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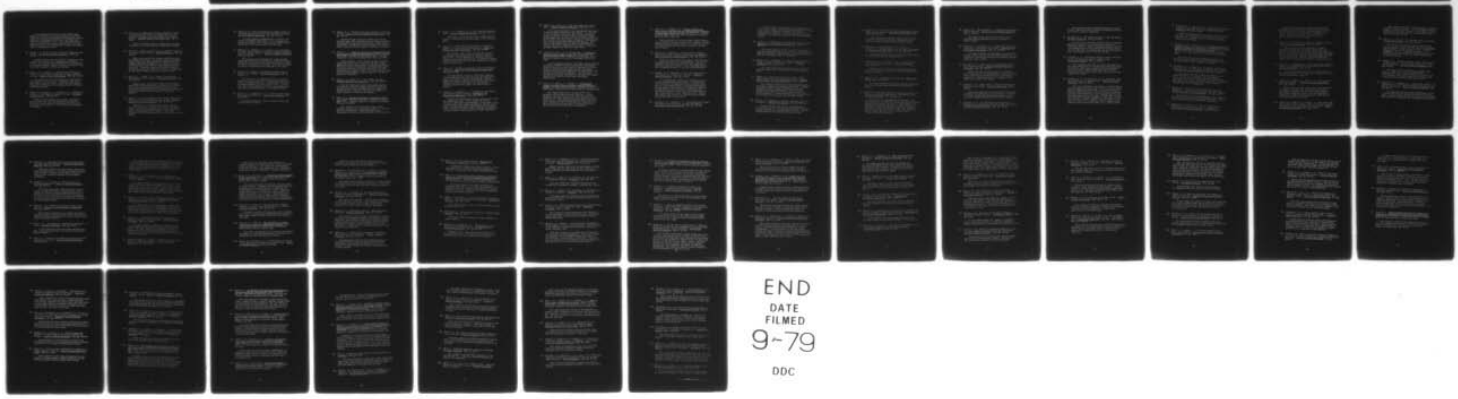

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PEER RATING RESEARCH:
ANNOTATED BIBLIOGRAPHY

By

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This report has been reviewed by the Information Office (OI) and is releasable to the National Technical Information Service (NTIS). At NTIS, it will be available to the general public, including foreign nations.

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This report is an annotated bibliography of peer rating research. Personnel, industrial, and social psychology journals and technical reports were reviewed to identify studies employing peer ratings, and annotations of these studies were prepared. In our view, the most noteworthy findings from this literature are the following:

1. Peer ratings on personality traits consistently yield similar factor structures, suggesting that the dimensionality of these ratings may reflect raters' commonly held beliefs about personality.

2. Peer ratings typically show high interrater agreement, especially when the stability of these ratings is enhanced by gathering evaluations from many peers.

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3. Peer ratings often correlate only moderately with ratings from other sources (e.g., supervisors). Presumably, such disagreements in ratings arise because members of different organizational levels have different perspectives on what it takes to perform effectively, and these groups typically view different samples of ratees' performance-related behavior.

4. Peer ratings often provide good predictions of subsequent performance in training or on jobs. This result has been most consistently obtained in military settings, but peer ratings in industry have also proven to be good indicators of future performance. Such successes have been attributed to peers' comparatively good opportunity to observe ratee behavior relevant to assessing performance effectiveness.

PEER RATING RESEARCH: ANNOTATED BIBLIOGRAPHY

INTRODUCTION

With the current limitations on military spending in the U.S. Air Force, assigning high potential personnel to training programs and/or to jobs is of especially serious concern. Clearly, the costs of selecting or training individuals who prematurely terminate employment or training in the Air Force as a result of poor or non-adaptive performance represents a critical loss.

One way to reduce this kind of loss is through early identification of high risk individuals likely to fail in training or on the job, and the Air Force has employed various approaches to identify such high risk personnel. Educational data, and aptitude, biographical, and vocational interest information have all been used in efforts to improve selection and placement decisions.

Another indication of potential for later success in the Air Force has been provided by peer ratings. During basic military training, peer ratings have been used to select personnel for assignment to selected career fields under the Human Reliability Program. The purpose of the research to be conducted in the present program is to explore the utility of peer ratings for predicting success in other Air Force settings. In particular, the present project is evaluating the ability of peer ratings to predict success in basic training. Future efforts within the program will assess relationships between these peer ratings generated by basic trainees and a) success in technical training; and b) effectiveness in subsequent job performance.

As a first step in the research program, personnel, industrial, and social psychology journals and technical reports were reviewed to identify studies employing peer ratings. This report contains an annotated bibliography describing all studies found in this literature review. Knowledge of previous peer rating research, most notably the procedures used for scoring peer evaluations and statistical methods employed for assessing the reliability and validity of such ratings, should substantially aid efforts to evaluate the usefulness of peer ratings for predicting success in the U. S. Air Force.

1. Aleamoni, L. M., & Yimer, M. An investigation of the relationship between colleague rating, student rating, research productivity, and academic rank in rating instructional effectiveness. Journal of Educational Psychology, 1973, 64, 274-277.

Neither peer nor student ratings of college instructors were found to be related to research productivity. Peer ratings correlated highly with academic rank, suggesting that reputation influenced the ratings.

2. Alfonso, R. J. Will peer supervision work? Educational Leadership, 1977, 34, 594-601.

This report discusses the advantages and disadvantages of peer evaluation in teaching. The author concludes that peer evaluation is useful, but should be combined with supervisory evaluation.

3. Amatora, Sister M. Pupil evaluation or teacher evaluation in personality? Progressive Education, 1953, 31, 44-45.

Peer and teacher ratings of children's personality traits showed little agreement, though the interrater agreement within groups was high.

4. Amatora, Sister M. Contrasts in boys' and girls' judgments in personality. Child Development, 1954, 25, 51-62.

Boys and girls rated peers of their own sex higher on desirable personality traits than they did peers of the opposite sex.

5. Amatora, Sister M. Validity in self evaluation. Educational and Psychological Measurement, 1956, 16, 119-126.

Self and peer ratings of children on The Child Personality Scale showed moderately high correlations for the majority of the scales.

6. Amir, Y., Kovarsky, Y., & Sharon, S. Peer nominations as a predictor of multistage promotions in a ramified organization. Journal of Applied Psychology, 1970, 54, 462-469.

Peer nominations of officer potential and military performance of Israeli soldiers successfully predicted subsequent promotions. This predictive relationship held over a long period of time and across different, widely divergent groups. Also, the peer nominations predicted performance better than objective test scores.

7. Arbuckle, D. S. Client perception of counselor personality. Journal of Counseling Psychology, 1956, 3, 93-96.

Peer ratings were used to differentiate high and low competence groups of counseling trainees. The two groups were found to differ significantly in terms of scores on several self-report personality scales.

8. Astington, E. Personality assessments and academic performance in a boys' grammar school. British Journal of Educational Psychology, 1960, 30, 225-236.

Peer, self, and teacher ratings of elementary school children's personality were correlated with subsequent academic performance. For the peer and teacher ratings, persistence, independence, interest, and nervousness correlated significantly with academic success.

9. Ballard, M., Reardin, J., & Nelson, L. Student and peer ratings of faculty. Teaching of Psychology, 1976, 3, 88-90.

Student and peer ratings of college teachers' likeability and performance correlated well with each other.

10. Bartlett, C. J. The relationship between self-ratings and peer ratings on a leadership behavior scale. Personnel Psychology, 1959, 12, 237-246.

Self and peer ratings of college students' leadership ability were collected on scales featuring both a general dimension of leadership potential and four specific leadership dimensions. On the basis of factor analysis results, the author concluded that self ratings measure only specific leadership dimensions adequately, while peer ratings are applicable for assessing both overall leadership ability and ability in specific leadership areas.

11. Bates, A. P. Some sociometric aspects of social ranking in a small face-to-face group. Sociometry, 1952, 15, 330-341.

Results of this laboratory experiment indicated that the more an individual behaves according to group norms, the higher he will be rated by group members.

12. Bayroff, A. G., Haggerty, H. R., & Rundquist, E. A. Validity of ratings as related to rating techniques and conditions. Personnel Psychology, 1954, 7, 93-114.

