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# A comparison of overrater, underrater and in agreement on performance

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A COMPARISON OF OVERRATER, UNDERRATER AND IN AGREEMENT  
ON PERFORMANCE

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

by

Aleksandra Karolina Gajek

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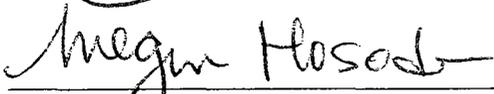
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A COMPARISON OF OVERRATER, UNDERRATER AND IN AGREEMENT  
ON PERFORMANCE

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## ABSTRACT

### A COMPARISON OF OVERRATER, UNDERRATER AND IN AGREEMENT ON PERFORMANCE

by Aleksandra K. Gajek

Today's organizations require constant change and innovation in an attempt to improve their performance and satisfy the demands of customers. Employee performance also has to improve on a continual basis for organizations to stay competitive in today's marketplace (Carlson & Wilmont, 2006). Multi-rater feedback is a tool used by organizations to make their employees aware of their performance and ways in which their performance can change. A program composed of a multi-rater feedback, created by a consultant for a west coast research foundation is tested for its effectiveness. Those who rate themselves higher than others who rate them (overraters), those who rate themselves lower than others who rate them (underraters), and those who rate themselves similar to how others rate them (in agreement) are compared.

Overraters have been shown to be lower performers than underraters on the multi-rater feedback. The study hypothesizes that overraters will improve their performance more than in agreement/underrater groups by receiving pay increases. The multi-rater feedback program implemented at a west coast research foundation is tested for its success by seeing if overraters improve based on the program more than underraters and in agreement groups even though they are at a disadvantage. The hypothesis that overraters will improve their performance more than in agreement/underrater groups is not supported.

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## INTRODUCTION

Today's organizations require constant change and innovation in an attempt to improve their performance and satisfy the demands of customers. Employee performance also has to improve on a continual basis for organizations to stay competitive in today's marketplace (Carlson & Wilmont, 2006). Employees must adapt to the needs of the organization to constantly change by being aware of their own performance and knowing what it is about their own performance that needs to change. Multi-rater feedback is a tool used by organizations to make their employees aware of their performance and ways in which their performance can change.

### *Multi-Rater Feedback Defined*

Multi-rater feedback provides each employee with the opportunity to receive confidential, anonymous performance feedback from his or her supervisor, direct report, peers, and customers (London & Smither, 1995). Multi-rater feedback is defined differently from 360-Degree Feedback, and the two cannot be used interchangeably. In general, 360-Degree Feedback is composed of a rater who rates himself/herself and is then rated by only three other parties (Foster & Law, 2006). These three parties consist of supervisors, peers, and direct reports (Foster & Law, 2006). However, multi-rater feedback can consist of feedback from supervisors, peers, and direct reports along with customers and other potential parties who interact with the recipient (Conger & Toegel, 2003). The term multi-rater feedback will be used since it encompasses the same

characteristic as a 360-Degree feedback but allows customers to also provide feedback.

In most cases, multi-rater feedback allows the recipient of the feedback to understand how his or her effectiveness as a manager is viewed by others. The supervisors, peers, and/or direct reports fill out a confidential feedback form that covers a broad range of workplace competencies. The competencies are based on the behaviors that are performed by the recipients, which relate to actual job performance (Bracken, 1994). The feedback forms include questions that are measured on a rating scale as well as space for raters to provide written comments (Bracken, 1994). The person receiving feedback also fills out a self-rating questionnaire that includes the same questions that others are asked to answer.

Multi-rater feedback is particularly valuable since it offers multiple perspectives and includes all parts of the working relationship. The main concept behind multi-rater feedback is the ability to gather different perspectives from multiple sources, thus adding validity to the feedback. Supervisors have an opportunity to monitor subordinates; thus, they are likely able to evaluate them on their performance. Peers, who work closely with the recipients of the feedback, have the opportunity to observe them and have the knowledge needed to evaluate them accurately (Brutus, London & Martineau, 1999). Direct reports have a greater opportunity to rate supervisors on leadership and interpersonal behaviors than task-specific items (Atwater & Yammarino, 1992). Customers are able to evaluate the recipient on his/her performance from a service-oriented perspective.

Supervisors, peers, direct reports, and customers offer a variety of different perspectives, all of which are useful to the recipient.

Feedback is an important part of multi-rater feedback and must be given with a clear implementation strategy (Atwater & Yammarino, 1992). When multi-rater feedback is used as a developmental tool, feedback is presented to the recipient by the consultant when all the raters return their feedback forms. Trust is required if a feedback process is to be successful, and all forms of cynicism must be addressed. For example, Atwater, Waldman, Atwater, and Cartier (2000) found that participants who were cynical about negative feedback were less likely to improve their performance following the multi-rater feedback. A clear and concise implementation strategy needs to be included in the multi-rater feedback (Atwater, Brett, & Charles, 2007).

