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Motivated strategies in the performance appraisal process: Effects of rater accountability

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Rice University, 1992
RICE UNIVERSITY

MOTIVATED STRATEGIES IN THE PERFORMANCE
APPRaisal PROCESS: EFFECTS OF RATER ACCOUNTABILITY

by

MARNIE R. SWERDLIN

A THESIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE
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Abstract
Motivated Strategies in the Performance Appraisal Process: Effects of Rater Accountability
Marnie R. Swerdlin

Recent performance appraisal research has focused on rater cognitive processes. Instead, this research examined the effects of a motivational variable, accountability, on rater cognitive processes and on performance ratings. In the first experiment, accountability attenuated a primacy effect in evaluative ratings, and, when negative information was presented first, increased the time spent looking at performance information. However, there was no evidence that looking time mediated the effect of accountability on evaluative ratings. In the second experiment, accountable subjects had a more conservative response bias in behavioral ratings relative to unaccountable subjects if evaluative ratings were made prior to behavioral ratings. Accountable subjects who made behavioral ratings first showed no response bias in behavioral ratings although they had less confidence in their ratings relative to other subjects. This research demonstrates that accountability can influence rater cognitive processes and thus performance ratings but that its effects are situational.
Acknowledgements

To my parents, without whose encouragement, emotional support, and advice, I could not have endured the obstacles along the way.

To Kurt, my fiance, for his constant love, understanding, and patience.

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Motivated Strategies in the Performance Appraisal Process: Effects of Rater Accountability

In the last decade, performance appraisal research has largely focused on the cognitive processes of the rater. This line of research was stimulated by a group of theoretical and review articles that called attention to the importance of rater cognitive processes (DeCotiis & Petit, 1978; DeNisi, Cafferty & Meglino, 1984; Feldman, 1981; Ilgen & Feldman, 1983; Landy and Farr, 1980). Several of these articles proposed models of the performance appraisal process that included the cognitive processes of the rater in addition to the rating instrument and the behavior of the target (DeCotiis & Petit 1978; DeNisi et al., 1984; Ilgen & Feldman, 1983). Following the trend in social cognition which views people as cognitive misers who rely on various cognitive short-cuts and/or heuristics (Fiske & Taylor, 1984), the performance appraisal research focusing on the rater's cognitive processes has been guided by the view that raters are cognitive misers who rely on various cognitive short-cuts in processing performance information (instead of carefully processing information) and are therefore subject to many cognitive biases and inaccuracy as a result. Indeed, much research has confirmed this view. For example, raters are vulnerable to primacy effects (Benassi, 1982; Freund, Kruglanski, & Shpitzajzen, 1985; Kruglanski & Freund, 1983; Sinclair, 1988; Whitehead, Smith, & McNabney, 1987), recency effects (Steiner & Rain, 1989; Whitehead et al., 1987), contrast effects (Murphy, Balzer, Lockhart, & Eisenman, 1985; Smither, Reilly, & Buda, 1988), and assimilation effects (Buda, 1984; Smither et al., 1988) in their performance appraisals of others.

Given these findings, one is left with the question: Can raters ever make unbiased and accurate ratings? In considering this question, the role of
motivation needs to be considered. Rater motivation is included as a major variable in the model of the performance appraisal process proposed by DeCotis and Petit (1978). Decotis and Petit's model posits that raters are more likely to make accurate performance ratings when they are motivated to rate accurately. Yet, motivational variables have been ignored or overlooked in much of the empirical research on performance appraisal that has focused on the cognitive processes of the rater. Most prior research attempting to improve the performance appraisal process, for example, has focused on the ability of raters to make unbiased, accurate appraisals (Work has been done on rating formats and rater training.). Not much research has focused on raters' willingness or motivation to make unbiased, accurate appraisals (Banks & Murphy, 1985).

One reason motivation may have been overlooked in this research is that the cognitive miser model guiding the research is "silent on the issue of motivations", and thus "the role of motivation has vanished almost entirely" (Fiske & Taylor, 1984, p. 12). But, as Fiske and Taylor (1984) note, the failure of the cognitive miser model to take motivation into account may "prove to be the model's fatal flaw" (p. 12) as both cognition and motivation are "essential to predicting behavior" (p. 5). In the words of Fiske & Taylor (1984), "cognition ... is not enough"; motivation is "the motor for behavior" (p. 5).

How might motivation affect behavior? It seems reasonable that motivational variables might moderate the strategies used to process information; perhaps certain motivational variables promote more careful processing of information. If so, motivational variables could possibly attenuate cognitive biases present in the performance appraisal process and the resulting bias and inaccuracy in performance ratings.
One motivational variable that may have the potential to affect the quality of performance ratings is accountability. As conceptualized by Tetlock (1985b), accountability is pressure/responsibility to explain and justify one's judgments and decisions. This definition of accountability is to be distinguished from its more common meaning, that of mere responsibility for the consequences of one's actions. How might accountability affect a rater? If a rater knows that his/her judgments must be defended, he/she may be motivated to scrutinize the evidence such judgments are based on more carefully. Indeed, accountability may induce cognitive misers to become "more thorough and vigilant information processors" (Tetlock, 1985a, p. 319).

Supportive evidence for the favorable effects of accountability on cognitive processes comes from past research by Tetlock (1983a, 1983b, 1985b), Tetlock and Kim (1987), and Weldon and Gargano (1988). These studies show that accountability's effects on information processing extend across a variety of information processing dimensions. The first study by Tetlock (1983a) found that subjects expecting to justify their views on controversial social issues to another person with unknown views processed information with more integrative complexity than did unaccountable subjects. Integrative complexity requires both differentiation and integration of information relevant to some problem, issue, or situation. Differentiation involves accounting for multiple characteristics of a problem, and integration involves "the development of complex connections among differentiated characteristics" (Tetlock, 1983a, p. 77). In Tetlock's second study (1983b), accountability reduced primacy effects in judgments of guilt when subjects were informed, prior to the presentation of information, that they would be held accountable for their verdicts. In the third study by Tetlock (1985b), accountability eliminated the
overattribution effect in judgments of an essay writer's behavior when subjects were informed, prior to reading the essay, that they would have to justify their impressions of the essay writer. The study by Tetlock and Kim found that accountability, when manipulated prior to the introduction of stimulus information, increased both the integrative complexity of impressions of a target person and the accuracy of behavioral predictions about a target person. Weldon and Gargano demonstrated that accountability reduced social loafing in terms of cognitive effort exerted on a judgment task; under conditions of individual accountability, subjects with shared responsibility worked as hard as individual judges on one measure of cognitive effort.

Before continuing, however, it should be noted that accountability is not a panacea; some research has shown that accountability does not always have favorable effects on cognitive processing. The results of two studies in the applied literature by Gordon, Rozelle, and Baxter (1988, 1989) appear, at first glance, to be inconsistent with the view that accountability has favorable effects on information processing. One of these studies (Gordon et al., 1988) found that accountability increased subjects' stereotypical impressions of older male job applicants and decreased their positive evaluations of older male job applicants. The other study (Gordon et al., 1989) found that accountability increased subjects' age-related stereotypical impressions of female job applicants and also increased their dispositional attributions of the behavior of female job applicants.

The Gordon et al. studies though may not have truly manipulated accountability as conceptualized by Tetlock; instead, these two studies may have merely induced a transmission set (Zajonc, 1960). Tetlock (1985b) distinguishes accountability from a transmission set, defining a transmission set
as a situation in which one must merely communicate or convey (not explain and justify) information and/or judgments to others. The manipulation in the Gordon et al. studies is better characterized as a transmission set since subjects were told that they would be describing a target person and conveying the basis for their impressions to representatives from a personnel association. Induction of a transmission set may result in simplification or summarization of information in order to convey information to others (Tetlock, 1985b). Thus, induction of a transmission set may increase rather than decrease reliance on "cognitive short-cuts" such as stereotypes. In light of this distinction, the results obtained by Gordon et al. are not inconsistent with the evidence that accountability can have favorable effects on information processing.

However, studies by Tetlock and Boettger (1989a), Tetlock, Skitka, and Boettger (1989b) and one study in the performance appraisal domain (Becker & Klimoski, 1989) provide firmer evidence that accountability does not necessarily benefit cognitive processing. The Tetlock and Boettger (1989a) study found that, although accountable subjects considered more information in making predictions about an individual than unaccountable subjects did, their predictions were also diluted by nondiagnostic information. Accountability did not, therefore, make subjects better discriminators of the usefulness of information. Taking a contingency approach, Tetlock et al. (1989b) found evidence that information processing strategies in response to accountability may vary depending on situational circumstances (whether views of the audience are known and whether one is previously committed to a viewpoint) and individual differences. Only when both the views of the audience were unknown and subjects were not previously committed to a viewpoint did accountability have favorable effects on cognitive processing. Specifically,
accountable subjects in this situation expressed more integratively complex and evaluatively inconsistent thoughts. The effect of accountability in this situation was more pronounced in subjects with high social anxiety.

Of the few studies (Becker & Klimoski, 1989; Klimoski & Inks, 1990) that have attempted to manipulate accountability in the performance appraisal domain, one (Klimoski & Inks, 1990) of them did not overtly manipulate accountability as conceptualized by Tetlock. Instead, Klimoski and Inks (1990) told subjects that they would be giving feedback (either written or in person) to the target whose performance they would rate. It is not clear that this manipulation operationalized Tetlock's conception of accountability. Knowledge that one must provide performance feedback may merely induce a transmission set as justification and explanation of the feedback are not necessarily components of the feedback process. At best, this manipulation is vague and indirect, and it cannot be assumed that accountability, as defined by Tetlock, is what was actually operationalized. Thus, the results of this study will not be discussed.

The study by Becker and Klimoski (1989) was free of such problems, however. Becker and Klimoski (1989) manipulated accountability, ratee attractiveness, ratee power, and performance trend and examined evaluative performance ratings and performance feedback. In the poor performance conditions, accountability resulted in lower ratings the more attractive the target was, and the reverse pattern of ratings was observed for unaccountable subjects. Thus, although unaccountable subjects were vulnerable to the "what is beautiful is good" bias (Dion, Berscheid, & Walster, 1972), accountable subjects overcorrected for this bias. Additionally, in the above average
performance condition, accountable subjects were more likely to give more encouraging and more specific feedback.

Although the empirical literature demonstrates that accountability may enhance or impair cognitive processing, the focus of the current research was to investigate the potential of accountability to have favorable effects on information processing, specifically in the domain of performance appraisal. And, although the one performance appraisal study investigating the effects of rater accountability indicates that accountability may have detrimental effects on the cognitive processes of the rater, definitive conclusions about the effects of accountability in the performance appraisal domain cannot be based on only one study. More studies are needed for replication, to address other aspects of rater cognitive processes that are likely to be affected by rater accountability, and to examine the the mechanisms by which accountability affects rater cognitive processes.

The current research investigates the effects of motivation, in the form of accountability, on rater cognitive processes in performance appraisal by examining (1) the effects of accountability on bias and accuracy in performance ratings and (2) the mediating processes, specifically attentional processes, underlying the effects of accountability on performance ratings. The current research consists of two studies; let us turn attention to the first of these studies.

Experiment 1

Rationale

The purpose of the first study was to explore one motivational factor, accountability, as a moderator of bias in performance ratings. There are many types of cognitive biases that could have been studied, but the primacy effect was chosen for this study because it has important implications for performance
appraisal. In this context, the primacy effect is the tendency to weight or be influenced by early information more heavily than later information when making decisions or judgments. In assessing the performance of an employee, this bias can be a costly error in judgment when later performance information about an employee is inconsistent with or negates earlier performance information about the employee.

What might cause primacy effects in making social judgments such as performance ratings? One possible explanation for the occurrence of primacy effects in making social judgments is that they are mediated by attentional processes (Tetlock, 1983b). Considered together, the impression formation research on primacy effects (Anderson & Hubert, 1963; Belmore, 1987; Hendrick and Constantini, 1970; Stewart, 1965), the top-down processing that is characteristic of the cognitive miser (Fiske & Taylor, 1984), and the role of categorization processes in performance appraisal (Feldman, 1981; Ilgen & Feldman, 1983) indicate that attentional processes might mediate the occurrence of primacy effects in performance ratings in the following way. A person receiving performance information about another individual may initially try to form an impression of or categorize the individual or individual's performance and thus pay attention to early information. Once an impression is formed or a categorization is made, however, one may use it to guide subsequent processing of new performance information, paying less attention to later pieces of information.

