

THE NATURE OF NEWS PHOTOGRAPHS
IN FOUR DIMENSIONS: DYNAMISM,
PROMINENCE, COMPLEXITY,
UNIVERSALITY

By

BARBARA A. W. SMITH

Bachelor of Arts

McNeese State University

Lake Charles, Louisiana

1967

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
MASTER OF SCIENCE
December, 1977



THE NATURE OF NEWS PHOTOGRAPHS
IN FOUR DIMENSIONS: DYNAMISM,
PROMINENCE, COMPLEXITY,
UNIVERSALITY

Thesis Approved:

W. J. Ward
Thesis Adviser

Harry E. Heath, Jr.

William R. Herz

Norman N. Wucher
Dean of the Graduate College

PREFACE

This study is a Q- and R-sort analysis of newsphotographs based on the methodologies used by Dr. Walter J. Ward, now director of graduate studies in mass communication at Oklahoma State University, and by the late Malcolm S. MacLean Jr., pioneer in newsphotograph research, formerly from the University of Iowa. The primary objective of the study was to identify basic news values underlying newsphotograph selection by newspaper editors.

Many persons have made significant contributions to this project. I would like to express my special appreciation to Dr. Ward, major adviser for this study. His teaching, guidance and interest during this year-long project were invaluable.

Sincere appreciation is expressed to other members of the thesis committee: Dr. William R. Steng, associate professor of Journalism and Broadcasting, and Dr. Harry Heath, director of the School of Journalism and Broadcasting. It was Dr. Heath who first brought to my attention the need for research in the realm of newsphotographs.

Also, I would like to thank the six editors who gave generously of their time to rank-order the two sets of 48 pictures and to be interviewed about their selections.

In addition, I would like to express special gratitude to Paul Waffle, the young photographer who worked so hard to photographically reproduce the 96 newsphotographs used in the study, and to Miss Carolyn Chopp, for her invaluable help in typing this thesis.

Finally, I would like to express my appreciation to my family for their continued understanding, patience and assistance, without which this study would never have been possible.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Background	1
The Problem	3
Purpose and Objectives	4
II. REVIEW OF LITERATURE	7
Newsphoto Studies	7
Gatekeeper Theories	14
Picture Values in Newsphotographs	16
III. METHODOLOGY AND DESIGN	24
Definition of News Elements	26
News Element Combinations	29
Selection of Editors	31
Hypotheses	34
Q-Methodology	35
Correlation and Linkage Analysis	36
Analysis of Variance	37
IV. SIMILARITIES IN NEWSPHOTO VALUES OF EDITORS: LINKAGE AND FACTOR ANALYSIS RESULTS	46
Sports Photograph Q-Sort: Types of Editors	46
Type I: "Stasis" Editors and Sports Photographs	51
Type II: "Action" Editors and Sports Photographs	54
Probable Use of Sports Photographs: Standardized Scores	55
Consensus Items	57
High and Low Accepted Photographs by Type I	59
High and Low Accepted Photographs by Type II	63
Sports Photographs that Differentiate Types of Editors	66
General News Photograph Q-Sort: Editor Responses	68
General News Photograph Preferences for Editors	68
Similarities in Probable Use of General News Photographs	71

Chapter	Page
Consensus Items	72
Overall Probable Use Patterns of Newsphoto Elements	75
R-Analysis	76
V. DIFFERENCES IN EDITORS' NEWSPHOTO VALUES	85
Probable Use of Newsphoto Elements in Sports Photographs	87
Probable Use of News Picture Values in General News Photographs	97
Probable Use of Newsphoto Values in General News and Sports Photographs	104
Differences in Newsphoto Elements	104
Interaction: Content Types and News Elements	106
VI. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	110
Summary	111
Testing the Hypotheses	119
Conclusions	125
Recommendations	130
Other Areas of Research	131
BIBLIOGRAPHY	133
APPENDIXES	136
APPENDIX A - EDITORS' Q-SORT SCORES	137
APPENDIX B - OKLAHOMA MAP SHOWING HOMETOWNS OF SELECTED NEWSPAPERS	148
APPENDIX C - Z-SCORES FOR GENERAL NEWS AND SPORTS NEWSPHOTOS	150
APPENDIX D - DEMOGRAPHIC QUESTIONNAIRE	157
APPENDIX E - R-SCORE FACTOR MATRICES	160

LIST OF TABLES

Table	Page
I. The Six Newspaper Editors and Photographic Duties	33
II. Frequency Distribution of 48 News Pictures and Their Assigned Values	36
III. Intercorrelations of Six Editors' Probable Use of 48 Sports Photographs	48
IV. Intercorrelations of Type I Editors' Probable Use of 48 Sports Photographs	50
V. Intercorrelations of Type II Editors' Probable Use of 48 Sports Photographs	50
VI. Typal Representatives for Editors and Their Correlations with Other Editors	51
VII. Mean Probable Use of Sports Newsphoto Elements	53
VIII. Probable Use of Newsphoto Elements in Sports Photographs	56
IX. High and Low Consensus Sports News Photographs: All Editors	58
X. High and Low Probable Use Sports Photographs: Type I	61
XI. High and Low Probable Use Sports Photographs: Type II Editors	64
XII. Sports Photographs with Higher Acceptance/Rejection Rankings for Type I Than for Type II Editors	67
XIII. Intercorrelations of Editors' Probable Use of 48 General News Photographs	69
XIV. Mean Use of General News Photo Elements	70
XV. High and Low Consensus General News Photographs: All Editors	73

Table	Page
XVI. R-Factor Loadings and Correlations for Sports and General News Pictures	77
XVII. Sports Photograph R-Factors	79
XVIII. General News Photograph R-Factors	81
XIX. Mean Probable Use of DYNAMISM and PROMINENCE Dimension Elements in Sports Photographs	88
XX. Mean Probable Use of DYNAMISM and PROMINENCE Dimension Elements by Editor Types	91
XXI. Mean Probable Use of UNIVERSALITY and COMPLEXITY Newsphoto Elements in Sports Pictures	93
XXII. Mean Probable Use of COMPLEXITY and INTRICACY Newsphoto Elements by Editor Types in Sports Photographs	94
XXIII. Mean Probable Use of DYNAMISM and PROMINENCE Dimension Elements in General News Photographs	99
XXIV. Mean Probable Use of UNIVERSALITY and COMPLEXITY Dimension Elements in General News Photographs	101
XXV. Mean Probable Use of DYNAMISM and COMPLEXITY Newsphoto Dimension Elements in Both Sports and General News Photographs	107
XXVI. Comparative Rankings of Newsphoto Elements by Content Type	113
XXVII. Hierarchy of Newsphoto Elements in Sports Photographs	116
XXVIII. Hierarchy of Newsphoto Elements in General News Pictures	118
XXIX. Comparative Rankings of Newsphoto Elements for All Content Types	124

LIST OF FIGURES

Figure	Page
1. The Place of "Gatekeeper" C in Westley-MacLean's Mass Communication Model	14
2. Five-factor Analysis Paradigm Showing Juxtaposition of News Dimension Elements and Editor Types for Sports Q-items	40
2a. Five-factor Analysis Paradigm Showing Juxtaposition of News Dimension Elements for General News Q-items	41
2b. Five-factor Analysis Paradigm Showing Juxtaposition of News Dimension Elements and Photograph Types	42
3. Types of Editors Extracted through Linkage Analysis	49
4. High and Low Consensus Sports Photographs for all Editors	60
5. High and Low Accepted Sports Photographs for Type I Editors	62
6. High and Low Accepted Sports Photographs for Type II Editors	65
7. High and Low Consensus General News Photographs for All Editors	74
8. Mean Probable Use of Newsphoto Elements by Editor Types for Sports News Photographs	89
9. Mean Probable Use of Newsphoto Elements by Editors for General News Photographs	98
10. Mean Probable Use of Newsphoto Elements by Content Type	105
11. Interaction of DYNAMISM, COMPLEXITY and CONTENT TYPES for Sports and General News Photographs	108

CHAPTER I

INTRODUCTION

Background

Since publication of the first newspaper halftone in 1880 ("Shantytown," New York Daily Graphic), newsphotos have become an essential and popular journalistic staple. Newspaper readership studies consistently reveal that readers like pictures--even prefer them to news stories.¹ Notwithstanding this popularity, word-oriented newspaper editors only begrudgingly accepted the burgeoning role of newsphotos.

"Editors steeped in literary traditions of their profession," as former Life picture editor Wilson Hicks observed, "had not inherited from. . .professional forbears any clear-cut set of rules to guide. . . in. . .dealing with the photograph."² So, lacking guidelines, editors either used pictures as dispensable ornamentation--as so much window dressing to catch the reader's eye--or as proof the paper was on the scene of a late-breaking news event. What these editors overlooked was the fact that photographs are also ". . .messages encoded by a communicator in much the same manner as are the verbal messages of the poet, the novelist, the newspaper reporter, or the radio news commentator."³

In 1950 Carl K. Stuart, then managing editor of the Oklahoma City Oklahoman and Times, urged news editors attending the Associated Press

Managing Editors annual convention to take, at long last, the communicative value of pictures seriously.⁴ Heeding such urgings has resulted in a fresh, visual approach to newspaper journalism evident in highly rated newspapers across the country. On the other hand, a 1972 survey by Junas found that "poor" newspapers were characterized by apathy and poor attitudes toward photography and "photo editing from management down, by outdated ideas and by visually-inexperienced 'word people' with lack of photo-understanding."⁵

The key to effective newsphoto communication would appear, then, to lie in the gatekeeping process by which pictures are selected and edited for publication. As Sanders points out:

The choice of a suitable picture to accompany a story can be a crucial decision in the communication process. The person who daily makes this decision--the photography editor--will often have the ability to influence, if not determine, the reactions of his audience to the events described in the story he is illustrating. Since photographs have the potential to create far greater impact than mere words, in a very real sense the photography editors' selections of which photographs to use are more important than the selections a word editor must make. The intentional or subconscious reasons for which he selects pictures for publications can, and likely will, mold the attitudes of the audience.⁶

Surprisingly there is little scientific research on the selection of newsphotos for effective communication. As MacLean pointed out more than ten years ago:

It is curious how little research has been done on pictorial communication. A good picture. . . can tell a lot--fast--and with a wallop that the readers won't forget. Yet we have practically no research on how we can best make or select those 'good' pictures to do such jobs for us. Despite the thousands of readership studies, editors and photographers still have to fly by the seat of their pants in their decisions on pictorial communication.⁷