Multi-rater feedback is used to improve performance, and therefore certain processes must be in place for it to be effective. An organization looking to improve performance may want to use multi-rater feedback to determine ways to improve the effectiveness of its employees. The organization must determine a need for the multi-rater feedback and decide if ample resources are available to support the process (Bracken, 1994). There must be a genuine interest by the organization or among employees for performance improvement (Bracken, 1994). When an outside consultant is hired by the organization, commitment from senior management as well as the Human Resources Department must be established before data can be collected (Bracken, 1994). Managers whose performance is to

be evaluated are considered the recipients of the multi-rater feedback, and supervisors, peers, and direct reports are the raters who provide the feedback about the recipient (London & Smither, 1995). The recipient and raters must be chosen carefully. Individuals who are chosen as raters, usually choices shared by the organization and employee, interact routinely with the person receiving feedback.

#### *Uses of Multi-Rater Feedback*

Multi-rater feedback has served many different purposes, including developmental and promotional purposes (London & Smither, 1995). It can be used to develop an employee's skills without directly affecting employment status. On the flip side, multi-rater feedback can also be used to determine which employees will receive promotions or pay increases.

For example, multi-rater feedback can be used as a promotional tool where, once the feedback is gathered from everyone, it can be used to evaluate the participant receiving the feedback to either promote or demote the employee (London & Smither, 1995). However, using multi-rater feedback for promotional purposes is not beneficial for many reasons. When participants in the multi-rater feedback assume that their input will affect a coworker or their own career, they are more likely to manipulate the feedback to their own advantage (Conger & Toegel, 2003). When the multi-rater feedback is used for promotion or pay increases, the raters do not feel safe and might not be honest in their ratings (Conger & Toegel, 2003). When used for appraisal purposes, the participants

focus on getting good ratings, and it is more challenging to identify weaknesses (Morgeson, Mumford & Campion, 2005). The organization often owns the data and the data can be used in any way the organization chooses when the multi-rater feedback is used for appraisal purposes. This form of evaluation is not likely to lead to developmental improvement for the employee receiving the feedback.

However, the use of multi-rater feedback for developmental purposes is effective (Atwater et al., 2007). When used as a developmental tool, data are the property of the consultant who is overseeing the multi-rater feedback process. Rater anonymity is very important as it improves the likelihood that rater responses will be truthful. Indeed, Antonioni (1996) has found that raters who think their ratings will remain anonymous will more likely respond honestly than those raters who think their responses will be shared with those being rated. The owners of the data determine who will see the data and how it will be used. The developmental purpose of the multi-rater feedback is to assist each individual to understand his/her strengths and weaknesses, set goals, and lead to individual development (Bracken, 1994). It seems that multi-rater feedback is most successful when used for development purposes rather than for evaluative purposes (Atwater et al., 2007). The multi-rater feedback should not be shared with bosses for promotional purposes, but rather used as an improvement tool.

#### *Pros and Cons of Multi-Rater Feedback*

Although multi-rater feedback has received mixed results on its effectiveness, overall the results are positive and show that multi-rater feedback

can be very beneficial. For example, it might uncover undesirable characteristics about managers, thus increasing discussion between employees and managers about undesirable work behavior (Morgeson et al., 2005). As a result of the multi-rater feedback, participants might increase their learning potential and skill development. Multi-rater feedback also encourages goal setting and draws attention to performance dimensions that might not normally be addressed.

However, some research shows that multi-rater feedback may not necessarily lead to positive outcomes. The feedback offered by the employees to the recipient may not always be truthful (Atwater et al., 2007). As mentioned earlier, the feedback received from others must be valid for it to be useful (Tornow, 1993). If the feedback is not truthful and thus not valid, it is difficult to gather any information from it that can be of use to the recipient of the feedback or the organization as whole. Furthermore, self ratings can be unreliable, suffering from leniency, social desirability bias and/or inflation (Atwater & Yammarino, 1992). If not properly administered, multi-rater feedback might cause unnecessary tension among employees (Morgeson et al., 2005).

Furthermore, in a recent review, Lepsinger and Lucia (1997) have reported that there is little evidence that multi-rater feedback consistently results in behavior change or performance improvement. Similarly, Atwater et al. (2000) found that only half of leaders receiving feedback improved significantly. Smither, London, Vasilopoulos, Reilly, Millsap, and Salvemini (1995) also failed to find evidence of changes in self-evaluations six months following the initial

upward feedback. Furthermore, Kluger and DeNisi (1996) demonstrated that providing individuals with feedback did not automatically lead to performance improvements for everyone. Although, the recipient showed improvement in performance on average, there was a great deal of variability among recipient scores. Some recipients scored very poorly on performance as a result of the multi-rater feedback and some scored very well. Thus, although a comparison of group averages of pre and post feedback scores may show overall improvements, not every individual is likely to make improvements.

Despite the evidence that shows multi-rater feedback may not lead to positive outcomes, there is a great amount of research that shows otherwise. For example, although one's own perceptions about performance are not always reliable (Conger & Toegel, 2003), use of multi-rater feedback offers more input about a person from more than one perspective. Being evaluated by multiple raters can yield more reliable and more meaningful data for the recipient (Church & Bracken, 1997). Because direct reports work very closely with their supervisors and in many cases do not feel comfortable disclosing how they feel about their supervisor, the confidential multi-rater feedback is likely to be an excellent outlet (Atwater et al., 1995).

Feedback can lead to either positive change or resistance. How well the feedback works depends on the implementation of the feedback. This may explain why there are such mixed results regarding the effectiveness of multi-rater feedback.