"Validity" of peer ratings made by Naval officer students was evaluated using as criteria course grades and Officer Classification Test scores. Results showed that validity was enhanced by increasing the number of raters and by using raters with higher grades and test scores. Neither conditions of administration (anonymity vs. identification of raters) nor the type of rating scale (forced choice vs. graphic) had an effect on validity.

13. Bell, D. B., & Holz, R. F. Summary of ARI research on military delinquency (ARI-RR-1185). Arlington, Virginia: Army Research Institute for the Behavioral and Social Sciences, 1975.

Peer ratings and background data were shown to predict military delinquency.

14. Bentley, R. R., & Rempel, A. M. Peer selection vs. expert judgment as a means of validating a teacher morale measuring instrument. Journal of Experimental Education, 1963, 31, 233-240.

Responses to teacher morale items were correlated separately with peer ratings of morale and expert judgments of each teacher's morale for item analysis purposes. Expert judgments produced a questionnaire with the greater discrimination, and responses to the questionnaires developed by these two methods correlated moderately.

15. Berkshire, J. R., & Nelson, P. D. Leadership peer ratings related to subsequent proficiency in training and in the fleet (58-20). Naval Aviation Medical Center, Pensacola, Florida: U.S. Naval School of Aviation Medicine, August, 1958.

Negative peer nominations of Naval trainees successfully predicted both training failure and fleet assignment failure. They showed more validity against these criteria than did the positive nominations.

16. Blackburn, R. T., & Clark, M. J. An assessment of faculty performance: Some correlates between administrator, colleague, student and self ratings. Sociology of Education, 1975, 48, 242-256.

Peer, student, and supervisory ratings of college teachers correlated highly with each other, but showed a near-zero relationship with self ratings.

17. Blaha, W. C. A study of peer and reporting senior ratings in a Marine Corps rifle company. Monterey, California: Naval Postgraduate School, 1974.

Supervisory and peer ratings of Marine Corps enlisted performance were analyzed in a multitrait-multirater matrix. There was no evidence of convergent or discriminant validity in the ratings.

18. Blocher, D. H. A multiple regression approach to predicting success in a counselor education program. Counselor Education and Supervision, 1964, 3, 19-22.

A composite consisting of peer rankings of student counselor effectiveness, comprehensive examination scores, Kuder Personal Preference Form scores, and class grades successfully predicted counselor staff ratings of effectiveness.

19. Booker, G. S., & Miller, R. W. A closer look at peer ratings. Personnel, 1966, 43, 42-47.

Peer and supervisory ratings of the promotability of military cadets correlated highly, and the two sets of ratings taken together predicted subsequent military performance.

20. Borgatta, E. F. The stability of interpersonal judgments in independent situations. Journal of Abnormal and Social Psychology, 1960, 60, 188-194.

Self and peer ratings of assertiveness, sociability, and emotionality were consistent across different situations and group sizes. The self and peer ratings correlated reasonably highly, with the magnitude of the correlation varying positively as a function of group size.

21. Borgatta, E. F. The structure of personality characteristics. Behavioral Science, 1964, 9, 8-17.

This study replicates and extends the findings of Borgatta (1960). Two additional traits, intelligence and responsibility, were added and results for all five traits were highly similar to the results obtained by Borgatta (1960).

22. Borman, W. C. The rating of individuals in organizations: An alternate approach. Organizational Behavior and Human Performance, 1974, 12, 105-124.

In this study of secretaries and their supervisors, the results suggest that peer and supervisory ratings are based upon different perspectives of the job and different opportunities to view job behavior. The author suggests that the convergent validity of ratings be assessed within, not between, organizational levels.

23. Brehm, J., & Festinger, L. Pressures toward uniformity of performance in groups. Human Relations, 1957, 10, 85-91.

This paper documents the existence of a rater bias toward uniformity in the group members' ratings of each other (central tendency).

24. Bryant, G., & Haack, F. Appraisal: Peer-centered and administrator-centered. Educational Leadership, 1977, 34, 608-612.

This paper discusses techniques for evaluating teacher performance including peer ratings.

25. Burke, R. J. Some preliminary data on the use of self-evaluations and peer ratings in assigning university course grades. Journal of Educational Research, 1969, 62, 444-448.

Peer ratings of students' classroom performance showed high interrater reliability and high correlations with instructors' ratings. Self ratings were more favorable (lenient) than either peer or instructor ratings.

26. Buttery, T. J., & Williams, W. R. CBTE: Facilitating the acquisition of responsibility. Teacher Educator, 1977, 12, 23-26.

This paper outlines a system (Competency Based Teacher Education) for teacher education that incorporates peer ratings.

27. Carroll, J. B. Ratings on traits measured by a factored personality inventory. Journal of Abnormal and Social Psychology, 1952, 47, 626-632.

Personality self ratings, peer ratings and test scores of Army soldiers were intercorrelated. Of the three across-method relationships, self ratings and test scores correlated the highest, followed by self ratings and peer ratings, and then test scores and peer ratings. Peer rating interrater reliabilities were satisfactory and were found to be highest for the more observable traits.

28. Centra, J. A. Colleagues as raters of classroom instruction. Journal of Higher Education, 1975, 46, 327-337.

Peer ratings of college teachers' performance showed good test-retest reliability but poor interrater reliability. Also, the peer ratings contained leniency error, and correlations between peer and student ratings were low.

29. Centra, J. A. The how and why of evaluating teaching. New Directions for Higher Education, 1977, 17, 93-106.

This paper discusses teacher evaluation techniques. The author concludes that peer ratings of teachers may suffer from low reliability and are therefore best used for diagnostic purposes rather than for personnel decisions.

30. Cox, J. A., & Krumboltz, J. D. Racial bias in peer ratings of basic airmen. Sociometry, 1958, 21, 292-299.

Some evidence of racial bias was found in leadership peer ratings of Air Force basic trainees. Individuals tended to rate members of their own race higher than members of the other race, but there was agreement between races regarding the rank-order of leadership ability within each of the racial groups.

31. Criswell, J. H. Sociometric concepts in personnel administration. Sociometry, 1949, 12, 287-300.

This paper describes how sociometric techniques, including peer judgments, might be applied in military and industrial settings. Basic concepts and statistical problems related to sociometrics are discussed.

32. D'Augelli, A. R. Group composition using interpersonal skills: An analogue study on the effects of members' interpersonal skills on peer ratings and group cohesiveness. Journal of Counseling Psychology, 1973, 20, 531-534.

In an experimental setting, college student group members with highly rated interpersonal skills received higher peer ratings on dimensions of understanding, honesty, openness, and acceptance than members with lower rated levels of interpersonal skills. Also, the cohesiveness of groups with members having high interpersonal skills was judged greater than the cohesiveness of groups with members lower in interpersonal skills.

33. DeJung, J. E. Effects of rater frames of reference on peer ratings. Journal of Experimental Education, 1964, 33, 121-131.

Children given an explicit frame of reference on which to base their ratings (i.e., "compared to all persons known"), made less positive ratings than did children given no frame of reference. However, frame of reference did not affect the rank order of their peer ratings.

34. DeJung, J. E., & Kaplan, H. Some differential effects of race of rater and ratee on early peer ratings of combat aptitude. Journal of Applied Psychology, 1962, 46, 370-374.

Peer ratings of the combat potential of Army recruits were examined for racial bias. A hypothesis that raters give higher ratings to members of their own race than to members of a different race was supported only in the case of the black recruits.

35. DeLeon, P. H., DeLeon, J. L., & Swihart, P. J. Relation of accuracy of self-perception and peer ratings. Perceptual and Motor Skills, 1969, 29, 966.

Males providing accurate self ratings (evaluated by extent of peer-self rating agreement) were rated more positively by their peers on sociability than those with innacurate self perceptions. This effect was not observed for females.

36. Dilley, J. S. Supervisory ratings of counselor trainees in a simulated work setting as compared with peer and instructor ratings on the same trainees in an academic setting. Counselor Education and Supervision, 1964, 3, 70-73.

Ratings of student counselor effectiveness by peers, instructors, and field supervisors showed high agreement.

