

# Developments In Business Simulation & Experiential Exercises, Volume 21, 1994

## BOSS/SUBORDINATE PERCEPTIONS OF INSTRUMENTAL AND SUPPORTIVE LEADERSHIP BEHAVIORS IN RELATION TO MYERS-BRIGGS THINKING TYPE

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### ABSTRACT

Previous research suggests that supervisors are likely to have a rose-colored" or more favorable, view of their leadership style than their subordinates. This research, based on a complex organizational simulation, investigates the effect of Myers-Briggs supervisory thinking styles on the "rose-colored" view. One hundred and seventeen subjects participated in *The Looking Glass, Inc.* simulation and completed a self and a supervisor leadership behavior questionnaire. Overall the "rose-colored" effect was clearly demonstrated. However, statistical significance in the difference of the effect was found only between the sensing (S) and intuitive (N) thinking style, and only on the instrumental leadership scale. The implications of this result are discussed.

### INTRODUCTION

The supervisory-subordinate relationship is built on a framework of many factors, some which can be controlled by supervisors and some which cannot. According to the contingency and situational leader theorists, controllable factors must be managed by the supervisors so that the subordinates will be most productive for the organization.

The Ohio State leadership studies (Stogdill and Coons, 1957), the basis for many leadership theories proposes consideration and initiating leadership behaviors as a means of defining leadership. Initiating behaviors refer to the degree to which the leader assigns particular tasks, specifies procedures to be followed, clarifies his/her expectations, and schedules the work to be done. Supportive (consideration) behaviors refer to the degree to which the leader extends support, warmth, friendliness, and helpfulness by doing such things as being friendly and approachable, looking out for the personal welfare of the group, doing little things for subordinates and giving advance notice of change.

While it is clear that appropriate supervisor behaviors are important to organizational productivity (Georgopoulos, Mahoney and Jones 1957), how these behaviors are perceived by subordinates is not always clear. The determination and application of the best "style" by the supervisor is very difficult by itself, and it is further confounded by perceptual errors.

The Johari Window (Luft, 1984), a perception model of self and others view of self, suggests a blind area which contains information which is unknown about self, but which is apparent or known by others. The relationship of supervisory style and the Johari Window is important for supervisory effectiveness. The supervisor may earnestly attempt to affect a style carefully crafted to the situation. However the style, as perceived by the subordinates, may be very different than that which the supervisor intends.

With this blind area comes another phenomenon which has not been well reported in the management literature. The phenomenon is generally known as the leniency factor in self-evaluation. This leniency factor has been observed from a classroom setting (Wubbels, Brekelmans, and Hoymayers, 1992) and from various management settings including technical employees (Kirchner, 1966; Klimoski and London, 1975) supervisors (Waldman and Thornton, 1979), and executives (Holzbach, 1978; Thornton, 1980). Roberts, Page, and Schriesheim (1993) reported that

supervisors have a blind area/leniency factor in regard to their leadership style. They investigated instrumental and supportive behaviors as self-reported by supervisors and as reported by subordinates. Subordinates, as a group, generally rated the supervisors significantly lower in the supportive leadership dimension than the supervisors rated themselves ( $p < .001$ ). However, the research reported only a marginal significant difference for the instrumental behaviors ( $p < .006$ ). The conclusion was that supervisors exhibited a leniency, or rose-colored" view, in their self-perception and self-ratings concerning supportive behaviors, but not on their instrumental behaviors.

This leniency effect, or "rose-colored" view, is a problem because the purpose of leadership style is to empower subordinates to maximum organizational productivity. The subordinates are empowered by the style, which they perceive, not the style the supervisor thinks is enacted. The "real" supervisory style, the only one of organizational importance, is the one observed by the subordinates. If the supervisor has a "rose-colored" view, then he/she is likely not managing for maximum organizational productivity. Comparing boss and subordinate evaluations of the boss's leadership style is a powerful process for either classroom training or ongoing organizational leadership development. However, the process is time consuming and expensive in either setting. Also, such feedback can be threatening and contrary to the culture in ongoing organizations. With these circumstances, it is not surprising that most organizations do not provide this form of upward appraisal.