### *Multi-Rater Feedback and Performance*

Generally, studies show that a leader's performance will improve once a multi-rater feedback is completed (Luthans & Peterson, 2003; Smither, London, & Reilly, 2005). For example, Erickson and Allen (2003) found that multi-rater feedback ratings were positively related to retail store outcomes, such as revenue, gross margin, and sales of accessories and service contracts in a sample of 573 store managers. Walker and Smither (1999) found that upward feedback ratings of bank branch managers correlated significantly with customers' stated intentions to remain a customer. Furthermore, Church (1997) found that managers who received more favorable multi-rater feedback had lower turnover and higher service quality in their workgroups. Locke and Latham (1990) have asserted that introducing a multi-rater feedback to an organization by itself sends the message to those in the organization that improvement in performance should be the outcome and as a result people are motivated to try harder to improve the competencies measured in a questionnaire. Therefore, just the idea of implementing a multi-rater feedback might have a positive effect on employees.

### *Types of Self-Raters*

There exists an extensive line of research that shows that some type of self-raters are more likely to improve than other types of self-raters based on how they score on multi-rater feedback. Overraters are categorized as raters who rate themselves higher than others who rate them. Underraters are categorized as raters who rate themselves lower than others who rate them. In agreement raters

are categorized as raters who rate themselves similar to how others rate them (Atwater & Yammarino, 1992).

OVERRATERS can be classified as experiencing a negative discrepancy and thus are challenged to improve. Such negative discrepancies occur because the recipient of the feedback receives lower ratings from others than they give themselves. The negative discrepancy between the respondents and recipient is paid particular attention since the discrepancy is something that the recipient is unaware of (Atwater et al., 1995). Thus, finding the discrepancy is part of the multi-rater feedback process and discrepancies are not seen as errors, but rather as useful information (Tornow, 1993). The negative discrepancy is a reality for overraters, but not for underraters or in agreement groups. When there is no discrepancy (in agreement) or the discrepancy is positive (underraters) there is no need for the recipient to change his/her behavior. When recipients are made aware of the discrepancy through the feedback they receive, they can either improve or remain the same.

#### *Performance Improvement*

Overwhelmingly research shows that overraters (those who are facing a negative discrepancy) are more likely to improve their performance in comparison to underraters (who face a positive discrepancy) and in agreement (who face no discrepancy) groups. In general, feedback about one's behavior from others appears to promote change in the leader's behavior. Overraters change positively after they receive their feedback, whereas underraters and in agreement groups

undergo no significant change in their behavior (Atwater et al., 1995). For example, Johnson and Ferstl (1999) predicted that when managers received ratings lower than their self-ratings, they would be motivated to improve performance and reduce the discrepancy between how they perceived themselves and how others perceived them. They also predicted that if feedback was consistent with self-perceptions, managers may not be motivated to improve even if their performance was low. Furthermore, they expected that if managers received ratings that exceeded their own ratings, they would not be motivated to improve. All of Johnson and Ferstl's predictions were supported. Positive results were shown to be most significant for overraters who rated themselves higher than others who rated them (Johnson & Ferstl, 1999).

#### *Performance and Self-Awareness*

Before the overrater is made aware of how others rated him or her, the overrater can be classified as lacking self-awareness of how others view them (Atwater & Yammarino, 1992). It is the lack of self-awareness that differentiates an overrater from an underrater (Atwater & Yammarino, 1992). It is thus self-awareness that must be gained for an overrater to improve.

Self-awareness stems largely from one's ability to self-observe and see oneself as others see oneself (Alimo-Metcalfe, 1998). Being cognizant of how an individual is perceived by others results in accurate self-awareness (Atwater & Yammarino, 1992). These individuals are also able to accept other people's evaluations of them and incorporate those evaluations into their own self-

evaluation (Alimo-Metcalfe, 1998). In contrast, overraters are not self-aware and need to learn to become more self-aware to incorporate other's evaluations of them into their self-evaluations.

Self-awareness can lead to a change in one's behavior in accordance with how one would prefer to be seen by others and is often correlated with an increase in performance (Atwater & Yammarino, 1992). Thus, it is not surprising to find that those managers who receive ratings that are similar to how they rate themselves (i.e., self-aware) are also perceived as effective performers (Church, 1997). Self-awareness may be importantly related to one's performance and potential (Alimo-Metcalfe, 1998).

As to why some individuals are more or less self-aware than others, it might be due to their need to defend their self-perception, need to maintain a positive self-image, or need to attribute negative feedback to external factors, thus not working on their internal self (Alimo-Metcalfe, 1998). Self-raters in many cases tend to rate themselves higher than the other raters, due to their unawareness of how others see them or an attempt to enhance evaluations from others by inflating their ratings (Alimo-Metcalfe, 1998). It is likely that overrates have a need to maintain their self-image or defend their ego, further underlining the notion that overraters are not self-aware of how others view them.

Overraters tend to self-enhance their performance and are often associated with negative performance consequences (McCauley & Lombardo, 1990). They can have an inflated concept of self-importance and a tendency to exaggerate their

accomplishments and talents (McCauley & Lombardo, 1990). Managers who inflate their own ratings are likely to misjudge their own needs for improvement. Unfortunately, inflated self-evaluations are related to career failure (McCauley & Lombardo, 1990) and low performance (Yammarino & Atwater, 1993) due to a poor supervisor/subordinate relationship or misunderstanding of subordinate expectations.

