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Expectancy Effects As Moderated By Expecter Need For Achievement and Target Self-Consciousness

Paula Ethington Felchner
University of Nebraska at Omaha

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Paula Ethington Felchner

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ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

Thesis Acceptance

Acceptance for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts, University of Nebraska at Omaha.

Committee

Name	Department
Wayne J. Harrison	Psychology
James M. Thomas	Psychology
Tom Lorsbach	Special Educ. & Com. Dis.

Richard L. Wikoff
Chairman

7-8-92
Date

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Abstract

The phenomenon labeled "self-fulfilling prophecy" is one of the most widely researched areas of psychology (Miller & Turnbull, 1986). However, even after more than three decades of research related to the effects of expectancies, opinion about the importance and even the existence of self-fulfilling prophecy is mixed (Jussim, 1991). Effect sizes are often small (Rosenthal & Rubin, 1978; Jussim, 1991), but even small effects cannot always be considered inconsequential. In certain settings small effects of invalid expectancies may rob individuals of opportunities to which they are entitled. Accordingly, this study was undertaken to evaluate the moderating effects of personality on the likelihood of expectancies influencing perceptions and behaviors in a simulated selection setting, one area in which even small effects may violate individuals rights to an unbiased evaluation. Expectancy effects were examined within high-, low-, and no-expectancy conditions involving two-member teams of undergraduate volunteers. Subjects were randomly assigned to the role of selector or applicant in a task designed to evaluate the applicant for a competitive game. Selectors were identified as either high or low need to achieve (nAch) and applicants were identified as either high or low self-conscious. Results indicated that the effect on the behavior of an applicant was consistent with

selector expectancies, particularly if the selector was high nAch. The effect on selector ratings of applicants was consistent with selector expectancies, particularly with high nAch selectors and high self-conscious applicants. A three-way interaction of applicant self-consciousness by selector nAch by expectancy was found for applicant ratings of task enjoyment and willingness to participate. Means were in the direction predicted by selector expectancies only for dyads consisting of a high self-conscious applicant and a high nAch selector. Post-hoc analysis of high- versus low-expectancy conditions confirmed the importance of expectancy and selector nAch on the behavior of applicants and expectancy on selector ratings of applicant ability and willingness to recommend.

Expectancy Effects As Moderated By Expecter Need For Achievement and Target Self-Consciousness

Interest in the self-fulfilling prophecy (SFP) has spanned three decades and a wide variety of domains, even though critics have at times questioned methodologies (Thorndike, 1968) and even the existence of the phenomenon (Jussim, 1991; Wilkins, 1977). Along with some of the more typically mentioned SFP experimental designs (reaction time, inkblot tests, animal learning, laboratory interviews, psychophysical judgments, learning and ability, person perception, and everyday situations), Henshel(1982) noted that the SFP construct has been used in politics, law, international relations, economics, and religion. The area has generated a continuous flow of relevant work. However, much like the field of psychological inquiry itself, conceptualizations of SFP have changed and advanced in the last 30 years. Current emphasis is no longer on the existence or non-existence of the phenomenon, but concentrates on ways in which expectancy effects may be mediated and/or moderated within the interaction. SFP is now more generally seen as the result of dynamic interaction, with potential for influence flowing in both directions.

Although research on self-fulfilling prophecy has been extensive, literature evaluating the interaction of a perceiver and a target, each with his/her own unique personality characteristics, interaction goals, and self-concepts, is more limited. It is only through understanding the factors which may moderate expectancy effects that we can begin to understand when "self-fulfilling prophecies" may be met and when they may be defeated. It was a goal of this research to examine personality characteristics of the perceiver and the target which may lead to perceptual expectancy effects on the part of the expecter and sometimes the target, and behavioral expectancy effects on the part of the target.

Self-fulfilling Prophecy Defined

Years before active research in this area, Merton coined the term "self-fulfilling prophecy" and offered his definition in a widely quoted article (1948). According to Merton (1948) "a self-fulfilling prophecy is, in the beginning, a false definition of the situation evoking a new behavior which makes the originally false conception true" (p. 195). Researchers, however, have generally used self-fulfilling prophecy to refer to any evaluation of a situation, whether true or false, which affects behaviors in such a way as to ultimately fulfill its own prophecy.

Merton (1957) also discussed suicide prophecy and explained it as one in which an initial evaluation of a situation causes a behavior change such that the prophecy is less likely to be fulfilled than it otherwise would have been. This phenomenon was largely ignored through the early years of expectancy effects research, but has recently generated some interest (Baumeister, 1984; Baumeister, Hamilton, & Tice, 1985; Baumgardner & Brownlee, 1987; Henshel, 1982; Miller & Turnbull, 1986). Causing some confusion is the use of the term "disconfirming" to refer not only to Merton's suicide prophecy, but also to a failure to achieve self-fulfilling prophecy effects. To confuse matters further, at least once in the literature, Merton's suicide prophecy is referred to as the self-defeating prophecy and defined as "an initially true definition of the situation which became false as a result of its acceptance" (Henshel, 1982).

Henshel and Kennedy (1973) have suggested that the phenomenon is more accurately termed self-altering prophecy and incorporates both SFP and various versions of self-defeating prophecy. According to their definition, a self-altering prophecy "generates a sequence of events in reaction to prediction of a future state such that the reaction alters what would otherwise have occurred." Curiously, even Henshel is not consistent in his terminology

(1982). Because several effects other than SFP have been researched and the contexts under which the prophecies have come to be effective are varied, recent research most often refers to "expectancy effects" rather than SFP and reserves the terms "confirmation" and "disconfirmation" to refer to fulfilling and failure to fulfill the prophecy, respectively.

Evidence for Effects of Expectancy In Multiple Settings

Most research in expectancy effects has centered on one of four interaction paradigms characterized by Miller and Turnbull (1986) as: (a) experimenter-subject, (b) casual or social interactions, (c) bargaining and negotiation, and (d) teacher-student. A more recent interest in performance expectancy in the work place has evolved largely from the teacher-student literature.

Experimenter expectancy effects. A research program beginning in the late 1950's sought to examine how a person's expectancies might become self-fulfilling prophecy. Early research centered on experimenter expectations and considered a wide range of targets, from rats to undergraduate psychology students, in a number of tasks (Clarke, Michie, Andreasen, & Viney, 1976; Dusek, 1972; Finkelstein, 1976; Minor, 1970; Rosenthal & Fode, 1963; Rosenthal, Kohn, Greenfield, & Carota, 1966; Rosenthal & Rosnow, 1975; Smith & Flenning, 1977; Weiss, 1969).

Although methodological flaws plagued early research, experimenter expectancy effect is generally accepted (Miller & Turnbull, 1986) and receives considerable attention in any psychological methodology course.

Expectancy effects within social interactions. A second area of research has sought to examine expectancy effects within social interactions. Research often cited in textbooks includes the influential study by Snyder, Tanke, and Bersheid (1977). Male subjects were asked to get acquainted by phone with a female whom they were led to believe was either rather attractive or rather unattractive. Not surprisingly, male conversation differentiated between the two conditions. What is interesting is that the "attractive" female subjects, unaware of the expectancy, were judged by independent raters to be more friendly, likeable, and sociable than "unattractive" females. The expectancy had been fulfilled both perceptually (through ratings of male expecters) and behaviorally (through changed behavior in female targets).

Farina, Allen, and Saul (1968) obtained further evidence of expectancy effects within the social context in a study in which the expecter was led to believe that the person with whom they would be interacting had erroneous stigmatizing information about them and would be unlikely to be friendly. The expecters acted in such a way as to

fulfill the prophecy. Similarly, Christensen and Rosenthal (1981) found expectancy confirmation when they gave interviewers sociable or unsociable expectations about the interviewee they were about to meet.

White and Shapiro (1987) examined expectancy effects with male subjects who were asked to hold a conversation with either a female subject whose picture the male had identified as resembling someone he knew (familiar condition), or who were assigned by a yoking procedure from the targets picked as familiar by other perceivers (unfamiliar condition). No formal expectancy manipulation was instituted, however, the authors claim support for both perceptual expectancy effects and behavioral expectancy effects as a result of individually held expectations of males conversing with someone they believed resembled an acquaintance. Male subjects in the familiar conditions gave female partners ratings more similar to those they had supplied for the resembled other than did subjects in the unfamiliar conditions. This perceptual confirmation of the subject's own expectancies occurred despite the fact that the matching had been done on judgments of physical familiarity alone and the ratings were on unrelated dimensions. Additionally, evidence for behavioral expectancy effects in the familiar condition was obtained. Female targets were judged by independent raters to exhibit

behaviors more like the person they were supposed to resemble when they were conversing in the familiar condition than when they were conversing in the unfamiliar condition.

Fazio, Effrein, & Falender (1981) set up interactions between targets and experimenters such that extroverted or introverted behavior was elicited. On a subsequent self-description measure and on behavioral ratings, targets were significantly more introverted or extroverted than their pre-interaction ratings. Not only was the behavioral expectancy effect obtained, but it was maintained in a second situation in which both the participants were blind to the expectancy.

In an innovative methodological variation, Skov and Sherman (1986) identified hypothesis-confirming strategies and diagnosing strategies in subjects who were given an expectancy about a fictitious creature from outerspace. Questions subjects chose to ask increased the likelihood that their hypothesis (i.e. their expectancy) would be confirmed, suggesting perceiver bias in seeking confirming rather than disconfirming evidence.

Interpersonal attraction was investigated by Curtis and Miller (1986) within the expectancy confirmation paradigm. Subjects who believed they were liked moderated their behaviors such that, after a subsequent interaction with a naive perceiver, they were seen as more likeable.

Expectancy effects have also been found in peer interactions between children. Cunningham and Siegel (1987) identified different behavior patterns in children who played with boys diagnosed as having an attention deficit disorder (ADD-H) according to DSM III criteria (American Psychiatric Association, 1980) than in children who played with another child without such a diagnosis. It is difficult, however, to infer expectancy effects because ADD-H children do have differential behavior patterns, and the actual behavior of the target child, not the expectancy, may have been the cause of differential behaviors on the part of the playmate.

A more recent study (Harris, Milich, Johnson, & Hoover, 1990) sought to delineate any expectancy effects by performing a similar experiment with 80 "normal" boys who were randomly assigned to be expecters or targets in dyads in which targets were identified as either attention deficit hyperactive disordered (ADHD), a DSMIII-R classification (American Psychiatric Association, 1987), or "normal". Both perceptual and behavioral expectancy effects were again identified. Evidence of differential treatment as a result of expectancies held by other children and the subsequent self-fulfilling nature of that treatment was found.

Rabiner and Coie (1989) looked at the interaction between rejected children and popular children as identified

by sociometric procedures. They found expectancy effects such that the rejected male child who believed that he would be liked was perceived as more likeable than control rejected boys, however, behavioral differences could not be identified. A second experiment in the study looked at the effect of expectancy induction on rejected girls and found evidence for both perceptual and behavioral effects.

Expectancy effects within competitive situations. Studies in the area of bargaining and negotiation have explored expectancy effects resulting from one's beliefs about a number of factors including the opponent's cooperativeness, gender, race, and age. Any one of these factors can place an expectee at a disadvantage in a competition or negotiation.

The prisoner's dilemma game has been used by Kelley and Stahelski (1970) to show perceptual and behavioral effects when the subjects expected the targets to be competitive. More recently, Herr (1986) primed subjects with either extremely hostile, moderately hostile, moderately nonhostile, or extremely nonhostile lists of well known figures in a manner such that they were perceived as being unrelated to the actual experiment. Subsequently they were asked to read an ambiguous paragraph and rate the person in the paragraph on several dimensions, including hostility. In a second experiment, subjects followed the procedure

above, then met the person the paragraph was ostensibly about and played a modified version of the prisoner's dilemma game. The effects of priming on judgments were demonstrated by both Experiments I and II. Perceivers saw the target as more hostile when they had been primed with moderately hostile or extremely nonhostile lists than if they had seen the moderately nonhostile or extremely hostile lists, despite the fact that the lists ostensibly had nothing to do with the experiment. As predicted, those perceivers who expected nonhostile targets competed less than those who expected hostile targets based on the referent with which they had been primed. Targets, in turn, tended to reciprocate perceiver's behavior. This study is particularly interesting because the target was primed, as opposed to being given a direct expectancy, and seemed to develop a "mind set" which affected later interactions.

The behavior of male subjects assigned to negotiate a division of tasks in a study by Skrypnek and Snyder (1982) was affected by the expected sex of their unseen partner. When they thought their partner was female, they induced her to accept more "feminine" tasks than when they thought their partner was male or when they were given no expectancy.

Educational and performance expectancy effects. A last area of research in self-fulfilling prophecy, the area which has undoubtedly produced the greatest amount of activity, is

investigation of expectancy effect in teacher-student (or more generally evaluator-evaluatee) interactions. From the beginning of research in this area with Rosenthal and Jacobson's Pygmalion in the Classroom (1968), teacher-student interactions have attracted a great deal of interest, not without warrant considering the magnitude of interest in providing equal educational opportunities for all children. In the Rosenthal/Jacobson study (1968), teachers administered tests to their students which were used, ostensibly, to identify children who could be expected to "bloom" in the following school year. In reality, the "bloomers" were randomly selected and were no more likely to "bloom" than those not selected. Significant gains on intelligence were, however, documented for those children identified as "bloomers" during the following year. Thorndike (1968) was one of the first to soundly criticize the study, primarily for its use of a questionable measure of intelligence and the authors' failure to investigate test results which would seem improbable.

Despite criticism, Pygmalion in the Classroom (1968) prompted an immediate and continuing interest in self-fulfilling prophecy or expectancy effects within education. Results, however, have not always been supportive. Methodological flaws plagued some of the early work (Elashoff & Snow, 1971; Thorndike, 1968; Wilkins,

1977), and some work failed to find evidence in support of the effect (Baker & Crist, 1971; Pellegrini & Hicks, 1972; Raudenbush, 1984; Rosenthal & Rubin, 1978).

Meta-analysis techniques were used by a number of researchers to statistically combine results from multiple studies in an attempt to understand conflicting findings. Rosenthal and Rubin (1978) looked at the first 345 studies in self-fulfilling prophecy and found significant effects in one-third of the studies, which, according to Rosenthal and Rubin, was about seven times that which would be expected if there was no relationship between expectancy and subsequent behavior. However, lack of significant findings in roughly two-thirds of the studies placed a spotlight on the question of why the effect only surfaced for some individuals, engaged in some activities, and only in some situations. Researchers began to turn their attention to the process by which interpersonal expectancy effects were transmitted, that is, how they were mediated. Others began to consider possible moderators, that is, characteristics of the situation or the participants which would tend to modify the chances of an expectancy being realized.

Mediation of Expectancy Effects

Mediators identified in employment settings. One of the early evaluations of a possible mediator for expectancy effects can be found in organizational literature. Noting

failure of disadvantaged workers to make gains, even with training designed to improve skill level and status of this population within the work setting, King (1971) tested his hypothesis that performance was being influenced by the expectations of supervisors. He randomly designated some new trainees as high potential to supervisors and successfully demonstrated expectancy effects in the workplace. However, he was unable to specify supervisor behaviors which were transmitting the expectancy.

