A STUDY OF TYPES OF MAGAZINE PICTURE APPEAL AND EDITORS' ABILITY TO PREDICT READERS' PICTURE-VALUE JUDGMENT

Thesis for the Degree of M. A.

MICHIGAN STATE UNIVERSITY

Anne Li-An Kao

1964

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ABSTRACT

A STUDY OF TYPES OF MAGAZINE PICTURE APPEAL
AND
EDITORS' ABILITY TO PREDICT READERS' PICTURE-VALUE JUDGMENT

by Anne Li-An Kao

The major question investigated in the study is: What kinds of audience research results provided to an editor can make him best able to predict picture values of his audience?

The study has two objectives. First, it segments audiences in terms of similar reaction patterns toward pictures, and then it tests editors' ability to predict the explored reader reactions under varying conditions: a) different degrees of editorial experience on the part of editors, b) different types of predictees (readers), and c) different levels of information about the predictees.

This study can be regarded as a small-scale operations research using Q-methodology throughout most of the study. The study has five phases. The techniques, item samples, and subject samples vary from the second phase to the fifth phase. The item samples used in the study are based on different ways of using a group of 120 pictures selected from Life and Look magazines. Subjects are selected differently in each phase. The statistical tools used in the study are factor analyses, correlations and analysis of variance.

The first phase of the study is a re-analysis of a previous study of picture preference done by MacLean and Hazard. The second phase is

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a preliminary experiment of four college students' reactions toward the 120 magazine pictures on dimensions of Like-Dislike, Intensity-of-Feeling, Complexity-Simplicity, and Clarity-Obscurity. The third phase is a comprehensive study of types of picture appeal. The fourth phase is a preliminary experiment on editors' predictions to two readers' reactions toward some 60 pictures. And the fifth phase studies readers' picture values and leads to a large-scale editorial prediction experiment.

In the first phase, it was felt that patterns of intangible picture appeals which were found functioning cross-sectionally for pictures of any subject matter can be put to test specifically. In the second and third phase, it was found that the readers were hedonistic in their liking, and that the pictures the readers liked or disliked most were the ones which aroused strong feelings. It was also found that the liking of pictures had a lot to do with self-identification, especially ideal self-identification. In the fourth phase, it was found, as expected, that the more information about the readers provided the editors, the better were the predictions.

In the fifth phase, it was found that women of different age groups, with financially or morally secure backgrounds, valued pictures of art and scenery most highly, pictures with people in a "cute" situation second and pictures of glamour or fame third. Meanwhile, they avoided and disliked pictures of death, violence, and destruction most. It was found that male readers in general valued pictures of sports, sex and action most highly and that they disliked gruesome pictures of death and violence. But, some male readers with less education and

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lower incomes valued serious subject matter most highly. Examples include war, violence, science and social problems. On the editorial prediction part, it was found that the four levels of information about the readers made significant differences in the editors' predictions. The predictee's Q-sort of 60 pictures or the Q-sort plus his detailed demographic information provided to the editors can make them predict significantly better than the minimal demographic information or detailed demographic information. It was found that the senior editor group, the junior editor group and the naive "editor" group did not make statistical significant differences in their abilities to predict.

It is evident in this study that reader reaction patterns help editors predict better than the traditional kind of survey research demographic information.

Methods for an editor to check the validity of the techniques used in this study and to find out the percentages of his readers falling in certain reaction patterns discovered in a study of this kind are suggested in the conclusions.

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A STUDY OF TYPES OF MAGAZINE PICTURE APPEAL

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Anne Li-An Kao

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Communication

1964

Malcolm S. MacLean, Jr.

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This thesis is one of the research projects carried out in the Communications Research Center, Michigan State University, under the leadership of Dr. Malcolm S. MacLean, Jr.

I am deeply grateful to Dr. Malcolm S. MacLean, Jr., who taught me much during the past two years of my study. His guidance was indispensable.

My gratitude is also extended to:

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Mr. Albert D. Talbott who helped me design the fifth phase of the study,

Mr. Randall Harrison and Mrs. Robert D. Cahow who patiently edited and criticized the manuscript,

Messrs. Nels Marin and David Jaehnig who helped me do the interviews and

Miss Deborah Lynam who typed this manuscript.

Finally, I thank my parents who are now residing in Taiwan and my husband Hsi-chung; without their encouragement what I have done here would have been impossible.

Twice my chi

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Twice my children, Chao-chung and Chao-an, made me "Ma" during the pursuit of my degree. Through their cooperation and sacrifice they helped make this real M. A. possible.

A.L.K.

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CHAPTER I

INTRODUCTION

The Problem

Successful pictorial communication can reveal ideas and information to people with an inviting charm which satisfies our unconcious or conscious needs in identifying with and adjusting to the outer world. Questions involving the kinds of pictures to print, in terms of communicating ideas and satisfying the reader's needs, must involve the reader's experience and his values for pictures. People's reactions toward printed pictures may involve such factors as favorite subject matters, appeal, impact, and technical excellence. All these should be explored to improve picture usage.

In a newspaper or a magazine which uses pictures, the picture editor plays a dual role: to determine if a picture should be printed, and to decide how it should be played. The present research study is concerned with the former--picture selection, a primary step in the whole picture editing process.

It has been suggested that the key to successful picture editing is a feeling for pictures. This means that a picture editor must live pictures, sense pictures, and interpret every experience in the light of the pictures it suggests.[1] He should be informed and

[1]Stanley E. Kalish and Clifton C. Edom, Picture Editing (New York and Toronto: Rinehart & Company, Incorporated, 1951), pp. 79-89.

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curious, and he should keep in mind that pictures should be selected on the basis of readership appeal.

In selecting a picture to print, the editor's ability to sense a good picture is important. Equally important is the fact that all readers will interpret the picture in the light of their personal feelings and experiences. Picture selection is thus a case of combining the feeling for pictures and an understanding of an audience.[1]

Consistent with the importance of the latter factor, a major question investigated in the present study is as follows: What kinds of audience research results provided to an editor can make him best able to predict the picture values of his audience?

By "audience research results" is meant either demographic information about the readers or response patterns of readers toward pictures.

The Objectives

This study has the following objectives, each of which should contribute to answering the question posed above:

1. To test editors' ability to predict reader reactions under varying conditions:
   a) different degrees of editorial experience,
   b) different types of predictees (readers), and
   c) different levels of information about the predictees.
2. To segment audiences in terms of similar reaction patterns toward pictures.

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[1]Gardner Cowles, "Visual Excitement in Modern Publishing," Art Directing (New York: Hastings House, Publishers, 1957), pp. 22-23.

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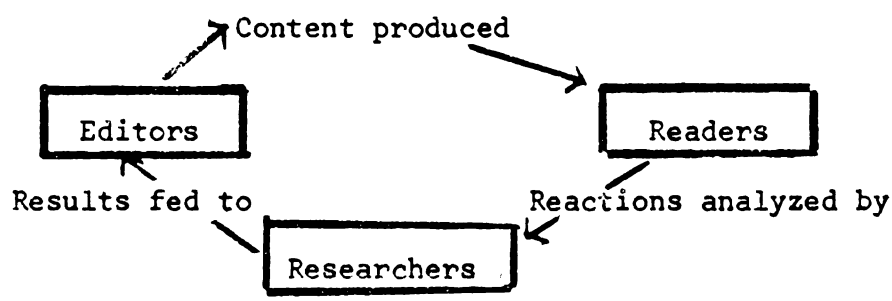
This study is ultimately interested in editorial ability to predict the effectiveness of pictures. It is the desire of a communication researcher to help the editor increase his power to inform, to entertain, and otherwise to serve his audience. It can also be said that the purpose of the study is to assess the extent to which editorial ability can be improved through understanding of what readers want and need. This relationship between the editors and audience is depicted by the model shown in Figure 1.

Fig. 1. - A relationship between the editor, the researcher and the audience.



After finding out the readers' reactions, practical and functional suggestions for picture selection can be made. Thus, the use of audience feedback can assist picture editors in future picture selection.

A Review of Literature

Although picture usage has steadily increased in newspapers and magazines, a brief review of the literature shows that little research has been done on the problem of pictorial interest value.

In the 1930's, George Gallup's new method for the scientific measurement of reader interest was tested on readers of the Des Moines Sunday Register. The research showed that pictures ranked very high in

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reader interest, or that pictures which were related to each other ranked even higher, and that solid, unrelieved blocks of text invariably received below-average readership. With this evidence, the Sunday Register experimented with picture stories and with stories combining pictures and text. Its circulation increased 50 per cent.[1]

The Gallup research had shown not only that well selected pictures increased the interest-value of virtually all subject matter, but also that pictures spoke a universal language, appealing to people of all kinds and of all ages. For these reasons, Gardner Cowles believed that a magazine employing a "picture language" could successfully reach and inform millions of people regardless of age, sex, income, employment, or education. This faith in the power of pictures led to the publication of Look magazine, which appeared in January, 1937.

In 1937, a summary was made by dozens of Advertising Research Foundation newspaper readership studies throughout the United States for the "readership" of news stories and news pictures. It proved that a newspaper's pictures consistently win the highest readership.[2] Later, several studies of picture preference were carried out, but the results are hard to compare because the studies agreed neither in subject categories nor in methods. Although the results were not recommended to editors as an infallible key to reader interest, some tentative conclusions regarding picture appeal were presented. For example, pictures of babies and children were found to have high interest value. Pictures of travel, scenery, human, animal, nature,

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[1] Ibid.

[2] Kalish and Edom, op. cit., p. 21.

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and science were found to have middle-ranged interest value. Pictures of sports, society, fashion and finance were found to have low interest value. These findings, however, were too general to be of much practical use, since no tangible elements which aroused high or low interest were specified.

In a more recent article,[1] Seth Spaulding reviewed: A. children's preferences for illustrations of different styles, colors or page position, B. adult preferences, C. previous experience and illustration effectiveness, and D. eye movement tendency. As a whole, the findings indicate:

1. Children prefer entire page illustrations.
2. When the content is unintelligible or vague, low interest was recorded among adults due to lack of familiarity with subject matters and lack of comprehension.
3. Readership increases as size of photo expands.
4. People like pictures that relate to their daily life and to daily events that are personally significant.
5. Colors and overlines increase readership.
6. Picture pages attract interest; there should be a wider use of photos in newspapers.
7. Young children prefer simple drawings, while older children and teachers prefer complex illustrations.
8. Illustrations should be constructed in keeping with the clock-wise motion of eye fixations.

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[1]Seth Spaulding, "Research in Pictorial Illustration," Audio Visual Communication Review (Vol. 4, NO. 1: Winter 1959), pp. 31-46.

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9. The number of items in illustrations should be limited to assure notice of what is most important.

10. The most significant objects and actions should be emphasized by placing them in the center and upper left of illustrations.

11. Illustrations require the motion of eyes in horizontal paths rather than vertical ones.

Almost all of these findings relate to interest-getting devices. Content analysis of pictorial communication is still vague. Interest-getting devices - size, color, page position, overlines, etc. - can be manipulated at will, with any kind of subject matter depicted in a photo. However, effectiveness of content, in terms of psychological mediating factors on the part of readers, is the major concern in picture selection.

Recent researchers have felt a strong need to develop workaday rules of thumb or some basis for picture selection. It is pointed out that since content is the main determinant of interest, much research should be done on picture interest.[1,2,3]

A recent article by Randall Harrison[4] gives us a clear look at the implications of research about the efficacy of pictorial communication:

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[1]W. R. Hazard, "Responses to News Pictures: A Study in Perceptual Unity," Journalism Quarterly (XXXVII, 1960), pp. 515-524.

[2]William Stephenson, "Principles of Selection of News Pictures," Journalism Quarterly (XXXVII, 1960), pp. 61-68.

[3]L. Witman, "Technique vs. Meaning in Photo Journalism," Journalism Quarterly (XXXVII, 1960), pp. 95-97.

[4]Randall Harrison, "Pictorial Communication," Search (VI, No. 6; 1962).

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1. Photos and illustrations are placed at or very near the top of reader preferences. The psychological reason for the strong appeal of pictures may be man's need for external stimuli. Pictures which provide more information per unit of time invested may be "richer" stimuli. Message content, therefore, seems to be a major determinant of the audience's interest.
2. Some research indicates that men tend to prefer pictures of events and that women prefer pictures of people. Pictures of people rate high generally as objects of interest. Both sexes, incidentally, look at women more than at men.
3. MacLean and Hazard's study on picture preferences showed that audience interests do fall into discernable patterns such as idolatry, social problems, picturesque, war, blood and violence, spectator sports, etc.
4. Other research indicated that attention can be increased with moderate doses of novelty and complexity. Pictures which promise to arouse uncertainty and conflict--within acceptable bounds--are likely to be attention getting.
5. Readers prefer full and informative captions to increase comprehension. Misunderstanding is particularly likely to arise where the message is complex, where there is some ambiguity about what came before or after, and where the object or event is unfamiliar to the audience.
6. Readers are more likely to accept messages which offer opportunity to identify in sex, age, race and major social characteristics.

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7. Pictures can have hidden persuasive power to influence readers' decisions, even though the readers may not know exactly what it is that triggers their decisions.

The present study is closely related to a previous picture interest study done by MacLean and Hazard in 1953. A detailed review of that study will be found in Chapter III. Using it as a point of departure, the present study goes on to explore various types of picture appeal. Finally, methods are developed for editorial predictions of people's reactions to pictures.

The Basic Framework of the Study

Before the five developmental phases are introduced, the basic theoretical rationale behind the methodology used in this study should be mentioned. The next chapter will be a detailed discussion of the Q-methodology employed.

With Q-methodology used throughout most of the study, the design is not a straight-forward, simple, clear-cut one. It is through the different tests that valuable propositions and unsuspected processes can be found. The purpose of Q-methodology is to stress the development of theoretical issues along explicit deductive lines, including whatever hunches or empirical know-how that we may wish to employ.[1] The present study has followed this approach. The final phase of the study leads to the assertion of hypotheses and confirmation of predictions.

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[1]William Stephenson, Study of Behavior: Q-Technique and Its Methodology (Chicago: The University of Chicago Press, 1953).

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The five phases of this study are:

1. A re-analysis of the MacLean and Hazard study of picture interest of women. This re-analysis serves as a starting point for finding proper variables for the next experiment.
2. A tryout of four predicted variables to form types of picture appeal.
3. A more comprehensive study of picture appeal and segmentation of audience in terms of content variables and reaction patterns.
4. An editorial prediction game dealing with editors' ability to predict a certain reader's reaction.
5. The finding of typologies within the audience in terms of their picture values, plus a large-scale study of editorial prediction. The hypotheses and expected effects designed have aimed at the different levels of experience in editing, different types of audience, and different levels of information provided about the audience.

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CHAPTER II

METHODOLOGY

Theoretical Framework

This study can be regarded as a small scale operations research.

> Operations research in the most general sense can be characterized as the application of scientific methods, techniques and tools to problems involving the operations of systems so as to provide those in control of the operations with optimum solutions to the problems.[1]

Research of this nature is not a one-shot project. It starts with restricted scope, is enlarged, and ends up with some optimum decisions, some optimum decisions, policy, or design. It may not result in the best solutions, because of a lack of time, funds, or opportunity, but it gets as close to a best solution as possible. It should also be noted that such research only recommends means for choosing solutions; the final decision rests in the hands of the persons in control of the operations.

In practice, parts of the total problem are usually solved in sequence. In many cases the total problem cannot be formulated in advance, but the solution of one phase of it helps define the next phase. This is the case in this study.

Cross-sectionally, Q-methodology is employed throughout most of the study. Q-sort provides a systematic way to test a person's ideas,

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[1]Ackoff, Churchman, and Arnoff, Introduction to Operations Research (London: John Wiley and Sons, Inc., 1957) pp. 8-9.

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notions, beliefs, attitudes, opinions or wishes. These internal states or "meanings" are the basic elements in all human communication. Communication always involves a tripartite interrelationship between person X, the media or social mechanisms Y, and a message Z, with respect to situation and events. With Q-samples, which could be self-referent statements, art objects, descriptions of behavior, personality traits, and the like, person X can perform Q-sorts according to his own ideas, notions, beliefs, etc.[1]

The Q-sorts, correlated and factored, provide an objective basis for classification and comparative study within any XYZ situation for X, or for many. The factors are available for explanation.

This methodology is chosen to handle scientifically the inner experiences of the readers and should serve to increase the picture editors' "feel" for them. Basically, one understands anything, including the past, only by penetrating its inner relation to the "I" of the present. Q-sorting will accomplish this end.

One of the attributes of Q-methodology which is most important to this study is its ability to segment people into types. "Type" may be defined as an abstract person who is a characteristic specimen may be defined first through a factor study and that thereupon a class may become apparent[2]. Thus, Q-factors represent types of persons who provide similar Q-sorts and thus give similar descriptions of themselves in terms of their reactions to the pictures.

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[1]William Stephenson, A General Theory of Mass Communication, Mimeographed (1960).

[2]Stephenson, The Study of Behavior, pp. 158-159.

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The most important statistical method used in Q-technique is dependency factor-analysis and analysis of variance. The word "dependency" means the factor analysis is concerned with effects which are specified beforehand and which one wishes to put to an empirical test. This dependency factor analysis consists of dependent variables, Q-samples, subject sample, conditions of instruction for Q-sort, and the procedures to obtain computed factors, rotated factors, standardized Q-scores or Z-scores, factor-arrays, consensus items, etc. These are discussed and described next.

The Q-sample: 120 Magazine Pictures

The 120 pictures used in this study were chosen from a Q-population of pictures in Life and Look magazines. Care was taken to select pictures encompassing a wide range of content, since content appears to be the main determinant of pictorial appeal.

The pictures were examined and sorted into different groups by similarity of content. The 120 pictures, in twenty categories of content, were finally chosen for the item-sample of this study. Each category was given names suggested by the factors found in the Badger Village study of picture interest. The names of categories help interpret factors in the analysis of data.

The 20 categories of the 120 pictures covered glamour, show, design, fame, sex, performance, young marriage, politics, sports, social problems, public violence, destruction, sudden death, soldiers, tools of war, death and misery, patterns, off-beat, science, and arts.

The pictures were clipped from the magazines and reproduced in black and white form, 4X5 inches. The label for each picture was taken

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Category
1. Glamour:
2. Show:
3. Fame:
4. Sex:
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out in the process of reproducing. Four copies of each picture were prepared, and these copies were mounted on 5 1/2 x 7 inch white pieces of cardboard. Each set was given a series of identifying numbers on the back of each card, and the same number was given to the same picture in the other three sets.

The list of 120 pictures is given in Table 1.

TABLE 1

THE 120 PICTURES USED IN THIS STUDY

Category	Name of Picture
1. Glamour:	1. Misses America of 1959, 1960 and 1961
	2. Shah's bride of Iran and peace doves
	3. Ford family at daughter Anne's debut party
	4. Queen of Iran at opera theatre
	5. Prince's wedding
	6. Nobel party in Sweden
	7. King's wedding
2. Show:	8. Leslie Caron dancing
	9. Scottish dance
	10. Football game half-time entertainment - "tiger" marching
	11. Skating on the stage
	12. Football game half-time entertainment - school band
	13. Symphony orchestra
	14. Young orchestra conductor
3. Fame:	15. 101st birthday - old lady with her grandchildren and a birthday cake
	16. Golden wedding party - several hundred old couples
	17. 80th wedding anniversary - family gathering
4. Sex:	18. Brigitte Bardot
	19. Marilyn Monroe
	20. Beach beauty in Bikini
	21. Rita Hayworth
5. Performance:	22. Senator Sam Rayburn and baby grandson
	23. Bishop performing a mass
	24. Crying little girl and dog
	25. Hemingway sitting and reading under a tree with his pipe and dog
	26. Old orchestra conductor
	27. Little girl and fish
	28. Judo - kids in judo uniform

TABLE 1 - Conti

Category
6. Young marri
7. Politics:
8. Sports:
9. Social pr
10. Public v

TABLE 1 - Continued

Category		Name of Picture
6.	Young marriage:	29. Audrey Hepburn and baby son - formal portrait on baptismal day
		30. Debbie Reynolds and daughter at the airport
		31. Nixon family on the beach
		32. Kennedy family sitting on the lawn
7.	Politics:	33. Kennedy campaign - autographing
		34. Nixon campaigning - shaking hands and keeping track of his watch
		35. Nixon giving a speech
		36. Republican big shots
		37. Republican campaign - public gathering with slogans
		38. Khrushchev and Kennedy
8.	Sports:	39. Baseball game - fourth base
		40. A football player's muddy face - close-up
		41. A tennis player
		42. Olympic track star - at the final dash - a close-up
		43. Championship boxing - Johansen and Patterson
		44. Baseball pitcher - close-up
		45. Football tackles
		46. Baseball pitcher - long range
9.	Social problems:	47. Chinese student working in the Commune
		48. Chinese Student operating machine in the Commune
		49. Victims of poverty - Starving parents and baby
		50. Juvenile delinquency - boys leaning against wall
		51. Hungry boy - feeble and lonesome looking
		52. Slum bedroom
		53. Billy Graham preaching in factory
		54. Black and white intermarriage - Sammy Davis, Jr. and May Britt
		55. Freedom riders singing on the campus
		56. Peeking eye - close-up
		57. Freedom riders inside the bus
		58. Girl criminal
		59. Negro college students
10.	Public Violence:	60. Threat in the gang
		61. Crowds and policemen - long range
		62. Angry demonstrator - close-up
		63. Bloody man in the back of a truck
		64. Man being caught

TABLE 1 - Conti

Category
11. Destruction
12. Sudden deat
13. Soldiers:
14. Tools of w
15. Death & m
16. Patterns
17. Designs:
18. Off-beat

TABLE 1 - Continued

Category		Name of Picture
11. Destruction:	65.	Flood scene - long range
	66.	Fire on the sea
	67.	Burned school house in ashes
	68.	Airplane crash in New York - long-range
	69.	Kids and big waves
	70.	Firemen and the dead
12. Sudden death:	71.	Sudden death
	72.	Beach widow crying
	73.	Boat tragedy and frightened youth
13. Soldiers:	74.	Soldier staring
	75.	Peeking East German soldier
	76.	Soldier crawling
	77.	Soldiers' parade
	78.	Gun soldier parade
14. Tools of war:	79.	Big gun - close-up
	80.	Victory comes to soldiers
	81.	Military weapons
	82.	Prisoners in Cuba
15. Death & misery:	83.	Soldiers in the sea to be rescued
	84.	Prisoners
	85.	Hanging of Mussolini and his mistress
	86.	Searching the dead's pockets
	87.	Dead soldiers on the beach
	88.	Death in the jungle
	89.	Dead soldier - close-up
16. Patterns:	90.	Mother and 12 pairs of shoes
	91.	White Democratic girls campaigning for Kennedy
	92.	Skiing
	93.	Cello concert near the river bank
	94.	Gravestones
17. Designs:	95.	Castle - long-range
	96.	Big bridge - close-up
	97.	Big building and reflection in water
	98.	Castle - taken from inside
18. Off-beat:	99.	French woman selling fish (a scene from movie)
	100.	Telephone booth cram - close-up
	101.	Telephone booth cram
	102.	French vendor (a scene from movie)
	103.	Boat man

TABLE 1 - Cont

Category
19. Science:
20. Arts:

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TABLE 1 - Continued

Category		Name of Picture
19.	Science:	104. Machine
		105. Space lady
		106. Light ball
		107. Radar
		108. Metal net
		109. Head operation
		110. Dentist and patient
		111. Glass equipment
		112. Little boy getting a shot from a doctor
		113. Machine hands
		114. Plastic model of human body organism
20.	Arts:	115. 1st prize winning roses
		116. Cathedral dome painting - close-up
		117. Farm scene
		118. Sunset fishing
		119. Clouds
		120. Beach, fisherman, fish and tree - both close-up and long-range

The 120 pictures were used differently in the second, the third, the fourth and the fifth phases.

The entire group of 120 pictures was used only in the second phase. The group was reduced to 60 pictures that were at the more extreme ends of peoples' positive and negative choices, since it was discovered that 120 pictures were too many for each subject to sort continuously four times on four different dimensions. The list of these chosen 60 pictures used in the third phase is given in Table 2. The 60 pictures are an adequate sample in Q-study.

The same 60 pictures used in the third phase were used again in the fourth phase as an information sort given by two predictees.

And the rest of the 60 pictures which weren't used in the third phase, were then used as a sample to predict the way these two predictees would sort.