Research shows that overraters are classified as poor performers due to their lack of self awareness. Inaccurate self evaluations can be problematic for an organization. This is because if one thinks too highly of themselves, they will not realize that they need to change their behavior. Those recipients whose ratings are not in agreement with other raters' ratings have been found to be poorer performers than those who are in agreement (Atwater & Yammarino, 1992; Bass & Yammarino, 1991). Church (1997) found that high-potential managers were more self-aware than average performers. Thus, clearly high-performing managers have a greater level of self-awareness or at the very least, are better at assessing and/or rating their own behaviors in the workplace (Church, 1997). Indeed, Van Velsor, Taylor, and Leslie (1993) found that individuals whose self-evaluations were significantly inflated (compared to ratings from others) were seen by others as lowest in self-awareness and poorest in performance. They used the Multifactor leadership Questionnaire (MLQ) to measure leadership. The leaders were divided into groups of overraters, underraters, and in agreement. Those who were self-aware were classified as underraters and in agreement

groups and were more successful as a leader than overraters. A successful manager is less likely to inflate his/her own ratings and subordinates are more satisfied with their manager when their ratings match the manager's ratings of him/herself. (Alimo-Metcalfe, 1998). Thus, being self-aware and not inflating one's performance is correlated with good performance.

#### *Overraters and Improvement*

Extensive research also supports the notion that overraters are more likely to improve. According to Taylor (1991), managers who rate themselves highly, but receive low ratings from others become distressed by the negative discrepancy between their ratings and the feedback from others. However, such distress motivates individuals to reduce the negative discrepancy and improve as a result. Several studies do indicate that leaders who receive feedback that is lower than their self-rating may improve more than others (Atwater et al., 1995; Johnson & Ferstl, 1999). Yammarino and Atwater (1993) state that managers who are confronted by poor evaluations will be motivated to set developmental goals, while managers who underrate their performance will be less likely to set these same goals. Moreover, those in agreement with others' low evaluations are also less likely to set developmental goals than managers who overrate their performance (Yammarino & Atwater, 1993). Thus, it can be expected that feedback from others that is lower than expected could provide the motivation to change, and feedback that suggests certain standards are not being met would motivate individuals to meet the standards and improve performance.

Furthermore, research shows that recipients who are not satisfied with their feedback are more likely to improve from multi-rater feedback. For example, Smither et al. (1995) studied a group of managers in a large corporation as an upward feedback program was being initiated. Managers were told that the program was part of an organizational change effort, that their participation was voluntary, and that the only purpose of the feedback was to guide their growth and development. Self and subordinate ratings were collected twice, six months apart. Six months after the upward feedback was implemented, managers did improve their performance. The overall improvement was significant, but modest since managers whose initial performance level was high did not improve, whereas those who scored low or average on performance did improve considerably. Managers who gave themselves low ratings and received low ratings from others showed no evidence of improvement. Thus, such managers were satisfied with feedback that was consistent with their self-perceptions, even if the feedback was negative. Thus, these findings suggest that those managers who are not satisfied with the feedback and who receive feedback that is not consistent with how they perceive themselves are the ones who are most likely to improve.

Several studies suggest that if participants rate themselves closely to how others rate them (in agreement), their performance is likely to improve even without multi-rater feedback. McCauley and Lombardo (1990) found that managers whose self-evaluations were consistent with co-workers' and customers'

assessments of them were more likely to be promoted. Another study using the MLQ included U.S. naval officers who were rated by four subordinates anonymously (Bass & Yammarino, 1991). The criteria used in this study were performance scores and early promotion. Bass and Yammarino (1991) found that naval officers whose self-evaluations most closely corresponded to subordinate ratings attained higher ranks and were rated as more promotable by their superiors. This research shows that those employees who have a low discrepancy are more likely to be promoted. These employees are doing well prior to their evaluation and thus continue to do well. Without a multi-rater feedback those employees who show a low discrepancy between their self-ratings and the other ratings are likely to be promoted.

OVERRATERS' performance is more likely to improve since they are likely to have the lowest performance to begin with. More specifically, in the Atwater et al. (1995) study, and in other studies (Smither et al., 1995) overraters tended to have the lowest initial performance and underraters the highest, with in agreement raters in the middle. Managers who are overraters at the time of initial assessment might improve their performance after feedback because they are the lowest performers to begin with, but how much they improve and if they improve depends on the quality of the multi-rater feedback.

Despite the research that states that most overraters improve from the multi-rater feedback, some studies show that they may not. Brett and Atwater (2001) found that overraters reacted negatively to feedback and were more prone

to perceive it inaccurately. Overraters were also found to be more prone to questioning their self-identity as a result of negative feedback from others (Conger & Toegel, 2003). For an overrater to improve his/her performance, the multi-rater feedback process must address what motivates an overrater to improve. If the multi-rater feedback does not address his/her needs appropriately, it may not lead to performance improvement.