Chaikin and Derlega (1978) achieved greater success at identifying mediators of expectancy effects in an educational setting. They asked 72 white undergraduates to teach a lesson to one of four 10-year old male confederates (two black and two white) who were all honor students in a local elementary school. One of three ability expectancies ("quite bright", "somewhat slow", or intellectual level accidentally omitted) were provided ostensibly to aid the subject in preparing for the lesson. Subject behaviors were significantly differentiated for those interacting with white "bright" versus "slow" confederates and for those interacting with white versus black confederates. However, expectancy had no effect for black "bright" versus "slow" confederates. Specific teacher behaviors mediating the expectancy were identified.

Eden and Shani (1982) chose a training setting within the Israel Defense Force to explore mediators of expectancy effects. Trainers were given believable evaluations of performance capabilities of incoming trainees. They not only saw strong evidence for the benefit of positive expectancies on subsequent performance, they identified leadership behaviors which mediated those expectancies.

Mediators identified in teacher-student settings. Mediators in teacher-student expectancy effects were explored by Parsons, Kaczola, and Meece (1982). While the study was observational rather than experimental, differences were found in teacher style behaviors related to teacher expectancies.

Mediating behaviors were experimentally manipulated in a more recent study of teacher-student interactions (Coleman, Jussim, & Abraham, 1987). Actors representing the teacher were trained to provide one of nine feedback styles (four positive, four negative, and no information). Negative feedback led students to believe the teacher had extremely negative and erroneous impressions of them, but it was thought to be a more believable indicator of teacher evaluation than was positive feedback. This is particularly interesting in light of evidence that low-expectancy students are likely to receive more negative feedback

(Babad, Inbar, & Rosenthal, 1982; Brophy, 1983; Brophy & Good, 1974; Jussim, 1986).

Mediators in social interaction. Perceiver bias was evaluated by Gilbert and Jones (1986) in groups of two evaluators, with one member who signaled the target to read an assigned passage (conservative or liberal in Experiment I, adulatory or derogatory in Experiment II) and an observer who listened to the passage being read but was unaware of the assignment. When both perceivers were asked to evaluate the target, the perceiver who had induced the preselected response did not differ from the naive observer, even though he/she was fully aware that the target had not chosen the passage. The perceiver who knew that the target was reading an assigned passage rather than one chosen to represent his/her own feelings, should have rated the target different from the perceiver who had no such information. Gilbert and Jones suggested that perceiver bias in attention to information seems to mediate the expectancy effect.

Meta-analytic conclusions. Harris and Rosenthal (1985) used meta-analysis to examine 135 studies which had included research on mediating variables. They identified 16 behaviors by which perceivers are able to transmit interpersonal expectancies and discussed these in terms of Rosenthal's four-factor theory of the mediation of expectancy effects (Harris & Rosenthal, 1985). They

suggested that differential climate (warmer for higher expectees), differential feedback (higher quality and quantity for higher expectees), differential input (teaching more and higher level material to high-expectees) and differentiated output (more opportunity for high-expectees to respond) serve to communicate the expectancies. Behaviors within each of the four factors were identified as significant contributors to the mediation of expectancy effects.

Mediation models. Several models have been developed to account for the transmission of expectancy effects. Bellamy (1975) suggested that teacher behaviors, as determined by their expectancies, are used by the students as contingency cues. That is, they let the student know when rewards can be expected and when they cannot. Braun (1976) specified variables serving as input to expectancies and communicative variables that serve as output, transmitting the expectancy.

Darley and Fazio (1980) described a series of steps as part of the interaction process that serve to transmit expectancies. They suggested that an expectancy effect is created in the following sequence: (a) perceiver develops an expectancy and (b) acts toward the target in accordance with that expectancy; (c) the target interprets the actions and (d) responds to the perceiver; (e) the perceiver

interprets the target's actions and (f) the target interprets his/her action. They suggest that a breakdown at any one of these steps would lead to disconfirmation of expectancy.

Brophy (1983) described similar stages but specified the steps in terms of teacher-student interaction: (a) teacher forms differential expectations and (b) treats students differently, which (c) communicates the expectancies, (d) causing changes in student self-concept, motivation, and interaction, (e) which reinforce teacher expectations, (f) resulting in ultimate changes in student outcome. In these models it is clear at what steps expectancies are being transmitted, but they provide no help in understanding why those transmissions are not always effective.

Rosenthal's "10-arrow" (Harris & Rosenthal, 1985) model presents a likely means of mediation in expectancy effects, but unlike the other models discussed, it also specifies variables which may moderate, that is influence, effect size. His model hypothesizes a relationship between; (a) distal independent variables (i.e. moderators such as sex, age, and personality of expecter and expectee), (b) proximal independent variables (characteristics of the expectancy itself), (c) mediating variables, (d) proximal dependent variables (i.e. the outcome measure of interest, for example

performance), and (e) distal dependent variables (i.e. longer term outcome variables such as lowered motivation).

The research on mediation emphasizes the social interaction quality of expectancy effects and suggests the need to be attuned to both expecter and target contributions to the interaction. Additionally, Rosenthal's model suggests that the moderation of expectancy effects should not be ignored. A number of researchers have explored possible moderators. This research will be discussed in the next section.

Possible Moderators of Expectancy Effects

Environment and intelligence. An early study by Korman (1971) looked at expectancy effects in two groups of college students using a quasi-experimental design, and in three different groups in work situations using correlational methods. They concluded that environment and intelligence were not moderators of performance expectancy effects. The validity of these studies, however, is limited by methodology and by relatively small sample sizes in the three field studies.

Self-esteem/self-efficacy. Several studies have evaluated self-esteem as a possible moderator. Gavin (1973) looked at measures of expectancy, self-esteem, and job performance for male and female "managerial candidates". Expectancies, consisting of two scores (personal

expectancies of the relationships between working hard, job performance, and rewards; and those expectancies weighted by personal value of certain rewards) were correlated significantly with job performance. Again the evidence is correlational.

Swann and Snyder (1980) used an experimental paradigm to evaluate expecter perceptions of their own chances of influencing the ability of another as a possible moderator of expectancy effects. They found evidence that when expecters believed they would be able to influence the target's ability to learn a card trick, they adopted teaching strategies that led to behavioral confirmation in targets (i.e. those labeled as high ability outperformed those labeled as low ability). In contrast, when expecters were led to believe they could have little effect on target's abilities, they adopted teaching strategies which led to behavioral disconfirmation (i.e. those labeled as low ability outperformed those labeled as high ability).

Bias. Other personality characteristics of perceivers have been evaluated as possible moderators of expectancy effects. Andersen and Bem (1981) used the Snyder et al. (1977) paradigm with subjects whom they had identified as having sex-typed or androgynous attitudes. The subjects were instructed to have get-acquainted telephone conversations with "attractive" or "unattractive", same or

opposite sex partners. The pattern of expectancy effects found earlier was replicated only for sex-typed dyads. Androgynous male perceivers did not differentiate on the basis of attractiveness, that is, no expectancy effects were found. In contrast, androgynous females induced "unattractive" targets to be rated as more socially attractive than "attractive" targets, that is, behavioral confirmation was achieved.

Several researchers have explored the moderating effects of expecter susceptibility to bias, a characteristic which would predict that expecters high in susceptibility to bias would react to expectations more because they are more influenced by biasing information. Babad (1979) established a connection between susceptibility to bias, as measured by deviance from the mean score on two sample drawings, and dogmatic style of thinking.

In a 1981 extension (Babad & Inbar), Draw-A-Person samples were attributed to "high" or "low" status children and were scored by 86 undergraduates, 26 of whom were subsequently identified as high-bias or no-bias on the basis of their scoring. These identified subjects were then administered a narrative analysis of classroom events and a dogmatism scale and were observed in a teaching situation. Although the groups did not differ in dogmatism, classroom observations did reveal differences in teacher and student

behavior indicative of a more authoritarian style for the high-bias group.

Using a similar scoring procedure for susceptibility to bias (Babad, Inbar, and Rosenthal, 1982), teachers identified as high- and low-bias were asked to nominate three children for whom they held high expectancies and three children for whom they held low expectancies for physical education potential. Nominations from low-bias teachers were related only to grade in physical education. However, nominations from high-bias teachers were significantly related to other student characteristics which should not have influenced expectancy for success.

Darley and Gross (1983) evaluated presentation of stereotype information both with and without performance expectancy information as a possible moderator. Seventy undergraduates were randomly assigned to one of five groups, high or low socioecomonmic status (SES) expectancy paired with no performance or performance information, and a control condition that was given no socioeconomic or performance expectancy information. Subjects were asked to rate a target child's abilities. With SES expectancies alone, both groups reluctantly rated the child as about average, presumably because socioeconomic status alone does not provide justification for differential ratings. However, with SES expectancies and the same ambiguous

performance information, a video tape of the same child presented to both high and low expectancy groups, differential ability assessments were made. The additional "information" provided by the video tape was cited by both groups as evidence of high or low ability in accordance with their expectations based on SES. Perceivers seemed to selectively tune to information in the video tape which would confirm their expectations.

Need to achieve. Despite several references to expecters' motivation to get results in the expected direction, need to achieve as a possible moderator in the expecter has received very little attention. The only study to measure need for achievement directly did so in targets only. McFall and Schenkein (1970) devised two sets of instructions which were rated as likely to produce positive expectations or likely to produce negative expectations. Subjects who were identified on dimensions of need to achieve and field dependency were randomly assigned to the high and low expectation conditions. The authors found a relationship between high need for achievement individuals and expectancy effect; that is, those with high need for achievement were more likely than those with low need for achievement to conform to expectancies.

In related work, Hertzog and Walker (1973) measured subjects serving as experimenters on need to avoid success

but were unable to find any relationship between that variable and expectancy effects. One problem with the study, however, was the use of "TAT-type" stories as the criteria for identifying subjects high and low in need to avoid success. Projective instruments, such as those used in the Hertzog and Walker (1973) study, have been shown to have low reliability and little validity in measuring personality characteristics related to need for achievement (Ray, 1980; Weinstein, 1969).

Situational characteristics. Situational characteristics have been considered by a number of researchers. Raudenbush (1984) looked at 18 experiments using meta-analysis to evaluate the magnitude of teacher expectancy effects on student IQ, an effect which has been notoriously illusive (Baker & Christ, 1971; Kellagan, Madaus, & Airasian, 1982; Rosenthal & Rubin, 1978; Smith, 1980). Researchers have had much more success establishing a link between expectancy and performance measures. Accordingly, Raudenbush sought to analytically answer critics who claimed that expectancy effects on IQ, when found, were the result of methodological flaws (Thornkike, 1968), and when not found, were likewise absent due to methodology (Brophy & Good, 1974; Rosenthal & Rubin, 1971). Raudenbush suggested moderators which might account for differential findings and found support for his hypothesis

that teacher expectancy-IQ effects are moderated by prior knowledge of students and are more likely in younger students than older.

Darley, Fleming, Hilton, and Swann (1988) evaluated moderating effects of the assigned goal of a conversation as a possible moderator of expectancies. Perceivers were asked to hold a conversation with another person who was or was not identified as a poor performer under pressure. Subjects were to interact with an unseen target in one of two ways, either in a casual conversation with no specified goal or in an interview with the goal of assessing the target as a possible partner for a game show appearance. Questions chosen to ask the partner from a pre-written selection were more probing and more direct, regardless of social costs, for perceivers whose goal was to choose a partner. They also perceived the target (in actuality a pre-taped actor who gave ambiguous answers to all questions) as more prone to stress and less desirable than did perceivers whose goal was to hold a conversation with the target.

Swann and Hill (1982) considered target opportunity for voice (i.e., opportunity to disclaim information inconsistent with their own self-concepts) after receiving feedback that disconfirmed the target's self-evaluations on introversion-extroversion. Changes in self-concept were

produced only when the target was denied opportunity to disconfirm the expectancy.

Role of the target. One area of research concerned with moderators has evaluated interactions in which the target is seen as making an active choice to allow the confirmation of the prophecy or to work toward disconfirmation. Swann (1984) reviewed literature in this area and suggested that most early research ignored the role of the target in negotiating both the interaction and the respective roles. A few studies have explored the role of the target.

Strategic confirmation/disconfirmation. Factors that determine whether or not a target decides to conform were explored by Baumeister, Cooper, and Skib (1979). Forty-one female subjects were all led to believe they had scored high on a trait labeled "surgency" which was subsequently related to either positive attributes and expectations or negative attributes and expectations. Ability to solve anagram puzzles was ostensibly negatively related to "high surgency" with plausible explanations given for the positive and negative attribute conditions. When "surgency" was seen as a desirable quality, subjects performed more poorly (thus fulfilling the expectancy) than when "surgency" was seen as an undesirable trait. In fact, in the latter case, subjects seemed to actively work to disconfirm the expectancy.

A particular application of the interest in target choice to confirm or disconfirm expectancies is work on athletic performance under audience expectations to succeed. Baumeister (1984) and Baumeister et al. (1985) showed that audience expectations of success, rather than leading to expectation confirmation, constituted pressure and led to disconfirmation unless the target was high in personal self-confidence. It seems in some instances, the target faced with positive expectations he or she believes cannot be met, chooses not to try.

Need for approval. Smith and Fleming (1971) used a Rosenthal-type experimental situation (i.e., experimenters were given some information about "expected" results) and manipulated target need for approval as a possible moderator. They claimed that previous attempts to predict expectancy effects on the basis of need for approval had failed to adequately arouse subject's need for approval. With their need for approval manipulation for targets, significant expectancy effects were found for targets high in need for approval, but not for those low in need for approval.

Social-anxiety/self-consciousness. Baumgardner and Brownlee (1987) used a different setting to explore target reactions to unrealistically high expectations. They randomly selected 56 men and 55 women from the upper and

lower 30th percentile on a social anxiety scale. They were subsequently provided with high or low self-expectancies in the face of their supposed high-effort or low-effort. Performance on a related task and a self-report questionnaire revealed that persons who were doubtful about their ability to perform (i.e. those in the upper 30th percentile on the social anxiety scale) tended to do more poorly than all other groups when presented with high expectations, giving further indication of strategic disconfirming strategies in targets with low or uncertain self-conceptions when faced with unrealistically high expectations.

In related work, Swann and Ely (1984) considered the certainty of perceiver's and target's self-conceptions. Using the interview paradigm, they found that target self-verification of introversion or extroversion always occurred when targets were certain of their self-conceptions and when both perceiver and target were relatively uncertain. That is, expectancy information tended to have no effect when targets were relatively certain of their self-conceptions or when both perceiver and target were relatively uncertain. Behavioral confirmation (expectancy effect) tended to occur only when the target was relatively unsure of his/her self-conception on this dimension and the perceiver was certain of his/her expectancy.

Dusek (1972) looked at the performance of low and high test-anxious boys and girls on a simple marble-dropping task. Some evidence for experimenter expectancy effects was found for low test-anxious girls given a positive expectancy, but no effects were found for high-test anxious girls or for boys.