37. Doll, R. E. Officer peer ratings as a predictor of failure to complete flight training. Aerospace Medicine, 1963, 34, 130-131.

Naval cadets and officer students rated their peers' performance in training. The ratings predicted subsequent school dropout to a moderate degree. Ratings were also combined with objective aptitude test scores, with peer ratings adding to the validity of the predictors only for the cadets. The author explains this latter finding by noting that cadets are in position to observe a wider range of their peers' behaviors than are officer students.

38. Doll, R. E., & Longo, A. E. Improving the predictive effectiveness of peer ratings. Personnel Psychology, 1962, 15, 215-220.

Regarding peer evaluations of Naval Training Cadets, the validity of low nominations as predictors of training failure was enhanced by using nominations only on the performance-oriented dimensions, removing from consideration ratings on those dimensions related to "antisocial behavior."

39. Dooley, D. Assessing nonprofessional mental health workers with the GAIT. An evaluation of peer ratings. American Journal of Community Psychology, 1975, 3, 99-110.

Applicants for a mental health counselor job were rated by their peers on interpersonal skills displayed in dyadic situations (the technique was called Group Assessment of Interpersonal Traits--"GAIT"). Interrater reliability of the ratings was poor and the scales correlated highly.

40. Downey, R. G. Note on the Kaufman and Johnson studies of the differential validities of peer nomination techniques. Journal of Applied Psychology, 1975, 60, 245-246.

This note presents a methodological critique of the Kaufman and Johnson (1974) study. It is concluded that comparative validity of different scaling methods for peer nominations is an issue not yet fully clarified.

41. Downey, R. G., Medland, F. F., & Yates, L. G. Evaluation of a peer rating system for predicting subsequent promotion of senior military officers. Journal of Applied Psychology, 1976, 61, 206-209.

Peer ratings of the promotability of Army Colonels showed moderate validity in predicting subsequent promotion to General, with these results stable across career groups and levels of education. The authors noted some resistance to the peer rating procedure on the part of the raters.

42. Dugan, R. D. Comparison of evaluation of B-29 crews in training and in combat. American Psychologist, 1953, 8, 343-344.

Peer ratings of the combat proficiency of airplane crews were used as criteria for assessing the predictive validity of proficiency tests. A significant correlation was obtained between test scores and criteria. In addition, peer ratings obtained in training corresponded well with peer ratings obtained later in a combat situation.

43. Eckard, P. J., & McElhinney, J. H. Teacher evaluation and educational accountability. Educational Leadership, 1977, 34, 613-618.

This paper proposes a teacher evaluation system that incorporates peer ratings.

44. Edwards, R. C. Personal traits and "success" in schooling and work. Educational and Psychological Measurement, 1977, 37, 125-138.

Personality peer ratings of students and working personnel were shown to possess high interrater reliability and successfully predicted, respectively, school and work performance. Ratings were factor analyzed, with different factors showing different degrees of predictive validity.

45. Elliott, L. L. Factorial structure of airman self-ratings and their relationship to peer nominations (WADD-TN-60-141, AD-242 388). Lackland Air Force Base, Texas: Personnel Laboratory, Wright Air Development Division, July 1960.

Factor analyses of self ratings and peer nominations showed some similarity in structure, but self ratings appeared to have a larger number of underlying dimensions. Self ratings, years of education, and Armed Forces Qualifying Test scores each correlated positively with peer nominations of 619 basic airmen. The author concludes that peer nominations show more promise than self ratings for purposes of assessment.

46. Engle, K. B., & Betz, R. L. Peer ratings revisited. Counselor Education and Supervision, 1971, 10, 165-170.

Peer and supervisory rankings of student counselor effectiveness correlated highly, and this relationship was particularly strong for NDEA Institute groups, presumably due to a relatively high degree of exposure to other counselors in the Institute program.

47. Ewart, E. S. Factorial structure of airman peer nominations (WADD-TN-60-140, AD-241 425). Lackland Air Force Base, Texas: Personnel Laboratory, Wright Air Development Division, June 1960.

Peer ratings of Air Force recruits were factor analyzed, yielding four interpretable factors: a general factor of acceptance or rejection by peers, good naturedness, sociability, and motivation for military life.

48. Farley, J. A., & Mayfield, E. C. Peer nominations without peers? Journal of Applied Psychology, 1976, 61, 109-111.

"Self-peer" ratings (Holmes & Tyler, 1968) showed no validity in predicting sales performance of life insurance agents.

49. Fiske, D. W. Consistency of the factorial structures of personality ratings from different sources. Journal of Abnormal and Social Psychology, 1949, 44, 329-344.

Self ratings, peer ratings, and assessor ratings of college applicants showed a similar factor structure of four factors: social adaptability, emotional control, conformity, and inquiring intellect. An additional factor, named confident self expression, was discovered in the self and peer ratings only.

50. Fiske, D. W. Variability among peer ratings in different situations. Educational and Psychological Measurement, 1960, 20, 283-292.

Peer and observer ratings of individuals' behavior across different problem-solving groups were evaluated to assess consistency of ratings across groups. Results showed that subjects received inconsistent ratings across sessions, and this inconsistency was attributed to interrater unreliability rather than inconsistency in behavior.

51. Fiske, D. W., & Bourne, E. J. Thresholds for attributing can affect factorial structure. Educational and Psychological Measurement, 1977, 37, 713-723.

Subjects provided personality peer ratings under one of two instructional sets: (a) to select traits that "definitely and without question apply" to the ratee, or (b) to select traits that "might reasonably be applied" to the ratee. Ratings administered under condition (a) yielded a factor structure that more closely [than (b)] resembled the structure found by Tupes and Christal (1958) among others.

52. Fiske, D. W., & Cox, J. A. The consistency of rating by peers. Journal of Applied Psychology, 1960, 44, 11-17.

This study investigated in an experimental setting the effects of several factors on peer ratings: (a) the kind of task assigned to the group; (b) the group to which a person is assigned; (c) the frequency of contact between group members; (d) the nature of the trait being rated; and (e) the role of the rater (peer or observer). The group to which a ratee was assigned affected peer ratings. Also, peer ratings tended to be more positive than observer ratings, and results suggest that the level of interrater agreement depends upon the trait being rated.

53. Fiske, D. W., Cox, J. A., & van der Veen, F. Consistency and variability in peer ratings [WADC-TR-59-37(1,11), AD-215 483; AD-215 484]. Lackland Air Force Base, Texas: Personnel Laboratory, Wright Air Development Center, May 1959.

In an experimental setting, the effects of the following variables on observer and peer ratings were investigated: nature of the group's task (verbal or physical); the group to which subjects were assigned; duration of contact; nature of the trait rated (evaluative vs. descriptive); and the rater's role (peer or observer). Only the group assigned affected peer (and observer) ratings, with between-group rating reliability lower than within-group reliabilities.

54. Flyer, E. S., Barron, E., & Bigbee, L. Discrepancies between self-descriptions and group ratings as measures of insight. Research Bulletin (53-33). Lackland Air Force Base, Texas: Human Resources Research Center, September 1953.

This study showed that for a group of Air Force personnel self-perception (how one rates self), social perception (how one believes peers rate him), and group perception (how peers actually rate him) judgments did not agree closely. Group perceptions agreed more closely with social perceptions than self-perceptions, suggesting that peer ratings may correspond more to how persons believe others see them than to how they see themselves.

55. Flyer, E. S., & Bigbee, L. R. Primary flying grades, pilot stanine, and preflight peer nominations as predictors of basic pilot training criteria (PRL-TM-55-17). Lackland Air Force Base, Texas: Air Force Personnel and Training Research Center, June 1955.

Peer nominations of Air Force student pilots successfully predicted training success/failure. However, the peer nominations did not predict success in training as well as did pilot aptitude test scores and instructors' ratings taken together.

56. Folkins, C., & Spensely, J. Peer rating by a community mental health team: A positive approach to accountability. American Journal of Ortho-psychiatry, 1977, 47, 331-335.

Community mental health team members rated their peers on interpersonal skills and job competence. The ratings possessed high interrater reliability and successfully predicted supervisory ratings. Also, team member participants responded favorably to the peer rating procedures.