### *Summary*

In sum, multi-rater feedback is a tool used by organizations to make their employees aware of their performance and ways in which their performance can change. There is mixed review on whether or not multi-rater feedback is effective. One aspect of multi-rater feedback that does predict successful performance improvement is how overraters compare to underraters and in agreement groups once the multi-rater feedback appraisal is completed. Overraters are more likely to improve in comparison to underraters and in agreement groups after a multi-rater feedback process. Overraters are not self-aware and need to become more self-aware in order to improve their performance. Overraters may have a tendency to self-enhance their skills and inflate their performance, thus misjudge their own need to improve. Moreover, inflated self-evaluations are related to career failure and low performance. Thinking too highly of oneself (not being self-aware) does not lead to a change in behavior unless a multi-rater feedback process raises self-awareness by giving a manager feedback from his/her peers. It is the overrater who needs to gain self-awareness and is classified as lacking self-

awareness before the multi-rater feedback is completed. Once the multi-rater feedback is complete it is the overrater who gains self-awareness from the feedback and improves most. Becoming self-aware can lead to change in behavior and self-aware employees are higher performers.

Performance improvement is most visible for managers who are classified as overraters, but it is the managers who rate themselves similar to how others rate them who are generally promoted without multi-rater feedback. In most cases, in agreement groups and underraters undergo no significant change after multi-rater feedback. Modest improvements are seen for in agreement and underrater groups, but significant improvements are visible for overraters after a multi-rater feedback process. Even without going through a multi-rater feedback process, managers who rate themselves similar to how others rate them are more likely to be promoted and improve in performance than overraters. Research shows that the closer one's self-ratings are to that of his/her peers, the more likely the supervisor is to be a high performer. It is the overraters who need to improve, to be at the same level or higher level of performance than underraters and in agreement groups.

Overraters become more motivated to improve after receiving negative feedback about their performance. Realization that self-evaluations are higher than those of supervisors, peers and/or direct reports could distress the recipients of the feedback, which in turn, motivates them to improve. Managers who are confronted with poor evaluations from others are more likely to be motivated to

set developmental goals and change their performance. Therefore, overraters should improve the most, because they have the most room for improvement. If the multi-rater feedback is successful overraters are likely to improve just as much if not more than the underraters and in agreement groups.

### *Present Study*

We know that multi-rater feedback is more likely to lead an overrater to improve than an underrater or in agreement group. However, there is little known if the improvement will be more significant for an overrater than an underrater or in agreement group. Those managers who receive positive feedback from their peers (in agreement and underrater groups) are shown to improve without the help of multi-rater feedback. Overraters, who receive negative feedback, have room for improvement and only increase their performance if the multi-rater feedback is successful. It is important to consider how much an overrater has to improve in order to excel beyond the performance of an underrater or an in agreement group. It is unclear whether or not the multi-rater feedback improves the overrater's performance beyond that of an underrater or in agreement group.

Furthermore, just knowing that overraters improve more so than underraters and in agreement groups does not tell us how this information can be useful to a consultant or administrator/facilitator beyond the obvious improvement to the performance of an overrater. Different multi-rater feedback techniques are used by different Industrial/Organizational Psychologists. How the feedback is presented to participants may determine how successful the feedback

will be in improving their performance. Knowing that overraters improve from a successful multi-rater feedback can be a justification tool for a multi-rater feedback process. This form of multi-rater feedback rationale has not received much attention and lacks scientific evaluation.

I am attempting to show that multi-rater feedback is indeed effective by creating a way to test its effectiveness. I will use the empirical research that supports the notion that overraters are more likely to improve. If overraters improve more so than underraters and in agreement groups the program is considered a success, since overraters are much lower performers than underraters. The study hypothesizes that overraters will improve their performance more than in agreement/underrater groups by receiving higher pay increases.

## METHOD

### *Participants*

Forty-nine men and twenty-nine women at a west coast research foundation located in California were the participants of the Managers Development Program. All available top level managers participated in the study. The mean age of the participants was 56 years, ranging from 43 to 72 years of age. Most participants were male (63%). Most of the participants had a doctorate degree (39%), while 28% had a Masters Degree and 27% had a Bachelors Degree as their highest level of education. The mean length of employment was 23 years, ranging from 7 to 40 years.

### *Procedure*

The Managers Development Program consisted of gathering data to address both the personal style and management competency dimensions, identifying primary themes, developing action plans, and committing the participants to the action plan. On day one the process was explained to the participants and ground rules were established. Following the orientation, data were collected. Participants distributed the multi-rater feedback to their panel of respondents (about 8 minimum and 16 maximum) via internal mail. The respondents sent their data outside the west coast research foundation and no one within the foundation saw the responses. The panel of respondents consisted of supervisors, peers, direct reports, and customers.

Once the multi-rater feedback was filled out by the respondents and the recipient of the feedback, a coach who was the superior to all the recipients of the feedback was trained on how to be an effective coach. HR generalists were also trained as second-line coaches to the participants.

Feedback was provided to the participants 60 days after the orientation followed by a Developmental Action Plan (DAP). During the feedback session facts were extracted during the data collection and an initial hypothesis was developed from the re-occurring themes. A DAP was composed 15 days later. The issues included in the DAP had to be significant, measurable to some extent, achievable, supported by necessary resources, and possible within the foreseeable future. When creating a DAP the key themes were defined in behavioral terms and the specific behavior targeted had to be capable of improvement. Outcome goals were established to help achieve the preferred behavior. Once goals were set, key actions that helped make the new behavior become a reality were established. These actions included enrollment in a counseling session, training, or simple reinforcement of preferred behavior. Some other options included traditional classroom learning, special assignments, coaching and self-monitoring. In general, the action plan required for the participant to commit to doing something differently or commit to doing a certain task.

