits and the individual and social background variables in global rating of aggressiveness?

The aggressive behaviour of an individual was assumed to vary according to the stimulus situation irrespective of his normal aggressive habits:

D. How do the controlling stimuli in situations instigating aggression affect the average frequencies of different types of aggression and the structure of aggression?

While the first part of this report deals exclusively with aggressive behaviour, an attempt is made in the second part to differentiate non-aggressive behaviour as well, as an alternative to aggression. The starting point for the empirical study consisted of a descriptive model of aggression and nonaggression, and the hypotheses on aggressive and nonaggressive personality types. The hypotheses were constructed by integrating different theories, which was the procedure followed in the first study. The first problem was to verify the descriptive model, i.e., to find out how different kinds of aggressive and non-aggressive habits in situations generally instigating aggression can be described within the framework of the descriptive model. The second problem dealt with the differences in the verbal responses for thwarting symbolic stimulus situations between various aggressive and non-aggressive personality types. The comparison of the extreme groups was expected to furnish further information about interindividual differences in behaviour in situations generally instigating aggression.

