AN UPWARD FEEDBACK FIELD EXPERIMENT: SUPERVISORS' CYNICISM, REACTIONS, AND COMMITMENT TO SUBORDINATES

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A field experiment was conducted to examine outcomes associated with an upward feedback program in a policing agency. Experimental groups included 110 supervisors who were randomly assigned to 1 of 2 conditions: (a) a feedback group in which supervisors and subordinates completed surveys and received feedback at two time periods, or (b) a survey-only group in which supervisors and subordinates completed surveys at Times 1 and 2, but supervisors received feedback only at Time 2. Results showed no significant improvement for the feedback or survey-only groups with regard to subordinate ratings of leadership. However, a significant decrease in self-rated leadership scores occurred between Time 1 and Time 2 for the supervisors receiving feedback at Time 1, and no such changes were observed for supervisors who were only surveyed at Time 1. In addition, Time 1 to Time 2 leadership change was predicted by organizational cynicism and the extent to which the recipient reacts positively to upward feedback and takes steps to improve. Thus, individual attitudes appear to be relevant to behavior change following upward feedback. In addition, leadership measured at Time 1 predicted supervisors' commitment to their subordinates at Time 2 for the feedback group, but not for the survey-only group. Such results demonstrate that outcomes in addition to performance, such as commitment to subordinates, need to be considered in the implementation of upward feedback programs.

Upward feedback is a process that involves the rating of supervisors by their respective subordinates on various behavioral dimensions, combined with formal feedback of the results to the supervisors. It is a process that has been growing in popularity for the purposes of individual and organizational development (Atwater, Ostroff, Yammarino, &

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Fleenor, 1998; London & Beatty, 1993; Smither, London, et al., 1995). Upward feedback has been recognized as one important aspect of a larger phenomenon, which has become known as 360-degree or multisource feedback (Waldman & Atwater, 1998).

Despite the attention paid to upward feedback, little is known about its effects on recipients and their feedback providers. The overall purpose of the present study was to conduct a field experiment in a policing organization to examine the effects of receiving formalized upward feedback. To the best of our knowledge, this study represents the first attempt to examine the effects of feedback using field experimental methodology. Specifically, we examined: (a) whether behavioral improvements are more pronounced for people receiving feedback as opposed to those who are merely surveyed; (b) the extent to which feedback recipients see upward feedback as a valuable process and take steps to make improvements and the impact these attitudes/behaviors have on their leadership performance following feedback; (c) the extent to which feedback influences supervisors’ subsequent self-ratings; (d) the extent to which recipients can be characterized as cynical and whether cynicism impacts efforts to change; and (e) the extent to which the type of feedback received (e.g., positive or negative) influences supervisors’ degrees of subsequent commitment to their subordinates.

*Upward Feedback and Performance Improvement*

The primary assumption underlying upward feedback is that individuals who receive it will be able to identify development needs and improve their leadership performance. Hegarty (1974) as well as Bernardin, Hagan, Ross, and Kane (1995) demonstrated that supervisors who received feedback showed significant positive change. However, whether it is the feedback itself, or some other aspect of the process that works to improve leadership, is not well understood. Goal-setting theory provides a theoretical basis in that it stresses how specific goals and feedback are required for performance improvement (Locke & Latham, 1990). An upward feedback program typically includes self-ratings as well as anonymous subordinate ratings of leader behaviors that the organization has deemed important. By completing self-ratings, individuals become aware of the behaviors desired by the organization and could presumably set goals accordingly.

However, simply becoming aware of the desired behaviors which are the focus of an upward feedback program may not be sufficient to motivate individuals to change behavior. Feedback from others about the current level of performance may also be necessary to motivate change. For example, feedback from subordinates that is lower than expected
could provide the motivation to change (Atwater & Yammarino, 1997). This occurs because individuals try to match their behavior to self-set standards (see control theory, Carver & Scheier, 1982). Feedback that suggests that those standards are not being met would motivate individuals to meet the standards, that is, improve performance. Thus, in the realm of an upward feedback process, comparing self-ratings to those provided by subordinates may also be a requirement for performance improvement (Smither, London, et al., 1995).

The research to date is not altogether clear with regard to the effects of receiving upward feedback, as opposed to simply surveying supervisors. For example, Smither, London et al. (1995) and Reilly, Smither, and Vasilopoulos (1996) found that managers who received written feedback reports of self- and other ratings, as well as those who merely completed self-ratings, showed performance improvement. In the Smither, London et al. study, managers who received feedback at Time 1 were no more likely to improve their performance at Time 2 (6 months later), than those who did not receive feedback. Leadership improvement was observed regardless of whether managers received an actual feedback report at Time 1. Thus, the survey process, in and of itself, may direct the attention of managers to valued behavioral dimensions, regardless of whether feedback is actually received (Reilly et al., 1996). However, Smither, London et al. (1995) noted that their quasi-experimental design may have limited the validity of their results. That is, the survey-only group was not determined a priori or randomly assigned. Rather, the supervisors who did not receive feedback were those who received too few subordinate surveys to protect anonymity. Thus, the effects of completing surveys and receiving feedback need further study using more precise experimental methods.

