

METHODOLOGICAL STUDY OF INTENSITY MEASUREMENT

S-215 A & B

1. PURPOSE

To throw light on the following problems:

- (a) Previous analysis had failed to disprove the hypothesis that any selection of questions concerning a single variable would yield the same zero-point, regardless of the marginals of the questions selected. It would follow from this that any two single variables which would scale together must have the same zero-point. Two variables were selected for this problem, which were felt would scale together, but which there was some reason to believe should not yield the same zero-point. The two scales used in this problem were:

- (1) Attitude toward the Idea of the Army Score Card Plan (Qs. 6-7, 9-15).
- (2) Attitude toward the Administration of the Army Score Card Plan (Qs. 8, 16-19).

Note: These questions were the same on forms A & B. All Questions consisted of two parts: (a) content and (b) intensity measured as strength of feeling.

- (b) A second problem included in the study was: Will a series of "biased" (i.e. one-sided) questions yield a different zero-point than a series of "unbiased" neutral questions? The scale used in this problem was:

- (1) Attitude toward the WAC

- (a) Form A: A series of one-sided "agree-disagree" statements (Qs. 47-53), two leading questions with unbalanced check lists (Qs. 54-55) and a neutral question (Q. 56).

Intensity was measured for the "agree-disagree" questions as both strength of feeling and degree of certainty, simultaneously. This was to permit a double measure of intensity.

- (b) Form B: A series of neutral questions, containing balanced check-lists. (Qs. 53-59).

- (c) A third problem covered in the study was this: Is there a zero-point in the psychoneurotic inventory? How does this zero-point compare to the present cutting point for screening psychoneurotics? A zero-point would mean that we could speak of psychoneurotics vs. normals, while the absence of a zero-point would mean degrees of psychoneurosis only.

The scale used was the psychoneurotic inventory. This is in the ~~B Form~~ only (Qs. 38-52). The intensity was measured as difficulty

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(d) And, finally, the following four problems were also covered:

Notes: Previous analysis of the zero-point had been based upon samples of 300 cases. These small samples did not permit the study of the problems discussed below.

- (1) How reliably can the zero-point be determined from an analysis of only respondents with low intensity (or equal positive and negative intensity)?
- (2) How does the zero-point vary with different sub-population. For example, can uneducated respondents understand what is wanted by the questions on intensity? How does the zero-point shift in sub-groups with different degrees of favorableness? How well can one control on "general" intensity?
- (3) To what extent can the zero-point be determined from only one or two questions, with five category content and intensity checklists?
- (4) How sensitive to sampling error is the zero-point? Do deviations of the medians from the hypothesized curves disappear with large samples?

The following scales were used in these problems:

- (1) Aggression against the Army. In both forms A & B (Qs. 26-37).
- (2) Job Satisfaction. In Form A only. (Qs. 38-46) A new five-point checklist is used to determine strength of feeling.
- (3) Attitude toward conscription (Qs. 57-61 in A Form; 60-64 in B Form). Previous surveys showed that the order of one of the questions in this scale has a large effect on its marginal. This order was varied in Form A (Qs. 57-58) and Form B (Qs. 60-61) to study what effect this had upon intensity.
- (4) Attitude toward Officers
- (5) Personal Adjustment

Several of the more sensitive questions, as determined from previous surveys, were included for these two scales in order to permit further study of the intensity function by means of single questions.

2. DATE OF ADMINISTRATION

June, 1945

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3. SAMPLE

A total of 3,615 white enlisted men: 1,849 men took the A Form and 1,766 men took the B Form. The sample included Returnees and II men, hospital patients, permanent party men, trainers and trainees in 4 ASF, 2 AGF, and 2 AAF installations in Eastern United States.

4. SCALES AND SCORES

A Form, Card I & II combined:

- (a) Aggression against Army (Intensity) (Qs. 26b, 28b, 29b, 30b, 31b, 33b, 34b, 35b, 36b, 37b) punched in Col. 70.
- (b) Aggression against Army (content) (Qs. 26a, 28a, 29a, 30a, 31a, 33a, 34a, 35a, 36a, 37a) punched in Cols. 72-73.
- (c) Attitude toward WAC (FOB Intensity) (Qs. 47a-b, 48a-b, 49a-b, 50a-b, 51a-b, 52a-b, 53a-b, 54a-b, 55a-b) punched in Cols. 74-75.
- (d) Attitude toward Idea Score Card (content) (Qs. 6a, 7a, 9a, 10a, 11a, 12a, 14a, 15a) punched in Col. 76.
- (e) Attitude toward Idea Score Card (Intensity) (Qs. 6b, 7b, 9b, 10b, 11b, 12b, 14b, 15b) punched in Col. 77.
- (f) Attitude toward Administration of Army Score Card Plan (content) (Qs. 8a, 16a, 17a, 18a, 19a) punched in Col. 78.
- (g) Attitude toward Administration of Army Score Card Plan (Intensity) (Qs. 8b, 16b, 17b, 18b, 19b) punched in Col. 79.
- (h) General Intensity (Qs. 7b, 11b, 16b, 23b, 27b, 36b, 37b, 41b, 49b, 57b, 59b) punched in Col. 80.

B Form, Card I & II Combined:

- (a) Neuropsychiatric Inventory (15 item score) (Qs. 38a, 39a, 40a, 41a, 42a, 43a, 44a, 45a, 46a, 47a, 48a, 49a, 50a, 51a, 52a) punched in Cols. 76-77.
- (b) Neuropsychiatric Inventory (5 items score) (Qs. 40a, 42a, 48a, 49a, 52a) punched in Col. 78.
- (c) Neuropsychiatric Inventory (6 item score) (Qs. 39a, 41a, 42a, 44a, 46a, 49a) punched in Col. 79.
- (d) General Intensity (Qs. 7b, 11b, 16b, 23b, 27b, 36b, 37b, 58b, 59b, 61b, 62b) punched in Col. 80.

