AD-A125 756 THE MEASUREMENT OF MOTIVATIONAL STYLE: A FORMAT MODIFICATION(U) PENNSYLVANIA STATE UNIV UNIVERSITY PARK DEPT OF PSYCHOLOGY F J LANDY ET AL. MAR 83 82-2 1/1

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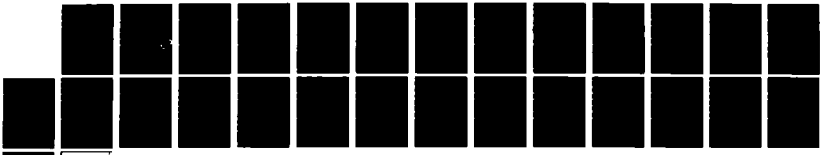

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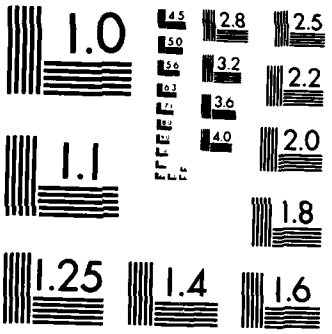

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REPORT DOCUMENTATION PAGE

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1. REPORT NUMBER: 82-2	2. GOVT ACCESSION NO.
3. RECIPIENT'S CATALOG NUMBER	
4. TITLE (and Subtitle): The Measurement of Motivational Style: A Format Modification (12)	5. TYPE OF REPORT & PERIOD COVERED: Technical Report
6. PERFORMING ORG. REPORT NUMBER	
7. AUTHOR(s): Frank J. Landy & Wendy S. Becker	8. CONTRACT OR GRANT NUMBER(s): N0014-31-K-0197
9. PERFORMING ORGANIZATION NAME AND ADDRESS: The Pennsylvania State University, Department Of Psychology, 450 Moore Building, University Park, Pa. 16802	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS: NR 170-926
11. CONTROLLING OFFICE NAME AND ADDRESS: Organizational Effectiveness Research Program, Office of Naval Research (Code 452), Arlington, VA. 22217	12. REPORT DATE: March, 1983 13. NUMBER OF PAGES: 25
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15. SECURITY CLASS. (of this report): Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

DTIC ELECTE MAR 15 1983 S H D

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Motivation
Work Motivation
Cognitive Adaptation
Cognitive Development
Need Theory
Equity Theory
Stimulus-Response

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The measurement of motivational style is extended within the framework of Adaptive Motivation Theory. The development of a revised measure using seven paragraph descriptions of motivational style is discussed. Response patterns for the seven styles are examined according to specific variables, such as age, gender, and occupation. The revised format is described as a more sensitive measure of motivational style, than an earlier version.

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S/N 0102-LF-014-6601

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A Format Modification

Technical Report, March, 1983

Frank J. Landy & Wendy S. Becker
The Pennsylvania State University

Research sponsored by Organizational Effectiveness Research Programs, Office of Naval Research (Code 452) under Contract No. N0014-81-K-0197; NR 170-926.

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THE MEASUREMENT OF MOTIVATIONAL STYLE: A FORMAT MODIFICATION

Frank J. Landy and Wendy Becker

The Pennsylvania State University

In an earlier Technical Report (January, 1983), we described our efforts to construct a measure of motivational style which would be sufficiently sensitive to serve as a major dependent variable for the examination of Adaptive Motivation Theory (Landy & Becker, 1981). A set of five paragraphs describing different motivational approaches was pilot tested on 431 individuals comprising 14 separate samples. On the basis of analyses of these data, we concluded that the paragraph set being used did not have the required sensitivity. In particular, greater differences were expected in responses when subgroups were formed on the basis of gender, age and work history.

The next step in the pilot research was to ask individual researchers who were familiar with the various motivational approaches being considered to comment on and edit the paragraphs in such a way that they more clearly represented a particular motivational position. Comments were received from numerous researchers and these comments were used to revise the paragraph descriptions. Appendix A lists the names of those researchers who suggested particular changes.