57. Freeberg, N. E. Relevance of rater-ratee acquaintance in the validity and reliability of ratings. Journal of Applied Psychology, 1969, 53, 518-524.

In an experimental setting, two variables of rater-ratee relationships were manipulated: (a) relevance vs. non-relevance of the behaviors observed; and (b) visual only vs. more extended contact with other group members. Results suggest that relevance of the behaviors observed is important for validity of peer ratings, but that impressive reliability (interrater) may be obtained with peer ratings based on visual information only. Results also suggest that validity is enhanced by more extended contact with other group members.

58. Golding, S. L., & Knudson, R. M. Multivariable-multimethod convergence in the domain of interpersonal behavior. Multivariate Behavioral Research, 1975, 10, 425-448.

A factor analysis of personality self report inventories, self ratings, and peer ratings revealed three second order factors: aggressive dominance, affiliation-sociability, and autonomy. Convergent validity for these dimensions was relatively high across all three measurement methods.

59. Gordon, L. V. Estimating the reliability of peer ratings. Educational and Psychological Measurement, 1969, 29, 305-313.

This paper discusses the use of coefficient alpha for assessing the reliability of peer ratings. Suggestions are made about appropriate applications of various reliability formulae to different types of rating data.

60. Gordon, L. V., & Medland, F. F. The cross group stability of peer ratings of leadership potential. Personnel Psychology, 1964, 18, 173-178.

This study found that peer ratings of Army enlisted personnel tended to be stable across different groups of peers.

61. Gordon, M. E. The effect of the correctness of the behavior observed on the accuracy of ratings. Organizational Behavior and Human Performance, 1970, 5, 366-377.

Life insurance managers rated the filmed performance of an agent completing a telephone transaction. Judgments of behavior against a correct standard indicated a "Differential Accuracy Phenomenon" (DAP)--incorrect behaviors were identified with less accuracy than were correct behaviors. Further experience with the rating task did increase overall accuracy, but the DAP remained.

62. Gormly, J., & Edelberg, W. Validity in personality trait attribution. American Psychologist, 1974, 29, 189-193.

College students' peer ratings of aggressiveness correlated highly with ratings of aggressiveness by judges who observed them in an interpersonal situation. Self-ratings showed little agreement with peer ratings.

63. Grande, P. P. The use of self and peer ratings in a Peace Corps training program. Vocational Guidance Quarterly, 1966, 14, 244-246.

Peer effectiveness ratings of Peace Corps trainees successfully predicted subsequent ratings of on-site performance made by a Peace Corps Project Director.

64. Guilford, J. P., Christensen, P. R., Taffe, G., & Wilson, R. C. Ratings should be scrutinized. Educational and Psychological Measurement, 1962, 22, 439-447.

This paper discusses difficulties arising when ratings are used as criteria for validating tests.

65. Gunderson, E. K. E., & Nelson, P. D. Criterion measures for extremely isolated groups. Personnel Psychology, 1966, 19, 67-80.

Moderate to high correlations were obtained between peer and supervisory ratings of personnel at an Antarctic scientific station.

66. Guthrie, E. R. The evaluation of teaching. Educational Record, 1949, 30, 109-115.

This paper concludes that student and peer ratings are the best performance appraisal methods for evaluating teachers.

67. Hakel, M. D. Normative personality factors recovered from ratings of personality descriptors: The beholder's eye. Personnel Psychology, 1974, 27, 409-421.

College students performed two rating tasks: (a) making personality ratings of a person they knew but who was not physically present, and (b) rating the similarity in meaning of personality descriptors. Factor analyses in both cases revealed the recurring five factor structure identified by Tupes and Christal (1958), thus presenting strong evidence that peer ratings reflect raters' "implicit personality theories."

68. Helfer, R. E. Peer evaluation: Its potential usefulness in medical education. British Journal of Medical Education, 1972, 6, 224-231.

This paper reviews peer rating literature and discusses possible applications of peer ratings in a medical context.

69. Hoffman, E. L., & Rohrer, J. H. An objective peer evaluation scale: Construction and validity. Educational and Psychological Measurement, 1954, 14, 332-341.

This paper discusses the development and application of peer rating scales for evaluating Marine Corps officer candidates. Peer ratings successfully predicted subsequent promotions within platoon.

70. Hollander, E. P. Authoritarianism and leadership choice in a military setting. Journal of Abnormal and Social Psychology, 1954, 49, 365-370.

Leaders selected by peer nomination in a military setting tended to be non-authoritarian in leadership style. Also, intelligence correlated positively with the peer nominations. Leadership styles of the raters did not appear to influence their ratings.

71. Hollander, E. P. Buddy ratings: Military research and industrial applications. Personnel Psychology, 1954, 7, 385-393.

This paper summarizes early research on the quality, techniques, and applications of peer ratings. It focuses on military research and possible applications of peer ratings for predicting performance in private industry.

72. Hollander, E. P. Peer nominations on leadership as a predictor of the pass-fail criterion in naval air training. Journal of Applied Psychology, 1954, 38, 150-153.

Peer nominations of the leadership potential of Naval Aviation Cadets successfully predicted performance criteria not directly related to leadership.

73. Hollander, E. P. The friendship factor in peer nominations. Personnel Psychology, 1956, 9, 435-447.

Peer ratings of candidates for Naval Officer Candidate School were analyzed for the possible existence of a "friendship factor." Results suggested a positive relationship between popularity and peer nomination scores, but it was concluded that this relationship does not significantly alter the predictive validity of peer ratings.

74. Hollander, E. P. Interpersonal exposure time as a determinant of the predictive utility of peer ratings. Psychological Reports, 1956, 2, 445-448.

This study found that peer ratings of candidates for Naval OCS, gathered after a 3-week acquaintance, were highly reliable and successfully predicted training performance. The ratings after 3 weeks acquaintance did not differ significantly from those gathered after the groups had been together for 6 weeks.

75. Hollander, E. P. The reliability of peer nominations under various conditions of administration. Journal of Applied Psychology, 1957, 41, 85-90.

This study investigates the effects of three different administration conditions on the reliability of peer ratings made by candidates for Naval OCS: the period of time the group has spent together, the nature of the set imposed on the raters (administrative vs. for research only), and the quality/characteristic to be rated. Reliable peer ratings were obtained with groups together for even relatively short time intervals (1 week). Rating set had no effect. Some qualities rated (e.g., leadership quality) showed greater stability over time than did others (e.g., success in OCS).

76. Hollander, E. P. Validity of peer nominations in predicting a distant performance criterion. Journal of Applied Psychology, 1965, 49, 434-438.

Measures of Naval officer performance were correlated with peer ratings gathered during OCS training several years earlier. The peer ratings successfully predicted posttraining performance.

77. Hollander, E. P., & Sausser, E. R. A further consideration of peer nominations on leadership in the Naval Air Training Program: Prediction of completion or failure (NM 001 058.16.02). U.S. Naval Air Station, Pensacola, Florida: U.S. Naval School of Aviation Medicine, October 1953.

Both peer nominations of leadership potential and preflight school grades of Naval Aviation Cadets successfully predicted failure in Naval air training.

78. Hollander, E. P., & Webb, W. B. Leadership, followership, and friendship: An analysis of peer nominations. Journal of Abnormal and Social Psychology, 1955, 50, 163-167.

Using peer nominations of Naval Air Cadets, it was found that ratings of leadership and "followership" (i.e., ability to be an effective follower) were highly correlated (positively). In addition, ratings of friendship were shown to be significantly more highly related to "followership" than to leadership.

79. Holmes, D. S. Conscious self-appraisal of achievement motivation: The self-peer rank method revisited. Journal of Consulting and Clinical Psychology, 1971, 36, 23-26.

The self-peer ranking method (Holmes & Tyler, 1968) is described, and ratings of achievement motivation using this method successfully predicted academic performance.

80. Holmes, D. S., & Tyler, J. D. Direct versus projective measurement of achievement motivation. Journal of Consulting and Clinical Psychology, 1968, 32, 712-717.

Need for achievement was assessed by the Thematic Apperception Test, self-reports, and "self-peer" ratings. The self-peer rating procedure required subjects to list friends and then to rate themselves relative to each friend. Only the "self-peer" ratings correlated significantly with classroom grades.