Motivational variables such as accountability though may serve to guard against primacy effects in performance ratings. An explanation of accountability’s potential success in eradicating primacy effects may also be couched in terms of attentional processes. Because it is believed that one’s
judgments must be explained and justified under conditions of accountability, one may be more cautious in processing information, thus paying attention to later information as well as early information. This influence of accountability through attentional processes is suggested by Tetlock's (1983a, 1983b, 1985b) finding that accountability only influences information processing when subjects are made aware, before they are exposed to stimulus materials/information, that they will be justifying their impressions, judgments, decisions, etc.

The specific purposes of this study were thus twofold. One specific purpose of this study was to examine whether accountability, a motivational factor, can attenuate primacy effects, a type of cognitive bias, in evaluative performance ratings. The other specific purpose of this study was to examine why accountability affects the occurrence of primacy effects in evaluative ratings, if indeed it does so. In other words, what processes mediate the influence of accountability? An examination of attentional processes was conducted in an attempt to answer this question.

**Hypotheses**

The following predictions were made for the first study, which manipulated accountability and order of performance information in a performance appraisal context.

1. Although unaccountable subjects will display primacy effects in evaluative ratings of a target individual, accountable subjects will not display primacy effects. Specifically, unaccountable subjects who receive positive performance information initially will evaluate the target more favorably than unaccountable subjects who receive negative performance information initially. Ratings by accountable subjects will not be influenced by the order of performance information received.
2. Overall, accountable subjects will spend more time examining the performance information presented than will unaccountable subjects.

3. Within order of information conditions, accountable subjects will spend more time examining the later items of information than will unaccountable subjects.

**Method**

**Design and Subjects**

A $2 \times 2$ experiment manipulating accountability and order of performance information as between-subjects variables was conducted in a performance appraisal context. Eighty-six undergraduates at Rice University served as subjects, half of whom were in an accountable condition and half of whom were in an unaccountable condition. Additionally, half of the subjects were exposed to positive, or effective, performance information about a target initially (positive first condition) while the other half were exposed to negative, or ineffective, performance information about a target initially (negative first condition). Subjects were assigned randomly to conditions except that, in any one session, all subjects were either in the accountable condition or the unaccountable condition. The two order-of-information conditions, positive first and negative first, were nested within experimental sessions. Accountable sessions included no more than four subjects, and unaccountable sessions included no more than six subjects.

**Procedure**

Experimental sessions were started with a verbal introduction in which all subjects were told that they would be participating in an organizational simulation and would be working on several different tasks (although there was only one task). Subjects then signed a consent form. The verbal introduction
and consent form for the unaccountable condition informed subjects that their responses were anonymous. The verbal introduction and consent form for accountable subjects informed them that they would be individually interviewed by an industrial/organizational psychologist associated with the research project at the conclusion of the experiment. Accountable subjects were told that, in the interview, they would be required to explain and justify their ratings, impressions, and judgments of a police officer about whom they would receive information in the first task. They were also told that the interviews would be audiotaped. The verbal introductions and consent forms are presented in Appendices A and B.

The experimental task consisted of reading a job description for the job of police officer and 30 incidents describing the work behavior of a police officer, all of which were presented on a Macintosh Plus computer programmed to record how much time was spent on each behavior. Additionally, prior to the job description, more detailed instructions about the experimental task appeared on the computer screen and were read aloud by the experimenter. These additional instructions and the job description are presented in Appendix C. Behaviors were presented one at a time, and half of the behaviors were positive, or effective, while the other half were negative, or ineffective. In the positive first condition, the majority of the first behaviors presented were positive; in the negative first condition, the majority of the first behaviors presented were negative. Of the first 15 behaviors in the positive first condition, 10 were positive, and 5 were negative; of the last 15 behaviors, 5 were positive, and 10 were negative. Specifically, in the positive first condition, the first 8 behaviors were positive, the next 21 behaviors formed a repeating pattern of 2 negative behaviors followed by 1 positive behavior, and the last behavior was
negative. In the negative first condition, negative behaviors appeared where positive behaviors did in the positive first condition, and positive behaviors appeared where negative behaviors did in the positive first condition. Although the order of behaviors presented was not the same in the two order-of-information conditions, all subjects received the same information (the same 30 incidents). The list of behaviors, in order of their presentation, is presented for each order-of-information condition in Appendix D.

After reading the behaviors, subjects then completed, on paper, four 9-point evaluative ratings of the police officer and answered a second questionnaire serving as a manipulation check. The second questionnaire also collected demographic information about the subjects that will not be discussed further in this paper. These two questionnaires are presented in Appendix E.

Following the completion of the questionnaires, all subjects were told that there were no more tasks to do, and accountable subjects were told that there were no post-experimental interviews. Subjects were thoroughly debriefed verbally and given a detailed, written debriefing.

Measure of attention

Attention to performance information was operationalized as time spent on the behaviors. Looking time was recorded for each behavior by the computer in sixtieths of a second. Although time spent on the behaviors is an indirect measure of attention in that it assumes one thinks about stimuli one is observing and in that it does not measure effort exerted on thoughts, it does tap into the objects of one's thoughts (Fiske & Taylor, 1984).

Results

Data from ten subjects were excluded from the analyses. Seven of these subjects had been in an experiment with very similar stimulus materials, and
data for three other subjects were lost while transferring data between computer files. Data for 76 subjects, 19 in each cell, were thus available for analysis.

**Manipulation Checks**

**Factual manipulation check.** One-hundred percent of subjects in the accountable condition responded that they expected to explain and justify their ratings, but, surprisingly, 22 of the 38 (57.9%) unaccountable subjects responded that they expected to do so.

**Evaluative manipulation checks.** Accountable subjects reported being more concerned about making accurate ratings than did unaccountable subjects. Their mean ratings on this measure were 7.47 and 6.63, respectively, \( F(1, 72) = 7.23, p < .01 \). As revealed by the means, both accountable and unaccountable subjects indicated a substantial amount of concern about making accurate ratings considering the scale provided for this measure. There was no difference between accountable (\( M = 4.00 \)) and unaccountable subjects (\( M = 3.32 \)) regarding the amount of pressure experienced during the experiment, \( F(1, 72) = 2.15, \text{ns} \). Experienced pressure for both groups was moderately low given the scale provided for this measure.

**Evaluative Ratings**

The coefficient alpha of the four evaluative measures (EFF, the first evaluative measure; COM, the second evaluative measure; FUT, the third evaluative measure; and ADV, the fourth evaluative measure) was high (\( r = .866 \)), and their intercorrelations were moderate to high (See Table 1). However, one of the measures, COM, had somewhat lower correlations with two of the other measures relative to the other intercorrelations in Table 1. For this reason and since the coefficient alpha remains high (\( r = .846 \)) even when
Table 1

*Intercorrelations Among Evaluative Measures*

<table>
<thead>
<tr>
<th></th>
<th>COM</th>
<th>FUT</th>
<th>ADV</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFF</td>
<td>.703</td>
<td>.638</td>
<td>.640</td>
</tr>
<tr>
<td>COM</td>
<td>___</td>
<td>.513</td>
<td>.577</td>
</tr>
<tr>
<td>FUT</td>
<td>___</td>
<td>___</td>
<td>.678</td>
</tr>
<tr>
<td>ADV</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
</tbody>
</table>
excluding COM, a composite measure consisting of EFF, FUT, and ADV was formed for use in the analyses. As predicted, a main effect for order of information was found to be significant (\( F(1, 72) = 18.21, p<.0001 \)) for this composite measure. Overall, subjects in the positive first condition gave higher ratings (\( M = 5.82 \)) than did subjects in the negative first condition (\( M = 4.53 \)). Thus, a primacy effect was evident in the ratings. No main effect of accountability was found, \( F(1, 72) = .16 \), ns. The expected interaction between accountability and order of information was marginally significant, \( F(1, 72) = 3.20, p<.08 \) (See Table 2 for means). Testing the first hypothesis directly, t-tests were conducted separately for the accountable and the unaccountable conditions to see if the order of information effect was significant in both conditions. In the unaccountable condition, the order of information effect (\( t = 3.85 \)) was significant (\( p<.0005, df = 36 \)). In the accountable condition, the order of information effect (\( t = 2.01 \)) was marginally significant (\( p<.06, df = 36 \)). Thus, the difference between the ratings in the positive first condition and the negative first condition was significant for unaccountable subjects while it was only marginally significant for accountable subjects. A primacy effect was therefore present in the ratings of unaccountable subjects but was attenuated in the ratings of accountable subjects. Viewed from a proportion of variance perspective, order of information accounted for 29% of the rating variance of unaccountable subjects but only 10% of the rating variance of accountable subjects.

**Looking Time**

Results for total looking time revealed that, as predicted, accountable subjects (\( M = 394.66 \) secs) spent significantly more time looking at the total set of behaviors (\( F(1, 72) = 7.42, p<.01 \)) relative to unaccountable subjects (\( M = \))
Table 2

Mean Ratings for Composite Evaluative Measure

<table>
<thead>
<tr>
<th>Order of information</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive first</td>
<td>5.61&lt;sup&gt;a&lt;/sup&gt;</td>
<td>6.04&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>(SD=.89)</td>
<td>(SD=1.51)</td>
</tr>
<tr>
<td>Negative first</td>
<td>4.86&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.19&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>(SD=1.38)</td>
<td>(SD=1.44)</td>
</tr>
</tbody>
</table>

Note.  <i>n = 19</i> in each cell

SD = standard deviation

Means in the same column with different superscripts are significantly different at <i>p< .05</i>.

Scale ranges from 1 to 9. Higher values indicate more favorable ratings of the target.
344.81 secs). There was no main effect of order of information ($F(1, 72) = .06$, ns) and no interaction between accountability and order of information ($F(1, 72) = 2.77, p > .10$) on total looking time.

In order to test the third hypothesis, analyses were conducted on several looking time measures within each order-of-information condition. It was necessary to examine differences in looking time between accountable and unaccountable subjects within each order-of-information condition because the sequence of behaviors was not the same in the two order-of-information conditions and because all behaviors were not of equal length. Within the negative first condition, accountable subjects, relative to unaccountable subjects, spent significantly more time looking at the total set of behaviors ($F(1, 72) = 9.63, p < .005$), the first 15 behaviors ($F(1, 72) = 8.74, p < .005$), and the last 15 behaviors ($F(1, 72) = 7.71, p < .01$). Within the positive first condition, there were no significant differences between accountable and unaccountable subjects on the looking time measures ($F(1, 72) = .56$, ns for the total set of behaviors; $F(1, 72) = .71$, ns for the first 15 behaviors; $F(1, 72) = .23$, ns for the last 15 behaviors). Looking time means are presented in Table 3.

Relationships Among Accountability, Looking Time, and Evaluative Ratings

Analyses of Covariance (ANCOVAs) were conducted to examine whether attentional processes, as measured by the looking time measures, mediated the effects of accountability and order of performance information on the composite evaluative rating. A separate ANCOVA was conducted for each of the three looking time measures, which were used as covariates. The ANCOVAs failed to indicate that attention, as measured by looking time, mediated the effects of the independent variables on the composite evaluative
Table 3

Means for Looking Time Measures by Accountability and Order of Information

**Total Looking Time (in secs)**

<table>
<thead>
<tr>
<th>Order of information</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive first</td>
<td>381.74\textsuperscript{a}</td>
<td>362.35\textsuperscript{a}</td>
</tr>
<tr>
<td></td>
<td>(SD=72.24)</td>
<td>(SD=64.23)</td>
</tr>
<tr>
<td>Negative first</td>
<td>407.58\textsuperscript{a}</td>
<td>327.27\textsuperscript{b}</td>
</tr>
<tr>
<td></td>
<td>(SD=107.94)</td>
<td>(SD=66.71)</td>
</tr>
</tbody>
</table>

**Looking Time for First 15 Behaviors (in secs)**

<table>
<thead>
<tr>
<th>Order of information</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive first</td>
<td>208.61\textsuperscript{a}</td>
<td>194.52\textsuperscript{a}</td>
</tr>
<tr>
<td></td>
<td>(SD=47.16)</td>
<td>(SD=39.28)</td>
</tr>
<tr>
<td>Negative first</td>
<td>218.88\textsuperscript{a}</td>
<td>169.54\textsuperscript{b}</td>
</tr>
<tr>
<td></td>
<td>(SD=73.57)</td>
<td>(SD=37.55)</td>
</tr>
</tbody>
</table>
Table 3 (continued)

Means for Looking Time Measures by Accountability and Order of Information

Looking Time for Last 15 Behaviors (in secs)

<table>
<thead>
<tr>
<th>Order of information</th>
<th>Accountability</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive first</td>
<td>173.13(^a) (SD=30.14)</td>
<td>167.84(^a) (SD=26.85)</td>
</tr>
<tr>
<td>Negative first</td>
<td>188.69(^a) (SD=44.01)</td>
<td>157.74(^b) (SD=33.97)</td>
</tr>
</tbody>
</table>

Note. \( n = 19 \) in each cell
SD = standard deviation
Means in the same row in the same subtable with different superscripts are significantly different at \( p < .05 \).
rating. The t-values and significance levels for the looking time parameters (when the looking time measures were used as covariates) were: \( t(71) = -.64, p > .50 \) for total looking time; \( t(71) = -1.07, p > .25 \) for looking time for the first 15; \( t(71) = .11, p > .90 \) for looking time for the last 15.