In revision, the paragraph set grew from 5 to 7 descriptions of motivational styles. In the initial set, one paragraph combined aspects of both trial and error learning and contingency theory. The former emphasizes experience and the latter, rewards. In addition, the original set of paragraphs included one description which combined the notion of Equity with the notion of Modeling. In the revised set of descriptions,

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one deals with learning from watching others and another deals with feelings of fairness or equity related to particular actions. The new paragraph descriptions appear in Appendix B. In addition to the construction of two new descriptions, the other descriptions were revised to take into account comments of the motivational researchers.

METHOD

Revised motivational style descriptions were administered to 241 subjects comprising two separate samples. One sample consisted of school teachers and the other enlisted personnel in the various branches of the armed services. The composition of the samples can be seen in Tables 1 & 2. Data were gathered from the teachers during an in-service day immediately preceding the beginning of the 1982 school year. The teachers represented all levels of primary and secondary education in one school district. Data were gathered from the enlisted personnel as part of a Human Relations training program which was being conducted at a Military base in Melbourne, Florida. The enlisted personnel completed the questionnaires during regular class periods.

RESULTS

There were a number of differences between various subgroups on various motivational style responses. In general, the revised paragraphs seemed to be more sensitive than the earlier versions. The results will be presented by categorical variable. For ease of description and discussion, each of the motivational styles will be assigned a label or title. The following labels will be used: Reward, Need, Modeling, Trial and Error, Equity, Random and Rational. The Random category describes an individual who characterizes him or herself and having no particular plan for making energy expenditure decisions. Decisions are made "on the spur of the moment."

In considering the tabled results, the reader should keep in mind that a low number indicates that the subject agrees with the paragraph as a description of how he or she makes decisions with respect to energy expenditure.

Age

Subjects were classified by age and the response patterns for each of the seven motivational measures were examined by age category. The age groups, cell sizes and means appear in Table 3. Age did appear to influence motivational style response. The oneway analysis of variance was significant for Need & Equity ($F=2.55$; 2.33; respectively; $p<.05$). The Welch procedure for testing the equality of means with unequal sample sizes and heterogeneous variances was applied to these two measures. Pairwise contrasts were performed on the main effects, using the Tukey WSD procedure for multiple comparisons of means. The results appear in Table 9. This allows the family-wise Type I error rate to be set at .05 (Games & Howell, 1976). For Need, there were two contrasts that were significant ($F=3.02$; $p<.01$). Age group #1 (ages 21-25) was significantly different from age group #5 (ages 41-49) on the Need measure. In addition, age group #2 (ages 26-30) was significantly different than age group #5 (ages 41-49).

The Equity measure revealed one significant contrast (See Table 10) between age groups ($F=2.23$; $p<.05$). Age group #5 (ages 41-49) was significantly different than age group #6 (ages 50-59) in response to Equity measure.

Total Work Experience

Subjects were categorized by number of total years of work experience. The group categories, cell sizes and means appear in Table 4. Work experience did influence motivational style response. The oneway analysis of variance

was significant for Random measure (F=2.69; p<.03). The Welch procedure was applied to motivational style Random. Two contrasts were significant (F=2.69; p<.03). Group #2 (those who worked for 6-9 years) responded significantly different from Group #3 (those who worked from 10-13 years). In addition, Group #4 (those who worked from 14-19 years) responded significantly different from Group #3 (those who worked 10-13 years). These results appear in Table 11.

Number of Fulltime Jobs

The number of jobs that a subject had held was used as a categorical variable. Four categories were formed. The category definitions, cell sizes and means appear in Table 5. There were no significant differences among the groups.