Gender. An early experiment in which 144 subjects estimated the number of dots flashed tachistoscopically provided some initial indications that sex of the subject, when paired with male or female experimenters, was a possible moderator of expectancy effect (Weiss, 1969). Female targets were found to be more susceptible to expectancy effects, especially when paired with male experimenters. Personality variables evaluated in the same study, subject orality-anality, were not significant predictors of experimenter expectancy effect.

Some evidence for sex as a possible moderator of expectancy effects can be found in the organizational literature. However, females are generally found to be less susceptible to expectancy effects in this context. Using a paradigm similar to one used with men in the Israel Defense Forces (Eden & Ravid, 1982; Eden & Shani, 1982), Eden & Ravid attempted to demonstrate expectancy effects in a 1981 clerical course which involved both women trainees and women instructors (Eden, 1984; Eden, 1988; Eden 1990). Initially

results seemed to indicate support for expectancy effects in this setting. However, failure of randomization to produce equivalent groups put these findings in question. A post hoc analysis revealed that when differences between aptitude were removed, there were no significant differences between groups.

Sutton and Woodman (1989) took their research on expectancy effects into a retail setting and were again unable to identify expectancy effects with women. The inability to find significant effects within women, may indicate that expectancy effects may be more useful as a tool for improving performance in men than in women. Eden suggested that the possibility of sex as a moderator of expectancy effects indicated a need for more research on expectancy effects in women (Eden, 1990).

Christensen and Rosenthal (1982) looked at characteristics of both the expecter and the target as possible moderators. They randomly assigned 50 male and 50 female undergraduates to serve as interviewers or interviewees with equal numbers of male and female interviewers paired with same-sex or opposite-sex interviewers. As the researcher's hypothesized, male interviewers were more influenced by erroneous expectation information, showed more biased behavior toward the interviewees, and, consequently, produced greater behavioral

confirmation. Also, as predicted, female interviewees were more responsive than males to interpersonal expectations of the interviewers, were more susceptible to expectancy effects, and produced greater behavioral confirmation. The contradictory findings concerning sex as a possible moderator of expectancy effects certainly suggests this is a variable that cannot be ignored.

Effects of both expecter and target. An article by Rosenthal and Fode (1963) was one of the first to suggest that the motivation of both the experimenter (expecter) and the subject (target) might influence expectancy effects. Findings, however, did not support their prediction that high-ego involved experimenters would be more likely to produce expectancy effects, or that more highly motivated targets (i.e., paid subjects) would more readily respond to experimenters and thus be more likely to display expectancy effects. Failure to adequately manipulate motivation was blamed.

Review of Moderators. A 1988 review by Cooper and Hazelrigg outlined the moderators identified in 33 studies of personality variables influencing expectancy effects. They concluded there is evidence suggesting that: (a) expecters with a greater need to influence others are more likely to produce expectancy effects, (b) expecters who demonstrate more expressiveness are more likely to produce

expectancy effects, (c) expecters who display valued characteristics are more likely to produce expectancy effects, (d) targets who are easier to persuade are more likely to conform to expectancies, and (e) targets who are better decoders of nonverbal expectancies are more likely to conform to expectancies.

While there is some support for these five conclusions, they do not seem to be a complete explanation. As seen in the literature addressing strategic failure (Baumeister, 1984; Baumeister et al., 1985; Baumgardner & Brownlee, 1987), targets who are presumably easy to persuade (those with low or uncertain self-concepts) do not always conform. Target goals as well as perceiver goals need to be accounted for within any model. Even more importantly, the interaction between the needs, talents, and self-concepts of the target and the perceiver, as well as their goals, needs to be addressed.

Attention To Both Expecter and Target Personality Variables

Research has implicated a number of factors related to strength of expectancy in expecter and susceptibility to expectancy in target. As discussed in the literature review, a number of personality variables have been investigated in the expecter or in the target, but rarely in both. Since expectancy transference is most often the result of social interaction, it seems reasonable to assume that

factors affecting both the expecter and the target would influence the process. Accordingly, this research addressed personality variables in the expecter and in the target that research suggested may be likely to influence expectancy effects. The variables explored within this study were expecter need to achieve (nAch) and target self-consciousness.

Expecter need to achieve. According to Cooper and Hazelrigg (1988), expectancy effects are more likely to occur when the expecter has a greater need to influence. This is supported in the experimenter-subject literature (Lazlo & Rosenthal, 1970; Rosenthal et al., 1966; Rosenthal & Fode, 1963). In these studies experimenters were led to believe that their evaluation, and in some cases rewards, were dependent on their achieving "good" results. Despite indications that expecter need to achieve might also influence performance expectancies in other settings (e.g. when expecter evaluation or rewards are tied to the performance of the target), this personality variable has received little attention. Achievement motivation theory has attempted to explain human behavior in activities in which the individual believes he/she will be evaluated (Hertzog & Walker, 1973; Ray, 1980; Weinstein, 1969). Accordingly, it was the contention of this research that expecters high in nAch would be more motivated to "do their

best" and would, therefore, be more likely to use all information available, including expectancy information, in evaluating a target as a potential contestant. This, however, does not guarantee that the target will cooperate in fulfilling the expectancy. In order to predict expectancy effects more efficiently, target characteristics likely to make an impact on the expectancy transmission must also be considered.

Target self-consciousness. Several studies have explored target self-consciousness and related constructs as possible moderators of expectancy effects (Baumeister, 1984; Baumeister et al., 1985; Smith & Flenning, 1971; Swann & Ely, 1984). These studies suggest that persons high in self-consciousness may not only be easier to influence because of their concern for what others think, but may also be better decoders of nonverbal communication because of their interest in the opinions of others, fulfilling two more of Cooper and Hazelrigg's (1988) predictions for increasing the likelihood of achieving expectancy effects.

While there is some research on each of these personality factors and on situational variables which increase expecter's desire to fulfill an expectancy, no research has been found which considered the combination of these personality dimensions to evaluate their joint effects. This researcher believes that it is impossible to

make predictions of expectancy effects without considering personality variables in both the expecter and the target which may be influencing the outcome of any dyadic relationship.

Attention To Both Expecter and Target Expectancy Effects

According to Miller and Turnbull (1986) two kinds of expectancy effects (i.e., perceptual and behavioral effects) need to be considered when evaluating research in this area. They suggested that perceptual expectancy effects may be measured in the expecter or the target. This measure represents the extent to which the party being measured perceives the expectancy to be a valid representation of the situation. Behavioral expectancy effects are represented by a measure of the extent to which the target exhibits behaviors consistent with the expectancy. It was the goal of this research to highlight levels of nAch in expecters and self-consciousness in targets which might influence when both perceptual and behavioral effects of an expectancy would be most likely to result.

From the perspective of the researcher, expectancy effects are best demonstrated when perceptual effects are accompanied by behavioral effects; that is, the expecter interprets the situation as fulfilling the expectancy, and uninformed raters or an unbiased measuring device interpret the target's behavior as fulfilling the expectancy. This is

most likely to occur according to Cooper and Hazelrigg (1988) when: (a) The expecter has a high need to influence, (b) the expecter has high expressiveness, (c) the expecter demonstrates characteristics desirable to the target, (d) the target is easier to influence, and (e) the target has high ability to decode nonverbal communication. This suggests that perceptual and behavioral effects are most likely to occur when the expecter is high in nAch and the target is high in self-consciousness.

This prediction is made in spite of some evidence in athletic performance literature which indicated that in targets with high self-consciousness, positive expectancies constitute performance pressure which is actively disconfirmed by the target (Baumeister, 1984; Baumeister et al., 1979; Baumeister et al., 1985; & Baumgardner, 1987). In the above studies, targets were given an expectancy they knew to be at the limits of their demonstrated capabilities. According to the authors, targets having weak self-concepts tended to strategically disconfirm the expectancies. In each of these cases, pressure to perform to a given standard was part of the direct manipulation on the target. Performance pressure was not part of the present study and expectancies were manipulated in the expecter rather than the target, making differential pressure between expectancy groups unlikely. The

experimental situation in this study was unlikely to produce the levels of pressure to achieve that were designed into the studies evaluating strategic disconfirmation of high expectancies.

Statement of the Problem

Past research has indicated expectancy effects may be rather illusive. At least one question remains to be answered: Is the inability to firmly establish or refute the existence of expectancy effects due to the minute influence of expectations or the lack of research addressing the moderating effect of personality variables in the participants of the interaction?

Hypotheses

An experiment was designed to evaluate the effect of high, low, or no expectancies regarding an applicant's ability to perform a subsequent task and the potential moderating effects of selector nAch (high or low) and applicant self-consciousness (high or low). Based upon the review of the literature, the following hypotheses are proposed.

Behavioral expectancy effects. First, selector expectancy will affect performance of applicants on a screening task such that, high-expectancy applicants will perform better than no-expectancy applicants (Hypothesis 1).

Second, selector expectancy will affect performance of applicants on a screening task such that, no-expectancy applicants will perform better than low-expectancy applicants (Hypothesis 2).

Third, behavioral expectancy effects will be more likely to occur with dyads consisting of high nAch selectors and high self-conscious applicants rather than dyads consisting of other combinations of selector nAch and applicant self-consciousness (Hypothesis 3).

Selector perceptual expectancy effects. Fourth, selector expectancy will affect selector ratings of applicant ability such that high-expectancy applicants will be rated higher than no-expectancy applicants (Hypothesis 4).

Fifth, selector expectancy will affect selector ratings of applicant ability such that no-expectancy applicants will be rated higher than low-expectancy applicants (Hypothesis 5).

Sixth, perceptual expectancy effects on selector ratings of applicant ability are more likely to occur with high n-Ach rather than low n-Ach selectors. (Hypothesis 6).

Applicant perceptual expectancy effects. Seventh, selector expectancy will affect applicant ratings of selector instructions, task enjoyment, and willingness to participate such that, high-expectancy applicant ratings

will be higher than those of low-expectancy applicants (Hypothesis 7).

Eight, selector expectancy will affect applicant ratings of selector instructions, task enjoyment, and willingness to participate such that, ratings of no-expectancy applicants will be higher than those of low-expectancy applicants (Hypothesis 8).

Ninth, perceptual expectancy effects on applicant ratings of selector instructions, task enjoyment and willingness to participate are more likely to occur with high rather than low self-conscious applicants (Hypothesis 9).

Method

Subjects

Two hundred and thirty-four students (96 males and 138 females) from the University of Nebraska at Omaha participated in the collection of data as one of several alternatives for earning extra credit in undergraduate psychology courses. Participants were solicited through a bulletin board notice requesting subjects to choose an available time slot such that they would be paired with a same-sex volunteer in order to analyze for potential sex-effects. Eight pairs of subjects were used in a pilot study after which flaws in computer programming were corrected. One pair of subjects was lost due to a language barrier

which made completion of the task impossible. Two pairs of subjects were lost due to mechanical failures during the experiment.

One hundred and six pairs, 59% female (n = 63 teams) and 41% male (n = 43 teams), were retained for analysis. A preliminary analysis revealed no difference between the performance of males and females on this task. The data were collapsed across this variable for further analysis. The age of subjects ranged from 18 to 47 (M = 24.20, SD = 7.09). Forty percent of subjects were freshman (n = 84), 26% sophomores (n = 55), 17% juniors (n = 37), 12% seniors (n = 26), 3% graduate students (n = 6), and 2% did not respond to this item (n = 4).

Instruments

Analogy pre-test. Twenty undergraduates participated in a pilot study designed to chose items used for the experimental procedure. Subjects consisted of 15 females and 5 males ranging in age from 18 to 47 (M = 28). They were presented with a 75 item analogy test comprised of items drawn randomly from a pool of 500 items (Steinberg, 1985). Scores ranged from 34 to 65 with a mean score of 52.5 (SD = 8.274). On the basis of number of correct respondents on each question, 25 items were drawn at random such that 5 were drawn from the top third (designated easy items), 5 were drawn from the middle third (designated

median difficulty items), and 15 were drawn from the bottom third (designated difficult items). The experimental sample was purposely weighted toward the more difficult so as to introduce some ambiguity in the subjects about their success and in order to avoid ceiling effects. The final items are presented in Appendix A.

The 25-item task was administered by a computer display which presented each analogy in a multiple choice format. The computer provided no performance feedback to the subject, but was programmed to provide random high-, low-, or no-feedback to the evaluator.

Need for achievement measure. A scale developed by Cassidy and Lynn (1989) was used to measure nAch (Appendix B). It is a 49-item scale measuring nAch in seven factors identified in a factor analysis of a 102-item questionnaire administered to 427 university students.

The original items were based on a literature review which suggested the existence of six nAch factors used in previous research and measurement devices. Seven factors with eigenvalues above 2.0 were identified by a factor analysis of the original instrument. The seven items loading most heavily on each of the factors were retained in the final instrument. The final scale had split-half reliabilities ranging from .62 to .81. Alpha coefficients ranged from .65 to .81.

A second study with 230 university students (Cassidy & Lynn, 1989) achieved similar reliability and a replication of the pattern of mean scores for males and females. A third study (Cassidy & Lynn, 1989) used 450 subjects with an age range of 22-25 years from the general population in a longitudinal study of unemployment and motivation. The same seven factors were found. Evidence of convergent and discriminant validity was established using a number of other paper and pencil tests (Cassidy & Lynn, 1989).

The seven scales identified by Cassidy and Lynn (1989) were acquisitiveness, work ethic, dominance, excellence, competitiveness, status aspiration, and mastery. Each scale consisted of seven statements presented in a questionnaire format with Yes-No response options scored 0, 1, 2 or 2, 1, 0 as appropriate (see Appendix B). Means and standard deviations for all measures are presented in Table 1.

The dominance scale was used as the experimental measure of nAch for three reasons: (a) It was the scale most closely resembling Cooper and Hazelrigg's (1988) conception of "need-to-influence", (b) it had maintained the highest reliability across the three developmental studies with alpha coefficients which ranged from .73 to .81 (Cassidy & Lynn, 1989), and (c) it produced the highest variability in subjects assigned as selectors for this study (SD = 3.87).

Table 1

Means and Standard Deviations of Independent and Dependent Variables

Variable	Mean	S.D.
Indenpendent Variables		
Applicant Self-Consciousness		
Public Self-Consciousness	18.726	5.262*
Private Self-Consciousness	23.821	4.999
Selector Need-for-achievement		
Work Ethic	10.623	2.638
Acquisitveness	7.792	2.529
Dominance	8.839	3.872*
Excellence	13.311	1.283
Competitiveness	6.377	3.197
Status Aspiration	9.915	2.826
Mastery	8.915	2.761
Dependent Variables		
Final "Bumper-stumper" Task		
Total Time	340.703	43.966
Total Score	6.962	2.246
Applicant Questionnaire Responses	22.349	3.795
Selector Questionnaire Responses	16.61	5.205

Note. N = 106. * indicates scales used as measures of applicant self-consciousness and selector nAch.

Assignment to levels of selector nAch was based on a split of subjects at the median. Since males and females were not significantly different on selector dominance, $t(104) = 1.59$. $p > .05$, the overall median (10) was used. Subjects scoring greater than or equal to 10 on the dominance scale were designated high nAch (N=58). Subjects scoring less than 10 were designated low nAch (N=48). It was felt that assignment of all subjects with the median score to the group containing the fewer subjects would provide a clearer distinction between high and low nAch than would assigning part to high and part to low.