Number	
1.	Miss Ameri
2.	Queen of I
3.	Ford famil
4.	Nobel Peac
5.	Leslie Car
6.	Scottish d
7.	Football g
8.	101st birt
9.	80th weddi
10.	Golden wed
11.	Beach beau
12.	Rita Haywo
13.	Grandpa ar
14.	Little gi
15.	Hemingway
16.	Judo
17.	Kennedy f
18.	Audrey He
19.	Kennedy c
20.	Nixon gi
21.	Khrushch
22.	Champion
23.	Baseball
24.	Olympic
25.	Footbal
26.	A footb
27.	Chinese
28.	Peeking
29.	Juveni
30.	Freedo

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TABLE 2

THE 60 PICTURES USED IN THE THIRD PHASE

Number	Name of Picture	Number	Name of Picture
1.	Miss America	31.	Girl criminal
2.	Queen of Iran	32.	Billy Graham preaching
3.	Ford family	33.	Hungry boy
4.	Nobel Peace Prize dinner	34.	Man being caught
5.	Leslie Caron dancing	35.	Airplane crash
6.	Scottish dance	36.	Flood scene
7.	Football game band entertaining	37.	Beach widow
8.	101st birthday	38.	Hanging of Mussolini and his mistress
9.	80th wedding anniversary		
10.	Golden wedding anniversary party	39.	Sudden death
11.	Beach beauty	40.	Soldier crawling
12.	Rita Hayworth	41.	Soldier staring
13.	Grandpa and baby	42.	Soldiers' parade
14.	Little girl and dog	43.	Happy soldiers
15.	Hemingway and dog	44.	Big gun
16.	Judo	45.	Death in the jungle
17.	Kennedy family	46.	Boat tragedy
18.	Audrey Hepburn and son	47.	Dead soldiers on the beach
19.	Kennedy campaign	48.	Gravestones
20.	Nixon giving a speech	49.	Cello concert near the river bank
21.	Khrushchev and Kennedy		
22.	Championship boxing	50.	Skiing
23.	Baseball scene	51.	Great bridge
24.	Olympic track star	52.	Castle scene
25.	Football tackles	53.	Telephone booth cram
26.	A football player's muddy face	54.	The French vendor
27.	Chinese kid in the Commune	55.	French woman selling fish
28.	Peeking eye	56.	Space lady
29.	Juvenile delinquency	57.	Doctor and little boy
30.	Freedom riders	58.	First prize roses
		59.	Farm scene
		60.	Cathedral dome painting

In the fifth phase, two sets of pictures previously used were put back together and divided into two sets again, this time according to the even distribution of pictures of each category in content. These two sets of pictures are listed as follows:

Number	
1.	Misses Ame and 196
2.	Queen of I
3.	Prince's w
4.	Leslie Car
5.	Football g "tiger"
6.	Football g school b
7.	Young orch
8.	101st birt cake
9.	80th wedd couple
10.	Brigitte
11.	Beach bea
12.	Senator S grandso
13.	Crying li
14.	Little gi
15.	Audrey He formal
16.	Nixon far
17.	Kennedy c
18.	Nixon car
19.	Republic gather
20.	Baseball
21.	Tennis p
22.	Champion and Pa
23.	Football
24.	Chinese Commur
25.	Victims baby
26.	Hungry lookin

TABLE 3

THE 60 PICTURES USED IN PHASE 5: DECK 1

Number	Name of Picture	Number	Name of Picture
1.	Misses America of 1959, 1960 and 1961	27.	Billy Graham preaching in factory
2.	Queen of Iran at opera theatre	28.	Freedom riders singing on the campus
3.	Prince's wedding	29.	Freedom riders inside the bus
4.	Leslie Caron dancing	30.	Negro college students
5.	Football game entertaining - "tiger" marching	31.	Crowds and policemen - long-range
6.	Football game entertaining - school band marching	32.	Bloody man in back of a truck
7.	Young orchestra conductor	33.	Flood scene - long-range
8.	101st birthday - old lady and her cake	34.	Burned school house in ashes
9.	80th wedding anniversary - old couple and the family	35.	Airplane crash in New York - long-range
10.	Brigitte Bardot	36.	Beach widow crying
11.	Beach beauty in Bikini	37.	Soldier staring
12.	Senator Sam Rayburn and baby grandson	38.	Soldier crawling
13.	Crying little girl and dog	39.	Gun soldier parade
14.	Little girl and fish	40.	Victory comes to soldiers
15.	Audrey Hepburn and baby son - formal portrait on baptismal day	41.	Military weapons
16.	Nixon family on the beach	42.	Prisoners
17.	Kennedy campaign - autographing	43.	Searching the dead's pockets
18.	Nixon campaign - giving a speech	44.	Death in the jungle
19.	Republican campaign - public gathering	45.	Mother and 12 pairs of shoes
20.	Baseball scene - fourth base	46.	Skiing - long-range
21.	Tennis player	47.	Gravestones
22.	Championship boxing - Johansen and Patterson	48.	Castle scene - long-range
23.	Football tackles	49.	Big building and its reflection in water
24.	Chinese student working in the Commune	50.	French woman selling fish
25.	Victims of poverty - parents and baby at starvation	51.	Telephone booth cram
26.	Hungry boy - feeble and lonesome looking	52.	Boat man
		53.	Big machine
		54.	Light bulb
		55.	Metal net
		56.	Dentist and his little patient
		57.	Machine hands
		58.	First prize winning roses
		59.	Farm scene
		60.	Clouds

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Number	
1.	Queen of Ira
2.	Ford family debut part
3.	King's weddi
4.	Scottish dan
5.	Ice skating
6.	Symphony orc
7.	Old symphony
8.	Golden weddi
9.	Nobel party
10.	Marilyn Monr
11.	Rita Haywort
12.	Bishop perfo
13.	Hemingway si under a tr and dog
14.	Judo - kids
15.	Debbie Reyn
16.	Kennedy fam lawn
17.	Nixon campa
18.	Republican
19.	Khrushchev
20.	A football
21.	Olympic tr
22.	Baseball p
23.	Baseball p
24.	Chinese st machine
25.	Juvenile leaning
26.	Slum bedr
27.	Black and Sammy D
28.	Peeking e
29.	Girl crim
30.	Threat in

TABLE 4

THE 60 PICTURES USED IN PHASE 5: DECK 2

Number	Name of Picture	Number	Name of Picture
1.	Queen of Iran and peace doves	31.	Crowds and policemen - close up
2.	Ford family in daughter Ann's debut party	32.	Man being caught
3.	King's wedding	33.	Fire on the sea
4.	Scottish dance	34.	Firemen and the dead
5.	Ice skating on the stage	35.	Sudden death
6.	Symphony orchestra	36.	Boat tragedy and frightened youngster
7.	Old symphony conductor	37.	Peeking German soldier
8.	Golden wedding party	38.	Soldier parade
9.	Nobel party in Sweden	39.	Soldiers in the sea to be rescued
10.	Marilyn Monroe	40.	Big gun - close-up
11.	Rita Hayworth	41.	Prisoners in Cuba
12.	Bishop performing a mass	42.	Hanging of Mussolini and his mistress
13.	Hemingway sitting and reading under a tree with his pipe and dog	43.	Dead soldiers on the beach
14.	Judo - kids in judo uniform	44.	Dead soldier - close-up
15.	Debbie Reynolds and daughter	45.	White Democratic girls campaigning for Kennedy
16.	Kennedy family sitting on the lawn	46.	Cello concert near the river bank
17.	Nixon campaign - shaking hands	47.	Glass equipment
18.	Republican big shots	48.	Big bridge
19.	Khrushchev and Kennedy	49.	Castle - viewed from inside
20.	A football player's muddy face	50.	Telephone booth cram - close-up
21.	Olympic track star	51.	French vendor
22.	Baseball pitcher - close-up	52.	Kids and big waves
23.	Baseball pitcher - long-range	53.	Space lady
24.	Chinese student operating machine in Commune	54.	Radar
25.	Juvenile delinquency - boys leaning against the wall	55.	Head operation
26.	Slum bedroom	56.	Little boy getting a shot
27.	Black and white intermarriage - Sammy Davis jr. and May Britt	57.	Plastic model of human body organism
28.	Peeking eye	58.	Cathedral dome painting
29.	Girl criminal	59.	Sunset fishing
30.	Threat in the gang	60.	Beach, fisherman, fish and trees.

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The Subject Sample

Subjects in this study were chosen independently for each experimental phase.

The subjects interviewed in the second phase were two student couples at Michigan State University. Husband and wife A, aged 26 and 23, were majoring in agricultural economics and communication respectively; husband and wife B, aged 31 and 23, were majoring in electrical engineering and nursing.

In the third phase, a study of types of picture appeal, subjects were selected according to a factorial design on three subject variables shown in Table 5.

TABLE 5

FACTORIAL DESIGN OF SUBJECT SAMPLE FOR THE THIRD PHASE

Sex	Age		Education
male	20-30	young	graduate level
female	31-50	middle-aged	college level
	51-75	old	high school level

From the 18 possible combinations, persons with heterogeneous occupations were expected to emerge. The actual subjects used in the experiments did come from a variety of occupations: chemist, businessman, pre-med junior, psychology student, housewife, residence sales assistant, retired person, communication major, electrician at Olds Automobile Plant, chemistry professor, office manager, election administrator, secretary of a national music league, head of soil and water department and so forth.

There were 18 possible arrangements of the three variables shown in Table 5. These 18 subjects were chosen from Lansing and East Lansing areas. In the analysis of types of people, socio-economic class, age, education and sex were used.

In the fifth phase, there were two kinds of subjects involved, one kind were readers, the predictees, and the other kind were editors, the predictors. The predictees were again chosen according to three subject variables:

TABLE 6

FACTORIAL DESIGN OF THE SUBJECT SAMPLE FOR THE FIFTH PHASE

Sex	Age		Education
male	young	20-35	college level
female	middle-aged	36-50	high school level
	old	51-above	grade school level

The other subjects, the picture editors, were chosen in order to structure three different levels of expertness in picture editing:

1. The senior picture editors had experience in picture editing of some publications, chiefly newspapers.
2. The junior editors were students who majored in journalism, knew photography, and had experience in some sort of picture editing.
3. The naive "editors" were junior or senior education majors who did not have any experience whatsoever in photography or in picture editing.

The choice of three different levels of expertness in picture editing were employed in order to test the following hypothesis: The

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more experienced the editor, the more he can maximize his feeling for his audience, and therefore, the more accurate his prediction would be.

Q-sorting

In Q, all the items in a sample have to be compared with one another, and judgments must be made about each item in the context of all the others and under the conditions of instruction. The Q-sort uses a flattened symmetrical distribution of scores like the one shown in table 7.

TABLE 7

THE Q DISTRIBUTION FOR THE Q-SORT OF 60 PICTURES

	Least									Most
score	0	1	2	3	4	5	6	7	8	9	10
frequency	3	4	6	6	7	8	7	6	6	4	3

Let us for example take one of the Q-sorts in this study. The subject is presented a set of 60 pictures and is asked to choose the three pictures he likes most. The interviewer records the pictures and gives 10 points for each of the most liked ones. Then, subject is asked again to choose the next four most liked ones, and these four pictures are given 9 points each, and so on, down to the last three least-liked pictures which are given score 0. In order to do this more easily, the subject is advised to look through the whole set of pictures and divide them into three piles: one pile of pictures which he likes the most, the middle pile which he likes less, and the last pile which he likes the least. Then he sorts these three piles of pictures again into the forced distribution given above.

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It is important that the operation itself should be a reasonable one, such as a person can perform without feeling that it gravely distorts what he wishes to do. Also in the Q-sorting operation, a person can be made to "give away" many habitual modes of behavior and thus his Q-sort can be said to be reliable at any time.

In all, Q-sort is an arrangement of Q-items according to an emphasized condition of instruction. It is a person's understanding, representing empirically-possible states of affairs. Q-factors are classes of similar Q-sorts. Orthogonal factoring brings to a head the maximal differences between classes of Q-sorts. Rotation of factors focuses similarities and differences maximally.

Q-methodology is fundamentally comparative; it deals with relations and quantitative concepts.

The process of an editor's predictive Q-sort will be discussed separately in the design of the fifth phase.

The Interviews

Subjects chosen according to the designs were asked on the phone to arrange an appointment for interviewing in their homes. The interviewer called on them as scheduled and asked them to perform the Q-sort.

First, the subject was told roughly the scheme and purpose of the study. He was told that this study attempts to find out what kinds of people like what kinds of pictures and that these results were to be fed back to some picture editors to test their ability to predict readers' reactions. The subject was told that his own true personal feelings and opinions toward the pictures were most valuable to us and that his identity would remain confidential.

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Then, he was handed a set of pictures, previously thoroughly shuffled. What he was expected to do was explained by giving him oral or written instructions for the Q-sort. He was then asked if he was clear about the assignment. The explanation was repeated until he said "yes". He was given the scores and frequencies of the Q-distribution, but was first advised to sort the pictures into three piles, i.e., most--so-so--and least. He was instructed to sort these three piles again into the exact given Q-distribution.

After he finished the Q-sort with all the pictures spread in front of him in the required chosen form, he was asked to give comments on the top and bottom three choices and the general principles he used in judging the pictures as a whole. He was told that he could make any final changes in the picture arrangement. However, very few subjects changed. After all this, the picture numbers were recorded on the Q-distribution sheet by the interviewer. Thus, each Q-sort was obtained.

In the fifth phase, the subjects, both the readers and the picture editors, were required additionally to fill out a series of questions which included all the needed demographic information about them. The questions were written according to some previous audience studies to cover all the demographic variables typically used for analysis of the audience. The readers or the editors were asked to fill out the question forms when the interviewer recorded the first Q-sort.

All the Q-sorts were the raw materials for factor analysis.

Computed Factors, Rotated Factors, Z-scores, Factor-arrays and Consensus Tables

Computed factors: If M Q-sorts are collected, the number of correlations between them amount to $\frac{M(M-1)}{2}$. This correlation matrix may yield several factors through statistical computation. These first factors to emerge are called computed factors, and they may not be easy to interpret. Then, a rotation of factors is employed.

Rotated factors: When the variates in computed factors have been sharply focused by rotation, the factors are the final ones to be interpreted. They are called rotated factors.

Factor arrays: When the factors are found, then Spearman's weighting formulas can be applied to the relatively distinguished loadings of each factor selected. In so doing, we expect to get rather distinctive patterns of types represented by the factor arrays being thus weighted.

Z-scores: Factor arrays are presented in Z-scores - the standard deviation units for ready comparison. In other words, each picture in each factor has a Z-score. Comparing all the Z-scores, the highly rejected, and highly accepted pictures by each factor can be listed. Also factor comparisons can be made: these reveal consensus as well as highly discriminating items.

The consensus tables: They are the lists of the pictures that all the factors agree upon in the high range, middle range and low range. In comparing pictures for all factors, we can find which pictures one factor accepts or rejects more than the other factors. All these comparisons are in terms of standard deviation units - the Z-scores.

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Conditions of Instruction

Conditions of instruction were developed, based on the things considered the most critical variables concerning people's value-judgments on the content of pictures. Conditions of instruction determined the precision of what has been measured and the situation under which the inferences were made.

The important variables which have been treated throughout the study were:

Like-Dislike: How much do you like or dislike what is depicted in the picture?

(treated in 2nd, 3rd and 4th phases)

Intensity-of-Feeling: How strong is the feeling aroused in you by the picture?

(treated in 2nd, 3rd and 4th phases)

Complexity-Simplicity: How simple or complex is the setting or the content of the picture?

(treated in the 2nd phase)

Clarity-Obscurity: How easily can you recognize what is depicted in the picture?

(treated in the 2nd phase)

Actual Self-Identification: How much are you actually like what is depicted in the picture?

(treated in the 3rd phase)

Ideal Self-Identification: How much would you like to be or to participate in what is depicted in the picture?

(treated in the 3rd phase)

Value: How much do you need and want the picture to be printed in your ideal magazine?

(treated in the 5th phase)

Exact conditions of instruction based on these variables were stated formally in each phase as on next page. They were given in the same way to each subject we interviewed, right before each Q-sorting. When doubt came up on the side of the subject, discussion was allowed only to the extent of making clear what the given condition was, until he felt ready to sort with no uncertain feeling about what he should do.

The conditions of instruction for Q-sorts in the 2nd phase were:

1. Like-Dislike: How much do you like or dislike who is pictured or what activity is taking place in the picture? In other words, how much do you like or dislike the subject matter? The pictures are to be graded from those you like most to those you like least, in such a way as to conform to the prearranged frequency distribution shown in Table 8.

TABLE 8

THE FREQUENCY DISTRIBUTION FOR THE Q-SORT OF 120 PICTURES USED IN THE SECOND PHASE

	Least														Most
Score	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Frequency	4	6	8	8	9	10	10	10	10	10	9	8	8	6	4

2. Intensity-of-Feeling: How strong is the feeling aroused in you by the picture? The feeling may be any kind, but tell the intensity of it. We ask you to grade the pictures from those you feel most intense about to those you feel least intense about in the same way as mentioned above.

3. Clarity-Obscurity: How easily do you understand what goes on in the picture or recognize who it is or what it's about? Again, follow

the same picture-sorting instruction given above.

4. Simplicity-Complexity: How simple or complex is the setting or the content of the picture? Is the subject matter or the setting elementary, unmixed, plain-spoken, common - or the opposite to you? The pictures are to be sorted in the same distribution again.

The conditions of instruction for Q-sorts in the 3rd phase were:

1. Like-Dislike: How much do you like or dislike what is depicted in the picture? Judge only the subject matter. The pictures are to be graded from those you like most to those you like least in such a way as to conform to a prearranged frequency distribution as shown in Table 9.

TABLE 9

THE FREQUENCY DISTRIBUTION FOR THE Q-SORT OF 60 PICTURES USED IN THE THIRD PHASE

	Least										Most
Score	0	1	2	3	4	5	6	7	8	9	10
Frequency	3	4	6	6	7	8	7	6	4	4	3

2. Intensity-of-Feeling: How strong is the feeling aroused in you by the picture? Sort the pictures in the same manner mentioned above; the same for the next two dimensions.

3. Actual Self-Identification: How much do you see yourself participating in or identifying with who and what is in the picture?

4. Ideal Self-Identification: How much would you like to participate in or identify with who and what is in the picture?

Experiments conducted in the fourth phase are described below:

Two picture editors were asked to do three Q-sorts the way they would predict one of the assigned subjects would sort. Different levels

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of information about the predictee was provided in each sorting. One picture editor predicted the three Q-sorts of her predictee on the Like-Dislike dimension, and the other picture editor predicted the three Q-sorts of his predictee on the Intensity-of-Feeling dimension. "Mrs. Snelling" was chosen as the first predictee because of her high factor loading on factor A in the previous phase. "Mrs. Millan" was chosen as the second predictee as the highest factor loading of factor B in the previous phase.

There were two sets of 60 pictures used in this preliminary editorial predictions. One, the same set used in the previous phase, was used here as an information sort. The other 60 pictures, which were from the same variety of categories, were used for the picture editors' Q-sorting.

The whole prediction experiment was stratified as follows:

The main issue of the experiment was to test if picture editors can increase their ability to predict readers' reactions toward pictures when more information about readers is fed to them. Thus, the conditions of instruction for the editors' prediction Q-sorts differ mainly in the level of information available.

Conditions of instructions were given as follows:

1. Based on your image of an average adult in Lansing, please sort the pictures in a Like-Dislike dimension the way you think he would sort. Predict his Like-Dislike for the subject matter depicted in the pictures by sorting them according to the distribution shown in Table 10.

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TABLE 10

THE FREQUENCY DISTRIBUTION FOR Q-SORT OF 60 PICTURES USED IN THE FOURTH PHASE

	Least										Most
Score	0	1	2	3	4	5	6	7	8	9	10
Frequency	3	4	6	6	7	8	7	6	6	4	3

2. Consider Mrs. Snelling. She is 31, a housewife, has one boy in kindergarten and one girl in 6th grade, watches TV six hours every day, reads a newspaper, doesn't go to movies, has no special religious belief, subscribes to Life and Look magazines, graduated from the local high school and has lived in Lansing all her life; now, sort the same 60 pictures the way you think Mrs. Snelling will sort, using the same Q-distribution.

3. Besides what you have been told about Mrs. Snelling, here is another similar set of 60 pictures in the order sorted by her in the Like-Dislike dimension not long ago. Her top and bottom choice comment were that beauty, flowers, sports and scenery interest her and that she hates children suffering. Now, please study her sort of pictures, and then sort this previous set of pictures again the way you think she will sort, in the Like-Dislike dimension.

In the second picture editor's prediction Q-sort on the second predictee, the same level of information was given for the first, second and third Q-sorts, except this time on the Intensity-of-Feeling dimension. In the second sort, the demographic information about Mrs. Millen included: a woman aged 31, doctoral candidate in communication, has no children, doesn't watch TV, reads a newspaper every day, goes to a

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movie every two weeks, subscribes to Look and Life magazines, no religious beliefs, knows photography and reads photography books, has been traveling in Montreal and Cornell, likes auto racing and fencing. War has strong impact on her, and she likes unusual character depiction. She doesn't have interest in masses where no identification of the individual is present. In the third sorting, besides this same demographic information, her Q-sort was demonstrated in front of the editor, and then the editor was asked to sort the same set of pictures once more.

Design of the Fifth Phase

The main idea of this phase is to study values of a well-rounded audience of different backgrounds for magazine pictures and then choose two readers to represent two major patterns or types of reactions. The test of the editor's ability to predict involves different kinds of picture editors using different kinds of information about these two chosen readers.

There are several major issues in this design. They include the definition of one certain type of picture appeal for Q-sorts, the choice of two significant readers to be predicted, the variables used in testing the picture editor's ability to predict and the method and procedures for testing.

A. Value-dimension as the chosen type of picture appeal to be tested.

In the previous phases, variates like Like-Dislike, Intensity-of-Feeling, Complexity-Simplicity, Clarity-Obscurity, Actual Self-Identification, Ideal Self-Identification were studied. Here in the final phase, it is

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hardly possible to test many variates (sorting instructions) at the same time, because even a few readers and editors require a fairly large amount of time and effort for testing on one variate. One additional variate means twice or three times the required number of Q-sorts and editors in testing.

But, what dimension should be chosen? Since we could not study specifically several dimensions of picture appeal distinctively, we chose a well-rounded term to test reader reactions; that is, to test the values in the picture in the eyes of the readers.

In this value dimension, the condition of instruction for reader's Q-sort is specified as follows:

> Consider very carefully a magazine that would be ideal to you; by ideal, I mean one that has pictures you want and need very much that would have high values for you. Pick out the picture here that represents the kinds of picture this magazine would be most likely to have. Please sort the pictures according to their values for your ideal magazine in such a way as to conform to the following prearranged frequency distribution:

	least valuable										most valuable
Score	0	1	2	3	4	5	6	7	8	9	10
Frequency	3	4	6	6	7	8	7	6	6	4	3

> Please sort the 60 pictures as accurately as possible, considering only your very own individual feelings and judgment not what other people or friends would think about them.

The reason for suggesting an ideal magazine in the mind of readers is because the term "value" is hard to define. The ideal magazine in readers' minds puts readers in a concrete hypothetical situation and is believed to make readers think about values in pictures for various kinds of reasons. Finally, finding what readers want and need can be practically valuable.

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B. The choice of two predictees.

Eighteen readers were chosen representing different combinations: male-female; young-middle-aged-old; and college-high school-grade school backgrounds. They were asked to do two Q-sorts on a value dimension with instructions as above. Their Q-sorts of both sets of 60 pictures were correlated, and factor-analyzed separately. Studying the two factor-loadings, a young male reader, who was a grade school graduate, and a middle-aged female reader, with a college level education, were chosen as the two predictees. Correlations between their Q-sorts on two sets of pictures were -0.185 and -0.07. The low correlations showed the independence of their picture-values. Their Q-sorts were among the highest factor-loadings for two different types of reaction patterns. In other words, they were the two most representative readers on two factors and the most independent from each other. Also their differences in sex, age and education happened to make them the ideal choice, since it is interesting to see if ability to predict differs for different readers.

C. The design for testing the picture editor's ability to predict was analysis of variance.

The analysis of variance tested the effects or the combined effect of two or more experimental variables. It was a 3x4x2 factorial experiment. The term factor denotes the treatment and experimental variables; it had three variables and there were 3,4,2 levels in the three variables. The three variables and their levels (see Table 11) were:

Kinds of Editors - the Predictors
Senior Editors (Professional Editors & Photographers)
Junior Editors (Journalism Majors Who Have Some Experience in Picture-Editing)
"Naive Editors" (Junior or Senior Education Majors Who do not Know Photography)

TABLE 11

DESIGN OF THE FIFTH PHASE: THE EDITORS' PART

Kinds of Editors - the Predictors	Levels of Information Provided the Editors about the Readers	Number of Editors	The Male and Female readers to be Predicted	
Senior Editors (Professional Editors & Photographers)	1 Minimal Demographic Information	Editor 1 Editor 2		
	2 Detailed Demographic Information	Editor 3 Editor 4		
	3 Predictee's actual Q-sort	Editor 5 Editor 6		
	4 Detailed Demographic Information and a Q-sort	Editor 7 Editor 8		
Junior Editors (Journalism Majors Who Have Some Experience in Picture-Editing)	1 Minimal Demographic Information	Editor 9 Editor 10		
	2 Detailed Demographic Information	Editor 11 Editor 12		
	3 Predictee's actual Q-sort	Editor 13 Editor 14		
	4 Detailed Demographic Information and a Q-sort	Editor 15 Editor 16		
"Naive Editors" (Junior or Senior Education Majors Who do not Know Photography)	1 Minimal Demographic Information	Editor 17 Editor 18		
	2 Detailed Demographic Information	Editor 19 Editor 20		
	3 Predictee's actual Q-sort	Editor 21 Editor 22		
	4 Detailed Demographic Information and a Q-sort	Editor 23 Editor 24		

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1. Different kinds of predictors--the editors:

Three different kinds of picture editors were chosen according to their experience in picture-editing. We chose eight senior editors, eight junior editors and eight naive "editors." The senior editors were professional editors, picture editors, and photographers of certain publications around the Lansing and East Lansing areas. They were full-time employees and most of them were in their 40's and 50's. All of them had a college degree or above. Most of them were married and had children. Five of them had annual incomes from $10,000 to $15,000 and three of them had annual incomes from $7,000 to $8,000.

The junior editors were junior or senior journalism majors with some experience in picture selection. The eight chosen for our study were from Michigan State University, and most of them had worked or were working for the Michigan State News, the week-day newspaper of the university. Some of them were photographers for Michigan State News. Their ages were in the neighborhood of 20; they were all single. They came from families with an average annual income around $5,000 to $6,000. They liked sports and cultural activities.

The naive "editors" were hypothetical editors. All of them were junior or senior education majors who did not know photography. Their names were found on card files of the education department. They were asked on the phone about their knowledge of photos and all the ones who didn't know photos were asked to do the Q-sorts.

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2. There were four different levels of information about the two predictees assigned differently to different kinds of editors. Four pairs of editors of each kind were given one of the four different levels of information about the two readers before they predicted them.

   The levels of information given to the editors were:

   1. Minimal demographic information: age, sex, and level of education (Condition of instruction A).
   2. Detailed demographic information: (Condition of instruction B).
   3. A Q-sort of the predictee: (Condition of instruction C).
   4. A Q-sort of the predictee plus detailed demographic information: (Condition of instruction D).

3. Two different readers to be predicted.

   The chosen male and female readers mentioned before were assigned for each of the 24 editors in the random and controlled order no matter what information about them was given. That is, each editor was randomly assigned a number within the group he belonged, and each number indicated one certain kind of condition of instruction. The male and female readers were randomly assigned to each editor. If editor A was randomly assigned to predict male reader first on the basis of minimal demographic information, then, the next editor who was to predict on the same basis was asked to predict female reader first. Thus, the effect of order in predicting the two readers was randomized and controlled. (see Table 11 again)

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All the 24 editors used the second set of 60 pictures to sort twice, and each time predicted one reader. The list of pictures is given in the early part of this chapter.

The editors' predictive Q-sorts of the second set of pictures were correlated with the readers' actual Q-sorts of the second set of pictures. Individual editor's ability to predict was assessed in terms of degree of correlation.

The sum of the D-squares between editors' Q-sorts and the readers' Q-sorts were used as raw scores for analysis of variance.

The results of 18 readers' value judgments on two sets of pictures and 24 editors' abilities to predict are given in the fourth and fifth chapters.

The exact written conditions of instruction for editors' predictive Q-sorting are given in the appendices.

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CHAPTER III

RESULTS AND INTERPRETATION OF THE FIRST FOUR PHASES

First phase: Re-analysis of "Women's Interest in Pictures: The Badger Village Study"

The MacLean and Hazard study: "Women's Interest in Pictures: The Badger Village Study" has thrown some light on the important variables concerned with the selection of publishable pictures.[1] They listed some possible elements which may make an effective picture, such as news value, size, suitable subject matters for the publication, etc. In their study, they studied the variable picture interest.

Before going into a re-analysis of their study, a summary of the findings is cited below:

> Six major appeals proved to account for nearly all measured variation in interest for 31 out of 51 pictures selected from Time and U.S. News & World Report for 1949 and 1950. Briefly, those appeals were:
>
> I. Idolatry: Successful, glamorous, wealthy women, especially in a "happy family" situation. Adolescent girl's dream.
>
> II. Social problems: People causing "trouble" like strikes and riots, people "on the wrong side of the tracks," people who do not "fit in" to popular ideals.
>
> III. Picturesque: Salon pictures, moody pictures, dynamic pictures, pictures portraying lonliness and escape from other people, doing things with hands.

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[1] Malcolm S. MacLean, Jr. and William R. Hazard, "Women's Interest in Pictures: The Badger Village Study," Journalism Quarterly (Spring, 1953).

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IV. War: War, fear of involvement in war, horror at the gruesome results of war, glory of American armed power and sympathy for the victims of war.

V. Blood and Violence: People suddenly dead through crime or accident.

VI. Spectator Sports: Action pictures of sports which command big audiences.

The definition of "interest" used in their study was very flexible, merely meaning how interested the interviewees were in the pictures. A great variety of reactions emerged under the term "interest."

The six major appeals seemed to be grouped by category of subject matter. Within each appeal, elements of interest varied. Also the same elements of interest could be found cross-sectionally throughout the six groups of interest.