Number of Years With Current Employer

In order to examine the effects of the number of years with subjects' current employer, subjects were categorized into four groups. The group definitions, cell sizes and means appear in Table 6. Years with current employer did influence motivational style response. The oneway analysis of variance was significant for Reward (F=3.58; p<.005). The Welch procedure was applied to motivational style Reward measure. One contrast was significant (F=4.02; p<.008) (See Table 12). Group #1 (those who were employed 1-2 years with their current employer) differed significantly in their responses to measure #1 than did group #4 (those who were employed 16-32 years with their current employer).

Gender

Response patterns for males (n=120) were contrasted with those for females (n=121). Means and cell sizes appear in Table 7. Analysis of variance procedure was significant for motivational style measured Reward ($F=4.09$; $p<.04$). These results appear in Table 13.

Occupations

Response patterns were examined according to the subjects' occupation. The occupational groups, cell sizes and means appear in Table 8. The oneway analysis of variance was significant for style Reward ($F=7.59$; $p<.006$). These results appear in Table 14.

DISCUSSION

The purpose of the present analysis was to test the sensitivity of a measure of motivational style. It seems as if the 7 paragraph version of the motivational style measure is more sensitive than the earlier 5 paragraph version (Landy & Becker, TR-82-1). Both Need and Equity responses are affected by Age (Table 3); Random responses were influenced by Years of Work Experience (Table 4); Reward responses were affected by the Number of Years with the Current Employer (Table 7); Reward responses were influenced by Gender (Table 6); Reward responses were affected by Occupation (Table 8). One could reasonably expect motivational style to be affected by demographic characteristics such as gender, age and occupation. The fact that these results describe such effects is encouraging. It suggested to us that there might be value in considering a response format which allowed for variations within a motivational style. As a result of the present study, we began an examination of Likert-type response formats for measuring motivational style. This examination will be presented in the next Technical Report in this series (82-3).

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Table 1

Characteristics of Respondents (Frequencies)

Age	Number of Fulltime Jobs	Number of Years With Current Employer
21-25 (30)	1 (82)	< 1 (12)
26-30 (44)	2 (57)	1-2 (58)
31-35 (70)	3 (36)	3-9 (72)
36-40 (40)	4-20 (59)	10-15 (53)
41-49 (35)		16-32 (37)
50-59 (20)		

Sex	Number of Years of Total Employment
Males (120)	≤ 5 (53)
Females (121)	6-9 (49)
	10-13 (53)
	14-19 (41)
	20-35 (43)

Table 2

Composition of Samples of Respondents

and Sample Size

1. Army, Navy, Air Force and Coast Guard Military personnel (65)

2. School teachers (177)

Table 3

Motivational Style Responses by Age Category

Age	N	$\bar{X}$'s Reward	$\bar{X}$'s Need	$\bar{X}$'s Modeling	$\bar{X}$'s Trial & Error	$\bar{X}$'s Equity	$\bar{X}$'s Random	$\bar{X}$'s Rational
21-25	(30)	1.40	2.00	2.17	2.13	2.20	3.17	1.67
26-30	(44)	1.55	1.93	1.95	2.14	2.11	3.11	1.64
31-35	(70)	1.33	1.70	2.30	2.09	2.04	3.17	1.86
36-40	(40)	1.48	1.73	2.13	2.00	2.20	3.23	2.05
41-49	(35)	1.26	1.46	1.83	1.91	1.76	3.14	1.91
50-59	(20)	1.30	1.65	2.20	1.90	2.50	3.40	2.20

Table 4

Motivational Style Responses by Years of Work Experience

Total Years Work Experience	N	$\bar{X}$'s Reward	$\bar{X}$'s Need	$\bar{X}$'s Modeling	$\bar{X}$'s Trial & Error	$\bar{X}$'s Equity	$\bar{X}$'s Random	$\bar{X}$'s Rational
$\leq$ 5	(53)	1.40	1.96	2.21	2.09	2.19	3.02	1.74
6-9	(49)	1.51	1.71	2.02	2.18	2.14	3.67	1.86
10-13	(53)	1.40	1.74	2.13	2.15	1.98	2.98	1.85
14-19	(41)	1.32	1.76	2.32	1.78	2.13	3.37	1.93
20-35	(43)	1.30	1.53	1.91	1.98	2.00	3.26	1.98