Self-consciousness measure. Self-consciousness was measured by the Fenigstein, Scheier, and Buss (1975) self-consciousness scale (Appendix C). The total scale consists of 23 items. It is a composite of 3 subscales, private self-consciousness, public self-consciousness, and social anxiety, obtained by factor analysis of the original 38 items. Fenigstein, Scheier, and Buss (1975) reported .80 test-retest reliability for the total scale. They established norms for college undergraduates on the basis of a total sample size of 1,821.

Carver, Antoni, and Scheier (1985) found evidence of differential effects of private and public self-consciousness. However, Hollenbeck and Williams (1987) found the subscales to be highly correlated ($r = .67$). Their

principal components factor analysis failed to support a two-factor structure of the items related to private and public self-consciousness. Hollenbeck and Williams estimated the internal consistency of the unidimensional measure to be .78.

The full scale was used in this study. It consisted of 23 items which respondents rated on a scale of 0 (extremely uncharacteristic) to 4 (extremely characteristic). Means and standard deviations for each scale are presented in Table 1.

Correlations between applicant public and private self-consciousness suggest that the two scales measure different dimensions of self-consciousness (r = .42). See Table 2 for correlations between all measures. The public self-consciousness scale was used as the experimental measure in this study for three reasons: (a) Fenigstein, Scheier, and Buss (1975) and Carver, Antoni, and Scheier (1985) suggest that public self-consciousness may be related to conformity and to pressures by peer groups; (b) test-retest reliability was higher for public self-consciousness (r = .84) than for private self-consciousness (r = .79); and (c) the public self-consciousness scale produced the highest variability in subjects assigned as applicants for this study (SD = 5.09).

Table 2

Correlations Among Measures

	2	3	4	5	6	7	8	9	10	11	12	13
1 APUBSC	-.18	-.06	.17	-.27*	-.04	-.06	-.21	-.16	-.03	-.11	-.12	-.09
2 SDOMNA		.01	-.23	.22	-.08	.09	.19	.09	.05	-.04	.11	.12
3 ANASCORE			-.30*	.27*	.00	.11	.10	.07	.07	-.02	.07	17
4 TOTTIME				-.90*	-.21	-.28*	-.32*	-.21	-.03	-.06	-.33*	-.36*
5 TOTSCORE					.15	.21	.31*	.25*	.03	.07	.36*	.41*
6 APPPQ1						.60*	.09	.13	-.12	.01	.15	.06
7 APPPQ2							.22	.04	-.08	.04	.18	.17
8 APPQ3								.39*	.20	.22	.39*	.42*
9 APPQ4									.12	.16	.20	.14
10 SELQ1										.77*	.47*	.49*
11 SELQ2											.58*	.55*
12 SELQ3												.86*
13 SELQ4												

Note: 1=Applicant Public Self-consciousness (APUBSC) 2=Selector Need-to-achieve/Dominance Scale (SDOMNA) 3=Analogy Pretest (ANASCORE) 3=Total Bumper-stumper Time (TOTTIME) 4=Total Bumper-Stumper Score (TOTSCORE) 5=Applicant Rating of Selector (APPQ1) 5=Applicant Rating of Information (APPQ2) 6=Applicant Rating of Task (APPQ3) 7=Applicant Willingness to Participate (APPQ4) 10=Selector Expectation of Applicant Ability (SELQ1) 11=Selector Comparative Expectation of Applicant (SELQ2) 12=Selector Rating of Applicant Performance (SELQ4) 13=Selector Willingness To Recommend Applicant (SELQ4), N = 106 for all correlations except those involving ANASCORE where N = 96. * indicates significance at .01.

Assignment to levels of applicant self-consciousness was based on a split at the median. Since males and females were not significantly different on applicant self-consciousness, $t(104) = -.31$, $p > .05$, the overall median (19) was used. Subjects scoring greater than 19 on the public self-consciousness scale were designated high self-conscious (N=49). Subjects scoring less than or equal to 19 were designated low self-conscious (N=57). It was felt that assignment of all subjects with the median score to the group containing the fewer subjects would provide a clearer distinction between high and low self-consciousness than would assigning part to high and part to low.

Post experimental questionnaires. Post experimental questionnaires were developed to collect demographic information including the age, sex, and years in college and measures of selector and applicant perceptual effects. Selectors were asked to complete two items designed as checks of the expectancy manipulation and two ratings of the applicant's ability designed as perceptual dependent measures (Appendix D). Applicants were asked to complete two items assessing applicant's perception of the selector and two items assessing the applicant's perception of the task (Appendix E). Subjects responded to each question on 7-point Likert-type scales. Overall means and standard deviations are presented in Table 1.

Stimulus Materials. Instructions for the practice examples were presented on the first 5 x 8 card of the stimulus packet and on a sheet contained within the practice folder. The "bumper-stumper" practice materials consisted of pairs of stimulus cards organized so that the first card in each pair revealed the next "bumper-stumper" through a 1.5 X 2.5 inch opening but obstructed the hint related to that "bumper-stumper". Each "bumper-stumper" consisted of strings of letters and/or numbers and a related hint which appeared on the second card of each pair. Each card represented a word or saying which might appear on a license plate. It was the job of the applicant to decipher the "bumper-stumper". During the practice examples, no time limit was set. The selector was permitted to provide clues and prompting. A total of ten practice stimuli were presented with feedback provided at the discretion of the selector (see Appendix F).

During the timed evaluation, the stimuli were presented by a timer controlled slide projector. Each stimulus remained on the screen for 15 seconds. If the applicant had not indicated a correct answer for a stimulus in 15 seconds, a second slide containing the same "bumper-stumper" plus a clue appeared and remained on the screen for an additional 15 seconds. Subsequent stimuli were presented in the same manner, initiated by the experimenter when the

applicant was ready for the next stimulus. A total of fifteen final task stimuli were presented (see Appendix G).

Applicants responded to stimuli orally. The experimenter, who was unaware of the expectancy condition to which the dyad had been assigned, scored responses and recorded the time to correct response. The maximum time score for each item was 30.00 seconds. Total time (TOTTIME) ranged from 236.82 to 427.59 seconds (M = 340.70, SD = 43.966). Correct items were scored "1" and incorrect items scored "0" at the end of each 30 second trial. Total scores (TOTSCORE) ranged from 2 to 13 (M = 6.96, SD = 2.25)

Procedure

Experimental protocol. Members of each dyad were randomly assigned the role of expecter or target. Expecters were provided with expectancy information in the high- and low- expectancy conditions. Subjects designated as applicants were identified as high or low self-conscious on the basis of normative data on the self-consciousness scale (Fenigstein et al., 1975). Subjects designated as selectors were identified as high or low nAch on the basis of normative data on the nAch scale (Cassidy & Lynn, 1989).

Both subjects reported to the same experimental room where they were told that they were participating in an experiment examining selection methods which might be used to select a game show participant. If both subjects agreed

to random assignment to the position of applicant or selector, they both completed the nAch and self-consciousness paper-pencil measures. After completing these measures the subjects were informed of their random assignment to applicant (who is to assume he/she is trying to get on a game show) or to selector (who is to assume it is his/her job to pick contestants for the game show). They are told that random assignment to the roles was accomplished by alternating the work-station assigned to be applicant and by allowing subjects to choose their station as they came in. Both members of the dyad were read verbal instructions containing a description of the experiment and procedures for completing the next phase of the experiment (see Appendix H). The applicants were encouraged to "do their best", and the selectors were encouraged to "rate accurately", because the experimenter planned to have a playoff of the top five rated people from each method as a way of testing two selection methods against each other.

Once instructions were completed, the applicant was escorted to a computer in the same room where he/she completed the 25-item analogy pre-test. The selector was given a package of "bumper-stumpers" which contained instructions to read the materials in order to decide how to present them to the applicant. A list of the practice "stumpers" and final "stumpers" is presented in Appendix E.

Once the applicant finished the pre-selection task, the selector followed instructions in the practice materials and on the computer screen to obtain a copy of the results which were randomly generated high- (the applicant scored above 87% of those taking the test and a representation of a normal curve with the appropriate point marked with an "*"), low- (the applicant scored above 23% of those taking the test and a representation of a normal curve with the appropriate point marked with an "*"), or no-results (out of memory error). The selector then filed the "analogy report" in a folder provided for that purpose and joined the applicant at the table for a ten-minute practice session. The game was explained by the selector using his/her own words and the written directions on the packet. Ten practice examples were presented by the selector.

At the completion of the training session the experimenter joined the subjects and explained the timed job sample task. The selector was provided with a copy of fifteen additional "bumper-stumpers" to be presented on slides (see Appendix H). Applicants were directed to respond orally to each slide, continuing to guess until the experimenter or the selector said "yes" to a correct response. No other information was provided by the experimenter or the selector during the timed portion. Slides were organized in pairs with the first slide of every

pair containing the "bumper-stumper" alone and the second the same "bumper-stumper" plus a hint. Each slide remained on the screen for a maximum of 15 seconds. The time to correct response was recorded by the experimenter. Selectors were encouraged to keep whatever records they found useful.

At the conclusion of the timed portion, the applicant and the selector were asked to complete the post-experimental questionnaires. The subjects were debriefed before they were given extra credit and released.

Data entry. All data entry was completed by the experimenter. Responses to the analogy pretest and expectancy assignment were maintained by the computer. Other data was appended to the records initiated by the computer after the experimental session was completed. Data entry was verified by a visual check at time of data entry and by a search for out-of-range values subsequent to data entry.

Cell sizes. Sample sizes for expectancy conditions were fairly equal for the full sample (low expectancy, n = 34; no-expectancy, n = 35; high-expectancy, $\underline{n}$ = 37). The twelve cells created by applicant self-consciousness x selector nAch x expectancy ranged from $\underline{n}$ = 5 for low self-consciousness x low nAch x low expectancy to $\underline{n}$ = 13 for low self-consciousness x high nAch x low expectancy. The use of

the analogy covariate created a loss of ten cases for which analogy scores were unavailable due to computer failures. Seven cases were lost from no-expectancy, one from low-expectancy, and two from high-expectancy conditions. Individual cells ranged from n = 5 to n = 11.

Manipulation check. A check of the expectancy manipulation was contained in the post-experimental questionnaire completed by the selectors. Selector question one (SELQ1) and two (SELQ2) asked for an individual and a relative assessment of how they expected the applicant to perform. Responses on SELQ1 and SELQ2 were significantly related to each other, r = .77, as well as to subsequent ratings of performance in SELQ3 and SELQ4. The two measures of applicant performance were not significantly related to expectancy as measured by SELQ1 and SELQ2 (see Table 2 for intercorrelations of all independent and dependent measures). MANOVA revealed a significant main effect for expectancy, $F(4,196) = 34.04$, $p < .05$. Univariate analysis revealed significant effects for expectancy for both SELQ1, $F(2,100) = 9.74$, $p < .05$, and SELQ2, $F(2,100) = 11.34$, $p < .05$. Means were in the expected direction (see Table 3). No other effects were significant.

Table 3

Means and Standard Deviations For Selector Expectancies

	High Expectancy		No Expectancy		Low Expectancy	
Dyad	Mean	S.D.	Mean	S.D.	Mean	S.D.
Selector Expectancy of Applicant Ability (SELQ1)						
[a]high sc/ high nAch	5.89	.69	3.71	1.11	3.43	1.27
[a]high sc/ low nAch	5.83	.41	3.63	1.51	3.00	.77
[a]low sc/ high nAch	6.18	.60	4.17	1.27	3.00	1.67
[a]low sc/ low nAch	5.36	.92	4.67	1.21	2.60	.55
Selector Relative Expectation of Applicant (SELQ2)						
[a]high sc/ high nAch	5.78	.67	4.14	.90	3.00	.82
[a]high sc/ low nAch	5.17	1.33	4.33	.87	3.00	1.00
[a]low sc/ high nAch	5.73	.79	4.54	1.33	3.27	.79
[a]low sc/ low nAch	6.09	.83	4.80	.84	3.00	.71

Note. N = 106. [a]Means are in the direction predicted by expectancies.

Results

Test of Behavioral Expectancy Effects

Hypothesis 1 and hypothesis 2. Hypothesis 1 predicted that selector expectancy would affect applicant performance on the "bumper-stumper" task such that, high-expectancy applicants would perform better than no-expectancy applicants. Hypothesis 2 predicted that selector expectancy would affect applicant performance on the "bumper-stumper" task such that, no-expectancy applicants would perform better than low expectancy applicants.

Since specific contrasts were planned apriori, a planned comparison procedure was used. The Bonferroni approach was employed to protect the alpha level. Because unequal cell sizes created nonorthogonal tests of effects, contrasts were tested at the .025 probability level. A preliminary multivariate analysis of variance (MANOVA) revealed that this procedure was appropriate. The performance of high-expectancy applicants was not significantly higher than the performance of no-expectancy applicants, $F(2, 102) = .88$, $p > .025$. The performance of no-expectancy applicants was not significantly higher than the performance of low-expectancy applicants, $F(2,102) = 1.38$, $p > .025$. An analysis of means for total time (TOTTIME) and number of correct responses (TOTSCORE) revealed that they were not in the predicted direction (see

Table 4 for means and standard deviations for TOTTIME and TOTSCORE).

Hypothesis 3. Hypothesis 3 predicted that the behavioral effects described by Hypotheses 1 and 2 would be more likely to occur with dyads consisting of high nAch selectors and high self-conscious applicants than with high nAch selectors and low self-conscious applicants or with low nAch selectors regardless of the applicant with whom they were paired.

A preliminary analysis of covariance (ANCOVA) revealed that the analogy pretest score (ANASCORE) was linearly related to TOTTIME and TOTSCORE and that homogeneity of regression slopes was tenable. An analysis of intercorrelations of measures revealed that ANASCORE was significantly related in the expected direction to TOTTIME, $r=-.30$, and TOTSCORE, $r=.27$, but was not significantly related to any other independent or dependent measure in this study (see Table 2 for intercorrelations of independent and dependent measures). Accordingly ANCOVA was used to analyze Hypothesis 3. Ten cases were lost due to a failure to collect the covariate. A comparison of results of MANOVA versus ANCOVA suggests that the use of the covariate did not significantly change the findings.

Table 4

Means and Standard Deviations For Total Time and Total Score

	High Expectancy		No Expectancy		Low Expectancy	
Dyad	Mean	S.D.	Mean	S.D.	Mean	S.D.
	Total Bumper-Stumper Time (TOTTIME)					
[a]high sc/ high nAch	316.70	45.22	347.68	15.84	350.28	43.37
high sc/ low nAch	355.61	47.62	335.91	55.08	345.74	50.05
low sc/ high nAch	339.99	44.21	321.83	48.47	343.27	34.86
low sc/ low nAch	370.77	41.22	335.69	18.27	325.45	51.46
	Total Bumper-Stumper Score (TOTSCORE)					
[a]high sc/ high nAch	7.56	1.81	6.71	.95	6.43	2.22
high sc/ low nAch	6.68	3.08	7.11	2.09	6.27	2.45
low sc/ high nAch	7.18	2.64	8.38	2.10	6.91	2.30
low sc/ low nAch	5.73	2.50	6.83	.98	7.40	2.61

Note. N = 106. [a]Means are in the direction predicted by expectancies.