In the first group, "Idolatry," a relatively wealthy and famous woman was almost the perfect object for identification, for dream-wish fulfillment, by some of the young married women in Badger Village. Familiarity and pleasant associations with what is depicted in the picture may determine the liking of the picture. Lack of recognition was given as reason for lack of interest. Adverse moral judgment of the subject matter played some part in the negative reactions to the pictures.

In the second group of interest, "Social Problems," social conscience reaction was given as one important interest factor. Striking feelings, sense of social responsibility, sad self-identification, and curiosity were the reactions aroused by the pictures in the people. Failure to recognize the subjects again was the main reason for low interest pictures of this category. Avoidance of social problems was revealed in some of the comments made on low interest pictures, too.

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In the third group, "Picturesque," liked subject matter; intensity of feeling--power, strength, pictorial composition--and contrasts, photographic qualities, were mentioned in the comments, as qualities which contributed to the attraction of the pictures. Negative reasons were "didn't see much," "no interest in or liking for that particular activity."

In the fourth group, "War," reactions seemed to involve fear, horror, curiosity, patriotic feelings and sympathy. Concern and identification appeared to be highly important in some of the top-rated pictures. Dullness and dislike of war were the reasons for low-interest pictures.

In the fifth group, "Blood and Violence," a great deal of fear-thrill due to intense feeling toward others or self-identification seemed functioning as an element. Avoidance was found in the negative reactions again.

In the sixth group, "Spectator Sports," favorable reactions were associated with general liking for the pictured sports, and vice versa.

Now, as a whole, we can see from the analysis cited above, that despite the different nature of the six distinctive groups, some elements of picture appeal included in "interest" can be found cross-sectionally. Elements include:

Like-Dislike (Personal interest--subject matters and value judgment)

Self-Identification (Feelings concerned with being or liking to be the depicted characters and situations or the reverse)

Intensity of Feeling (Impact: from the visible or intangible forces)

Clarity-Obscurity (Visible settings of angle, light, action, contrast, position, etc., plus realism and familiarity)

Simplicity-Complexity (Degree of understanding of what is depicted)

In fact, the chief essentials of content are appeal and impact. Visible forces such as a closeup, action, pattern, or extreme contrast of whites or shadows will arrest the eyes of the reader, and cause reader response. Intangible factors--the interest, drive, and feeling in the picture--such as adventure, ambition, combat, daring, escape, love, mystery, romance, self-preservation, sex, survival, suspense, anger, familiarity, hate, sympathy and so on, are the forces to arouse a response in the reader. Impact is the emotional reaction of the reader which produces responses running from casual interest to violent action. A picture's impact can result in responses very mild and audible.[1]

Another indication of these cross-sectionally functioning elements of appeal is found in the factor-to-factor correlations. For example:

1. Correlation between "Idolatry" and "Social Problems" is .23. This may be due to self-identification either ideally or sadly which draws interest.
2. Correlation between "Social Problems" and "Blood and Violence" is .45. The nature of the subject matters in these two groups is somewhat similar. It seems that intensity of feeling is the same element of interest for both groups.

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[1]Kalish and Edom, op. cit., pp. 79-80.

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3. Correlation between "Picturesque" and "Blood and Violence" is .51. The dramatic scenes in the "Blood and Violence" group again give strong feelings as the Picturesque group does, such as power, strength, the visible appeal.

4. Interest in "War" was related slightly to interest in "Blood and Violence" and "Spectator Sports."

MacLean and Hazard felt that a study like this would allow seeing sensible subject matter controls on future experimental work. They detected particular kinds of elements in each group and suggested that they can make studies within the group appeal study, or that elements can function between the groups. They suspected that clarity and simplicity and dramatic pictorial qualities may prove helpful when subject matter is held constant.

Second Phase: Preliminary Study of Types of Picture Appeal

Based on the re-analysis of MacLean and Hazard's picture interest study, four definite variables were chosen to test types of picture appeal for this phase.

The purpose of this second phase experiment is to find out specifically which pictures are higher than the others in reader's ranking along each of four dimensions: Like-Dislike, Intensity-of-Feeling, Clarity-Obscurity and Simplicity-Complexity.

After sixteen Q-sorts by four subjects were collected, the data were intercorrelated and factored. The process used here was William Stephenson's Q-Methodology centroid factor analysis as discussed in Chapter II.

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shown as below

Computed	
Variable Number	F
1	
2	.3
3	.0
4	.7
5	-.7
6	.2
7	.2
8	-.3
9	-.2
10	.5
11	.1
12	.4
13	.
14	.
15	-
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	-

Three factors emerged as significant and clear-cut results, by rotating the computed factors four times. Factor arrays of three factors were obtained through a weighting process.

Computed factors, rotated factors and the weighting schedule are shown as below:

TABLE 12

CENTROID AND ROTATED FACTORS
OF THE SECOND PHASE

Computed Centroid Factors					Rotated Factors				
Variable Number	Factors				Variable Number	Factors			
	F_1	F_2	F_3	F_4		F_1''	F_2''	F_3''	F_4''
1	.34	.47	.00	-.10	1	.25	.53	-.06	-.08
2	.04	-.72	.12	-.49	2	.15	-.68	-.20	-.47
3	.70	-.07	.22	-.45	3	.73	.06	-.16	-.45
4	-.70	.09	-.51	.07	4	-.86	.04	.10	.01
5	.23	.35	-.31	-.31	5	.01	.47	-.01	-.39
6	.28	-.24	-.30	-.15	6	.12	-.08	.26	-.41
7	.38	.04	.26	.21	7	.45	.08	.10	.19
8	-.27	-.14	-.41	-.31	8	-.42	-.09	-.01	-.39
9	.52	.39	-.10	-.12	9	.37	.53	.12	-.22
10	.27	-.21	-.05	-.20	10	.23	-.11	.05	-.29
11	.45	-.30	-.46	.37	11	.19	-.06	.77	-.16
12	.42	-.25	-.38	.49	12	.20	-.05	.77	-.01
13	.40	.68	-.26	-.22	13	.16	.82	.00	-.28
14	-.10	-.55	-.14	-.16	14	-.10	-.50	.09	-.27
15	.35	-.63	-.03	-.01	15	.35	-.50	.29	-.26
16	-.30	.03	-.12	-.15	16	-.32	-.01	-.14	-.08

TABLE 13

WEIGHTING SCHEDULE USED IN THE SECOND PHASE

Factor	Representing Variables	Loading	Weight
F_1	3	.73	1.563
	4	-.86	-3.303
	7	.45	.564
F_2	1	.53	.737
	2	-.68	-1.265
	5	.47	.603
	9	.53	.737
	13	.82	2.503
	14	-.50	-0.667
F_3	11	.77	1.891
	12	.77	1.891

Three factors

Factor A

Factor A shows that for these subjects, portraits or dynamic actions of familiar people in social activities tend to be clearer and simpler for understanding.

TABLE 14

PICTURES THAT FACTOR A ACCEPTS AND REJECTS: SIMPLICITY AND CLARITY

Accepts (Standardized Q-scores 14-12)	Rejects (Standardized Q-scores 0-2)
Marilyn Monroe	Cathedral dome painting
Beach beauty in bikini	Metal net
Brigitte Bardot	Machine hands
Riat Hayworth	Light ball
Baseball pitcher - a close-up	Glass equipment
Misses America of 1959, 1960 and 1961	Plastic models of human body organism
A football player's muddy face - a close-up	Big machine
Olympic track star - at her final dash	Firemen and the dead
Nixon family on the beach	Bishop performing a mass
Kennedy family sitting on the lawn	Flood scene - long range
101st birthday - Grandma Moses and her cake	Radar
Telephone booth cram - a close-up	Space lady
Nixon campaign - shaking hands	Farm scene
Championship boxing - Johansen & Patterson	Boys and big waves

This factor is strongly represented by subject I and II's (husband and wife A) Clarity-Obscurity and subject I's Simplicity-Complexity dimensions. Pictures considered easy to understand tend to be the same to both subject I and II and tend to have simpler subject matter of pictorial compositions. Sex, sports, and politics

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are the categories of the highly accepted pictures in this factor. They include portraits of sexy movie stars on the extreme end of Clarity and Simplicity, e.g., Marilyn Monroe, Rita Hayworth, Brigitte Bardot. These are undoubtedly sex symbols universally known to the people. Their portraits do not have any attention-distracting settings. Other pictures, such as the Misses America, the track star, the telephone booth cram, the 101st birthday of Grandma Moses, championship boxing, and a political campaign, are dramatic scenes, close-ups or action shots from the current events spotlight. On the other hand, science, destruction, off-beat and sudden death pictures are placed on the rejection side of the scale. The science pictures have few people in them; most of them show static objects with not much background and require considerable verbal explanation to be understood. Pictures in the off-beat and sudden death categories aroused confusion and curiosity in the subjects but are considered unclear and complicated. Pictures like the Pope, the French vendor, the Space lady and the orchestra conductor show people in the middle of some activity yet without additional ground. Also, shots taken from an unusual angle puzzled the subjects most. Examples include the flood scene and slum bedroom taken from high above and the cathedral dome painting taken as a close-up from directly below.

In pictures ranked higher on this factor than on the other two factors (see Table 15), Clarity and Simplicity seem highly related. Pictures of sex, sports, politics and performance are more of Factor A. Further, they are either portraits or dynamic actions of something familiar. Pictures of social parties, destruction, sudden death, designs, off-beat material, science, and arts belong more to the other two factors than to this factor.

TABLE 15

PICTURES WHICH FACTOR A ACCEPTS MORE OR REJECTS MORE THAN FACTORS B AND C

$F_A > F_B F_C$	$F_A < F_B F_C$
Misses America of 1959, 1960 and 1961	Shah's bride and peace doves
Scottish dance	Ford family in daughter Anne's debut party
Symphony orchestra	Prince's wedding
Brigitte Bardot	Queen of Iran at opera theater
Marilyn Monroe	King's wedding
Beach beauty in Bikini	Football game entertaining - "tiger" marching
Rita Hayworth	80th wedding anniversary
Kennedy campaign - autographing	Senator Sam Rayburn and baby grandson
Nixon campaign - shaking hands and keeping track of his watch	Bishop performing a mass
Nixon giving a speech	Little girl and dog
Republican campaign - public gathering with slogans	Hemingway sitting and reading under a tree with his pipe and dog
Baseball game - fourth base	Old orchestra conductor
Football player's muddy face - close-up	Little girl and fish
Tennis player	Republican big shots
Olympic track star - at final dash	Slum bedroom
Championship boxing - Johansen and Patterson	Freedom riders singing on the campus
Baseball pitcher - close-up	Negro college students
Chinese kid in Communist Commune working	Kids and flood
Preaching - Billy Graham	Firemen and the dead
Black and White intermarriage - May Britt and Sammy Davis jr.	Beach widow crying
Peeking eye - close-up	Boat tragedy and frightened kid
Freedom riders in the bus	Soldiers at sea to be saved
Crowds and policemen - long-range	Mother and 12 pairs of shoes
Burned school house in ashes	Cello concert near the river bank
Sudden death	Castle - long range
Peeking German soldier	French woman selling fish
Soldier crawling	French vendor
Victory comes to soldiers	Boat man
Military weapons	Space lady
Prisoners in Cuba	Light ball
Skiing	Radar
Gravestones	Metal net
Telephone booth cram - close-up	Little boy and doctor
Telephone booth cram - long-range	Machine hands
Head operation	1st prize roses
Dentist and patient	Cathedral dome painting
	Farm
	Sunset fishing

Factor B

Factor B has shown a hedonistic principle in preference and intensity of feelings.

TABLE 16

PICTURES THAT FACTOR B HIGHLY ACCEPTS OR REJECTS: LIKING

Accepts (Q-scores 14-12)	Rejects (Q-scores 0-2)
Kennedy family sitting on the lawn	Hanging of Mussolini and his mistress
101st birthday - old lady and her cake	Bloody man on the back of a truck
Debbie Reynolds and daughter	Soldier crawling
Nixon family on the beach	Death in the jungle
Castle - long range	Juvenile delinquency - boys leaning against the wall
Sunset fishing	Man being caught
Farm scene	Prisoners in Cuba
French woman selling fish	Searching the dead's pockets
Hemingway sitting and reading under a tree	Dead soldiers on the beach
Brigitte Bardot	Airplane crash in New York
1st prize winning roses	Prisoners
Senator Sam Rayburn and baby grandson	Hungry boy - a close-up
Little girl and fish	Peeking eye - a close-up
Beach, fisherman, tree and fish	Chinese student in the Commune
Beach beauty in bikini	Flood scene - a long range
Misses America of 1959, 1960 and 1961	Gun soldier parade
Khrushchev and Kennedy	Threat in the gang
80th wedding anniversary	

Hedonistic is defined as the striving for pleasure and the avoidance of unpleasant feelings. People are basically very much alike in their emotions. On the very basic level - starting at infancy - are such persuasive drives as hunger, the need for sleep, the instinct for sex, the need for companionship, the search for approval, the drive toward activity, and at the same time, a desire for comfort. We develop our ability to love; we learn ways to avoid trouble, deal with people,

watch our health and take on responsibility.[1]

Based on the above principle, the pleasantness of the pictures seems a major element for people's like-dislike. And the result of this factor is an evidence for it. The heaviest factor loadings to represent factor B are four subjects' Like-Dislike dimensions and subject I and IV's Intensity-of-Feeling dimensions. All subjects tend to like and dislike the same subject matters, and their likes and dislikes both give them intense feelings.

Pictures on the acceptance side include young marriage, design, art, performance, glamour, peace, and fame. They are pleasant, feminine, relaxing, appreciative, comforting and relieving. On the other end are death, misery, social problems, destruction, and tools of war; they are pathetic, regretful, tense and unbearable.

In the subjects' comments, hedonism was revealed: "I like democracy, pleasant way of life and politics. I don't like crime, war, poverty."

"Beautiful, vivid, impressive, and bright life gives warm, peaceful and excited feelings, also a truth-seeking feeling; life full of crime and misery seems unbearable for me to take."

"Unspoken human love and warm relationship between humans gives me a feeling of relaxation and easiness."

"Sports, women, and a little bit of politics are the things I like just like most of the other men do. The older you are, the more you dislike war and destruction."

In the list of pictures that Factor B accepts or rejects more than the other two factors (see table 17), we will see that the principle of hedonism again follows.

---

[1]Stephen Baker, Visual Persuasion (New York: McGraw-Hill Book Company, 1961).

TABLE 17

PICTURES WHICH FACTOR B ACCEPTS OR REJECTS MORE THAN FACTORS A AND C

$F_B > F_A F_C$	$F_B < F_A F_C$
Shah's bride and peace doves	Leslie Caron dancing
Ford family at daughter Anne's debut party	Young orchestra conductor
Prince's wedding	Marilyn Monroe
Queen of Iran at opera theatre	Audrey Hepburn and baby at Baptismal day
Nobel party in Sweden	Nixon giving a speech
Skating on the stage	Republican campaign
Football game entertaining - band marching	Baseball game - fourth base
101st birthday - old lady and her cake	Football player's muddy face - close-up
Golden wedding party - several hundred couples	Tennis player
80th wedding anniversary	Baseball pitcher - long-range
Bishop performing a mass	Chinese kid in Communist Commune working
Little girl and fish	Victims of poverty - parents and baby at starvation
Judo - kids in judo uniforms	Juvenile delinquency - boys leaning against wall
Debbie Reynolds and daughter	Hungry boy with feeble and lonesome look
Nixon family on beach	Black and white intermarriage
Kennedy family setting on the lawn	Freedom riders inside the bus
Republican big shots	Threat in the gang
Khruschchev and Kennedy both smiling	Crowds and policemen - long range
Chinese kid in Communist Commune operating machine	Angry demonstrator - close-up
White Democratic girls campaigning	Bloody man in back of a truck
Girl criminal	Man being caught
Castle - long range	Fire on the sea
Big bridge - close-up	Burned school house in ashes
Great building and reflection in water	Airplane crash in New York - long-range
Firemen and the dead	Soldiers' parade
Mother and 12 pairs of shoes	Sudden death
French woman selling fish	Soldier staring
French vendor	Peeking German soldier
Boat man	Soldier crawling
Big machine	Big gun - close-up
Metal net	Victory comes to soldiers
Glass equipment	Prisoners in Cuba
Plastic models of human body organism	Hanging of Mussolini and his mistress
Cathedral dome painting	Searching the dead's pockets
Farm	Dead soldiers on the beach
Sunset fishing	Death in the jungle
Clouds	Dead soldier - close-up
Beach, fisherman, tree and fish	Dentist and patient

Factor C

Factor C represents an unusual case. Somehow Simplicity-Complexity and Clarity-Obscurity are two inseparate variables which seem mutually to explain each other.

With personal opinion oriented to judging the Simplicity-Complexity of the pictures, the picture appeal would seem completely different.

In this factor, subject III judged the Simplicity-Complexity and Clarity-Obscurity dimensions by some subjective opinions. His reasons for the clearest pictures and the unclear ones was "one glance you got it" or "a mess;" and when he came to the Simplicity-Complexity sort, he stressed his view that "human beings are complicated and artificiality is trivial" rather than focusing on the setting of the scene in the picture. The result listed below thus comes out somewhat identical in Clarity and Complexity of the picture, since he thought that people are recognized at a glance and at the same time people are most complicated. Also, the science subject matter and the people in social activity ("trivial" as he put it) are the ones rated unclear and simple.

The emphasis of clarity and complexity was placed on pictures of performance, such as Hemingway and his dog, the little girl and a dog, the little girl and a fish, the senator and the grandson. Other pictures outside this category also involved people alone or together in a less social situation, such as portraits of the football player, the hungry boy, the sad soldier, the beach widow, the woman selling fish, the little boy and a doctor, and the Negro college students. Light ball, machine hands, and 1st prize winning roses seemed a strange

inclusion here, but compared to other science items, they were clearer and simpler for understanding because of familiarity. (see Table 18)

TABLE 18

PICTURES THAT FACTOR C HIGHLY ACCEPTS OR REJECTS: CLARITY AND COMPLEXITY

Accepts (Q-scores 14-12)	Rejects (Q-scores 0-2)
Big gun	Cathedral dome painting
Little boy and doctor	Plastic models of human organism
Hemingway sitting and reading under a tree	Glass equipment
	Machine
Audrey Hepburn and baby son	Flood scene--a long range
Beach widow crying	Billy Graham preaching
Senator Sam Rayburn and baby grandson	Metal net
	Chinese student in the Commune
Little girl and fish	Scotland dance
Marilyn Monroe	Golden wedding party
Soldier staring--a close-up	Death in the jungle
Gun soldier parade	Military weapons
A football player's muddy face	Soldier crawling on his back
Light ball	Nixon campaign--shaking hands
Machine hand	Clouds--a close-up
1st prize winning roses	Great building and reflection in water
Hungry boy	
Negro college students--a close-up	White Democratic girl campaigning
	Girl criminal

Social activities such as the golden wedding party, politics, social problems, and science were tabbed a "mess" and "artificiality" in the eyes of subject III.

In the list of higher ones and lower ones in this factor, human beings and human relationships tend to go higher, while social activity and artistry go lower. (see Table 19)

TABLE 19

PICTURES THAT FACTOR C ACCEPTS OR REJECTS MORE THAN FACTORS A AND B

$F_C > F_A F_B$	$F_C < F_A F_B$
King's wedding	Misses America of 1959, 1960, 1961
Leslie Caron dancing	Nobel party in Sweden
Football game entertaining - "tiger" marching	Scottish dance
Young orchestra conductor	Skating on the stage
Senator Sam Rayburn and baby grandson	Football game entertaining--band marching
Hemingway sitting and reading under a tree with his pipe and dog	Symphony orchestra--long range
Little girl and fish	101st birthday--old lady and her cake
Audrey Hepburn and baby son at baptismal day	Brigitte Bardot
Victims of poverty	Golden wedding party--several hundred old couples
Hungry boy	Beach beauty in Bikini
Slum bed-room	Rita Hayworth
Girl criminal	Judo--kids in judo uniforms
Threat in the gang	Debbie Reynolds and daughter
Bloody man in the back of a truck	Nixon family on the beach
Man being caught	Kennedy family sitting on lawn
Fire on the sea	Kennedy campaign--autographing
Airplane crash secen in New York	Nixon campaign--shaking hands
Kids and flood	Khrushchev and Kennedy
Beach widow crying	Olympic track star
Boat tragedy and frightened kid	Championship boxing--Johansen and Patterson
Soldier staring	Baseball pitcher--close-up
Soldiers Parade	Football tackles
Gun soldiers' parade	Chinese kid in Communist Commune operating machine
Big gun	Billy Graham preaching
Soldiers at sea to be saved	Girl criminal
Prisoners	Military weapons
Hanging of Mussolini and his mistress	White Democratic girls campaigning
Searching the dead's pockets	Skiing
Dead soldiers on the beach	Gravestones
Cello concert near the river bank	Big bridge
Castle--long range	Great buildings and reflection in water
Space lady	Telephone booth cram--close-up
Light ball	Telephone booth cram--long range
Little boy and doctor	Big machine
Machine hands	Head operation
	Glass equipment
	Clouds
	Plastic models of human body organism
	Beach, fisherman, tree and fish

The consensus items

The consensus tables given in the next page show the pictures that all factors agree upon, in acceptance or rejection or in the middle range. In other words, these pictures do not differentiate between the factors.

The 18 pictures which all factors ranked high have a Q-score of about 10 points or more among the three factors. In studying these pictures, general characteristics are; 1) Feminine in general. Marilyn Monroe and Brigitte Bardot of the sex category topped the list. Performance pictures like the woman selling fish, little girl and a doctor, and Hemingway and his dog come next. The rest of them included such things as young marriage, show and sports. 2) Familiarity. MM, BB, Kennedy, Nixon, Hemingway, Leslie Caron, the Queen of Iran, and ball game, roses, dogs and so on are the persons, objects, and activities which are very well known. They are very easy to recognize and understand, and they tend to be the central news topics in general. They are pleasant and vivid. Their content has no hardship, no suffering, no neutral, objective or scientific atmosphere. They have warmth, enjoyment, beauty and excitement. (see Table 20)

Seven pictures in the middle range are somewhat rough pictures. The setting of the scene and the angle used make them unattractive. If the pictures were taken in color, they might have been ranked differently.

Fifteen pictures in the low range are negative in terms of subject matters: Destruction, military weapons, social problems, war and science. They were ranked less than a Q-score of 4. Science

pictures were hard to understand comparatively, let alone to like them. (see Table 20).

TABLE 20

CONSENSUS PICTURES THAT ALL FACTORS AGREE

Consensus pictures that all factors rank high	
1. Marilyn Monroe	11. Little girl and fish
2. Rita Hayworth	12. Kennedy family sitting on the lawn
3. Brigitte Bardot	13. Leslie Caron dancing
4. Beach Beauty in bikini	14. A football player's muddy face
5. French woman selling fish	15. Sunset fishing
6. Little boy and doctor	16. Queen of Iran at opera theater
7. Hemingway and dog	17. Baseball game - fourth base
8. Nixon family	18. Football tackles
9. Baseball pitcher - long range	
10. 1st prize winning roses	

Consensus pictures that all factors rank in middle range
1. Symphony orchestra - a long range
2. Football game entertaining - "tiger" marching
3. Skating on the stage
4. Brain operation
5. Tennis player
6. Championship boxing
7. Black and white intermarriage - Sammy Davis, jr. and May Britt

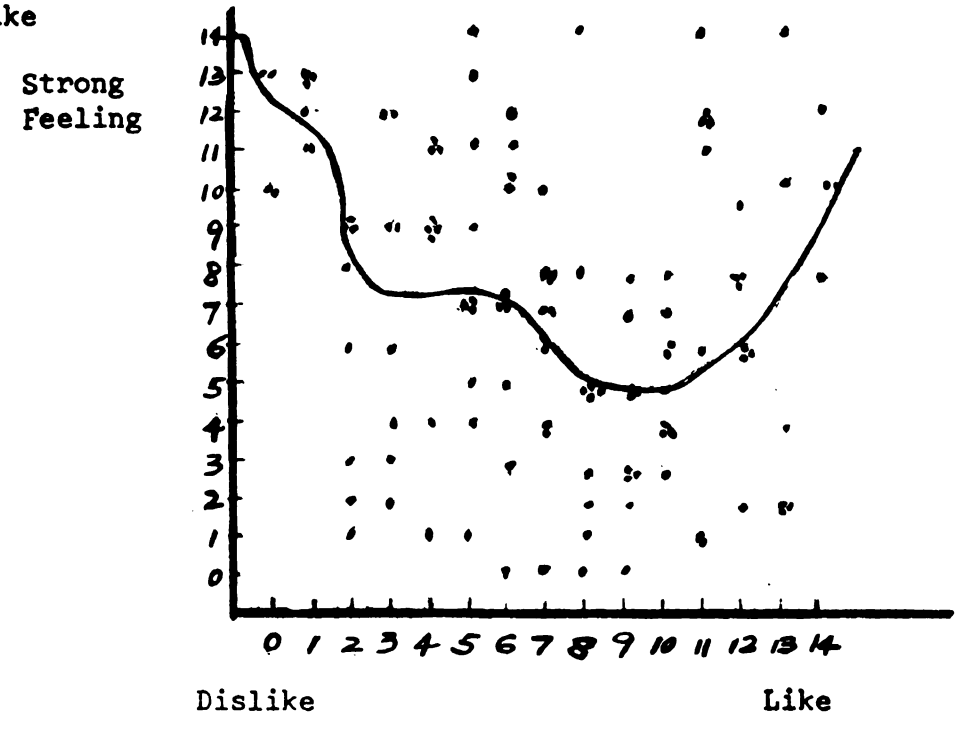
Consensus pictures that all factors rank low	
1. Flood scene	9. Pope John performing a mass
2. Big machine	10. Chinese student in the Commune
3. Metal net	11. Man being caught
4. Firemen and the dead	12. Victory comes to the soldiers
5. Glass equipment	13. Soldiers in the sea to be saved
6. Military weapons	14. Prisoners
7. Plastic models of human organism	15. White Democratic girls
8. Cathedral dome painting	

The U-shaped relationship between
Like-Dislike and Intensity-of-Feeling

A U-shaped relationship was found in the subjects' Like-Dislike and Intensity-of-Feeling dimensions. This means that the pictures which arouse the strongest feelings in people are the ones people like and dislike most. We made two scatter plots for subject I and subject IV's Like-Dislike and Intensity-of-Feeling dimensions for illustration.

Figure 2 showed a rough U shape between Subject's Like-Dislike and Intensity-of-Feeling.

Fig. 2. - Scatter plot of subject I's Intensity-of-Feeling vs. Like-Dislike



Subject I was the type of person who was easily impressed by the spectaculars; sports could make him excited. Politics was his favorite topic of conversation. Pictures falling in these categories were the ones he liked most, and they gave him the strongest feelings. These pictures were scattered at the upper right corner. Examples were: Nixon campaign, Kennedy campaign, the Olympic track star, championship boxing, the baseball pitcher - a long range, the soldiers at sea to be saved, the skiing, the football tackles.

Subject I's U-shape was not as distinctive as subject IV's, because quite a few pictures elicited no intense feelings and yet he liked or disliked them to some degree.

The pictures which fell on the upper left corner of Figure 3 were the ones he disliked most and had the strongest "disgust" feelings. Examples were: the peeking eye - a close-up, the hungry boy, the threat in the gang, a sudden death, man being caught, a bloody man in the back of a truck, a peeking East German soldier, a soldier crawling on his back.