Table 5

Motivational Style Responses by Number of Fulltime Jobs

Number of Jobs	N	$\bar{X}$'s Reward	$\bar{X}$'s Need	$\bar{X}$'s Modeling	$\bar{X}$'s Trial & Error	$\bar{X}$'s Equity	$\bar{X}$'s Random	$\bar{X}$'s Rational
1	(82)	1.29	1.66	2.07	2.06	1.99	3.13	1.83
2	(57)	1.39	1.89	2.07	1.86	2.26	3.04	1.86
3	(36)	1.56	1.61	2.19	2.14	2.06	3.31	2.06
4-20	(59)	1.44	1.81	2.12	2.07	2.05	3.36	1.81

Table 6

Motivation Style Responses by Sex

Sex	N	$\bar{X}$'s Reward	$\bar{X}$'s Need	$\bar{X}$'s Modeling	$\bar{X}$'s Trial & Error	$\bar{X}$'s Equity	$\bar{X}$'s Random	$\bar{X}$'s Rational
Males	(120)	1.47	1.75	2.06	2.01	2.08	3.23	1.88
Females	(121)	1.31	1.76	2.18	2.07	2.10	3.16	1.86

Table 7

Motivational Style Responses by Number of Years

With Current Employer

Years With Current Employer	N	$\bar{X}$'s Reward	$\bar{X}$'s Need	$\bar{X}$'s Modeling	$\bar{X}$'s Trial & Error	$\bar{X}$'s Equity	$\bar{X}$'s Random	$\bar{X}$'s Rational
1-2	(58)	1.60	1.84	2.14	2.21	2.29	3.24	1.88
3-9	(72)	1.41	1.81	2.10	2.10	2.06	3.10	1.83
10-15	(53)	1.30	1.60	2.15	1.94	1.89	3.25	1.77
16-32	(37)	1.22	1.62	1.92	1.95	2.14	3.14	2.08

Table 8

Motivational Style Response by Occupational Group

Occupational Group	N	$\bar{X}$'s Reward	$\bar{X}$'s Need	$\bar{X}$'s Modeling	$\bar{X}$'s Trial & Error	$\bar{X}$'s Equity	$\bar{X}$'s Random	$\bar{X}$'s Rational
Military	(65)	1.55	1.88	2.26	2.14	2.12	3.09	1.86
Teachers	(177)	1.32	1.71	2.07	2.01	2.09	3.21	1.87

Table 9

Pairwise Contrasts on Means: Need Measure By Age

Age	21-25	26-30	31-35	36-40	41-49	50-59
21-25	-	-	-	-	3.429*	-
26-30		-	-	-	2.987*	-
31-35			-	-	-	-
36-40				-	-	-
41-49					-	-
50-59						-

*(α=.05)

Table 10

Pairwise Contrasts on Means: Equity Measure By Age

Age	21-25	26-30	31-35	36-60	41-49	50-59
21-25	-	-	-	-	-	-
26-30		-	-	-	-	-
31-35			-	-	-	-
36-40				-	-	-
41-49					-	2.859*
50-59						-

*(significant α=.05)

Table 11

Pairwise Contrasts on Means: Random Measure

by Total Years Work Experience

	≤5	6-9	10-13	14-19	20-35
≤5	-	2.229*	-	-	-
6-9		-	2.508*	-	-
10-13			-	2.198*	-
14-19				-	-
20-35					-

*(significant α=.05)

Table 12

Pairwise Contrasts on Means: Reward Measure

by Number of Years With Current Employer

	1-2	3-9	10-15	16-32
1-2	-	-	-	3.232*
3-9		-	-	-
10-15			-	-
16-32				-

*(significant α=.05)

Table 13

Pairwise Contrasts on Means: Reward

Measure by Gender

	Males	Females
Males	-	2.022*
Females		-

*(significant α=.05)