Previous research in this area not only appears limited but also has not investigated precursors or associations of the rose-colored/leniency effect in the supervisor environment. If factors could be determined which were associated with the leniency effect, then that information would be useful to supervisors in assessing their "rose-colored" view and overcoming its negative consequences. This would allow the enhancement of their leadership styles without costly, threatening or otherwise non-available data collection and feedback mechanisms.

This research investigates one factor which may affect the "rosecolored" supervisory view; the thinking style of the supervisor. The Myers-Briggs Type Indicator (MBTI) (Myers-Briggs, 1962), was used to measure supervisor thinking style. Supervisor behavior as perceived by the supervisor and as perceived by the subordinate was measured using The Leader Behavior Description Questionnaire (LBDQ) (House and Dessler, 1974), modified by Roberts, Page, and Schriesheim (1993). The LBDQ measures instrumental and supportive leader behaviors. The research question concerns the relationship between the four MBTI measures and the likelihood of a difference in the boss's and subordinates' views of the boss's leadership style. In other words, the difference in rating between self and subordinate may be related to the boss's thinking style. Implications of relationships will be discussed.

### HYPOTHESIS

Previous research (Roberts, Page, and Schriesheim, 1993) indicated that managers had an inflated (rose-colored) view of subordinate perceptions in the supportive leadership dimension. While the "rosecolored" effect is a factor, the purpose of this research is to

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Determine if the effect, or negative discrepancy between the supervisor's self-rating and the subordinates' perception (rating), is related to supervisory MBTI style. After consideration of the perceptual style associated with each of the Myers-Briggs dimensions, the following null hypotheses were established for statistical testing. The discussion of perceptual dimensions relative to the rose-colored/leniency effect will be included in discussing the results.

The following hypotheses were investigated for this study.

- H1<sub>0</sub> The supportive and instrumental behavior leniency effect (subordinate - supervisor) will be equal for supervisors who are extroverted or introverted as classified by MBTI style.
- H2<sub>0</sub> The supportive and instrumental behavior leniency effect (subordinate - supervisor) will be equal for supervisors who are sensing or intuitive as classified by MBTI style.
- H3<sub>0</sub> The supportive and instrumental behavior leniency effect (subordinate - supervisor) will be equal for supervisors who are thinking or feeling as classified by MBTI style.
- H4<sub>0</sub> The supportive and instrumental behavior leniency effect (subordinate - supervisor) will be equal for supervisors who are judging or perceiving as classified by MBTI style.

## METHODOLOGY

### Sample

The subjects for the study were students from undergraduate management classes in a mid-sized southern university. The study included 117 participants, of whom 66 (56.4%) were females. Three undergraduate management classes were combined for a daylong organizational simulation. Students self-selected groups of five or six the first day of the semester for other experiential exercises. These groups generally remained together during this exercise. Upon completing the simulation, each subordinate completed a questionnaire providing information about the leadership behavior of their superior. Each superior filled out a "self" questionnaire for each subordinate. The "self" questionnaire described the superior's perception of the subordinate's view of his/her leadership behavior.

### Simulation

The Looking Glass, Inc., simulation is a complex in-basket organization exercise, which creates a day in the lives of twenty managers in a mid-sized manufacturing corporation. The Looking Glass, Inc., operates with four hierarchical levels: Presidents, Vice Presidents, Directors, and Plant Managers. Participants in the simulation are free to call meetings, write memos and make or defer decisions. For further information about the simulation see Lombardo, McCall, and DeVries (1983). For this study, six Looking Glass organizations were established to accommodate the 117 participants.

### Instrumentation

The Ohio State leadership studies (Stogdill and Coons, 1957) described two important aspects of productive leadership behavior; initiating structure (concern for production) and consideration (concern for people). This research was the basis for House and Dossier's (1974) Instrumental (I) and Supportive (CS) Leadership scale and several versions of the Leader Behavior Description Questionnaire (LBDQ) (Schriesheim et al, 1976). The House and Dessler scale, modified to omit sexism, was used to collect leadership data. Two congruent questionnaires were developed, one

from the instrumental domain and nine from the supportive domain were included. The questionnaire asked each subordinate to report how frequently their boss actually behaved in a specific way towards them using a seven-item Likert scale.

A similar seventeen questions comprised the self perception questionnaire. The self-perception questionnaire asked participants, in the role of superior, to report how frequently they actually behaved in a specific way toward each subordinate.

