

Verbal listening skill in the interview and personal characteristics of the listeners

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Verbal listening skill test scores were found to correlate significantly ($N = 29$, $p < .05$) and positively with scores on three tests of the Employee Aptitude Survey Battery: verbal comprehension ($r = .46$), numerical reasoning ($r = .36$), and verbal reasoning ($r = .42$). The multiple correlation of .52 was achieved when either reasoning test score was combined with the verbal comprehension test score to predict verbal listening accuracy. There were no significant correlations ($N = 44$) with verbal listening accuracy for the scales of the Guilford-Zimmerman Temperament Survey, the Thurstone Interest Schedule, or the Taylor Manifest Anxiety Scale.

From the interviewer's perspective, the process of employment interviewing consists of four sequential psychological steps: exposure to relevant information about the applicant, perception of the information, recall or recognition of the information during evaluation, and inferring from the recalled material what relevant job behaviors are likely to result (Wherry, Note 1). Any inefficiency in an early step limits the quality of performance in a later step. Efficiency in the exposure step can be carefully controlled by requiring interviewers to use a carefully prepared and pretested list of questions in a structured interview format (Schuh, 1978b). The perception of the relevant applicant verbal report in response to the pretested questions is then largely dependent upon the interviewer's verbal listening skill. Regardless of the interviewer's level of capacity for listening, any preoccupation of the interviewer with non-task-relevant cues could clutter primary memory and interfere with the perception of the applicant's verbal report or could mingle the incoming trace with the material of preoccupation and thereby change the applicant's information before it is needed for the later steps of recall and prediction. At this time it could well be that the greatest progress toward improvements in the quality of selection interviews could be if investigators would develop and refine notions regarding the listening accuracy of the interviewers.

There is an extensive literature on listening behavior (cf. Devine, 1967; Duker, 1964; Nichols & Stevens, 1957; Sticht, 1968). There are hundreds of suggestions on how to get people to listen better (Russell & Russell, 1959). A theoretical model has been suggested by Atkinson and Shiffrin (1968), who regard verbal listening skill as an automatic process, as is reading, that has developed following the prior utilization of what they

call "controlled sequences." The exact nature of these controlled sequences and what constitutes the necessary and sufficient mental operations to gauge capacity and efficiency of the verbal listening apparatus of human adults is not clear. It would appear that a contribution could be made if the basic psychometric abilities, traits, or other characteristics of human subjects that relate to high or low performance in listening activities, such as selection interviews, were to be identified.

Early literature suggested that interest and curiosity in people (Wonderlic, 1942), adaptability to social situations, ability to maintain an objective viewpoint (Bellows & Estep, 1954), and permissiveness, receptivity, empathy, and sensitivity to human relationships (Kahn & Cannell, 1957) were desirable traits in interviewers. While one might assume that people with a calm and patient disposition who are interested in other people and are of a heightened drive level might be better listeners, there is no evidence for these conjectures. If personality, interest, or drive measures do correlate with verbal listening skill, such relationships await demonstration.

The highest payoff to research on employment interviewing could well be a better understanding of the capacity and/or efficiency of the interviewer's verbal listening skill mechanisms. One approach might be to provide participants various factor-pure problem sets and to determine the parameters of functioning on those sets. One could then compare those indicators of efficiency with the capacity for verbal listening skill as demonstrated on a work sample that matches the type of realistic demands made upon interviewers. The purpose of this paper is to report the findings of such a study.

METHOD

Participants

Participants were students ($N = 73$) enrolled in three sections of a course in personnel evaluation. The course was required

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of undergraduates in the personnel/industrial relations major and consisted of lectures, discussions, and work samples.

Apparatus

The apparatus consisted of a Sony tape deck with a 21-in. Setchel-Carlson monitor. The audiovideo tape used in this study was a broadcast-quality employment interview of an applicant dressed casually and seated across from an off-camera interviewer.

Instruments

Five separate categories of paper-and-pencil instruments were used in this research. Four of the instruments were used as a predictor battery, and the fifth instrument was the criterion.

(1) The 10 aptitude tests of the Employee Aptitude Survey (Ruch & Ruch, 1963): the mental abilities measured were verbal comprehension, numerical ability, visual pursuit, visual speed and accuracy, space visualization, numerical reasoning, verbal reasoning, word fluency, manual speed and accuracy, and symbolic reasoning. The battery offered several desirable features: short time limits, ease of administration, scoring, and interpretation.