The present research utilizes an actual field experiment conducted in a police organization that was implementing an upward feedback process for supervisors. This field experiment includes the random assignment of participants to the following two groups: (a) a feedback group of supervisors that received written feedback from subordinates at Time 1 and Time 2, and (b) a survey-only group of supervisors determined a priori that was surveyed at Time 1 and Time 2 (including self and subordinate evaluations) but received feedback only at Time 2 (approximately 10 months after Time 1). This design allows us to compare the effects of feedback with the effects of merely completing surveys. Overall, we expect the following to occur:

**Hypothesis 1:** Supervisors in the feedback condition will show greater improvement in their leadership scores from Time 1 to Time 2 than those who are in the survey-only condition.
Changes in Self-Ratings Following Feedback

The effect of upward feedback is also relevant with regard to the self-ratings of supervisors. Atwater, Roush, and Fischthal (1995) noted that managers who overrate themselves relative to the ratings of others tend to be poorer performers. Ashford and Tsui (1991) also pointed out the benefits of seeing oneself similar to the way we are seen by others. Thus, real benefits could be realized if the self-ratings of overraters were lowered as a result of feedback processes.

However, the evidence regarding the impact of feedback on self-ratings is not altogether clear. Smither, London et al. (1995) essentially found no effect of feedback on self-ratings. In contrast, Atwater et al. (1995) found that the self-ratings of overraters tended to decrease as a result of feedback, a finding confirmed in the work of Johnson and Ferstl (1999). Given that there is a tendency for individuals to overrate themselves relative to others (Thornton, 1980; Harris & Schaubroeck, 1988) we expect that overall, feedback will result in decreases in self-ratings. At the same time, we expect no such effect for the survey-only group because self-rating decreases should only result when supervisors have access to ratings provided by their subordinates, that is, when feedback is provided. In any event, as is the case with subordinate ratings, upward feedback research would benefit from systematic, experimental evidence regarding self-ratings. In sum, we expect that:

Hypothesis 2: A decrease in self-rated leadership scores will occur between Time 1 and Time 2 for the supervisors receiving feedback at Time 1. No such changes will be observed for supervisors who are only surveyed at Time 1.

Characteristics of the Feedback Recipient

Kluger and DeNisi (1996) put forth convincing evidence that merely providing individuals with feedback does not automatically lead to performance improvements for everyone. Although their results indicated improved performance, on average, on the part of feedback recipients, they also reported a high degree of variability in the effects of feedback interventions. That is, in over one-third of the cases that Kluger and DeNisi (1996) analyzed, performance was actually reduced following a feedback intervention. Thus, although a comparison of group averages of pre- and postfeedback scores may show overall improvements, not every individual is likely to make improvements, and some may actually decrease their performance. Along similar lines, Hazucha, Hezlett, and Schneider (1993) noted substantial variability among individuals in their study with regard to the extent of change associated with a 360-degree
feedback program. Whether an upward feedback process prompts behavior change might hinge on attitudes, follow-up behaviors, or other characteristics of the feedback recipient (Hazucha et al., 1993; Kluger & DeNisi, 1996; Waldman & Atwater, 1998). In the present study, we propose two such characteristics: (a) the extent to which individuals are cynical toward the organization, and (b) the extent to which the recipient accepts and finds value in upward feedback, and then takes steps to make improvements based upon the feedback.

Organizational cynicism. A number of authors have recently lamented that cynicism is a growing phenomenon in organizational settings (Dean, Brandes, & Dharwadkar, 1998; Reichers, Wanous, & Austin, 1997; Vance, Brooks, & Tesluk, 1995). For example, Dean et al. (1998) conceptualized organizational cynicism as a negative attitudinal phenomenon composed of a belief on the part of an individual that his or her organization lacks integrity, and that principles such as fairness, honesty, and sincerity are often sacrificed to expediency, unscrupulous behavior, and self-interest. The outcome is that organizational cynics will have tendencies toward disparaging the organization and its members and will behave in ways consistent with their negative beliefs and affect (Dean et al., 1998).

The work of Vance et al. (1995) can be used to expand this conceptualization by including the notion that organizational cynics believe that serious problems exist in the workplace. Further, although these problems can be solved, in reality they will not be solved because of self-centered decision makers, intransigent organizational members, inertia maintaining the status quo, and so forth. Accordingly, Vance et al. proposed that cynicism would breed suspicion of the motives of change agents, apathy toward those efforts, and perhaps even sabotage. Under such conditions, it would be difficult, if not impossible, for new programs and procedures to be successful, at least with regard to the cynics.