Some of the pictures were of pleasant subject matters, and yet he did not pay much attention to them because he saw too many of this kind of pictures in the magazine. Examples were pictures of a queen, a prince, a famous writer, a movie star or social parties. These pictures were scattered at the lower right corner of Figure 2.

The pictures at the lower right corner of Figure 2 were the ones he most disliked and yet did not feel intense toward. Examples were: light ball, tools of war, a radar, the sunset fishing, the cathedral painting, a football game half-time program, prisoners in Cuba, a big gun, the freedom riders singing on the campus, and Leslie Caron dancing.

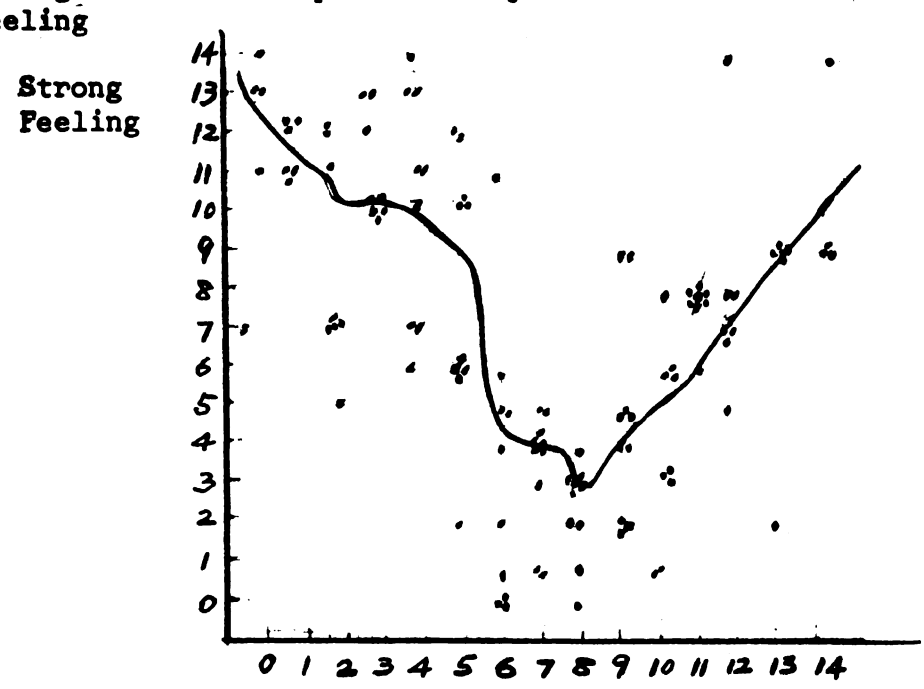
He considered them dull and unpleasant and did not care nor know about what was going on. Some of the pictures were unclear.

Pictures at the upper middle of Figure 2 were the ones he did not like very much but had strong feelings about. Examples were: Nixon giving a speech, victory comes to the soldiers, a football player's muddy face, the angry demonstrators, kids and flood. He felt something was wrong with the expressions or the angles taken. But again politics and sports gave him strong feelings.

Pictures at the lower middle of Figure 2 were the ones he did not like very much but had little feeling about. Examples were the castle scene, the farm scene, sunset fishing, castle building, and the big bridge. He said that he did not know what they meant and had no feelings for them at all.

Figure 3 showed subject IV's distinctive U-shape of her Like-Dislike vs. her Intensity-of-Feeling of the pictures.

Fig. 3 - Scatter plot of subject IV's Like-Dislike vs. Intensity-of-Feeling



Subject IV is a nursing major, an artistic person and a beautician. She is a fun-loving, gentle girl. The pictures which gave her strongest feelings and which met her preference were of warm human relationships, such as Senator Sam Rayburn and baby grandson, Hemingway and dog, Nixon family, kennedy family, the Olympic track star, the football tackles, boat man, old orchestra conductor, baseball pitcher, and boxing; she also liked 1st prize winning roses, clouds, beach-fisherman-tree, and the brain operation. The most disliked and strongly felt ones were of death, crime, misery, soldiers and destruction.

Her most disliked and not strongly felt ones were the Scottish dance, young orchestra conductor, fire scene, military weapons--pictures which were unpleasant yet not considered very hateful. The most liked and not strongly felt ones were again warm human relationship like Debbie Reynolds and daughter, little boy and doctor, little girl and fish. They, however, didn't show a "cute" scene as the above similar ones did, and therefore elicited less intense feelings. Pictures of other high, socially famous figures, such as the Ford family, the Shah's bride and peace doves, a prince's wedding, the queen of Iran at the opera theater, the Misses America, were liked but they elicited no intense feelings. Possibly this is because they are not the things we see often in our daily life, are not of much concern and at the same time are not realistic for ordinary people. Other pictures in this area were the castle scene, machine hands and the telephone booth cram.

Conclusions

Three factors have been explored. Because of the large picture sample (120), the pictures in the middle of the factor arrays were the

hardest to discuss. It could be said that in some respects they were, in less degree, similar to the extreme ones which have been described and interpreted already.

Factor C has aroused the thought that the Simplicity-Complexity and Clarity-Obscurity dimensions can somewhat mutually explain each other. They may be the reasons behind the concrete types of visible or intangible picture appeal rather than a type of appeal. In the next phase with a rigorously designed subject-sample involved, these two dimensions are left out and replaced by two other dimensions: Ideal Self-Identification, and Actual Self-Identification.

The importance of this phase is that the three factors obtained give some confidence in the attempt to explore all possible types of picture appeal. By breaking down the elements of interest appeal in MacLean and Hazard's study and expanding to a wider variety of specific and sophisticated types of appeal may be found in the reactions of people toward pictures.

Third Phase: Types of Picture Appeal and Segmentation of Audience

A more comprehensive and detailed study of types of picture appeal was designed in this phase. All phases so far are highly important since the types of picture appeal and the segmentation of readers should be reliably developed before going into the editorial prediction experiments in the final important phase.

The four dimensions chosen for examining types of picture appeal in this phase thus:

Like-Dislike

Intensity-of-Feeling

Ideal Self-Identification

Actual Self-Identification

Eighteen subjects were chosen from the Lansing and East Lansing areas, a middle-size city and a college town. They were chosen according to 18 various combinations of the three variables: sex, age and education. (See Table 5).

Four types of picture appeal emerged significantly from a factor-analysis of 72 Q-sorts done by 18 subjects along the four dimensions. This means, the four factors are four types of picture appeal in terms of people's reaction patterns toward the pictures. It is found that Type A likes pictures about young marriage, fame, performance, glamour, and art; A ideally identifies with them. He dislikes death, social problems, destruction, tools of war, etc., and refuses to identify in any way with

them. Type B has his strongest feelings about death, soldiers, performance, young marriage, social problems, sports, and off-beat material; B is indifferent about art, fame, politics, pattern, science, and show. Type C mixes his like, identifying ans strong feeling for sports, sex, design and glamour, and holds a negative attitude toward fame, pattern, death, soldier, off-beat, performance, sports and politics. Type D rejects identification with the scenes depicting death and misery, soldiers, and social problems. He also ideally or actually identifies himself with show, off-beat, performance, sports and politics. All four types of person agree only on three pictures:

TABLE 21

THREE CONSENSUS PICTURES OF THE THIRD PHASE

Name of Picture	F_A	F_B	F_C	F_D
Hemingway and his dog	1.037	.624	.591	.985
Peeking eye--close-up	- .582	.204	- .583	- .514
Khrushchev and Kennedy	.513	.153	.423	.846

Four factors

Four-factor solution was chosen as the major findings of this phase. Table 22 is the factor loadings of the four factors. Interpretation of each factor follows.

Factor A

Factor A is heavily loaded (see Table 22) by 11 subjects' Like-Dislike sorts and 13 subjects' Ideal Self-Identification sorts, six subjects' Actual Self-Identification sorts and two subjects' Intensity-of-Feeling sorts. All nine female subjects' Like-Dislike fall on this factor. All four male subjects who fall on this factor are college or more advanced educated people. This factor reveals three obvious tendencies: 1) All women significantly agree upon their Like-Dislike.

TABLE 22

FACTOR LOADINGS OF THE FOUR FACTORS
FOUND IN THE THIRD PHASE

Person	Sort No.	F_1	F_2	F_3	F_4
1	1	.744	-.307	.410	.071
	2	-.765	.306	-.290	-.008
	3	.156	-.052	.518	.019
	4	.709	-.368	.410	.075
2	5	.352	-.013	.696	.061
	6	-.092	.557	.387	.130
	7	.115	.155	.702	.236
	8	.427	-.169	.656	.228
3	9	.014	.056	.310	.444
	10	-.018	.299	.146	.475
	11	.168	.023	.063	.615
	12	.005	-.009	.161	.679
4	13	-.069	.484	.052	-.064
	14	-.008	.456	-.108	-.080
	15	.273	.045	.393	.012
	16	.488	-.186	.428	-.271
5	17	.599	-.407	.229	.089
	18	.102	.616	.082	.324
	19	.618	.093	-.043	-.054
	20	.713	-.242	.024	.173
6	21	.710	.120	.165	.018
	22	-.118	.472	.103	.107
	23	.490	.074	.063	.053
	24	.697	-.186	.197	-.073
7	25	.214	.421	.376	.214
	26	-.166	.600	.317	.083
	27	.035	.119	.249	-.263
	28	-.182	-.019	.001	.209
8	29	.737	-.332	-.052	.175
	30	.601	-.298	.036	-.021
	31	.590	-.452	.075	.285
	32	.654	-.495	.085	.109

TABLE 22 - Continued

Person	Sort No.	F_1	F_2	F_3	F_4
9	33	.776	-.073	.118	-.106
	34	-.202	.715	-.214	.154
	35	.699	.174	-.087	.099
	36	.787	-.014	-.071	-.002
10	37	-.089	.383	.749	.084
	38	-.110	.439	.644	.018
	39	.004	.313	.673	.134
	40	.143	.062	.757	.043
11	41	.617	.171	-.008	-.064
	42	-.188	.725	.092	.118
	43	.364	.305	.339	-.187
	44	.705	-.176	.278	-.094
12	45	.370	.018	.108	-.131
	46	-.018	.529	.082	-.353
	47	.217	.046	-.030	-.455
	48	.721	-.225	.139	-.316
13	49	.799	-.290	-.007	-.040
	50	-.179	.485	-.195	.239
	51	.268	.238	-.182	.263
	52	.761	-.183	-.116	.223
14	53	.375	.053	.573	-.037
	54	-.297	.699	.147	.284
	55	-.171	.456	.112	.560
	56	.682	-.303	.230	.291
15	57	.826	-.147	.333	-.077
	58	.093	.632	.187	.013
	59	.820	-.119	.209	-.058
	60	.857	-.100	.168	.001
16	61	.695	.324	.145	.119
	62	.456	.457	-.093	.383
	63	.593	.415	-.021	.188
	64	.872	.071	.129	.155
17	65	.789	-.241	.067	-.175
	66	.095	.682	.129	-.276
	67	.656	-.013	.183	-.219
	68	.729	-.063	.061	-.143
18	69	.598	-.015	.393	-.141
	70	-.140	.606	.167	-.069
	71	.469	.251	.245	-.194
	72	.719	-.156	.155	-.140

2) People, especially women, tend to like what they can ideally or actually identify with, especially ideal self-identification. 3) Higher educated males tend to like more humane and feminine subject matter as the women do.

We see mother and son, family scene, flowers, outdoor scene, party, human relationships or animal-loving, etc., listed as accepted pictures of this Type A. (see Table 23 and Figure 4) Type A likes these things because, as he commented, he thinks that they are real, beautiful, or have interest, for escape or enjoyment, because of the character study, good expression, good compositions, etc. "Beauty" is the word frequently used to explain his liking for the pictures. He likes children, family togetherness, peacefulness, the carefree life, sports, and sex. He admires talent and athletic ability. He enjoys seeing the inside of what he likes. In all these, he can either actually or ideally identify himself with what is depicted in the pictures.

Type A dislikes death, war, destruction, crime, and victims of poverty or victims of a bad system. (see Table 23 again) These, as he indicated himself, cause his uncomfortable, disgusted and disagreeable feelings. He tries to avoid them. It is understandable that he won't identify himself in these pictures.

Two persons had the strongest feelings toward what they like and what they can ideally or actually self-identify with. Those two persons live a well-to-do life. They are married, have children, and are active in traveling and scouting. They said that they do not have much feeling for people unrelated, or unfamiliar to them.

TABLE 23

PICTURES THAT FACTOR A HIGHLY ACCEPTS OR REJECTS: LIKE-DISLIKE AND SELF-IDENTIFICATION BY THE Z-SCORES HIGHER OR LOWER THAN 1.000 OR -1.000

Accepts	Z-score
Audrey Hepburn and son--formal portrait at baptismal day	1.805
Kennedy family sitting on the lawn	1.589
101st birthday--old lady and her cake	1.412
First prize winning roses--a close-up	1.411
Little girl and dog	1.285
Big Bridge	1.283
Skiing--a long range	1.272
Ford family at daughter Anne's debut party	1.203
Castle scene--a long range	1.196
Doctor and little boy	1.174
Hemingway sitting under the tree with his book, pipe and dog	1.037
Farm scene	1.002

Rejects	Z-score
Hanging of Mussolini and his mistress	-2.081
Dead soldiers on the beach	-1.832
Soldier staring--a close-up	-1.756
Sudden death	-1.681
Death in the jungle	-1.589
Airplane crash in New York--a long-range	-1.428
Juvenile delinquency--boys leaning against wall	-1.263
Man being caught	-1.260
Chinese student working in the Commune	-1.254
Flood scene--a long range	-1.252
Big gun-- a close-up	-1.035
Soldiers' parade	-1.016

Pictures which have higher Z scores in this factor than in the other three factors are given in Table 24. Again, pictures which people like and can ideally or actually identify with are the ones of young marriage, family scenes, performance, glamour, and nature and art.

Fig. 4--Top 10 and bottom 10 pictures of Factor A in the third phase: Like-Dislike and Self-Identification

Top 10

Bottom 10

Besides art pictures, people are always involved; human beings are interested in human beings. They care for other's affairs. They are curious about other's feelings.

The pictures in Table 24 do not mean all the pictures are accepted by Factor A. Some of the pictures are merely accepted by this factor more than by other factors. The pictures may still have a low Z score. For example, the picture, a cathedral dome painting, isn't significantly accepted by Factor A; but it is even less accepted by the three other factors. On the opposite side, the picture of the Queen of Iran, which isn't highly accepted by Factor A, undoubtedly characterizes Factor A, since it has 1.000 Z score higher there than the other factors.

The comparisons between pictures in each factor give a broader scope to see the factors. The identification of some of the less accepted items, which still have relatively high Z scores, is as important as pinpointing the most accepted pictures. Factor comparisons tell us that similar kinds of pictures belong to such-and-such a type rather than to others, no matter whether the pictures are highly representative or barely representative of the type. Glamdrous beauty, Queen of Iran, wealthy family, music and flowers---these are the subjects which distinguish this factor most clearly from the others.

Pictures which have lower Z scores in Factor A than in the other three factors (see Table 24 again) are best represented by boxing, juvenile delinquency, and the soldier crawling on his back. These are highly accepted in the next factor. Death, tragedy and destruction, crime belong least to Factor A.

TABLE 24

PICTURES WHICH HAVE HIGHER Z SCORES IN FACTOR A THAN IN FACTORS B, C, & D

02*	Queen of Iran
03*	Ford family at daughter Anne's debut party
49*	Cello concert near the river bank
58*	First prize roses
06	Scottish dance
07	Football game band entertaining
08	101st birthday--old lady and her birthday cake
09	80th wedding anniversary
10	Golden wedding anniversary party
13	Grandpa and baby--late senator Rayburn
14	Frightened, crying little girl and dog
15	Hemingway sitting under a tree with his book, pipe and dog
17	Kennedy family sitting on the lawn
18	Audrey Hepburn and son--formal portrait on baptismal day
20	Nixon giving a speech
51	Big bridge
59	Farm scene
60	Cathedral dome painting--close-up

*One type placed it at least 1.000 standard deviation higher or lower than each of the other types. The same rule is followed in the other seven factor comparisons.

PICTURES WHICH HAVE LOWER Z SCORES IN FACTOR A THAN IN FACTORS B, C, & D

22*	Championship boxing--Johansen and Patterson at knock-out moment
29*	Juvenile delinquency--boys leaning against the wall
40*	Soldier crawling--close-up
47*	Dead soldiers on the beach
23	Baseball scene
26	A football player's muddy face--close-up
27	Chinese kid in the Commune
31	Girl criminal
34	Man being caught
35	Airplane crash in New York--long-range
36	Flood scene--long-range
37	Beach widow
38	Hanging of Mussolini and his mistress
39	Sudden death
45	Death in the jungle
46	Boat tragedy

Table 24, like any other factor-comparison tables in the third phase, shows a broader scope of one particular factor by listing pictures based on two principles: a) pictures with higher or lower Z scores in this factor than in any other factors, and b) the pictures to be listed from the most discriminative ones to the least discriminative ones. To follow the second principle, some of the most highly accepted pictures of Factor A were not listed on the top of Table 24, because they were not as discriminative as some of the second highly accepted ones of Factor A. That is, pictures of Queen of Iran, Ford family, Cello concert and the first price winning roses were exclusively accepted by Factor A (at least 1.000 Z scores higher than each of the other types), while the most highly accepted pictures of Audrey Hepburn and Kennedy family were fairly accepted by one or more of the other types too. Pictures of the championship boxing, juvenile delinquency, soldier crawling, and dead soldiers on the beach were the ones exclusively rejected by Factor A (at least 1.000 Z score lower than each of the other types), while picture of hanging Mussolini and his mistress was fairly rejected by one or more of the other types too.

One point should be made about the small number of the consensus pictures in this third phase (see Table 21 again). The Intensity-of-Feeling factor highly accepts pictures of suffering and death which (in general) were rejected by other factors of Like-Dislike, or Self-Identifications. Thus, only three consensus pictures were found.

Factor B

Factor B is represented by 11 Intensity-of-Feeling sorts. (see Table 22) Men and women of didferent ages and educations agree upon pictures which give them strong feelings. Among the highly accepted pictures for this factor are the strikingly sad and horrible or the pleasant, happy family and performance scenes. Most of them are also the highly accepted and highly rejected pictures of Type A, such as the doctor and the little boy, little girl and dog, Audrey Hepburn and son, and sudden death, death on the beach, hanging of Mussolini and his mistress, and so on. Death, soldiers, performance, young marriage, social problems, sports and off-beat are the categories of this intensity factor. (see Table 25 and Figure 5)

Type B commented that he hates war and violence. Some pictures remind him of his own sad and sorry experiences. These pictures show suffering, agony, pain and sorrow. Feeling about the stupidity of war, and curiosity about others are aroused in him by some pictures. War, impact, familiar life, and amusing characters are highly appealing. All these can attribute to the intense feelings aroused in readers. Hatred of war, sad memories, unbearable scenes of suffering and familiar, pleasant life are the main elements which seem to elicit strong feelings.

Among the rejected pictures of Type B are all three big party pictures: the Nobel prize dinner, the golden wedding anniversary party and the 80th wedding anniversary. Others are two close-ups of the cathedral dome painting and the big gun, some performance scenes, such as the cello concert near the river bank and kids in judo uniform, two pictures with irregular settings such as Nixon giving a speech and a football game half-time band marching with a mass audience background.

TABLE 25

PICTURES THAT FACTOR B FINDS INTENSE OR NOT

Accepts		
39	Sudden death	1.768
47	Dead soldiers on the beach	1.673
40	Soldier crawling--close-up	1.619
27	Chinese kid in the Commune	1.585
57	Doctor and little boy	1.483
38	Hanging of Mussolini and his mistress	1.282
14	Little girl and dog	1.206
18	Audrey Hepburn and son--formal portrait on baptismal day	1.117
26	A football player's muddy face--close-up	1.146
33	Hungry boy	1.113
Rejects		
10	Golden wedding anniversary party	-2.332
04	Nobel prize dinner	-2.134
60	Cathedral dome painting -- close-up	-2.087
20	Nixon giving a speech--close-up	-1.744
44	Big gun--close-up	-1.617
09	80th wedding anniversary	-1.512
07	Football game band entertaining	-1.408
49	Cello concert near the river bank	-1.082
16	Judo--kids in judo uniform	-1.074
03	Ford family at daughter Anne's debut	-0.988

Most of the comment given by Type B pointed to the lack of feelings due to a lot of people doing nothing in a public occasion.

Other comments were: "No concern, no interest and no recognition of the people." "They are nothing." "Unfamiliar." "Don't know what's going on." "A mass. No identification of individual." "meaningless." "Impersonal, it reveals nothing."

In the list of pictures (Table 26) which have higher Z scores in Factor B than in other factors, more pictures of the same categories

Fig. 5--Top 10 and bottom 10 pictures of Factor B in the third phase: Intensity-of-Feeling

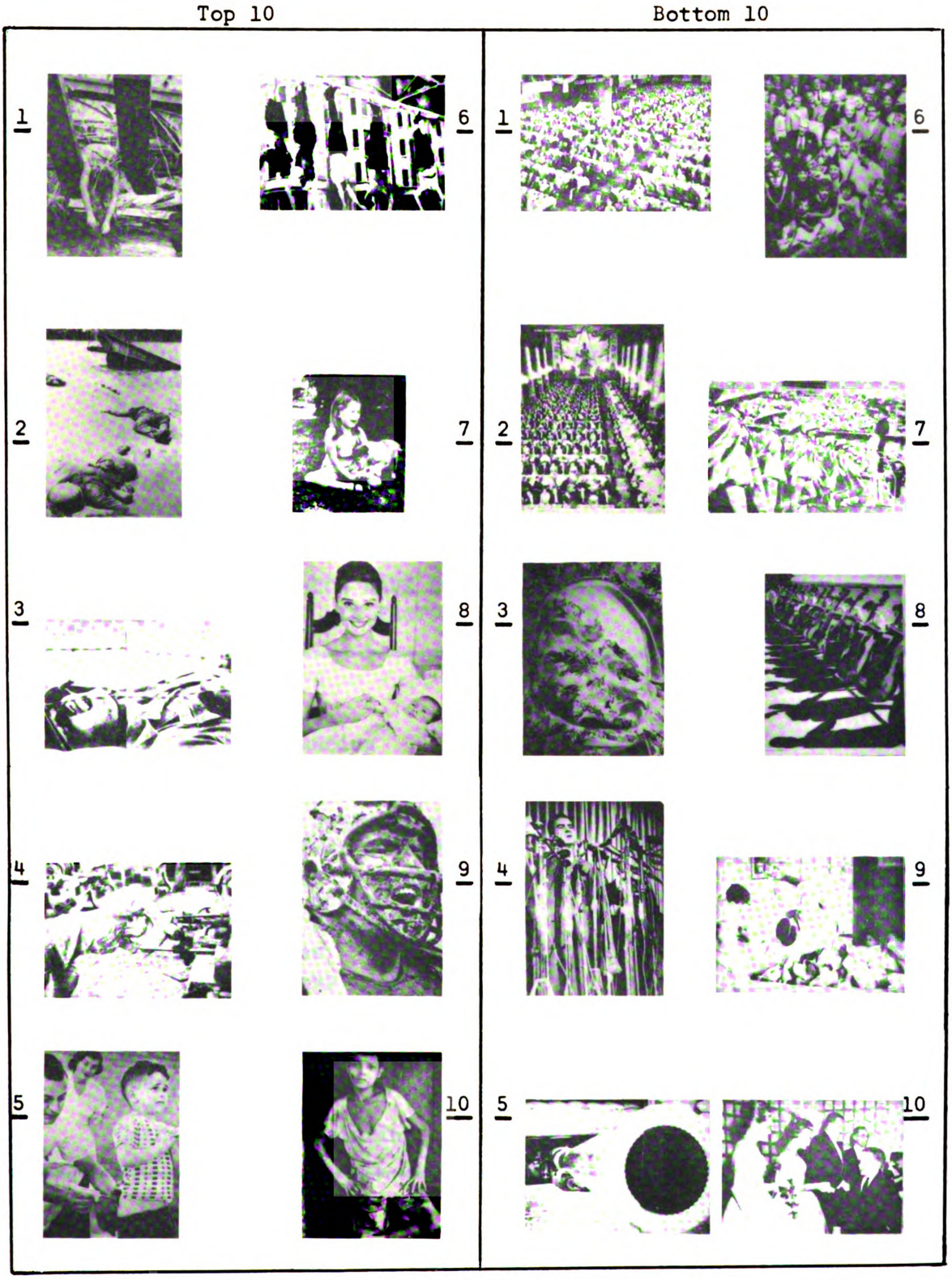


TABLE 26

PICTURES WHICH HAVE HIGHER Z SCORES IN FACTOR B THAN IN FACTORS A, C, & D

33*	Baseball scene
38*	Hanging of Mussolini and his mistress
39*	Sudden death
40*	Soldier crawling--close-up
42*	Soldiers' parade
45*	Death in the jungle
47*	Dead soldiers on the beach
27	Chinese kid in the Commune
38	Peeking eye--close-up
29	Juvenile delinquency--boys leaning against the wall
30	Freedom riders inside the Bus
34	Man being caught
35	Airplane crash in New York--long-range
36	Flood scene--long-range
55	French woman selling fish
57	Doctor and little boy

PICTURES WHICH HAVE LOWER Z SCORES IN FACTOR B THAN IN FACTORS A, C, & D

51*	Big bridge
04	Nobel prize dinner
05	Leslie Caron dancing
06	Scottish dance
09	80th wedding anniversary
10	Golden wedding anniversary party
16	Judo--kids in judo univorm
19	Kennedy campaign--autographing
20	Nixon giving a speech
21	Khrushchev and Kennedy
25	Football tackles
44	Big gun--close-up
50	Skiing--long-range
52	Castle scene
53	Telephone booth cram
56	Space lady
59	Farm scene
60	Cathedral dome painting

mentioned above are included. It is noticeable that more social problem pictures are added here. In the pictures which have lower Z scores in Factor B than in others, pictures like designs of big buildings, dance scenes and the telephone booth cram are rejected.

Factor C

Type C is somewhat similar to Type A. Also Type C feels strongly toward what he likes. It is different from Factor A in that it includes a more physical and masculine type of subject matter. It is represented by almost all the four Q-sorts of two or three of nine male subjects used in the study. (See Table 22)

Type C is definitely a male reader, and he is very athletically inclined. He likes sports, sex, design and glamour which are of a physical and spectacular, presenting and displaying nature. (See Table 27 and Figure 6) He identifies with and feels strongly toward them. He says that sports, scenery, and experiences of action are what he is most interested in. He plays at least one kind of sport and most likely he joins a kind of tournament or league. He feels the power, beauty and meaning of action from those kinds of pictures. Among the rejected pictures are fame, pattern, death, soldier, off-beat, and politics which are social, musical, dead, military and unfamiliar themes. He thinks that they are unpleasant, and a waste of time. He doesn't like Nixon. He doesn't want to associate with music. He doesn't want to identify himself with death.