The analysis revealed a significant multivariate interaction of expectancy and selector nAch, $F(4, 164) = 2.67$, $p<.05$. Univariate analysis revealed that the multivariate effect was primarily due to TOTTIME, $F(2,83) = 3.56$, $p<.05$, rather than TOTSCORE, $F(2,83) = 1.50$, $p>.05$. Means were in the predicted direction only for dyads consisting of high nAch selectors and high self-conscious applicants (see Figure 1). Subsequent comparison employing the Bonferroni approach did not reveal significance for high-expectancy versus no-expectancy ($F(2,93) = 3.30$, $p = .041$) or for no-expectancy versus low-expectancy ($F(2,93) = .22$, $p = .81$).

Test of Selector Perceptual Effects

Hypothesis 4 and hypothesis 5. Hypothesis 4 predicted that expectancy would affect selector ratings of applicant ability such that high-expectancy applicants would be rated higher than no-expectancy applicants. Hypothesis 5 predicted that expectancy would affect selector ratings of applicant ability such that, no-expectancy applicants would be rated higher than low-expectancy applicants.

Since specific contrasts were planned apriori, a planned comparison procedure was used. The Bonferroni approach was employed because of unequal cell sizes. Measures of selector ratings of applicants were contained in questions three (SELQ3) and four (SELQ4) of the post-

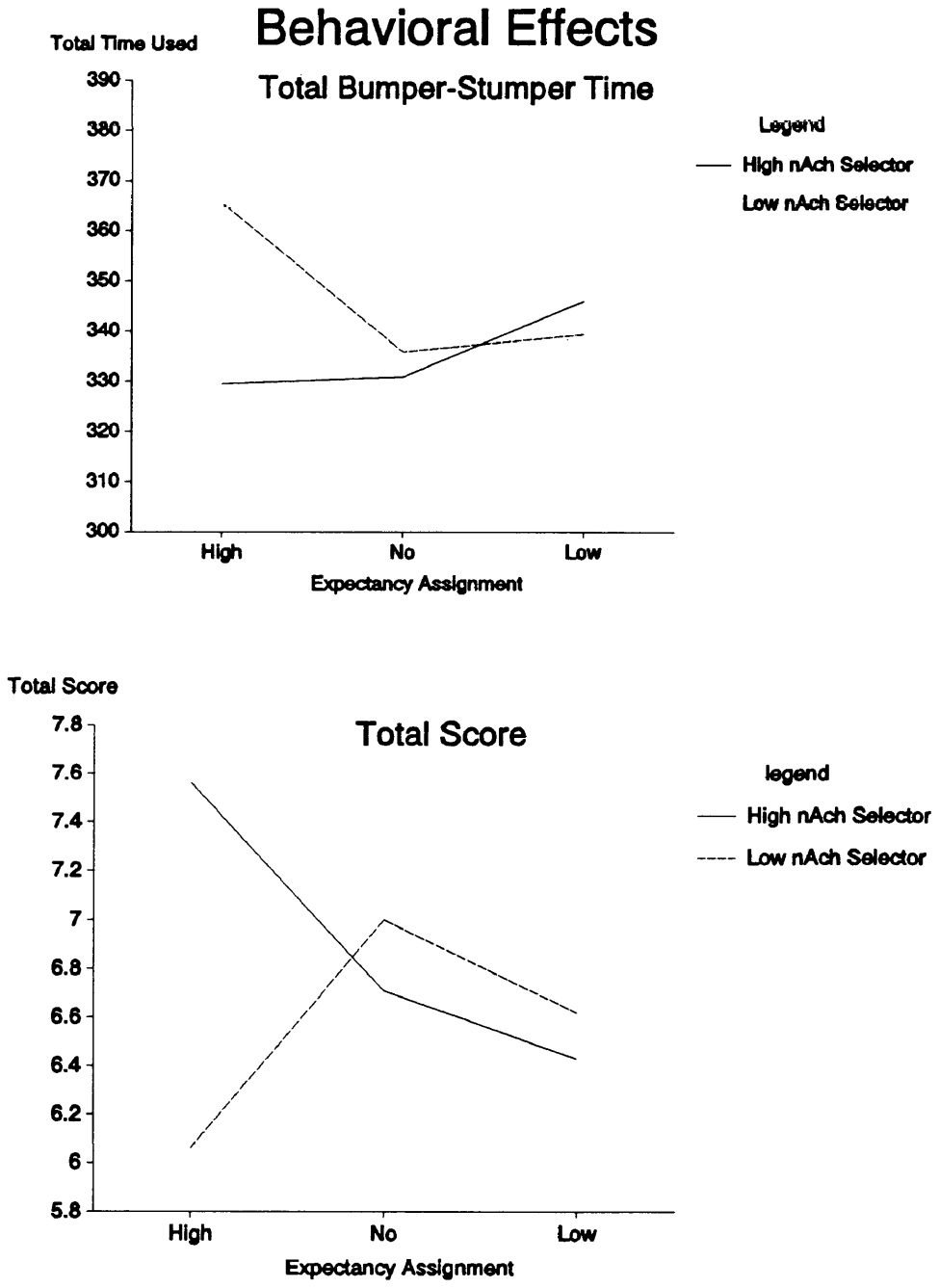

Figure 1. Behavioral effects.

experimental questionnaire. A preliminary MANOVA revealed that multivariate analysis was appropriate. Analysis revealed that selector ratings of high-expectancy applicants were not significantly higher than the selector ratings of no-expectancy applicants, $F(2, 102) = 1.66$, $p > .025$. However, selector ratings of no-expectancy applicants were significantly higher than selector ratings of low-expectancy applicants, $F(2, 102) = 10.06$, $p < .025$. Univariate analysis revealed that both ratings of applicant ability, $F(1, 103) = 16.27$, $p < .025$, and willingness to recommend this applicant for "Bumper-Stumpers", $F(1,103) = 19.82$, $p < .025$, followed the predicted pattern (see Table 5 for means and standard deviations on SELQ3 and SELQ4).

Hypothesis 6. Hypothesis 6 predicted that selector perceptual effects described by Hypotheses 4 and 5 would be more likely to occur when the selector is high nAch rather than low nAch.

As expected, a preliminary ANCOVA revealed that the covariate used in analysis of behavioral effects (ANASCORE) was not linearly related to selector ratings of applicants. Since SELQ3 and SELQ4 were significantly related, $r=.86$, MANOVA was used to test Hypothesis 6.

MANOVA revealed a significant interaction effect of applicant self-consciousness x selector nAch x expectancy, $F(4,164) = 2.97$, $p < .05$. Univariate tests revealed a

Table 5

Means and Standard Deviations For Selector Rating of Applicant Ability and Willingness To Recommend

	High Expectancy		No Expectancy		Low Expectancy	
Dyad	Mean	S.D.	Mean	S.D.	Mean	S.D.
Selector Rating Of Applicant Ability (SELQ3)						
[a]high sc/ high nAch	5.22	1.09	4.00	.82	3.29	.95
high sc/ low nAch	3.83	1.94	5.00	1.22	2.45	1.04
[a]low sc/ high nAch	5.00	1.18	4.23	1.30	3.27	.90
low sc/ low nAch	4.55	.82	3.33	1.37	3.60	1.14
Selector Willingness To Recommend Applicant (SELQ4)						
[a]high sc/ high nAch	5.33	1.41	4.14	1.57	2.86	1.35
high sc/ low nAch	3.50	2.07	5.11	1.45	2.18	1.17
[a]low sc/ high nAch	5.27	1.27	4.31	1.75	2.82	1.47
[a]low sc/ low nAch	4.27	1.42	3.17	1.17	3.00	1.58

Note. N = 106. [a]Means are in the direction predicted by expectancies.<.05.

significant effect on selector ratings of applicant ability, $F(2,82) = 6.14$, $p < .05$.

Ratings of willingness to recommend this applicant failed to reach significance, $F(2,82) = 2.10$, $p = .058$. Means were in the predicted direction on SELQ3 for high nAch selectors paired with high or low self-conscious applicants. Means were in the predicted direction on SELQ4 for all but low nAch selectors paired with high self-conscious applicants (see Figure 2).

Subsequent comparison employing the Bonferroni approach (with .025 alpha level for each contrast) revealed a significant 3-way interaction for SELQ3 for high-expectancy versus no-expectancy ($F(1,94) = 6.34$, $p < .025$) and for no-expectancy versus low-expectancy ($F(1,94) = 6.91$, $p < .025$. The 3-way interaction for SELQ4 was not significant for high- versus no-expectancy ($F(1,94) = 4.14$, $p = .04$) or for no- versus low-expectancy ($F(1,94) = 3.94$, $p = .05$.

A main effect of expectancy was also found, $F(4,164) = 5.74$, $p < .05$. Both univariate tests on SELQ3, $F(2,82) = 9.73$, $p < .05$, and SELQ4, $F(2,82) = 11.34$, $p < .05$, were significant. An analysis of means revealed that selector ratings of applicants in high-expectancy conditions were rated higher than applicants in no-expectancy conditions and applicants in no-expectancy conditions were rated higher

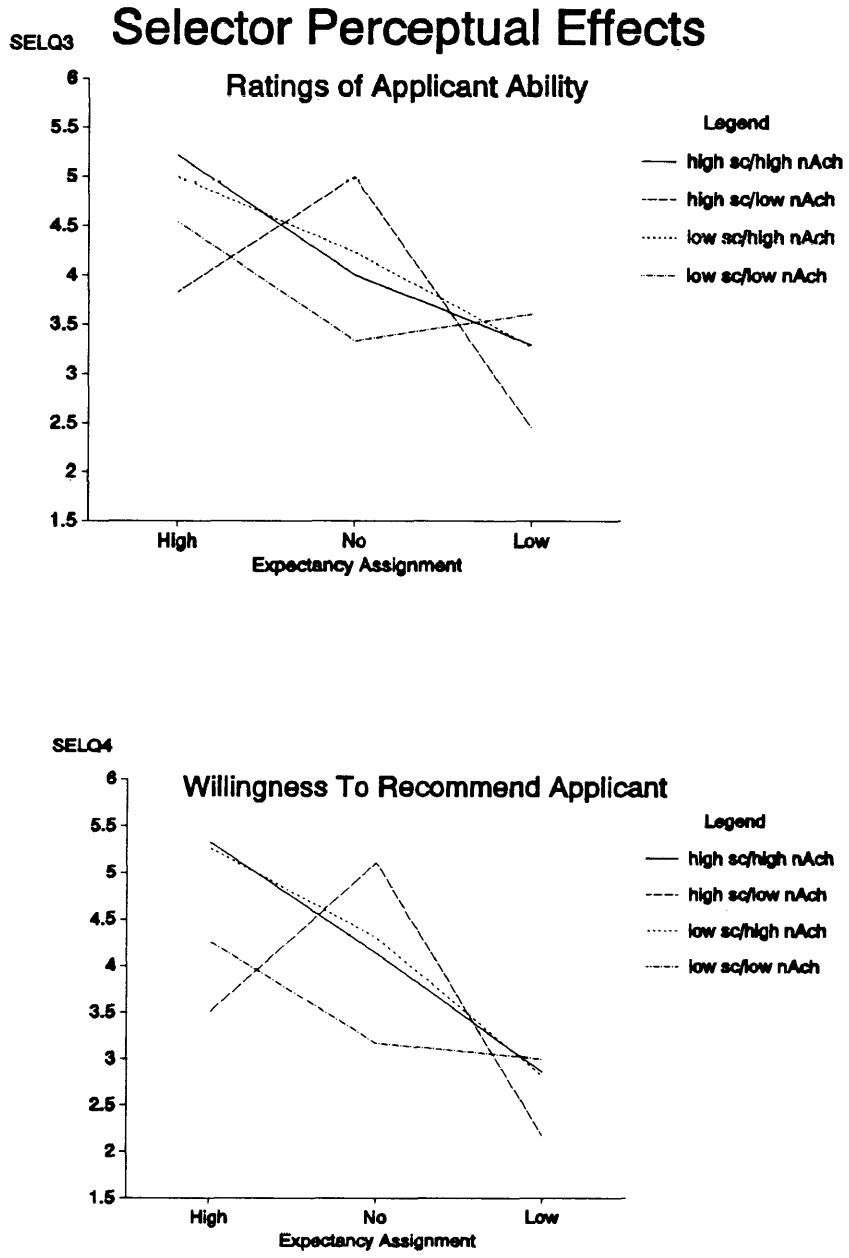

Figure 2. Selector perceptual effects.

than those in low-expectancy conditions. Multivariate contrasts of expectancy are discussed under Hypothesis 4 and 5.

Test of Applicant Perceptual Effects

Hypothesis 7 and hypothesis 8. Hypothesis 7 predicted that selector expectancy would affect applicant ratings of selector instructions, task enjoyment and willingness to participate such that high-expectancy applicant ratingswould be higher than those of low-expectancy applicants. Hypothesis 8 predicted that selector expectancy would affect applicant ratings of selector instructions, task enjoyment and willingness to participate such that, no-expectancy applicants ratings would be higher than those of low-expectancy applicants.

Since specific contrasts were planned apriori, planned comparison procedures employing the Bonferroni approach to protect alpha were used to analyze Hypothesis 7. Tests of each contrast were performed at the .025 level. Analyses will be presented separately for applicant ratings of selectors, enjoyment, and willingness to participate. Means and standard deviations by cell are presented in Table 6 for ratings of selectors and Table 7 for ratings of enjoyment and willingness to participate.

Measures of applicant ratings of selectors were contained in questions one (APPQ1) and two (APPQ2) of the

Table 6

Means and Standard Deviations For Applicant Ratings of Selector and Information Provided

	High Expectancy		No Expectancy		Low Expectancy	
Dyad	Mean	S.D.	Mean	S.D.	Mean	S.D.
Applicant Ratings of Selector (APPLQ1)						
high sc/ high nAch	5.44	1.33	6.29	.76	5.00	2.24
high sc/ low nAch	5.33	1.21	5.89	1.36	5.45	1.37
[a]low sc/ high nAch	5.82	1.40	5.55	.37	4.69	1.60
low sc/ low nAch	5.64	1.12	5.83	.98	6.40	.55
Applicant Ratings of Information Provided (APPQ2)						
high sc/ high nAch	5.56	1.33	6.43	.53	5.14	1.68
high sc/ low nAch	5.83	.75	6.00	1.50	5.00	1.73
low sc/ high nAch	5.82	1.47	5.46	1.20	5.82	1.54
low sc/ low nAch	5.36	1.43	5.00	1.67	6.60	.55

Note. N = 106. [a]Means are in the direction predicted by expectancies.

