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DIMENSIONS FOR EVALUATING THE ACCEPTABILITY OF MESSAGE SOURCES*

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The research reported here extends the work of Hovland and his colleagues on source credibility by investigating the criteria actually used by receivers in evaluating message sources. Three dimensions are isolated: Safety, Qualification, and Dynamism. The authors argue that source "image" should be defined in terms of the perceptions of the receiver, not in terms of objective characteristics of the source.

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WE KNOW an individual's acceptance of information and ideas is based in part on "who said it." This variable, the source's role in communication effectiveness, has been given many names: ethos, prestige, charisma, image, or, most frequently, source credibility.[1] Whichever label is used, research consistently has indicated that the more of "it" the communicator is perceived to have, the more likely the receiver is to accept the transmitted information.

Given that low-level generalization, however, very little has been said about the basis for the source's influence. Typically, "credibility" is implicitly assumed to be unidimensional, dichotomous (either high or low), and specifiable in terms of objective characteristics of the source, such as social status. Such a stipulation implies that the variable is a more or less static attribute of a source, rather than a perception which is subject to change.

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1 For comprehensive research reviews, see Kenneth Andersen and Theodore Clevenger, Jr. "A Summary of Experimental Research in Ethos," *Speech Monographs*, Vol. 30, 1963, pp. 59-78; and David K. Berlo, James B. Lemert, and Robert J. Mertz, *Evaluations of the Message Source; A Basis for Predicting Communication Effects*, Research Monograph, Department of Communication, Michigan State University, 1966.

Although they did not devote a great deal of attention to the question, Hovland, Janis, and Kelley did attempt to explicate the concept, both theoretically and operationally. In their review of credibility research,[2] they suggest a two-dimensional conception: perceived expertness and perceived trustworthiness. In some of their studies, they also utilized a single-item rating scale for each dimension; however, these ratings were omitted in most experiments. Even when used, their function was simply as a check on the validity of the *a priori* high or low credibility values assumed as attributes of sources such as Oppenheimer, *Fortune, Pravda,* etc.

In their discussion of perceived expertness and trustworthiness, Hovland *et al.* make a distinction between credibility and other source-related variables such as affection, admiration, power, fear, and awe—but suggest the relevance to credibility of variables such as intelligence and sincerity. With respect to the function of trustworthiness and expertise themselves, they conclude that persuasion varies positively with credibility, although "from the results, it is not possible to disentangle the effects of the two main components of credibility—trustworthiness and expertise—but it appears that both are important variables."[3]

Since that statement in 1953, no evidence has been obtained of the stability and independence of perceived trustworthiness and expertise, nor of the independence of either from such variables as sincerity, affection, admiration, prestige, and the like. If the latter variables are in fact inherent in trustworthiness, they should be so considered. If they are independent, there does not appear to be any logical or theoretical reason to exclude them from the set of perceptions which the receiver has of a message source—i.e., to reject them as evaluative criteria affecting the influence of the source as a transmitter of information.

What is needed, then, is an extension of the earlier work of Hovland *et al.* We need empirical evidence establishing the criteria that in fact are used by receivers to evaluate information sources. We need to know how many dimensions are required to account for these evaluations, whether these are independent dimensions, and what types of response characterize each. The research reported here attempts to obtain answers to these questions, and to create a generalizable instrument for indexing evaluations of a variety of information sources.

Because of the similarity of the source evaluation problem to that of the general measurement of connotative meaning, we chose as an analogue the procedures followed by Osgood, Suci, and Tannenbaum

[2] Carl I. Hovland, Irving L. Janis, and Harold H. Kelley, *Communication and Persuasion,* New Haven, Yale University Press, 1953, pp. 19-48.
[3] *Ibid.,* p. 35.

in constructing the semantic differential.[4] Osgood and his colleagues generated a set of adjectival pairs judged to be antonyms, each pair bounding a seven-point rating scale. Respondents were asked to rate a number of concepts on each scale. Factor analyses of these responses produced the dimensions of connotative meaning for the concepts.

Given a set of polar adjectival pairs that are relevant to evaluating information sources, and a set of sources that can be considered as a subset of all possible sources, the same logic can be used to generate the dimensions people use in evaluating the acceptability of message sources. Because of the restrictive and ambiguous meanings attached to the label "source credibility" (and all other existing labels), and the tendency for such labels to suggest that the variable is the property of the source rather than a receiver's response to a source, we have chosen to refer to the construct, rather unimaginatively, as "dimensions for evaluating message sources."