Despite ground-breaking research on picture selection by MacLean, himself, and co-workers Kao and Hazard, most literature on photo-journalism and picture editing still espouses a "seat of the pants" approach to picture selection. Gilmore and Root summarize the gist of this approach in their widely used editing textbook:

By reading newspaper studies, the picture editor can determine what kinds of subjects are of greatest interest to the reader. However, just as newspapers cannot finally be edited by polls, pictures cannot be selected by surveys. Ultimately, the picture editor has to understand intuitively what will interest his readers. What will interest him will probably interest the subscribers. If he exclaims, 'Wow!' about a photo, it probably means the reader too will feel it has 'impact.'
/emphasis added/⁸

The Gilmore-Root description of the newsphoto selection process, however, does acknowledge, at least obliquely, two of the few scientifically substantiated factors involved in picture selection: (1) Of all the variables involved in selection, the content variable is primary;⁹ and (2) readers and editors may differ in their patterns of content interest.¹⁰

The Problem

Low-level theory and textbooks abound with emphasis on intuitive picture sense as the basis for newsphoto selection. Research suggests that intuitive picture sense may be based on a response to content. Either way, an understanding of the values or elements involved in the selection process has not been engendered:

Yet it is not unreasonable to expect there might be an identifiable, underlying pattern to selection. The fact that one editor or reader makes decisions similar to those made by another editor or reader leads one to surmise that there may be psychological and

experiential similarities at play--similarities which probably form a discernable pattern.

Without conceptualization of underlying patterns or values involved in picture selection, the "art" of newsphoto editing cannot be taught, let alone communicated, effectively beyond the technicalities of contrast, tone, exposure and the quantitative practices of cropping and scaling. Moreover, lacking conceptualization of such an underlying structure, there is yet no vocabulary to describe systematically newsphoto values.

The literature that does address itself to the question of values underlying newsphoto selection yields a potpourri of personal opinion and conflicting elements, or, at best, long lists of subject preferences--preferences which change as events, beliefs and fads change.

One photographer-writer begins his book with the intriguing question, "Are there no universal criteria by which to judge the quality of a photograph?"¹¹ This question, with a slightly different cast, forms the problem which this research project attempts to approach: What are the news values by which editors judge and select news photographs for publication?

Purpose and Objectives

This project first proposes a basic theory of newsphoto content by identifying a conceptual framework of basic news dimensions in photographs which effectively can delineate, singly or in concert, essential values underlying news editor's preferences in newsphotos for publication. These elements--PROMINENCE, DYNAMISM, NORMALITY, AND COMPLEXITY--

are mutually exclusive and, in turn, are used to frame a Q-sort structure to identify extant patterns in selection.

Summarily, the objectives of this study were:

(1) To identify and test intangible values which are assumed to function cross-sectionally for pictures of any subject content.

(2) To identify preference patterns among editors asked to Q-sort groups of photographs representing all possible combinations of value dimensions assumed to be operant in picture selection.

(3) To determine if some editors differ to a statistically significant degree from other editors in their newsphoto value preferences.

(4) To determine if selection patterns differ to a statistically significant degree when picture subject content changes.

(5) To identify commonalities among groups of respondents who function similarly in their value patterns.

(6) To identify commonalities in picture content selected by editors evidencing similar preference patterns.

ENDNOTES

1. Charles E. Swanson, "What They Read in 130 Daily Newspapers," Journalism Quarterly, Vol. 32 (Fall, 1944), p. 415.

Bert W. Woodburn, "Reader Interest in Newspaper Pictures," Journalism Quarterly, Vol. 24 (Sept. 1947), p. 197.

2. Wilson Hicks, quoted in R. Smith Schuneman, ed. Photographic Communication: Principles, Problems and Challenges, (New York, 1976), p. 37.

3. James A. Fosdick and Percy Tannebaum. "The Encoder's Intent and Use of Stylistic Elements in Photographs," Journalism Quarterly, Vol. 41 (Spring, 1964), p. 176.

4. The Associated Press, ed. Charles Honce. The APME Red Book 1950, (New York, 1951).

5. Lil Junas, "Photographers and Editors Differ in Big and Little Ways," National Press Photographer, Vol. 27 (Nov. 1972), p. 7.

6. Keith P. Sanders, "Research in Photojournalism" in Photojournalism: Principles and Practices, ed. Clifton Edom (Dubuque, Iowa, 1976), p. 130.

7. Malcolm S. MacLean, Jr. and Anne Li-An Kao, "Picture Selection: An Editorial Game," Journalism Quarterly, Vol. 40, pp. 230-232.

8. Gene Gilmore and Robert Root. Modern Newspaper Editing (Berkeley, 1971), p. 194.

9. Sanders, p. 122.

William R. Hazard, "Responses to News Pictures: A Study in Perceptual Unity," Journalism Quarterly, Vol. 37 (Autumn, 1960), p. 515.

10. Malcolm S. MacLean, Jr. and William R. Hazard, "Women's Interest in Pictures: The Badger Village Study," Journalism Quarterly, Vol. 30 (Spring, 1953), p. 139 ff.

Malcolm S. MacLean, Jr. and Anne Li-An Kao, Editorial Prediction of Magazine Picture Appeals, (Iowa City, Iowa, 1965).

11. Andreas Feininger. The Perfect Photograph, (Garden City, N. J., 1974), p. 9.

CHAPTER II

REVIEW OF LITERATURE

Newsphoto Studies

It was not until some 60 years after the publication of "Shantytown" that methods were developed and utilized to measure scientifically newspaper reader interest. In the 1930s Gallup tested readers of the Des Moines Sunday Register and found that pictures ranked high in reader interest.¹ Since Gallup's pioneer methodology and study, a number of readership studies have been conducted which have supported Gallup's findings: news pictures consistently win the highest newspaper readership.² The question remained to be answered, however, what there was about pictures that attracted such high readership.

The Advertising Research Foundation undertook through a series of readership studies to analyze newsphoto readership and in 1946 published a summary of the first hundred of its studies. Essentially the foundation found that size and content are the most significant factors affecting newspaper picture readership.³

Woodburn studied the two-column photograph in these first hundred studies, classifying them by subject and determining median readership for each subject. Among men, human interest, national defense, crime and war news ranked high in interest. For women, weddings and engagements, children and babies, and society news rated high in readership.⁴

Again drawing data from the Continuing Study, Swanson examined readership studies of 130 daily newspapers, only to confirm Woodburn's findings about men's and women's picture content preferences.

Swanson found that pictures involving fire-disaster, war, weather, consumer information, human interest, major crime, country correspondence, accidents-mishaps, science-invention and defense drew the highest overall readership. However, men and women, he found, differed in their photographic preferences. Men preferred science-invention, labor, political-international relations, and sports, while women preferred human interest, country correspondence, health-safety, vital statistics, civil judicial, private benevolence-charity, education, individual social significance, social relations, features, popular art-music-literature, fine art-music-literature, and home-family. Moreover, women evidenced an interest in a larger number of subjects than did men.⁵

Judging from these early explorations, newspaper readers read what interests them--what touched their daily lives or reflected their social-sexual roles and role expectations. This view is supported by contemporary transactional theory which suggests, in part, that people perceive ". . .within limits, the type of information the perceiver needs. Perception, in other words, is invoked, suppressed, and modified in the context of what the rest of the person is about."⁶

Although the content studies did not explain the variables underlying the differences and patterns in picture preferences, they did legitimize newsphotographs as a powerful means of communication.

It was left to MacLean and Hazard to attempt, through factor analysis, to identify the principal kinds of picture appeals

underlying picture preferences. Their Badger Village Study of women's interests in pictures yielded six major picture appeals:⁷

(1) Idolatry--a term used by MacLean and Hazard to define pictures of the successful, glamorous and wealthy.

(2) Social Problems--pictures of people involved in riots and strikes; people who are socially and culturally disadvantaged, or otherwise misfits.

(3) Picturesque--salon pictures or pictures that are moody or dynamic in nature.

(4) War--pictures dealing with all aspects of war from the gruesome results of war to pictures depicting sympathy for the victims of war.

(5) Blood and violence--pictures of people who have been killed through crime or accident.

(6) Spectator Sports--action sports photographs.

By the early 1960's, then, research had shed some light on several "facts" concerning newsphotos: (a) Readers like pictures more than stories, and (b) readers have preferences in subject matter that can be identified. It was at this point that Stevenson introduced Q-sort methodology into newsphoto research, allowing researchers to group people together by types on the basis of similar preference patterns.⁸

MacLean and Kao incorporated Q-sort methodology into their 1965 multiphase study of picture selection. Subjects rank-ordered sets of pictures according to pre-set criteria and scales. The rank orderings of each subject were then correlated with those of every other subject and factor analyzed to determine representative reader types.

The new methodology also was used in one phase of MacLean and Kao's study in a re-examination and re-analysis of the Badger Village study. What MacLean and Kao now discovered was that ". . .within each appeal elements of interest varied. Also the same elements of interest could be found cross-sectionally throughout the six groups of interest."⁹

MacLean and Kao initially defined these underlying, cross-sectional elements as

- Like-dislike (Personal interest--subject matter and value judgment)
- Self-Identification (Feelings concerned with being or liking to be the depicted characters and situation or the reverse)
- Intensity of Feeling (Impact: from the visible or intangible forces)
- Clarity-Obcurity (Visible setting of angle, light, action, contrast, position, etc., plus realism and familiarity)
- Simplicity-Complexity (Degree of understanding of what is depicted)¹⁰

The resulting Q-sort of pictures representing the four dimensions yielded two interesting factors or types of readers. Type A showed preferences for pictures that are clear, simple and that depict actions or portraits of something familiar. Type B was hedonistic in both preference and intensity of feeling, "hedonism" being defined as the striving for pleasure and avoidance of unpleasant feelings. Furthermore, an examination of consensus items showed that all factors ranked high pictures of women and pleasant depiction of familiar persons, objects or activities, but ranked low pictures of destruction, military weapons, social problems, war and science.¹¹

On closer examination, MacLean and Kao dropped both the Clarity-Obcurity and the Simplicity-Complexity categories when subjects failed

to differentiate between them. Two elements which did make a difference and which formed the basis for the remaining phases of the study were the appeal and impact elements.