(2) The Guilford-Zimmerman Temperament Survey (Guilford & Zimmerman, 1949): this survey appeared to be the most comprehensive and scientifically developed of the available self-report inventories for a business-oriented student population. The inventory consisted of 10 traits: general activity, restraint, ascendance, sociability, emotional stability, objectivity, friendliness, thoughtfulness, personal relations, and masculinity.

(3) The Thurstone Interest Schedule (Thurstone, 1947): this instrument was selected over the many in its category because of its ease of administration and scoring. It was believed that the sample to be tested was sufficiently sophisticated that any of the better schedules would produce the same results. Further, the author was interested in raw scale scores and not in indexed profiles for occupations that most of the other inventories provide. The inventory is a self-report forced-choice measure that yields an indication of interest in 10 occupational fields: physical science, biological science, computational, business, executive, persuasive, linguistic, humanitarian, artistic, and musical.

(4) The Taylor Manifest Anxiety Scale (Taylor, 1953) was employed as a measure of nonspecific drive.

(5) Verbal listening accuracy skill was measured with a 25-item multiple-choice test based on the transcript of the interview. The interview itself was between the author and a 26-year-old male who was completing the requirements of an MBA and was applying for a general management position.

Procedures

The students were divided into two separate groups. One group ($N = 44$) was administered the personality and interest inventories. The other group ($N = 29$) was administered the aptitude battery and anxiety scale. The participants were given all tests, including the verbal listening accuracy test, during class time and in their classroom setting. These exercises were like many others during the quarter that were designed to give students a realistic view of what practicing personnel people typically do.

On the day the verbal listening accuracy test was administered, the apparatus was positioned in the classroom. General introductory remarks were made by the professor. The activity was introduced. A copy of the interview question-asking guide was provided, and the taking of notes was encouraged. The equipment was then operated, and the interview was seen by the students. After viewing the 12-min interview, the students put all of their materials aside and were handed the 25-item test based on the transcript of the interview. Students had to take the test from memory.

RESULTS

Only three correlations between the 31 scales of the predictor battery and the verbal listening accuracy test score criterion were significant at the conventional .05 level with two-tailed t tests. The significant correlations ($N = 29$, $p < .05$) were all from the Employee Aptitude Survey and were: Test 1, verbal comprehension ($r = .46$); Test 6, numerical reasoning ($r = .36$); and Test 7, verbal reasoning ($r = .42$). The multiple correlation was .52 when the test of verbal comprehension was combined with either reasoning test against the verbal listening accuracy test score.

DISCUSSION

The aptitude tests that correlated positively and significantly with verbal listening accuracy were the following: (1) Verbal comprehension, which deals with the ability to understand words and to use words. People who are high in this ability are better able to understand spoken communication and to make sense out of verbal material. (2) Numerical reasoning, which measures the ability to do inductive reasoning and to analyze and see underlying principles. People who are high in this ability are better at making sense out of material in terms of overall trends, rather than merely performing simple operations. (3) Verbal reasoning, which measures the ability to use sound logic and judgment in drawing conclusions from available information and to analyze information in order to make practical decisions.

The results for two of the tests were comparable to those reported by Soon (1974), who measured the relationship between the two aptitude measures of numerical reasoning and verbal reasoning with the same test of verbal listening accuracy employed in this study for a group of graduate students. Thus, two studies have found a potential for identifying good listeners with the use of these two paper-and-pencil reasoning tests. The results might partially explain why a brief experimental procedure worked for Penfield and Marascuilo (1972). A content analysis of their criterion and an examination of their procedure showed many common elements with the three aptitude correlates of listening accuracy found in this research.

It should be possible to select better interviewers by using a combination of the verbal comprehension test and either the verbal reasoning test or the numerical reasoning test. Thus, one can select interviewers with a great deal less effort than had been suggested elsewhere (Schuh, 1978c, 1979), where a measure of accomplishment in a training program was necessary to identify the better listeners.

It would appear that occupational interests, drive level, and personal temperament are not related to the efficiency or capacity of the verbal listening mechanism. These findings received some support from other literature. Schuh (1978a) found the occupational classifications of managers and employment interviewers did not differ in verbal listening accuracy. Drive level as measured by the Taylor Manifest Anxiety Scale in this study may have had the same shortcoming as the life stress measure used by Siegel and Loftus (1978). It is apparently not a general stress or drive level in itself that interferes with primary memory, but rather the extent of preoccupation of the person's primary memory with non-task-relevant cues that might interfere with both the aptitude and verbal listening skill measures used in this study. Possibly, the work of Singer (1975) can explain the dimensions of the problem. Perhaps one could attempt to reduce preoccupation with non-task-relevant cues as an indirect way of increasing the efficiency of primary

memory. Of course, the personality, interest, and drive characteristics of interviewers could still be important for some other aspect of interview behavior, but they do not relate to verbal listening skill as measured in this study.