Table 7

Means and Standard Deviations For Applicant Ratings of Task And Willingness To Participate

	High Expectancy		No Expectancy		Low Expectancy	
Dyad	Mean	S.D.	Mean	S.D.	Mean	S.D.
	Applicant Ratings of Task (APPQ3)					
[a]high sc/ high nAch	6.11	1.05	5.29	1.70	5.14	1.68
high sc/ low nAch	4.50	1.05	5.56	1.42	4.18	1.54
low sc/ high nAch	5.82	.98	6.00	1.08	5.27	2.19
low sc/ low nAch	5.64	1.36	4.83	2.40	6.00	.71
	Applicant Willingness To Participate (APPQ4)					
high sc/ high nAch	6.56	.73	5.14	1.57	6.14	.90
high sc/ low nAch	5.67	1.75	5.78	1.30	4.73	2.33
low sc/ high nAch	6.09	.83	5.62	1.39	6.00	1.79
low sc/ low nAch	5.82	1.60	5.83	.98	6.40	.89

Note. N = 106. [a]Means are in the direction predicted by expectancies.

post-experimental questionnaire. A preliminary multivariate analysis of variance (MANOVA) revealed that multivariate analysis was appropriate. MANOVA planned comparisons revealed that high-expectancy applicant ratings of selectors were not significantly higher than the selector ratings of no-expectancy applicants, $F(2, 102) = .17$, $p > .025$, and the ratings of no-expectancy applicants were not significantly higher than those of low-expectancy applicants, $F(2,101) = .26$, $p > .025$.

Measures of applicant enjoyment and willingness to participate were contained in questions three (APPQ3) and four (APPQ4), respectively. Preliminary multivariate analysis revealed that the multivariate assumption of homogeniety had been violated. ANOVA planned comparisons revealed that high-expectancy applicant ratings of enjoyment and willingness to participate were not significantly higher than those of no-expectancy applicants, $F(2,103) = .83$, $p > .025$ and $F(1,102) = 1.74$, $p > .025$, respectively. The ratings of no-expectancy applicants were not significantly higher than those of low-expectancy applicants for ratings of enjoyment, $F(1,103) = 2.19$, $p > .025$, or ratings of willingness to participate, $F(1,102) = .05$, $p > .025$.

Hypothesis 9. Hypothesis 9 predicted that perceptual expectancy effects on applicant ratings of selector instruction, task enjoyment, and willingness to participate

would be more likely to occur with high rather than low self-conscious applicants.

As expected, a preliminary ANCOVA revealed that the covariate used in analysis of behavioral effects (ANASCORE) was not linearly related to applicant perceptual ratings. Since APPQ1 and APPQ2 were significantly related, r=.60, and APPQ3 and APPQ4 were significantly related, r = .39, preliminary multivariate analyses of variance were performed.

MANOVA revealed a significant interaction effect of applicant self-consciousness x expectancy, $F(4,186) = 2.58$, $p < .05$. Univariate tests revealed a significant effect on applicant ratings of amount of information, $F(2,94) = 8.89$, $p < .05$, but not on ratings of selector's instructions, $F(2,94), = 5.27$ $p = .058$. No other significant effects were found. Means were generally not in the predicted direction for either APPQ1 or APPQ2 (see Figure 3).

Subsequent comparison employing the Bonferroni approach (testing each contrast at .025) revealed a significant 2-way multivariate interaction of applicant self-consciousness x expectancy for no-expectancy versus low-expectancy, $F(2,93) = 4.65$, $p < .025$, but not for high-expectancy versus no-expectancy ($F(1,94 = 1.54$, $p > .025$). The univariate no- versus low-expectancy was significant for

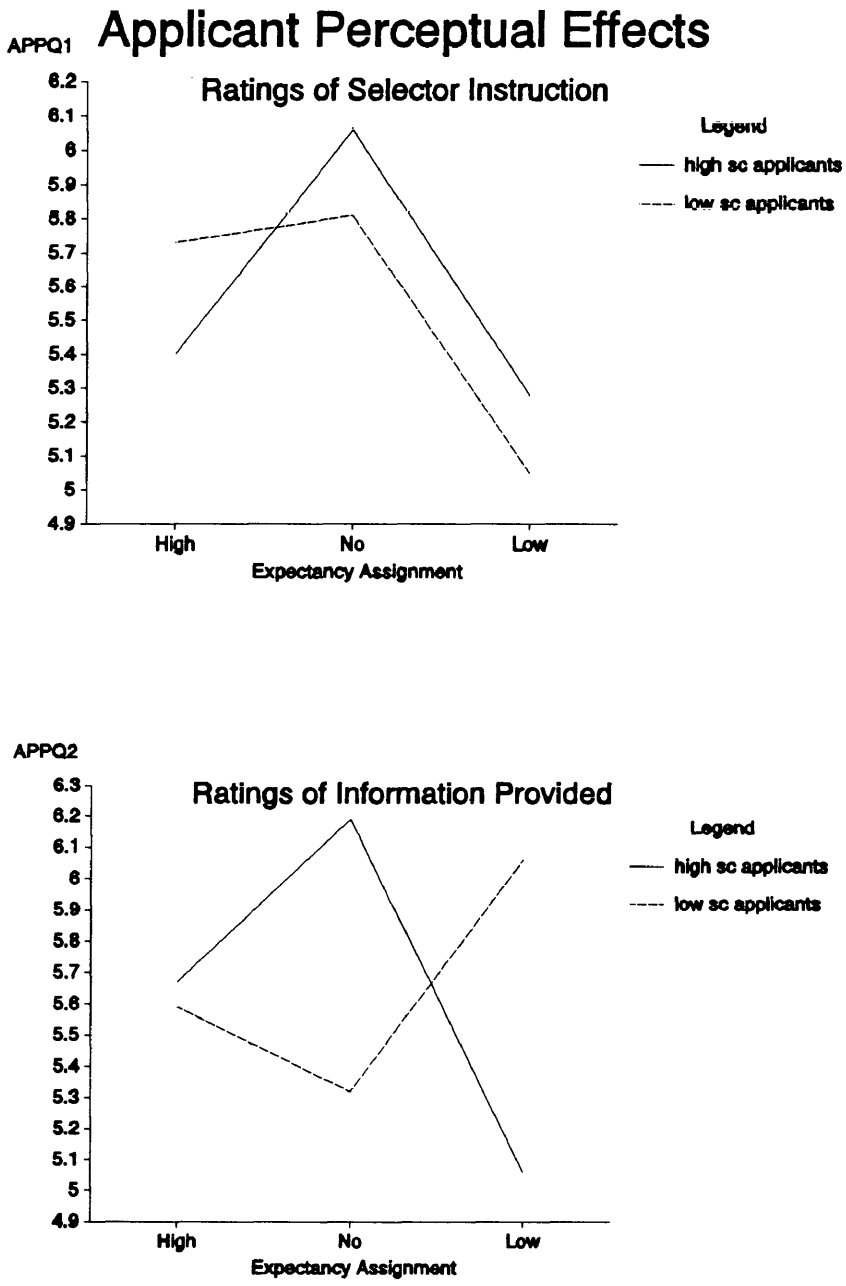

Figure 3. Applicant perceptual effects (APPQ1 and APPQ2).

APPQ2, $F(1,94) = 9.10$, $p < .025$, but not for APPQ1, $F(1,94) = 5.14$, $p = .03$.

Preliminary MANOVA of APPQ3 and APPQ4 revealed that the multivariate assumption of homogeneity had been violated. The low correlation between these two variables ($r = .39$) suggests that the two questions may be measuring different concepts. Accordingly, ANOVA rather than MANOVA was used to analyze for effects.

ANOVA of data revealed significant effects for applicant self-consciousness x selector nAch x expectancy for both APPQ3, $F(2,83) = 3.17$, $p < .05$, and APPQ4, $F(2,83) = 3.18$, $p < .05$. An interaction of selector nAch x expectancy was significant for APPQ4, $F(2,83) = 3.10$, $p = .05$. Main effects were found for expectancy on both APPQ3, $F(2,83) = 16.30$, $p < .05$, and APPQ4, $F(2,83) = 18.55$, $p < .05$. Means were generally not in the predicted direction (see Figure 4). Subsequent comparison employing the Bonferroni approach revealed no significant effects.

Post-hoc analysis of high- versus low-expectancy. Expectancies of high- and low-expectancy selectors were controlled by specific information provided by the computer. Since selectors in no-expectancy groups received no useful information from the computer, it was reasoned that large variances due to uncontrolled expectancies in this group might be making effects difficult to interpret.

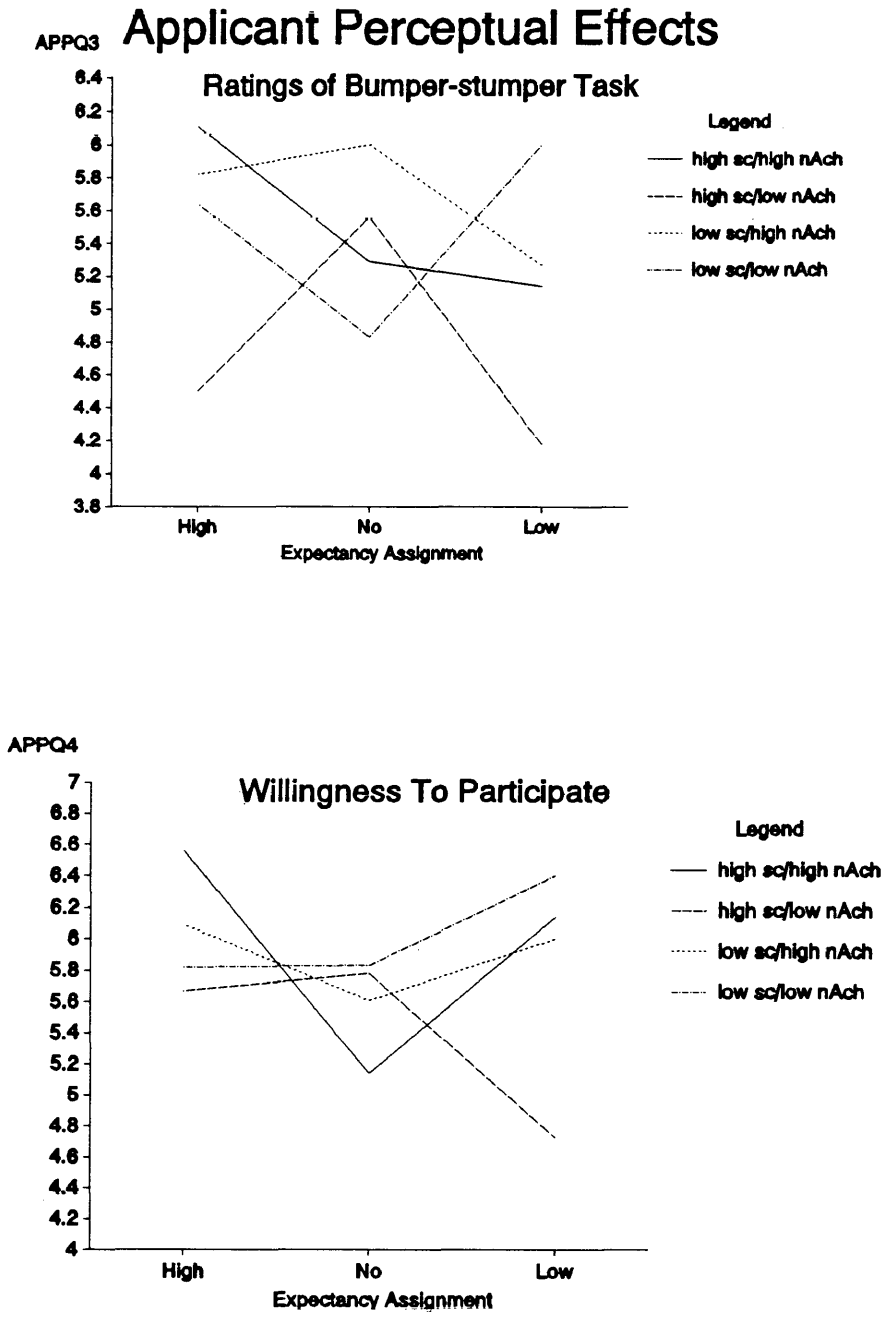

Figure 4. Applicant perceptual effects (APPQ3 and APPQ4).

An analysis of results related to only subjects in high- and low-expectancy conditions was performed.

ANCOVA was appropriate for the analysis of behavioral effects measured by TOTTIME and TOTSCORE. The analysis revealed a significant mutivariate interaction of expectancy and selector nAch $F(2,62) = 4.32$, $p = .018$. Univariate analysis revealed that the effect was primarily due to TOTTIME, $F(1,63) = 6.39$, $p = .014$, rather than TOTSCORE, $F(1,63) = 2.42$, $p = .125$. No other significant effects were found for the measures of behavioral effects.

MANOVA was appropriate for the analysis of selector perceptual effects measured by SELQ3 and SELQ4. The analysis revealed a significant main effect for expectancy, $F(2,62) = 16.12$, $p < .001$. Univariate analyses revealed significant main effects for expectancy on both SELQ3, $F(1,63) = 29.18$, $p < .001$, and SELQ4, $F(1,63) = 27.86$, $p < .001$. While multivariate analysis did not find a significant effect for selector nAch, $F(2,62) = 2.84$, $p = .066$, univariate analyses did reveal significant main effects for selector nAch on both SELQ3, $F(1,63) = 4.48$, $p = .038$, and SELQ4, $F(1,63) = 5.45$, $p = .023$. The interaction of applicant self-consciousness x selector nAch x expectancy, the effect found in the full analysis, was not significant.

MANOVA was appropriate for analysis of applicant perceptual effects measured by APPQ1 (ratings of selector) and APPQ2 (ratings of instruction). ANOVA was appropriate for analysis of applicant perceptual effects measured by APPQ3 (ratings of enjoyment) and APPQ4 (ratings of willingness to participate). No significant effects were found for APPQ1 and APPQ2. An interaction of self-consciousness x expectancy was found in the full analysis.

Univariate analyses revealed a significant interaction of applicant self-consciousness and selector nAch for APPQ3, $F(1,63) = 4.67$, $p = .035$. A three-way interaction of applicant self-consciousness x selector nAch x expectancy was found for APPQ3 with the full analysis. A two-way interaction of selector nAch x expectancy was found for APPQ4 with the full analysis.

Discussion

Jussim (1991) has suggested that any effect of expectancy is small and very often difficult to find. This experiment was designed to determine if the inconsistency in studies of expectancy effects might be the result of a failure to measure important personality variables which might moderate expectancy effects. Results of this study were mixed. Although there is clear evidence for expectancy effects on the ratings by selectors and for effects moderated by selector nAch on the applicant's behavior,

effects on the applicant's ratings of selector, task enjoyment, and willingness to participate were not as clear-cut. The use of expecter nAch as a significant moderator of the effects of expectancy on the behavior of applicants was supported. However, the use of target self-consciousness received less support. In the following, each of the potential expectancy effects evaluated in this study will be discussed.