A manager reviewed the DAP after it was completed and three months later the progress of the participants and the organization was examined as a whole by external consultants.

### *Measures*

The multi-rater feedback competencies were measured using a 7-item scale. The scale was designed to measure how the recipients of the survey rated themselves on the varying competencies compared to how others rated them. The items assessed managerial ability to set direction, build teams, prioritize, collaborate and communicate, influence others, ability to create value, manage performance, coach and advocate, and be a business manager and 'Citizen'. These items were created by the consultant in charge of the program and then validated informally by the leadership team at the west coast research foundation. Sample items were: (a) Has a vision of where his/her unit could and/or should evolve, (b) Places the right priority on recruitment activities, and (c) Appropriately allocates his/her time to the right activities. Seven response categories were used: with Agree Strongly (7) as the highest agreement score and Disagree Strongly (1) as the lowest agreement score. The ratings provided by the supervisors, peers, direct reports and customers were all averaged into a single score, which was compared to the self-response scores.

The overrater, underrater, and in agreement groups were created by comparing the mean self-response scores to the mean other score composed of the supervisors, peers, direct reports, and customers. If the self-response was .20 higher than the mean other score on a scale of 1 to 7 than the participant was classified as an overrater. If the self-response was .20 lower than the mean other score the participant was classified as an underrater. If the difference between the

self-response score and the mean other response score was less than .20 than the participant was classified into the in agreement group. The .20 score permitted sufficient variability among the ratings and allowed for a good amount of participants to remain in the study. A score higher than .20 reduced the number of participants considerably and a score lower than .20 did not differentiate enough among the performance groups.

#### *Demographic Information*

Demographic Information was obtained from personnel files. Age, sex, highest level of education and length of employment were obtained. The age variable was split by number of years of age: younger = 43-57 and older = 58-72. The sex variable was coded: 1 = male, 2 = female. The highest level of education variable was coded: 1 = Bachelors Degree, 2 = Masters Degree, 3 = Doctorate Degree. The length of employment variable was classified as number of years working for the west coast research foundation from hired date to 2008 or equivalent termination date: 1 = 7 - 23 years and 2 = 24 - 41 years.

#### *Pay Increase*

The pay increase variable was classified as percentage of pay increase per year. Pay increases were recorded for each employee within the west coast research foundation's records. The pay increases were computed based on the records found.

## RESULTS

The descriptive statistics were computed for pay increase as a function of the three performance groups. Table 1 reports means, and standard deviations of pay increase among three performance groups. Mean scores and standard deviations are as follows: pay increase for in agreement (M = 5.28 percent, SD = 1.51); overrater (M = 4.07 percent, SD = 1.92); underrater (M = 5.38 percent, SD = 2.12).

Table 1

Means and Standard Deviation of Pay Increase Among Three Performance Groups

Variable	n	M	SD
Pay Increase			
In agreement	17	5.28	1.51
Overrater	19	4.07	1.92
Underrater	42	5.38	2.12

Note. Mean and Standard Deviation: decimal point moved 2 places to the right.

A one-way analysis of variance (ANOVA) was conducted to examine the effect of the performance groups on pay increase. Results of the ANOVA are reported in Table 2. The performance groups differed significantly for pay increase,  $F(2, 75) = 3.10, p = .05$ . As shown in Table 1, the in agreement group received a 5.28% mean pay increase, the underrater group received a 5.38% pay increase, and the overrater group received a 4.07% mean pay increase. The performance groups significantly differed, with the overrater group receiving the

lowest pay increase when compared to the other two performance groups.

Although it was expected that the overrater group would do better than the underrater group, it did the worse. When compared to the other two performance groups the overrater's pay increases were the lowest. These results show that the hypothesis was not supported.

#### *Additional Analyses*

In addition to testing the main hypothesis, additional analyses were conducted to see if the demographic variables (i.e., age, length of employment, level of education, and sex) had an effect on the pay increase variable. Across all four demographic variables the differences among the performance groups seemed to be very small and trivial.

Table 3 shows that underraters between the age of 43 and 57 received the highest pay increases ( $M = 5.84$ ,  $SD = 2.22$ ). Overraters between the age of 58 and 72 received the lowest pay increases ( $M = 3.52$ ,  $SD = 2.16$ ).

Table 2

#### ANOVA Summary

Variable	Sum of Squares	df	Mean Square	F
Pay Increase				
Groups	.23	2	.118	3.10*
Error	2.86	75	.004	

\* $p = .05$  Note. Sum of Square and Mean of Square: decimal point moved 2 places to the right.

Table 3

Mean and Standard Deviation for Pay Increase Variable by Age

Age	In Agreement	Overrater	Underrater	Total
43-57	5.02 (1.52) n = 8	4.82 (1.31) n = 8	5.84 (2.22) n = 28	5.51 (1.99) n = 44
58-72	5.51 (1.55) n = 9	3.52 (2.16) n = 11	4.45 (1.57) n = 14	4.43 (1.89) n = 34
Total	5.28 (1.51) n = 17	4.07 (1.92) n = 19	5.38 (2.12) n = 42	5.03 (2.01) n = 78

Note. Mean and Standard Deviation: decimal point moved 2 places to the right.

