Effects of Differences in Achievement Motivation and Amount of Exposure on Responses to Uncontrollable Rewards

Anthony H. Winefield and Elizabeth Jardine

Within a triadic experimental design, 80 subjects classified as high or low in achievement motivation were given either standard or extended exposure to uncontrollable rewards. Subjects high in achievement motivation displayed facilitation following standard training that was eliminated following extended training. While this conforms with Wortman and Brehm's model integrating reactance theory and learned helplessness theory, in general the results were more accurately described by predictions based on a modification of the theory of achievement motivation. Because the experimental procedure induced the perception of uncontrollability independently of perceived failure, the results were seen as extending the generality of the latter theory.

Experiments concerned with the effects on performance of prior exposure to uncontrollable events have produced differing results. It seems that such prior exposure may result in either enhanced or depressed performance on a subsequent task. The theory of learned helplessness (Abramson, Seligman, & Teasdale, 1978; Seligman, 1975) predicts depressed performance only; however, an alternative model (Wortman & Brehm, 1975) suggests a curvilinear relationship between amount of exposure to uncontrollable outcomes and subsequent performance. It is hypothesized that a small amount of exposure to uncontrollable outcomes will produce increased motivation ("psychological reactance") but that extended exposure will lead to decreased motivation ("learned helplessness"). These motivational
changes will be reflected in corresponding performance facilitation or interference.

It seems likely that most of the reported studies concerned with human reactions to uncontrollable outcomes have confounded controllability/uncontrollability with success/failure (Coyne, Metalsky, & Lavelle, 1980). If this is so, then an earlier theoretical formulation, achievement motivation theory (Atkinson & Feather, 1966), would seem to be applicable. A recent study, comparing predictions based on the theory of achievement motivation with those based on Wortman and Brehm's (1975) integrative model, found better support for the former (Winefield & Norris, 1981). As predicted, subjects scoring high on a test of achievement motivation with a high initial expectation of success and subjects scoring low on the test with a low initial expectation of success performed better than subjects high in achievement motivation but low in initial expectation of success and subjects low in achievement motivation but high in initial expectation of success. (The integrative model predicts that subjects low in both achievement motivation and initial expectation of success should perform relatively badly.)

Jardine and Winefield (1981) have shown that differences in achievement motivation can also mediate responses to uncontrollable outcomes even where controllability/uncontrollability is not confounded with success/failure. The present study was intended to extend these findings by varying the amount of prior exposure to uncontrollable outcomes and, at the same time, to test further the two theories compared by Winefield and Norris (1981). If the theory of achievement motivation can be shown to describe reactions to controllability/uncontrollability independently of success/failure, its scope and power will be considerably expanded. Winefield and Norris used an instrumental pretreatment task (which involved turning off a loud, unpleasant noise) and a cognitive test task (anagram solving). Subjects' initial expectations of success were manipulated by means of instructions. In the present study, as in Jardine and Winefield (1981), both tasks were cognitive and involved no aversive stimulation. The expectation of control (rather than success) was manipulated by varying the amount of exposure to uncontrollable outcomes (instead of varying instructions). Kuhl (1981) has recently proposed a theory of learned helplessness within the framework of expectancy-value theory. However, his formulation explicitly disregards "the conceptually meaningful distinction between perceived controllability and expectancy of success" (p. 156) on the assumption that they will have similar effects on motivation. Our study should throw light on the validity of this assumption.

The basic design was a $2 \times 2 \times 2$ factorial with the addition of two (no pretreatment) control groups. The three factors were level of achievement motivation (high or low), pretreatment (controllable or