Behavioral Expectancy Effects

Hypotheses 1, 2, and 3 dealt with the effects of selectors preconceptions on the behavior of applicants. Hypothesis 1 predicted that the performance of applicants would be better in high- rather than no-expectancy dyads. Hypothesis 2 predicted that the performance of applicants would be better in no- rather than low-expectancy dyads. Hypothesis 1 and hypothesis 2 were not supported. Although means were in the predicted direction, the failure to find a significant difference between high- and no-expectancy and no- and low-expectancy groups when collapsing across levels of applicant self-consciousness and selector nAch may be due to the difficulty of establishing expectancy effects when moderating variables are not considered (Cooper & Hazelrigg, 1988).

Hypothesis 3 predicted that expectancy effects would be most likely in dyads consisting of high nAch selectors

and high self-conscious applicants. A significant interaction of selector nAch x expectancy, found in both the full analysis and in the post-hoc analysis of high- versus low-expectancy, suggested the importance of measuring at least one of the hypothesized moderating variables. Applicants interacting with a high nAch selector had higher scores and required less time to complete the task when the selector had a high expectancy for applicant ability than when the selector had no expectancy or a low expectancy. These results are consistent with the finding that expectancy effects are likely to occur only when the expecter believes they will be able to influence the performance of the target (Swann & Snyder, 1980).

Means were in the hypothesized direction for dyads with high nAch selectors and high self-conscious applicants. However, the hypothesized moderating effect of target self-consciousness was not found. Previous research found that targets who were highly self-conscious about their own abilities were more susceptible to expectancy effects (Swann & Ely, 1984). Consistent with Swann & Ely this study found that the performance of high self-conscious targets paired with high nAch expecters conformed to evaluator expectations. However, the performance of high self-conscious targets paired with low nAch expecters declined for both high- and low-expectancy groups relative to no-

expectancy groups; this is more consistent with the findings of Baumgarder and Brownlee (1987). They found that persons doubtful about their ability to perform tended to do more poorly when given unrealistically high expectations and high pressure to perform. This study was designed to guard against the tendency to strategically disconfirm overly high expectations by manipulating expectancies in selector rather than applicant and by creating a situation with only moderate pressure to perform. As discussed in the section on applicant perceptual effects, the expectancy manipulation may have created more than the intended performance pressure. Applicants may have felt overly pressured by selectors who held high expectancies leading to a tendency to strategically disconfirm.

Selector Perceptual Effects

Hypotheses 4, 5, and 6 dealt with the effects of selector preconceptions on their ratings of the applicant. Hypothesis 4 predicted selectors in the high-expectancy conditions would rate applicants higher than selectors in the no-expectancy conditions. This hypothesis was not supported. Hypothesis 5 predicted selectors in the no-expectancy conditions would rate applicants higher than selectors in the low-expectancy conditions. This hypothesis was supported suggesting that negative information affected selector ratings more than positive information.

Comments made by selectors at the conclusion of the experiment suggest that selectors generally anticipated the "bumper-stumper" task would be difficult. It is possible that both selectors and applicants may have discounted positive expectancy information more often than negative expectancy information. Research on actor-observer bias suggests that selectors might be more likely to view positive results as due to the task and negative results as due to the applicant's ability (Brown, 1986). Applicants may also have been more likely to believe negative rather than positive information. Coleman et al. (1987) found that negative feedback was seen by targets as a more believable indicator of teacher evaluation than was positive feedback.

Hypothesis 6 predicted that expectancy effects on selector ratings would be most likely within dyads containing high nAch selectors. Results of the full analysis indicated that both applicant self-consciousness and selector nAch influenced the likelihood of expectancies affecting selector ratings. Analysis of high- versus low-expectancy suggested a strong main effect for expectancy and a possible main effect for selector nAch, but no interaction effects were found.

Dyads containing a high nAch selector tended to rate in the direction of the expectancy, while dyads containing a low nAch selectors generally did not. Mean ratings were in

the direction predicted by expectancies when high self-conscious targets were paired with high nAch evaluators, but not when high self-conscious targets were paired with low nAch evaluators.

These results are consistent with research suggesting the importance of target self-consciousness (Swann & Ely, 1984), expecter nAch (McFall & Schenkein, 1970), and attention to both members of the dyad (Christensen & Rosenthal, 1982; Cooper & Hazelrigg, 1988). However, failure to find interaction effects in the post-hoc analysis of high- versus low-expectancy suggests that the influence of selector nAch and applicant self-consciousness may be small in comparison to the effect of expectancy on selector ratings of the applicant.

Applicant Perceptual Effects

Hypotheses 7, 8, and 9 dealt with the effect of selector preconceptions on the applicant's ratings of the selector's instructions, the task, and their own willingness to participate in a future game. Hypothesis 7 predicted applicants in high-expectancy dyads would rate selectors and the instruction they received higher, see the task as more enjoyable, and be more willing to participate again, than applicants in no-expectancy dyads. Hypothesis 7 was not supported for any of the measures. Hypothesis 8 predicted applicants in no-expectancy dyads would rate selectors and

the instruction they received higher, see the task as more enjoyable, and be more willing to participate again, than applicants in low-expectancy dyads. Hypothesis 8 was not supported for any of the measures.

Hypothesis 9 predicted that applicant expectancy effects would be most likely to occur in dyads containing high self-conscious targets. This hypothesis was not supported.

Ratings of selectors and information. Applicant ratings of the instruction and the amount of information provided by selectors was influenced by both applicant self-consciousness and by expectancy. However, means were generally not in the predicted direction presenting a problem for interpretation.

When applicants were high in self-consciousness, ratings in no-expectancy conditions tended to be higher than those in the high- and no-expectancy conditions. It is possible that high self-conscious applicants were able to perceive the expectations of selectors and felt resentment or pressure as a result of both negative and positive expectations. This explanation is consistent with Baumgardner & Brownlee's (1987) findings related to strategic disconfirmation of unrealistically high expectancies. No direct measure of applicant resentment or pressure was taken so it is impossible to determine if high

self-conscious applicants felt the pressure of unrealistic expectations or resentment toward selectors more than low self-conscious applicants. Additionally, the failure to find any significant effects in the post-hoc analysis of high- versus low-expectancy conditions, suggests that effects found in the full analysis may be an artifact of the design.

Ratings of task enjoyment and willingness to participate. Consistent with Cooper and Hazelrigg (1988), applicant ratings of task enjoyment and willingness to participate in a subsequent game provide support for the moderating effect of expecter nAch and target self-consciousness on the effect of expectancies, but again, the pattern of means on each rating makes interpretation difficult. Means were in the predicted direction only for high self-conscious applicants paired with high nAch selectors on ratings of the task. Post-hoc analysis of high- versus low-expectancy conditions found an interaction of applicant self-consciousness x selector nAch for measures of task enjoyment. High self-conscious applicants paired with low nAch selectors tended to enjoy the task less than low self-conscious applicants or high self-conscious applicants paired with high nAch selectors.Failure to find the predicted results for ratings of willingness to participate may be due to faulty measurement.

Practical Implications

Behavioral effects. The finding that high nAch selectors can affect the performance of applicants consistent with their expectations should be given particular attention in any organizational setting. Often pre-selection tests of such things as general cognitive ability are administered with results made available to persons administering job sample tests or follow-up interview. Typically, selection tests used in organizations have validities which only rarely exceed .30 (Ghiselli, 1973; Schneider & Schmitt, 1986). A pre-selection test may well induce expectancies which are, at least in part, invalid. If those expectancies are fulfilled through interaction with the selector, the applicants have not received a fair evaluation of their ability creating a potential loss to the applicant as well as to the organization.

The fact that the behavioral expectancy effects may only occur when the selector is high nAch provides no comfort to the organizations. Employees who have achieved management status are more likely to be high nAch than employees who have not achieved that status (Steers, 1987). Those employees who are making selection decisions are precisely the ones most likely to create expectancy effects in the behavior of the applicant.

Selector perceptual effects. Powell (1986) and Jussim (1991) have suggested that expectancy confirmation processes are, at most, only marginally present in the ratings of evaluators. The results of this study would suggest otherwise. Selectors were particularly susceptible to negative expectations as would be predicted by actor-observer bias (Brown, 1986). While the hypothesized moderating effects of applicant self-consciousness and applicant nAch were found, the fact that a main effect for expectancy was also found suggests that it is imperative to guard against setting up any prior expectations in a selection setting. Each facet of the selection process should be carried out without prior knowledge of the previous results if possible. Ratings need to be carried out with a full awareness of the potential for expectations affecting not only the behavior of the applicant but also the objectivity of the evaluator.

Applicant perceptual effects. The fact that applicant ratings of task enjoyment and willingness to participate conformed to expectancy manipulations when applicants were high self-conscious and selectors were high nAch, suggests that the impact of expectancies may influence target attitudes and subsequent motivation to perform. A failure to find a main effect for expectancy on these ratings suggests the need to explore future expectancy effects using

relevant moderating variables to uncover the true nature of those effects.

Potential Weaknesses And Future Research

One of the possible weaknesses of this study was the failure to achieve equal cell sizes in dyad combinations. Small cell sizes in some cells make interpretation difficult for multiple interaction effects. Future researchers may choose to pre-measure applicant self-consciousness and selector nAch so that equal cell sizes may be created through random assignment based on pre-determined levels of the relevant personality variables.

An evaluation of the generalizability of this study suggests that it may be possible that this study found strong effects for expectancy as a result of factors unique to this study. The expectancy manipulation was carried out by a "report" of applicant ability issued by a computer which subjects were aware the experimenter did not control. Based on post-experimental briefing, it seemed reasonable to conclude subjects believed the report and believed in the objectivity of the pre-selection task. The possibility that the manipulation was so strong that the results may not generalize to other situations should be considered.

While this is possible, selection settings often have computer administered and scored pre-selection tasks which would be unlikely to create less confidence than the

experimental measure. Future research could address this concern by manipulating the source of expectancy information and by measuring expecter confidence in that information.

Another potential weakness affecting the generalizability to selection settings may be the unfamiliarity of the task itself. It is possible that the results of this study may not be generalizable to settings in which the selectors have a more complete understanding of the task and a better referent for performance. If this is the case, the selector may more readily discount test results that are inconsistent with performance. However, comments made at the conclusion of the experiment would indicate that selectors did not lack a referent for performance. Many had witnessed a television game show similar to this task. Several had played a board game with the same goal as the task. Most confessed to trying to solve "bumper-stumpers" spontaneously when they saw them on license plates.

A possible methodological problem may be contained in the post experimental questionnaires. Only two questions measured selector perceptual expectancy effects. Failure of the two measures of perceptions of the task to correlate highly, resulted in unidimensional measures of two ill-defined concepts. While applicant perceptions were measured by four items, there were problems in this area as well.

Failure to measure applicant perception of pressure to perform made it impossible to explain results related to applicant ratings of selector. Nunnally has cautioned against the unreliability of short scales (1978). Accordingly, more refined measures should be developed and multiple measures of applicant and selector perceptions could make interpretation of perceptual effects more definitive.

No behavioral measures were taken to explore the mediating mechanisms of expectancies. Previous research has suggested that expectancies may be transmitted by differential climate, differential feedback, differential input, and differential opportunity for output which may result not only in variation of instruction but also variation in target motivation to perform (Harris & Rosenthal, 1985). While the size and the scope of this study made filming or recording of applicant-selector interactions prohibitive, future research addressing mediators may provide some insight into the behaviors that lead to expectancy effects with high nAch expecters and high self-conscious targets. Even if the expectancy is transmitted, the question of whether or not performance for this task is susceptible to variations in instruction and motivation remains.

A partial answer to this question is provided by examining the correlations of task performance measures with applicant post-experimental questionnaire responses. The measure of quality of instruction contained in APPQ2 was significantly correlated with TOTTIME ($\underline{r}$ = -.28, $p \leq .01$) but not with TOTSCORE ($\underline{r}$ = .21, $p > .01$). The correlation between APPQ1 and TOTTIME and TOTSCORE failed to reach significance. Measures related to motivation to perform contained in APPQ3 and APPQ4 were correlated with correlated with TOTTIME ($\underline{r}$ = -.32, $p \leq .01$, and $\underline{r}$ = -.21, $p > .01$, respectively) and with TOTSCORE ($\underline{r}$ = .31, $p \leq .01$, and $\underline{r}$ = .25, $p \leq .01$, respectively). While no pretest of the ability of task performance to be affected by variations in instruction and/or motivation were taken, the correlation between subjective ratings by applicants and task performance provides some evidence that task performance may be susceptible to motivational and, possibly, instructional factors. Future research can provide more definitive answers.

While the evidence of generalized expectancy effects was minimal, this study provided strong support for examination of selector nAch as a possible moderator of expectancy effects. The evidence of applicant self-consciousness was less conclusive. It is possible that the measure did not adequately assess applicant self-

consciousness. It is also possible that some other personality variable in applicants may be more useful.

Significance in the area of selector evaluations of applicants suggests that we should not be too premature in discarding the possibility of important expectancy effects. Future research addressing expectancies should definitely include personality measures of the expecter and probably some relevant measure of targets as well.

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Appendix A

Analogy Pretest Items

1. LINK is to CHAIN as: (E)
   a. bread is to water
   b. rope is to hemp
   c. warp is to woof
* d. part is to whole
   e. crime is to punishment

2. GASOLINE is to OIL as STEEL is to: (M)
   a. automobile
* b. iron
   c. copper
   d. metal

3. REQUEST is to DEMAND as: (H)
   a. reply is to respond
   b. regard is to reject
   c. inquire is to ask
* d. wish is to crave
   e. seek is to hide

4. GASOLINE is to PETROLEUM as SUGAR is to: (E)
   a. sweet
   b. oil
   c. plant
* d. cane

5. HESITATE is to PROCRASTINATE as: (H)
   a. district attorney is to criminal
* b. peccadillo is to crime
   c. armadillo is to bone
   d. bushel is to peck
   e. sheriff is to jail

6. ALLEVIATE is to AGGRAVATE as: (H)
   a. joke is to worry
   b. elevate is to agree
   c. level is to grade
* d. plastic is to rigid
   e. alluvial is to gravelly

7. ADVERSITY is to HAPPINESS as _____ is to SERENITY. (H)
   a. misfortune
   b. gaiety
   c. petulance
* d. vehemence

8. _____ is to PIANO as LYRE is to HARP. (H)
   a. organ
* b. harpsichord
   c. lute
   d. clef

9. WATERMARK is to BIRTHMARK as: (H)
   a. buoy is to stamp
* b. paper is to person
   c. tide is to character
   d. line is to signal
   e. meaning is to significance

10. STALLION is to ROOSTER as: (M)
   a. buck is to doe
   b. filly is to colt
   c. horse is to chicken
   d. foal is to calf
* e. mare is to hen

11. DOG is to FLEA as HORSE is to: (E)
   a. rider
* b. fly
   c. mane
   d. shoe

12. COLT is to CALF as PUP is to: (H)
   a. dog
   b. puppy
* c. owlet
   d. guppy

13. LEXICON is to DICTIONARY as OFFICER is to: (H)
* a. policeman
   b, gentleman
   c. law
   d. protection

14. SKIM is to READ as READ is to: (H)
    a. write
* b. pore
    c. spell
    d. recite

15. PARROT is to SPARROW as: (M)
    a. dog is to poodle
    b. elephant is to ant
* c. carp is to flounder
    d. lion is to cat
    e. eagle is to butterfly

16. RADIUS is to CIRCLE as: (H)
    a. rubber is to tire
    b. bisect is to angle
    c. equator is to earth
    d. chord is to circumference
* e. spoke is to wheel

17. CONQUER is to SUBJUGATE as: (H)
    a. esteem is to respect
* b. slander is to vilify
    c. discern is to observe
    d. ponder is to deliberate
    e. freedom is to slavery

18. POSSIBLE is to PROBABLE as: (H)
    a. likely is to unlikely
    b. best is to better
* c. willing is to eager
    d. quick is to fast
    e. frighten is to worry

19. SOUP is to NUTS as: (H)
    a. bread is to butter
    b. yes is to no
    c. potatoes are to meat
    d. dry is to wet
* e. alpha is to omega

20. SLICE is to LOAF as ISLAND is to: (H)
    a. land
* b. archipelago
    c. peninsula
    d. ocean

21. FOOTBALL is to SIGNALS as WAR is to: (E)
    a. guns
* b. codes
    c. thunder
    d. soldiers

22. INTIMIDATE is to FEAR as: (M)
    a. maintain is to satisfaction
* b. astonish is to wonder
    c. soothe is to concern
    d. feed is to hunger
    e. awaken is to tiredness

23. PLANTS are to COAL as: (M)
    a. water is to fish
    b. air is to gas
* c. animals are to oil
    d. rocks are to heat
    e. alcohol is to burn

24. TOMORROW is to YESTERDAY as FUTURE is to: (E)
    a. present
    b. unknown
    c. ago
* d. past

25. MUFFIN is to ROLL as: (H)
    a. cake is to icing
    b. pie is to cake
    c. bakery is to grocery
    d. roll is to bagel
* e. cake is to bread

Note. "*" indicates correct response. (E) indicates item chosen as "easy", (M) indicates item chosen as medium difficulty, (H) indicates item chosen as hard.