Certainly, a concern for anyone working in this area is the paper-and-pencil method-bound nature of the research. Also, the data sought tend to tap only the lowest levels of cognitive ability (Bloom, 1956). The greatest concern of all, of course, is that the major factor in applicant evaluation remains the quality of mental capacity of the decision maker. Applicants should be cautioned to choose their interviewers carefully.

REFERENCE NOTE

1. Wherry, R. J. *The control of bias in ratings: VII. A theory of rating* (Department of the Army, Project No. 29545100, Sub-task 75, Sub-project 9, Personnel Research Report No. 922). Columbus, Ohio: Ohio State University Research Foundation, February 1952.

REFERENCES

- ATKINSON, R. C., & SHIFFRIN, R. M. Human memory: A proposed system and its control processes. In K. W. Spence & J. T. Spence (Eds.), *The psychology of learning and motivation: Advances in research and theory* (Vol. 2). New York: Academic Press, 1968.
- BELLows, R. M., & ESTEP, M. F. *Employment psychology: The interview*. New York: Rinehard, 1954.
- BLOOM, B. S. (Ed.). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York: David McKay, 1956.
- DEVINE, T. G. Listening. *Review of Educational Research*, 1967, **37**, 152-158.
- DUKER, S. Listening. *Review of Educational Research*, 1964, **34**, 156-163.
- GUILFORD, J. P., & ZIMMERMAN, W. S. *The Guilford-Zimmerman Temperament Survey manual of instructions and interpretations*. Beverly Hills, Calif: Sheridan Supply, 1949.
- KAHN, R. L., & CANNELL, C. F. *The dynamics of interviewing: Theory, techniques, and cases*. New York: Wiley, 1957.
- NICHOLS, R. G., & STEVENS, L. A. *Are you listening?* New York: McGraw-Hill, 1957.
- PENFIELD, D. A., & MARASCULO, L. A. Learning to listen: An experimental study. *Educational Research*, 1972, **14**, 220-224.
- RUCH, F. L., & RUCH, W. W. *Employee Aptitude Survey: Technical report*. Los Angeles: Psychological Services, 1963.
- RUSSELL, D. H., & RUSSELL, E. F. *Listening aids through the grades: One hundred ninety listening activities*. New York: Teachers College Press, Teachers College, Columbia University, 1959.
- SCHUH, A. J. Effects of an early interruption and note taking on listening accuracy and decision making in the interview. *Bulletin of the Psychonomic Society*, 1978, **12**, 242-244. (a)
- SCHUH, A. J. Effects of variations in three interviewer aids on evaluations of a job applicant. *JSAS Catalog of Selected Documents in Psychology*, 1978, **8**, 21. (Ms. No. 1659) (b)
- SCHUH, A. J. Predicting listening accuracy in the interview with training scores. *Bulletin of the Psychonomic Society*, 1978, **11**, 281-282. (c)
- SCHUH, A. J. Effect of procedures for clarifying the criterion setting on listening accuracy in the interview. *Bulletin of the Psychonomic Society*, 1979, **13**, 263-264.
- SIEGEL, J. M., & LOFTUS, E. F. Impact of anxiety and life stress upon eyewitness testimony. *Bulletin of the Psychonomic Society*, 1978, **12**, 479-480.
- SINGER, J. L. Navigating the stream of consciousness: Research in daydreaming and related inner experience. *American Psychologist*, 1975, **30**, 727-738.
- SOON, D. L. *Effects of interviewer aptitudes and interviewer trait ratings on the evaluation of a job applicant in the selection interview*. Unpublished Master's thesis, California State University, Hayward, 1974.
- STICHT, T. G. Some relationships of mental aptitude, reading ability, and listening ability using normal and time-compressed speech. *Journal of Communication*, 1968, **18**, 243-258.
- TAYLOR, J. A. A personality scale of manifest anxiety. *Journal of Abnormal and Social Psychology*, 1953, **48**, 285-290.
- THURSTONE, L. L. *Thurstone Interest Schedule manual*. New York: Psychological Corporation, 1947.
- WONDERLIC, E. F. Improving interviewing techniques. *Personnel*, 1942, **18**, 232-238.

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