Using the looking time covariates, the effects of the independent variables and their interaction on the composite evaluative ratings were essentially the same as that found without using looking time as a covariate (See Table 4 for adjusted means). There was still no main effect of accountability (\( E(1, 71) = .33, \text{ns with total looking time as covariate}; E(1, 71) = .50, \text{ns with looking time for the first 15 as covariate}; E(1, 71) = .13, \text{ns with looking time for the last 15 as covariate} \)). The main effect of order of information remained significant (\( E(1, 71) = 18.20, p < .0001 \) with total looking time as covariate; \( E(1, 71) = 18.82, p < .0001 \) with looking time for the first 15 as covariate; \( E(1, 71) = 17.97, p < .0001 \) with looking time for the last 15 as covariate). The interaction between accountability and order of information remained marginally significant (\( E(1, 71) = 3.50, p < .07 \) with total looking time as covariate; \( E(1, 71) = 3.79, p < .06 \) with looking time for the first 15 as covariate; \( E(1, 71) = 2.97, p < .09 \) with looking time for the last 15 as covariate).

**Discussion**

Accountable subjects were aware of what they had been told regarding their ratings (that they would need to be explained and justified). However, over half of the unaccountable subjects indicated that they expected to explain and justify their ratings even though they had been told that their ratings were anonymous. The unaccountable subjects might have felt somewhat accountable simply due to the fact that they were subjects in an experiment and thus might have expected to explain their responses.
### Table 4

**Adjusted Means for Composite Evaluative Measure**

**Using Total Looking Time (in secs) as Covariate**

<table>
<thead>
<tr>
<th>Order of information</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive first</td>
<td>5.63</td>
<td>6.03</td>
</tr>
<tr>
<td>Negative first</td>
<td>4.91</td>
<td>4.13</td>
</tr>
</tbody>
</table>

**Using Looking Time for First 15 Behaviors (in secs) as Covariate**

<table>
<thead>
<tr>
<th>Order of information</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive first</td>
<td>5.64</td>
<td>6.03</td>
</tr>
<tr>
<td>Negative first</td>
<td>4.93</td>
<td>4.10</td>
</tr>
</tbody>
</table>
Table 4 (continued)

**Adjusted Means for Composite Evaluative Measure**

**Using Looking Time for Last 15 Behaviors (in secs) as Covariate**

<table>
<thead>
<tr>
<th>Accountability</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order of information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive first</td>
<td>5.61</td>
<td>6.04</td>
</tr>
<tr>
<td>Negative first</td>
<td>4.85</td>
<td>4.20</td>
</tr>
</tbody>
</table>

*Note.*  n = 19 in each cell

Scale ranges from 1 to 9. Higher values indicate more favorable ratings of the target.
One measure which captured an aspect of accountability in this study was that of concern for making accurate ratings. Accountable subjects reported being more concerned about making accurate ratings than did unaccountable subjects. However, supporting the idea that unaccountable subjects felt some degree of accountability, unaccountable subjects as well as accountable subjects were quite concerned about the accuracy of their ratings. Experienced pressure during the experiment was not an aspect of accountability in this experiment as both accountable and unaccountable subjects reported experiencing moderately low levels of pressure. The fact that attention to performance information (as measured by looking time) was increased by accountability when negative information was presented first provides direct evidence that accountability did have an effect on the processing of performance information.

Results indicated that accountability attenuated, but not eliminated, primacy effects in a composite evaluative rating of the target. Although unaccountable subjects initially receiving positive performance information about the target rated the target more favorably than unaccountable subjects initially receiving negative performance information about the target, accountable subjects were less influenced by order of performance information received in making ratings of the target. Thus, unaccountable subjects were quite vulnerable to a primacy effect in rating the performance of the target whereas accountable subjects were less vulnerable to this effect. This difference in vulnerability to a primacy effect was also reflected in the absolute level of the composite evaluative rating of the target; ratings made by accountable subjects were less extreme (more neutral) than those made by unaccountable subjects.
The predicted effects of accountability on the time spent examining the performance information were only supported for subjects initially receiving negative performance information about the target. In this order-of-information condition, accountable subjects spent more time examining the complete set of provided performance information and the later performance information than did unaccountable subjects. Although not predicted, accountable subjects also spent more time than the unaccountable subjects examining the early performance information in this order-of-information condition. Contrary to expectations, however, accountable and unaccountable subjects initially receiving positive performance information about the target showed no differences in the amount of time spent examining the complete set of performance information or the later performance information; neither did they differ in the amount of time spent examining the early performance information.

This differential effect of accountability on looking time may be rooted in people’s differential expectations for positive and negative performance. In general, people expect mildly positive stimuli (Fiske, 1980; Fiske & Taylor, 1984). Relating this phenomenon to the domain of performance expectations, people may expect that somewhat positive performance by others will be the norm. Therefore, positive performance ratings, provided they are not extremely positive, may not be perceived as difficult to explain and justify. Thus, accountable subjects who initially received positive performance information about the target may not have felt that it would be difficult to explain and justify their initial positive impressions. In this case, accountable subjects would not have been motivated to spend any more time examining the performance information than would unaccountable subjects.
Negative stimuli, however, are unexpected (Fiske, 1980; Fiske & Taylor, 1984). Therefore, negative performance probably is not expected as the norm. Negative ratings may therefore be perceived as more difficult to explain and justify and more likely to be challenged. Thus, accountable subjects who initially received negative performance information about the target may have felt that it would be difficult to defend their initial negative impressions. In this case, accountable subjects would have been motivated to spend more time examining the performance information than would unaccountable subjects.

However, attention, as measured by looking time, did not appear to mediate the effects of accountability on the composite evaluative rating of the target. Thus, although accountability seemed to affect attention, as measured by looking time, accountability must have affected the evaluative rating through some mechanism other than attention. Unfortunately, no variables other than attention were investigated in this study as possible mechanisms by which accountability may influence the processing of performance information and, in turn, performance ratings. One variable that might mediate the effects of accountability on performance ratings is memory for performance information. Although not the main focus of the second experiment, the effects of accountability on memory for performance information were measured in the second experiment, which is discussed below.

Experiment 2

Rationale

In addition to examining the role of accountability as a moderator of systematic bias in performance ratings (which is addressed by Experiment 1), the current research investigates whether a motivational variable such as accountability can affect the accuracy of performance ratings. The specific
purpose of the second experiment was to examine whether accountability can improve the accuracy of behavioral ratings of a work group's performance.

Behavioral performance ratings are commonly used in work settings. Operationally, behavioral ratings consist of a behavioral checklist on which raters indicate which behaviors were and were not displayed by a target. From a theoretical perspective, this type of behavioral rating is also a measure of recognition memory.

Behavioral ratings can be viewed as consisting of two components: memory accuracy/sensitivity and response bias (Lord, 1985; Snodgrass & Corwin, 1988). Memory accuracy/sensitivity refers to actual recognition that a behavior did or did not occur. As noted by Padgett and Ilgen (1989), this measure of accuracy [referred to as behavioral accuracy by Lord (1985)] of behavioral ratings is a more rigorous measure of accuracy and is believed to be a better conceptualization of accuracy than are typical measures such as Chronbach's (1955).

Response bias refers to a decision criterion one employs in deciding whether a behavior did or did not occur. A decision criterion can be liberal, meaning one is more likely to say a behavior did occur when one is uncertain; conservative, meaning one is more likely to say a behavior did not occur when one is uncertain; or neutral, meaning one is equally likely to say that a behavior did occur as did not occur when one is uncertain.

Increased accuracy in behavioral ratings can be due to either one or both of these two components. One way to isolate the effects of these two components of accuracy, which are theoretically independent (Snodgrass & Corwin, 1988), is to analyze recognition memory using separate measures of memory sensitivity and response bias. This technique has been used by
Snodgrass and Corwin (1988) and, in the performance appraisal domain, by Martell and Guzzo (in press), Martell and Willis (in press), and Murphy, Philbin, and Adams (1989).

Returning to the specific purpose of this study, why might accountability increase rating accuracy? If accountability can result in more careful processing of information, it may increase memory sensitivity for this information. The finding that accountability can result in more integratively complex views, impressions, or thoughts (Tetlock, 1983a; Tetlock and Kim, 1987; Tetlock et al., 1989b) provides evidence that accountability can result in more careful information processing. And, Tetlock (1983b) found that accountable subjects had better memory, in terms of recall, for presented information than did unaccountable subjects. Perhaps accountability causes people to attempt to remember information that will help to justify their viewpoints and information that will help to refute opposing viewpoints.

Accountability might also increase rating accuracy by influencing raters’ decision criteria. For example, accountability might correct for leniency and severity in decision criteria. A lenient (severe) decision criterion is characterized by a pattern of responding that consistently casts the target in a favorable (unfavorable) light when the rater is uncertain about the target’s behavior. If responses must be explained and justified, a rater who is uncertain whether or not a behavior has occurred may be less tempted to almost always choose the more lenient (or more severe) response. However, there is no empirical research that would support predictions regarding the effects of accountability on raters’ decision criteria.
Hypotheses

The following predictions were made for the second study.

1. Accountable subjects will make more accurate behavioral ratings than will unaccountable subjects.

2. At least part of this difference in accuracy will be due to greater memory sensitivity of accountable subjects relative to unaccountable subjects.

No predictions regarding response bias will be made although exploratory analyses of response bias will be conducted.

Method

Design and Subjects

A $2 \times 2 \times 2$ experiment manipulating accountability, rating order, and type of performance information (positive, or effective, behaviors vs. negative, or ineffective, behaviors) was conducted with the first two variables as between-subjects variables and the third variable as a within-subjects variable. Sixty-six undergraduates from Rice University served as subjects, with half being in an accountable condition and half being in an unaccountable condition. Although all subjects made both behavioral and evaluative ratings of a work group, half of the subjects made behavioral ratings prior to making evaluative ratings, and half made evaluative ratings prior to making behavioral ratings. Subjects were assigned randomly to conditions except that, in any one session, all subjects were in either the accountable condition or the unaccountable condition. Accountable sessions included no more than four subjects, and unaccountable sessions included no more than six subjects. Cell size ranged from 15 to 18.

Procedure

Experimental sessions began with a verbal introduction in which all subjects were told that the study concerned how people form impressions of
and evaluate the performance of others, particularly of groups. Subjects were
told that they would watch a videotape of a work group and would work on
several different tasks, one of which would be to evaluate the performance of
the group. All subjects then received a written statement (which was also read
aloud) describing the work group's goal, resources, and constraints and
providing instructions for watching the videotape.

The experimenter and a consent form then informed unaccountable
subjects that their responses were confidential. A written statement (which was
also read aloud by the experimenter) informed accountable subjects that they
would be individually interviewed by an industrial/organizational psychologist
associated with the research project at the conclusion of the experiment.
Accountable subjects were told that, in the interview, they would be required to
explain and justify their ratings, impressions, and judgments of the work group.
They were also told that the interviews would be audiotaped. Additionally,
before signing a consent form, accountable subjects read a bogus excerpt from
an interview that was supposedly conducted with a previous subject. The
verbal introduction, written statements, bogus interview excerpt, and consent
forms are presented in Appendix F.

All subjects subsequently watched a 14-minute videotape of a 5-member
work group attempting to transport a box and themselves across a pool of water
using several boards and ropes. The work group in the tape displayed both
effective and ineffective behaviors. Following the tape, subjects worked on a
filler task which they were given 10 minutes to complete. The filler task and the
verbal instructions for it are presented in Appendix G.

