Race Effects in Peer Ratings of U.S. Army ROTC Cadets

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Abstract

The effect of race on peer ratings of U.S. Army ROTC cadets was investigated. White ratees received significantly higher peer ratings than black ratees. White ratees did not receive significantly higher ratings from white raters than from black raters. Black ratees received significantly higher ratings from black raters than from white raters. Implications of this study are discussed.

Introduction

Ratee race has been a very commonly litigated and studied source of differences in performance appraisal ratings (Bernardin & Beatty, 1984; Dipboye, 1985; Kraiger & Ford, 1985; Landy & Farr, 1980). In general, studies indicate that ratings might be affected by a rater's and/or ratee's race. But, there is still disagreement as to the impact that race has on ratings (Landy & Farr, 1980; Dipboye & dePontbriand, 1981). Many of the differences in previous results can be attributed to low power (small sample size) (e.g., DeJung & Kaplan, 1962; Schmidt & Johnson, 1973) or from laboratory versus field studies (Landy & Farr, 1980). Recognizing the lack of significant statistical power in individual studies, Kraiger and Ford (1983) used meta-analysis of 49 published and unpublished studies with a total sample size of 13,706 subjects. They found that ratee race and performance ratings had a correlation of 0.192, indicating that whites receive higher ratings than blacks.

Many studies of race effects on ratings have used supervisor ratings (Bass & Turner, 1973; Hamner, Kim, Baird & Bigoness, 1974; Landy & Farr, 1980). However, supervisor ratings are not the only means by which performance appraisals are conducted. Peer appraisals have been used to select supervisors (Mayfield, 1970; Weitz, 1958), to

predict performance of life insurance salesmen (Mayfield, 1955; Mayfield, 1972) and managers (Kraut, 1975), and to rate performance of police officers (Cascio & Valenzi, 1978) and military officer candidates (Hollander, 1956).

Noticeably lacking in peer appraisal studies have been investigations of race effects. The few studies that investigated race effects on peer ratings have conflicted as to their results. DeJung and Kaplan (1962) showed that whites rated combat aptitude lower for blacks than whites. But, Schmidt and Johnson (1973) found no race effect on ratings in an industrial setting. The sizes of the black samples were not large, making conclusions difficult and prone to error.

In response to the findings of previous studies, this study was conducted to investigate race effects on peer ratings of U.S. army ROTC cadets. The following three hypotheses were addressed:

- 1 White ratees receive higher peer ratings than black ratees receive.
- 2 White ratees receive higher peer ratings from white raters than from black raters.
- 3 Black ratees receive higher peer ratings from black raters than from white raters.

Method

Subjects

Subjects were U.S. Army ROTC cadets who successfully completed a six week advanced training camp in the summer of 1985. Data concerning 2,597 cadets in 80 platoons from universities, located throughout the western and midwestern United States, was furnished by the Fourth ROTC Region headquarters. The data included peer ratings, ethnic affiliation, and race of cadets.

All black cadets in each platoon were used. All whites who indicated affiliation with an identifiable ethnic group were included in the data set. Also, five white males, who did not identify their ethnic group, were randomly selected from each platoon. Cadets who were neither black nor white were not included in this study. Consequently, the average platoon consisted of 12.5 white and 2.6 black cadets; standard deviations were 1.8 and 0.7 respectively. Only cadets who successfully completed camp were used in the analyses. The resulting sample consisted of 1219 subjects, 1007 were whites and 212 were blacks.

Peer Ratings

The peer performance appraisal used was a standard U.S. Army rating form for officer potential. It was forced distribution in format in that twenty cadets per platoon were rated. At the onset of the peer rating process, each cadet in a platoon was given a list of names in his or her platoon. Each cadet was instructed to delete his or her name from the list. Then each cadet was told to pick a cadet that he or she felt had the most potential as an officer; that person was given a rating of seven from that rater and his or her name was eliminated from the list. Each cadet then selected the name of the person he or she felt had the least potential as an officer, gave that person a rating of one, and eliminated his or her name from the list. The process of selection and subsequent elimination continued until three cadets were rated with a six (outstanding poten-

tial), three cadets were rated with a two (substandard potential), six cadets were rated with a five (above average potential), and six cadets were rated with a three (below average potential). The remaining cadets, not rated with the twenty cadets, were assigned a rating of four (average potential) from that cadet rater. Most peer evaluations occurred between the thirty-ninth and forty-first day of camp.

Data Analysis

The data was analyzed using paired t-tests. The paired t-tests were used to determine if the mean difference between ratings was significantly different from zero. Mean ratings for each group (e.g., white versus black, ratings from whites versus ratings from blacks) were paired at the platoon level.