81. Izard, C. E. Personality correlates of sociometric status. Journal of Applied Psychology, 1959, 43, 89-93.

Peer ratings of military personnel on a global dimension of leadership correlated significantly with personality tests, physical aptitude tests, and supervisory ratings. There was a negative relationship observed between ratings received from peers and tendencies toward psychosomatic ailments, with a positive relationship observed between peer ratings and participation in group activities.

82. Izard, C. E., & Rosenberg, N. Prediction of peer leadership ratings by a forced-choice test under various conditions. American Psychologist, 1954, 9, 397.

A test of leadership potential for military officers showed a relatively low, but positive, correlation with peer ratings of leadership potential.

83. Jansen, D. G., Robb, G. P., & Bonk, E. C. Peer ratings of practicum counselors. Journal of Counseling Psychology, 1972, 19, 333-339.

Peer ratings of student counselors on three dimensions (competence, knowledge, and likeability) were highly correlated. Counselors who were rated higher tended to score higher on aptitude tests, score more favorably on personality inventories, and make better grades than did counselors who were rated lower.

84. Jansen, D. G., Robb, G. P., & Bonk, E. C. Peer ratings and self ratings on twelve bipolar items of practicum counselors ranked high and low in competence by their peers. Journal of Counseling Psychology, 1973, 20, 419-424.

Peer rankings were used to form high and low competence groups of student counselors. The high competence group members were rated more favorably by their peers on several personality dimensions, while no such differences were found for the self ratings.

85. Kane, J. S., & Lawler, E. E. Methods of peer assessment. Psychological Bulletin, 1978, 85, 555-586.

This review of research on peer nominations, peer ratings, and peer ranking concludes that peer nominations show the highest reliability and validity, with peer ratings having merit for feedback purposes. It is recommended that peer assessments be combined with other performance measures to yield the highest quality performance evaluations.

86. Kaufman, G. G. Comments on Downey's note: Discussion and further analysis of the differential validities of peer nomination scales. Journal of Applied Psychology, 1975, 60, 247-248.

This paper defends the Kaufman and Johnson (1974) study, in light of criticisms by Downey (1975). Methodological issues raised by Downey are discussed, and it is concluded that these issues are irrelevant to the interpretation of the Kaufman and Johnson study.

87. Kaufman, G. G., & Johnson, J. C. Scaling peer ratings: An examination of the differential validities of positive and negative nominations. Journal of Applied Psychology, 1974, 59, 302-306.

This study examined correlations between peer evaluations and performance of Reserve Officers' Training Corps cadets. Results showed that positive nominations correlated more highly with performance than did negative nominations.

88. Keisler, E. R. Peer group ratings of high school pupils with high and low school marks. Journal of Experimental Education, 1955, 23, 375-378.

High school students with high academic grades were rated more positively by their peers on behavior oriented scales related to academic success and on personality related scales than were students with low academic achievement.

89. Klimoski, R. J., & London, M. Role of the rater in performance appraisal. Journal of Applied Psychology, 1974, 59, 445-451.

This study investigated supervisory, peer, and self ratings of registered nurses. Factor analysis of the ratings from the three sources suggested that raters in different positions used different criteria on which to base their ratings, and that an important source of bias in ratings stems from the position of the rater relative to the person being rated.

90. Klockars, A. J. Personality variables related to peer selection. Educational and Psychological Measurement, 1978, 38, 513-517.

Peer ratings of potential as a resident assistant in a college dormitory correlated significantly with scores on several self-report personality test scales, always in the socially desirable direction.

91. Korman, A. K. The prediction of managerial performance: A review. Personnel Psychology, 1968, 21, 295-322.

In this literature review, the author concludes that peer ratings show good promise for predicting the performance of managers.

92. Kraut, A. I. Prediction of managerial success by peer and training staff ratings. Journal of Applied Psychology, 1975, 60, 14-19.

This study examined the predictive validity of peer and training staff ratings of industrial managers and executives. It was concluded that peer ratings obtained in a training course are successful predictors of performance for high level business managers, more successful than training staff ratings.

93. Kubany, A. J. Use of sociometric peer nominations in medical education research. Journal of Applied Psychology, 1957, 41, 389-394.

This paper discusses problems related to: (a) factor analysis of peer nomination variables; (b) assessing the reliability of peer ratings; and (c) the effects of infrequent rater-ratee contact on peer ratings. Also, results of a study reported in the paper showed that medical student peer ratings successfully predicted course grades.

94. Landy, F. J., & Guion, R. M. Development of scales for the measurement of work motivation. Organizational Behavior and Human Performance, 1970, 5, 93-103.

This paper discusses the development of behaviorally anchored rating scales for use by engineers in peer assessment of work motivation. The scales showed good interrater reliability, and the authors concluded that such motivation scales may be appropriate for a wide range of occupations.

95. Lawler, E. E. The multitrait-multirater approach to measuring managerial job performance. Journal of Applied Psychology, 1967, 51, 369-381.

This paper presents a technique for analyzing supervisory, peer, and self ratings in a multitrait-multirater matrix. The author applied the technique to ratings of managers, and it was concluded that the matrix concept offers promise for assessing the convergent and discriminant validities of ratings.

96. Lewin, A., Dubno, P., & Akula, W. Face-to-face interaction in the peer nomination process. Journal of Applied Psychology, 1971, 55, 495-497.

Peer ratings of individual contributions to a laboratory group's task performance were highly correlated across two conditions: (a) a condition in which peers interacted with other group members and (b) a condition in which raters viewed a videotape of the group interacting.

97. Lewin, A. Y., & Layman, S. S. Information processing models of peer nominations (TR-4, 1978, TR-3, 1977, TR-2, 1977). Durham, North Carolina: Graduate School of Business Administration, Duke University.

This study investigated the decision processes underlying peer ratings. Videotapes of group sessions were used to develop scoring procedures based on verbal and non-verbal behavior in five categories: mutual influencing, categorizing/summarizing, social-directive, quantity of verbal communication, and listening. Rankings of group members' performance based on these scoring procedures correlated highly with actual peer ratings, indicating some understanding of the cues peers use in making evaluations.

98. Lewin, A. Y., & Zwany, A. Peer nominations: A model, literature critique, and a paradigm for future research. Personnel Psychology, 1976, 29, 423-447.

The authors attempt to integrate peer rating research into a model of the processes underlying these ratings, and make several suggestions about promising future research directions.

99. Lewin, A. Y., & Zwany, A. Peer nominations: A model, literature critique, and a paradigm for research, (TR-1). Durham, North Carolina: Graduate School of Business Administration, Duke University, 1976.

This report reviews peer rating literature and proposes development of a decision-process model to describe the perceptual processes underlying peer ratings.

100. London, M., & Klimoski, R. J. Self-esteem and job complexity as moderators of performance and satisfaction. Journal of Vocational Behavior, 1975, 6, 293-304.

Results of this study indicated that rater self-esteem and job complexity were not related to self, supervisor, or peer ratings of nurse performance.

101. MacKinnon, D. W., Crutchfield, R. S., Barron, F., Block, J., Gough, H. G., & Harris, R. E. An assessment study of Air Force officers (WADC-TR-58-91(1), AD-151 040). Lackland Air Force Base, Texas: Personnel Laboratory, Wright Air Development Center, April 1958.

Peer nominations of captains in the Air Training Command correlated poorly with subsequent performance. Peer nominations were only one of many assessment variables explored in this study.

102. Maslow, A. H., & Zimmerman, W. College teaching ability, scholarly activity and personality. Journal of Educational Psychology, 1956, 47, 185-189.

Peer and student ratings of college teachers resulted in high interrater reliability. Peer ratings loaded highly on a creativity factor, while student ratings loaded primarily on a factor related to teacher personality.

103. Mayfield, E. C. Management selection: Buddy nominations revisited. Personnel Psychology, 1970, 23, 377-391.

Peer ratings of life insurance sales personnel successfully predicted subsequent managerial performance, and this predictive relationship was stable across different groups. A factor analysis of the ratings suggests that the ratings were based on a single, general factor of "overall job performance." Simplified scoring procedures for peer rating scales are also discussed.