Two factor analytic studies were conducted. The first, a preliminary study, used students and student wives at Michigan State as subjects. The second was based on a sample drawn from the adult population of Lansing, Michigan, and tested hypotheses derived from the preliminary analyses. Procedures and findings for the two studies were similar; however, for purposes of clarity, the studies will be reported separately.

STUDY 1: THE MSU SAMPLE

Selection of scales. Although the literature was reviewed as a source of adjectival pairs, most of the scales used were obtained from interviews with residents of the city of Lansing, Michigan. In each interview, the respondent was asked to think of sources he found highly acceptable, and of those which he found highly unacceptable. Specifically, the instructions were:

> Think of a person (or organization) about whom you are likely to say, "If it's good enough for him, it's good enough for me."
>
> Think of a person (or organization) about whom you would be likely to say, "If he says something is so, or says it's good, I would tend to doubt the statement."

For each source the respondent identified, he was asked to provide, at some length, descriptions of the qualities that made the source acceptable or unacceptable as a communicator of information.

From the interviews and literature review, we constructed a set of 128 pairs of polar adjectives frequently used to describe highly accept-

[4] Charles E. Osgood, George J. Suci, and Percy H. Tannenbaum, *The Measurement of Meaning*, Urbana, University of Illinois Press, 1957.

able or unacceptable sources. As an accommodation to the capacity of the computer, we reduced the number to 83 by asking six faculty judges to group the scales on the basis of similarity of meaning. Whenever two or more scales were judged highly similar by at least five of the six judges, the more easily understood scales were retained in the subset. Thus, our final set of 83 pairs had been judged to be (1) minimally equivalent in meaning and (2) minimally difficult, as defined by their frequency of occurrence in English.[5]

Selection of sources. In selecting sources to be evaluated, we chose individuals and organizations which would be recognizable to our respondents, and which would elicit a range of responses from positive through neutral to negative. We also wanted sources that would represent the following categories: (1) public sources without a context being provided; (2) public sources in a relevant context; (3) public sources in an irrelevant context; and (4) interpersonal sources—individuals known personally by each respondent. Under these categories, the following 18 sources were selected:

Public, no context: The New York Times, Dwight Eisenhower, the American Broadcasting Company, J. Edgar Hoover, Nasser, Nehru, Khrushchev, the American Medical Association, and the John Birch Society.

Public, relevant context: Khrushchev on Soviet foreign policy, Nehru on neutralism, and Churchill on foreign policy.

Public, irrelevant context: Perry Como on organized crime, Nasser on smoking and lung cancer, Khrushchev on modern art.

Interpersonal: Each respondent was asked to recall the names of three people he knew well: one whose opinion he respected highly, one whose opinion he did not respect, and one whose opinion he neither respected nor lacked respect for.

Procedures. Ninety-one Michigan State students and student wives evaluated each of the 18 sources on each of the 83 scales. The task required nearly two hours for the average respondent. Each set of source-evaluations required four pages of scales. Scales were reversed randomly, and pages were ordered randomly within sets. Each respondent was asked to rate each name as an actual or potential source of information.

Product-moment correlations were computed on the over-all matrix of sources and scales. The correlation matrix was submitted to a principal-axis factor analysis with Varimax rotation. Given the preliminary nature of the study and the absence of hypotheses about factor structure, two liberal criteria were used for selecting the most appro-

[5] E. L. Thorndike and I. Lorge, *The Teacher's Word Book of 30,000 Words,* New York, Bureau of Publications, Teachers College, Columbia University, 1944.

priate solution: each factor must include at least one scale with a loading of .50 or more, *and* each factor must add a net of 2 per cent or more to the explained variance.

Results. Using these two criteria, a four-factor solution was selected. Table 1 presents the factor matrix. Scales were assigned to the factor on which they had their highest loading; however, the ranking of scales within a factor was based on a "factor purity" index. This index was determined by subtracting the scale's absolute loadings on the other three factors from its loading on the principal factor.

The four factors accounted for 62 per cent of the total variance of the 83 scales. The first two factors, Safety and Qualification, accounted for 52 per cent of the variance (27.8 per cent and 24.0 per cent, respectively). The Safety factor was defined by such scales as "safe-dangerous," "open-minded–closed-minded," "just-unjust," and "honest-dishonest." Nearly half (39 of 83) of the scales had their highest loading on Safety, and it accounted for 45 per cent of the common variance. Thirty-one scales had their highest loading on the Qualification factor, and it accounted for 39 per cent of the common variance. Perceptions of the source's qualifications can be phrased with reference to whether he is trained, experienced, authoritative, skilled, informed, important, educated, expert, etc.