Results

Hypothesis No. 1

Whites received a mean peer rating of 3.94, while blacks received a mean peer rating of 3.46 (Table 1). The paired t-test indicated that a statistically significant difference in ratings occurred between white and black ratees.

Hypothesis No. 2

The mean rating received by white ratees from white raters was 4.02, while the mean rating received by whites from black raters was 3.98 (Table 2). The difference was not statistically significant.

Hypothesis No. 3

The mean rating received by black ratees from white raters was 4.18, while the mean rating received by blacks from white raters was 3.47 (Table 2). The difference was statistically significant.

Discussion

The first hypothesis proposed that whites re

Table 1

Paired T-Test. Testing if whites receive higher ratings than blacks.

Number Platoons	76
Mean Rating Received by Whites	3.94
Mean Rating Received by Blacks	3.46
Mean Difference in Ratings	0.48
Standard Deviation of Differences	0.73
T Ratio	5.69*

* Significant at alpha = 0.0001.

Table 2

Paired T-Tests. Testing if whites receive higher ratings from whites than from blacks and if blacks receive higher ratings from blacks than from whites.

	Ratee Race	
	<u>White</u>	<u>Black</u>
Number Platoons	76	60
Mean Rating from Whites	4.02	3.47
Mean Rating from Blacks	3.98	4.18
Mean Difference in Ratings	0.04	0.61
Standard Deviation of Differences	0.20	0.67
T Ratio	1.53	7.39*

* Significant at alpha = 0.0001.

ceive higher ratings than blacks. Ratings received by whites were significantly higher than those received by blacks (Table 1). These results agree with previous studies that showed that whites receive higher ratings than blacks (Kraiger & Ford, 1985), especially in field settings (Dipboye, 1985). The difference in ratings could result from differences in ability (actual and/or perceived) and/or race bias; more information is needed to answer why the ratings were different for whites and blacks.

The second hypothesis proposed that whites received higher ratings from whites than from blacks. The third hypothesis proposed that blacks received higher ratings from blacks than from whites. Whites did not receive significantly higher ratings from white raters than from black raters.

Different possible explanations exist. Whites could be receiving unbiased ratings from blacks. Whites could be rated by the same criteria by both white and black raters. The same mean rating could result from whites being the majority. Since whites comprised 89 percent of the cadets at camp, it could be expected that whites would receive a mean rating from either white or black raters that would approach the value of four. The peer rating of four represented the mean and median peer rating given by an individual rater. The mean ratings, received by whites, from white raters and black raters were 4.02 and 3.98 respectively (Table 2).

In contrast to no difference in black or white raters' ratings of whites, blacks received significantly higher ratings from blacks than from whites

(Table 2). Different possible explanations exist. Blacks could be receiving unbiased ratings from blacks, but not from whites. Blacks could be receiving unbiased ratings from whites, but not from blacks. Blacks could be rated by different criteria by white raters and black raters. However, without determining why raters assigned ratings, it is not possible to determine if bias and/or differences in performance (perceived or actual) was responsible for the difference in ratings.

A consequence of blacks receiving lower ratings from whites than from blacks would be lower overall mean peer ratings received by blacks. Since whites comprised 89 percent of the cadets at camp and blacks were 8 percent of the cadets, the overall ratings received by blacks, from all raters, would be more influenced by ratings from white raters than from black raters. The finding that blacks received significantly lower overall ratings than whites was shown earlier.

The bases for race effects on peer ratings were not investigated. It was not possible to conduct a study on race bias that might be disruptive to the training of the cadets or to the organization; it is also likely that the Army would not permit a bias study that would disrupt cadet training. Finally, the researcher has an obligation to the organiza-

tion, especially when the organization is identified, to report only the extent of race rating differences and to use the data in the manner that was mutually agreed upon prior to its disclosure. Thus, it is not possible to indicate if the differences resulted from bias, differences in performance, or a combination of bias and differences in performance.

Limitations And Suggestions

To determine if blacks had lower officer potential than whites it would be necessary to conduct a several year longitudinal study of white and black cadets using more variables (e.g., promotions, test scores). It would also be useful to test the cadets as to their perceptions of race roles and race bias.

More investigations are needed to determine the reasons for the effects of race on peer ratings. If the differences in ratings resulted from performance differences, then additional training to improve performance is needed. If the differences resulted from race bias, relevant training to reduce race bias is needed. If both performance differences and race bias (or biases) were responsible for the differences in ratings, then training to improve performance and reduce race bias is necessary.

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