The introduction of upward feedback could be one such program. Indeed, it could be argued that upward feedback recipients who are also organizational cynics would be skeptical about the program. For example, they may believe that change is simply not possible because of unsupportive superiors, or uncooperative and self-centered subordinates. In any event, in line with the work of Vance et al. (1995), we propose that organizational cynicism will result in resistance toward new programs and procedures such as upward feedback, and it will adversely affect the extent to which feedback affects changes in leadership ratings from subordinates. Conversely, we expect little or no effect of cynicism on leadership change in the survey-only group because there is no initial basis (i.e., no initial leadership feedback) on which to make that change. In short, we expect that:
Hypothesis 3: Organizational cynicism on the part of feedback recipients at Time 1 will be negatively related to their leadership scores at Time 2 when controlling for Time 1 leadership scores. No such relationship will be observed for supervisors who are only surveyed at Time 1.

Reactions to feedback. Antonioni (1996) suggested that if upward feedback is to be successful, recipients must recognize the value of upward feedback and be motivated to seek additional feedback from the subordinates who provided the ratings. This idea is in line with the feedback intervention theory proposed by Kluger and DeNisi (1996, p. 259). In essence, they proposed that an individual's attention is limited, and only "feedback-standard gaps" that receive attention will be affected by a feedback intervention. Further, in order to receive attention, the feedback process must be viewed by the individual as being important, and goals must be set to close the feedback-standard gap.

Along similar lines, Smither, Wohlers, and London (1995) suggested that, in order to achieve success, upward feedback programs must emphasize the importance of setting specific, difficult goals as a means of taking steps to make improvements. Walker and Smither (1999) demonstrated how a first step in the goal-setting process might include simply having a follow-up meeting with subordinates. Specifically, they found that managers who followed up their feedback by having a meeting with their subordinates to discuss the feedback results improved more than did other managers. In sum, we argue that performance improvement following an upward feedback process is likely to be positively associated with favorable attitudes toward the process and follow-up behaviors and goals on the part of feedback recipients. We propose the following:

Hypothesis 4: For supervisors receiving feedback at Time 1, leadership scores will be higher at Time 2 for those who find value in the initial feedback and take steps to make improvements.

Upward Feedback and Commitment to Subordinates

Relevant outcomes of an upward feedback initiative are not limited to leadership scores at a later time. We propose that one logical and important outcome is the recipient's commitment to subordinates after receiving feedback. Instead of focusing on the organization as a whole, we define commitment to subordinates more specifically in terms of the extent to which a supervisor feels a sense of loyalty toward subordinates, is able to agree with subordinates on important matters, and is willing to put forth extra effort to help subordinates achieve success. The concept is highly relevant to the development of effective supervisor/subordinate working relationships, or what has been commonly
phrased leader–member exchange (Graen & Scandura, 1987). Indeed, the long-term development of leader-member exchange may hinge on factors related to the building of trust, loyalty, and commitment (Bauer & Green, 1996).

There is some reason to believe that commitment to subordinates may be altered as a result of upward feedback processes. Pearce and Porter (1986) reported that the receipt of low performance appraisal ratings (i.e., feedback) results in reduced organizational commitment. They reasoned that, for many people, self-perceptions of work performance are closely aligned with feelings of self-esteem. Any feedback system that provides data that one is lower than the norm with regard to performance is likely to generate some loss in positive mood, feelings, and commitment (Kluger & DeNisi, 1996). Conversely, if feedback suggests that one is higher than the norm, positive mood, feelings, and commitment may increase.

Most upward feedback approaches, including the one used in the present study, involve providing specific data regarding how one compares to one's peers. Thus, we propose that upward feedback will affect a supervisor's commitment. Moreover, we expect that the effects on commitment will be targeted toward one's subordinates because they are the providers of the feedback. Specifically, we expect higher leadership scores at Time 1 to be related to higher degrees of supervisor commitment to subordinates at Time 2. The present study also involves a survey-only group for comparison purposes. The mere act of surveying is not likely to have an effect on commitment to subordinates; feedback is required. In short, we suggest that:

**Hypothesis 5:** For supervisors receiving feedback at Time 1, a positive relationship will be observed between leadership scores at Time 1 and commitment to subordinates at Time 2. Conversely, no relationship between leadership scores at Time 1 and commitment to subordinates at Time 2 will be observed for supervisors in a survey-only group.

**Method**

**Study Design**

An upward feedback process was introduced to a state police agency wherein police supervisors (sergeants, lieutenants, and captains) were provided with anonymous, confidential feedback about their leadership from their subordinates. One hundred ten supervisors were randomly assigned to one of two groups: (a) a feedback group that received feedback at two time periods (Time 1 and Time 2) separated by approxi-
mately 10 months, and (b) a survey-only group in which both supervisors and subordinates completed surveys at Times 1 and 2, but supervisors received feedback only at Time 2. Because anonymity and confidentiality of survey respondents were paramount, at the request of top management, no demographic information was collected on the surveys. However, we collected data on years as a supervisor and whether supervisors were assigned to rural or metro districts from organizational records. The average tenure as a supervisor was 11.36 years. Approximately half of the supervisors were assigned to rural districts and half to metro districts. No data on gender composition was available, but the large majority of police supervisors in the sample were male.