The Myers Briggs Type Indicator (Form G) (Myers-Briggs, 1962), a psychometric, self-report measure of bipolar dimensions of cognitive style was used to obtain perceptual style data for each participant in the exercise. The MBTI is a pencil and paper self-report inventory, which yields information about perception and judgment preferences. Four separate dimensions describe preferences about what people attend to in a situation, and how they draw conclusions about what they perceive. Extraversion (E) or Introversion (I) describes whether perception judgment is directed mainly to the outer world (E) or mainly to the world of ideas (I). The Sensing (S) or Intuitive (N) perception describes which kind of perception is preferred when one needs to gather information. The Sensing preference implies that the person comes to awareness through the senses, and thus attends to factual information. Individuals who prefer Intuition as a way of perceiving information are more interested in possibilities or ideas rather than facts and tend to trust and use their hunches or intuitions. The Thinking (T) or Feeling (F) judgment describes which kind of judgment is employed when one needs or wishes to make a decision. Individuals who prefer the Thinking mode choose logical processes aimed at impersonal scientific findings or logic in contrast to the Feeling types, who tend first to become aware of their emotional reaction and then use it as the primary weight in decision making. The Judgment (J) or Perception (P) index describes dealing with the outer world in the judging (J) attitude or in the perceiving (P) attitude. Individuals using the Judgment (J) mode are typically decision makers who arrive at verdicts quickly, whereas Perception (P) oriented individuals think more in terms of gray and tend to gather more and more information before making a decision. This study divided the supervisors into the two polar dimensions for each of the four Myers-Briggs cognitive style dimensions; extraversion or introversion, intuition or sensing, thinking or feeling, and judging or perception. The participants completed the MBTI questionnaire early in the academic term.

### Experimental Design

Each superior reported his/her self-perceived behaviors for each subordinate via the "self" report. This is an important design element as it provides a specific representation of leader behavior for each subordinate rather than the superiors reporting one "average behavioral score" for all subordinates. There were 109 paired self-subordinate data sets, which were usable for this study. A t-test was used to compare the means of difference (subordinate - self) ratings on the supportive and instrumental behaviors for each MBTI dimension.

## RESULTS

The objective of this research was to investigate the bias of superiors in evaluating how their subordinates view them. This "rose-colored" effect is reported to cause managers to think their leadership behavior is better than it is actually perceived by subordinates. Previous research (Roberts, Page, and Schriesheim, 1993) reported a difference of -.88 on the supportive scale ( $p < .001$ ) and a difference of -.37 on the instrumental scale ( $p = .06$ ). Those results support the presence of the "rose-colored" effect on the supportive leadership dimension and marginally support the

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Effect on the instrumental dimension. The current study obtained the same "rose-colored" result with data viewed in conjunction with each of the four cognitive style dimensions measured by the MBTI. In this study the means of all the self-reports on each of the instrumental and supportive dimensions were higher than the means of all the subordinate reports regardless of the MBTI type within each category. Since this research concerns the differences in superior/subordinate view (i.e. the "rose-colored" effect) in relation to MBTI style categories, no statistical tests on the significance of these means are reported here.

For the Extraversion-Introversion scale on the MBTI, there was no significant difference in the means of the difference scores. A "rosecolored" view occurred on both supportive and instrumental dimensions for both E and I MBTI style supervisors. However, there was no significant difference between the amount of "rose-colored" view between E-styles and I-styles on either the supportive or instrumental scales. This was an unexpected result different from the research hypothesis. The E/I scale measures whether a person is energized more by internal or external factors. Since the E-type personality focuses more on people and things in the outer world, the expected result was that E-type personalities would be more perceptive about how subordinates interpreted and reacted to their managerial style. However, the data did not support this hypothesis. One possible reason for this and other non-significant differences is that there might be a significant interaction affect with subordinates' MBTI type, which was not considered in this study.

Investigations of supervisors scores on the sensing-intuitive dimension indicated a significant difference in the amount of "rosecolored" view, but only on the instrumental leadership scale ( $p = .03$ ). From Table 1, this difference is due to the small "rose-colored" view by the S-types on the instrumental scale. They have by far the most accurate view of their subordinates' perceptions on the instrumental leadership scale.