The pictures which have higher Z scores in Factor C than in others repeat three very distinguishable categories: sex, sports and scenery. (see Table 28) Social gatherings, off-beat, social problems

TABLE 27

PICTURES THAT FACTOR C HIGHLY ACCEPTS OR REJECTS

Accepts		
23	Baseball scene	2.164
25	Football tackle	2.164
50	Skiing--long-range	2.064
22	Championship boxing--Johansen and Patterson at knock-out moment	1.740
26	A football player's muddy face--close-up	1.740
24	Olympic track star--close-up at the final dash	1.543
01	Miss America of 1960, 1961 and 1959	1.479
52	Castle scene--long-range	1.465
57	Doctor and little boy	1.254
12	Rita Hayworth	1.213
11	Beach beauty	1.065
51	Big bridge	1.040
Rejects		
49	Cello concert near the river bank	-1.850
55	French woman selling fish	-1.521
04	Nobel prize dinner	-1.513
60	Cathedral dome painting	-1.500
10	Golden wedding anniversary party	-1.482
02	Queen of Iran	-1.239
20	Nixon giving a speech--close-up	-1.184
39	Sudden death	-1.122
27	Chinese student working in the Commune	-1.046
42	Soldiers' parade	-1.015

and performance or family scenes like Hemingway relaxing under a tree, the Kennedy family and grandpa Sam Rayburn and baby are more rejected by Type C. The Queen of Iran might be regarded as a glamorous and sexy type and might be accepted by this type, but it falls in Types A, B, and D more than in C.

Fig. 6--Top 10 and bottom 10 pictures of Factor C in the third phase: Like-Dislike and Self-Identification

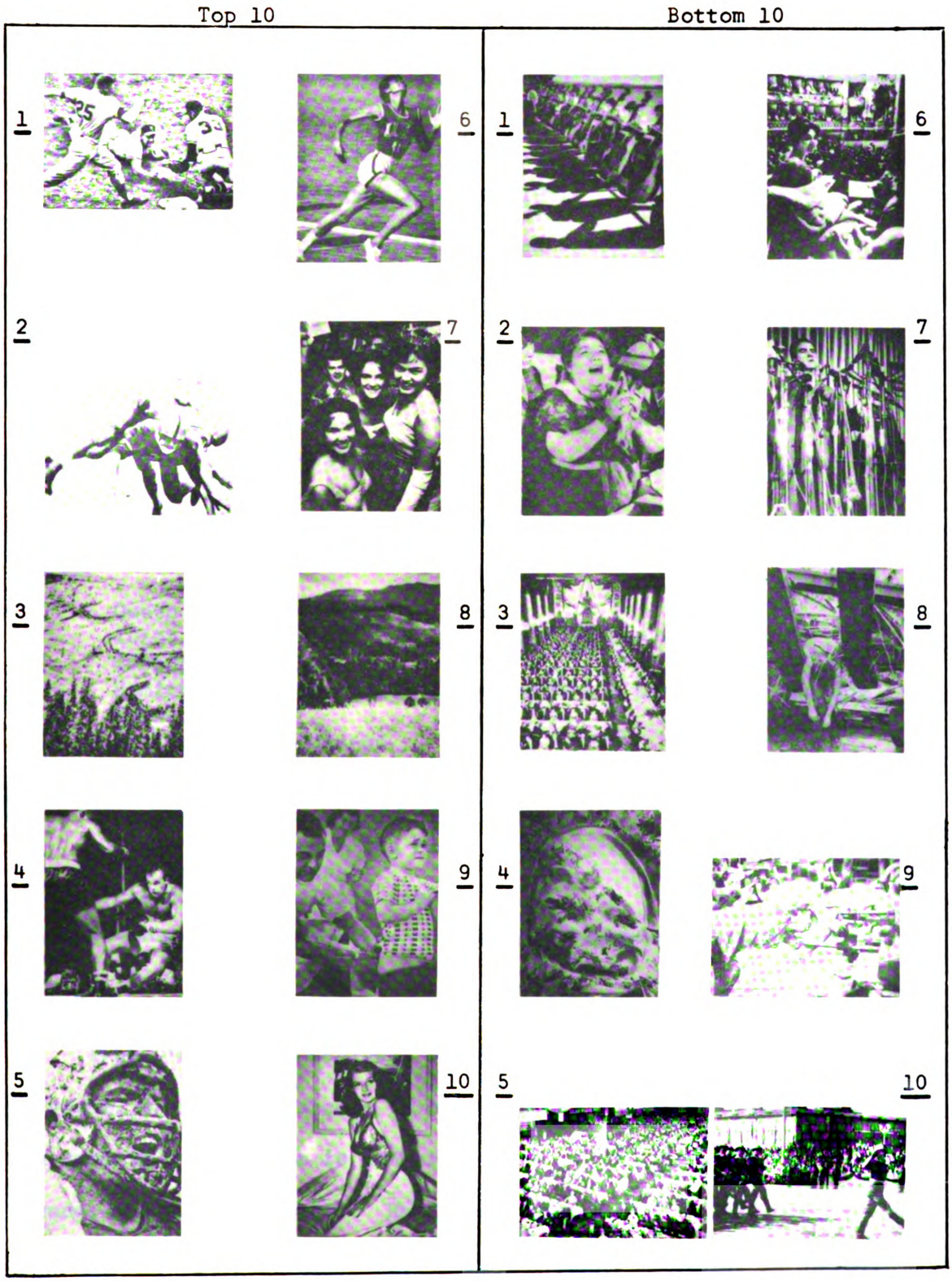


TABLE 28

PICTURES WHICH HAVE HIGHER OR LOWER Z SCORES IN FACTOR C THAN IN FACTORS A, B & D

Higher	
12*	Rita Hayworth
01	Miss America of 1959, 1960 and 1961
11	Beach beauty
22	Championship boxing--Johansen and Patterson
23	Baseball scene
24	Olympic track star
25	Football tackles
26	A football player's muddy face--close-up
31	Girl criminal
43	Happy soldiers
48	Gravestones
50	Skiing--long-range
52	Castle scene
Lower	
02	Queen of Iran
08	101st birthday--old lady and her birthday cake
13	Grandpa and baby
15	Hemingway sitting under a tree with his book, pipe and dog
17	Kennedy family
28	Peeking eye--close-up
32	Billy Graham preaching
33	Hungry boy
41	Soldier staring--close-up
49	Cello concert near the river bank
54	The French vendor
55	French woman selling fish

Factor D

Type D's actual and ideal selves are somewhat identical. He is young, a student, watches TV often, reads a paper and magazines and goes to movies. He is concerned with global tension, his own future, and current events. He doesn't care for art. He dislikes sensationalism, but he likes actions, and swims often on the beach.

He likes and cares about what he has experienced, such as the dancing party and the telephone booth cram. He likes sports. He praises glorious actions and muscular expressions. He advocates hard work in everything. He cares about world situations such as the Chinese student in the Commune, the space lady and the boat tragedy. He rejects death, misery, soldiers, music, sex, pattern, young marriage and show. Some pictures of girls and kids seem rediculous to him. All these he can hardly identify with himself actually or ideally. (see Table 29 and Figure 7)

There are more pictures of politics and social problem in this factor than in others. He may identify himself with Kennedy and Khrushchev as world leaders but not as politicians, since he dislikes politics. (see Table 30)

TABLE 29

PICTURES WHICH FACTOR D HIGHLY ACCEPTS OR REJECTS

Accepts		
05	Leslie Caron dancing	2.114
23	Baseball scene	1.927
53	Telephone booth cram	1.879
25	Football tackles	1.504
37	Beach widow	1.456
54	The French vendor	1.456
16	Judo--kids in judo uniform	1.408
27	Chinese kid in the Commune	1.177
22	Championship boxing--Johansen and Patterson	1.081
46	Boat tragedy and frightened youth	1.081
56	Space lady	1.033
Rejects		
38	Hanging of Mussolini and his mistress	-1.879
42	Soldiers' parade	-1.691
43	Happy soldiers	-1.643
07	Football game band entertaining	-1.552
49	Cello concert near the river bank	-1.504
12	Rita Hayworth	-1.269
48	Gravestones	-1.081
14	Little girl and dog	-1.033
18	Audrey Hepburn and son--formal portrait on baptismal day	-1.033
20	Nixon giving a speech	-0.937

Fig. 7--Top 10 and bottom 10 pictures of Factor D in the third phase: Actual and Ideal Self-Identifications

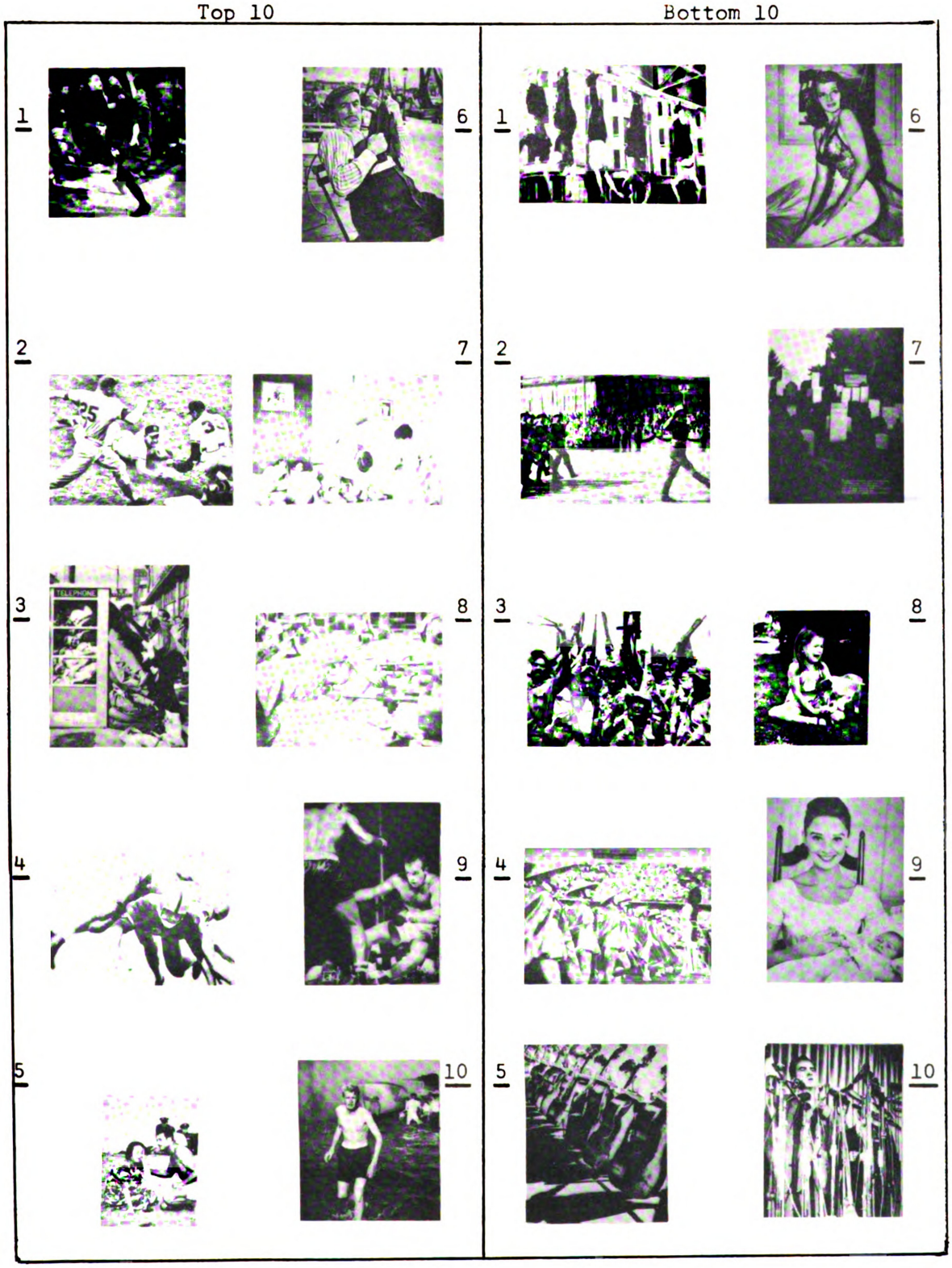


TABLE 30

PICTURES WHICH HAVE HIGHER OR LOWER Z SCORES IN FACTOR D THAN IN FACTORS A, B, & C

Pictures which have higher Z scores in Factor D than in Factors A,B, & C	
05*	Leslie Caron dancing
53*	Telephone booth cram
04	Nobel prize dinner
16	Judo--kids in Judo uniform
19	Kennedy campaign--autographing
21	Khrushchev and Kennedy
32	Billy Graham preaching
37	Beach widow
44	Big gun--close-up
46	Boat tragedy
54	The French vendor
56	Space lady

Pictures which have lower Z scores in Factor D than in Factors A,B, & C	
14*	Little girl and dog
57*	Doctor and little boy
01	Miss America of 1959, 1960 & 1961
03	Ford family at daughter Anne's debut party
07	Football game band entertaining
11	Beach beauty
12	Rita Hayworth
18	Audrey Hepburn and son--formal portrait on baptismal day
24	Olympic track star
30	Freedom riders in the bus
42	Soldiers' parade
43	Happy soldiers
48	Gravestones
58	First prize roses

The importance of this phase lies in two aspects: 1) This rigorously designed factor-analysis of an audience yields representative types of audience in reality in terms of reaction patterns toward pictures. Readers who represent each type highly, can be chosen as predictees for the next phase. When the editors in the next phase predict these chosen predictees' reactions toward the pictures, they are predicting not only an individual reader but the representative of a type within the audience. 2) The study of types of picture appeal itself provides useful information for editorial decision-making in selecting pictures. The reaction patterns suggest some rules and basis for the picture editors.

For the next phase, the preliminary editorial prediction games were conducted. Two editors were asked to predict two representative readers of Factor A and Factor B. Different levels of information about these two readers was provided the editors before they predicted.

Fourth Phase: Preliminary Editorial Experiments

This phase tries out a method for editorial predictions and provides some encouraging results. It serves as a pilot study for the next, more rigorous study of editorial predictions.

Results:

Given an hypothetical audience of average adults in Lansing, the first editor thought the typical Lansing adult's sort on the Like-Dislike dimension would be influenced by several things: 1) Familiarity--ease of identifying the people and their relationship with the situation depicted, 2) News value--importance of knowing time, place, and locale, and 3) Photographic elements--close-ups, actions, etc.

The correlation between the editor's predicting sort and the actual reader's sort is -.066. It is no better than chance. But as the editor went on to the second sorting after being given a demographic description of a specific subject, "Mrs. Snelling," the editor made better predictions. The correlation of the editor's second sort and Mrs. Snelling's sort on the same set is .24. The editor has brought Mrs. Snelling's personal interest into consideration including her interest in kids, family, etc. The third prediction came out best. In addition to the demographic data, the editor was given a Q-sort made by Mrs. Snelling on a different set of pictures. The correlation in this final attempt jumps up to .75.

In the second editor's predictions, the editor was asked to predict one reader in the Intensity-of-Feeling dimension. He felt that an average adult in Lansing would have strong feelings toward action and violence, because pictures of that kind arouse the quickest reaction, hard to avoid, as in the case of bloody man in the back of a truck, the dead soldier--a close-up, and the threat in the gang. His bottom choices were pictures of girls and machine at work, unhappy students and teachers posing in front of a building, and the close-up of a castle. The correlation between this sort and the actual Lansing adult's sort is .18.

In the second sorting, given information of a specific subject, "Mrs. Millen," he moved up the social types of pictures and moved down the "poorly" photographed ones, since he knew that she appreciated photography. His top and bottom choices this time remained the same but with many changes in the middle-range ones. The correlation between his second predictive sort and Mrs. Millen's actual sort is .62.

The third time given one of Mrs. Millen's sort, he figured out that she likes feature pictures and dislikes sex and Republican party pictures, war impact, and especially undramatic bad pictures. He made an improved prediction again. The correlation moves up to .67.

The results are quite significant. They indicate two important things: 1) The degrees of feeling for or understanding of an audience do make differences in an editor's ability to predict his audience's reactions toward pictures. 2) An understanding of his audience may not improve his predicting ability on the Intensity-of-Feeling dimension so much as on the the Like-Dislike dimension.

The method and the results were found good as predicted. This leads to a large-scale design of editorial prediction.

CHAPTER IV

RESULTS OF FIFTH PHASE: THE AUDIENCE

As discussed in the chapter on methodology, each of the 18 readers chosen from Lansing and East Lansing did two Q-sorts of two sets of pictures on the value dimension. The two groups of 18 Q-sorts were separately correlated and factor-analyzed. We chose the three-factor solution for the first set of pictures and the two-factor solution for the second set of pictures. The factor loadings of two groups of factors are given in Table 31.

TABLE 31

FACTOR LOADINGS OF THE FIRST AND SECOND FACTOR-ANALYSES

	Three-factor solution for the first set of pictures				Two-factor solution for the 2nd set of pictures	
	A	B	C		A	B
1	.301	.666	.439	1	.783	-.100
2	-.045	.829	.183	2	.665	-.250
3	.207	.352	.724	3	.695	-.454
4	-.100	-.006	-.302	4	-.209	.483
5	.260	.678	.253	5	.692	.265
6	-.075	-.706	-.144	6	-.163	.344
7	.214	-.155	-.549	7	-.046	.602
8	.310	.425	.431	8	.670	-.420
9	.463	-.419	.169	9	.366	.042
10	.648	.138	.367	10	.764	.127
11	.606	.245	.180	11	.818	-.282
12	.556	-.239	-.172	12	.040	.440
13	.593	.534	.376	13	.833	.019
14	.232	.477	.685	14	.059	.093
15	.205	.089	.561	15	.435	-.412
16	.165	-.052	.466	16	.360	-.124
17	.645	.118	.298	17	.533	-.353
18	.202	-.519	.167	18	-.042	.446

Factors of First Set of Pictures

Factor A of the first set of picture Q-sorts is represented by readers 10, 11, 12, 13 and 17. They are all female readers. Readers 10, 11, and 12 have received college level educations; reader 13 has received a high school level of education and reader 17 received only grade school education. They are from different age groups: young, middle-aged and old. They are all married. They are all Christians--all Protestants. Most of them have small or teenage children. Three of the ladies live on an annual household income of from $10,000 to $15,000 or more. The other two are extremely devoted Christians with less income, but they have good household items such as a Hi-fi set, a boat, a slide projector, and a still camera. One, a missionary, even made a trip to England last year. All the representative female readers of this factor A can be considered as well educated and from well-to-do family. All of them like some fancy and feminine sports and hobbies: hiking, sewing, riding, skating, golf, tennis, furniture refinishing, walking, reading, ice skating, swimming, painting, etc. They are all staying at home now; but they have worked before as teachers, baby-sitters, etc. Now they sometimes attend activities like art clubs, Bible classes, etc. Below we study their highly accepted and rejected pictures. (see Table 32 and Figure 8)

The most valuable picture here is a picture of a farm scene. It is scenic, artistic and vivid; it shows a farming tool with rows of spread hay on the ground, blown gently by the evening breeze. Readers regard it valuable for different reasons. Some like it because it is "beautiful". Some like it for its peace and quiet. Some like it because

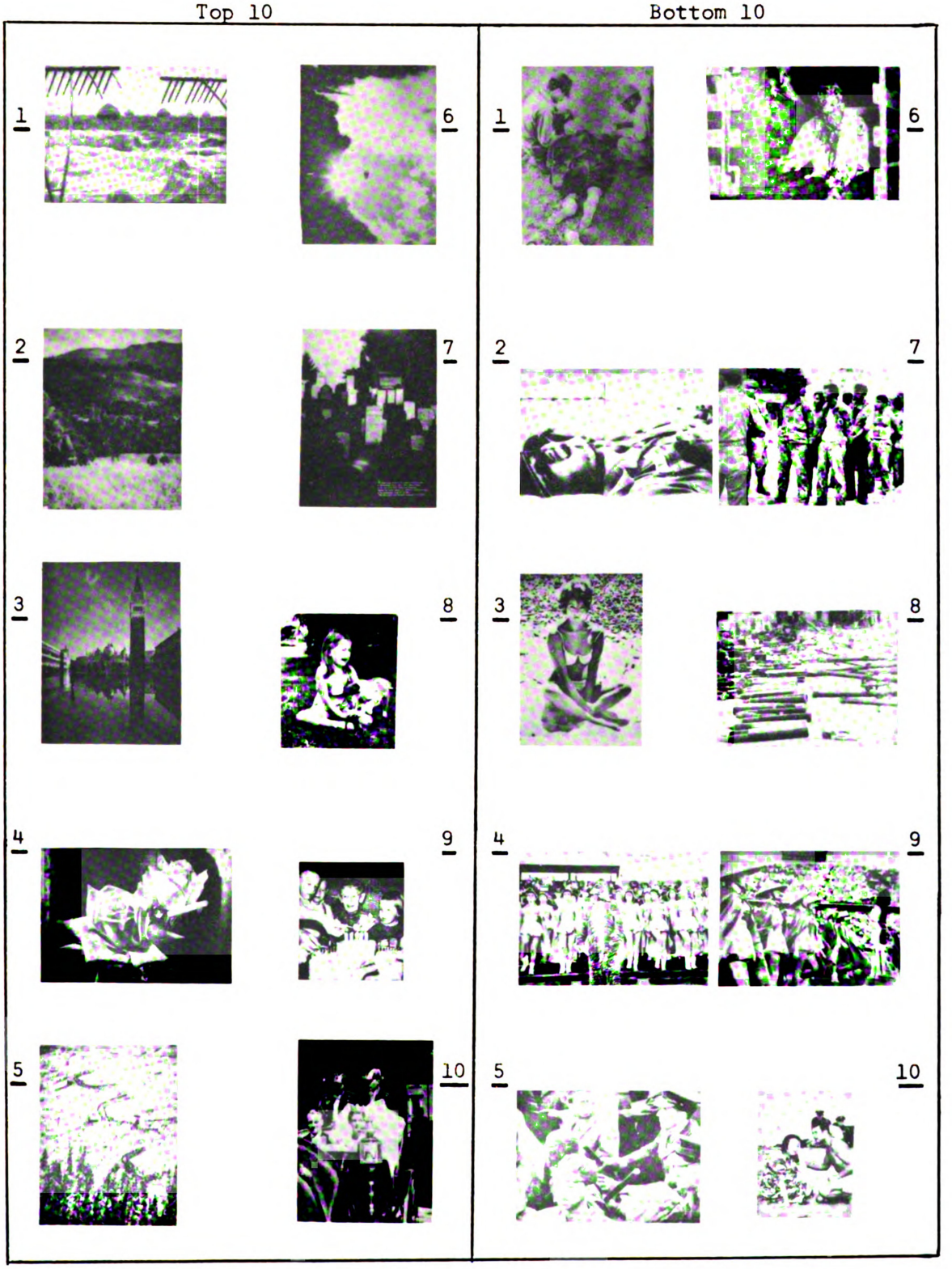
TABLE 32

PICTURES THAT FACTOR A OF DECK 1 IN THE FIFTH PHASE HIGHLY ACCEPTS AND REJECTS

Accepts	Z-score
Farm scene	2.467
Castle scene--a long range	2.363
Big building and its reflection in water	2.194
First prize winning roses	2.186
Skiing--a long-range	1.803
Clouds	1.470
Gravestones	1.402
Crying little girl and puppy	1.349
101st birthday--Grandma Moses	1.057
Prince's Wedding	.871
Rejects	
Searching the dead's pockets	-1.614
Soldier crawling on his back	-1.330
Beach beauty in bikini	-1.302
Football game entertaining--"tiger" marching	-1.276
Crowds and policemen	-1.244
Bloody man in the back of a truck	-1.175
Prisoners	-1.141
Military weapons	-1.118
Football game entertaining--school band marching	-1.003
Beach widow	-0.984

it reminds them of God's creation. The same reasons are given for the next several valuable pictures: a castle scene, a big elegant building, and the first prize winning roses. These pictures do not have people in them. They contain flowers, nature, scenery and great architecture. The pictures were taken either long-range or close-up, or in a combination of both. The next three pictures again have similar characteristics--nature, peace, scenery. They are the skiing scene with beautiful patterns taken at long-range and the clouds and gravestones taken

Fig. 8--Top 10 and bottom 10 pictures of Factor A of Deck 1 in the fifth phase: Value



as close-ups. The next two have people in them--a crying little girl with a puppy, and an old lady, Grandma Moses. In general, individuals on this factor chose restful, beautiful, and enjoyable pictures as the ones most valuable to them. They said these pictures were good to look at and good to know.

Type A rejects death scenes, violence, tools of war, the football game half-time, and the "silly" sexy females. (see Table 32) "Though they prove something, I don't care for them." "Violence, war, soldiers, sports are against my belief system." "Sex is wrong and evil; sports I have no interest in; sensationalism has a bad influence on the reputation of American culture." "I don't want to look at death and war pictures. And I prevent my children from knowing about all these things." These are the comments of Type A people.

To study further this Type A, we may look at the pictures which have higher or lower Z scores in Factor A than in Factors B and C. These are given in Table 33.

Looking through the pictures in Table 33, we find that subject matter such as art, design, patterns, performance, and social problems, represent Type A. A few pictures of death and violence at the bottom of the list are consensus items at the low range by all three factors.

Sexy girls, football game half-time entertainment, boxing, the telephone booth cram, and the presidential campaign are less representative of Type A. Pictures of a French woman selling fish, a young orchestra conductor, a mother and 12 pairs of shoes, and Leslie Caron dancing, though listed as less-accepted by Type A, are the consensus items at the middle range of all three factors.

TABLE 33

PICTURES WHICH HAVE HIGHER OR LOWER Z SCORES
IN FACTOR A THAN IN FACTORS B AND C

Higher		
59	Farm scene	2.469
48	Castle scene--long-range	2.363
49	Big building and its reflection in water	2.194
58	First prize winning roses	2.188
46	Skiing--long-range	1.803
60	Clouds	1.470
47	Gravestones	1.402
13	Crying little girl and dog	1.349
03	Prince's wedding	0.871
56	Dentist and his little patient	0.837
12	Senator Sam Rayburn and baby grandson	0.833
14	Little girl and fish	0.784
52	Boat man	0.769
25	Victims of poverty--parents and baby at starvation	0.685
26	Hungry boy--close-up	0.367
24	Chinese student pulling mud in Commune	0.014
37	Soldier staring	-0.218
35	Airplane crash in New York--long-range	-0.362
30	Negro college students	-0.363
33	Flood scene--long-range	-0.453
40	Victory comes to soldiers	-0.511
44	Death in the jungle	-0.618
32	Bloody man in the back of a truck	-1.175
38	Soldier crawling on back	-1.330
Lower		
11	Beach beauty in Bikini	-1.302
05	Football game entertaining--"tiger" marching	-1.276
31	Crowds and policemen--long-range	-1.244
42	Prisoners	-1.141
06	Football game entertaining--school band marching	-1.033
36	Beach widow	-0.984
22	Championship boxing	-0.964
19	Republican campaign--public gathering with slogans	-0.953
51	Telephone booth cram	-0.941
17	Kennedy campaign--autographing	-0.617
09	80th wedding anniversary--old couple	-0.598
20	Baseball scene--fourth base	-0.595
23	Football tackles--close-up	-0.586
01	Misses America of 1959, 1960, and 1961	-0.523

TABLE 33 - Continued

Lower		
50	French woman selling fish--a movie scene	-0.447
10	Brigitte Bardot	-0.418
21	Tennis player	-0.344
45	Mother and 12 pairs of shoes	-0.334
04	Leslie Caron dancing	-0.322
07	Young orchestra conductor	0.160
57	Machine hands	-0.071
02	Queen of Iran at opera theater	0.013

Factor B

Type B is represented by reader 1, 2, 5, 6, and 18. But readers 6 and 18 represent this type in an opposite way from the others. In other words, these two accept what most individuals in Type B reject and they reject what most of Type B people accept. These two readers are old and have less education. All the readers here are male readers except reader 18 who is an elderly, female Negro with a grade school education. Two of the male readers have college educations and two have high school educations. Their ages are in the 20's, 30's 40's and 50's. They are all married, and they all have children. Their annual incomes last year ranged from $3,000 to 15,000. The female reader, 18, likes reading and singing. All the male readers are interested in ball games.