A & B Forms both, Special Card A and Special Card B:

- (a) Aggression against Army (content) (Qs. 26a, 28a, 29a, 30a, 31a, 33a, 34a, 35a, 36a, 37a) punched in Cols. 13-14.

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- (b) Aggression against Army (intensity) (Qs. 26b, 28b, 29b, 30b, 31b, 33b, 34b, 35b, 36b, 37b) punched in Col. 15.
- (c) Attitude toward Idea Score Card (content) (Qs. 6a, 7a, 9a, 10a, 11a, 12a, 14a, 15a) punched in Col. 16.
- (d) Attitude toward Idea Score Card (intensity) (Qs. 6b, 7b, 9b, 10b, 11b, 12b, 14b, 15b) punched in Col. 17.
- (e) Attitude toward Army Administration of Score Card Plan (content) (Qs. 8a, 16a, 17a, 18a, 19a) punched in Col. 18.
- (f) Attitude toward Army Administration of Score Card Plan (intensity) (Qs. 8b, 16b, 17b, 18b, 19b) punched in Col. 19.
- (g) General Intensity (Qs. 7b, 11b, 15b, 23b, 27b, 36b, 37b, 41b, 49b, 57b, 59b) punched in Col. 20.
- (h) Attitude toward WAC (content)
A Form (Qs. 47-55 a part) punched in Cols. 21-22.
B Form (Qs. 53-58 a part) punched in Col. 21.
- (i) Attitude toward WAC-B (intensity)
A Form (Qs. 47-49, 51-55 b part) punched in Col. 23.
B Form (Qs. 53-58 b part) punched in Col. 23.
- (j) Attitude toward WAC - FOB (intensity)
A Form (Qs. 47-55 a & b parts) punched in Cols. 24-25.
B Form (Qs. 53b, 54-58 a & b parts) punched in Cols. 24-25.
- (k) Attitude toward WAC (Foldover Intensity)
A Form (Qs. 47-55 a part) punched in Col. 26.
B Form (Qs. 53-58 a part) punched in Col. 26.
- (l) Attitude toward Conscription (content)
A Form (Qs. 57-61 a part) punched in Col. 29.
B Form (Qs. 60-64 a part) punched in Col. 29.
- (m) Attitude toward Conscription (intensity)
A Form (Qs. 57-61 b part) punched in Col. 30.
B Form (Qs. 60-64 b part) punched in Col. 30.

A Form only, Special Card A

- (a) Job Satisfaction (content) (Qs. 38-45 a part) punched in Col. 27.
- (b) Job Satisfaction (intensity) (Qs. 38-45 b part) punched in Col. 28.
- (c) Job Satisfaction
 - (1) Privates only (Qs. 39-44 a part) punched in Col. 35.
 - (2) Noncoms only (Qs. 38-44 a part) punched in Col. 35.

B Form only, Special Card B

- (a) Psychoneurotic Inventory (intensity) (Qs. 38-52 b part) punched in Cols. 31-32.

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- (b) Psychoneurotic Inventory (content) (Qs. 38-41 a part, 42a & b, 43-52 a part) Punched in Cols. 33-34.

5. ANALYSIS MATERIALS AVAILABLE

- (a) Field notes.
- (b) Questionnaires (1,849 of Form A and 1,766 of Form B).
- (c) 4 sets of IBM Punch Cards:
 - (1) One set labeled Methodological Study of Intensity Measurement S-215A, Card I and II combined, containing:
 - (a) Camp, force, questionnaire form, outfit and serial number (Cols. 1-5).
 - (b) Questions 1-61 (Cols. 6-69).
 - (c) Scales and Scores (Cols. 70-80).
 - (2) One set labeled Methodological Study of Intensity Measurement S-215A, Special Card, containing:
 - (a) Camp, force, questionnaire form, outfit and serial number (Cols. 1-5).
 - (b) Questions 1-5, 20 (Cols. 6-12).
 - (c) Scales and Scores (Cols. 15-35).
 - (3) One set labeled Methodological Study of Intensity Measurement S-215B, Card I & II combined, containing:
 - (a) Camp, force, questionnaire form, outfit and serial number (Cols. 1-5).
 - (b) Questions 1-64 (Cols. 6-75).
 - (c) Scales and Scores (Cols. 76-80).
 - (4) One set labeled Methodological Study of Intensity Measurement S-215B, Special Card, containing:
 - (a) Camp, force, questionnaire form, outfit and serial number (Cols. 1-5).
 - (b) Questions 1-5, 20 (Cols. 6-12).
 - (c) Scales and Scores (Cols. 15-34).
- (d) A serialization scheme which shows how to separate the cards into camps, forces, questionnaire forms and outfits.

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- (e) Gang punch schemes showing how each scale score was arrived at.
- (f) A copy of each form of the questionnaire (A & B) containing the marginal distribution of each question with the column number indicated and the card in which it can be found.
- (g) Photostat copies of the scale pictures.

6. STUDY ANALYSTS

Louis Guttman
Edward Suchman

7. REPORTS

C-133 Attitude toward Universal Military Training.

D-1 Experiments on the Measurement of the Intensity Function
and Zero-Point in Attitude Analysis.

8. NOTE

See also S-195 and S-229.