Surveys were administered by mail to supervisors and subordinates. Surveys and stamped, addressed return envelopes were mailed to each participant's home for direct return to the researchers. We believed that sending surveys to participants' homes would increase their feelings of anonymity and would help reduce possible contamination across conditions. Respondents were aware that only some supervisors would receive feedback at Time 1, but they did not know at the time of the first survey administration who would and who would not receive initial feedback. In addition, because supervisors spend most of their time with their subordinates or in the field, there were few opportunities for supervisors to discuss the survey process with one another. The overall response rate was 70%.

Subjects

At Time 1, surveys assessing leadership were administered to 110 supervisors (self-ratings) and their 511 subordinates. For the purposes of the present study, we operationalized leadership as ratings provided by subordinates. Feedback was given to 56 supervisors; the remaining 54 supervisors were part of the survey-only group (if they completed a self-survey). At Time 2, surveys were re-administered to all supervisors and their subordinates in the feedback and survey-only groups. After the Time 2 survey, feedback was provided to all supervisors who had at least three subordinate surveys returned. (The initial feedback group also received feedback a second time). The final sample included 53 supervisors in the feedback group and 43 supervisors in the survey-only group who had both Time 1 and Time 2 data from their subordinates.

Survey Design

Initial interviews were conducted with 40 individuals representing all levels in the organization in an attempt to identify aspects of effective
police leadership. Interviewees were asked to describe effective police leadership in behavioral terms. These data were then used to design a survey that was both face and content valid with regard to promoting leadership improvement in a police context. A sample of items is provided in the Appendix. These leadership behaviors are similar to those measured by many published leadership surveys (e.g., Van Velsor & Leslie, 1991). There were a few items such as “provides rewards for proactively identifying problems that could impact safety” and “shows that understanding citizens and their safety concerns are top priorities” that were specific to a police environment.

The final survey contained 43 leadership items measured on a 5-point frequency scale, with high scores indicating that the supervisor engaged in positive leadership behaviors more often. The survey items were written in the first person for completion by supervisors, and third person for completion by subordinates. Self-ratings, along with averaged subordinate ratings, were provided to supervisors on each of the 43 items in their upward feedback reports. Group averages for self and subordinate ratings, summed across all supervisors receiving feedback (i.e., normative data) were also included in the feedback reports. Feedback reports were delivered to recipients by the researchers in small group meetings. The information provided in the reports was explained, and questions were answered.

In addition to the leadership items, the survey administered to the supervisors included eight organizational cynicism items from Vance et al. (1995) that were measured on a 5-point scale ranging from strongly agree to strongly disagree, with high scores indicating more organizational cynicism. In addition, a measure of supervisors’ commitment to their subordinates was included. This 3-item scale was adapted from Mowday, Steers, and Porter’s (1979) measure of commitment to the organization. The items selected were modified to reflect the supervisor’s commitment to his or her subordinates rather than the organization.

At Time 2, the surveys used at Time 1 were administered a second time, and four new items were added to the supervisors’ survey. These four items assessed reactions and follow-up behaviors in relation to the feedback process (hereafter, simply referred to as reactions to feedback). These questions were asked only of the supervisors who participated in the Time 1 feedback group. Sample items from the organizational cynicism, commitment to subordinates, and reactions to feedback scales are provided in the Appendix. The alpha values for each scale at Times 1 and 2 respectively are: cynicism, .85, .83; commitment, .77, .65; and reactions (Time 2 only) .81.

For analysis purposes, the 43 leadership items as rated by subordinates at Time 1 were factor analyzed using varimax rotation. Two clear
factors emerged accounting for 67% and 3% of the variance, respectively. Because of the predominance of the first factor, it was used exclusively in all subsequent analyses. Eleven items loaded heavily on the first factor (i.e., .48 or higher) and did not load heavily on the second factor (i.e., less than .38). The alpha value for this 11-item leadership scale (shown in the Appendix) was .97 at both Times 1 and 2. Accordingly, the 11 items were averaged to form a single scale.

To determine the appropriateness of aggregation, variances within ratees and between leaders were compared using one-way ANOVA for the leadership factor (see Smither, Wohlers, et al., 1995). Analyses indicated that between leader variance was significantly greater than within leader variance ($p < .01$) at both Time 1 and Time 2 ($F$s = 5.30 and 3.10, respectively). In addition, interrater agreement scores calculated as $1 - (MS_{within}/MS_{between})$ were .81 and .68 at Times 1 and 2, respectively. These values are comparable to those obtained by Smither, London et al. (1995). Accordingly, aggregation of leadership items across subordinates for each supervisor was deemed appropriate. Organizational cynicism, commitment to subordinates, and reactions to feedback items provided by supervisors, were averaged into scales representing these respective constructs.