The most accepted picture by Type B (see Table 34 and Figure 9) is the big machine and the third one is a metal net. Type B is technically oriented. He places these science pictures highly. He believes that science makes progress. He believes that science shows the modernity of the world. He commented that these science pictures are good photos

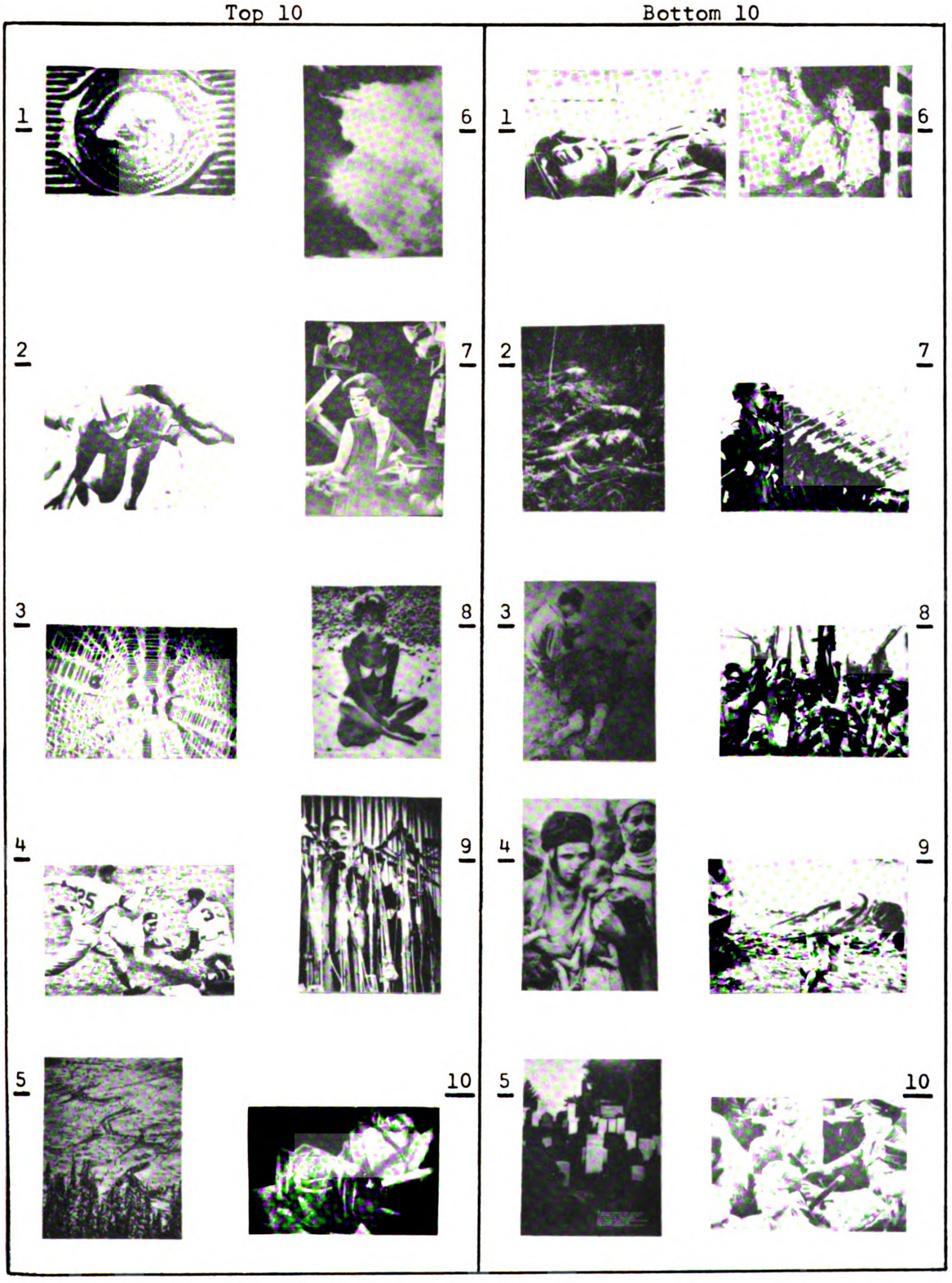
TABLE 34

PICTURES THAT FACTOR B OF DECK 1 IN THE FIFTH PHASE HIGHLY ACCEPTS OR REJECTS

Accepts	z-score
Big machine	1.627
Football tackles	1.575
Metal net	1.542
Baseball scene--fourth base	1.483
Skiing - a long-range	1.340
Clouds	1.230
Machine hands	1.221
Beach beauty in bikini	1.163
Nixon campaign--giving a speech	1.151
First prize winning roses	1.133
Tennis player	1.128
Telephone booth cram	1.090
Farm scene	1.040

Rejects	z-score
Soldier crawling on his back	-1.817
Death in the jungle	-1.814
Searching the dead's pockets	-1.639
Victims of poverty--parents & baby at starvation	-1.509
Gravestones	-1.477
Bloody man in the back of a truck	-1.469
Gun soldier parade	-1.405
Victory comes to soldiers	-1.318
Chinese student working in the Commune	-1.300
Crowds and policemen	-1.226
Hungry boy	-1.216
Prisoners	-1.131
Soldier staring	-1.074

Fig. 9--Top 10 and bottom 10 pictures of Factor B of Deck 1 in the fifth phase: Value



and have abstract compositions. The football, baseball, and skiing pictures reflect Type B's personal interest. He appreciates some of the pleasant things and activities which are entertaining, such as pictures of nature, a beach beauty in bikini, prize winning roses, a telephone booth cram, and a farm scene. Two elderly readers who are Type B negatively are against sex, and the "silly, foolish and not necessary" things like the telephone booth cram, the sexy women, clouds, roses, etc.

Death, misery, tools of war, hunger, suffering, and violence are are rejected. (see Table 34 again) In general, Type B avoids these kinds of pictures because he feels uncomfortable. He thinks that these pictures are not useful, educational or necessary. For the two readers who represent Type B negatively, pictures like these are meaningful--"fighting for something you want is very important," according to them. It is understandable that hard-laboring people and privilege-deprived people tend to believe this.

Looking through the pictures which have higher or lower Z scores in Factor B than in Factors A and C, we find that subject matter such as science, sports, pretty sexy girls, and off-beat material are more favored by Type B. (see Table 35)

Death, poverty, tools of war, glamour, and performance are less favored by Type B. Pictures of the castle scene and the first prize winning roses, though listed as less accepted by Type B, are consensus items at the high range by all three factors.

Factor C

Factor C is represented by readers 3, 14, 15, 16 positively and reader 7 negatively. (See Table 31) Type C is of different ages, sexes and education. He values the pleasant and positive life most: flowers,

family, sports, pretty girls, fame, politics, and religion. He commented that these are the basic interests of human beings. "They make you feel uplifted and promising," he said. He admires fame because people should work hard to achieve what they can. (see Table 36 and Figure 10)

TABLE 35

PICTURES WHICH HAVE HIGHER OR LOWER Z SCORES IN FACTOR B THAN IN FACTORS A, AND C

Higher		**Z-score**
53	Big machine	1.627
23	Football tackles	1.575
55	Metal net	1.542
20	Baseball scene--fourth base	1.483
57	Machine hands	1.221
11	Beach beauty in Bikini	1.163
18	Nixon campaign--giving a speech	1.151
21	Tennis player	1.128
51	Telephone booth cram	1.090
54	Light bulb	0.964
22	Championship boxing	0.886
06	Football game entertaining--school band marching	0.804
10	Brigitte Bardot	0.737
05	Football game entertaining--"tiger" marching	0.720
04	Leslie Caron dancing	0.699
29	Freedom riders inside the bus	0.017
50	French woman selling fish--a movie scene	-0.104
34	Burned school house in ashes	-0.751
41	Military weapons	-0.860
Lower		
38	Soldier crawling	-1.817
43	Searching the dead's pockets	-1.639
25	Victims of poverty--parents and baby at starvation	-1.509
39	Gun soldier parade	-1.405
40	Victory comes to soldiers	-1.318
24	Chinese student pulling mud in Commune	-1.300
37	Soldier staring	-1.074
03	Prince's wedding	-0.726
28	Freedom riders singing on the campus	-0.720
30	Negro college students	-0.614
15	Audrey Hepburn and baby son	-0.016
08	101st birthday--old lady and her birthday cake	0.041
13	Crying little girl and dog	0.104

TABLE 35 - Continued

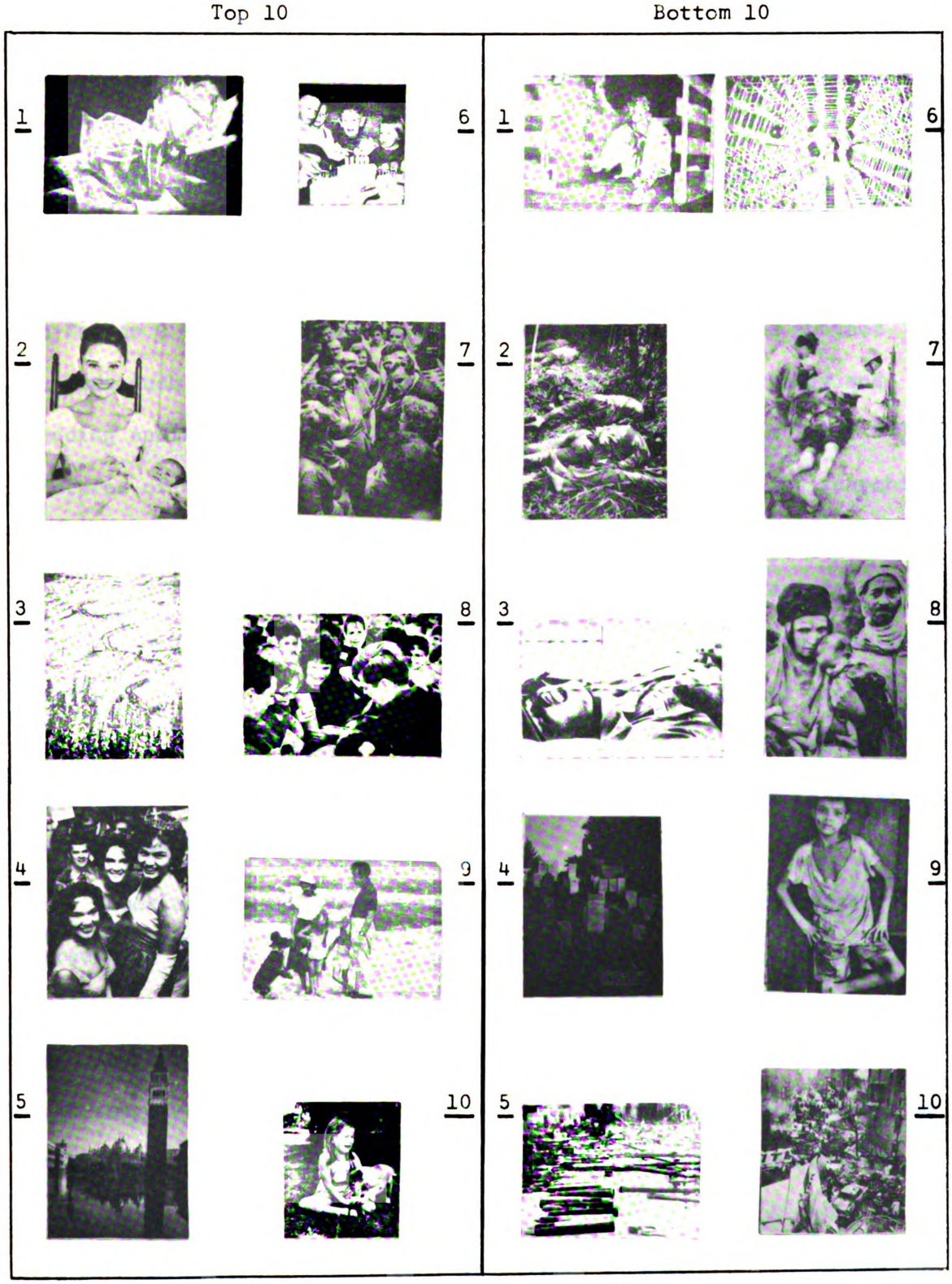
Lower		
14	Little girl and fish	0.161
12	Senator Sam Rayburn and baby grandson	0.196
27	Billy Graham preaching in factory	0.231
16	Nixon family on the beach	0.260
49	Big building and its reflection in water	0.589
48	Castle scene--long-range	0.872
58	First prize winning roses	1.133

TABLE 36

PICTURES WHICH FACTOR C HIGHLY ACCEPTS OR REJECTS

Accepts	Z Score
First prize winning roses	2.065
Audrey Hepburn and baby son	1.851
Skiing--a long range	1.672
Misses America of 1959, 1960 and 1961	1.591
Big building and its reflection in water	1.530
101st birthday--Grandma Moses	1.400
Billy Graham preaching in factory	1.141
Kennedy campaign--autographing	1.113
Nixon family	.987
Little girl and dog	.948
Queen of Iran at Opera theater	.942
Rejects	
Bloody man in the back of a truck	-2.060
Death in the jungle	-1.880
Soldier crawling on his back	-1.626
Gravestones	-1.530
Military weapons	-1.482
Metal net	-1.394
Searching the dead's pockets	-1.380
Victims of poverty--starving parents and baby	-1.250
Hungry boy	-1.235
Airplane crash in New York--a long-range	-1.224
Crowds and policemen--a long range	-1.149
Big machine	-1.040
Burned school house in ashes	-1.009

Fig. 10--Top 10 and bottom 10 pictures of Factor C of Deck 1 in the fifth phase: Value



Type C again rejects death, tools of war, poverty, destruction and science. (See Table 36 again) He said that these are depressing and very unpleasant to look at. The science pictures he doesn't want to read because he doesn't know much about them. Type C seems to like an easy-going life. He doesn't want to be bothered by unpleasant things, and he seems very easily satisfied by realistic and physical pleasure from outside.

Looking through the pictures which have higher or lower Z-scores in Factor C than in Factors A and B, we find that feminine subject matters such as young marriage, pretty girls, unusual birthday and wedding anniversaries, are more appealing to Type C. (see Table 37) Pictures of the mother and 12 pairs of shoes, prisoners, and searching the dead's pockets, although listed as more accepted by Type C, are consensus items at the low or middle-range by all three factors.

Pictures of violence, death, tools of war, destruction, are less accepted by Type C, but some of them are consensus items at the low range by all three factors. Clouds and the farm scene are two pictures listed as less accepted, too, but they are consensus pictures at the high range by all three factors.

Looking through the consensus pictures that all three factors agree upon in the high, middle, and low ranges, (see Table 38 and Figure 11) we find that there are decreasing feelings of tranquility and pleasantness from high range to low range. In the pictures in the high range we find the pattern of scenery, the quiet mysterious castle with a widely viewed scenic background, a close-up of a bunch of four first prize-winning roses, a farm scene at evening and a picture of heavy clouds. There are no people in these pictures except in the

picture of skiing, where two lines of skiiers form a beautiful pattern adding more beauty to a long-range picture of the scenery. Judging from the readers' point of view, these pictures give happy, lifted feelings. They are not depressing. Looking at them, you feel comfortable and there is nothing you want to avoid. It is the human basic interest to like pleasantness. The scenery and art pictures are inviting and charming so that people want to be there to enjoy what is depicted in the pictures.

TABLE 37

PICTURES WHICH FACTOR C ACCEPTS OR REJECTS MORE THAN FACTORS A AND B

Higher		**Z-score**
15	Audrey Hepburn and baby son	1.851
01	Misses America of 1959, 1960 and 1961	1.591
08	101st birthday--old lady and her birthday cake	1.400
27	Billy Graham preaching in factory	1.141
17	Kennedy campaign--autographing	1.113
16	Nixon family on the beach	0.987
02	Queen of Iran at opera theater	0.942
09	80th wedding anniversary--old couple and family	0.732
28	Freedom riders singing on the campus	0.590
07	Young orchestra conductor	0.555
19	Republican campaign--public gathering with slogans	0.412
45	Mother and 12 pairs of shoes	0.219
36	Beach widow crying	-0.496
39	Gun soldier parade	-0.649
42	Prisoners	-0.818
31	Crowds and policemen--long range	-1.149
43	Searching the dead's pockets	-1.380
Lower		
32	Bloody man in the back of a truck	-2.060
44	Death in the jungle	-1.880
47	Gravestones	-1.530
41	Military weapons	-1.482
55	Metal net	-1.394
26	Hungry boy	-1.235
35	Airplane crash in New York--long range	-1.224
53	Big machine	-1.040

TABLE 37 - Continued

Lower		
34	Burned school house in ashes	-1.009
33	Flood scene--long range	-0.597
56	Dentist and his little patient	-0.577
29	Freedom riders inside the bus	-0.492
18	Nixon campaign--giving a speech	-0.453
54	Light bulb	-0.239
52	Boat man	0.057
60	Clouds	0.700
59	Farm scene	0.769

TABLE 38

THE CONSENSUS* PICTURES WHICH ALL THREE FACTORS IN DECK 1, PHASE 5 AGREE UPON IN THE HIGH, MIDDLE AND LOW RANGES

		A	B	C
1. Pictures in the high range (Z-scores from 0.700-above)				
46	Skiing--long range	1.803	1.340	1.672
58	First prize winning roses	2.186	1.133	2.065
60	Clouds	1.470	1.230	0.700
2. Pictures in the middle range (Z-scores from -0.700 to 0.700)				
07	Young orchestra conductor	0.160	0.187	0.555
29	Freedom riders inside the bus	-0.097	0.017	-0.492
30	Negro college students	-0.363	-0.614	-0.537
33	Flood-scene--long range	-0.453	-0.481	-0.597
45	Mother and 12 pairs of shoes	-0.334	-0.253	0.219
50	French woman selling fish--a movie scene	-0.447	-0.104	-0.203
3. Pictures in the low range (Z-scores from -7.000 and below)				
31	Crowds and policemen--long range	-1.244	-1.226	-1.149
32	Bloody man in the back of a truck	-1.175	-1.469	-2.062
34	Burned school house in ashes	-0.778	-0.751	-1.009
38	Soldier crawling on back	-1.330	-1.817	-1.626
41	Military weapons	-1.118	-0.860	-1.482
42	Prisoners	-1.141	-1.131	-0.818
43	Searching the dead's pockets	-1.613	-1.639	-1.380

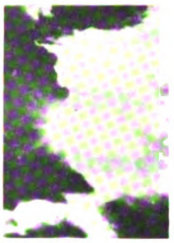
*Except for several persons negative on Factors B and C

Fig. 11-- Consensus pictures which all three factors of Deck 1 in the fifth phase agree upon in the high, middle, and low ranges

Pictures in High Range

1

3

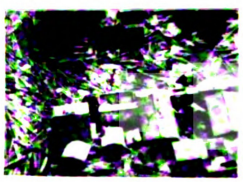


2

Pictures in Middle Range

1

4



2

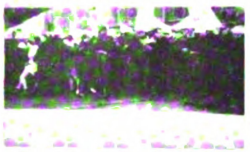
5

3

6

Pictures in Low Range

1



6

2

7

3

4

5

All of the pictures in the middle range have people in them, except for the flood scene. Some kind of activity is going on in each picture and the subject matters range from dancing, music conducting, racial demonstration and destruction, to pattern and off-beat material. There is an element of entertainment and the curious sense of social responsibility. The intensity of feelings are moderate, and the pictures are irregular in content and pictorial composition.

Pictures in the low range cover violence, death, destruction and tools of war. They are unpleasant, gruesome, and have "unnecessary" "realism." They are "uneducational," discouraging, and "it is too late to do anything about them."

For some serious readers, those negative representatives of the factors, the pictures at the low range, are significant. Some of the predicting editors believe that all readers like violence, but they agreed that the extremely striking pictures of death and violence should be avoided.

Factors of the Second Set of Pictures

In the factor analysis of the second set of pictures, a two-factor solution was chosen.

Factor A

Type A is highly represented by readers 1, 2, 3, 5, 8, 10, 11, 13, and 17. (see Table 31) Type A people are of both sexes and from different age groups. Five of them have a college level of education. Two have high school and two have grade school levels of education. They are all married and most of them have children. Their occupations include housewife, babysitter, janitor, teacher, engineer, and painter.

TABLE 39

PICTURES WHICH FACTOR A OF THE SECOND SET OF PICTURES IN THE FIFTH PHASE ACCEPTS OR REJECTS HIGHLY

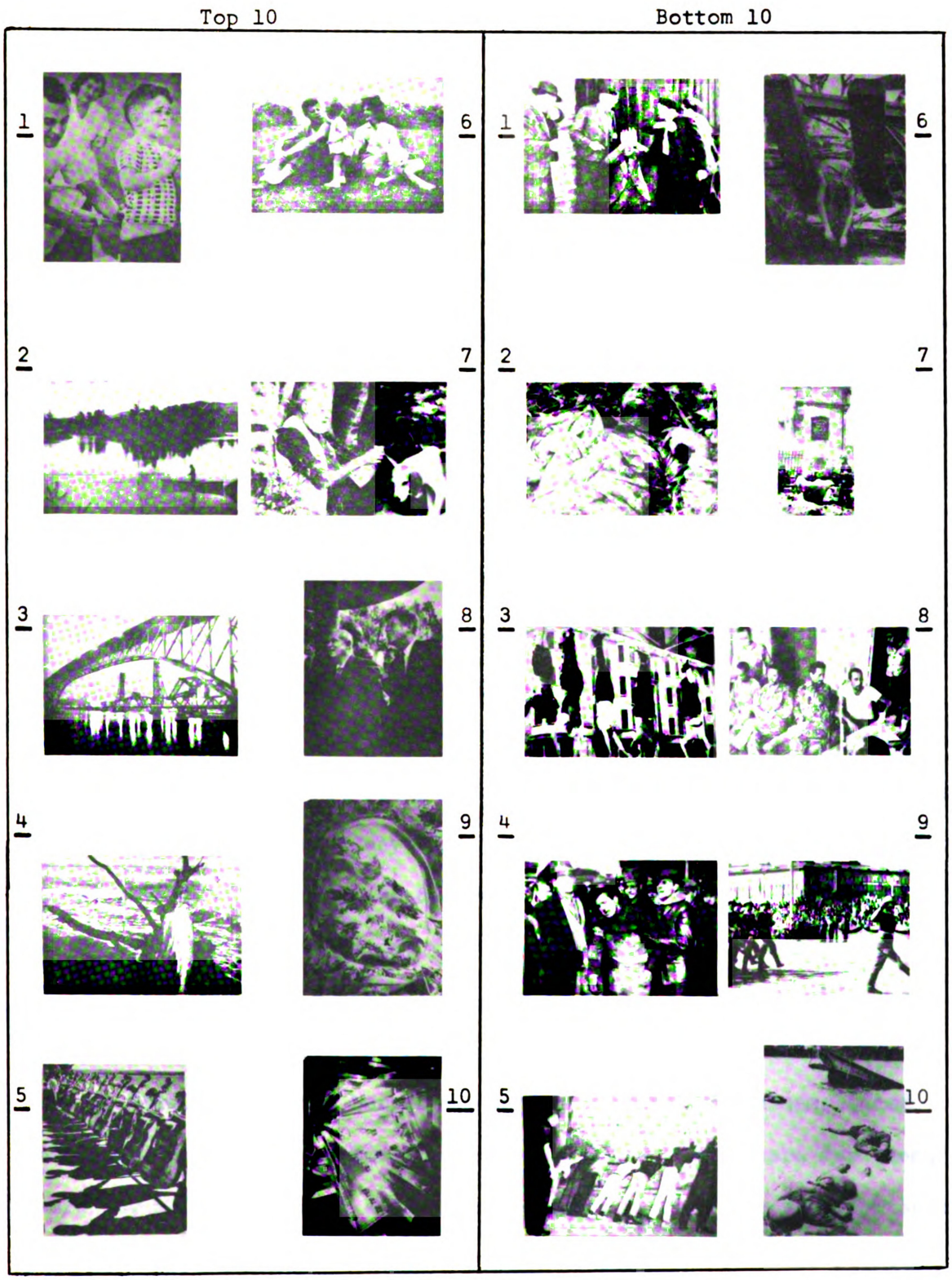
Accepts		Z-score
56	Little boy getting a shot	1.801
59	Sunset fishing	1.795
48	Big bridge	1.664
60	Beach, fisherman, fish and tree	1.552
46	Cello concert near the river bank	1.377
16	Kennedy family sitting on the lawn	1.318
13	Hemingway sitting and reading under a tree with pipe and dog	1.306
19	Khrushchev and Kennedy	1.256
58	Cathedral dome painting	1.245
47	Glass equipment	1.185
07	Old symphony conductor	1.134
57	Plastic models of human body organism	1.129
54	Radar	1.046
Rejects		
30	Threat in the gang	-1.949
44	Dead soldier--close-up	-1.940
42	Hanging of Mussolini and his mistress	-1.797
32	Man being caught	-1.682

TABLE 39 - Continued

Rejects		
25	Juvenile delinquency--boys leaning against wall	-1.655
35	Sudden death	-1.388
34	Firemen and the dead	-1.371
41	Prisoners in Cuba	-1.259
38	Soldier parade	-1.116
43	Dead soldiers on the beach	-1.102
26	Slum bedroom	-1.093
36	Boat tragedy and frightened youngster	-1.056

The most accepted picture for Type A is a picture of a little boy getting a shot in his buttocks from a doctor. (See Table 39 and Figure 12) The expression on the little boy's face is vivid. Most of the respondents smiled as soon as they looked at the picture. Pictures of performance, art, nature, and patterns are most valued by Type A. The generalized comments for them are given as something comforting, secure, wholesome and not depressing. The Kennedy family suggests the interesting family aspect. The picture of Hemingway is considered a good study of human nature. The scenic pictures like plastic models and radar are valuable to technically oriented readers. Readers in Type A are interested in science. The impact of the science pictures usually with contrast and pattern in them are mentioned. Pictorial composition is considered part of the attraction. Examples would be the glass equipment, the big bridge, a fishing scene, and the cello concert near the river bank. In general, the readers revealed the pictures of pleasant human interest and entertainment most valuable--sometimes personally valuable. Enjoyment is more preferred than information, escapism, or sensationalism. Pleasant and beautiful

Fig. 12--Top 10 and bottom 10 pictures of Factor A of Deck 2 in the fifth phase: Value



things may remind the reader of the creation of God, while scenes of destruction may oppose the belief system. Pictures which have nice contrast, patterns, and rhythm involving human beings or beautiful objects are valued highly by Type A.

From the list of pictures which have higher Z scores in Type A than in Type B, we see more evidence for the tendency described above. (see Table 40)

Pictures of nature, architecture, family, science, music, shows, performance, glamour and fame, are more of this Type A. They are something delightful and entertaining. Readers showed respect for genius, athletic ability, sex, hope and courage as suggested by the family picture and mother-and-son relationships, and for strength and forces in patterns and design.