Although only 11 scales had their highest loading on Dynamism, it clearly is a meaningful and distinctive dimension of source evaluations. It accounted for almost 8 per cent of the total variance and 13 per cent of the common variance. The dynamic source was evaluated as frank, fast, energetic, extroverted, bold, active, aggressive, decisive, colorful, and confident.

The stability and meaningfulness of the fourth factor seems dubious. It met the two criteria; however, it contributed only 2 per cent to the explained variance, and only two scales ("sociable-unsociable" and "cheerful-gloomy") had their highest loadings on Sociability. Both were loaded almost as highly on the Safety factor.

The factor analytic study provided encouraging evidence that there are at least three, and possibly four, meaningful dimensions which respondents use in evaluating sources of information. There are ambiguities in the results, however, which limit (1) the generalizability of the evaluative structure and (2) the defensibility of conclusions about the relative "strength" of the factors in terms of variance accounted for.

The ambiguities are attributable to the fact that the sample was highly atypical with respect to age and education, and to the fact that scales were included solely on the basis of the frequency with which they had been used to describe sources. In other words, there were no hypotheses about the number or nature of the dimensions, and no cri-

TABLE 1

FACTOR MATRIX FOR FOUR-FACTOR SOLUTION FOR 18 SOURCES, MSU STUDY (N = 91)

Factor Purity	*Scale*	*Safety*	*Qualification*	*Dynamism*	*Sociability*	h^2
	SAFETY FACTOR					
68	Safe-Dangerous	80*	07	−03	02	65
62	Openminded-Closedminded	80	05	03	10	65
51	Just-Unjust	84	22	00	11	77
47	Honest-Dishonest	79	17	−08	07	66
43	Unbiased-Biased	67	−18	−01	−05	48
41	Reasonable-Unreasonable	81	31	09	00	76
41	Admirable-Contemptible	81	31	01	08	76
41	Calm-Upset	67	10	−08	08	47
38	Objective-Subjective	69	13	15	−03	52
38	Sincere-Insincere	69	28	−01	02	56
38	Unselfish-Selfish	71	−07	−12	14	54
36	Trustworthy-Untrustworthy	78	39	01	02	76
34	Right-Wrong	77	29	14	00	70
31	Patient-Impatient	71	13	−12	15	56
29	Good-Bad	75	36	03	07	70
29	Sympathetic-Unsympathetic	73	16	−03	25	62
26	Correct-Incorrect	73	34	12	01	66
26	Stable-Unstable	74	32	12	−04	67
25	Not Stubborn-Stubborn	57	−18	−11	03	37
24	Modest-Boastful	66	−03	−36	03	57
20	Kind-Cruel	67	07	−12	28	55
19	Rational-Irrational	74	40	11	−04	72
18	Respect-Disrespect	73	37	−05	13	69
15	Gracious-Crude	72	22	−13	22	63
15	Believable-Unbelievable	72	48	07	−02	75
15	Reliable-Unreliable	71	48	07	−01	74
14	Reputable-Disreputable	67	47	−01	05	67
12	Dependable-Undependable	71	47	06	−06	63
11	Friendly-Unfriendly	66	08	01	46	65
7	Sensible-Not Sensible	69	−47	13	02	71
6	Responsible-Irresponsible	68	51	08	03	73
5	Logical-Illogical	72	45	17	−05	75
−1	Thoughtful-Thoughtless	59	45	06	09	56
−4	Realistic-Unrealistic	64	40	25	−03	63
−5	Understandable-Uncomprehendable	60	44	21	00	60
−21	Practical-Impractical	55	44	25	−07	56
−21	Original-Hackneyed	49	30	33	07	44
−23	Clear-Unclear	58	40	35	−06	62
−24	Consistent-Inconsistent	63	33	21	−15	57
	QUALIFICATION FACTOR					
48	Trained-Untrained	18	86	13	07	79