Table 4 shows that within the underrater group, managers who had worked for the west coast research foundation for the shortest amount of time (between 7 and 23 years) received the highest pay increases ( $M = 5.67$ ,  $SD = 2.11$ ).

Managers working for the west coast research foundation between 24 and 41 years did not differ much among the performance groups, yet overraters seemed to receive a lower pay increase.

Table 5 shows that regardless of education level overraters received the lowest pay increases ( $M = 4.33$ ,  $SD = 2.53$ ), ( $M = 4.21$ ,  $SD = 1.06$ ) and ( $M = 4.26$ ,  $SD = .19$ ). Underraters who had a Doctorate Degree received the highest pay increase when compared to the other performance groups ( $M = 5.71$ ,  $SD = 2.41$ ).

Table 6 shows that overraters who were men were least likely to receive a pay increase ( $M = 3.72$ ,  $SD = 2.07$ ). Female employees seemed to perform similarly across all three performance groups.

Furthermore, as shown in Table 7 results of ANOVAs, there was no effect of the demographic variables on pay increase. The performance group did not interact with any of the demographic variables to influence pay increase either.

Table 4

Mean and Standard Deviation for Pay Increase Variable by Length of Employment

Length of Employment	In Agreement	Overrater	Underrater	Total
7-23	4.80 (1.77) n = 4	4.04 (2.11) n = 15	5.67 (2.11) n = 20	4.95 (2.17) n = 39
24-41	5.42 (1.47) n = 13	4.17 (1.13) n = 4	5.21 (2.14) n = 21	5.17 (1.85) n = 38
Total	5.28 (1.51) n = 17	4.07 (1.92) n = 19	5.43 (2.11) n = 41	5.06 (2.01) n = 77

Note. Mean and Standard Deviation: decimal point moved 2 places to the right.

Table 5

Mean and Standard Deviation for Pay Increase Variable by Level Education

Level Education	In Agreement	Overrater	Underrater	Total
Bachelors	5.13 (1.46) n = 4	4.33 (2.53) n = 8	5.53 (1.96) n = 9	4.99 (2.10) n = 21
Masters	5.21 (1.91) n = 6	4.21 (1.06) n = 7	4.70 (1.56) n = 9	4.68 (1.51) n = 22
Doctorate	5.15 (1.19) n = 5	4.26 (.19) n = 3	5.71 (2.41) n = 22	5.47 (2.14) n = 30
Total	5.17 (1.47) n = 15	4.27 (1.74) n = 18	5.44 (2.14) n = 40	5.10 (1.96) n = 73

Note. Mean and Standard Deviation: decimal point moved 2 places to the right.

Table 6

Mean and Standard Deviation for Pay Increase Variable by Sex

Sex	In Agreement	Overrater	Underrater	Total
Male	5.67 (1.47) n = 8	3.72 (2.07) n = 13	5.53 (2.19) n = 28	5.07 (2.18) n = 49
Female	4.92 (1.54) n = 9	4.81 (1.41) n = 6	5.08 (2.00) n = 14	4.98 (1.70) n = 29
Total	5.28 (1.51) n = 17	4.07 (1.92) n = 19	5.38 (2.12) n = 42	5.03 (2.01) n = 78

Note. Mean and Standard Deviation: decimal point moved 2 places to the right.

Table 7

## Summary of Two-Way ANOVA

Source	Sum of Squares	df	Mean Squares	F
Performance Group	.00143	2	.00071	1.98
Age	.00087	1	.00087	2.43
Performance x Age	.00112	2	.00056	1.55
Error	.02595	72	.00036	
Total	.22871	78		
Performance Group	.00172	2	.00086	2.19
Length Employment	.00001	1	.00001	.031
Performance x Length Employment	.00031	2	.00015	.39
Error	.02776	71	.00039	
Total	.22776	77		
Performance Group	.00116	2	.00058	1.47
Level Education	.00013	2	.00006	.16
Performance x Level Education	.00032	4	.00008	.20
Error	.02534	64	.00039	
Total	.21737	73		
Performance Group	.00133	2	.00066	1.74
Sex	.00000	1	.00000	.00
Performance x Sex	.00087	2	.00044	1.14
Error	.02772	72	.00039	
Total	.22870	78		

## DISCUSSION

The study hypothesized that overraters would improve their performance more than in agreement/underrater groups by receiving higher pay increases. This hypothesis was not supported since overraters received lower pay increases than the underraters and in agreement groups.

### *Theoretical Implications*

Extensive research supports the notion that overraters are more likely to improve following multi-rater feedback (Atwater et al., 1995; Johnson & Ferstl, 1995; Taylor, 1991; Yammarino & Atwater, 1993; Smither et al., 1995), yet this research did not support this notion. Little is known about which forms of feedback recipients respond to most constructively (Atkins & Wood, 2002). Brett and Atwater (2001) found that overraters were more prone to perceiving negative feedback inaccurately. Perhaps many of the overraters in this study were overly internalizing the feedback and not growing and developing as a result. It is possible the managers involved in this study were questioning their self-identity as a result of the negative feedback they received (Conger & Torgel, 2003).