Type A rejects violence, death, misery, social problems, sudden death, prisoners, destruction and tools of war. (see Table 39 and Figure 12 again) These are categories of striking pictures which readers seem to avoid looking at. Some readers avoided social problems and violence because they thought those pictures had no personal values. "They don't seem to prove anything," they said. One reader said "Never use a photo like this such as destruction of life through war; they are not educating to children; they are unpublishable. "War is cruel," said another reader. "Death pictures have no value and they bother people psychologically." One reader mentioned that she doesn't care to look at them. She hated horrible pictures because they accomplished nothing. When a fair number of people mentioned "don't care for them," there may be a feeling of avoidance or escape. "They are uncomfortable," one reader said, "death is not nice to look at." "There is no point to carry the inhumane, unpleasant and torturing things in magazines."

TABLE 40

PICTURES WHICH HAVE HIGHER Z-SCORES IN FACTOR A THAN IN FACTOR B

56	Little boy getting a shot	1.801
**59	Sunset fishing	1.795
*48	Big bridge	1.664
*60	Beach, fisherman, fish and trees	1.552
**46	Cello concert near the river bank	1.377
*16	Kennedy family sitting on the lawn	1.318
19	Khrushchev and Kennedy	1.256
**58	Cathedral dome painting	1.245
*47	Glass equipment	1.185
**07	Old symphony conductor	1.134
57	Plastic models of human body organism	1.129
**54	Radar	1.046
**51	French vendor	0.997
15	Debbie Reynolds and daughter	0.855
21	Olympic track star	0.700
**06	Symphony orchestra	0.536
**49	Castle--viewed from inside	0.504
05	Ice skating on the stage	0.460
**04	Scottish dance	0.437
**27	Black and white intermarriage--Sammy Davis, jr. and May Britt	0.436
14	Judo--kids in judo uniform	0.434
03	King's wedding	0.414
*01	Queen of Iran and peace doves	0.281
*02	Ford family in daughter Anne's debut party	0.213
17	Nixon campaign--shaking hands	0.022
10	Marilyn Monroe	-0.107
*50	Telephone booth cram--close-up	-0.183
40	Big gun--close-up	-0.210
*18	Republican big shots	-0.241
*45	White Democratic girls campaigning for Kennedy	-0.428
12	Bishop performing a mass	-0.431
09	Nobel party in Sweden	-0.484
08	Golden wedding party	-0.512
28	Peeking eye	-0.773

**: One type placed it at least 1.500 standard deviation higher than another type.

*: One type placed it at least 1.000 standard deviation higher than another type.

The same rule is followed in the next factor comparison.

Factor B

TABLE 41

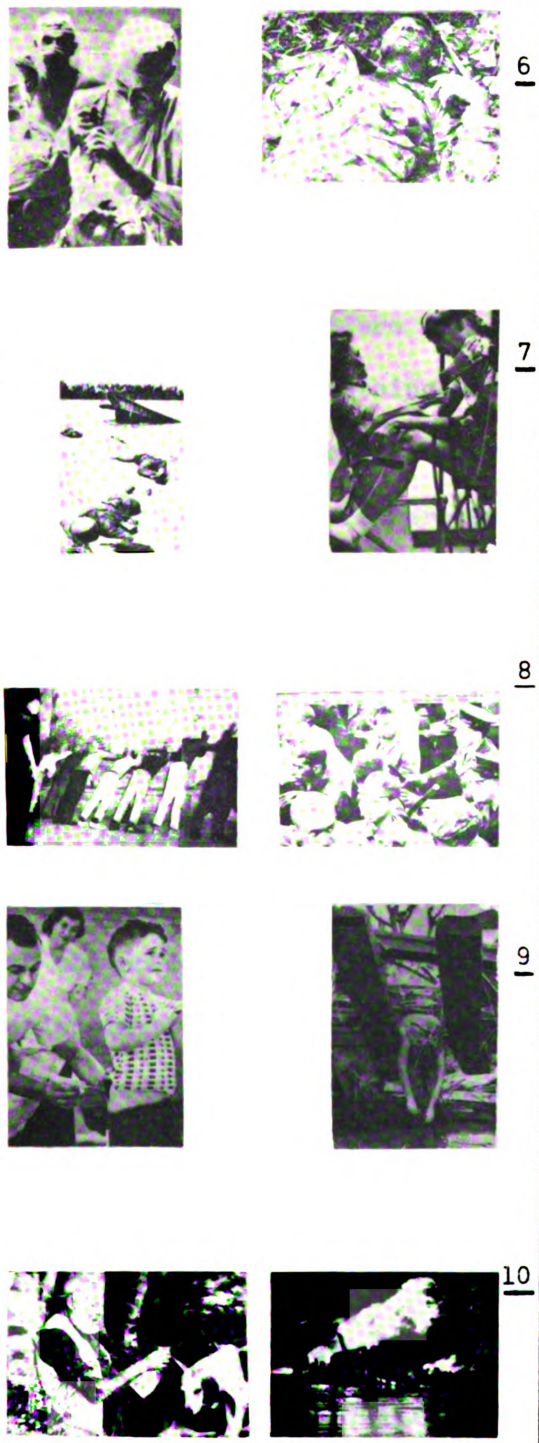
PICTURES WHICH FACTOR B IN THE SECOND FACTOR-ANALYSIS ACCEPTS OR REJECTS HIGHLY

Accepts		
55	Brain operation	2.345
43	Dead soldiers on the beach	1.674
25	Juvenile delinquency--boys leaning against the wall	1.603
56	Little boy getting a shot	1.545
13	Hemingway sitting and reading under a tree with his pipe and dog	1.486
44	Dead soldier--close-up	1.413
53	Space lady	1.369
31	Crowds and policemen--close-up	1.312
35	Sudden death	1.018
32	Fire on the sea	1.005
Rejects		
58	Cathedral dome painting	-1.995
27	Black and white intermarriage	-1.805
45	White Democratic girls campaigning for Kennedy	-1.559
06	Symphony orchestra	-1.442
18	Republican big shots	-1.413
28	Peeking eye	-1.355
50	Telephone booth cram	-1.327
04	Scottish dance	-1.326
54	Radar	-1.239
49	Castle--viewed from inside	-1.208
08	Golden wedding party	-1.120
09	Nobel party in Sweden	-1.064
07	Old symphony conductor	-1.005

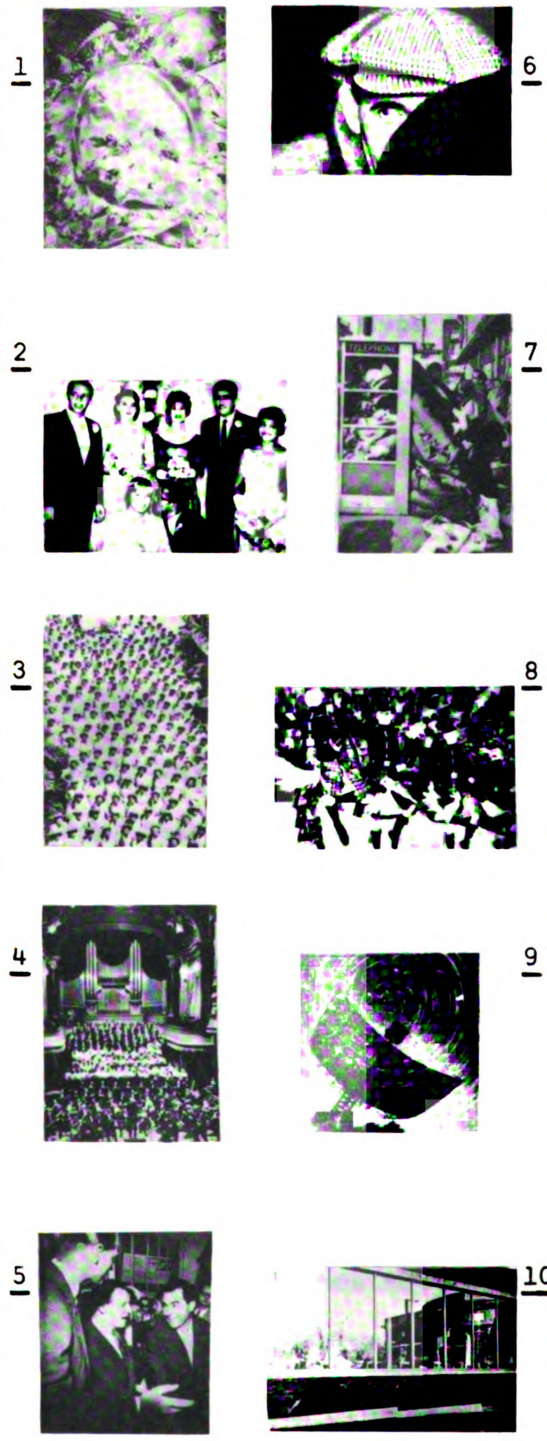
Factor B is represented by readers 4, 7, 12, and 18. (See Table 31) Type B people include two young male readers, who have high school and grade school educations and two older female readers with college and grade school educations. Three of them did not earn more than $3000 last year. The old college-graduated female reader is a missionary who is content with a barely-get-by life and didn't reveal her exact income. They are all married and do not have children except the

Fig. 13--Top 10 and bottom 10 pictures of Factor B of Deck 2 in the fifth phase: Value

Top 10



Bottom 10



old female Negro reader who has three children but lives alone. Their occupations are: a maintenance man, a maid, a salesman, and a missionary. The old female readers are Christian. One male reader is Greek Orthodox. The other one does not have religious beliefs. They do not have many hobbies except walking, reading, and singing. One likes fishing, and skiing. Generally they do not care for any special sports.

Looking at the pictures which Type B accepts highly, we find serious subject matter in content. (see Table 41 and Figure 13) The one which tops all is a picture of a brain operation. Some in Type A seem to dream and admire something which they do not have or they want to be. One reader commented on this picture "I have always dreamed I could be a brain surgeon." Others were amazed at the skill involved in a brain operation. Pictures like soldiers, juvenile delinquency, the little boy getting a shot, Hemingway, the more skill-oriented pictures, and, again pictures of violence, sudden death and destruction are the most valued ones. Somehow, Type B readers cannot explain well how and why they valued these pictures most. They said: "Oh! They strike me." "I feel sorry and have sympathy for them." They felt these pictures connected with the world today. They valued them highly because of social humanitarian interests. They felt that it is right to find the guilty person.

Type B rejects the Cathedral dome painting most. (see Table 41 and Figure 13) mendioned that they didn't know what it was. This picture puzzles people most. It is a very artistic painting. But it is least interesting to them. "No meaning at all," one commented. Black and white intermarriage--Sammy Davis, Jr. and May Britt--brought one comment: "Why do people try so hard to prove something?" Girls campaigning for Kennedy is rejected because politics doesn't interest

Type B. Type B dislikes pictures which have no identification of the individual. They rejected pictures of a whole bunch of people gathering together "doing nothing" such as Golden wedding party, the Nobel party in Sweden, Republican big shots, the telephone booth cram, the Scottish dance, the symphony orchestra, etc. "You have to look for something beneficial, something meaningful to life." "Those things are unimportant; the pictures are unclear."

Table 42 shows pictures which have higher Z scores in Factor B than in Factor A. It is strongly revealed that pictures of death, violence, misery, social problems and destruction are representative of Type B considerably more than of Type A. For serious and more deprived people, misery and tragedy may appeal; they may be comforting in the face of personal sorrow and indignity.

Type A and B are very different from each other, in fact almost directly opposite. Personal interest, experience, and environment seem to have a lot to do with the way they judge others, and the things outside themselves.

Since we chose the two-factor solution, the pictures which have lower Z scores in Type A than in Type B are the pictures which have higher Z scores in Type B than in Type A, and vice versa. We can only conclude that Type A people value the pictures in Table 40 more than Type B, and Type B people value the pictures in Table 42 more than Type A.

TABLE 42

PICTURES WHICH HAVE HIGHER Z-SCORES IN FACTOR B THAN IN FACTOR A

**55	Head operation	2.345
**43	Dead soldiers on the beach	1.674
**25	Juvenile delinquency--boys leaning against the wall	1.603
13	Hemingway sitting and reading under a tree with his pipe and dog	1.486
**44	Dead soldier--close-up	1.413
*53	Space lady	1.369
**31	Crowds and policemen--close-up	1.312
**35	Sudden death	1.018
**32	Man being caught	1.005
**26	Slum bedroom	0.903
**34	Firemen and the dead	0.889
**41	Prisoners in Cuba	0.845
23	Baseball pitcher--long-range	0.801
22	Baseball pitcher--close-up	0.699
**30	Threat in the gang	0.509
**42	Hanging of Mussolini and his mistress	0.582
29	Girl criminal	0.496
20	A football player's muddy face	0.464
39	Soldiers in the sea to be rescued	0.364
*33	Fire on the sea	0.260
52	Kids and big waves	0.248
24	Chinese student operating machine in the Commune	0.160
37	Peeking German soldier	-0.087
38	Soldier parade	-0.159
36	Boat tragedy and frightened youngster	-0.219
11	Rita Hayworth	-0.221

**: This type placed it at least 1.500 standard deviation higher than other type.

*: This type placed it at least 1.000 up to 1.500 standard deviation higher than other type

TABLE 43

CONSENSUS PICTURES WHICH FACTORS A AND B BOTH AGREE UPON

Pictures in the high range			
		A	B
56	Little boy getting a shot	1.801	1.545
13	Hemingway sitting and reading under a tree	1.306	1.486
57	Plastic models of human body	1.129	0.699
21	Olympic track star	0.700	0.684

TABLE 43 - Continued

Pictures in the middle range			
		A	B
20	A football player's muddy face	0.389	0.464
14	Judo--kids in judo uniforms	0.434	0.232
52	Kids and big waves	0.137	0.248
39	Soldiers in the sea to be rescued	-0.311	0.364
24	Chinese student working in the Commune	-0.397	0.160
11	Rita Hayworth	-0.326	-0.221
40	Big gun--close-up	-0.210	-0.438
Pictures in the low range			
28	Peeking eye	-0.773	-1.355

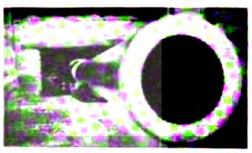
Fig. 14--Consensus pictures which Factors A and B of Deck 2 in the fifth phase agree upon in the high, middle, and low ranges

Picture in High Range

1

3

7



2

4

1 Pictures in Low Range

Pictures in Middle Range

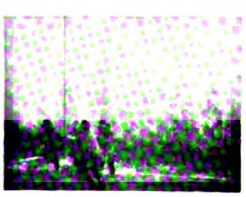
1

4

2

5

3



6

CHAPTER V

RESULTS OF THE FIFTH PHASE: THE PREDICTORS

Correlations

Table 44 shows the correlations between 24 editors' predictive sorts and readers' actual sorts. Eight out of 48 predictive sorts were found less than .25 correlated with the actual sorts, five on the minimal information level, and three on the detailed demographic information level. The rest of the predictive sorts were found .25 and higher correlated with the actual sorts.

It was found that on the level of minimal information about the predictee, the predictive accuracy by correlations between the editors' predictive sorts and the readers' actual sorts was as high as .500 and as low as .055. The mean correlation was .204.

It was found that on the level of detailed demographic information about the predictee, the predictive accuracy had a high of .453 and a low of -.069. The mean correlation was .205.

It was found that on the third level, the predictive accuracy was as high as .799 and as low as .375. The mean correlation was .601.

Finally, it was found that on the fourth level, the predicting accuracy had a high of .705 and a low of .310. The mean correlation was .601.

The mean predictive accuracy of the senior editors was .308. The mean predictive accuracy of the junior editors was .405. The mean predictave accuracy of the naive "editors" was .402. The mean predictive

TABLE 44

CORRELATIONS BETWEEN 24 EDITORS' PREDICTIVE SORTS AND THE READERS' ACTUAL SORTS

Kinds of Editors	Levels of Information Provided the Editors about the readers	Number of Editors	Corre. with male readers	Corre. with female readers	Mean Corre.
Senior Editors (Professional Editors and Photographers)	1. Minimal Demographic Information	Editor 1	.500	.084	.308
		Editor 2	.453	.055	
	2. Detailed Demographic Information	Editor 3	.370	.281	
		Editor 4	.370	.033	
	3. Predictee's actual Q-sort	Editor 5	.473	.446	
		Editor 6	.390	.448	
	4. Detailed Demographic Information and a Q-sort	Editor 7	.439	.526	
		Editor 8	.546	.705	
Junior Editors (Journalism majors who have some experience in Picture Editing)	1. Minimal Demographic Information	Editor 9	.345	.330	.405
		Editor 10	.154	.122	
	2. Detailed Demographic Information	Editor 11	.450	.453	
		Editor 12	.366	.258	
	3. Predictee's actual Q-sort	Editor 13	.375	.607	
		Editor 14	.475	.799	
	4. Detailed Demographic Information and a Q-sort	Editor 15	.412	.549	
		Editor 16	.310	.613	
"Naive Editors" (Junior or Senior Education majors who do not know photography)	1. Minimal Demographic Information	Editor 17	.270	.368	.402
		Editor 18	.477	.113	
	2. Detailed Demographic Information	Editor 19	-.069	.446	
		Editor 20	.171	.361	
	3. Predictee's actual Q-sort	Editor 21	.439	.600	
		Editor 22	.424	.674	
	4. Detailed Demographic Information and a Q-sort	Editor 23	.493	.388	
		Editor 24	.511	.683	
			.308	.405	
Mean Correlation	1st level	.204			
	2nd level	.205			
	3rd level	.601			
	4th level	.601			

accuracy of all the editors in predicting the male reader was .308, and the mean predictive accuracy of all the editors in predicting the female reader was .405. A person's ability to understand the roles of others is limited by the range of his acquaintance with forms of behavior like his or with which he is familiar. He readily appreciates the motives and views of other people who are like himself, and he is likely to have some grasp of the behavior of persons who are somewhat different from talking to or reading about them. It may be hard to grasp other's motives and ways of acting because of an absence of adequate intercommunication. Instead of recognizing his failures to understand the acts of others, he usually misinterprets those acts.[1] Take the following two editors as examples: editors No. 1 and No. 2.

Editors No. 1 and No. 2 did an amazing job in predicting the male reader when provided the minimal demographic information about him (.500 and .453)--even better than most of the predictions based on detailed information. But, strangely enough they did an amazingly poor job in predicting the female reader when provided with the same minimal amount of demographic information about her. (.084 and .055)

Editor No. 1, when asked about the way he predicted the male reader, said that he was brought up in the same group as this reader and that he was sure this kind of person, with low income and low education, likes action, violence, gang activity around the pool room or bowling alley and would be disconnected from cultural activities such as music and art performance. He said that it was from experience that

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[1]Alfred R. Lindesmith, and Anselm L. Strauss, Social Psychology, (New York: The Dryden Press, 1951) pp. 192-201.

he knew what this reader was like. If there is no actual experience, he said, "I think it is purely guessing." This he did in predicting the female reader. Though as mentioned by Spearman, there may be an unknown factor in the intelligent person which makes him able to put himself into another's place, the past social activities and experiences play an important part in the art of being the generalized other. What confused editor No. 1's prediction of the female reader was his belief that she would be interested in violence, too. This interest in violence, he believed, was basic to all people. This turned out just the opposite in this female reader's case.

Editor No. 2 predicted that life-and-death situations, and serious striking pictures like a hanging would be the male reader's most valued pictures. Government, art, and science were not his favored subjects. He said that he knew this from experience, from readings of research and psychology and from the opinions of others. What confused his prediction of the female reader again was his emphasis on the importance of life-and-death situations which she actually least valued.

Most of the editors mentioned that they believed the male reader was interested in action, violence, and in situations where he can identify himself with a background like his own. The editors who were given detailed information or sort information figures things out according to the reader's interests, background, and different aspects which might be predicted from the generalized image of his class.

Since the kinds of editors did not make significant differences in predictions, having experience at picture-editing may not guarantee an accurate prediction of reader's reactions. The art of putting the

self into the other's place and the basic knowledge of acts of others should get more editors' attentions.

Analysis of Variance

As discussed in the chapter on methodology, the analysis of variance was designed to test the effect of three variables in the prediction experiments: three different kinds of editors, four different levels of information about the predictee and two different predictees.

Table 45 shows the results of this analysis of variance by using the sum of the D squares as raw score and 0.05 level of significance:

A. Between Subjects: The main effects

1. The three different kinds of picture editors did not differ significantly in their predictions of two readers as a whole.
2. The effects of four different levels of information given editors about the two readers did differ significantly.
3. The effects of three different kinds of editors with four different levels of information given did not interact significantly in 12 kinds of predictions of the the two readers.

B. Within Subjects: the interactions

1. There was no significant interaction between predictions of two different readers as a whole.
2. There were significant interactions among different kinds of editors given different readers to predict.

TABLE 45

ANALYSIS OF VARIANCE
OF EDITORIAL PREDICTIONS

Source of Variation	Ss	df	MS	F	F at .05
Between Ss	724727.9	23			
A (kinds of editors)	8320	2	4160	.42	3.88
B (levels of information)	512562.5	3	170854.16	17.32*	3.49
AB	85526.4	6	14254.40	1.44	3.00
Ss with groups [error (between)]	118319	12	9859.91		
Within Ss	1265461.9	24			
C (two predictees)	12180.3	1	12180.3	1.4	4.75
AC	116273.6	2	58136.8	6.72*	3.88
BC	185023.4	3	61674.46	7.12*	3.49
ABC	123441.7	6	20573.61	2.37	3.00
C X Ss (within groups) [error (within)]	103815.0	12	8651.25		

* Significant at .05 level

3. There were significant interactions among different levels of information given to the editors and different readers to predict.

4. There were no significant interactions among different kinds of editors given different levels of information and different readers to predict.

C. Points to Note

1. Although scores show that the junior editors did the best job, with the naive "editors" second, and the senior editors last, these groups were not significantly better or worse than one another.

2. The major (and significant) difference in the effect of four levels of information about the readers lies between the second level and the third level - that is, detailed demographic information and Q-sort.

3. Junior editors predicted the female reader was the best, and the senior editors predicted the female reader worst, compared to other combinations of kinds of editors and kinds of readers.

4. Q-sort information about the female yielded the best individual predictions, minimal demographic information about the female yielded the worst predictions, compared to other combinations of information given about two different readers.

Editors' Comments and Opinions

After making their Q-sorts, the editors were asked five questions on why and how they did their predictions, and what were the things to decide readers' values for the pictures.

> Question 1: Look back through your predicting sorts. Would you tell us what made you think this given reader would sort the pictures that way? What was in your mind as you decided his or her "values" for these pictures?

According to the editors, violence and action were the first interest of the male reader. The female reader was said to like children and human interest snap-shots--the cultural, artistic and beautiful things. National and international events were the second thing that editors think the male reader and the female reader would be interested in. They mentioned that the male reader seemed concerned with life, death, shelter, and pattern, and that the female reader's life was well taken care of so she was not interested in the same basics of life. One editor, after studying the male reader's sort, said that his outlook on life seemed to be tranquility mixed with human tragedy, reality, poverty, hatred and war. The editor found that victory over war, the the realization of freedom, consequent enjoyment of life were the things the male reader could not see. In other words, he couldn't see the joys and sorrows of life the way other people did. He doesn't like silliness and is serious minded.

As for the female reader, she was said to have a taste for the artistic treatment of subject matter, and to like scenery and flowers. Editors who were given one of her Q-sorts described her as one who seemed to have a well-developed sense of humor, and to accept little sufferings as human interest; but they said that she seemed pretty upset by gruesome pictures. She was said to like impressionistic things, and she might be concerned with conflict and current events. These were the things which helped the editors decide their readers' values.

> Question 2. Take the top and bottom three choices; why did you consider them the most and least valuable to this reader? How did you know? What helped you most in your predictions?

The top and bottom three choices were based on several things; sometimes it was the editors' own experience which was similar to the predictee's background, or it was a guessing game with common knowledge about certain kinds of people. Also, they could be based on logical deduction from the demographic information provided them and the generalization of value-judgment of the pictures sorted by the predictees. Experience, research, the opinion of others, education, the demographic information and the Q-sort were said to be most helpful in the predictions.

> Question 3: Suppose this reader's sorting of the picture is actually different from the one you predicted from the information we provided you. What kinds of things might foul up your prediction? How important to an editor's work is an accurate image of his reader and the reader's values?

The editors' answers to this question are listed below: The predictions might be fouled up,

-- if this male reader is a particular one in his group who likes church music, etc; and if the female happened to have some special hobbies.

--if timeliness and technical quality are put into consideration in their Q-sorts.

--if the male reader is a self-educated person and if the female reader does not like all the magazines she and her husband subscribed to as listed in the information provided me.

--if the male reader has deviated from the group interest and his own crucial interest is not the same as the group's.

--because it is impossible to predict completely accurately and I don't believe in the study of content. Image doesn't do much good. The judging method of getting ideas across is more important than the content.

--because I am confused over the male reader's knowledge of history and people shown in his own sort. I am not sure what war pictures appeal to him in what ways, and the same goes for the children pictures.

--because it is hard to disregard completely how I would sort them myself. I might misunderstand him. His personal experience and background are different from mine so that it is hard to be accurate.

--because I don't know their hobbies and how interested they are in public affairs.

--because I may not be a good judge of people.

--if the female reader is too extremely interested in science and strongly anti-Democratic and anti-Catholic; the male reader might not like sports, war and death.

--if somehow the male reader is interested in music or his tastes are not those of his type, and if (she) "female reader" may be a phoney person of the description given.

--because I don't know if the male reader likes pictures of war because of the impact or just for the subject matter.

--because I might underestimate his field of interest.

--if he had special experiences with some kinds of activities, or his work doesn't represent his low level of education; if her real interest is not in social activities themselves, but she joins them for other reasons.

--because I don't know the motives of her attending social activities and the purpose of reading the magazines to which she subscribes.

--because the pictures in the set I use are not enough, though representative, to replicate what he sorted in the other set. I sense lack of time in her sorting compared to the male reader's. Much less evidence of pattern of continuing choices in her sort.

--because I have to know his mood and try to remember her and my own values.

In response to the part on "how important is an accurate image of your reader and the reader's values," the editors said:

--Vital. If you guess wrong what readers want, publication ceases.

--Very important. The closer the editor's thinking to the reader's, the closer his image; the danger is that it's difficult to get the image of the whole.

--Very important. You can't let one's own like-dislike influence picture editing, but only the readers'. The content chosen should be in terms of the readers' values and special interests.

--Most important. So much competition of mass media nowadays, that publications fall on people's interests and values. Lack of good judgment about readers is dangerous.

-- Image doesn't do much good; judging method is more important than content.

--It is not important, if the editor has a sound knowledge of psychology to know the content of his sensitivity. Must know basic appeals to readers. Information is great, but have to know how to use it, too.

--Very important--95%. You must know what readers want.

--Very important. You have to know what readers want and need.

--Very important--only have to know the real values of readers and the same values they themselves are sure of.

--It is important to have an image of a group--the simpler the mass reader, the easier it is.

--Most important--misjudgment would cease the publication. The more the editor can meet the readers' needs, the better the publication.

--Very important--get larger circulation if the editor knows what the readers' values are. An accurate image is one of the primary concerns.

> Question 4: If you were the editor of a magazine or a newspaper which you wanted to be ideal for your readers in terms of their needs, what kinds of things do you feel you should know about your readers in order to improve picture selection?

From the editor's answers, things the editors thought they should know about their readers included the following: age, sex, education, economic status, family status, the place they live, human psychology, general geographical temperment--conservative or liberal, the theory of government, ethical and moral feelings toward things, and the psychological reasons for buying the publication, what makes them think, cultural and habitual interests, religious preference, recreational areas preferred, profession, current overall trends of news or arts, and their interest in world affairs and national events.