A more comprehensive and detailed study of picture preferences formed the third phase of the MacLean-Kao study. This time the four dimensions chosen for examining picture appeals were reduced to: Like-dislike, Intensity of feeling, Ideal self-identification, and Actual self-identification.

Four patterns of reactions, or factors, emerged from the subsequent Q-sort and factor analysis. Type A liked pictures with which he could ideally or actually identify--marriage, fame, performance, glamour. He conversely rejected pictures of death, war, destruction, crime and victims of poverty. Type B tended to prefer pictures which elicited intense feelings of liking or disliking. He selected pictures of death, soldiers, performance, young marriage, social problems, but rejected pictures of art, fame, politics, patterns, science and show. Type C tended to prefer physical, masculine content, such as sports pictures of a physical or spectacular nature, and pictures of sex, design and glamour. He rejected pictures of fame, patterns, death, soldiers and politics. Type D tended to have similar ideal and self-identification and to be concerned with current events and his own future. He rejected identification, however, with scenes depicting death and misery.¹²

While the MacLean-Kao study reinforces the concept of subject matter as a raison d'etre underlying picture preferences, it also points out the need for editors to know a great deal--perhaps more than can be known by the average editor--about their readers in order

to predict picture appeal. An editor with a preponderance of Type D personalities among his subscribers might choose pictures entirely different from those chosen by an editor with a preponderance of Type A's.

And in terms of communication theory, the MacLean-Kao study seemed to support the projection theories:

Perhaps the most important theory espoused by MacLean about pictures and what they communicate is the theory that an individual chooses pictures which have relative meaning to his own self-identification. Stephenson calls this phenomenon projection. That is, each visual image takes on meanings which the viewer brings to it. The viewer reacts to the picture according to his past experience. He "projects" his own meaning onto the picture from within himself.¹³

While the MacLean-Kao study stands at the forefront of what is known about newsphotograph selection patterns, it leaves a good many questions unanswered. The study shows that news editors, given enough knowledge about their readers, can predict reader picture appeal, but the question remains, do new news editors operate in this manner? Or do they, in deciding which newsphoto to display, respond to their own interior like-dislike, impact patterns of preferences based on individual sets of experiences? Or do they utilize as yet unidentified "journalistic" standards and news values?

George Arnold explored in his as yet unpublished thesis reasons editors select pictures for publication. Operating under the assumption editors choose pictures in anticipation of audience preference, Arnold had subjects Q-sort pictures under different conditions of instruction, i.e., for different audiences. He found that anticipation of audience preferences controlled the selection of news pictures, probably based on previous reactions of the various audience types. Arnold also found,

interestingly enough, that respondents differed from each other in the interpretation of these previous reactions.¹⁴

Importantly, Arnold also pointed to the possible existence of a discernable system of selection values beyond anticipated audience preferences:

For his convenience in action on audience preferences, each picture editor evolves a system embracing ordinal relationships among his picture selection values. . .depending upon the audience, different values were super-ordinate and subordinate.¹⁵

To the extent, then, that one editor's system is similar to another editor's, there can be assumed experiential and value similarities at play--similarities which form a pattern.

Other research offers clues to these underlying values. Wagner found that people with experience in picture selection did not value obviously posed photographs:

Other low-rated photographs were described as trite, staged, or generally lacking in clear expression of any kind of human experience. The editors placed emphasis on spontaneity of the photographs and ranked high photographs that portrayed either action or social problems of hunger and poverty. The expression of human emotion was a common theme among the highly rated pictures.¹⁶

Like the MacLean-Kao study, then, the Arnold thesis and the Wagner work point to underlying values, but stop short of a rigorous exploration of those values beyond Wagner's findings about human emotion as a possible value in picture selection. But that possibility, coupled with the work done in identifying underlying news values in news stories, gives rise to the hypothesis around which this thesis was constructed.

Gatekeeper Theories

In diagramming the flow of news from the originating point to the consumer, it becomes obvious that selection of news depends on the evaluations and judgments made by reporters and editors who control that flow. These news personnel have the power to open and close the "gate" in the flow of news and subsequently have been termed "gatekeepers" by researchers and theorists.

Westley and MacLean's model of mass communication (see Figure 1) demonstrates the role of the gatekeeper in the communication process.¹⁷ $X_1, X_2, \dots, X_\infty$ represent the parts of the event to be abstracted and communicated. The "C" of the model acts as the gatekeeper for the communication process. It is "C" who selects the abstractions of the event and transmits them through his newspaper to consumer-receiver "B."

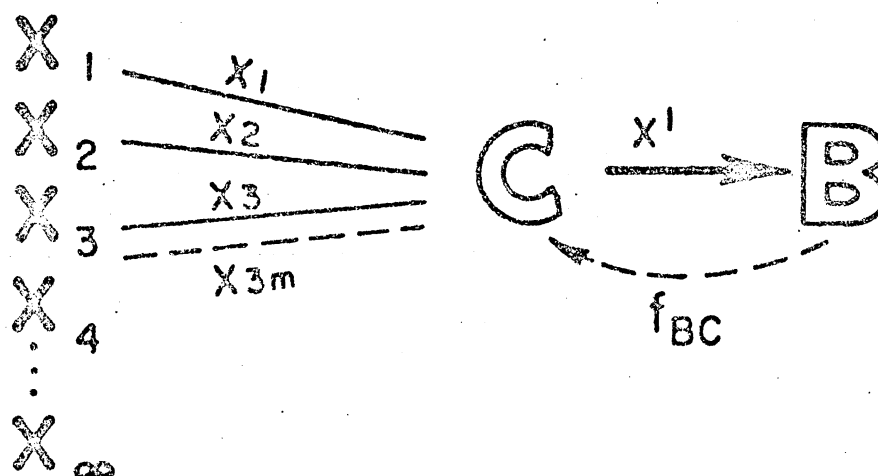


Figure 1. The Place of "Gatekeeper" C in
Westley-MacLean's Mass
Communication Model

"B" in the model can select among the offerings of numerous "gatekeepers," but each "gatekeeper" is successful only to the extent he satisfies the needs of consumer-receiver "B." The gatekeeping role, then, is to provide the consumer with an "extended environment" by selecting and transmitting news items about an event.¹⁸ This role is mediated in part by f_{bc} --feedback--made to "gatekeeper" C in the model process.

The reasons "gatekeepers" give play to some news copy and not other have been the subject of research since 1949. At that time Dr. David Manning White analyzed reasons given by a telegraph editor for rejecting copy and found them "highly subjective and influenced by personal experiences and attitudes."¹⁹

Other research into the gatekeeping process, conducted by Dr. Walter Gieber, found decisions to be influenced by bureaucratic and other pressures, concluding, "News is what newspaper men make it."²⁰ Significantly, Gieber also observed no major differences in selection of news among the wire editors. Only the explanations and rationalizations offered for selections differed.²¹

Among the research generated by the gatekeeper studies was Ward's doctoral dissertation on newspaper city editors in which he found that ten city editors agreed significantly in the importance of specific news elements in 54 stories.²² The research concentrated on the variables of policy, interpersonal relationships in the newsroom, training and experience, in addition to the news elements in the structured stories. The agreement Ward found among editors on specific news elements suggests the possibility of defining news values and is supported by subsequent research.²³

Ward's work is perhaps the most controlled approach to the identification of news values. He constructed 54 news stories that carried news elements defined by a three-dimensional model with single and multiple news elements. Those dimensions were NORMALITY, with Oddity and Conflict components; PROMINENCE, with Known and Unknown principals components; and SIGNIFICANCE, with Impact and No Impact components.²⁴

If news values, which had remained elusive bits of conjecture on the part of theorists until Ward's work, can now be identified and verified empirically, cannot the same be done for news pictures?

Picture Values in Newsphotographs

The MacLean and Hazard study of women's interest in pictures, as noted, was the first attempt to identify variables influencing picture preferences. By factor analyzing the women's picture ratings, MacLean and Hazard identified six general subject categories underlying principal picture appeals: Idolatry, Social Problems, Picturesque, War, Blood and Violence, and Spectator Sports.²⁵ However, the study did not attempt to identify or differentiate the content value dimensions underlying each category, although they did point the way toward future research in that direction:

Let us take the "Idolatry" interest group, for instance. Knowing that we have there a particular kind of appeal, we can make careful studies within the group to discover which picture elements yield the most satisfaction to those people avidly interested in "glamour girls." In another case, we might find out what elements could be introduced into "Social Problems" pictures to attract people who now avoid such subjects.²⁶

In 1952 MacLean and Kao picked up the thread of those possibilities as part of the multi-phase study on editorial prediction of picture appeal. This time the researchers, as noted, sought to

identify through Q-sort technique differences among types of people responding to the following assumed critical variables underlying picture values:

- Like-dislike: How much do you like or dislike what is depicted in the picture?
- Intensity-of-Feeling: How strong is the feeling aroused in you by the picture?
- Complexity-Simplicity: How simple or complex is the setting of the content of the picture?
- Clarity-Obscurity: How easily can you recognize what is depicted in the picture?
- Actual Self-Identification: How much are you actually like what is depicted in the picture?
- Ideal Self-Identification: How much would you like to be like what is depicted in the picture?²⁷

The study revealed, in part, groups or types of readers who were hedonistic in their photo content preferences--that is, who tended to prefer content that was merely pleasant or enjoyable. Moreover, of all the variables assumed by the researchers, only Intensity-of-Feeling and Identification seemed to be truly important in differentiating among reader types.²⁸ But what about the variables influencing editors' selection patterns? Are they the same hedonistic, pleasure-oriented choices or are other values operant?

Since the scope of this study concerns the questions left unanswered by the MacLean explorations of picture values, a second review of the literature was undertaken to catalog the values or dimensions which other experts have assigned to photographic content. Not surprisingly the range of dimensions was almost as diversified as the number of authors describing them.