Results

Means, standard deviations, and intercorrelations among the variables used in the study are presented in Table 1. The upper half of the diagonal presents correlations for the survey-only group; the bottom half contains correlations for the feedback group.

Hypothesis 1 and Hypothesis 3 were tested using multiple regression analysis. Subordinate ratings of leadership were the dependent variable and Time, Group (feedback vs. survey-only), Cynicism, and the 2- and 3-way interactions were entered in separate steps. Results of this analysis are presented in Table 2. Hypothesis 1 was not supported. There was no significant interaction between Group and Time. Subordinate ratings of leadership were not significantly higher at Time 2 than they were at Time 1 for the feedback group when compared to the survey-only group. The mean subordinate leadership ratings were feedback group Time 1 = 3.77, Time 2 = 3.93; survey-only Time 1 = 3.88, Time 2 = 3.91.

Hypothesis 3 was also not supported. The Time × Group × Cynicism interaction was not significant. There was, however, a marginally significant effect for cynicism, suggesting that those supervisors who were more cynical received lower ratings of leadership from their subordinates.

Because we were concerned that perhaps our findings were not robust enough to detect a 3-way interaction, particularly given multicolin-
<table>
<thead>
<tr>
<th>Table 1: Correlations: Leadership, Cynicism, Reactions to Feedback, and Commitment to Subordinates</th>
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</thead>
<tbody>
<tr>
<td><strong>FB M</strong></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Sub leadership ratings</td>
</tr>
<tr>
<td>Time 1 (Ldr T1) (43) (53) (54) (53) (54) (34) (36)</td>
</tr>
<tr>
<td>Sub leadership ratings</td>
</tr>
<tr>
<td>Time 2 (Ldr T2) (53) (42) (33) (42) (43) (33) (35)</td>
</tr>
<tr>
<td>Cynicism Time 1</td>
</tr>
<tr>
<td>(Cyn 1) (56) (53) (34) (54) (33) (34) (35)</td>
</tr>
<tr>
<td>Cynicism Time 2</td>
</tr>
<tr>
<td>(Cyn 2) (44) (43) (44) (34) (34) (34) (34)</td>
</tr>
<tr>
<td>Reactions to feedback (React.)</td>
</tr>
<tr>
<td>Time 1 (Commit 1) (41) (41) (40) (40)</td>
</tr>
<tr>
<td>Commitment to subs</td>
</tr>
<tr>
<td>Time 1 (Slf T1) (56) (43) (44) (41) (34) (34) (35)</td>
</tr>
<tr>
<td>Self-ratings</td>
</tr>
<tr>
<td>Time 1 (Slf T1) (36) (53) (56) (44) (41) (34) (35)</td>
</tr>
<tr>
<td>Commitment to subs</td>
</tr>
<tr>
<td>Time 2 (Commit 2) (44) (43) (44) (40) (44) (34) (34)</td>
</tr>
<tr>
<td>Self-ratings</td>
</tr>
<tr>
<td>Time 2 (Slf T2) (46) (45) (46) (44) (41) (46) (44)</td>
</tr>
</tbody>
</table>

**Note:** ns are in parentheses; correlations above the diagonal are for the survey-only group; correlations below the diagonal are for the feedback group.

*p < .10  *p < .05  **p < .01
earity problems, we ran subgroup analyses to allow us to see if there were modest effects that were not apparent in the overall regression analysis. We realize that these analyses may be questionable given that the 3-way interaction was not significant, but we provide the results for illustrative purposes. We expected that cynicism measured at Time 1 would predict leadership ratings at Time 2 (after controlling for Time 1 leadership) for the feedback group, but not for the survey-only group. Leadership ratings at Time 1 were entered first as a control variable, and supervisors' cynicism measured at Time 1 was entered in the second step, in separate analyses for the feedback and survey groups. Results of these analyses are presented in Table 3.

As can be seen, cynicism accounted for a marginally significant portion of variance in leadership ratings at Time 2, after Time 1 leadership was entered into the equation for the feedback group, but not for the survey-only group. This finding lends partial support for Hypothesis 3. In addition, supervisor cynicism scores for the feedback group at Time 1 were marginally, significantly correlated with subordinate ratings of the
TABLE 4
Mixed ANOVA Results for Self-Ratings by Group Over Time

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>ss</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
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<tr>
<td>Within cells</td>
<td>5.61</td>
<td>80</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>.24</td>
<td>1</td>
<td>.24</td>
<td>3.35*</td>
</tr>
<tr>
<td>Group (Fb vs. surv) × Time</td>
<td>.28</td>
<td>1</td>
<td>.28</td>
<td>3.98*</td>
</tr>
</tbody>
</table>