104. Mayfield, E. C. Value of peer nominations in predicting life insurance sales performance. Journal of Applied Psychology, 1972, 56, 319-323.

Peer nominations scores of life insurance agents at the completion of training successfully predicted sales effectiveness measured both 6 months and 1 year after training. A factor analysis of the peer nomination scores is also discussed.

105. Mayo, G. D. Peer ratings and halo. Education and Psychological Measurement, 1956, 16, 317-323.

A comparison of Navy airmen's peer ratings of intelligence and effort to objective measures of those two variables revealed that the ratings contained halo error.

106. Mays, R. J. Relationships between length of acquaintance and nature of trait rated and agreement between raters (AFPTRC-TR-54-55). Lackland Air Force Base, Texas: Air Force Personnel and Training Research Center, November 1954.

This study showed the interrater reliability of personality peer ratings by Air Force OCS candidates to be unaffected by length of acquaintance (within the range of 3 weeks to 5 months). Descriptive traits were rated more reliably than evaluative traits.

107. McGee, J. C., & Eaker, R. Clinical supervision and teacher anxiety: A collegial approach to the problem. Contemporary Education, 1977, 49, 24-28.

This paper proposes a model for peer evaluation in team teaching situations.

108. Michalak, D. A. · Peering at peer evaluation. New York State Education, 1966, 53, 18-19.

This paper suggests procedures for peer evaluation of student teachers.

109. Morrison, A., & Hallwo·th, H. J. The perception of peer personality by adolescent girls. British Journal of Educational Psychology, 1966, 36, 241-247.

Adolescent girls rated their male and female peers on personality traits. The age and sex of the ratee was shown to affect the factor structure of the ratings.

110. Morton, J. B., & MacBeth, W. A. A. G. Correlations between staff, peer, and self-assessments of fourth-year students in surgery. Medical Education, 1977, 11, 167-170.

Medical students rated their own performance in medical school lower than did their peers or their professors. A high correlation was obtained between peer and professor ratings.

111. Mouton, J. S., Blake, R. R., & Fruchter, B. The reliability of sociometric measures. Sociometry, 1955, 18, 7-48.

This paper summarizes literature pertaining to the reliability of sociometric measures, including peer ratings.

112. Mouton, J. S., Blake, R. R., & Fruchter, B. The validity of sociometric responses. Sociometry, 1955, 18, 181-206.

This paper summarizes literature that has examined the predictive validity of sociometric measures against various performance criteria.

113. Murray, H. G. Predicting student ratings of college teaching from peer ratings of personality types. Teaching of Psychology, 1975, 2, 66-69.

Peer ratings of college teachers on four personality traits (leadership, extroversion, objectivity, and anxiety) accounted for most of the variance in student ratings of teacher performance.

114. Nassiter, V., & Benson, P. Evaluating decision making by market managers: A peer rating simulation. Paper presented at the meeting of the American Psychological Association, Canada, September 1978.

This paper presents rating dimensions for evaluating the performance of marketing managers, along with a summary of a computer program (PEERRATE) designed to pinpoint certain biases in ratings and to remove them. The usefulness of the dimensions and computer program was supported in part by results of a study with marketing students.

115. Norman, W. T. Validation of personality tests as measures of trait-rating factors (PRL-TDR-62-4, AD-285 184). Lackland Air Force Base, Texas: 6570th Personnel Research Laboratory, April 1962.

Self-report personality measures predicted with moderate success personality trait peer nominations of college students. Also, a factor analysis of the peer nominations produced the same five factors found previously by Tupes and Christal (1958). Predictive validity for the self-report measures was highest when the surgency, conscientiousness, and culture factors were used as criteria.

116. Norman, W. T. Personality measurement, faking, and detection: An assessment method for use in personnel selection. Journal of Applied Psychology, 1963, 47, 225-241.

Personality trait peer nominations of college student subjects were used as criteria for the validation of self-report personality scales.

117. Norman, W. T. Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. Journal of Abnormal and Social Psychology, 1963, 66, 574-583.

In reviewing several studies showing similar factor structures for peer ratings, this paper provides support for the stability of the five-factor structure found by Tupes and Christal (1958).

118. Norman, W. T. "To see ousel as ithers see us!": Relations among self-perceptions, peer-perceptions, and expected peer-perceptions of personality attributes. Multivariate Behavioral Research, 1969, 4, 417-443.

Self ratings, expected peer ratings (predictions of the ratings of self made by peers), and peer ratings of personality demonstrated generally good convergent and discriminant validity for four personality factors of the five identified earlier by Tupes and Christal (1958). However, agreement between peer and self ratings (including the expected ratings) was highly dependent upon degree of rater-ratee acquaintance. The study also features a useful comparison of various methods for analyzing ratings.

119. Norman, W. T., & Goldberg, L. R. Raters, ratees, and randomness in personality structure. Journal of Personality and Social Psychology, 1966, 4, 681-691.

Results of a Monte Carlo study suggest that factor structures obtained in peer rating studies may depend entirely on the "implicit personality theory" of the rater.

120. O'Connor, W. F., & Berkshire, J. R. Comparison of the pre-flight OLQ grade and the leadership peer rating as predictors of training failure (58-16). Naval Aviation Medical Center, Pensacola, Florida: U.S. Naval School of Aviation Medicine, June 1958.

Leadership peer ratings of Naval Air Cadets predicted subsequent training failure better than did a composite of military gardes and leadership ratings by both peers and instructors.

121. Pascarella, E. T. Informal interaction and faculty perceptions of students. Journal of College Student Personnel, 1975, 16, 131-136.

Self and peer personality ratings of college students were more positive (lenient) than the personality ratings provided by faculty. Faculty ratings were higher for students with whom they had more informal interaction.

122. Passini, F. T., & Norman, W. T. A universal conception of personality structure. Journal of Personality and Social Psychology, 1966, 4, 44-49.

The authors gathered self and peer personality ratings of college students who had known each other for only 15 minutes. The self and peer ratings showed very little correspondence. A factor analysis of the peer ratings revealed the same five factors previously reported by Tupes and Christal (1958). The authors speculate that persons may enter a rating situation with a common "implicit personality theory" on which they base their ratings.

123. Passini, F. T., & Norman, W. T. Ratee relevance in peer nominations. Journal of Applied Psychology, 1969, 53, 185-187.

This paper discusses the use of a statistic for estimating the degree to which peer nominations reflect characteristics of the ratee. The authors conclude that this index of ratee relevance has potential use in the evaluation of peer nomination scales.

124. Pease, D. Comparing faculty and school supervisor ratings for education students. College Student Journal, 1975, 9, 91-94.

Instructor, supervisor, peer, and self ratings of education students intercorrelated highly. Also, global peer ratings of performance showed good interrater reliability.

125. Pepinsky, P. N. The meaning of "validity" and "reliability" as applied to sociometric tests. Educational and Psychological Measurement, 1949, 9, 39-49.

The terms "validity" and "reliability" are defined in a sociometric context, with discussion applicable to peer ratings.

126. Powell, M. G. Comparisons of self rating, peer ratings, and expert's ratings of personality adjustment. Educational and Psychological Measurement, 1948, 8, 225-234.

Little agreement was found between self, peer, and counselor ratings of maladjustment symptoms in college coeds.

127. Prien, E. P., & Lee, R. J. Peer ratings and leaderless group discussion for evaluation of classroom performance. Psychological Reports, 1965, 16, 59-64.

Peer ratings of group behavior in a classroom setting showed low interrater reliability over several weeks, while test-retest reliability was higher. A factor analysis of the peer ratings revealed the following factors: overall effectiveness (general factor), interpersonal effectiveness, and productivity. The "interpersonal relations" scale scores of the peer ratings correlated highly with class test grades.

128. Prien, E. P., & Woodley, K. Note on reliability of peer ratings of classroom performance. Psychological Reports, 1971, 28, 89-90.

Results of this study indicated that the interrater reliability of peer ratings increased with the amount of time group members were exposed to each other.

129. Ramey, V. W. The relationship of peer group rating to certain individual perceptions of personality. Journal of Experimental Education, 1958, 27, 143-149.