Ellard, Mills and Vitray identify content values as personality (important or recognizable personalities), news value (content associated with events of news interest: survival, sex, ambition and

escape--the four great themes of news), and action (motion and/or emotion). The authors also offered the Ellard formula as a guide for characterizing and judging newsphoto content. The formula assigns 33 1/3 points to each of the value dimensions and a newsphoto must rate at least 60 points to be acceptable.²⁹

Kalish and Edom identify two types of "appeal" in newsphoto content: (a) visible forces, which stop the reader, and (b) intangible forces, which hold the reader's attention. Visible forces include close-ups, action, patterns, size and masses of whites and shadows; while intangible forces are the interest and drives--ambition, combat, adventure, love, mystery, sex, survival, suspense--that are expressed by photographic content and that arouse a response in the reader. Moreover, Kalish and Edom purport that both forces are heightened by timeliness dimensions.³⁰

Brown equates newsphoto content values with news story values:

The criteria for judging news pictures for content are approximately the same as for evaluating news stories. They include timeliness, propinquity, importance of the persons, significance of the event, and human interest. A picture that reaches the desk in time to be used. . . rates high, whatever its other defects. After interest in the event dies down, the picture illustrating it may have little news value. Local art has greater reader appeal than pictures of remote persons and places, and photographs of prominent people are more newsworthy than those of obscure ones. The magnitude and significance of the event obviously are important factors. . . Under human interest come pictures that appeal to our elemental concerns--home, food, clothing, shelter, love and ambition.³¹

Whiting identifies newsphoto dimensions as (1) impact or stopping power achieved through contrast, dramatic lightings, human interest or the unusual; (2) emphasis on specific pictorial details which help convey the photographer's intent; (3) memorableness; and (4) the

quality of being "alive." "Added up," Whiting observes, "the definitions mean something like this: A good picture makes you stop, look and think."³²

Rhode and McCall's dimensions of newsphoto content are heavily weighted with technical aspects: (1) meaning or a story-telling function, (2) impact or stopping power, (3) unity or singleness of purpose with all compositional elements contributing to that purpose, (4) point of view of the relationship of the foreground, background and principal subject, (5) perspective, including scale and 3-dimensionality, (6) contrast and (7) format.³³ But having identified these dimensions, the authors dismiss them: "Words that will describe a good news photograph are elusive. When terms are found, they will, at best, only partially describe the photographic qualities they are meant to verbalize. . ."³⁴

According to the literature, then, newspaper readers tend to read what interests them in newsphoto content, and editors tend to select for publication what interests them, what appeals to their respective "noses" for news, or what they perceive as their readers' interests. And it is apparent that before an understanding of the nature of newsphoto values can be approached, the complex smörgasbord of photo values must be reduced to its simplest and most representative common denominators.

Borrowing from the perceptions of the authority-experts and from this writer's own study of some 300 news pictures, four newsphoto dimensions, semantically different and presumably exclusive, were proposed as independent manipulated variables for this study. These

dimensions, which will be defined in the next chapter, are NORMALITY, PROMINENCE, DYNAMISM and COMPLEXITY.

ENDNOTES

1. Malcolm S. MacLean, Jr. and Anne Li-An Kao, Editorial Prediction of Magazine Picture Appeals. (Iowa City, Iowa, 1965), p. 4.
2. Charles E. Swanson, "What They Read in 130 Daily Newspapers," Journalism Quarterly, Vol. 32 (Fall, 1955), p. 415.
Bert W. Woodburn, "Reader Interest in Newspaper Pictures," Journalism Quarterly, Vol. 24 (Sept. 1947), p. 197.
3. Advertising Research Foundation, The Continuing Study of Newspaper Reading, 100-Study Summary (New York, 1946).
4. Woodburn, pp. 198-200.
5. Swanson, pp. 411-421.
6. Hans Toch and Malcolm S. MacLean, Jr., "Perception Communication and Education Research: A Transactional View," AV Communication Review, Vol. 10 (Sept.-Oct. 1962).
7. Malcolm S. MacLean, Jr. and William R. Hazard, "Women's Interest in Pictures: The Badger Village Study," Journalism Quarterly, Vol. 30 (Spring, 1953), p. 139.
8. William Stephenson, "Principles of Selection of News Pictures," Journalism Quarterly, Vol. 37, pp. 61-68.
9. MacLean and Kao, p. 39.
10. Ibid., p. 40.
11. Ibid., pp. 48-49.
12. Ibid., pp. 40 ff.
13. Paul Hightower, "Readers See What They Want to See in Photographs," Grassroots Editor (Spring, 1976), pp. 13-14.
14. George Arnold, "Theoretical Views of the Photography Editor as Gatekeeper," (unpub. Master's thesis, University of Missouri, 1974).
15. Arnold, p. 98.

16. Barbara Wagner, "Picture Value of Potential Editors" in Keith Sanders, "A Brief Look at Photojournalism Research," in Photojournalism, ed. Clifton Edom (Dubuque, Iowa, 1974), p. 131.

17. Bruce H. Westley and Malcolm S. MacLean, Jr., "A Conceptual Model for Communication Research," Dimensions in Communication, ed. Wayne A. Danielson (Belmont, 1965), pp. 55-56.

18. Westley and MacLean, pp. 55-56.

19. Gene Gilmore and Robert Root, Modern Newspaper Editing (Berkeley, 1971), p. 9.

20. Walter Gieber, "Across the Desk: A Study of 16 Telegraph Editors," Journalism Quarterly, Vol. 33 (Fall, 1956), pp. 423-432.

21. Ibid.

22. Walter J. Ward, "News Values, News Situations and News Selections: An Intensive Study of Ten City Editors" (unpub. Ph.D. dissertation, University of Iowa, 1967).

23. Naim Badii, "The Nature of News in Four Dimensions: Normality, Prominence, Significance, Reward" (unpub. Masters' thesis, Oklahoma State University, 1976).

James K. Buckalew, "A Q-analysis of Television News Editors' Decisions," Journalism Quarterly, Vol. 46 (Spring, 1969), pp. 135-137.

Lorenzo E. Carter, "News Values of Editors-Reporters on Five Oklahoma Newspapers" (unpub. Masters' thesis, Oklahoma State University, 1970).

George R. Rhoades, "News Values and News Decisions of Selected Associated Press and United Press International Newsmen in Oklahoma" (unpub. Masters' thesis, Oklahoma State University, 1971).

24. Ward, p. 27 ff.

25. MacLean and Hazard, pp. 139-162.

26. Ibid, p. 139.

27. MacLean and Kao, p. 40.

28. Ibid, p. 39 ff.

29. Roscoe Ellard, John Mills, Jr., and Laura Vitray. Pictorial Journalism (New York, 1939), Chapter 3.

30. Stanley E. Kalish and Clifton C. Edom, Picture Editing (New York, 1951), pp. 77-90.

31. Charles H. Brown, News Editing and Display (Westport, Conn., 1952), p. 346.

32. John R. Whiting, Photography Is a Language (Chicago, 1946), pp. 38-40.

33. Robert B. Rhodes and Floyd H. McCall, Press Photography: Reporting with a Camera (New York, 1961), p. 139 ff.

34. Ibid., p. 165.

CHAPTER III

METHODOLOGY AND DESIGN

To study the relationship between editors' selection of news-photos for publication and the news dimensions within those photographs, this research design incorporated:

1. Establishment of likely news dimensions with which to structure a quasi-normal Q-sort distribution of news photographs reflecting those dimensions.
2. A range--though numerically limited--of editors with different backgrounds and from papers differing in size.
3. Pertinent information collected through questionnaires and personal interviews with each editor.

The basic methodology and design of this study were drawn from Ward's three-dimensional news model. Ward, after lengthy exploratory work and interviews, discovered a pattern of probable use of news elements among journalists. Using the results of this preliminary study, Ward then structured a three-dimensional framework of news values in a study of ten city editors. He found significant agreement among those editors on the importance of single and multiple news elements.¹

Ward's three news value dimensions were: PROMINENCE, NORMALITY and SIGNIFICANCE.² Essentially the structuring of these news dimensions or facets involved development of semantically independent types of stimuli which were related to the dependent variable in the study--editor responses or judgments.

Using Ward's design as a model and borrowing from the perceptions of the literature's authority-experts and from this writer's own study of 300 news pictures, four independent manipulable variables were isolated and defined. These semantically different dimensions-- UNIVERSALITY, PROMINENCE, DYNAMISM, and COMPLEXITY--form, in turn, the four-dimensional framework for this study.

In drafting the news facets for photographs, certain photographic aspects were excluded. Reproduction values--consideration of tone, contrast, focus, for example--were thought to vary too much from reproduction technique to reproduction technique to be included. Indeed, editors were told in sorting pictures for this study to ignore reproduction values altogether. Technical values also were excluded for the most part. Depth of field, angles, lenses, lighting, and shutter speeds were thought to be more of interest to photographers than to editors and readers. Artistic and aesthetic values--color, tone, symmetry, and modulations, for example--were omitted because research has shown them to be less of a factor in newsphoto selection than content.³ And finally, all ethical values--taste, sensationalism, propriety, for example--were considered beyond the scope of this study.

The only concession to technical-compositional evaluation was the inclusion of the COMPLEXITY dimension which research indicates may have an effect on picture content preferences.⁴ Indeed, the COMPLEXITY concept further draws from the hypothesis formulated and substantiated by Fonesca and Kearl that the amount of detail in a pictorial symbol relates to the comprehensibility of that symbol in two respects:

1. Excessive unnecessary detail increases the opportunity for ambiguous interpretation, and consequently reduces comprehensibility.
2. Excessive deletion of detail, forcing the viewer to fill in details. . .also reduces comprehensibility.⁵

It was assumed, with the support of other research,⁶ that what the editor could not comprehend quickly and without the aid of cutlines or captions, he would not value highly and would be reluctant to use. Conversely, the simple photograph in which the elements are easily understood and the photograph in which the background and the major elements relate clearly to one another, regardless of the degree of complexity, will be highly valued and given more newspaper play.

Definition of News Elements

Operational definitions of the four news dimensions and their elements are as follows:

A. **PROMINENCE:** Presence in a news photograph of any person, group, object, event, or location which has gained public recognition through publicity, achievement, etc.

- a₁. Known Principal(s): Person, group, object or location which is known through repeated past publicity or position in society and/or community.
- a₂. Unknown Principal(s): Unknown person, group, object, or location. No repeated past publicity.

Examples of Known Principal(s): Photographs of President Carter, entertainers Donny and Marie Osmond, the Raggedy Ann and Andy dolls, and Yankee Stadium.

