Social facilitation research has had a long history of social scientific inquiry. Dating from the time of Triplett (1897), scientists have been interested in how the presence of other people (e.g., spectators) affects one's performance. The early studies which were designed to answer this question produced results which sometimes showed a performance decrement and sometimes a performance enhancement as a result of the presence of audience or individuals independently working on the same type of task, termed "coaction" (see Landers & McCullagh, 1976; Zajonc, 1965 for reviews of this early research). It was not until 1965, when Zajonc proposed a drive-theory explanation for the seemingly contradictory results, that interest in social facilitation research was revived. According to Zajonc (1965), audiences or coactors act as a stimulus to elicit arousal or drive, which in turn enhances the emission of the dominant habit. Where incorrect responses are dominant, learning of a novel task will be inhibited; but during the latter stages of learning, increases in arousal should improve performance.

Zajonc's hypothesis has been tested numerous times, and by and large the findings have supported it (see reviews by Geen & Gange, 1977; Landers & McCullagh, 1976). It is also clear from recent research findings that "fear of evaluation" can explain all, or at least a major part of, the increase in arousal that is predicted to occur as a result of audience or coactors (Cottrell, 1972). For example, high status observers are more likely to elicit the type of social facilitation effects hypothesized by Zajonc (1965) than low status observers (e.g., Sasfy & Okun, 1974). If social cues are critical determinants of social facilitation effects, it is quite possible that individuals who are more susceptible to influence by social demand characteristics of the situation may be influenced more by audiences or coactors. People who show individual differences of this type have

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been labeled by Rotter (1966) as having an “external” locus of control. According to social learning theory, individuals classified as “externals” attribute reinforcements, rewards, or successes to forces beyond their own control. This personality disposition is contrasted to a more task-oriented disposition termed “internal” locus of control. Individuals classified as “internals” perceive that reinforcements, rewards, or successes in life are controlled by their own behavior. Reviews of the locus of control research literature (e.g., Phares, 1976) generally support the conclusion that social situations, such as majorities, peer influence, prestige of communicators, and social reinforcements in a situation, all affect externals more than internals. Consequently, externals may waste valuable time processing information about external factors during performance instead of concentrating on the task and task-related information. In light of the differences in perceptions of internals and externals in social situations, the present study was undertaken to investigate locus of control as a possible mediator of social facilitation effects during coaction on a novel motor task. Because of their attentiveness to the task and not the social environment, internals are predicted to be less influenced than externals by the presence of coactors and thus perform at a higher level than externals during the early stages of skill learning.

Method

Subjects and Design
The Rotter (1966) Internal-External (I-E) Locus of Control Scale was administered to 672 volunteer subjects from introductory psychology and physical education classes at the University of Virginia. From the larger pool, 128 subjects were selected on the basis of having scored one standard deviation above or below the mean on Rotter's I-E scale. Subjects scoring six or less were classified as internals and those who scored 16 or greater were classified as externals. In each of the two locus of control stratifications, 32 subjects were randomly assigned to the alone condition and 32 subjects to the coacting group of 4 subjects.

Apparatus and Procedures
Subjects were required to score as high as possible (0-6) on the novel task, a "roll-up" game, by manipulating two steel rods to move a steel ball as far up an incline as possible before dropping the ball into the hole nearest them. Each trial was started on cue for all subjects by means of a tape recording. Data for each of the subjects on the 120 trials were recorded by means of a panel of lights located outside the experimental room. Each time the ball dropped into one of the holes, the corresponding light was illuminated on the scoring panel. During the coaction treatment, subjects were separated by wooden partitions so they could not evaluate one another’s performance. To assure that procedures were followed, the subjects were unobtrusively monitored by the experimenter through a one-way mirror.