Self-ratings of leadership

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback</td>
<td>46</td>
</tr>
<tr>
<td>Survey-only</td>
<td>36</td>
</tr>
</tbody>
</table>

* p < .10
** p < .05

TABLE 5
Regression Analysis: Reactions to Feedback Predicting Leadership After Feedback

<table>
<thead>
<tr>
<th>Dependent variable: Subordinate ratings of leadership after feedback (Time 2)</th>
<th>R^2</th>
<th>ΔR^2</th>
<th>Std Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 Leadership ratings Time 1</td>
<td>.39**</td>
<td></td>
<td>.56**</td>
</tr>
<tr>
<td>Step 2 Supervisors' reactions to feedback</td>
<td>.51**</td>
<td>.12**</td>
<td>.35**</td>
</tr>
</tbody>
</table>

Note: n = 41
** p < .01

supervisor's leadership at Time 2 (r = -.25, p < .10), but not with leadership at Time 1 (r = -.07, ns). This finding suggests that cynicism may have contributed to the ratings of leadership that supervisors received after the initial feedback, rather than cynicism being related to concurrent ratings of leadership at Time 1.

Hypothesis 2 was tested using a mixed analysis of variance. Time was a repeated measure, and Group was a between-groups variable in our analyses. Self-ratings represented the dependent variable. A significant Group × Time interaction was obtained (see Table 4). Self-ratings declined for the feedback group following feedback (M Time 1 = 4.13, Time 2 = 3.97) and did not change for the survey-only group (M Time 1 = 4.17, Time 2 = 4.18), thus confirming Hypothesis 2.

Hypothesis 4 was tested with regression analysis. Data on reactions to feedback were only available for the feedback group. Leadership ratings at Time 1 were entered first as a control variable, and the reactions to feedback scale was entered second to predict leadership ratings at Time 2. Results of this analysis are presented in Table 5. As can be seen, reactions to feedback accounted for a significant portion of variance in
leadership ratings at Time 2 after Time 1 leadership was included, thus supporting Hypothesis 4.

Hypothesis 5 was tested with moderated regression analysis. This analysis included supervisors in both the feedback and survey-only groups. Supervisors' commitment to their subordinates was the dependent variable. Leadership ratings at Time 1 were entered into the equation first, followed by Group and finally the interaction between Leadership and Group. As can be seen from Table 6, leadership ratings at Time 1 predicted commitment at Time 2. In addition, the interaction between Leadership and Group added a marginally significant portion of variance (4%) to the equation in step 3 of the regression analysis. Because multicollinearity may have reduced the effect found for the interaction term (the correlation between Group and Group x Leadership Time 1 was .88), we performed a follow-up analysis. Each of the 43 leadership items at Time 1 was correlated with commitment at Time 2 for the feedback and survey-only groups. Results indicated that the correlations ranged from .20 to .51 for the feedback group (37/43 were significant $p < .05$). For the survey-only group, correlations ranged from .00 to .20, and none were significant, $p < .05$. As an overall finding, this suggests that receiving more positive feedback from subordinates raised supervisors’ levels of commitment to their subordinates, or alternatively, receiving more negative ratings from subordinates lowered commitment.

Following procedures performed in recent research (e.g., Major, Kozlowski, Chao, & Gardner, 1995; Saks, 1995), a plot was developed to illustrate the Leadership x Group interaction. Figure 1 was constructed by plotting leadership scores one SD below the mean (low leadership) and one SD above the mean (high leadership) for both the survey-only and feedback groups. Figure 1 clearly illustrates the nature of the Leadership x Group interaction in the prediction of commitment to subordinates. In line with Hypothesis 5, a strong relationship is evident between leadership and commitment for the feedback group ($\Delta = .68$); conversely, a relatively flat relationship is evident for the survey-only.
Figure 1: Leadership at Time 1 × Group Interaction in the Prediction of Commitment to Subordinates at Time 2
group ($\Delta = .16$). This suggests that receiving feedback, but not merely completing surveys, impacted supervisors' subsequent commitment to their subordinates.

**Discussion**

At Time 2, the feedback group, when compared to the survey-only group, did not have significantly higher leadership scores as rated by subordinates than they had at Time 1. In fact, there was no effect for Time suggesting that neither the feedback nor the survey process had an impact on subsequent leadership ratings. This is contrary to previous work where both feedback (cf. Atwater et al., 1995) and surveying (cf. Smither, London et al., 1995) resulted in improved leadership ratings. We can only speculate about why positive change was not observed.

Our sample may have been too small to detect overall effects. Kluger and DiNisi (1996) found that the effect size for feedback interventions in general was .4 standard deviations which is a rather small amount of change, overall. We may have seen no significant change due to a lack of power.