After all subjects completed the filler task, subjects completed the
behavioral and evaluative ratings (the order of which depended on rating order
condition). Behavioral ratings were obtained in the form of a 40-item recognition memory checklist of behaviors. The rating scale used was a 6-point scale of which the upper three points indicated acknowledgement that a behavior occurred and the lower three points indicated denial that a behavior occurred. The scale also provided confidence ratings as the three scale points composing each half of the scale varied in the reported level of confidence in the chosen response. Half of the behaviors occurred on the tape, and half did not occur on the tape; 22 of the behaviors on the checklist were effective, and 18 were ineffective. The classification of behaviors as effective and ineffective had been previously verified (Martell & Guzzo, in press). The behavioral rating instructions and checklist are presented in Appendix H. The evaluative rating questionnaire consisted of four questions regarding the group’s performance, each rated using a 9-point scale. The evaluative rating questionnaire is included as Appendix I. Finally, subjects completed a mood questionnaire and then two questionnaires composed of demographic and manipulation-check items. These three questionnaires are included as Appendix J.

Subjects were then told that there were no additional tasks, and accountable subjects were informed that there would be no post-experimental interviews. Subjects received a thorough debriefing, both verbally and in writing.

Measures of Memory Sensitivity and Response Bias

The specific measures of memory sensitivity and response bias that were calculated are those used by Snodgrass & Corwin (1988). Pr, the measure of memory sensitivity, ranges from -1 (no memory) to +1 (perfect memory) and is calculated as:

\[ Pr = \text{Hit Rate} - \text{False Alarm Rate} \]
$Br$, the measure of response bias, ranges from 0 to 1. In absolute terms, a response bias equal to .5 represents a neutral decision criterion, values greater than .5 represent a liberal criterion, and values less than .5 represent a conservative criterion. In relative terms, of two values, the higher (lower) value represents a more liberal (conservative) criterion compared to the lower (higher) value. $Br$ is calculated as:

$$Br = \frac{\text{False Alarm Rate}}{1 - (\text{Hit Rate} - \text{False Alarm Rate})}$$

Results

Manipulation Checks

**Factual manipulation check.** As expected, all subjects in the accountable condition responded that they were told they would have to explain and justify their ratings, and all subjects in the unaccountable condition responded that they were told their ratings would be confidential.

**Evaluative manipulation checks.** Contrary to expectations, accountable subjects did not report being more concerned about making accurate ratings than did unaccountable subjects. Their mean ratings ($M = 6.77$ and $M = 7.10$, respectively) on this 9-point measure were not significantly different, $F(1, 62) = .69$, ns. As revealed by the means, both accountable and unaccountable subjects indicated a substantial amount of concern about making accurate ratings considering the scale provided for this measure.

Mood

A principal components analysis of the eight mood items was conducted. Two factors, the only factors with eigenvalues greater than 1.00, were retained. The retained factors were then subjected to a varimax rotation procedure, and the resulting factor loadings were examined. ANOVAs were conducted on
various composites of mood items (4, 5, 6, 7, and 8) loading highly on the first factor and on various composites of mood items (1, 2, 3, and reverse-scored 8) loading highly on the second factor.

Two significant effects were found. A main effect of accountability on a composite of items 2 and 3 (F(1, 62) = 5.17, p < .03) revealed that accountable subjects reported more positive affect (reported being happier and more elated) than did unaccountable subjects. An interaction between accountability and rating order on a composite of items 1 and reverse-scored 8 (F(1, 62) = 4.38, p < .05) revealed that accountable subjects who made behavioral ratings first reported being more aroused (reported being more active and excited) relative to accountable subjects who made evaluative ratings first (F(1, 62) = 5.30, p < .03) but that there were no differences on this composite between unaccountable subjects who made behavioral ratings first and unaccountable subjects who made evaluative ratings first (F(1, 62) = .50, ns). Despite these effects, however, it must be noted that means for these composites indicated that subjects' absolute mood levels were characterized by only slightly negative to slightly positive affect and by slightly low to moderate arousal considering the 7-point scales used. Means on the composites and coefficient alphas for the composites are presented in Table 5.

Evaluative Ratings

A composite (ECOMP) of the four evaluative measures was used to analyze the evaluative ratings and was formed by calculating the mean of the four evaluative measures for each subject. The coefficient alpha for this composite was moderate (r = .66) but acceptable for research purposes (Nunnally, 1967). Although there were other combinations of two or three evaluative measures that had higher coefficient alphas, there seemed to be no
### Table 5

**Means for Composite Mood Measures**

<table>
<thead>
<tr>
<th>Rating order</th>
<th>Accountability</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accountable</td>
<td>Unaccountable</td>
<td></td>
</tr>
<tr>
<td>Behavioral rating first</td>
<td>(n=18)</td>
<td>(n=15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.14</td>
<td>3.90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(SD=.86)</td>
<td>(SD=1.13)</td>
<td></td>
</tr>
<tr>
<td>M23</td>
<td>4.47</td>
<td>3.73</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(SD=.93)</td>
<td>(SD=1.52)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n=17)</td>
<td>(n=16)</td>
<td></td>
</tr>
<tr>
<td>M23</td>
<td>4.41</td>
<td>4.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(SD=.76)</td>
<td>(SD=.77)</td>
<td></td>
</tr>
<tr>
<td>M18</td>
<td>3.56</td>
<td>4.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(SD=.77)</td>
<td>(SD=1.38)</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** SD = standard deviation

Scale ranges from 1 to 7. See Appendix J for meanings of scale endpoints.

Subscripts for mood composites indicate which mood items are components of the composites (e.g., M23 is a composite of mood items 2 and 3). Mood item 8 was reverse-scored for composite M18.

Coefficient alphas are .83 for M23 and .62 for M18.
rational basis for forming these alternative composites. Finally, because the presence and strength of the effects of the independent variables on the individual evaluative measures varied greatly and because the evaluative ratings were not a major focus of this experiment, it was felt that a composite of all the evaluative measures would be best. The intercorrelations among the individual evaluative measures are presented in Table 6.

A main effect of accountability (F(1, 62) = 4.66, p < .04) on ECOMP indicated that accountable subjects rated the group's performance more favorably than did unaccountable subjects (M = 5.21 and M = 4.64, respectively). A marginally significant main effect of rating order (F(1, 62) = 3.27, p < .08) on ECOMP indicated that subjects who made behavioral ratings prior to making evaluative ratings evaluated the group's performance more favorably than did subjects who made evaluative ratings first (M = 5.20 and M = 4.68, respectively). However, these main effects were qualified by a significant two-way interaction between accountability and rating order on ECOMP, F(1, 62) = 4.34, p < .05. As can be seen from the means in Table 7, accountable behavioral-first subjects rated the group's performance more favorably than did subjects in the other three conditions. A comparison of accountable behavioral-first subjects' ratings with those of subjects in the other three conditions confirmed this difference, F(1, 62) = 12.96, p < .001.

**Behavioral Ratings**

Behavioral rating accuracy was separated into two components, memory sensitivity and response bias. For each component, a repeated measures analysis of variance using the general linear model was conducted; the repeated dependent measure was either memory sensitivity or response bias and consisted of two levels, one for each behavior type (effective and
Table 6

**Intercorrelations Among Evaluative Measures**

<table>
<thead>
<tr>
<th></th>
<th>E2</th>
<th>E3</th>
<th>E4</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>0.13</td>
<td>0.18</td>
<td>0.48</td>
</tr>
<tr>
<td>E2</td>
<td></td>
<td>0.21</td>
<td>0.68</td>
</tr>
<tr>
<td>E3</td>
<td></td>
<td></td>
<td>0.43</td>
</tr>
<tr>
<td>E4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*(n = 66)*

**Note.** E1, E2, E3, and E4 refer to questions 1a, 1b, 1c, and 2 in Appendix I, respectively.
Table 7

**Mean Ratings for Composite Evaluative Measure**

<table>
<thead>
<tr>
<th>Rating order</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral rating first</td>
<td>5.71&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.60&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>(n=18)</td>
<td>(n=15)</td>
<td></td>
</tr>
<tr>
<td>(SD=.83)</td>
<td>(SD=1.26)</td>
<td></td>
</tr>
<tr>
<td>Evaluative rating first</td>
<td>4.69&lt;sup&gt;b&lt;/sup&gt;</td>
<td>4.67&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>(n=17)</td>
<td>(n=16)</td>
<td></td>
</tr>
<tr>
<td>(SD=1.15)</td>
<td>(SD=.99)</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** SD = standard deviation

Scale ranges from 1 to 9. Higher values indicate more favorable ratings of the group.

Means sharing a common superscript do not differ significantly at p< .05.
ineffective). The 6-point behavioral rating scale was dichotomized for these analyses so that responses indicated that a behavior either did occur or did not occur. Responses on the lower three points of the scale were converted to zeroes indicating denial that a behavior occurred, and responses on the upper three points of the scale were converted to ones indicating acknowledgement that a behavior occurred. This collapsed scale was necessary for the computation of Pr and Br.

**Memory sensitivity.** Overall, subjects had better memory sensitivity for effective behaviors ($M = .465$) than for ineffective behaviors ($M = .400$), $F(1, 62) = 5.67, p < .03$. There were no significant main effects for accountability ($F(1, 62) = .75, ns$) or rating order ($F(1, 62) = .55, ns$), and there were no significant two-way or three-way interactions between accountability, rating order, and behavior type ($F(1, 62) = 1.32, ns$ for accountability by rating order; $F(1, 62) = .61, ns$ for accountability by behavior type; $F(1, 62) = .96, ns$ for rating order by behavior type; $F(1, 62) = 1.48, ns$ for accountability by rating order by behavior type). The means for memory sensitivity are presented separately for effective and ineffective behaviors in Table 8.

**Response bias.** Overall, subjects were more conservative (less likely to say a behavior occurred if uncertain) when rating effective behaviors ($M = .384$) than when rating ineffective behaviors ($M = .550$), $F(1, 62) = 11.15, p < .005$. More importantly, there was a significant accountability-by-rating order interaction ($F(1, 62) = 5.21, p < .03$) that did not differ by behavior type ($F(1, 62) = .08, ns$). No other two-way interactions were significant ($F(1, 62) = .50, ns$ for accountability by behavior type; $F(1, 62) = 1.56, ns$ for rating order by behavior type).
Table 8

Means for Memory Sensitivity by Behavior Type

**Effective Behaviors**

<table>
<thead>
<tr>
<th>Rating order</th>
<th>Accountability</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accountable</td>
<td>Unaccountable</td>
</tr>
<tr>
<td>Behavioral rating</td>
<td>.472</td>
<td>.456</td>
</tr>
<tr>
<td></td>
<td>(n=18)</td>
<td>(n=15)</td>
</tr>
<tr>
<td></td>
<td>(SD=.13)</td>
<td>(SD=.19)</td>
</tr>
<tr>
<td>Evaluative rating</td>
<td>.466</td>
<td>.464</td>
</tr>
<tr>
<td></td>
<td>(n=17)</td>
<td>(n=16)</td>
</tr>
<tr>
<td></td>
<td>(SD=.15)</td>
<td>(SD=.17)</td>
</tr>
</tbody>
</table>
Table 8 (continued)

**Means for Memory Sensitivity by Behavior Type**

**Ineffective Behaviors**

<table>
<thead>
<tr>
<th>Rating order</th>
<th>Accountability</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accountable</td>
<td>Unaccountable</td>
</tr>
<tr>
<td>Behavioral rating first</td>
<td>.489</td>
<td>.360</td>
</tr>
<tr>
<td></td>
<td>(n=18)</td>
<td>(n=15)</td>
</tr>
<tr>
<td></td>
<td>(SD=.18)</td>
<td>(SD=.18)</td>
</tr>
<tr>
<td>Evaluative rating first</td>
<td>.359</td>
<td>.381</td>
</tr>
<tr>
<td></td>
<td>(n=17)</td>
<td>(n=16)</td>
</tr>
<tr>
<td></td>
<td>(SD=.23)</td>
<td>(SD=.24)</td>
</tr>
</tbody>
</table>

**Note.** SD=standard deviation

Scale ranges from -1 to +1 indicating no memory and perfect memory, respectively.
This two-way interaction between accountability and rating order was examined by testing the simple effect of accountability at each level of rating order. A significant effect of accountability was found only for subjects who made evaluative ratings first (\( F(1, 62) = 4.15, p<.05 \)). Accountable subjects who made evaluative ratings first were more conservative *relative* to unaccountable subjects who made evaluative ratings first, regardless of behavior type (See Table 9 for means.). There was not a simple effect of accountability on response bias for subjects who made behavioral ratings prior to making evaluative ratings (\( F(1,62) = 1.42, \text{ns} \)). Thus, accountable behavioral-first subjects did not show significant differences in response bias *relative* to unaccountable behavioral-first subjects.