Factor Purity	*Scale*	*Safety*	*Qualification*	*Dynamism*	*Sociability*	h^2
39	Experienced-Inexperienced	22	85	15	09	80
35	Authoritative-Unauthoritative	13	73	22	03	60
31	Skilled-Unskilled	22	82	21	08	77
31	Informed-Uninformed	23	77	14	−09	67
30	Important-Unimportant	20	80	23	07	74
28	Educated-Uneducated	33	76	02	13	70
24	Expert-Ignorant	33	81	17	07	80
24	Competent-Incompetent	34	74	15	01	69
23	Knowledgeable-Unknowledgeable	30	78	14	11	73
22	Capable-Incapable	32	79	25	00	79
22	Powerful-Powerless	04	71	40	−05	67
21	Serious-Joking	−01	49	04	−23	29
16	Purposeful-Aimless	−10	61	19	−16	44
9	Intelligent-Unintelligent	38	73	11	15	71
8	Concerned-Unconcerned	26	67	17	16	57
7	Successful-Unsuccessful	32	69	28	−02	66
3	Interested-Disinterested	24	67	22	18	59
2	Scholarly-Unscholarly	47	64	06	09	64
−2	Effective-Ineffective	32	68	36	02	69
−3	Efficient-Inefficient	28	70	37	−08	71
−3	Ambitious-Unambitious	−11	56	41	07	50
−8	Valuable-Worthless	56	64	11	05	74
−11	Strong-Weak	20	62	47	−06	65
−12	Profound-Superficial	51	57	17	−01	61
−13	Careful-Careless	48	54	12	−07	54
−14	Persuasive-Unpersuasive	33	57	37	−01	57
−17	Organized-Disorganized	23	62	39	−17	62
−21	Orderly-Disorderly	47	48	18	−04	49
−22	Certain-Uncertain	22	54	43	−11	54
−23	Wise-Foolish	57	58	15	09	69
	DYNAMISM FACTOR					
34	Frank-Reserved	01	12	53	06	30
18	Fast-Slow	−06	23	56	−09	38
15	Energetic-Tired	−10	38	66	−03	59
13	Extroverted-Introverted	−07	08	56	28	40
11	Bold-Timid	−24	31	68	02	62
4	Active-Passive	−05	48	62	05	62
−2	Aggressive-Meek	−28	34	68	−08	66
−12	Decisive-Indecisive	10	47	59	−14	60
−15	Colorful-Dull	12	24	52	31	44
−18	Confident-Unsure	21	50	53	00	58
−19	Intimate-Remote	17	−05	26	23	15
	SOCIABILITY FACTOR					
−20	Sociable-Unsociable	47	14	14	55	56
−21	Cheerful-Gloomy	46	01	22	48	49
	Per cent total variance	27.80	24.01	7.78	2.02	61.61
	Per cent common variance	45.12	38.97	12.63	3.28	100.00

* Decimals omitted

terion was employed for including or excluding scales because of their correspondence to the "general meaning" of a factor. As a result, the differences in variance accounted for may have been an artifact of the original scale selections. To investigate these limitations, a second study was conducted.

STUDY 2: THE LANSING SAMPLE

The second and major study was conducted using similar procedures; however, there were four important differences:

1. Scales were selected to conform with the "general meaning" of each factor, under the hypothesis that there are three or, possibly, four dimensions to source evaluations.

2. The number of sources in each of the four source-categories was standardized at three, to equalize the contribution of each category to the over-all correlations.

3. The sample of respondents was selected to be more representative of the general adult population.

4. A somewhat more conservative criterion was employed as a basis for terminating rotations of the factors.

Selection of scales. On the basis of the results of the first study, we hypothesized that there are three main factors in source evaluations: Safety, Qualification, and Dynamism. In selecting scales for the second study, we retained six scales for each of these factors from the first study. In addition, two new scales for each factor were introduced to test for the stability and adequacy of the "general meaning" of the factor.

We were less confident of our hypothesis that there was a fourth factor, Sociability. To test for the stability of the fourth factor, both high-loading scales were retained, as well as two others ("kind-cruel" and "friendly-unfriendly") which had loaded highest on Safety but which also had relatively high loadings on Sociability. In addition, seven new scales were introduced that should cluster with other sociability scales if such a factor is isolable.

Thirty-five scales were used in the second study. Of these, 22 were retained from the first study and 13 were new. Our hypotheses about which scales should load most highly on each of the four factors are summarized in Table 2.

Selection of sources. We selected three sources for evaluation from each of the four original categories. None of the specific public sources had been used in the first study. Again, they were selected so that evaluations would range from positive to negative. The sources were:

Public, no context: John F. Kennedy, G. Mennen Williams, and Fidel Castro.