Table 14

Pairwise Contrasts on Means: Reward

Measure by Occupational Group

	Military	Teachers
Military	-	2.355*
Teachers		-

*(significant α=.05)

APPENDIX A

List of Motivation "Editors"

Equity

J. Stacy Adams

Walter W. Tornow

Bernie Weiner

Karl Weick

Abe Korman

Jerald Greenberg

Paul Goodman

Need

Ed Deci

Tim Hall

Clay Alderfer

John P. Wanous

Expectancy

Ed Lawler

Marvin Dunnette

S-R

Ken Wexley

Walter Nord

APPENDIX B

EACH OF THE FOLLOWING PARAGRAPHS DESCRIBES A TYPE OF PERSON. READ EACH PARAGRAPH. THEN DECIDE TO WHAT EXTENT THE DESCRIPTION FITS YOU. USE THE RESPONSE SCALE BELOW EACH PARAGRAPH TO TELL US HOW CLOSELY YOU MATCH THE DESCRIPTION.

REWARD

When I am considering a course of action, I stop and think about what happened the last time I was in that type of situation. I try to remember the good and bad things which resulted from my actions in that situation and I choose a course of action accordingly.

(Circle One)

LIKE ME	SLIGHTLY LIKE ME	NOT MUCH LIKE ME	NOT AT ALL LIKE ME

NEED

When I am considering a course of action, I try to choose a course which will satisfy one of my needs, such as a need for feelings of accomplishment, or a need for positive social relations. In this way, I concentrate on satisfying long term needs rather than current desires.

(Circle One)

LIKE ME	SLIGHTLY LIKE ME	NOT MUCH LIKE ME	NOT AT ALL LIKE ME

MODELING

When I am considering a course of action, I observe the behavior of other people who might give me some clue as to what is the best course to choose. I use them as models in deciding how to behave. I feel that the behavior and expectations of others should play a role in choosing courses of action.

(Circle One)

LIKE ME	SLIGHTLY LIKE ME	NOT MUCH LIKE ME	NOT AT ALL LIKE ME

TRIAL & ERROR

When I am considering a course of action, I am likely to decide on a course through trial and error. I will try out alternative courses of action first and then decide on what final strategy to adopt. I depend on my own experiences and plans to guide me.

(Circle One)

LIKE ME	SLIGHTLY LIKE ME	NOT MUCH LIKE ME	NOT AT ALL LIKE ME

EQUITY

When I am considering a course of action, I try to choose a strategy which will result in fair treatment for me. I choose strategies which keep my rewards in line with the rewards which others like me receive for particular courses of action.

(Circle One)

LIKE ME	SLIGHTLY LIKE ME	NOT MUCH LIKE ME	NOT AT ALL LIKE ME

RANDOM

When I am considering a course of action, I try not to worry too much about what to do. I make decisions on the spur of the moment. Sometimes I may act one way in a situation and the next time another way. I don't really choose courses of action, I just let things happen.

(Circle One)

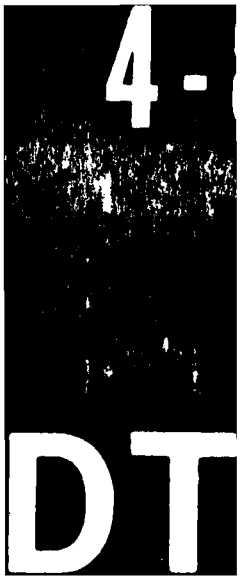
LIKE ME	SLIGHTLY LIKE ME	NOT MUCH LIKE ME	NOT AT ALL LIKE ME

RATIONAL

When I am considering a course of action, I try to think of all of the possible situations which might arise and what will happen in each situation. I make my choice about what to do based on the odds of various situations occurring. I try to keep in mind both the value of the reward (or punishment) in each situation, and the odds that I will actually receive the reward (or punishment).

(Circle One)

LIKE ME	SLIGHTLY LIKE ME	NOT MUCH LIKE ME	NOT AT ALL LIKE ME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