The PROMINENCE facet presented a problem in both definition and research design. It posed the risk that the editors who would be asked to rank order the 96 newsphotographs used in the study might not construe the principals as prominent. It was obvious that the

prominence of the principals in the individual photographs would have to be clarified beyond doubt. Two effort were made to remediate this problem:

1. News photographs of persons, objects, or locations which would be recognized "beyond a doubt"--the President of the United States, the Queen of England, popular actors and actresses from this country, and well-known landmarks--were used in lieu of other "known" but less popularly recognized persons, objects or locations whenever possible.
2. The principal in each news picture was identified by a single cutline underneath the photograph. The wording of the cutline was chosen to convey the necessary identifying information in semantically neutral wording.

B. DYNAMISM: Newsphotograph content which depicts action or emotion that appears to be candid, natural, or spontaneous as opposed to staged, posed or arranged.

- b₁. Action: Picture content which depicts spontaneous natural, unposed physical action, motion and/or emotion.
- b₂. Stasis: Picture content which depicts obviously posed action or emotion or which depicts no action, motion or emotion whatsoever.

Examples of Action: Photographs of a flaming car crash, of a weeping woman who has been forced to move as the result of an urban renewal project, a fly walking across the tip of President Carter's nose.

Examples of Stasis: Photographs of a license plate, Yankee Stadium with no people in it, a posed fasion model in a ski suit, a contrived photo of an actress holding up a car with one hand.

The DYNAMISM elements, too, presented a problem in the research design. Although previous research indicated editors do not value obviously posed photographs,⁷ there exists a number of photographs which are posed or staged but appear to be candid and natural. Like the PROMINENCE facet, it was necessary to select photographs which would appear clearly "posed" to the editors participating in this

study. To that end, photographs of scenic shots, fashion photographs, "artsy," or contrived photographs, and publicity-type stills were used as far as possible for the Stasis element.

C. UNIVERSALITY: News photograph content which involves Identification or Oddity as they relate to normal life and daily events.

- c₁. Identification: Any person, group, object, location, or event that is a part of normal, daily life for an average American's experiential world. The day-to-day turn of events--birth, death, marriage, etc.--that we have learned to expect in our culture, in our time, and which we can identify as usual and predictable.
- c₂. Oddity: Any action or event that is rarer than just the unusual (a murder is unusual, but not an oddity). Generally, the action or event has a "twist"--that is, it is different from the day-to-day turn of events. . . or opposite from what we have learned to expect, and, thus, predict in our culture and our time. Lack of precedent, generally, though not necessarily, is indicated.

Examples of Identification: Photographs of people eating, of a funeral procession, of a small boy sailing a toy boat, of a woman crying, or a crowd on a normal city street.

Examples of Oddity: Photographs of a man on crutches with a wooden leg draped across his shoulders, of an attractive model with a third hand, of a woman holding a full-sized car over her head.

D. COMPLEXITY: News photograph content which involves Intricacy or Simplicity as they relate to ease of comprehension of that content.

- d₁. Simplicity: News photographs which depict persons, groups, objects, events or situations realistically as opposed to abstractly or impressionistically. There is no superfluous subject matter to confuse the reader and, conversely, neither is the content so devoid of details and referents that the reader cannot comprehend quickly and easily what the photograph is about. Ease of comprehension.
- d₂. Intricacy: News photographs of a person, group, object, event or situation depicted in either abstract or impressionistic terms or that is otherwise difficult

to comprehend. The photographic content may contain excessive unnecessary details or an excessive deletion of detail that reduces comprehensibility.

Example of Simplicity: A photograph of a young woman riding on a bumper car. The photograph is realistic and concentrates on the girl, the car and her expression. All distracting or superfluous details have been omitted. All the picture elements are in proper relation to one another and nothing has been omitted which would interfere with immediate comprehension of what the picture communicates.

Examples of Intricacy: A wedding photograph that is actually two photographs superimposed one on the other. There is a confusion of details and images that gives the picture an impressionistic look and makes it difficult for the reader to apprehend immediately what is going on in the picture. A second example is the photograph of a pig's snout. The picture is an extreme closeup which eliminates details and referents needed for comprehension. Consequently, the picture becomes something of an abstract puzzle to the reader.

As was mentioned previously, the COMPLEXITY elements were the only concessions made to the technical-compositional aspects of news photography in drafting the value dimensions for news photographs. However, it was difficult to find pictures that conformed to the Intricacy definition. In selecting pictures for this study, then, it was often necessary to crop them in unusual ways or to otherwise distort the relationships between pictorial elements within the content in order to achieve the Intricacy element. The lack of available photographs, however, served to reinforce the contention of the researcher that simplicity rather than intricacy is the prevailing newsphotograph value among newspaper editors.

News Element Combinations

All possible combinations of the news elements cited above were represented in this study through two sets of 48 news photographs, or

Q-items, to determine the probable use hierarchy of the news elements among editors. Six Oklahoma editors were asked to rank-order a set of 48 general news photographs and a set of 48 sports photographs along an 11-point continuum from "Most Probable Use" to "Least Probable Use." Each photograph contained four levels of the independent news dimensions: UNIVERSALITY, PROMINENCE, DYNAMISM, and COMPLEXITY.

The pictures were gathered from Oklahoma newspapers, national news magazines, and photojournalism books and photographically reproduced on 5 x 7 inch cards. The general news pictures covered the range of content groups suggested by Hazard and MacLean in their Badger Village study: pictures of the successful and glamorous, of social problems, of the picturesque, of blood and violence, and of sports.⁸ Only pictures of war were omitted because so many of the available pictures appeared to be dated or were of poor quality. The second group of pictures contained only sports or sports-related subject matter. If the dimensions identified in this study were valid, this researcher reasoned, they should serve to identify preference patterns given a constant photo content as well as across multiple subject-content categories.

The 4-dimensional framework underlying this study yields 16 combinations of newsphoto content elements; consequently, 16 news photographs were required to incorporate each news element combination. Three photographs from each of the possible combinations were used to construct each of the two sorts used. The 16 possible combinations of picture elements are:

1. Known Principal(s), Action, Identification, Simplicity
2. Known Principal(s), Action, Identification, Intricacy
3. Known Principal(s), Stasis, Identification, Simplicity
4. Known Principal(s), Stasis, Identification, Intricacy
5. Known Principal(s), Action, Oddity, Simplicity
6. Known Principal(s), Action, Oddity, Intricacy
7. Known Principal(s), Stasis, Oddity, Simplicity
8. Known Principal(s), Stasis, Oddity, Intricacy
9. Unknown Principal(s), Action, Identification, Simplicity
10. Unknown Principal(s), Action, Identification, Intricacy
11. Unknown Principal(s), Stasis, Identification, Simplicity
12. Unknown Principal(s), Stasis, Identification, Intricacy
13. Unknown Principal(s), Action, Oddity, Simplicity
14. Unknown Principal(s), Action, Oddity, Intricacy
15. Unknown Principal(s), Stasis, Oddity, Simplicity
16. Unknown Principal(s), Stasis, Oddity, Intricacy

Selection of Editors

Editors were selected from six Oklahoma newspapers ranging in size from a modest, small town paper published two times a week to an urban daily. The average circulation for the newspapers ranged from 1,500 to 28,000. Primary criteria for selection were:

1. The editors and their papers be within a reasonable distance from the researcher's home base.
2. The editors represent newspapers with a range of circulation sizes.
3. The editors themselves represent a range of journalistic experience, education and background.

The editors were contacted personally by the author, first by letter, then by phone, and were asked to Q-sort the two groups of 48 news photographs. Data regarding the use of photographs on each paper and the background of each editor were obtained through questionnaires (see Appendix D) filled out during the interview and Q-sort appointment.

The age of the two female and four male editors used in the study ranged from the early 20s to mid-60s. One editor was in the 21-30 age bracket; one, in the 31-40 bracket; two, in the 51-60 bracket; and another in the 61-70 bracket.

Tenure as editors at their present papers ranged from three weeks to 25 years. Between that range, one had been on the job only 10 months, another six years, and at the other end of the continuum, one had been on the job 17 years and another 20 years.

Five of the editors had attended college; however, only two had college degrees. Moreover, only one of those degrees had been in journalism; the other was in advertising and business. One editor had a high school diploma, another two years of college and a third, three years of college.

While all but one editor indicated they were directly instrumental in selecting and editing news photographs for their papers and/or taking those same photographs, only three had had art or photographic training of any type (see Table 1). Three had no training whatsoever in either photography or art. Two had two years of photography prior to becoming a newspaper employee. Most of the editors took between 20 and 100 pictures a month to fill an average picture hole of 39.5 per cent per publication.

TABLE I
THE SIX NEWSPAPER EDITORS AND PHOTOGRAPHIC DUTIES

Newspaper	Circulation Size	Job Title	Take Photos	Select	Edit
Ponca City News	14,000	City Editor	X	X	X
Newkirk Herald Journal	1,500	Managing Editor	X	X	X
Tonkawa News	1,825	Publisher	X	X	X
Perry Daily Journal	3,700	Women's Editor	X	X	X
Blackwell Journal Tribune	4,450	Editor	X	X	X
Enid News and Eagle	28,000	Managing Editor			

Five of the editors subscribed to magazines on their own, but only four subscribed regularly to magazines that were photographically oriented in subject matter, for example, Sports Illustrated, and Popular Photography. One did not subscribe to magazines at all and another subscribed to magazines primarily print oriented in content, for example, Reader's Digest.

All the editors described their typical readers as interested in local news. As one said, "They (typical readers) want to read of school activities and news which concerns their children." Another said, "They are interested in getting their own names and pictures in the paper." Only one editor indicated his readers might prefer "features and lighter readable stuff" to other content.

In order to learn about similarities and differences of editors' probable use of news photo elements and/or combinations thereof, the editor's rankings were correlated, factor analyzed, and subjected to factorial analysis of variance.

Hypotheses

In framing this research project along the guidelines established by Ward in his research, certain hypotheses about the relationship between the proposed news elements and the editors' probable use of the photographs were formulated. The following hypotheses are presented:

1. Mean probable use of photographs containing Known Principal(s) will be greater than mean probable use of stories containing Unknown Principal(s): \bar{X} Known Principal(s) $>$ \bar{X} Unknown Principal(s).

2. Mean probable use of pictures containing Oddity will be greater than mean probable use of pictures containing Identification element: \bar{X} Oddity $>$ \bar{X} Identification.

3. Mean probable use of pictures containing Action will be greater than mean probable use of pictures containing the Stasis element: \bar{X} Action $>$ \bar{X} Stasis.

4. Mean probable use of pictures containing Simplicity will be greater than mean probable use of pictures containing the Intricacy element: \bar{X} Simplicity $>$ \bar{X} Intricacy.