(Steinberg, 1985)

Appendix B

Applicant/Selector Screening
NA Scale

Please indicate whether or not each statement is characteristic of you by circling a number on the scale which appears beside each statement. The information will be seen only by the experimenter and will be used to for research purposes in this experiment. Answer all questions working as quickly as you can.

1.	Hard working is something I like to avoid. (WE)	Yes 0	1	No 2
2.	I can easily sit for a long time doing nothing. (WE)	Yes 0	1	No 2
3.	I must admit I often do as little work as I can get away with. (WE)	Yes 0	1	No 2
4.	I am basically a lazy person. (WE)	Yes 0	1	No 2
5.	I often put off until tomorrow things I know I should do today. (WE)	Yes 0	1	No 2
6.	I easily get bored if I don't have something to do. (WE)*	Yes 0	1	No 2
7.	I like to work hard. (WE)*	Yes 0	1	No 2
8.	If there is an opportunity to earn money, am usually there. (Acq)*	Yes 0	1	No 2
9.	I would be willing to work for a salary that was below average if the job was pleasant. (Acq)	Yes 0	1	No 2
10.	The kind of work I like is the one that pays top salary for top performance. (Acq)*	Yes 0	1	No 2

11.	As long as I'm paid for my work, I don't mind working while others are having fun. (Acq)*	Yes 0	1	No 2
12.	I frequently think about what I might do to earn a great deal of money. (Acq)*	Yes 0	1	No 2
13.	It is important to me to make lots of money. (Acq)*	Yes 0	1	No 2
14.	The most important think about a job is the pay. (Acq)*	Yes 0	1	No 2
15.	I think I would enjoy having authority over other people. (Dom)*	Yes 0	1	No 2
16.	If given the chance I would make a good leader of people. (Dom)*	Yes 0	1	No 2
17.	I think I am usually a leader in my group. (Dom)*	Yes 0	1	No 2
18.	I enjoy planning things and deciding what other people should do. (Dom)*	Yes 0	1	No 2
19.	I like to give orders and get things going. (Dom)*	Yes 0	1	No 2
20.	People take notice of what I say. (Dom)*	Yes 0	1	No 2
21.	When a group I belong to plans an activity I would rather direct it myself than just help out and have someone else organize it. (Dom)*	Yes 0	1	No 2
22.	I hate to see bad workmanship. (Exc)*	Yes 0	1	No 2
23.	Part of the satisfaction in doing something comes from seeing how good the finished product looks. (Exc)*	Yes 0	1	No 2

		Yes		No
24.	It is no use playing a game when you are playing with someone as good as yourself. (Exc)	0	1	2
25.	I get a sense of satisfaction out of being able to say I have done a very good job on a project. (Exc)	0	1	2
26.	I find satisfaction in working as well as I can. (Exc)*	0	1	2
27.	I find satisfaction in exceeding my previous performance even if I don't outperform others. (Exc)*	0	1	2
28.	There is satisfaction in a job well done. (Exc)*	0	1	2
29.	I try harder when I'm in competition with other people. (Com)*	0	1	2
30.	It annoys me when other people perform better than I do. (Com)*	0	1	2
31.	I judge my performance on whether I do better than others rather than on just getting a good result. (Com)*	0	1	2
32.	If I get a good result, it doesn't matter if others do better. (Com)	0	1	2
33.	I would never allow others to get the credit for what I have done. (Com)*	0	1	2
34.	To be a real success I feel I have to do better than everyone I come up against. (Com)*	0	1	2
35.	It is important to me to perform better than others on a task. (Com)*	0	1	2

		Yes		No
36.	I would like an important job where people look up to me. (SA)*	0	1	2
37.	I like talking to people who are important. (SA)*	0	1	2
38.	I want to be an important person in the community. (SA)*	0	1	2
39.	I like to be admired for my achievements. (SA)*	0	1	2
40.	I dislike being the center of attention. (SA)	0	1	2
41.	I like to have people come to me for advice. (SA)*	0	1	2
42.	I find satisfaction in having influence over others because of my position in the community. (SA)*	0	1	2
43.	I would rather do something at which I feel confident and relaxed than something which is challenging and difficult. (Mas)	0	1	2
44.	I would rather learn easy fun games than difficult thought games. (Mas)	0	1	2
45.	If I'm not good at something I would rather keep struggling to master it than move on to something I may be good at. (Mas)*	0	1	2
46.	I prefer to work in situations that require a high level of skill. (Mas)*	0	1	2
47.	I more often attempt tasks that I am not sure I can do than tasks that I know I can do. (Mas)*	0	1	2

		Yes		No
48.	I like to be busy all the time. (Mas)*	0	1	2
49.	I feel like giving up quickly when things go wrong. (Mas)	0	1	2

Once you have completed this measure please turn it face down beside you. The experimenter will be picking up each measure as you complete them in order to maintain confidentiality.

Note. WE=Work Ethic, Acq=Acquisitiveness, Dom=Dominance, Exc=Excellence, Com=Competitiveness, SA=Status Aspiration, Mas=Mastery. * indicates items reversed for scoring.

(Cassidy & Lynn, 1989)

Appendix C

Applicant/Selector Screening
SC Scale

Circle a number on the scale below each statement to indicate how characteristic or uncharacteristic that statement is of you. Be as frank as possible. The information will be seen only by the experimenter and will be used only for research purposes in this experiment. Answer all questions working as quickly as you can.

1. I'm always trying to figure myself out. (Priv)

0_____1_____2_____3_____4
extremely uncharacteristic **extremely characteristic**

2. I'm concerned about my style of doing things. (Pub)

0_____1_____2_____3_____4
extremely uncharacteristic **extremely characteristic**

3. Generally, I'm not very aware of myself. (Priv)*

0_____1_____2_____3_____4
extremely uncharacteristic **extremely characteristic**

4. It takes me time to overcome my shyness in new situations. (Anx)

0_____1_____2_____3_____4
extremely uncharacteristic **extremely characteristic**

5. I reflect about myself a lot. (Priv)

0_____1_____2_____3_____4
extremely uncharacteristic **extremely characteristic**

6. I'm concerned about the way I present myself. (Pub)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

7. I'm often the subject of my own fantasies. (Priv)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

8. I have trouble working when someone is watching me. (Anx)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

9. I never scrutinize myself. (Priv)*

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

10. I get embarrassed very easily. (Anx)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

11. I'm self-conscious about the way I look. (Pub)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

12. I don't find it hard to talk to strangers. (Anx)*

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

13. I'm generally attentive to my inner feelings. (Priv)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

14. I usually worry about making a good impression. (Pub)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

15. I'm constantly examining my motives. (Priv)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

16. I feel anxious when I speak in front of a group. (Anx)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

17. One of the last things I do before I leave my house is look in the mirror. (Pub)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

18. I sometimes have feelings that I'm off somewhere watching myself. (Priv)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

19. I'm concerned about what other people think of me. (Pub)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

20. I'm alert to changes in my mood. (Priv)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

21. I'm usually aware of my appearance. (Pub)

0_____1_____2_____3_____4
extremely extremely
uncharacteristic characteristic

22. I'm aware of the way my mind works when I work through a problem. (Priv)

0_____1_____2_____3_____4
extremely uncharacteristic **extremely characteristic**

23. Large groups make me nervous. (Anx)

0_____1_____2_____3_____4
extremely uncharacteristic **extremely characteristic**

Once you have completed this measure please turn it face down beside you. The experimenter will be picking up each measure as you complete them in order to maintain confidentiality.

Note. Subscales are as follows: Priv = Private Self-consciousness, Pub = Public Self-consciousness, Anx = Social Anxiety. * indicates item that were reverse scored.

(Fenigstein, Scheier, & Buss, 1975)

Appendix D

SELECTOR QUESTIONNAIRE

Please respond to <u>each question</u> by circling the number that best represents your feelings about the question.

1. Based on the computer test, how did you expect this applicant to perform on the Bumper-Stumper task?

not at well _____ very well

1 2 3 4 5 6 7

2. Compared to other applicants, at what level did you expect this applicant to perform?

worse than almost all others _____ better than almost all others

1 2 3 4 5 6 7

3. How would you rate this applicant's ability to complete "Bumper-Stumpers?

not at all able _____ very able

1 2 3 4 5 6 7

4. Should this applicant be chosen as a contestant for "Bumper-Stumpers"?

definitely not _____ definitely yes

1 2 3 4 5 6 7

In order to report the means for those participating in this experiment please indicate:

YOUR AGE _____ SEX _____ YEAR IN SCHOOL_____

Appendix E

APPLICANT QUESTIONNAIRE

Please respond to <u>each question</u> by circling the number that best represents your feelings about the question.

1. How would you rate the selector's instructions in the "Bumper-Stumper" task?

not at all adequate 1 2 3 4 5 6 7 more than adequate

2. Were you given enough information to be able to perform the task to the best of your ability?

definitely not 1 2 3 4 5 6 7 definitely yes

3. How enjoyable was the task for you?

not at all enjoyable 1 2 3 4 5 6 7 very enjoyable

4. Would you be willing to participate in a competition involving another volunteer?

definitely not 1 2 3 4 5 6 7 definitely yes

In order to report the means for those participating in this experiment please indicate:

YOUR AGE _____ SEX _____ YEAR IN SCHOOL _____

Appendix F

KEY FOR PRACTICE STUMPERS

Stumper	Printed Hint	Answer
KWAKRS	The personalized license plate of Daisy and Donald Duck	QUACKERS
IC SNUP	What Charlie Brown might say	I SEE SNOOPY
SRJN	Someone who operates	SURGEON
¢APD	A bug collector's prize	CENTIPEDE
SERNDPT	Lady Luck	SERENDIPITY
¢ AWAY	A guy in exile	SENT AWAY
MITRN	Words of a selfish driver	MY TURN
NII TUN	A pleased composer has this	NICE TUNE
SLAYGOOT	A spirit killer does this	SLAY GHOST
PROLBRD	Holds the keys	PAROLE BOARD
TINEFLO	A midget	TINY FELLOW
SIZRKUT	What a barber might do	SCISSOR CUT
INOYUC	What an optometrist might say	I KNOW WHY YOU SEE
UP*T	A young punk	UP-START
KRAAE 1	A mental case	CRAZY ONE

Appendix G

KEY FOR FINAL-STUMPERS

SLIDE #	STUMPER	HINT	ANSWER
1 & 2	KEEPBUX	What an accountant might do	KEEP BOOKS
3 & 4	HIHIWAA	Where a heavenly traffic cop might patrol	HIGH HIGHWAY
5 & 6	O4FLO	What a riverbank dweller might worry about	OVERFLOW
7 & 8	DNSDMNS	Mr. Wilson's Neighbor	DENNIS THE MENACE
9 & 10	2L82PRAY	An oversleeping churchgoer	TOO LATE TO PRAY
11 & 12	REVIIR	A proofreader	REVISER
13 & 14	CRRCHRJ	Useful when you're on a budget	SEARS CHARGE
15 & 16	ST YYGI	A peddler	STREETWISE GUY
17 & 18	KWINC	Jack Klugman	QUINCY
19 & 20	IV2NCKR	A gold digger	FORTUNE SEEKER
21 & 22	2S2RDSS	A pair of flyers	TWO STEWARDESS
22 & 23	INSNCR	A lounge lizard	INSINCERE
24 & 25	GRAAFL1	A dancer	GRACEFUL ONE
26 & 27	BNII2ME	An insecure driver might say	BE NICE TO ME
29 & 30	XQQRFOOS	What a pacifist might say	EXCUSE OUR FOES

Appendix H
Verbal Instructions

This is a role playing experiment. One of you will be asked to play the role of an applicant and one of you will be asked to play the role selector. I accomplish random assignment to these roles by alternating which side of the room is assigned to be applicant and then allowing you to choose which side of the room you want when you come in. For this session, you (experimenter indicates the appropriate team member) are assigned to be the applicant and you (experimenter indicates the other team member) are assigned to be the selector.

The applicant's job is to imagine you are trying to get on a game show called "Bumper Stumpers". You would really like to get on the show because you think there are big bucks and big prizes. The selector's job is to pick the best contestant for the show. Since you don't know how good the next applicant coming through the door will be you have to rate carefully. In order to test my two selection methods against each other I plan to have a playoff of the top five rated people from each method. This doesn't mean you are committed (experimenter addresses "applicant"), if you are one of the top five rated people and you are interested and have the time you can say yes, if not that's

OK. What it does mean however, (experimenter addresses "selector") is that I need accurate ratings.

Your team has been randomly assigned to an objective selection method which includes a pre-selection task on the computer. The task is not exactly like "Bumper-Stumpers" but it is related to the ability to do them. I'll be asking the applicant to come back to the computer and follow the directions on the screen. While he/she is doing that, the selector will be looking at some "Bumper-Stumper" practice materials to decide how you want to explain what "Bumper-Stumpers" are.

Once the applicant is finished he/she will rejoin the selector and you (experimenter addresses selector) will be able to go back to the computer to get the results. Then you will have up to ten minutes to practice "Bumper-Stumpers" in any way you like. At the end of ten minutes, or earlier if you tell me you are ready, we will show you different "Bumper-Stumpers" on slides. Ok, are you ready?