Graduate students rated themselves, members of their immediate peer group, and persons with whom they were less well acquainted on items selected from the California Psychological Inventory. Persons rated themselves more like members of their peer group than like members of the "more distant" group.

130. Reynolds, H. H. Efficiency of sociometric ratings in predicting leadership success. Psychological Reports, 1966, 19, 35-40.

Air Force ROTC student peer ratings of leadership ability showed good validity in predicting subsequent leadership performance as measured by staff officer ratings.

131. Ricciuti, H. N. Ratings of leadership potential at the U.S. Naval Academy and subsequent officer performance. Journal of Applied Psychology, 1955, 39, 194-199.

Positive but low correlations were obtained between peer ratings of Naval Academy students' "aptitude-for-service" and post graduate on-the-job performance.

132. Ricciuti, H. N., & French, J. W. Analysis of ratings of leadership potential at the U.S. Naval Academy. American Psychologist, 1951, 6, 392.

Peer and supervisory ratings of leadership potential of Naval Academy cadets were found to be suitable criteria for test validation purposes.

133. Rigby, M. K., Hoffman, E. L., Rohrer, J. H., & Wilkins, W. Three approaches to peer evaluation. American Psychologist, 1953, 8, 421.

Using Marine Corps enlisted men as subjects, three approaches to peer evaluations were compared: rankings; sociometric questionnaires; and behaviorally-anchored peer rating scales. The three methods correlated highly with each other and with staff ratings.

134. Roadman, H. E. An industrial use of peer ratings. Journal of Applied Psychology, 1964, 48, 211-214.

Peer ratings of middle-level managers successfully predicted subsequent promotions, and participating managers viewed the peer rating experience as educational, constructive, and non-threatening.

135. Rokeach, M., Gladin, L., & Trumbo, D. A. Two validation studies with high and low dogmatic groups. In M. Rokeach (Ed.), The open and closed mind. New York: Basic Books, 1960, p.p. 105-124.

These studies found that peer ratings provided a better assessment of student characteristics than did ratings by faculty members, presumably because students had more opportunity to observe their peers in unstructured situations.

136. Ronan, W. W., Anderson, C. L., & Talbert, T. L. A psychometric approach to job performance: Firefighters. Public Personnel Management, 1976, 5, 409-422.

Peer and supervisory ratings of firefighters did not correlate well with each other or with objective performance tests, though the ratings did show good within-group inter-rater reliability. Because of low correlations between ratings and performance tests, the authors conclude that peer and supervisory ratings are useful only for tapping dimensions not assessed by performance tests, such as motivational and interpersonal aspects of job performance.

137. Roodin, P. A. Birth order and cooperativeness: Peer ratings. Psychological Reports, 1971, 29, 590.

College student peer ratings of cooperativeness correlated near zero with the birth order of the ratee.

138. Rossman, J. E. Teaching, publication, and rewards at a liberal arts college. Improving College and University Teaching, 1976, 24, 238-240.

In this study, peer ratings of college instructors were not related to academic rank and correlated only minimally with salary, while students' ratings were not related to either rank or salary. Peer and student ratings did correlate highly.

139. Rubinstein, E. A. Analysis of self and peer personality ratings of psychotherapists and comparison with patient ratings. Journal of Consulting Psychology, 1958, 22, 10.

This paper presents evidence suggesting that peer ratings of personality traits by psychotherapists are based on more general factors than are their ratings.

140. Saal, F. E., & Landy, F. J. The mixed standard rating scale: An evaluation. Organizational Behavior and Human Performance, 1977, 18, 19-35.

Peer and supervisory ratings of police officer job performance were gathered, using both behaviorally anchored scales and mixed standard scales. Ratings obtained from the mixed standard scales showed less halo and leniency error, but also lower interrater reliability.

141. Schmidt, F. L., & Johnson, R. H. Effect of race on peer ratings in an industrial situation. Journal of Applied Psychology, 1973, 57, 237-241.

Peer ratings were gathered from foreman trainees who had undergone human relations training. The peer ratings showed no racial bias and also possessed good convergent and discriminant validity, thus suggesting that peer ratings may be useful in racially integrated groups.

142. Schmitt, N., & Hill, T. E. Sex and race composition of assessment center groups as a determinant of peer and assessor ratings. Journal of Applied Psychology, 1977, 62, 261-264.

This study investigated racial and sex bias in peer ratings of managerial candidates at an assessment center. Results suggested a small degree of bias, dependent on the racial and sex composition of the assessee group.

143. Schumacher, C. F. A factor-analytic study of various criteria of medical student accomplishment. Journal of Medical Education, 1964, 39, 192-196.

Several measures of medical school performance were intercorrelated and factor analyzed, including grades, National Board Examination test scores, and peer ratings. Almost all criteria loaded highly on a "general medical knowledge" factor, but peer ratings loaded on a factor termed "skill in relationships with patients."

144. Simpson, R. H. Rating patterns for maximizing competition and minimizing number of comparative judgments necessary for each rater. Journal of Applied Psychology, 1953, 37, 290-292.

This paper presents patterns for assigning ratees to raters for use in situations where a large number of individuals in a group prevents all persons from rating all others.

145. Smith, G. M. Usefulness of peer ratings of personality in educational research. Educational and Psychological Measurement, 1967, 27, 967-984.

Peer ratings of college students on personality traits, especially ratings of strength of character, were shown to have both good interrater reliability and good predictive validity for academic success. Also, the peer nomination technique is discussed, and a factor analysis of the 42 personality variables rated is presented.

146. Springer, D. Ratings of candidates for promotion by co-workers and supervisors. Journal of Applied Psychology, 1953, 37, 347-351.

Peer and supervisory ratings of the promotability of industrial workers showed a low, positive correlation with subsequent promotions. Interrater agreement between supervisors was much higher than between peers. Supervisory ratings tended to be lower than peer ratings, and both groups provided lower ratings on global criteria than on the more specific dimensions.

147. Stahl, M. J. Innovation and productivity in research and development: Some associated individual and organizational variables (AFIT-TR-76-10). Wright-Patterson Air Force Base, Ohio: Air Force Institute of Technology, 1976.

Peer ratings of innovation and productivity by scientists and engineers were used as criteria for assessing the effects of organizational variables on performance in research and development laboratories.

148. Stefflre, B., King, P., & Leafgren, F. Characteristics of counselors judged effective by their peers. Journal of Counseling Psychology, 1962, 9, 335-340.

Highly reliable peer ratings of counseling effectiveness were obtained from counselors using a Q-sort technique. Those persons rated most favorably by their peers were shown to have higher academic performance, vocational interests more congruent with their position, and lower scores on a dogmatism scale than those rated lower.

149. Suci, G. J., Vallance, T. R., & Glickman, A. S. A study of the effects of "likingness" and level of objectivity on peer rating reliabilities. Educational and Psychological Measurement, 1955, 16, 147-152.

Neither administering a popularity questionnaire before gathering the peer ratings nor varying the objectivity of the rating scales had a significant effect on the reliability of Naval OCS candidate peer ratings.

150. Swanson, R. G., & Johnson, D. A. Relation between peer perception of leader behavior and instructor-pilot performance. Journal of Applied Psychology, 1975, 60, 198-200.

Peer ratings of Air Force instructor pilots on the Consideration and Structure leadership dimensions correlated significantly with a composite performance criterion.

151. Titus, H. E. The use of peer nominations as a predictor of academic success in college. Journal of Experimental Education, 1969, 37, 63-66.

High interrater reliabilities were obtained for peer ratings of college students' academic potential, and the ratings successfully predicted grade point average.

152. Trites, E. K. Adaptability measures as predictors of performance ratings. Journal of Applied Psychology, 1960, 44, 349-353.

Peer ratings of Air Force pilot trainees, in combination with supervisory ratings and expert ratings by psychologists of motivation, aptitude, and personality traits, successfully predicted subsequent performance as an officer.

153. Tucker, M. F., Cline, V. B., & Schmitt, J. R. Prediction of creativity and other performance measures from biographical information among pharmaceutical scientists. Journal of Applied Psychology, 1967, 51, 131-138.

This study found that peers and supervisors based their creativity ratings of pharmaceutical scientists on different factors.