An alternative possibility is that police officers with high average tenure in the organization were less likely to be receptive to upward feedback than supervisors in other work environments. Although we did not detect any lack of receptivity during the feedback sessions, police organizations are known for being quasi-militaristic and feedback from subordinates may have been perceived as an intrusion into the power structure.

The effects of feedback on the supervisors' self-ratings were clearer. Consistent with earlier work by Atwater et al. (1995), those who received feedback lowered their subsequent self-ratings, and those who were merely surveyed did not lower their self-ratings. For the feedback group at Time 2, self- and subordinate ratings were more similar than they were at Time 1 (Time 1 subordinate ratings = 3.77, self = 4.13; Time 2 subordinate ratings = 3.93, self = 3.97). This is consistent with what we would expect given that in most cases self-ratings prior to feedback are higher than subordinate ratings.

Moreover, our random assignment of individuals to the two conditions, in addition to the type of interaction effect obtained, reduce the possibility of regression to the mean as a plausible explanation (see Cook & Campbell, 1979, pp. 109–110). As they point out, "it is rarely reasonable to expect that [the] grand mean will be higher than that of the higher-scoring control group. It would have to be, however, if statistical regression were to explain why the experimental group overtakes the control group and significantly differs from it at the posttest." In our
case, self-ratings for the feedback group were lower at Time 2 than were self-ratings for the survey group at either time. Regression to the mean should not account for this effect. Instead, we suggest that when supervisors get feedback, they lower their subsequent self-ratings, more in line with subordinate ratings. These lower ratings may result from increased self-awareness, or from a desire to have self and subordinate ratings in closer agreement on subsequent feedback reports.

It would be interesting in future research to assess whether lowered self-ratings as a result of feedback impacts performance. Earlier research has suggested that overraters are poorer performers (cf. Atwater & Yammarino, 1992), although we do not know if lowered self-ratings as a result of feedback contribute to improved performance. We could speculate that more accurate self-perception could lead individuals to develop in weak areas, but this has not yet been empirically tested.

Factors Affecting Behavior Change

It may be that as Kluger and DiNisi (1996) found, some supervisors improved and some did not, and the scores for those who did change were masked by those who did not. In fact, in comparing Time 1 and Time 2 data, only 50% of the leaders in our study improved. This suggests that there are other factors that likely impact whether or not feedback will prompt behavior change. Two plausible factors were examined by this research. First, consistent with Hypothesis 3, those who were more cynical about organizational change were less likely to have high ratings at Time 2 when Time 1 ratings were controlled. This finding suggests that those who were cynical about organizational change were less motivated to make personal changes. Perhaps they were uninterested in doing anything that would improve the overall organization, or perhaps they simply had negative attitudes toward the subordinates who provided the feedback. Cynicism at Time 1 was significantly, negatively correlated with commitment to subordinates at both Time 1 and Time 2 for the feedback group, \( rs = -.19, p = .08 \) and \(-.25 \ p < .05, \) respectively suggesting that those who were most cynical were also less committed to their subordinates. Regardless of the reason, it appears that upward feedback interventions will have less impact on those with more cynical attitudes toward organizational change than those who are less cynical.

Second, reactions that individuals have to the feedback, and their self-reported attempts to change, accounted for significant variance in Time 2 ratings when Time 1 leadership ratings were controlled. Those individuals who found the feedback to be more valuable and were more likely to set improvement goals had higher Time 2 scores. This finding is consistent with the work of Walker and Smither (1999), as well as a
number of anecdotal accounts of change told by feedback recipients to the authors. It would be interesting to assess the extent to which individuals improve their performance in specific areas targeted for change, as some individuals may set specific goals and make specific changes that are not obvious when more global measures of change are measured.

**Additional Outcomes of Upward Feedback**

Performance improvement (or lack thereof) is not the only potential outcome of an upward feedback process, although it has been the focus of most prior research. In the current study, we addressed another important outcome, commitment to subordinates. Indeed, it appears that commitment to subordinates can be impacted by the type of feedback the leader receives. Lower ratings from subordinates, provided as upward feedback to the supervisor, resulted in lower subsequent commitment to subordinates; higher ratings from subordinates resulted in higher commitment to subordinates. This finding is consistent with the work done by Pearce and Porter (1986) relating performance appraisals to organizational commitment in that both studies suggest that negative feedback has a negative impact on subsequent attitudes.

Although leadership and commitment were not correlated at Time 1, leadership at Time 1 was significantly correlated with commitment at Time 2. This finding suggests that upward feedback provides information that actually may strengthen the relationship between leadership and commitment to subordinates over time.

We also assessed the relationship between commitment and reactions to feedback. A partial correlation was computed between commitment at Time 1 and reactions to feedback at Time 2, controlling for leadership scores at Time 1. The correlation was .47, *p* < .01. This finding suggests that supervisors who are committed to their subordinates are more likely to take the feedback seriously and react in a positive manner, regardless of the type of feedback received.