Question 5: Have you made any changes in your picture selection policy during the time you have had this position? What kinds of changes were they, if any?

The editors' answers included:

--For a publication whose circulation is not the main concern, violence pictures are avoided. If circulation is the main concern, more sensational pictures should be published.

--Tends to print more pictures of children--reactions show that women like them so much.

--Content tends to lean toward areas of farming and homemaking based on the findings of survey of this small community.

--Pictures of people are preferred in our publication.

--In knowing the audience, we found they are not interested in local history.

--They developed a sense of pictorial humor--we print more scenic pictures and pictures with dramatic impact.

--More candid looking pictures--not posed--for pictorial composition is important.

--Try to get pictures of action shots, to give pictures of more active organization.

--Try to find what readers want, rather than what appeals to you.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Summary

This thesis segments readers in terms of their reaction patterns toward 120 pictures selected from Life and Look magazines. It then tests editors' ability to predict readers' reactions based on the editors' different levels of experience in picture-editing and upon different levels of information about the readers they predict.

The effects of color and size of the pictures are not under study. All the pictures are in black and white and of the same size. Subject matters of the selected pictures range across glamour, fame, young marriage, show, sex, performance, sports, politics, social problems, tools of war, death and misery, sudden death, off-beat, patterns, soldiers, destruction, public violence, design, science and art.

The study has five phases. The first phase is a re-analysis of a previous study of picture interest done by MacLean and Hazard. Though interest patterns in terms of subject matter were found in this study, patterns of the intangible picture appeals which function cross-sectionally for pictures of any subject matter can be put to test specifically.

The second phase is a preliminary experiment of four college students' reactions toward 120 magazine pictures on the dimension of

Like-Dislike, Intensity-of-Feeling, Complexity-Simplicity, and Clarity-Obscurity. It was found that the readers were hedonistic in their liking. They revealed a desire for, or an appreciation of, pleasantness, comfort, enjoyment. It was found that the pictures the readers liked or disliked most were the ones which aroused strong feelings. And, it was found that judgments of simplicity-complexity and clarity-obscurity were self-referent, in other words, subjective and suggestive. For example, Subject III in the second phase gave reasons for the clearest pictures and the unclear one as "one glance you got it" or "a mess;" and when he came to the simplicity-complexity sort, he stressed his view that "human beings are complicated and artificiality is trivial" rather than focussing on the setting of the scene in the picture.

The third phase is a rigorously designed study of types of picture appeal. Eighteen readers of different combinations of age, sex and education from Lansing or East Lansing were asked to judge 60 pictures on Like-Dislike, Intensity-of-Feeling, Actual Self-Identification and Ideal Self-Identification. It was found that the liking of pictures has a lot to do with self-identification, especially ideal self-identification; and most of the readers have similar liking and disliking which are again hedonistic. It was found that people have strong feelings toward what they strongly like or dislike and that there were more strongly felt disliked pictures than liked pictures. It was also found that, for one or two readers, liking and both actual and ideal self-identifications were mixed up or inseparable. Usually the type of people who mix up their liking and the two kinds of self-identifications seems to be happy, free, active, and well-taken-care-of. They enjoy what they do; they can do what they like to do; and they like what they are doing.

The fourth phase is a preliminary experiment on editors' predictions to two readers' reactions toward 60 pictures. It was found as expected, that the more information about the readers provided the editors, the better were the predictions. When the editors were only told their predictee was an average adult in Lansing, they could not predict the predictee's sorting of the pictures better than chance. (-.066, .18) When the editors were told that predictee's age, sex, education level, family situation, religion, politics, magazine subscriptions and favorite sports and hobbies, the predictions came out significantly accurate. (.24, .62) And when the editors were shown the way their predictees sorted the pictures of another set, plus being given the above demographic information, the predictions came out more accurately than the last predictions. (.75, .67) The results were encouraging.

In the last, most important phase, a value dimension was selected as the variable for readers to do their Q-sorts of two sets of 60 pictures. Then three kinds of editors were asked to predict two readers' Q-sorts, based on the value dimension. In predicting the readers' Q sort on the value dimension, the editors were provided differing levels of information about their predictees. The four different levels of information were: a) minimal demographic information, b) detailed demographic information, c) one of the predictee's two Q-sorts, and d) one of the predictee's two Q-sorts plus detailed demographic information.

The results from the 18 readers' reactions toward the pictures can be accounted for with three factors for the first set of pictures and two factors for the second set of pictures. It was found that women of different age groups, with financially or morally secure backgrounds,

valued pictures of art and scenery most highly, pictures with people in a "cute" situation second, and pictures of glamour or fame third. Meanwhile, they avoided and disliked pictures of death, violence, and destruction most.

It was found that male readers in general valued pictures of sports, sex, and action most highly and that they disliked gruesome pictures of death and violence. But, some male readers, usually those with less education and lower incomes, valued serious subject matter most. Examples include war, violence, science and social problems. They differed from the major group who didn't want gruesome pictures of unpleasant subject matters appearing in their ideal magazine.

The results from 24 editors' predictions of readers' reactions show significant correlations between the editors' predicting sort and the readers' actual sort. Also, there are significant effects arising from different levels of information about the readers. There were also significant interactions among the different kinds of editors predicting different readers or predicting under conditions of different levels of information about different readers.

It was found that the four levels of information about the readers made significant differences in the editors' predictions. The third and fourth levels of information--the Q-sort of the predictee, and the Q-sort of the predictee plus detailed demographic information--made significant differences as compared to the first and second level of information in the editors' predictions. The Q-sort of the predictee provided the most important information in improving the editors' predictions.

There are significant interactions found in the different kinds of editors predicting the same reader or the same kind of editors predicting different readers.

There are significant interactions found in the editors' predictions of different readers based on different levels of information, or predictions of same reader based on different levels of information.

Conclusions

The study was to develop and test a system for the supply of research information to editors to help improve their predictions of reader reactions. Results of this study imply several things:

1. Typology of audience members in terms of their reaction patterns helped editors predict better than the traditional kind of survey research demographic information.

Evidence of this was found in the study. In our editorial prediction experiemnts--24 "editors" were asked to sort 60 pictures in terms of their predictions of particular readers' values for each picture. We tested the effect of four levels of information about the readers we provided to the editors before they made their predictions:

a. On the first level, we provided the eidtors minimal demographic information about the readers.

b. On the second level, we provided detailed demographic information.

c. On the third level, we provided the eidtors the readers' Q-sorts of another set of 60 pictures.

d. On the fourth level, we provided the editors a Q-sort plus detailed demographic information.

These levels of information had significantly different effects on the accuracy of the editors' predictions. The increase in predictive power was particularly marked from the second to the third level. (see Chapter V)

The second level of information about the audience member covered almost all the demographic variables typically obtained in magazine and newspaper reader surveys.

These variables were: sex, age, position in household, education, occupation, income, family members, house ownership, dwelling unit, newspaper and magazine subscriptions, car ownership, religion, politics, hobbies and favorite sports and movie going. The third level of information was an acutal picture Q-sort done by the predicted reader.

Why could a reader's Q-sort of 60 pictures substantially help an editor to predict a reader's Q-sort of another similar set of pictures? What does it mean? Why is the Q-sort much more helpful than detailed demographic information about a reader's background and interests?

An editor's ability to predict depends upon his understanding of a reader and, most important, his intelligence in generalizing from his understanding of his reader a response system and applying his generalizations to a new set of stimuli. A reader's Q-sort of 60 pictures or a Q-factor array of 60 pictures reveals clearly that reader's or that group's response system. When an editor is presented a set of pictures in the rank order a particular reader sorted them and is asked to look through the pictures and observe which kinds of pictures that given reader values highly and which kinds he rejects highly, he is provided helpful references in a systematic way. In the same manner, Q-factor arrays of 60 pictures, which are composed of groups of similar individual Q-sorts of many readers, can give the same practical, systematic help to the editor in predicting large audience segments.

2. To check the validity of the methods used in this study, a researcher may construct and test two kinds of dummy magazines based on the principles discovered in a study which used the Q-technique, and compare them with his actual magazine. One dummy magazine would be the ideal magazine from the stanpoint that it satisfies readers' needs and wants as much as possible. Another dummy magazine would be the opposite kind--least satisfactory to the readers' needs and wants. These two dummy magazines, plus the actual magazine, can be distributed to a sample of readers--one kind is given to one-third of the sample. The readers are to be asked to evaluate the total publication. If the results show that the ideal dummy magazine is valued most highly, then the editor can actually produce this kind of magazine. Reader comments, subscription maintenance and similar data can be used as practical indices of results of changes and the validity of the methods.

The same thing can be done with a split-run issue of the magazine. Half the copies of the magazine can use a set of highly valued pictures and half the copies of magazine can use a set of rejected pictures. Survey evaluation of the two copies can indicate which copy is most highly valued by the readers. Or reader comment and subscription change may provide "harder" indices again. If the copy which used the set of "satisfying" pictures is valued higher, the editor may be convinced of the value of research. And again, such results would support the validity of our methods.

3. Now, assuming that some editors would buy the idea that reader reaction patterns help editors predict better than the traditional kind of survey research demographic information, the next question the editors probably would ask is: How can I find out the percentages of my readers falling in certain types discovered in a study of this kind?

The Q block method of indexing Q-typologies, suggested by Stephenson and developed by Talbott,[1] can solve this problem. Q block assigns people to Q-typologies. To construct Q blocks, we examine the Z-scores for each picture across all the factors, and select the pictures which discriminate well--that is, are accepted by one type but substantially less accepted by other types. And the level of acceptance of the representative pictures of each type is about the same. Based on these two principles, we can select several picture sets. Now, let's say that we have constructed five Q blocks of three pictures each. (one picture for each factor) Readers in a large sample survey would be asked to rank order each three-picture set from most valuable picture to the least valuable one. They would rank pictures in each of the five Q blocks independently. The ranks a person assigned to the five pictures representing Type A, say, are summarized to index his value for the Type A pattern and similarly for the other two types. These three scores for each reader would provide the basis for assignment to a type of orientation toward picture values, perhaps on the basis of the highest score.

Q block method requires only a few minutes from each respondent and allows ready assignment to a Q typology. Inclusion of Q blocks in a probability sample (where the sample represents some population of particular readers) could help editors decide the importance of each type in terms of percentage of readers of each type.

The Q block method is highly reliable in assigning people to Q typologies. Talbott's studies have shown about 90 per cent accuracy in assignment of subjects, where mixed types are permitted.

4. A new direction to study further the types found in studies of this kind is to facet analyze the pictures--or better, structure

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[1] A.D. Talbott, "The Q Block Method of Indexing Q Typologies," Communications Research Center, Michigan State University, 1963.

picture samples on the basis of facet analysis. We may study what facets, or combinations of facet elements are relevant to each type and what facets make the types most different from one another. For example, in the fifth phase in the reader's part, three types were found in readers' values for pictures. In Type A, there was a facet of tranquility. In Type B, modernism was found--interests of forms, science, and current activities. Type C is interested in human relationships. Degrees or elements of these facets, or other postulated facets may be analyzed to provide more basic principles for editors to explain semantically the nature of each type of their audience's values for pictures and to create new kinds of pictures which provide even greater values due to proper combination of elements.

5. The 120 pictures of twenty categories used in this study are similar to the kinds of pictures from which many editors select. An editor can play a game somewhat similar to the business games used today for development of executives. An excellent editor should be able to maximize correct assignment of pictures to each type. In the future, when an editor examines pictures and asks himself how much these pictures are valued by his reader, he can have principles to guide him in predicting the kinds of pictures which will appeal to his various readers.

6. The type of picture we used in this study may not be similar to those in certain publications. However, the methods illustrated above for finding readers' reaction patterns and communicating the findings to editors should be applicable to practically any kind of publication and to items other than pictures. Clear definition of the item pools available to particular editors is a key step in such research.

7. Other dimensions which can clarify picture appeals further can be tested by Q-sorting. For example, dimensions of familiarity, news values, etc. might contribute to our understanding of other types of picture appeal.

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APPENDIX A

Condition of Instruction A Used in the Fifth Phase for Editors' Predictive Q-Sorts Based on the Minimal Demographic Information About the Predictees

Condition of instruction A for Editorial Prediction:

If a_____reader in _____, who is_____ and has received _____level of education, is asked to do a picture-sorting as the following:

> "Consider very carefully a magazine that would be ideal to you; by ideal, I mean one that has pictures you wanted and needed very much that would have high values for you. Pick out the picture here that represents the kinds of picture this magazine would be most likely to have. Please sort the pictures according to their values for your ideal magazine in such a way as to conform to the following prearranged frequency distribution:

least valuable → most valuable											
score	0	1	2	3	4	5	6	7	8	9	10
frequency	3	4	6	6	7	8	7	6	6	4	3

> Please sort the 60 pictures as accurately as possible, considering only your very own individual feelings and judgment not what other people or friends would think about them.",

then, how would you sort the pictures the way you think this reader will sort? Please put yourself into her/his shoes and predict the value of these 60 pictures as he/she sees them by sorting them into the same prearranged frequency distribution shown above.

APPENDIX B

Condition of Instruction B_1 Used in the Fifth Phase for Editors' Predictive Q-sorts Based on the Detailed Demographic Information About the Predictee

Condition of Instruction B_1 for Editorial Prediction:

Consider in your mind a certain reader who is described as follows:

> Mrs. Mary Smith is 47. She is from Ohio, and she has lived in Michigan for more than 20 years. She is married and the female head in the family. She has three boys, and they are 16, 13 and 5. The oldest boy is in the 10th grade; the younger one is in 7th grade; and the youngest one is in kindergarten. She has received college level education. She does homemaking now and attends social activities very often. She and her husband own a private house. They have a clothes washer, a clothes dryer, a Hi-fi set, a TV set, a power lawn mower, an outboard motor, a boat, and a still camera. The whole family vacationed all through last Summer at their own cottage about 85 miles from home. She subscribes to Time, Wall Street Journal, Better Homes and Gardens, Popular Science, American Artist, S.A.E. Journal, State Journal and National Geographic which are all delivered to her house. She owns two new Oldsmobiles every year, because her husband is an experimental engineer in the Olds Plant. She is a Protestant, and a Republican. She likes swimming, boating and fishing. Her hobby is painting. She went to the movie once during the last four weeks.

If such a reader like Mrs. Mary Smith is asked to do a picture-sorting instructed as the following:

> "Consider very carefully a magazine in your mind that would be ideal to you; by ideal, I mean one that has pictures you wanted and needed very much that would have high values for you. Pick out the picture here that represents the kinds of picture this magazine would be most likely to have. Please sort the pictures according to their values for your ideal magazine in such a way as to conform to the following prearranged frequency distribution:

	least valuable										most valuable
score	0	1	2	3	4	5	6	7	8	9	10
frequency	3	4	6	6	7	8	7	6	6	4	3

> Please sort the 60 pictures as accurately as possible, considering only your very own individual feelings and judgment not what other people or friends would think about them.",

then, how would you sort the pictures the way you think Mrs. Mary Smith will sort? Please put yourself into her shoes and predict the value of these pictures as she sees them by sorting them into the same prearranged frequency distribution shown above.

APPENDIX C

Condition of Instruction B_2 Used in the Fifth Phase for Editors' Predictive Q-sorts Based on the Detailed Demographic Information About the Predictee

Condition of Instruction B_2 for Editorial Prediction:

Consider in your mind a certain reader who is described as follows:

> Mr. John Smith is thirty years old. He is from Lansing, Michigan. He has only finished eighth grade of schooling. He is married, and he is the male head in the family. He doesn't have children. He and his wife live in a rented apartment. He does maintenance work in the basements of MSU married student housing. He is hired as full-time worker paid on hourly basis. His last year's income was from $3000 to $4000. He doesn't have a savings account; and he doesn't have any household or recreation items except a TV set. He didn't make any vacation trips last year. He subscribes to State Journal and Readers' Digest which are delivered to his house. He has a five-year-old Ford bought at low price. He doesn't have any specific religious beliefs and is an "independent" in politics. He doesn't like sports at all. And he doesn't have any specific hobbies. He went to the movies twice during the last four weeks.

If such a reader like Mr. John Smith is asked to do a picture-sorting instructed as the following:

> "Consider very carefully a magazine that would be ideal to you; by ideal, I mean one that has pictures you wanted and needed very much that would have high values for you. Pick out the picture here that represents the kinds of picture this magazine would be most likely to have. Please sort the pictures according to their values for your ideal magazine in such a way as to conform to the following prearranged frequency distribution:

	least valuable										most valuable
score	0	1	2	3	4	5	6	7	8	9	10
frequency	3	4	6	6	7	8	7	6	6	4	3

> Please sort the 60 pictures as accurately as possible, considering only your very own individual feelings and judgment not what other people or friends would think about them.",

then, how would you sort the pictures the way you think Mr. John Smith will sort? Please put yourself into his shoes and predict the value of these pictures as he sees them by sorting them into the same prearranged frequency distribution shown above.

APPENDIX D

Condition of Instruction C Used in the Fifth Phase Editors Predictive Q-sorts Based on an Actual Q-sort of 60 Pictures performed Previously by the Predictees

Condition of Instruction C for Editorial Prediction:

Some time ago, Mr. / Mrs. _____ was given a set of 60 pictures and was asked to do a picture-sorting instructed in the following way:

> "Consider very carefully a magazine that would be ideal to you; by ideal, I mean one that has pictures you wanted and needed very much that would have high values for you. Pick out the picture here that represents the kinds of picture this magazine would be most likely to have. Please sort the pictures according to their values for your ideal magazine in such a way as to conform to the following prearranged frequency distribution:

least valuable										most valuable	
score	0	1	2	3	4	5	6	7	8	9	10
frequency	3	4	6	6	7	8	7	6	6	4	3

> Please sort the 60 pictures as accurately as possible, considering only your very own individual feelings and judgment not what other people or friends would think about them."

He or She finished this task and we recorded the order in which he or she sorted the pictures.

Now, we present you this same set of pictures in the order he or she sorted them and asked you to look through them and consider which kinds of pictures he or she values highly and which kinds he or she rejects. When you finish doing this, we have another set of 60 pictures; and we want you to sort them the way you think John Smith or Mary Smith will sort them in terms of his or her values. Try to keep in mind all you have understood about him or her from the set of pictures sorted by him or her.

Please sort this new set of pictures in the same prearranged distribution as shown above.

APPENDIX E

Condition of Instruction D_1 Used in the Fifth Phase for Editors' Predictive Q-sorts Based on an Actual Q-sort of 60 Pictures Performed Preciously by the Predictee Plus the Detailed Demographic Information About the Predictee

Condition of Instruction D_1 for Editorial Prediction:

Consider in your mind a certain reader who is described as follows:

Mrs. Mary Smith is 47, She is from Ohio, and she has lived in Michigan for more than 20 years. She is married and she is the female head in the family. She has three boys, and they are 16, 13 and 5. The oldest boy is in the 10th grade; the younger one is in 7th grade; and the youngest one is in kindergarten. She has received college level education. She does homemaking now and attends social activities very often. She and her husband own a private house. They have a clothes washer, a clothes dryer, a Hi-fi set, a TV set, a power lawn mower, an outboard motor, a boat, and a still camera. The whole family vacationed all through last Summer at their own cottage about 85 miles from home. She subscribes to Time, Wall Street Journal, Better Homes and Gardens, Popular Science, American Artist, S.A.E. Journal, State Journal and National Geographic which are all delivered to her house. She owns two new oldsmobiles every year, because her husband is an experimental engineer in the Olds Plant. She is a Protestant and a Republican. She likes swimming, boating and fishing. Her hobby is painting. She went to the movie once during the last four weeks.

Some time ago, Mrs. Mary Smith was asked to do a picture-sorting instructed as the following:

"Consider very carefully a magazine that would be ideal to you; by ideal, I mean one that has pictures you wanted and needed very much that would have high values for you. Pick out the picture here that represents the kinds of picture this magazine would be most likely to have. Please sort the pictures according to their values for your ideal magazine in such a way as to conform to the following prearranged frequency distribution:

least valueable											most valuable
score	0	1	2	3	4	5	6	7	8	9	10
frequency	3	4	6	6	7	8	7	6	6	4	3

Please sort the 60 pictures as accurately as possible, considering only your own individual feelings and judgment not what other people or friends would think about them."

She finished it and we recorded down the orders of her sorting. Now, we present you this same set of pictures in the orders she has sorted and asked you to look through them and study or generalize her sorting and her "value-judgment" of the pictures; when you finish doing this, we have another set of 60 pictures; which are in similar content with the previous set, for you to sort the way you think Mrs. Mary Smith will sort them; with what you have understood her from the set of pictures sorted by her and the demographic information about her.

Please sort this new set of pictures in the same prearranged distribution shown above.

APPENDIX F

Condition of Instruction D_2 Used in the Fifth Phase for Editors' Predictive Q-sorts Based on an Actual Q-sort of 60 Pictures Performed Preciously by the Predictee Plus the Detailed Demographic Information About the Predictee

Condition of Instruction D_2 for Editorial Prediction:

Consider in your mind a certain reader who is described as follows:

Mr. John Smith is thrity years old. He is from Lansing, Michigan. He has only finished eighth grade of schooling. He is married, and he is the male head in the family. He doesn't have children. He and his wife live in a rented apartment. He does maintenance work in the basements of MSU married student housing. He is hired as full-time worker paid on hourly basis. His last year's income was from $3000-$4000. He doesn't have a savings account; and he doesn't have any household or recreation items except a TV set. He didn't make any vacation trips last year. He subscribes to State Journal and Readers' Digest which are delivered to his house. He has a five-year-old Ford bought at low price. He doesn't have any specific religious beliefs and is an "independent" in politics. He doesn't like sports at all. And he doesn't have any specific hobbies. He went to the movies twice during the last four weeks.

Some time ago, Mr. John Smith was asked to do a picture-sorting instructed as the following:

"Consider very carefully a magazine that would be ideal to you; by ideal, I mean one that has pictures you wanted and needed very much that would have high values for you. Pick out the picture here that represents the kinds of picture this magazine would be most likely to have. Please sort the pictures according to their values for your ideal magazine in such a way as to conform to the following prearranged frequency distribution:

least valuable										most valuable
score	0	1	2	3	4	5	6	7	8	9	10
frequency	3	4	6	6	7	8	7	6	6	4	3

Please sort the 60 pictures as accurately as possible, considering only your very own individual feelings and judgment not what other people or friends would think about them."

He finished it and we recorded down the orders of his sorting. Now, we present you this same set of pictures in the orders he has sorted and asked you to look through them and study or generalize his sorting and

his "value-judgment" of the pictures; when you finish doing this, we have another set of 60 pictures, which are in similar content with the previous set, for you to sort the way you think Mr. John Smith will sort them, with what you have understood him from the set of pictures sorted by him and the demographic information about him.

Please sort this new set of pictures in the same prearranged distribution shown as above.

APPENDIX G

The Questionnaire Used in the Fifth Phase for
Obtaining Detailed Demographic Information
About the Readers and the Editors

Project 093
Communications Research Center
Michigan State University

Mr.
Mrs.
(Subject's name: Miss _____)

Thank you very much for being one of our subjects to do the picture sortings. Now, we need to know some information about you for the other part of our experiments and analysis of this study. Naturally your identity will remain confidential. Would you please check the correct answers for the following questions? Some of the questions may seem too detailed to you, but they were chosen according to several major current newspaper readership studies to cover all the information variables which should go into the analysis of an audience. We shall appreciate it if you would answer them for us:

1. In what age group do you fall?

   15-20:____, 21-30:____, 31-40:____, 41-50:____, 51-60:____

   61-70:____, 71 and over:____

2. Are you married____, single____, or other____?
3. Are you male head____, son____, or other male____in the house
   Are you female head____, daughter____, or other female in the house?
4. What is the size of your family? Number of persons:_____.
5. How many children do you have?_____
   How old are they?_____
   What grades are they in?_____
6. What is the last grade in the school that you completed?
   Attended grade school____, Attended high school____
   Attended college____, Finished college____
   Went beyond college_____.
7. What kind of work are you doing?_____
   What is your title, if any?_____
   For whom do you work?_____
   Are you presently working full time____ or part time _____?
   Please check the nature of your profession:
   Professional, managerial and technical_____
   Clerical and sales_____
   Craftsmen, foremen and operatives_____
   Service workers and laborers_____

Not employed (housewives, retired people, students, and others not employed)_____.

8. Do you own_____ or rent_____ your home?
9. Do you live in private house_____, apartment_____, or other_____?
10. Where do you come from? State_____, City_____.
11. Can you tell me your total household income last year?
    Less than $2000_____, $2001-3000_____, $3001-4000_____
    $4001- 5000_____, $5001-6000_____, $6001-7000_____
    $7001- 8000_____, $8001-9000_____, $9001-10000_____
    $10001-15000_____, $15000 and more_____.
12. Do you have any stocks_____, bonds,_____, government bonds_____, corporate stocks_____, other securities_____, and savings account_____?
13. Below is a list of things that a household may have or own. Please tell me about each one of them, whether or not your household has it?
    Clothes washer_____ Power lawn mower_____
    clothes dryer_____ outboard motor_____
    electric dishwasher_____ boat_____
    tape recorder_____ still(or regular) camera_____
    Hi-fi or stereo record player_____ Movie camera_____
    TV set_____ slide projector_____
    Room air conditioner units_____ movie projector_____
    central air conditioning system_____ golf clubs_____
14. How many vacation trips have you made last year?_____
    Can you tell me the destinations:_____
    _____
    the seasons:_____
    the costs:_____
    the length and the methods of travel for the vacation trips taken in the past year_____?
15. Do you subscribe any newspapers or magazines?_____, If any, what are they:_____
    Are they delivered to your house? If not, do you get them and read them at newsstand or store?_____; where the newsstand or store located:_____.
    Do you borrow or pick them up at other places?_____.
16. Do you own one car,_____, two cars_____, three cars or more_____, or not own a car_____?
    How old is the car?_____.
    Was it bought at low price, medium low price, medium high price or high price?_____.
    Is it compact, smaller than standard, other domestic car or foriegn car?_____.
17. Are you a Catholic _____, a Protestant_____, or other_____?
18. Are you a Democrat_____, a Republican_____, or other_____?
19. What kind of sports do you like?_____.
    Do you have any specific hobbies?_____.
20. Did you go to the movies in the past four weeks?
    one time_____, two times_____, three times_____, four times_____, five times_____, six times and more_____, and did not go even once_____.

APPENDIX H

Five Questions Used in the Fifth Phase for Obtaining Editors' Comments and Opinions on Their Predicteve Q-sorts

We would like to know your comments on and analysis of your predicting sorts, and your most specific answers to the following questions will be most valuable to us.

1. Look back through your predicting sorts. Would you tell us what made you think this given reader would sort the pictures that way? What was in your mind as you decided his or her "values" for those pictures?

2. Take the top and bottom three choices, why did you consider them most and least valuable to this reader? How did you know? What helped you most in your predictions?

3. Suppose this reader's sorting of the picture is actually different from the one you predicted from the information we provided you. What kinds of things might foul up your prediction? How important to an editor's work is an accurate image of his reader and the reader's values?

4. If you were the editor of a magazine or a newspaper which you wanted to be ideal for your readers in terms of their needs, what kinds of things do you feel you should know about your readers in order to improve picture selection?

5. Have you made any changes in your picture selection policy during the time you have had this position? What kinds of changes were they, if any?