TABLE 2

SCALES GROUPED ACCORDING TO HYPOTHESIZED FACTOR LOADINGS

Factor	*Retained Scales*	*New Scales*
SAFETY	safe-dangerous; just-unjust; calm-upset; objective-subjective; unselfish-selfish; patient-impatient	fair-unfair; ethical-unethical
QUALIFICATION	Trained-untrained; experienced-inexperienced; authoritative-unauthoritative; skilled-unskilled; informed-uninformed; intelligent-unintelligent	qualified-unqualified; able-inept
DYNAMISM	frank-reserved; fast-slow; energetic-tired; bold-timid; active-passive; aggressive-meek	emphatic-hesitant; forceful-forceless
SOCIABILITY	sociable-unsociable; cheerful-gloomy; kind-cruel; friendly-unfriendly	congenial-quarrelsome; agreeable-disagreeable; pleasant-unpleasant; gentle-harsh; forgiving-unforgiving; hospitable-inhospitable; warm-cool

Public, relevant context: Adlai Stevenson on the United Nations, Eddie Fisher on show business problems, and Mao Tse-Tung on Red China's domestic problems.

Public, irrelevant context: Mickey Mantle on organized crime, Michigan Lt. Gov. T. John Lesinski on smoking and lung cancer, and Jimmy Hoffa on abstract art.

Interpersonal: The procedures of Study 1 were repeated to elicit names of sources whose opinions the respondent respected, did not respect, or neither respected nor lacked respect for.

Procedures. To broaden the generalizability of the data, the sample was selected from adults in the greater Lansing area (excluding East Lansing). Columns within the telephone directory, then names within columns, were selected randomly to obtain a master list of names. Because of the verbal skills required by the instrument, interviews were terminated if screening questions indicated that the respondent had not completed the sixth grade. This eliminated 8 per cent of the contacts (cf. 1960 census figures of 6 per cent for Lansing area and 12 per cent for U. S.). Interviewers were instructed to balance their schedule for sex; 53 per cent of the final sample were female. In all, 117 completed interviews were obtained. The sample did not differ appreciably from Lansing census data; however, given Lansing's educational bias and the selection procedure, there was an educational bias in the

sample. Whereas only 41 per cent of the U. S. adult population have completed 12 years or more of school, 70 per cent of the sample had achieved high school graduation or beyond. The data probably cannot be generalized with confidence to people with less than a high school education.

Interviews were at the respondent's home, by appointment. The procedures duplicated those of the first study, except that there were only 12 sources and 35 scales, and interviews averaged about an hour.

A slightly more conservative criterion was adopted for terminating factor rotation, the Kiel-Wrigley criterion.[6] Under this procedure, rotations are continued as long as each factor contains at least three scales whose highest loadings are on that factor. No minimum increase in explained variance is required.

Results. We hypothesized that four factors would emerge, although we were confident of only three of the four. From the three-factor and four-factor solutions of the over-all matrix, it was apparent that the three-factor solution was the more appropriate. It met the Kiel-Wrigley criterion, and accounted for 59.93 per cent of the total variance. The four-factor solution added only 2.6 per cent to the explained variance, and only two scales ("objective-subjective" and "frank-reserved") loaded highest on the fourth factor. In fact, the stability of the basic three factors, even in the four-factor solution, was surprisingly high. For the four-factor solution, only two additional scales had factor loadings on the fourth factor as high as .20, and there were no appreciable shifts in the factor loadings on the first three factors. It seems clear that there are three, and only three, stable and meaningful dimensions of source evaluations. Table 3 presents the basic factor matrix for the three-factor solution. Again, scales are ranked within a factor on the basis of their factor purity.

In the solution, each of the eight scales that were hypothesized to be Qualification scales (the six retained and the two new scales) did load highest on that factor. No other scales had their highest loading on Qualification. The same is true for the Dynamism factor. All eight hypothesized scales, and no others, had their highest loadings on Dynamism. Also, all of the hypothesized Safety scales loaded highest on the Safety factor; however, the two Sociability scales and the two mixed scales (high on both Safety and Sociability) from the first study, as well as all seven of the new Sociability scales also had their highest loading on the Safety factor. The respondents placed all of the Sociability scales on one dimension; however, they did not discriminate between those scales and other Safety scales.