**Limitations**

There are a number of limitations with this study that should be considered when interpreting the findings. First, the sample sizes in each group were relatively small. This may have served to reduce our power to detect differences that were present. It also may indicate that some of our findings are conservative estimates of true effects. Nevertheless, it precluded an assessment of over versus underraters. Second, the anonymity of the subordinate ratings did not allow us to test any dyadic
effects. For instance, if we could have compared an individual subordinate’s ratings at Times 1 and 2, we may have observed some interesting results. Unfortunately, if you want individuals to provide honest ratings, assuring anonymity increases that likelihood. Third, the context, a police organization, may have impacted the results. For example, the nature of the squad structure, as well as the inherent danger in the work could have made commitment to subordinates a more salient variable in this context than other work contexts. It would be interesting to test these relationships in a more traditional work context. Fourth, given the nature of the intervention process (surveys and/or feedback) it is possible that perspectives of the survey instrument or leadership itself changed as a result of the intervention (beta and gamma change, respectively; see Golembiewski & Billingsley, 1980). Because we did not do prospective pretests we cannot assess this possibility. However, we think that alpha, or actual change, represents the most likely explanation for our findings.

Implications

The findings of this field experiment are somewhat disappointing in that no significant improvements in subordinate ratings followed either feedback or survey processes. As suggested earlier, this may have been due to a lack of power to detect effects since mean differences were in the hypothesized direction. However, our findings do make a contribution by suggesting that if organizations want to maximize the return on their upward feedback investment, additional issues should be considered. Specifically, the attitudes individuals have toward organizational change processes in general, and the upward feedback process in particular, are likely to affect the extent to which feedback interventions work. Although it may be difficult to prescribe cures for organizational cynicism, it is worthwhile to know that it can impede the success of feedback interventions. Perhaps organizations should assess the degree of cynicism that exists prior to implementing a feedback intervention. If cynicism is high, upward feedback may not be practical until cynicism is reduced. An individual’s cynicism can only be lowered over time by evidence that other organizational members (including high-level leaders) are not merely self-interested, and that they are willing to solve problems and change.

Regarding attitudes toward the feedback itself, as Antonioni (1996) suggested, feedback recipients should be trained prior to receiving feedback about the value of feedback and its purpose, and positive attitudes toward the process should be encouraged. Merely explaining how the process will be implemented will result in suboptimal returns on investment. In addition, we need to better understand how individual char-
acteristics such as personality (e.g., conscientiousness, goal orientation) impact how individuals deal with or use feedback. Perhaps some individuals are more predisposed to accept and use feedback than others, and more remedial action needs to be taken with some feedback recipients.

It is also prudent to note that upward feedback can impact outcomes other than performance, such as self-awareness or commitment to subordinates (in this case the feedback providers). The findings regarding commitment suggest that there may be other previously unmeasured, and unintended, consequences of upward feedback. Researchers and practitioners would be wise to consider other possible outcomes of feedback and tailor feedback and/or training programs accordingly.

In conclusion, feedback processes do seem to be able to contribute to behavior change and increased self-awareness for some individuals. Further work should continue to explore the individual and organizational characteristics that enhance or impede the change process. We also recommend that future research examine 360-degree feedback sources in addition to subordinates, including peers and customers.

REFERENCES


Organizational Cynicism
- It is hard to be hopeful about the future because people at (agency X) have such bad attitudes.
- People at (agency X) get credit they don’t deserve for work they don’t do.
- Efforts to make improvements are recognized within (agency X). reverse coded
- Changes to the usual ways of doing things at (agency X) are more trouble than they are worth.
- I’ve pretty much given up trying to make suggestions for improvements at (agency X).
- Personal initiative doesn’t count for much in (agency X).

Commitment to Subordinates
- I am willing to put in a great deal of effort beyond that normally expected in order to help my subordinates be successful.
- I feel a sense of loyalty to my subordinates.
- Often I find it difficult to agree with my subordinates on important matters relating to work. reverse coded

Reactions to Feedback
- I believe my subordinates filled out the upward feedback surveys about me honestly.
- The feedback from my subordinates provided me with valuable information that I would not have had otherwise.
- The feedback I received in my feedback report (and from subsequent follow-up with my subordinates) suggested areas I should target for improvement.
- I used the feedback I received in my feedback report (or from subsequent follow-up with my subordinates) to set personal improvement goals.

Leadership
- Shows openness to different perspectives or opinions.
- Accepts feedback without becoming defensive.
- Is appropriately concerned about how his or her behavior affects others.
- Subordinates feel free to tell him or her what they think.
- Involves subordinates in problem solving and decision-making activities that have an impact on them.
- Recognizes the potential of other people’s ideas.
- Trusts people to do their jobs effectively.
- Is even-tempered when crises arise.
• Encourages subordinates to determine for themselves the best way to carry out an assignment.
• Empowers subordinates to do their job as they see fit.
• Assists subordinates in getting the training they need.