The effects discussed in the previous two paragraphs illustrate *differences* between groups in response bias, or *relative* response bias. *Absolute* response bias, or deviation from a neutral response bias of .500, is a separate issue. For effective behaviors, accountable behavioral-first subjects had no response bias (\( t(17) = .35, \text{ns} \)), and subjects in the other three conditions had too conservative response biases (\( t(14) = 1.92, p<.05 \) for unaccountable behavioral first; \( t(16) = 3.71, p<.005 \) for accountable evaluative-first; \( t(15) = 1.83, p<.05 \) for unaccountable evaluative-first). For ineffective behaviors, unaccountable evaluative-first subjects had a too liberal response bias (\( t(15) = 2.62, p<.01 \)), and subjects in the other three conditions had no response bias (\( t(16) = .20, \text{ns for accountable evaluative-first}; t(17) = .49, \text{ns for accountable behavioral-first}; t(14) = .24, \text{ns for unaccountable behavioral-first} \)).
Table 9

Means for Response Bias by Behavior Type

Effective Behaviors

<table>
<thead>
<tr>
<th>Rating order</th>
<th>Accountability</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accountable</td>
<td>Unaccountable</td>
<td></td>
</tr>
<tr>
<td>Behavioral rating first</td>
<td>.475&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.361&lt;sup&gt;a*&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>(n=18)</td>
<td>(n=15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(SD=.30)</td>
<td>(SD=.28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluative rating first</td>
<td>.302&lt;sup&gt;a*&lt;/sup&gt;</td>
<td>.390&lt;sup&gt;b*&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>(n=17)</td>
<td>(n=16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(SD=.22)</td>
<td>(SD=.24)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 9 (continued)

**Means for Response Bias by Behavior Type**

**Ineffective Behaviors**

<table>
<thead>
<tr>
<th>Rating order</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.531&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.516&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Behavioral rating first</td>
<td>(n=18)</td>
<td>(n=15)</td>
</tr>
<tr>
<td></td>
<td>(SD=.27)</td>
<td>(SD=.26)</td>
</tr>
<tr>
<td>Evaluative rating first</td>
<td>.512&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.644&lt;sup&gt;b*&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>(n=17)</td>
<td>(n=16)</td>
</tr>
<tr>
<td></td>
<td>(SD=.25)</td>
<td>(SD=.22)</td>
</tr>
</tbody>
</table>

**Note.** SD=standard deviation

Scale ranges from 0 to +1 with values less than .5 indicating a conservative response bias, values equal to .5 indicating no response bias, and values greater than .5 indicating a liberal response bias.

Means in the same row in the same subtable with different lettered superscripts differ significantly from each other at p< .05.

*Indicates a response bias that is significantly different from .5 at p< .05.
Confidence Ratings

The 6-point scale used for the behavioral ratings contained three levels of confidence for affirming or negating the occurrence of a behavior. In order to analyze any effects of the independent variables on confidence of behavioral ratings, the scale was collapsed across the type (affirmative vs. negative) of response to a 3-point scale indicating the three levels of confidence with higher scores indicating less certainty. A repeated measures analysis of variance was conducted on this data with confidence ratings as the repeated measure with two levels (one for effective and one for ineffective behaviors).

Overall, subjects were more confident of their ratings for effective behaviors ($M = 1.87$) than for ineffective behaviors ($M = 2.10$), $F(1, 62) = 41.76$, $p < .0001$. Although there was a marginally significant effect of accountability on confidence ratings ($F(1, 62) = 2.91$, $p < .10$) with accountable subjects indicating less confidence than unaccountable subjects, it was qualified by a significant interaction between accountability and rating order, $F(1, 62) = 5.93$, $p < .02$. Specifically, accountable behavioral-first subjects indicated less confidence in their ratings than did subjects in the other three conditions, $F(1, 62) = 10.95$, $p < .005$ (See Table 10 for means). Neither the three-way interaction with behavior type ($F(1, 62) = .07$, ns), the two-way interactions with behavior type ($F(1, 62) = 1.94$, ns for accountability by behavior type; $F(1, 62) < .001$, ns for rating order by behavior type), nor the main effect of rating order ($F(1, 62) = 2.02$, ns) were significant.

Discussion

Accountable and unaccountable subjects were both aware of what they had been told regarding their ratings (whether they would be confidential or would need to be explained and justified). However, accountable and
Table 10

Means for Confidence Ratings by Behavior Type

**Effective Behaviors**

<table>
<thead>
<tr>
<th>Rating order</th>
<th>Accountable</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral rating first</td>
<td>2.04&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.77&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>(n=18)</td>
<td>(n=15)</td>
<td></td>
</tr>
<tr>
<td>(SD=.27)</td>
<td>(SD=.23)</td>
<td></td>
</tr>
<tr>
<td>Evaluative rating first</td>
<td>1.84&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.82&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>(n=17)</td>
<td>(n=16)</td>
<td></td>
</tr>
<tr>
<td>(SD=.28)</td>
<td>(SD=.23)</td>
<td></td>
</tr>
</tbody>
</table>
Table 10 (continued)

Means for Confidence Ratings by Behavior Type

Ineffective Behaviors

<table>
<thead>
<tr>
<th>Rating order</th>
<th>Accountability</th>
<th>Unaccountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral rating first</td>
<td>2.23&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.04&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>(n=18)</td>
<td>(n=15)</td>
<td></td>
</tr>
<tr>
<td>(SD=.25)</td>
<td>(SD=.27)</td>
<td></td>
</tr>
<tr>
<td>Evaluative rating first</td>
<td>2.01&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2.11&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>(n=17)</td>
<td>(n=16)</td>
<td></td>
</tr>
<tr>
<td>(SD=.30)</td>
<td>(SD=.27)</td>
<td></td>
</tr>
</tbody>
</table>

Note. SD = standard deviation

Scale ranges from 1 to 3 with higher values indicating less confidence.

Means in the same subtable sharing a common superscript do not differ significantly from each other at p< .05.
unaccountable subjects were equally concerned about making accurate ratings. In fact, they were both quite concerned about accuracy. Even though this measure distinguished between accountable and unaccountable subjects in the first study, it did not tap the nature of accountability in this study. One might believe that the accountability manipulation simply failed, but main effects of or interactions of accountability were found on mood and on both the evaluative and behavioral ratings.

Although mood levels of subjects were not strong in any one direction, the results provided some information on the phenomenology of accountability. Accountability resulted in somewhat more positive affect relative to unaccountability. Accountable subjects' arousal levels varied depending on whether they completed behavioral ratings or evaluative ratings first; they reported more arousal if they completed behavioral ratings first. Unaccountable subjects' arousal levels were unaffected by rating order, however.

Regarding evaluative ratings, accountability and rating order interacted to affect a composite evaluative measure of the target work group. Specifically, accountable subjects who made behavioral ratings prior to making evaluative ratings rated the work group more favorably than did other subjects, who rated the group near the midpoint, or neutral part, of the scale.

Contrary to expectations, accountability and rating order had no effects on the memory sensitivity of subjects for the behaviors presented in the behavioral rating questionnaire. Rather, the effects of the independent variables were manifested in the response bias component of behavioral rating accuracy. Accountability had an effect on relative response bias only when evaluative ratings were made first; accountable subjects were more conservative, or less likely to say that a behavior occurred if uncertain, than
were unaccountable subjects. When behavioral ratings were made first, accountable subjects were no more or no less likely than unaccountable subjects to say that a behavior occurred if uncertain.

Thus, accountability affected relative response bias only when one had a previous impression of the target or when one had previously “committed” to an impression (when one had already made an evaluative rating). When one had previously committed to an impression, one was less likely to say that a behavior occurred if one was accountable than if one was unaccountable. Viewing this finding from the perspective of prior commitment to an impression is consistent with research by Tetlock, Skitka, and Boettger (1989b). In the Tetlock et al. study (1989b), accountable subjects who had previously committed to attitudes on several social issues exhibited "defensive bolstering" of these attitudes in their thoughts on these issues; accountable subjects showed less integrative complexity in thinking about these issues than did unaccountable subjects. Accountable subjects in the present study could have been bolstering their previous evaluative impressions of the target; relative to unaccountable subjects, they could have felt that negating the occurrence of behaviors was safer or less likely to contradict their evaluative impressions than affirming the occurrence of behaviors.

Whether the relative conservatism induced by accountability in this situation was “desirable” or “undesirable” in terms of behavioral rating accuracy was dependent on absolute response bias. Examining absolute response bias revealed that the relative conservatism induced by accountability in the evaluative-first condition was a “curse” on the one hand, as it resulted in a conservative deviation from neutrality for effective behaviors, and a “blessing”
on the other hand, as it resulted in no deviation from neutrality for ineffective behaviors.

The most accurate group in terms of absolute response bias was the group of accountable subjects who made behavioral ratings prior to making evaluative ratings. Accountable subjects who made behavioral ratings first were the only group of subjects who had neutral response biases for both ineffective and effective behaviors. Thus, their ratings were more accurate in the sense that they were the only subjects whose behavioral ratings for both types of behaviors were free from systematic bias.

Interestingly, these same subjects were not as confident in their behavioral ratings of the target as were other subjects. This finding is consistent with previous research (Tetlock & Kim, 1987) which found that accountable subjects who were aware (prior to presentation of stimulus information) that they would have to justify their behavioral predictions of a target were not as likely to be overconfident in their predictions as were unaccountable subjects. But, what about accountable subjects who made evaluative ratings first? If accountable subjects who were previously committed to an evaluative impression of the target were engaged in defensive bolstering, it makes sense that they did not indicate as much uncertainty as those accountable subjects who were not previously committed to an evaluative impression of the target. Indicating uncertainty would have weakened their evidence for their previous evaluative impressions.

In summary, accountability did have an effect on behavioral rating accuracy of a group's performance, but the effect was moderated by whether one had previously committed to an impression of the group's performance. While neither of these variables affected the memory sensitivity component of
behavioral rating accuracy, they did interact to affect the response bias component. Relative response bias was affected by accountability only when the rater had judged the group's performance in an evaluative sense prior to making behavioral ratings. But, because relative response bias is not indicative of absolute response bias, both must be considered when evaluating behavioral rating accuracy. In light of this observation, it appears that accountable raters who had not previously committed to an evaluative impression of the group's performance, although less confident of their behavioral ratings, made more accurate behavioral ratings. These raters displayed neither a consistently conservative or liberal response bias relative to unaccountable raters nor absolute conservative or liberal deviations from neutrality. However, caution should be taken in drawing firm conclusions from or generalizing any of the response bias results as the analyses on response bias were exploratory.

**General Discussion**

From this research, it is clear that motivation, specifically accountability, can influence rater cognitive processes and, in turn, performance ratings. Whether the effect of accountability on these aspects of the performance appraisal process is desirable or undesirable though is a complicated issue. In one experiment accountability had favorable effects on rater information processing; accountability attenuated primacy effects, one type of systematic bias, in evaluative performance ratings. Additionally, accountability resulted in greater attention, as measured by looking time, to performance information. This latter effect is not necessarily desirable as it did not appear to mediate the outcome of the evaluative ratings.
In another experiment accountability appeared to have both desirable and undesirable effects on the accuracy of behavioral ratings. When a previous commitment to an evaluative impression of a target work group had been made, accountability resulted in the use of a more cautious decision criterion in making behavioral ratings. This more cautious pattern of responding was appropriate for ratings of ineffective behaviors but was overly cautious for ratings of effective behaviors. Although accountability resulted in less confidence in behavioral ratings if they were made prior to commitment to an evaluative impression of the target, accountability also seemed to prevent use of a biased decision criterion in this situation.

An unpublished study by Quinones (1990) further illustrates the conclusion that the effects of accountability on behavioral rating accuracy are situational and depend on what accuracy criteria are examined. Quinones (1990) manipulated accountability, timing of the salience of a "good performer" category, and consistency of behaviors relative to this performance category. Results indicated that accountable subjects made less accurate behavioral ratings of the target than did unaccountable subjects and that this difference was due to accountable subjects correctly identifying fewer behaviors than identified by unaccountable subjects rather than to differences in the number of behaviors incorrectly identified. Incidentally, accountable subjects also spent more time making the behavioral ratings than did unaccountable subjects.