5. For all six editors, the mean probable use of Action will be greater than the mean probable use of either Oddity, Simplicity, or Known Principal(s).

6. There will be significantly high positive correlation among the editors on over-all probable use of news elements in the news pictures.

7. There will be no difference in the mean probable use of news elements in sports pictures and general news pictures.

Q-Methodology

Since this study sought not only to identify those news picture elements assumed to operate cross-sectionally for all photo subject matter, but also to discover the commonalities and variation of these values among a small sample of editors, a heuristic design was mandated. The Q-methodology developed by Stephenson provides this exploratory design as well as a means for empirically examining the proposed content values and the operation and interrelations of those values among respondents.⁹

Q-sorting is a method of ranking objects, in this case news photographs, along a quasi-normal frequency distribution and assigning numerical values to the objects for statistical purposes.

Q-technique is concerned with the relative order of the objects (pictures) for each subject, in this case editors, and with the degree of similarity between subjects in the way they order the objects from high to low. Correlation and factor analysis puts one subject together with others who have patterns of interest similar to his.¹⁰ Consequently, Q-technique is suited to testing theories on small sets of individuals carefully chosen for their known or presumed possession of some significant characteristic or characteristics.¹¹

In this study, the researcher instructed the subjects, six newspaper editors (see Appendix B), to Q-sort each of two sets of 48 news photographs reproduced on 5 x 7 inch cards reflecting the structured input of the news dimensions and their elements. (Appendix C). The subjects were asked to rank order each set of pictures along an 11-point scale ranging from "Least Probable Use" to "Most Probable Use." The array made up a quasi-normal distribution, as shown below:

TABLE II
FREQUENCY DISTRIBUTION OF 48 NEWS PICTURES AND THEIR ASSIGNED VALUES

	Least Probable Use										Most Probable Use
Assigned Values	1	2	3	4	5	6	7	8	9	10	11
No. of Items	2	3	4	6	7	10	7	6	4	3	2

The "Assigned Values" are numerical values assigned to the pictures in each of the 11 piles of pictures. The "No. of Items" indicates the number of pictures to be placed in each pile. For example, for statistical purposes, the 10 cards in the middle of the scale receive a score of 6 each, the two cards at the extreme right receive a score of 11 each, and so on. Correlation and factor analysis of each editor's rank-orderings revealed similarities and differences in probable use patterns.

Correlation and Linkage Analysis

Linkage and factor analysis was used to identify the groups or clusters of editors who were most like one another in their probable

use of news photographs. Linkage and factor analysis is an agreement index which Kerlinger describes as ". . . a method for determining the number and nature of the underlying variables among larger numbers of measures."¹²

First, intercorrelations of the six editors were computed separately for each of the two sets of news photographs using Karl Pearson's product-moment correlation coefficients. The intercorrelations for each set were then factored and analyzed for principal clusters or "types" who exhibited similarities in their probable use of pictures. "Types" were identified by the size of their correlation coefficients--the higher the correlation, the more alike the judgment patterns.

Analysis of Variance

Following linkage and factor analysis, a correlated factorial analysis of variance was used to study the main and interactive relationships of the four newsphoto dimensions and their elements for the different types of editors and for the different types of pictures, sports and general news. *2-factor anova*

The primary advantage of factorial analysis of variance is that it allows the researcher to examine multiple hypotheses at once. As Kerlinger points out:

In factorial analysis of variance two or more independent variables vary independently or interact with each other to produce variation in a dependent variable. . . One of the most significant and revolutionary developments in modern research design and statistics is the planning and analysis of the simultaneous operation and interaction of two or more variables.¹³

For this study both a Type III analysis of variance, also known as a three-factor analysis of variance with repeated measures on one factor, and a simple two-factor factorial analysis of variance were used.¹⁴ The Type III design reveals the effects of two factors working in concert, as well as revealing differences in repeated measures on the third factor. The simple analysis of variance tests the difference and interaction between the means of two or more variable levels at the same time.

The linkage and factor analysis of the general news photographs yielded a single factor or editor type. Simple factorial analysis of variance was used to explore the main and interactive effects of news-photo elements for that single group of editors. The sports photograph Q-sort yielded two editor types creating a repeated factor which required Type III analysis of variance which abstracted additional sources of variance. Moreover, the main and interactive relationships of the four newsphoto dimensions and their elements for the two different types of newsphotos, sports and general news, were analyzed using Type III analysis of variance.

In all three analyses of variance used in this study, the newsphotos were considered as subjects. In other words, there were 16 groups of three pictures in each of two sets of Q-sort items which were subjected to types of editors (treatments). The editor types, then, became the repeated factor in the design. This allowed the researcher to examine how the different types of treatments (editors) affected the probable use by newsphoto element subjects.

Each analysis involved five experimental variables with two levels each. Four of the variables were the independent news dimensions

divided into elements: the COMPLEXITY dimension had Simplicity and Intricacy elements, the PROMINENCE dimension had Known and Unknown Principal(s) elements, the DYNAMISM dimension had Action and Stasis elements, and the UNIVERSALITY dimension had Identification and Oddity elements.

The four variables, in effect, were like four classifications of people who responded to all "editor-type-treatments." Two of these editor types were extracted by linkage and factor analysis for the sports Q-items and one editor type was extracted by the same process for the general news photograph items. And in the third analysis, the sports and general news photograph probable use by the editors were the treatments. Figures 2, 2_a, and 2_b show the analysis paradigms and the juxtaposition of the levels of independent variables for the three analyses used in this study.

The multi-factor designs enabled the researcher to extract variances in probable-use scores due to newsphoto dimension elements, separately or in combination, and to examine their interactions with types of editors or types of newsphoto content. It could be learned, then, if one type of editor gave more emphasis to the Oddity element in photographs over Known Principal(s) than other editors or if editors differed in the emphasis given the Oddity element in general news pictures over sports pictures.

Analysis of mean probable use of the news elements enabled the researcher to tell if there were statistically significant differences among the news elements and in the overall ranking of news elements by types of editors and by editors for photo content types.

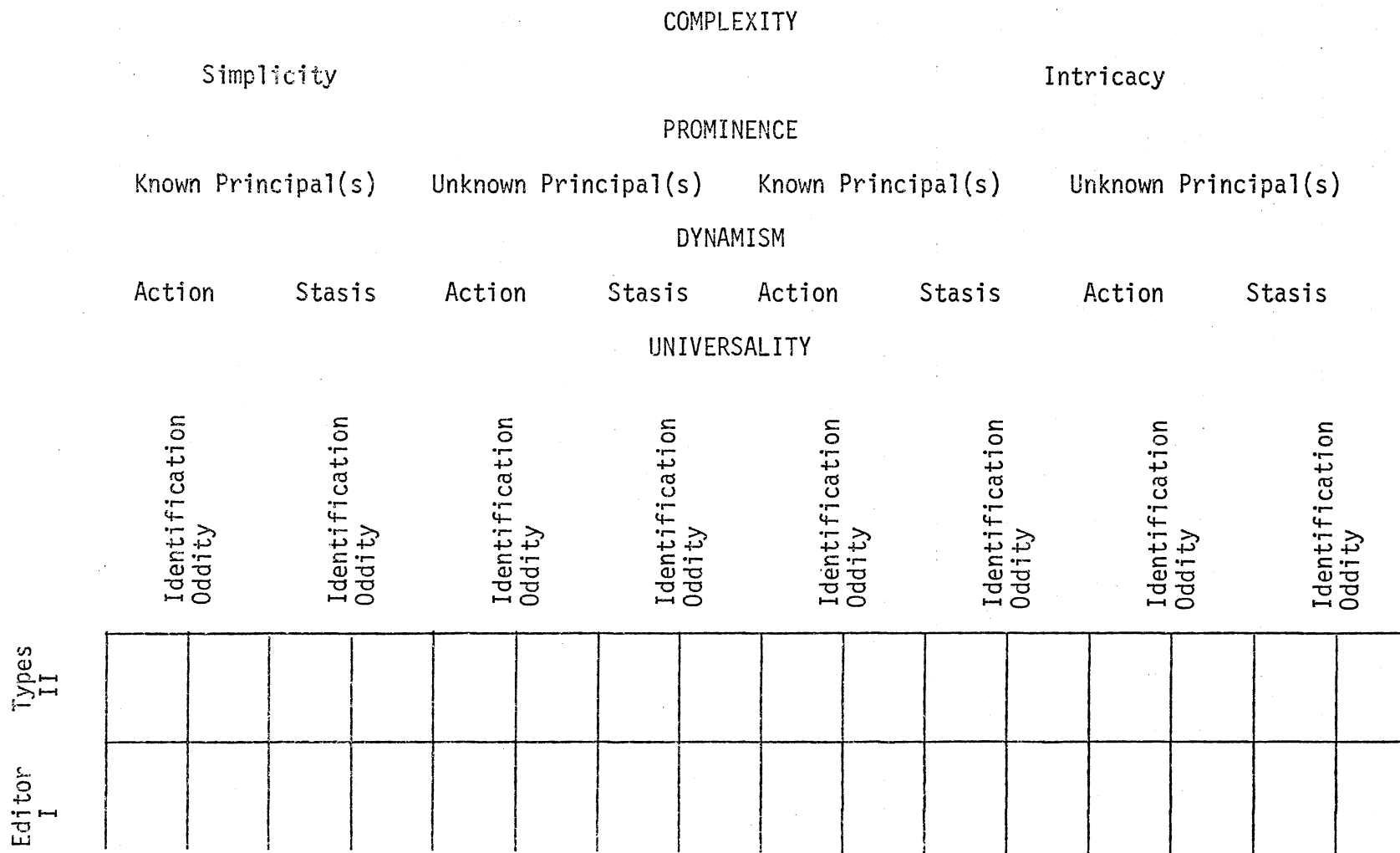


Figure 2. Five-Factor Analysis Paradigm Showing Juxtaposition of News Dimension Elements and Editor Types for Sports Q-Items