[6] Donald F. Kiel and Charles F. Wrigley, "Effects upon the Factorial Solution of Rotating Varying Numbers of Factors," paper presented before the annual meeting of the Psychometric Society, September 6, 1960.

TABLE 3

FACTOR MATRIX FOR THREE-FACTOR SOLUTION FOR 12 SOURCES, LANSING STUDY (N = 117)

Factor Purity	*Scale*	*Safety*	*Qualification*	*Dynamism*	h^2
	SAFETY FACTOR				
64	Kind-Cruel	84*	19	−01	74
59	Safe-Dangerous	80	19	−02	68
59	Congenial-Quarrelsome	82	20	03	71
58	Friendly-Unfriendly	82	18	06	71
58	Agreeable-Disagreeable	81	22	01	70
57	Pleasant-Unpleasant	82	19	06	70
54	Gentle-Harsh	82	18	−10	72
53	Unselfish-Selfish	80	15	−02	51
51	Just-Unjust	81	26	04	73
50	Forgiving-Unforgiving	76	20	−06	62
48	Fair-Unfair	80	29	03	72
42	Hospitable-Inhospitable	75	25	08	63
41	Warm-Cool	67	15	11	47
39	Cheerful-Gloomy	74	17	18	61
39	Sociable-Unsociable	74	25	10	62
38	Ethical-Unethical	73	30	05	63
37	Calm-Upset	68	23	08	52
33	Patient-Impatient	69	26	−10	55
−09	Objective-Subjective	28	13	24	15
	QUALIFICATION FACTOR				
41	Trained-Untrained	27	82	14	76
41	Experienced-Inexperienced	25	80	14	72
30	Qualified-Unqualified	37	76	09	72
26	Skilled-Unskilled	33	77	18	73
22	Informed-Uninformed	34	74	18	70
12	Authoritative-Unauthoritative	21	67	34	61
03	Able-Inept	44	65	18	65
−03	Intelligent-Unintelligent	42	62	23	61
	DYNAMISM FACTOR				
60	Agressive-Meek	−08	09	77	61
55	Emphatic-Hesitant	01	14	70	51
41	Frank-Reserved	05	−09	55	31
33	Forceful-Forceless	−03	25	61	44
25	Bold-Timid	−31	−08	64	51
19	Active-Passive	17	25	61	46
16	Energetic-Tired	24	24	64	52
08	Fast-Slow	11	31	50	36
	Per cent total variance	33.80	15.62	10.51	59.93
	Per cent common variance	56.40	26.06	17.54	100.00

* Decimals omitted.

As mentioned, the three evaluative factors accounted for 60 per cent of the total variance. Safety accounted for 34 per cent, Qualification for 16 per cent, and Dynamism for 10 per cent. Nineteen of the 35 scales had their highest loading on Safety, 8 on Qualification, and 8 on Dynamism.

Osgood[7] points out that factor analytic studies sometimes indicate considerable concept-scale interaction, with scales apparently meaning different things with different groups of concepts or for individual concepts. Therefore, separate factor analyses were conducted for each of the 12 sources, and for each of the four groups of 3 sources (private, no context, etc.). The results of these analyses are presented in detail elsewhere.[8]

DISCUSSION

In summary, the two factor analytic studies produced three meaningful and statistically independent dimensions for the construct "dimensions for evaluating message sources." For those wishing to use the three dimensions as an index to source credibility, the following scales are suggested as most representative:

Safety: safe-unsafe; just-unjust; kind-cruel; friendly-unfriendly; honest-dishonest.

Qualification: trained-untrained; experienced-inexperienced; skilled-unskilled; qualified-unqualified; informed-uninformed.

Dynamism: aggressive-meek; emphatic-hesitant; bold-timid; active-passive; energetic-tired.

The three-factor definition is not incompatible with Hovland, Janis, and Kelley's earlier conceptualization of credibility as "expertise" and "trustworthiness"; however, the factor analytic results provide a clarification of what is meant by those terms, and suggest that there is a third dimension, Dynamism.

Hovland seemed to regard the receiver's perceptions of the source's *intent* as the essential aspect of "trustworthiness."[9] The Safety factor does include this aspect of the receiver's perceptions; however, it includes other aspects as well. It seems reasonable to categorize terms such as "unselfish," "fair," and "just" as intent-oriented; however, intent does not seem to be implied in other high-Safety terms such as calm, safe, patient, friendly, kind, congenial, gentle, hospitable, and warm.