154. Tuddenham, R. D. Studies in reputation: I. Sex and grade differences in school children's evaluations of their peers. II. The diagnosis of social adjustment. Psychological Monographs, 1952, 66(1).

School children's peer ratings of reputation successfully predicted subsequent social adjustment.

155. Tupes, E. C. Relationships between ratings by peers and later performance of USAF Officer Candidate School graduates (AFPTRC-TN-57-124, AD-134 257). Lackland Air Force Base, Texas: Air Force Personnel and Training Research Center, October 1957.

A composite of peer ratings of personality traits by Air Force OCS candidates correlated very highly with subsequent Officer Effectiveness Reports. The peer ratings showed higher validity than two other predictors, military and academic grades, but predictive validity was highest when all three of these predictors were used together.

156. Tupes, E. C. Personality trait related to effectiveness of junior and senior Air Force officers (WADC-TN-59-198, 231 256). Lackland Air Force Base, Texas: Personnel Laboratory, Wright Air Development Center, November 1959.

This study extends the findings of Tupes and Christal (1958) to senior officers. Results indicated a common factor structure underlying the personality trait peer ratings of junior and senior Air Force officers. The peer ratings of the senior officers successfully predicted subsequent performance, as was the case for junior officers.

157. Tupes, E. C., Borg, W. R., & Friedman, G. A factor analysis of the OCS paired comparison evaluation system (Technical Report 53-10). Lackland Air Force Base, Texas: Human Resources Research Center, Air Research and Development Command, June 1953.

This report describes a factor analysis of paired comparison peer evaluations made by Officer Candidate School students. High correlations between dimensions led to a large general factor and the authors therefore suggested using the paired comparison technique only for an evaluation of overall performance.

158. Tupes, E. C., & Christal, R. E. Stability of personality trait rating factor obtained under diverse conditions (WADC-TN-58-61, AD-151 041). Lackland Air Force Base, Texas: Personnel Laboratory, Wright Air Development Center, May 1958.

A five factor structure (surgency, agreeableness, dependability, emotional stability, and culture) underlying personality peer ratings was found to be invariant across different samples, raters, situations, and rater-ratee acquaintance time.

159. Tupes, E. C., & Christal, R. E. Recurrent personality factors based on trait ratings (ASD-TR-61-97, AD-267 778). Lackland Air Force Base, Texas: Personnel Laboratory, Aeronautical Systems Division, May 1961.

Personality trait ratings from several studies yielded the same five factors: surgency, agreeableness, dependability, emotional stability, and culture.

160. Tupes, E. C., & Kaplan, M. N. Similarity of factors underlying peer ratings of socially acceptable, socially unacceptable, and bipolar personality traits (ASD-TN-61-48, AD-266 861). Lackland Air Force Base, Texas: Personnel Laboratory, Aeronautical Systems Division, June 1961.

Peer ratings of students at the Air Force Command and Staff School were factor analyzed and the resulting factors were very similar to the Tupes and Christal (1958) factors.

161. Tupes, E. C., & Kaplan, M. N. Relationships between personality traits, physical proficiency, and cadet effectiveness reports of Air Force Academy cadets (ASD-TN-61-53, AD-264 916). Lackland Air Force Base, Texas: Personnel Laboratory, Aeronautical Systems Division, September 1961.

Personality trait peer ratings of Air Force cadets, officer candidates, and officers all correlated highly with performance. Factor analysis of the peer ratings revealed underlying factors similar to those identified previously by Tupes and Christal (1958) with a sixth factor, physical ability, emerging probably because rating scales related to physical skills were added to those employed by Tupes and Christal.

162. Turk, H. Instrumental and expressive ratings reconsidered. Sociometry, 1961, 24, 76-81.

This study showed that student nurse raters identifying highly with a task tended to rate peers who also identified highly with the task as more physically attractive than peers who identified less highly with the task.

163. Walder, L. O., Abelson, R. P., Eron, L. D., Banta, T. J., & Laulicht, J. H. Development of a peer rating measure of aggression. Psychological Reports, 1961, 9, 497-556.

This paper discusses the development of a peer rating scale to measure aggression in grade-school children. The scale showed a moderate degree of interrater reliability.

164. Waters, L. K., & Waters, C. W. Peer nominations as predictors of short-term sales performance, Journal of Applied Psychology, 1970, 54, 42-44.

Peer ratings of sales trainees successfully predicted subsequent sales performance and peer rating-performance relationships were not affected by friendships among the trainees.

165. Webb, W. B. Self-evaluation compared with group evaluations. Journal of Consulting Psychology, 1952, 16, 305-307.

Peer and self ratings of personality traits by college students correlated minimally. Individuals tended to evaluate themselves especially positively on traits the group valued highly.

166. Webb, W. B. The problem of obtaining negative nominations in peer ratings. Personnel Psychology, 1955, 8, 61-64.

This paper suggests that positive nominations provide most of the predictive power in peer evaluations, and argues that in many cases negative nominations need not be solicited.

167. Weitz, J. Selecting supervisors with peer nominations. Personnel Psychology, 1958, 11, 25-36.

Peer ratings of the supervisory potential of life insurance agents successfully predicted subsequent performance as a supervisor.

168. Wherry, R. J., & Fryer, D. H. Buddy ratings: Popularity contest or leadership criteria? Personnel Psychology, 1949, 2, 147-159.

Peer ratings of the leadership potential of Army OCS candidates were shown to be better predictors of subsequent leadership performance than ratings by instructors. The study also showed peer ratings to be highly reliable.

169. Wherry, R. J., Stander, N. E., & Hopkins, J. J. Behavior trait ratings by peers and references (WADC-TR-59-360, AD-239 098). Lackland Air Force Base, Texas: Personnel Laboratory, Wright Air Development Center, December 1959.

This study showed that ratings of OCS applicants by persons listed as references on their applications possessed poor interrater reliability and validity. The authors suggest that peer ratings are a more useful assessment approach than are references.

170. Wicas, E. A., & Mahan, T. W., Jr. Characteristics of counselors rated effective by supervisors and peers. Counselor Education and Supervision, 1966, 6, 50-56.

Counselors rated as highly competent by their peers scored more favorably on personality self-report measures than did counselors rated lower in competence.

171 Wiggins, N., Blackburn, M., & Hackman, J. R. Prediction of first-year graduate success in psychology: Peer ratings. Journal of Educational Research, 1969, 63, 81-85.

Peer ratings of personality traits and intellectual qualities by beginning graduate students successfully predicted first-year grade point average.

172. Williams, J. F., Meyerson, L. J., & Eron, L. D. Peer-rated aggression and aggressive responses elicited in an experimental situation. Child Development, 1967, 38, 181-190.

Peer ratings of aggression by grade-school children successfully predicted aggressive behavior in an experimental setting.

173. Williams, S. B., & Leavitt, H. J. Group opinion as a predictor of military leadership. Journal of Consulting Psychology, 1947, 11, 283-291.

Peer ratings of the leadership ability of Marine Corps OCS candidates predicted subsequent OCS success and combat performance better than did objective tests or supervisory ratings.

174. Willingham, W. W. Estimating the internal consistency of mutual peer nominations. Psychological Reports, 1959, 5, 163-167.

This paper presents a technique for assessing the internal consistency of peer nominations. The article addresses itself in particular to the "blank diagonal" problem in peer rating matrices, which results from the absence of self-rating data.

175. Willingham, W. W. On deriving standard scores for peer nominations with subgroups of unequal size. Psychological Reports, 1959, 5, 397-403.

This paper addresses statistical problems that occur as a result of using peer nominations with groups varying in size.

176. Winch, R. F., & Anderson, R. B. W. Two problems involved in the use of peer rating scales and some observations on Kendall's coefficient of concordance. Sociometry, 1967, 30, 316-322.

This study examined college student peer ratings of personality and concluded that at least 10 raters per ratee were required to bring the reliability of the ratings to a sufficiently high level. Statistical issues in assessing the reliability of peer ratings are also discussed in the paper.

177. Wodder, N. C., & Hall, W. E. An analysis of peer ratings. Personnel and Guidance Journal, 1962, 40, 606-609.

Peer ratings of personality traits by college students showed good test-retest reliability over a 2-year period.

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