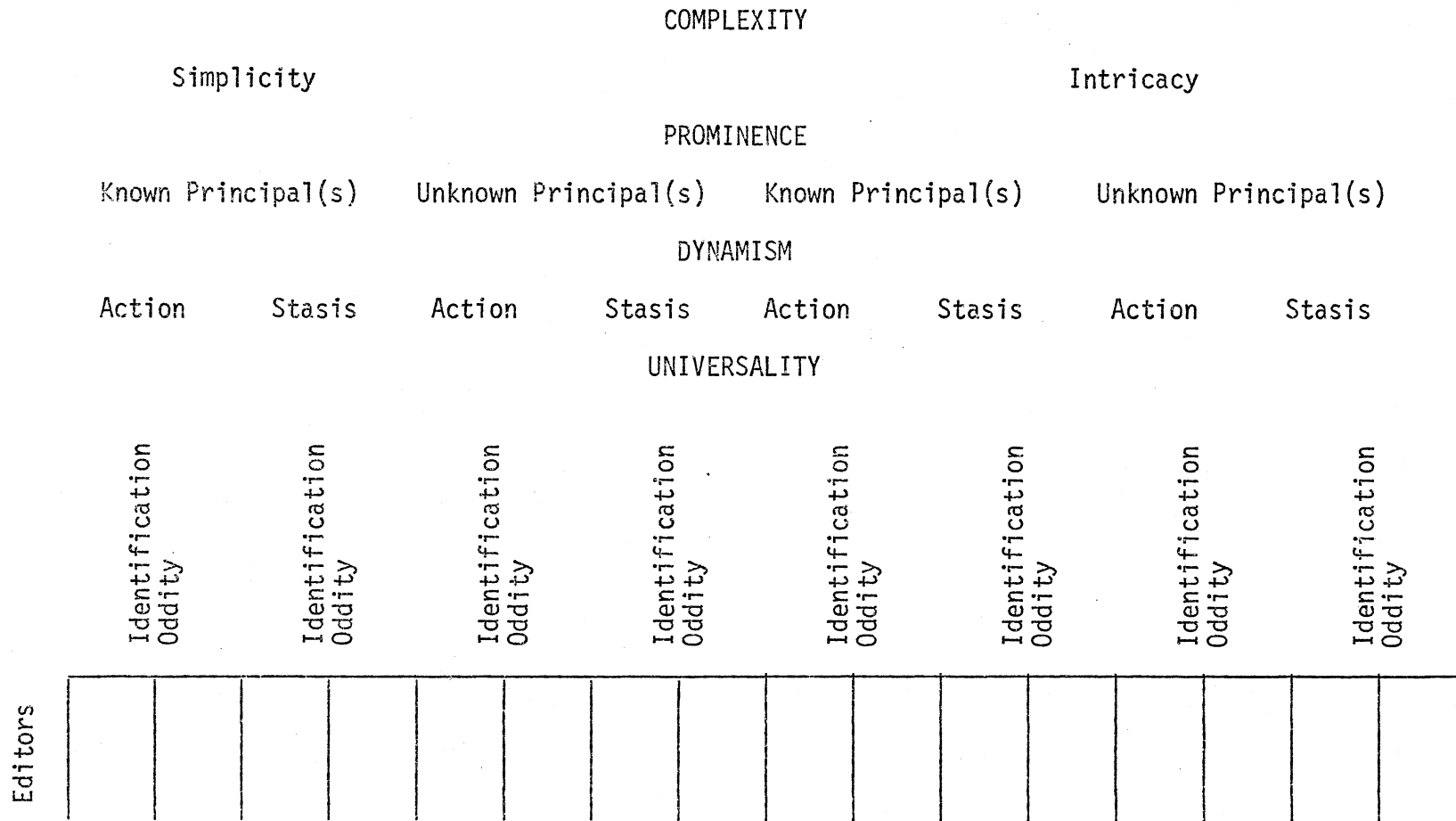


Figure 2_a. Five-Factor Analysis Paradigm Showing Juxtaposition of News Dimension Elements for General News Q-Items

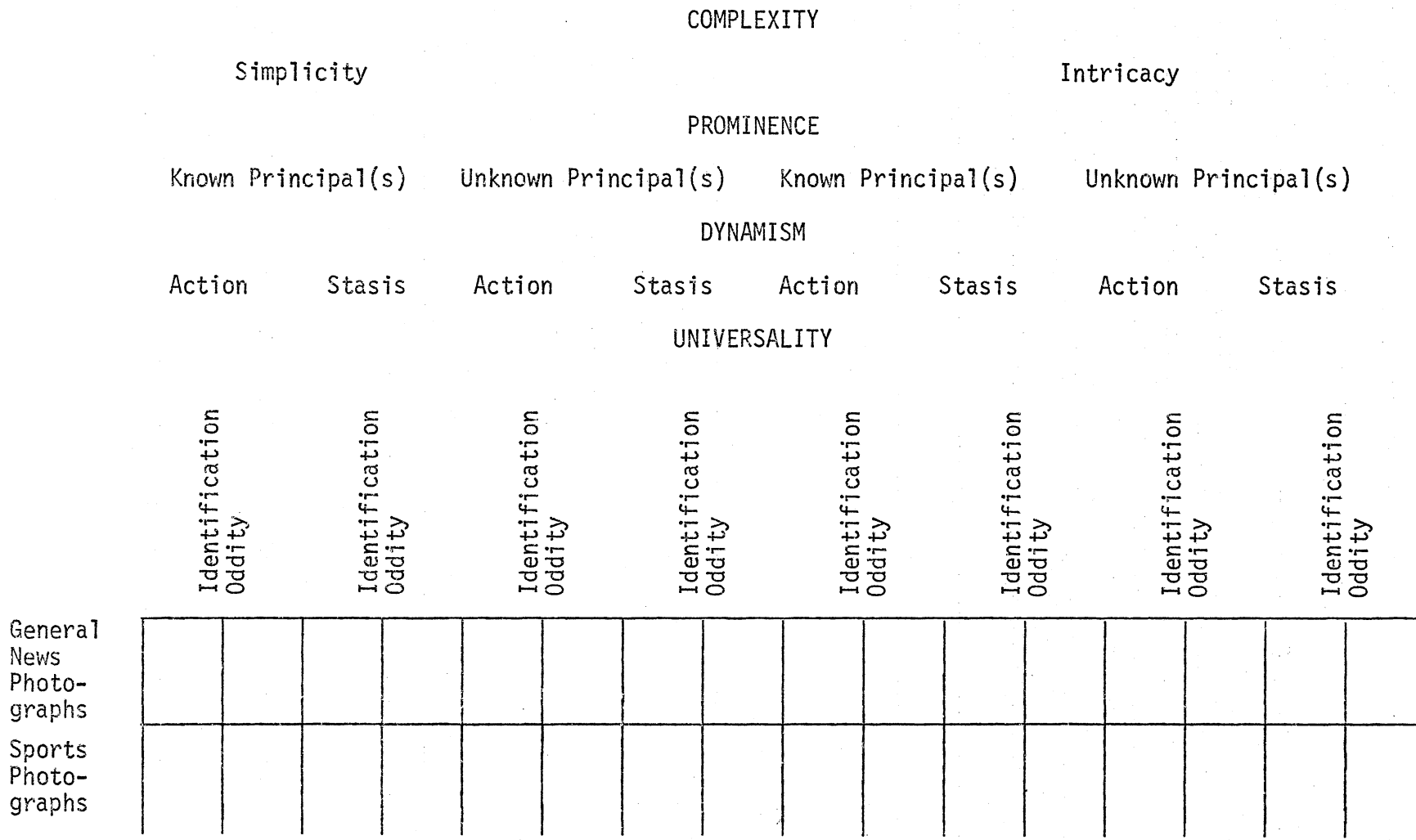


Figure 2_b. Five-Factor Analysis Paradigm Showing Juxtaposition of News Dimension Elements and Photograph Types

In addition to linkage and factor analysis, and to factorial analysis of variance, an R-analysis was performed.

R-analysis is similar in concept to Q-analysis. As has been mentioned, in Q-analysis persons for some sample of tests, statements or concepts (in this study, news pictures) are intercorrelated and factored to discover the number and nature of the underlying variables. R-analysis involves correlating and factoring the concept or item (here, news photographs) for some sample of persons.¹⁵

As MacLean points out: "R. . . is concerned with the relative order of persons for each picture and with the degree of similarity between pictures in the way they "order" persons. . . R is normative; Q is ipsative."¹⁶

For the R-analysis rank-orderings for each set of pictures were intercorrelated--1,128 correlations for each set of news photographs used in the study. The resulting correlations indicated the tendency for editors who are interested in one picture to be interested in another and those who were not interested in one picture to not be interested in another. The correlations were factor analyzed and the pictures which loaded high on the same factor were then examined for possible common characteristics. The researcher was then able to formulate hypotheses as to why the pictures that factored together tended to elicit a common response.

ENDNOTES

1. Walter Ward, "News Values, News Situations, and News Selection: An Intensive Study of Ten City Editors."

2. Ibid., p. 41 ff.

3. William R. Hazard, "Responses to News Pictures: A Study in Perceptual Unity," Journalism Quarterly, Vol. 37 (Autumn, 1960), p. 515 ff.

Jon Robert Leu, "The Effects of Photographic Compositional Elements on the Selection of News Pictures by Various Groups of Individuals," (unpub. Masters' thesis, Iowa State University, 1972).

4. Seth Spaulding, "Research on Pictorial Illustrations," Audio-Visual Review (Winter, 1959).

5. Luis Fonesca and Bryant Kears, "Comprehension of Pictorial Symbols: An Experiment in Rural Brazil," (Monograph).

6. Malcolm S. MacLean, Jr. and William R. Hazard, "Women's Interest in Pictures: The Badger Village Study," Journalism Quarterly, Vol. 30 (Spring, 1953), p. 139 ff.

7. Barbara Wagner, "Picture Value of Potential Editors," in Keith P. Sanders, "Research in Photojournalism" in Photojournalism: Principles and Practices, ed. Clifton Edom (Dubuque, Iowa, 1976), p. 131.

8. William R. Hazard, "Women's Interest in Pictures: The Badger Village Study," p. 131 ff.

9. William Stephenson, "Principles of Selection of News Pictures," Journalism Quarterly, Vol. 37, pp. 61-68.

William Stephenson, The Study of Behavior: Q Technique and Its Methodology (Chicago, 1953).

10. Fred N. Kerlinger, Foundations of Behavioral Research (New York, 1973), pp. 582-598.

Malcolm S. MacLean, Jr., "Some Multivariate Designs for Communications Research," Journalism Quarterly, Vol. 40, pp. 614-621.