The results of these two experiments and those of Quinones (1990) strengthen Tetlock, Skitka, & Boettger's argument for a contingency approach to accountability. However, as shown by the second experiment, accountability may have differential effects within a situation as well as across situations. Accountability may have both desirable and undesirable effects on rater
cognitive processing, and the outcome of these opposing effects will depend on which are stronger. Research examining the multiple effects of accountability and their relative strengths is one avenue for future research.

Among the limitations of this research are the inconsistent results obtained for some of the accountability manipulation checks. It is not clear what defines accountability in phenomenological terms. And, until researchers find reliable measures that provide insight to what people experience when told they must explain and justify their impressions and/or judgments, researchers can neither be sure of what they are truly manipulating nor that they are manipulating the same construct.

Research on accountability is also lacking in an understanding of the processes by which accountability affects cognitive processing. Attentional processes were examined as a potential mediating mechanism in this research, but the results did not provide support for this relationship. Other fundamental processes need to be examined as mediating mechanisms in order to further understanding of how motivational variables, such as accountability, affect information processing.

Another significant limitation of this research is that the performance appraisal process in organizations occurs over a longer period of time than that simulated by this research. Raters in organizations are exposed to ratee behavior over longer periods of time and have other tasks to do as well. These demands on one's cognitive processes could possibly interact with accountability so as to strengthen or diminish its effects. Additionally, accountability was the only motivational variable considered in this research. Raters in organizations are influenced by multiple motivational variables which may have differing effects on cognitive processing. Research on accountability
in the presence of other motivational variables may be an important step in the
development of a contingency approach to the study of accountability in
performance appraisal.
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Welcome to Experiment #129. Let me begin by first telling you a little bit about the experiment you will be participating in today. Basically, we are working on several studies to help better understand how people form impressions of others and how they evaluate the work performance of others.

You'll be participating in what is called an "organizational simulation". As part of this "organizational simulation", you will work on several different tasks. Your first task will be to evaluate the work behavior of an actual police officer. Additional tasks for you to work on will then follow. Part of this experiment will be conducted using a microcomputer.

Are there any questions, so far?

Before we continue, you should know that we want to conduct detailed interviews with each of you at the conclusion of the "organizational simulation". During the interview, you will be asked to explain and justify your impressions, evaluations, and judgments of the police officer. Interviews will conducted one-on-one with one of several industrial-organizational psychologists associated with this research project. With this in mind, I am going to ask you to sign a special release form. By signing this release form, you agree to allow us to (1) interview you at the conclusion of the "organizational simulation", and (2) audiotape the interview for future data analysis purposes.
Welcome to Experiment #129. Let me begin by first telling you a little bit about the experiment you will be participating in today. Basically, we are working on several studies to help better understand how people form impressions of others and how they evaluate the work performance of others.

You'll be participating in what is called an "organizational simulation". As part of this "organizational simulation", you will work on several different tasks. Your first task will be to evaluate the work behavior of an actual police officer. Additional tasks for you to work on will then follow. Part of this experiment will be conducted using a microcomputer.

Are there any questions, so far?

Before we continue, you should know that your responses in this experiment are completely anonymous. We have no way of knowing how you answered any of the questions. Please read the consent form I am going to give you and then sign it.
APPENDIX B
Accountable - Consent Form

CONSENT FORM

EXPERIMENT# 129

EXPERIMENTERS: Dr. Richard Marteli 527-8750 X3411
                 Marnie Swerdlin 527-8750 X3772

CHAIR OF THE DEPT. OF PSYCHOLOGY: KEN LAUGHERY 527-8750
                                  X4862

BRIEF DESCRIPTION: In this experiment, you will be asked to complete several tasks as part of an organizational simulation. One of the tasks will involve evaluating a police officer based on information that will be presented about him. A post-experimental interview will be conducted during which you will be required to explain and justify your impressions, evaluations, and judgments of the police officer. The interviewer will be an industrial/organizational psychologist associated with this research project. Note, too, that the interview will be audiotaped for future data analysis purposes.

If at any time you decide that you do not want to continue with the experiment, you are free to stop without penalty. In this event, your responses will not be used.

Consent Agreement: I have read the above and agree to participate in this experiment. I understand that any complaints or grievances I may have concerning my participation may be directed to the Chair of the Psychology Department Human Subjects Committee or the Chair of the Psychology Department.

Name: __________________________________________ (please print)

Signature: ______________________________________

Date: __/__/__  Course for Which Credit is Desired: ____________
Unaccountable - Consent Form

CONSENT FORM

EXPERIMENT# 129

EXPERIMENTERS:  Dr. Richard Martell   527-8750  X3411
                 Marnie Swerdlin       527-8750  X3772

CHAIR OF THE DEPT. OF PSYCHOLOGY: KEN LAUGHERY  527-8750
                                    X4862

BRIEF DESCRIPTION: In this experiment, you will be asked to complete several tasks as part of an organizational simulation. One of the tasks will involve evaluating a police officer based on information that will be presented about him. Your responses in this experiment are completely anonymous; we have no way of knowing how you answered any of the questions.

If at any time you decide that you do not want to continue with the experiment, you are free to stop without penalty. In this event, your responses will not be used.

Consent Agreement: I have read the above and agree to participate in this experiment. I understand that any complaints or grievances I may have concerning my participation may be directed to the Chair of the Psychology Department Human Subjects Committee or the Chair of the Psychology Department.

Name:  _______________________________ (please print)

Signature:  ____________________________  Course for Which

Date:  ___/___/___  Credit is Desired:  _________
Accountable-Instructions

INSTRUCTIONS

This research project investigates how people evaluate the work effectiveness of others in organizations and involves several tasks as part of an organizational simulation. Your first task is to review the work behavior of an actual rookie police officer with the goal of evaluating his competence and work performance. The rookie officer (Officer Harris) has one year’s experience as a police officer. During this phase of the simulation, you will be presented with (1) a job description for the job of police officer, (2) 30 incidents describing the work behavior of Officer Harris, and (3) a brief questionnaire asking you to make evaluative ratings of Officer Harris. After you have completed this first task, you will be given instructions for the additional tasks.

Please remember that, at the conclusion of the organizational simulation, an audiotaped interview will be conducted in which you will be required to explain and justify your impressions, ratings, and judgments of Officer Harris.

Are there any questions before you begin? For further instructions, click on the mouse.
Unaccountable-Instructions

INSTRUCTIONS

This research project investigates how people evaluate the work effectiveness of others in organizations and involves several tasks as part of an organizational simulation. Your first task is to review the work behavior of an actual rookie police officer with the goal of evaluating his competence and work performance. The rookie officer (Officer Harris) has one year’s experience as a police officer. During this phase of the simulation, you will be presented with (1) a job description for the job of police officer, (2) 30 incidents describing the work behavior of Officer Harris, and (3) a brief questionnaire asking you to make evaluative ratings of Officer Harris. After you have completed this first task, you will be given instructions for the additional tasks.

Are there any questions before you begin? For further instructions, click on the mouse.
INSTRUCTIONS (continued)

The job description will appear on the next screen. When you have finished reading the instructions on this screen, proceed to the job description by clicking on the mouse. After reading the job description, click on the mouse to advance to the first work behavior. Only one work behavior will be presented at a time. After reading a work behavior, click on the mouse, and the next work behavior will appear. When you click on the mouse after reading the last work behavior, you will advance to a screen informing you that you have read all the work behaviors and that you should open Folder 1 on your desk to answer a questionnaire.

Click on the mouse to begin.
POLICE OFFICER JOB DESCRIPTION

The job of a police officer is to assist in maintaining peace and public order. To perform these duties, a police officer has three major job responsibilities. First, a police officer must act to prevent violations of the law. Second, a police officer must observe for any possible violations of the law. Third, when a law is broken, a police officer is responsible for its enforcement. These responsibilities require police officers to be alert, level-headed, physically fit, and able to enforce police procedures in a variety of situations, some of which may be unusual or potentially dangerous.
APPENDIX D
Order of Behaviors in Positive First Condition

On his way back to the station, Officer Harris spotted two men loitering at a store at closing time. He parked a short distance away and saw the two men enter the store and begin to rob the owner. Officer Harris called for cover and started to close in on the store.

Officer Harris made an arrest in a large crowd of people. As he was walking his prisoner through the crowd, the people kicked, spit on, and cursed Officer Harris. However, Officer Harris focused his attention on his prisoner and ignored the insults of the crowd.

Officer Harris was involved in a high-speed chase of an armed robbery suspect. He remained calm and gave the dispatcher a description of the suspect and the suspect’s car, location, and direction of travel.

Officer Harris was motioned over by a city bus driver who stated that one of the passengers was drunk and disorderly. The passenger was extremely upset and wanted to fight. Officer Harris remained calm and persuaded the passenger to get off the bus and into the patrol car.

Remembering that the evening before he had begun his patrol in the southern section of his beat, Officer Harris decided to begin his patrol the next day in the northern section. He often changed his patrol pattern to prevent individuals planning a crime from learning his schedule.
While patrolling apartment house parking lots for car prowlers one night, Officer Harris made note of any apartment that did not have good lighting. He later passed this information on to the apartment manager.

Officer Harris found a semi-conscious man, who had alcohol on his breath, lying on the ground. Rather than assuming the man was drunk, Officer Harris questioned him and discovered that the man was having a heart attack. Officer Harris then called an ambulance.

Officer Harris stopped a motorist on suspicion of DWI. The motorist offered Officer Harris $500.00 if he would just let him go. Officer Harris refused and added attempted bribery to the DWI charge.

Ready to begin his patrol, Officer Harris went to pick up a patrol car from the lot. He located the keys and drove away without completing a checklist to ensure the car was in working order.

Officer Harris responded to a domestic call. At the scene, Officer Harris called for cover but gave the wrong block number to the dispatcher.

Beginning his patrol, Officer Harris drove to the warehouse district. Since there had been an increase in robberies, burglaries, and physical assaults in this section of town, he had decided to give extra patrol time to the area.
While the desk sergeant was taking attendance at a briefing session, Officer Harris commented to another officer that the information mentioned in such meetings was rarely important. After his name was called, Officer Harris closed his eyes and paid little attention during the meeting.

Officer Harris was called to testify in court as one of several witnesses to a theft that had occurred two weeks earlier. When questioned, he had difficulty remembering the exact time of day the alleged crime occurred, nor could he be absolutely certain of some of the details.

Only twenty minutes remained on his last shift of the work-week when Officer Harris obtained valuable information regarding a burglary suspect on his beat. Officer Harris requested permission to remain on duty to follow-up on this information and to gather more information.

Officer Harris received a call regarding an illegally parked car. He responded to the call and issued a parking ticket but forgot to check if the car had been stolen.

Officer Harris arrested a burglary suspect and failed to frisk him. Another patrolman at the scene insisted upon searching the suspect and found narcotics on the suspect.

Officer Harris and his partner received a felony-in-progress call. En route to the scene, Officer Harris discussed with his partner what each would do, the possible escape routes, and the best methods of apprehension.
A minor accident call was assigned to Officer Harris. Having a bad taste in his mouth, he stopped to buy some gum on his way to the assigned location.

Officer Harris received a call to respond to a "CODE RED" accident. Temporarily forgetting that it was an emergency code, he proceeded to the location at normal speed. Upon arriving and seeing an ambulance and two other patrol cars, he realized that "CODE RED" means to proceed as quickly as possible.

Officer Harris decided to spend part of his patrol visiting businesses on his beat to give advice about security measures. He had recently read about a new line of alarm systems and wanted to share the information with the store owners.

Officer Harris' sergeant pointed out that Officer Harris had missed a court assignment and asked him why. Officer Harris replied, "I forgot; besides, the guy would have gotten off anyway."

Officer Harris and his partner responded to a domestic disturbance call. After they had separated the arguing spouses, Officer Harris left the house to retrieve a pen from the patrol car, leaving his partner alone with the combatants.

Officer Harris started keeping a patrol notebook. He constantly updated it with information such as the names and descriptions of street characters, informers, and the emergency numbers of businessmen on the beat.
Officer Harris responded to a call and determined that he did not know what action should be taken to resolve the situation. Rather than radio for advice, he guessed at a solution.

Officer Harris was informed by his superior that one of the arrest reports he (Officer Harris) had turned in was missing several important facts and needed to be completed and that another one contained incorrect information and needed to be corrected.