Safety, then, is more general than Hovland's concept of trustworthiness. It includes a general evaluation of the affiliative relationship between source and receiver, as perceived by the receiver. At the same time, the Safety dimension is not as broad in scope as Osgood, Suci, and Tannenbaum's "evaluative" factor of general connotative meaning,[10]

[7] Charles E. Osgood, "An Exploration into Semantic Space," in Wilbur Schramm, ed., *The Science of Human Communication,* New York, Basic Books, 1963, pp. 28-40.

[8] Berlo, Lemert, and Mertz, *op. cit.*

[9] Carl I. Hovland and Wallace Mandell, "An Experimental Comparison of Conclusion-Drawing by the Communicator and by the Audience," *Journal of Abnormal and Social Psychology,* Vol. 47, 1952, pp. 581-588.

[10] Osgood, Suci, and Tannenbaum, *op. cit.*

although it does seem related. For example, the "good-bad" scale, which typically is the best representative of the "general evaluative" dimension, is not the best representative of Safety for two reasons: (1) the factor loading on Safety is lower for "good-bad" than it is for other scales, and (2) its secondary loading on Qualification is relatively high. Similarly, several other Safety scales which have high secondary loadings on Qualification (e.g., trustworthy, correct, rational) suggest that Osgood's "general evaluation" is determined by a mixture of Safety and Qualification perceptions.

The Qualification factor is easier to interpret. It seems clear that it is a dimension of evaluative meaning that is peculiar to the situation in which information-transmission is involved. The major Qualification scales include both context-relevant terms (e.g. trained, experienced, informed, qualified) and terms which are relatively context-free (e.g. authoritative, able, intelligent); however, the context-relevant terms generally have higher factor loadings.

Though the data are not conclusive, they suggest that Qualification ratings primarily follow Hovland's "expertise" dimension when the source's topic is provided, but are based more on general intelligence or ability in a topic-free situation. This explanation accounts for the fact that Qualification scales show higher secondary loadings on Safety for analyses of sources without context.

The first study (the MSU sample) also indicated that elements of prestige are involved in evaluations of Qualification. Such terms as *important, powerful,* and *successful* clearly are power-prestige words. Although the "prestige" terms were not included among the scales in the second study, it seems clear that the early Hovland conception of "expertise" should be extended to include a more general notion of prestige.

Dynamism, of course, was not included among Hovland's credibility components. The defining scales indicate that it is a combination of the potency and activity factors of general connotation.[11] Some of the most highly loaded Dynamism scales seem to combine these two ideas (e.g. aggressive, emphatic, and bold). Some seem to represent primarily potency; however, more seem to represent activity. The Dynamism factor appears to tap an evaluative dimension that could be referred to as "disposable energy"; i.e. the energy available to the source which can be used to emphasize, augment, and implement his suggestions.

Though the results indicate that Dynamism is statistically independent of the Safety and Qualification factors, the relative instability of Dynamism suggests that it may not be psychologically independent of the other two factors. The Dynamism dimension can be conceived of as an

[11] *Ibid.*

intensifier. In other words, given an evaluation of a source as safe or unsafe, qualified or unqualified, the polarity or intensity of these evaluations of the source is intensified through perceptions of high dynamism. Under this assumption, low-energy sources would seldom if ever be perceived as either extremely safe or unsafe, extremely qualified or unqualified. Research in progress is intended to examine further the extent to which Dynamism can be considered as psychologically independent of evaluations on the other two dimensions. At present, care should be exercised in the use of Dynamism scales. Before using them, they should be checked for the possibility of concept-scale interactions.

In summary, the factor analytic studies provide an operational base for defining source "image." They provide a base for tying the notion of these source evaluations to various processes of social influence, and various typologies of communication receivers. They also indicate a need to determine the relative contribution of the three dimensions to persuasion.

The studies emphasize the multidimensionality of the variable, and they support the argument that source "image" should be defined in terms of the perceptions of the receiver rather than objective characteristics of the source. The "image" of the source is dynamic in that it both influences and is influenced by the communication event. We should examine the antecedents of evaluations, and, with the operational instrument that has been provided, some "image" can now be utilized as a dependent variable in research.

We should also test the stability and generalizability of the construct across sources, contexts, respondents, and cultures. Research in progress is testing the cultural generalizability of the concept, and investigating the possible cultural values that affect the structure of source evaluations.