The S personality type is observant, attending to the present moment. On the other side the N-type is looking towards the future and projecting possibilities. It appears that the S-types are well tuned to observe and attend to their subordinates' reactions about their instrumental behaviors. One

interpretation of this difference considers the characteristics of the simulation performed by the day project requiring rapid organization and decision skills in an ill-defined environment. The S-types may have been more suitable for their subordinates in that environment. They focused more on the needs for the one-day project and on providing the subordinates with what they needed for the simulation, at least on the instrumental dimension.

On the Thinking-Feeling scale there was no significant difference for either leadership scale. This was again an unexpected result. The F-type personality seeks harmony, is trusting, and applies personal values and priorities to decisions. In contrast, logical analysis, objectivity, and impersonal thinking describe the T-type manager. The expectation was that the F-type would trust the subordinates to see things as the superior does (positive) which would lead to a greater "rose-colored" view, while the T-type would be more impersonal and objective. In fact, the F-type did have a much greater rose-colored" view on both leadership scales, but the differences with the T-test were not significant.

The Judgment/Perceptive dimension showed no significant difference between the two types. Like the other MBTI dimensions, the J/P dimension showed the presence of a "rose colored" effect, with the greatest effect on the supportive leadership scale as expected. Contrasting between the J and P types supervisors, there was much less "rose-colored" effect for the J-types on both leadership scales. Judgmental types are goal-oriented. They organize and plan for closure. The perceptive type is curious, open-minded, adaptive, and changing. In the uncertain environment of the Looking Glass project, the P-type managers were more likely to be comfortable than the J-type managers so they perceived themselves as doing well, while in fact their subordinates may have perceived them as poorly focused. The J-types, on the other hand, were uncomfortable in the uncertainty of the project. While their subordinates viewed them as taking charge, the J-types perceived themselves as doing more poorly. Therefore, particularly on the instrumental scale, the J-types rated themselves relatively lower and closer to their subordinates. However, even the large difference in "rose-colored" view between J and P types on the instrumental scale was not significant. This is attributed to the large variation in differences of superior subordinate perception

**TABLE 1**  
**SUPERIOR'S MBTI CATEGORY.**

	E	I	N	S	T	F	J	P
Instrumental	-.45	-.22	-1.02	-.04	-.24	-.72	-.09	-.75
	P=.60		P=.03		P=.30		P=.11	
Supportive	-.58	-.65	-.85	-.47	-.49	-.88	-.44	-.82
	P=.83		P=.21		P=.14		P=.20	

Means of Subordinate/Superior Difference Scores

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## CONCLUSIONS

An analysis of the data collected in this study seems to show little significant effects of MBTI dimensions on the “rose-colored” view held by managers. The only MBTI category showing a significantly different “rose-colored” view was the S/N category for the instrumental leadership activity. However, all categories showed the presence of the “rose-colored” view by managers relative to their subordinates’ perceptions. The N-type managers had the most “rose colored” affect of all the categories. These managers focus their outlook on the future. They have a long term perspective on problem solving. In the context of the Looking Glass, this decision style was not well-received by subordinates because a manager who affects a long-term perspective to situations perceived by subordinates as requiring immediate action contributes to subordinate frustration. N-type managers, especially under similar constraints, must consider alternative behaviors, which will help their subordinates. They must consider what the subordinates needs are and how they are reacting rather than continuing with their most comfortable Myers-Briggs behaviors. The N-type supervisor acting in an ill-defined environment must be more goal directed in decision making and must communicate this to subordinates. That is, N-type supervisors must try to incorporate some of the characteristics of an S-type person to meet subordinates’ needs.

Although the data analysis appears to show little significance, that is emphatically not the final conclusion. There is a significant inference for managers and researchers to explore. That inference deals with the interaction of decision type, decision style, and decision-maker MBTI style. The Looking Glass was a one-day simulation requiring rapid analysis, attention to detail, and confident decision making. In this environment, subordinates considered N-type supervisors’ as un-focused and indecisive, when that was not necessarily accurate. What is important is that given different decision-making tasks, managers must be attentive to the way subordinates perceive their actions and be prepared to modify their normal thinking style. If the task requires decisive action, the manager must not appear un-focused. On the opposite, if the decision involves long-term implications, then the manager must not be perceived as “shooting from the hip”. Researchers must be careful not to interpret research results about managerial decision making without taking into account the decision tasks performed in the study.

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