While patrolling his beat, Officer Harris stopped at three all-night grocery stores to alert the attendants that two robbers had been "holding up" stores of this type. Officer Harris left a description of the two men and a telephone number to call if they should come to the store.

As Officer Harris was parking his patrol car at a restaurant where he had decided to take his lunch break, he heard a report of a minor traffic accident nearby. He decided to ignore the call and assumed that another patrolman would respond.

Officer Harris received a call regarding an accident on his beat in the 300 block of Moore Street. Although he had been patrolling this beat for the past nine months, he could not remember the location of Moore Street and had to call the dispatcher for directions.
Officer Harris was confronted by a mentally disturbed man who was thrashing wildly with a large wooden stick. Officer Harris pretended that a second police officer was coming up behind the man and yelled. When the man turned, Officer Harris quickly disarmed him.

Officer Harris does not like to work with another particular officer. When he is assigned to work with this officer, Officer Harris will not talk to him and helps him only when it is absolutely necessary.
Order of Behaviors in Negative First Condition

Officer Harris received a call regarding an accident on his beat in the 300 block of Moore Street. Although he had been patrolling this beat for the past nine months, he could not remember the location of Moore Street and had to call the dispatcher for directions.

Officer Harris and his partner responded to a domestic disturbance call. After they had separated the arguing spouses, Officer Harris left the house to retrieve a pen from the patrol car, leaving his partner alone with the combatants.

Officer Harris received a call to respond to a “CODE RED” accident. Temporarily forgetting that it was an emergency code, he proceeded to the location at normal speed. Upon arriving and seeing an ambulance and two other patrol cars, he realized that “CODE RED” means to proceed as quickly as possible.

A minor accident call was assigned to Officer Harris. Having a bad taste in his mouth, he stopped to buy some gum on his way to the assigned location.

While the desk sergeant was taking attendance at a briefing session, Officer Harris commented to another officer that the information mentioned in such meetings was rarely important. After his name was called, Officer Harris closed his eyes and paid little attention during the meeting.
Officer Harris received a call regarding an illegally parked car. He responded to the call and issued a parking ticket but forgot to check if the car had been stolen.

Officer Harris arrested a burglary suspect and failed to frisk him. Another patrolman at the scene insisted upon searching the suspect and found narcotics on the suspect.

Officer Harris responded to a domestic call. At the scene, Officer Harris called for cover but gave the wrong block number to the dispatcher.

Officer Harris was motioned over by a city bus driver who stated that one of the passengers was drunk and disorderly. The passenger was extremely upset and wanted to fight. Officer Harris remained calm and persuaded the passenger to get off the bus and into the patrol car.

Officer Harris started keeping a patrol notebook. He constantly updated it with information such as the names and descriptions of street characters, informers, and the emergency numbers of businessmen on the beat.

Officer Harris' sergeant pointed out that Officer Harris had missed a court assignment and asked him why. Officer Harris replied, "I forgot; besides, the guy would have gotten off anyway."
While patrolling his beat, Officer Harris stopped at three all-night grocery stores to alert the attendants that two robbers had been “holding up” stores of this type. Officer Harris left a description of the two men and a telephone number to call if they should come to the store.

Officer Harris made an arrest in a large crowd of people. As he was walking his prisoner through the crowd, the people kicked, spit on, and cursed Officer Harris. However, Officer Harris focused his attention on his prisoner and ignored the insults of the crowd.

Officer Harris does not like to work with another particular officer. When he is assigned to work with this officer, Officer Harris will not talk to him and helps him only when it is absolutely necessary.

Remembering that the evening before he had begun his patrol in the southern section of his beat, Officer Harris decided to begin his patrol the next day in the northern section. He often changed his patrol pattern to prevent individuals planning a crime from learning his schedule.

Officer Harris stopped a motorist on suspicion of DWI. The motorist offered Officer Harris $500.00 if he would just let him go. Officer Harris refused and added attempted bribery to the DWI charge.
As Officer Harris was parking his patrol car at a restaurant where he had decided to take his lunch break, he heard a report of a minor traffic accident nearby. He decided to ignore the call and assumed that another patrolman would respond.

While patrolling apartment house parking lots for car prowlers one night, Officer Harris made note of any apartment that did not have good lighting. He later passed this information on to the apartment manager.

On his way back to the station, Officer Harris spotted two men loitering at a store at closing time. He parked a short distance away and saw the two men enter the store and begin to rob the owner. Officer Harris called for cover and started to close in on the store.

Officer Harris was called to testify in court as one of several witnesses to a theft that had occurred two weeks earlier. When questioned, he had difficulty remembering the exact time of day the alleged crime occurred, nor could he be absolutely certain of some of the details.

Officer Harris decided to spend part of his patrol visiting businesses on his beat to give advice about security measures. He had recently read about a new line of alarm systems and wanted to share the information with the store owners.

Officer Harris and his partner received a felony-in-progress call. En route to the scene, Officer Harris discussed with his partner what each would do, the possible escape routes, and the best methods of apprehension.
Officer Harris was informed by his superior that one of the arrest reports he (Officer Harris) had turned in was missing several important facts and needed to be completed and that another one contained incorrect information and needed to be corrected.

Officer Harris was involved in a high-speed chase of an armed robbery suspect. He remained calm and gave the dispatcher a description of the suspect and the suspect’s car, location, and direction of travel.

Officer Harris was confronted by a mentally disturbed man who was thrashing wildly with a large wooden stick. Officer Harris pretended that a second police officer was coming up behind the man and yelled. When the man turned, Officer Harris quickly disarmed him.

Officer Harris responded to a call and determined that he did not know what action should be taken to resolve the situation. Rather than radio for advice, he guessed at a solution.

Only twenty minutes remained on his last shift of the work-week when Officer Harris obtained valuable information regarding a burglary suspect on his beat. Officer Harris requested permission to remain on duty to follow-up on this information and to gather more information.
Officer Harris found a semi-conscious man, who had alcohol on his breath, lying on the ground. Rather than assuming the man was drunk, Officer Harris questioned him and discovered that the man was having a heart attack. Officer Harris then called an ambulance.

Ready to begin his patrol, Officer Harris went to pick up a patrol car from the lot. He located the keys and drove away without completing a checklist to ensure the car was in working order.

Beginning his patrol, Officer Harris drove to the warehouse district. Since there had been an increase in robberies, burglaries, and physical assaults in this section of town, he had decided to give extra patrol time to the area.
Evaluation Questionnaire

Below are several questions about Police Officer Harris. For each question, please circle the number that best describes your evaluation of Officer Harris. When making your ratings, please keep in mind the direction of the rating scales (the higher the number circled, the more favorable the rating).

Please answer all of the questions; do not leave any blank.

1. How would you rate Officer Harris' effectiveness as a police officer?
   Extremely Ineffective  1  2  3  4  5  6  7  8  9  Extremely Effective

2. How would you rate Officer Harris' competence as a police officer?
   Extremely Incompetent  1  2  3  4  5  6  7  8  9  Extremely Competent

3. How successful do you think Officer Harris is likely to be in the future as a police officer?
   Extremely Unsuccessful  1  2  3  4  5  6  7  8  9  Extremely Successful

4. How would you rate Officer Harris' potential for advancement as a police officer?
   Extremely Unfavorable  1  2  3  4  5  6  7  8  9  Extremely Favorable

WHEN FINISHED WITH THIS QUESTIONNAIRE, PLACE IT BACK IN FOLDER 1, AND OPEN FOLDER 2.
Please answer the following questions regarding your participation in this experiment.

1. Do you expect to explain and justify your ratings of the police officer?
   - Yes, I Do       
   - No, I Do Not

2. How "concerned" were you with making accurate ratings of the police officer?
   - Extremely Concerned
   - Unconcerned

   Extremely 1 2 3 4 5 6 7 8 9 Extremely Concerned

3. How "pressured" did you feel during this experiment?
   - Extremely Pressured
   - Unpressured

   Extremely 1 2 3 4 5 6 7 8 9 Extremely Pressured

Please circle your gender.

   Male    Female

Please indicate with a checkmark which, if any, of the following courses you have taken or are currently taking.

   Social Psychology
   Cognitive Psychology
   Industrial/Organizational Psychology

WHEN FINISHED WITH THIS QUESTIONNAIRE, PLACE IT BACK IN FOLDER 2. PLEASE REMAIN QUIET. THE EXPERIMENTER WILL INFORM YOU WHEN EVERYONE HAS COMPLETED THE FIRST TASK.
APPENDIX F
Verbal Introduction

I'd like to welcome you to the group action study. Let me begin by first telling you a little bit about the experiment you will be participating in today. Basically, we are working on several studies to help better understand how people form impressions of others and how they evaluate the work performance of others.

In this particular study, we’re interested in how people form judgments of and evaluate work groups. To do this, you will first watch a videotape of an actual work group; then, you will work on several tasks, one of which will be to evaluate the work group’s performance.

Are there any questions, so far?

Please look at the first sheet of the packet I have given to you. On it, you will find instructions for the first task. Please follow along as I read these instructions.
Instructions

The group you are about to observe is one of many groups participating in an actual contest. The contest required participating groups to get a box and as many people as possible across a pool of water in 14 minutes. As you might imagine, some of the groups performed better or worse than others in the contest.

Each group had a limited number of tools to use in accomplishing their task. These included:

1) Three boards; 10, 8 and 6 feet in length.
2) A 25-foot rope.
3) Gloves for all members.
4) A sturdy support bar 15 feet above the middle of the pool with a ten foot rope hanging from the center of the bar.

The group consists of five members: one dressed in green, the others numbered 3, 28, 38, and 40. The other people around the edge of the pool are safety monitors or nonparticipating observers. When this group was filmed, other competing groups were working on the same task. You might be able to hear these other groups in the background.

Your task in this study is to observe the group as they attempt to accomplish the goal of transporting the box and group members across the pool. At the conclusion of the videotape, you will be asked to work on several tasks, one of which will be to rate the group's performance.

Do you have any questions? Is your task clear?
Interview Information

At the conclusion of the lab session, you will be directed to separate rooms for the purpose of being interviewed. During the interview, you will be required both to explain and to justify your impressions, evaluations, and judgments of the work group that you observed in the videotape. Therefore, it is critical that you bring your completed questionnaire with you to the interview. The interviews will be conducted one-on-one with one of several industrial/organizational psychologists associated with this research project. In asking you to explain and justify your questionnaire ratings, the interviewer will require you to defend your ratings. For example, the interviewer may ask that you provide examples and/or reasons to support your ratings.
Provided below is a brief excerpt taken from an interview with a Rice University subject conducted by Dr. Taylor, an industrial/organizational psychologist associated with this project.

INTERVIEW #: 23
INTERVIEWER: Dr. Alan Taylor
DATE: 4/18/90
INTERVIEW LENGTH: 16 minutes

Dr. Taylor: "Hi, I'm Dr. Taylor. Thanks for coming in today. May I have your ratings, please? I'll need a few minutes to look at your ratings and then we'll begin the interview."

(A few minutes later.)
Dr. Taylor: "I have some questions about your evaluations of the group's performance. You gave the group a rating of _____ on item #2. Do you really think that this is an accurate rating?"

(Subject responds.)
Dr. Taylor: "What, in specific, led you to give this rating?"

(Subject responds.)
Dr. Taylor: "Yes, I see. But, how does that justify your rating? What is the rationale for your evaluation?"

(Subject responds.)
Dr. Taylor: "Fine. Let's turn to your rating on item #4. You gave a rating of _____ Can you provide examples of the group's behavior that support your rating?"

(Subject responds.)
Dr. Taylor: "I'm not sure that I agree with your rating on this item? I think the fact that the group did _____ argues against what you're saying. What other evidence is there to support your rating?"

(Subject responds.)
CONSENT FORM

EXPERIMENT TITLE: Group Action Study
EXPERIMENT#: 141

EXPERIMENTERS: Dr. Richard Martell, Assistant Professor of Psychology, Rice University
Marnie Swerdlin

CHAIR OF THE DEPT. OF PSYCHOLOGY: Dr. David Schneider

BRIEF DESCRIPTION: This research experiment concerns how people form impressions of others and how they evaluate the work performance of others. In this experiment, you will be asked to complete several tasks requiring you to form judgments of and evaluate work groups. One of the tasks will involve watching a videotape of a work group and completing questionnaires concerning the work group’s performance. A post-experimental interview will be conducted during which you will be required to explain and justify your impressions, evaluations, and judgments of the work group that you observed in the videotape. The interviewer will be an industrial/organizational psychologist associated with this research project. Note, too, that the interview will be audiotaped for future data analysis purposes. The experiment will require no more than 1.5 hours (90 minutes) of your time.