Navigating recipients toward questioning their goals rather than their self-identity is critical to multi-rater feedback success. Lack of significant improvement among overraters might be due to the fact that the managers in this study might have focused more on their self-identity than on their goals. The multi-rater feedback has the highest chance of being successful if the recipient responds by questioning their goals (Conger & Toegel, 2003). Stronger

performance gains may result after negative feedback unless the recipient of the feedback focuses on the self rather than on the goals and tasks that need to be learned (Rynes, Gerhart & Parks, 2005). When the recipients question their goals they are focusing on the task at hand and strategizing ways in which to improve their work performance by changing their goals. In turn, if the recipients start to question their self-identity, their ego can be threatened and the feedback might have counterproductive effects. The identity crisis, where the employees lose their sense of self, can lead to emotional distress (Conger & Toegel, 2003). It is possible that the participants in this study questioned their self-identity as a result of negative feedback more so than focus on their goals. It is also possible that the overraters in the present study might have discounted the negative feedback from others. However, this study did not measure participants' self-identity, this interpretation is speculative.

### *Practical Implications*

The multi-rater feedback must be implemented and conducted appropriately by the facilitator, by considering what drives and motivates overraters to improve. If the multi-rater feedback is not conducted properly by taking into account all the possible reactions of the overraters it may not be successful.

Once discrepancies are uncovered it is the facilitator's responsibility to make sure recipients react in appropriate ways. For the multi-rater feedback to be successful, managers must be willing to change their behavior, without using

denial or coercion to avoid change (Tsui, Ashford, Chlair, & Xin, 1995). The issue lies in the different ways people reduce the discrepancy. Some react by changing their actions, while others reduce the discrepancy by believing that the ratings from others are false and thus disregard them (Taylor, 1991). It is vital to know how one overrater may react in comparison to another and to know how to steer them toward action rather than disregard. There must not only be a need for change, but the recipients of the feedback themselves must understand the need for change (Smither et al., 2005).

Developmental activities following the feedback are a vital step in the multi-rater feedback process. Brutus and Derayeh (2002) showed that the multi-rater feedback is most successful when integrated with other forms of development, performance appraisal and training support. If an organization does not invest time and money in developmental activities the process will have a lower chance of succeeding (Smither et al., 2005).

The practitioner must be aware of how overraters tend to focus on their self-identity rather than on their goals after receiving negative feedback. Each individual is different in how they react to feedback, therefore it is critical for facilitators to be conscious of these differences. If a recipient of negative feedback responds in an angry way and perceives the feedback as inaccurate it is the facilitator's job to decrease the denial and focus on how change can occur.

Recipients can be reluctant to accept negative feedback about themselves, posing to be a substantial challenge for facilitators. A recipient is motivated to

seek feedback from others to verify the positive aspects of themselves, verify what they already know about themselves and to gain accurate information about themselves (Sedikides, 1993). What is unfortunate about Sedikides's findings is that when recipients seek feedback from others they are more interested in enhancing what they already know rather than learning new things about themselves. In addition, they tend to avoid processing the negative feedback they receive about themselves and tend to want to forget the negative feedback. Thus, there are many characteristics in multi-rater feedback that could prevent it from being a useful developmental tool, such as the natural reluctance to accept negative feedback because of ego-protecting mechanisms (Brutus et al., 1999) and our interest to enhance what we already know about ourselves. Thus, the natural tendency for recipients to look for favorable information about themselves and overlook criticisms is a challenge a facilitator using multi-rater feedback must overcome to successfully increase a recipient's performance.

#### *Strengths and Limitations of the Study*

The initial multi-rater feedback was composed of a high response rate and complete feedback from all participants. The collection of the additional data was possible due to the longevity of the employees. In other studies, due to turnover raters, it may not have been possible to observe what pay increases managers received five to seven years after the initial data were collected.

The study only had 78 participants and twice as many underraters as overraters or in agreement groups. It would have been better if the study had

more overraters to compare to the underraters and in agreement groups. The only additional data available consisted of pay increases. The study was unable to control for confounding variables, such as external mentoring relationships and unaccounted reasons for pay increases due to lack of additional data.

There were some confounding variables that might have affected the data. The time lapse between when data were collected is of consideration. There was a great deal of time lapse between when the multi-rater feedback was first collected (2001 through 2003) and when the pay increase data was collected (2008). The west coast research foundation has a supportive culture that encourages all employees to rise, which might explain why the pay increases were overall very similar. A culture of allowing everyone to rise equally can influence the pay increases obtained by the employees. Many of the managers were already receiving coaching from their employees and it is unknown, which managers did receive coaching and which did not.

For the multi-rater feedback to work the organization must have a genuine interest in performance improvement (Bracken, 1994). The west coast research foundation valued scientific and technical experience over managerial competencies, making it possible they did not focus their efforts to improve performance in managerial competencies despite it being the focus of the multi-rater feedback.

### *Future Research*

The technique used in this study to evaluate a multi-rater feedback by comparing overraters, underraters, and in agreement groups may not be appropriate since, despite all the research that says overraters should improve as a result of a multi-rater feedback in this case they did not. Perhaps comparing overrater to underraters is not the best technique to determine if a program is successful or not. Nonetheless, even though the study did not yield the results hoped for, this evaluation method can be repeated to test the success rates of other multi-rater feedback programs. Finding a group of participants who vary similarly across the overrater, underrater, and in agreement group, and who differ more across the peer response scores, would make for a more varied comparison.

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