RISKS: There are no risks in this experiment.

BENEFITS: In this experiment, you will have the opportunity to learn about how people evaluate the work effectiveness of others.

CONSENT AGREEMENT: I have read the above and agree to participate in this experiment. I understand that I am free to discontinue my participation at any point without penalty. I further understand that any complaints or grievances I may have concerning my participation may be directed to the chairman of the Rice University Psychology Dept.’s Human Subjects Committee or to the chairman of the Rice University Psychology Dept.

Name: ________________________________ (please print)

Signature: ________________________________

Date: ___/___/___ Course for Which Credit is Desired: __________________
Unaccountable - Consent Form

CONSENT FORM

EXPERIMENT TITLE: Group Action Study  EXPERIMENT#: 141

EXPERIMENTERS: Dr. Richard Martell, Assistant Professor of Psychology,
Rice University  527-8750 X3411
Marnie Swerdlin  527-8750 X3771

CHAIR OF THE DEPT. OF PSYCHOLOGY: Dr. David Schneider
527-8750 X4856

BRIEF DESCRIPTION: This research experiment concerns how people form impressions of others and how they evaluate the work performance of others. In this experiment, you will be asked to complete several tasks requiring you to form judgments of and evaluate work groups. One of the tasks will involve watching a videotape of a work group and completing questionnaires concerning the work group's performance. Your responses in this experiment are completely confidential; no one other than the researchers will have access to your responses. The experiment will require no more than 1.5 hours (90 minutes) of your time.

RISKS: There are no risks in this experiment.

Benefits: In this experiment, you will have the opportunity to learn about how people evaluate the work effectiveness of others.

CONSENT AGREEMENT: I have read the above and agree to participate in this experiment. I understand that I am free to discontinue my participation at any point without penalty. I further understand that any complaints or grievances I may have concerning my participation may be directed to the chairman of the Rice University Psychology Dept.'s Human Subjects Committee or to the chairman of the Rice University Psychology Dept.

Name: ________________________________ (please print)

Signature: ____________________________

Date: ___/___/___  Course for Which Credit is Desired: ______________
APPENDIX G
Before we continue with the experiment, let me say that we are also interested in your impressions of groups other than the one that you just observed. To collect this information, we need you to provide some information on groups about which you have some knowledge or of which you have been (or are) a member. Please complete the questionnaire I am about to give you. Your responses to this questionnaire will not be discussed in the interview. You will have ten minutes to complete the questionnaire.
Unaccountable - Verbal Instructions for Filler Task

Before we continue with the experiment, let me say that we are also interested in your impressions of groups other than the one that you just observed. To collect this information, we need you to provide some information on groups about which you have some knowledge or of which you have been (or are) a member. Please complete the questionnaire I am about to give you. You will have ten minutes to complete the questionnaire.
Please list three groups (i.e., a student committee, a work group in some organization, the Supreme Court, a sports team, etc.) about which you have some knowledge.

1. 

2. 

3. 

For each group, please describe the purpose of the group.

1. 

2. 

3. 

For each group, list its most common task.

1. 

2. 

3. 

For each group, list one thing that the group needs to improve.

1. 

2. 

3. 
For each group, list one thing that the group is good at doing.

1. 

2. 

3. 

WHEN FINISHED WITH THIS QUESTIONNAIRE, PLEASE WAIT FOR FURTHER INSTRUCTIONS. THE EXPERIMENTER WILL INFORM YOU WHEN THE TEN-MINUTE TIME PERIOD HAS ENDED.
On the following pages you will find a list of specific behaviors. Using the scale below, please rate whether the behavior(s) occurred in the group that you observed.

The ratings are to be made by placing the number (1,2,3,4,5 or 6) which most closely represents your opinion on the line next to each behavior:

1. I am very certain the behavior(s) did not occur.
2. I am fairly certain the behavior(s) did not occur.
3. I am undecided, but think that the behavior(s) did not occur.
4. I am undecided, but think that the behavior(s) did occur.
5. I am fairly certain the behavior(s) did occur.
6. I am very certain the behavior(s) did occur.

Please respond to each question. The success of this research requires that you answer every question. Do not leave any blanks.

You may begin by turning to the next page.
1. I am very certain the behavior(s) **did not** occur.
2. I am fairly certain the behavior(s) **did not** occur.
3. I am undecided, but think that the behavior(s) **did not** occur.
4. I am undecided, but think that the behavior(s) **did** occur.
5. I am fairly certain the behavior(s) **did** occur.
6. I am very certain the behavior(s) **did** occur.

1. The group members often talked amongst themselves about hustling and performing the task well.

2. At the beginning of the task, one group member wanted to be sure that everyone knew what to do and therefore asked the group out loud: "Do we know what we're doing?" Most of the group members simply ignored his question.

3. When a group member voiced a suggestion, other members responded positively, saying "that's a good idea".

4. One group member shoved another out of the way when reaching for the box.

5. One group member yelled in a loud, unpleasant voice at another that he was balancing on the makeshift bridge in the wrong way.

6. Group members sometimes asked each other how they were doing to make sure that everyone was feeling okay about the group.

7. When a group member was having difficulty holding down the board upon which another group member was going to walk, other members quickly came to his assistance.

8. Several group members stated that they enjoyed working in the group.

9. While attempting to cross the pool, a group member carefully explained to the others how to best position their feet on the bridge to avoid falling into the water.

10. When a group member was slow in tying the rope necessary to build the bridge another member yelled at him in an unfriendly tone of voice, telling him to go faster.

Turn to the next page.
1. I am very certain the behavior(s) did not occur.

2. I am fairly certain the behavior(s) did not occur.

3. I am undecided, but think that the behavior(s) did not occur.

4. I am undecided, but think that the behavior(s) did occur.

5. I am fairly certain the behavior(s) did occur.

6. I am very certain the behavior(s) did occur.

11. The group determined who would be its leader by holding a quick election.

12. Several times group members complained that others in the group were not trying hard enough.

13. The group loudly encouraged each person attempting to cross the pool.

14. Throughout the exercise several group members stayed to the side and did not actively contribute unless specifically asked to do so.

15. When something went wrong while constructing the bridge, one of the group members was sometimes made the scapegoat.

16. The group discussed and analyzed suggested tactics for building the bridge and crossing the water.

17. Several group members worked together to reach the rope suspended over the center of the pool.

18. Several group members each took turns working on the more difficult and risky parts of building the bridge rather than relying on only one person to do most of the difficult work.

19. At one point during the discussion, the group leader made everyone stop talking in order to give one group member a chance to speak.

20. At times, the group members stood by the pool and prepared to protect and assist in the event of a fall from the bridge.

21. Group members expressed the belief that they probably had one of the best groups.
1. I am very certain the behavior(s) did not occur.

2. I am fairly certain the behavior(s) did not occur.

3. I am undecided, but think that the behavior(s) did not occur.

4. I am undecided, but think that the behavior(s) did occur.

5. I am fairly certain the behavior(s) did occur.

6. I am very certain the behavior(s) did occur.

22. One group member complained out loud that they were wasting a lot of time trying to tie a knot in the rope.

23. At times, two of the group members monopolized the work while the others passively watched.

24. When members of the group reached the rope over the center of the pool by walking out on a board over the water, another member on the wall steadied them.

25. The group polled its members to see who knew how to tie knots, who had the best balance, and who was the strongest.

26. Instructions given by one group member to another were often given incompletely.

27. Group members sometimes ignored the need to work quickly on their task.

28. The group member standing alone on the opposite side of the pool offered no ideas or suggestions from his perspective.

29. One group member called another "stupid" for not agreeing with his suggestion.

30. Group members repeatedly expressed that they were working together so well that they would have no problem finishing within the allotted time.

31. When one of the members had difficulty attempting to cross the bridge, several of his teammates encouraged him with cheers.

32. When a member had difficulty tying a knot, another member replied "that's ok" and encouraged him to finish.
1. I am very certain the behavior(s) did not occur.

2. I am fairly certain the behavior(s) did not occur.

3. I am undecided, but think that the behavior(s) did not occur.

4. I am undecided, but think that the behavior(s) did occur.

5. I am fairly certain the behavior(s) did occur.

6. I am very certain the behavior(s) did occur.

33. At the beginning of the exercise, each member volunteered to perform a specific task in order to build the bridge in an orderly fashion.

34. Frequently, members praised each other's performance.

35. A member who was moving the plank across the water offered a suggestion which everyone ignored, and members told him to hurry.

36. One member yelled to another crossing the bridge "Don't spend any time out there", and the bridge-closer replied in an annoyed tone of voice "I can get across."

37. While one of the men was carefully crossing the bridge, one member yelled at him to hurry up and started shaking the bridge to make him move faster.

38. When a member appeared to be working too slowly in moving the plank across the water, another member pushed him out of the way and grabbed the board.

39. The group paused during its work to discuss its progress.

40. When it became clear that there was little time left, the group gave up and stopped working.

WHEN FINISHED WITH THIS QUESTIONNAIRE, PLACE IT BACK IN FOLDER 1 AND OPEN FOLDER 2.
APPENDIX I
Below are some questions about the work group that you observed in the videotape. For each question, please circle the number that best describes your evaluation of the work group. When making your ratings, please keep in mind the direction of the rating scales (the higher the number circled, the more favorable the rating).

1. How would you rate the **performance** of the group in terms of:

   (a) Quickly getting the box across the water.

<table>
<thead>
<tr>
<th>Extremely Good</th>
<th>9 8 7 6 5 4 3 2 1 Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely</td>
<td></td>
</tr>
</tbody>
</table>

   (b) Quickly getting the group members across the water.

<table>
<thead>
<tr>
<th>Extremely Good</th>
<th>9 8 7 6 5 4 3 2 1 Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely</td>
<td></td>
</tr>
</tbody>
</table>

   (c) The structural adequacy of the bridge built by the group.

<table>
<thead>
<tr>
<th>Extremely Good</th>
<th>9 8 7 6 5 4 3 2 1 Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely</td>
<td></td>
</tr>
</tbody>
</table>

2. Considering all of the above ratings, how would you describe the overall performance of the group?

<table>
<thead>
<tr>
<th>Extremely Good</th>
<th>9 8 7 6 5 4 3 2 1 Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely</td>
<td></td>
</tr>
</tbody>
</table>

WHEN FINISHED WITH THIS QUESTIONNAIRE, PLACE IT BACK IN FOLDER 2, AND OPEN FOLDER 3.
For each scale below, please circle the number that best represents your feelings during this experiment.

a) Very Passive
   1  2  3  4  5  6  7
   Very Active

b) Very Sad
   1  2  3  4  5  6  7
   Very Happy

c) Very Depressed
   1  2  3  4  5  6  7
   Very Elated

d) Very Worried
   1  2  3  4  5  6  7
   Very Serene

e) Very Tense
   1  2  3  4  5  6  7
   Very Relaxed

f) Very Hostile
   1  2  3  4  5  6  7
   Very Peaceful

g) Very Angry
   1  2  3  4  5  6  7
   Very Content

h) Very Excited
   1  2  3  4  5  6  7
   Very Tranquil

WHEN FINISHED WITH THIS QUESTIONNAIRE, PLACE IT BACK IN FOLDER 3, AND OPEN FOLDER 4.
Please answer the following question regarding your participation in this experiment by circling an appropriate number on the scale.

How "concerned" were you with making accurate ratings of the work group?

Extremely 1 2 3 4 5 6 7 8 9 Extremely
Unconcerned Concerned

Please circle your gender.

Male Female

On the line below, please indicate to which Rice residential college you belong. If you do not belong to one of the Rice residential colleges, respond "NONE".

________________________

WHEN FINISHED WITH THIS QUESTIONNAIRE, PLACE IT BACK IN FOLDER 4, AND OPEN FOLDER 5.
Please answer the following question regarding your participation in this experiment by placing a check next to your response.

Were you told that:

_____ your ratings would be confidential?

or

_____ you would explain and justify your ratings to an industrial/organizational psychologist associated with this study?

WHEN FINISHED WITH THIS QUESTIONNAIRE, PLACE IT BACK IN FOLDER 5. PLEASE REMAIN QUIET. THE EXPERIMENTER WILL INFORM YOU WHEN EVERYONE IS DONE WITH THE QUESTIONNAIRE.