11. Kerlinger, p. 582.

12. Ibid., p. 659.
13. Ibid., p. 245.
14. James L. Bruning and B. L. Kintz, Computational Handbook of Statistics (Glenview, 1968), pp. 61-72.
15. Kerlinger, p. 596.
MacLean, "Some Multivariate Designs for Communications Research," pp. 614-621.
16. Ibid., p. 616.

CHAPTER IV

SIMILARITIES IN NEWSPHOTO VALUES OF EDITORS:

LINKAGE AND FACTOR ANALYSIS

RESULTS

For This study, six newspaper editors were asked to participate in two structured Q-sorts. Each Q-sort consisted of sorting a deck of 48 news photographs along an 11-point continuum ranging from 1, least probable use, to 11, most probable use. Each editor's responses were correlated with those of every other editor and then factor analyzed to determine overall agreement and relationships among editors' newsphoto values and to identify clusters or types of editors with similar probable use patterns.

As Kerlinger points out:

Factor analysis. . . can be called the queen of analytic methods. . . it reduces a mutliplicity of tests and measures to greater simplicity. It tells us, in effect, what tests or measures belong together--which ones virtually measure the same thing, in other words, and how much they do. . . it helps. . . to locate and identify unities or fundamental properties underlying tests and measures.¹

Sports Photograph Q-Sort: Types of Editors

The editors for this study were selected to represent a range of newspaper experience, of educational backgrounds, and of newspaper circulation sizes. The editors first were asked to sort a deck of 48

newsphotographs containing pictures of sports events, figures, or related content such as sports clothing and recreational activities.

Q-analysis with its correlation and factoring of responses for the six editors for the 48 sports photographs used in the first aspect of this study allowed the author to determine which pictures each editor was most interested in and to put each editor together with other editors with patterns of interest similar to his own. As MacLean points out:

Q is particularly suited to the study of decision behavior where we are interested in choices and preferences of many kinds. . . An editor chooses material to go into his news package on the basis of comparative evaluations of the items he has available before his deadline and what will fit.²

The Q-matrix of correlations of each editor with each of the other five editors in probable use of sports photograph elements is shown in Table III. The correlation coefficients ranged from .44375 for the Enid-Newkirk editors to -.03886 for the Newkirk-Perry editors.

Factor analysis of the Q-matrix identified clusters or types of editors who tended to be similar in their newsphoto judgments. The editors who clustered together were the editors with the highest correlations of probable use scores. Type I editors comprised the Tonkawa and Perry editors. The Type II editors included the four editors from Ponca City, Blackwell, Enid and Newkirk. The two types are shown in Figure 3, page 49.

To group editors, each individual editor was assigned to the type he was most like. A separate correlation matrix was constructed for each editor type (see Tables IV and V) and the correlation coefficients for each type summed. The largest total indicates the editor most

TABLE III
 INTERCORRELATIONS OF SIX EDITORS' PROBABLE USE OF 48 SPORTS NEWS PHOTOS

	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid
Tonkawa		.44063	.13925	.15938	.30313	.00937
Perry	.44063		-.03886	.29688	.26250	.14063
Newkirk	.13925	-.03886		.26555	.29793	.47281
Ponca City	.15938	.29688	.26555		.34063	.44375
Blackwell	.30313	.26250	.29793	.34073		.27813
Enid	.00937	.14063	.47281	.44375	.27813	

Correlations of .288 and above are significant at the .01 level of confidence:
 df=46

Correlations of .372 and above are significant at the .05 level of confidence:
 df=46

representative of that type. The Enid editor has the highest correlation with the other editors in Type II and is, therefore, representative of that group. The Perry editor was arbitrarily assigned as the typical representative of Type I. The Tonkawa-Perry editors were more like each other than they were like any other editor; moreover, the sums of their correlation coefficients were identical and no single typical representative emerged.

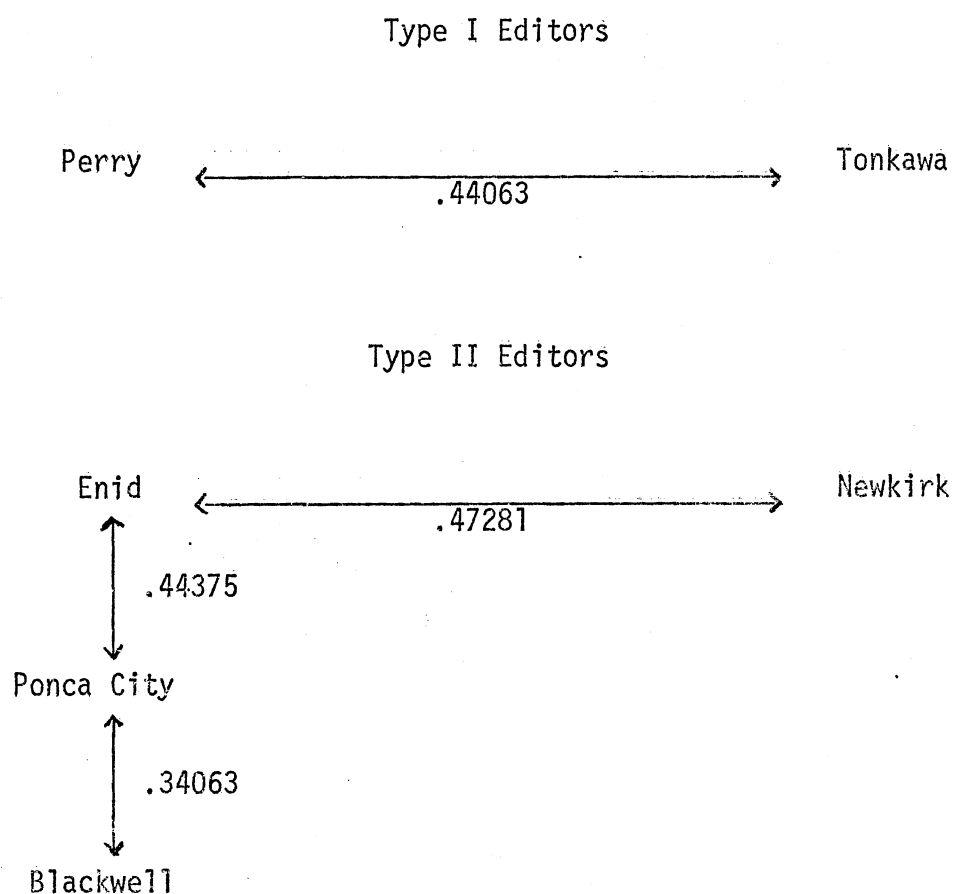


Figure 3. Types of Editors Extracted through Linkage Analysis

TABLE IV
 INTERCORRELATIONS OF TYPE I EDITORS' PROBABLE USE OF
 48 SPORTS PHOTOGRAPHS

	Tonkawa	Perry
Tonkawa	1.0000	.44063
Perry	<u>.44063</u>	<u>1.000</u>
	1.44063	1.44063

REPRESENTATIVE TYPE: THE PERRY EDITOR

TABLE V
 INTERCORRELATIONS OF TYPE II EDITORS' PROBABLE USE OF
 48 SPORTS PHOTOGRAPHS

	Newkirk	Ponca City	Blackwell	Enid
Newkirk	1.0000	.26555	.29793	.47281
Ponca City	.26555	1.00000	.34063	.44375
Blackwell	.29793	.34063	1.00000	.27813
Enid	<u>.47281</u>	<u>.44375</u>	<u>.27813</u>	<u>1.00000</u>
	2.03629	2.04993	1.91669	2.19469

REPRESENTATIVE TYPE: THE ENID EDITOR

A Pearson r correlation was run on the typal relevancies to determine the magnitude and direction of the relationship between the two types of editors. The resulting $r = +.10$ shows that the relationship between the types is, at best, an extremely weak one. The types then, are distinct and generally independent of one another. Only the Blackwell editor showed a relative high correlation with both the Tonkawa and Perry typal representatives (see Table VI). The precise differences among the editors were examined through factorial analysis of variance and findings are reported in Chapter V.

TABLE VI
TYPAL REPRESENTATIVES FOR EDITORS AND THEIR CORRELATIONS
WITH OTHER EDITORS

	Type I (Perry Editor)	Type II (Enid Editor)
Tonkawa	.44063	.00937
Perry	1.00000	.14063
Newkirk	.03886	.47281
Ponca City	.29688	.44375
Blackwell	.26250	.27813
Enid	.14063	1.00000

Type I: "Stasis" Editors and Sports Photographs

Each editor's mean probable use of newsphoto elements was computed by summing the values assigned by each individual editor to photographs representing those newsphoto elements in the original

sports Q-sort (see Table VII). For example, the Perry editor shows a mean probable use of 7.08 for Simplicity. This was his mean ranking for the 24 photographs containing the Simplicity element.

Table VII shows that the Perry editor, as typical representative, ranked photographs with Simplicity and Stasis highest. This is in contrast with the overall rankings of the Type II editors, who ranked Action and Oddity highest. Following Stasis and Simplicity, Type I editors overall ranked Oddity (mean = 6.75) next highest, followed by Unknown Principal(s) (mean = 6.28).

The Type I editors' mean rankings for sports photographs indicated, as did those for Type II, probable use preferences for Unknown Principal(s) over Known Principal(s). However, the Type I editors preferred Unknown Principal(s) to a greater extent than did the Type II editors. Type I editors overall ranked Unknown Principal(s) .78 higher than Known Principal(s), while the Type II Editors ranked Unknown Principal(s) only .13 higher than Known Principal(s).

A reversed situation exists for probable use of Oddity and Identification elements by Type I editors. While both types overall preferred Oddity and Identification, Type I tended to prefer the Oddity element to lesser extent than did the Type II editors. Type I editors ranked Oddity only .5 higher than the Identification element. Type II editors ranked the Oddity element 1.15 higher than the Identification element.

In summary, Type I editors are distinguished from Type II editors in their overall preference for the Stasis element. They also tended to play Unknown Principals higher and Oddity lower than did Type II editors.

TABLE VII
MEAN PROBABLE USE OF SPORTS NEWSPHOTO ELEMENTS

Newsphoto Elements	Type I			Type II					Grand Mean
	Tonkawa	Perry*	Mean	Newkirk	Ponca City	Blackwell	Enid*	Mean	
Known Principal(s)	5.29	5.71	5.5	6.25	5.92	5.67	5.62	5.86	5.68
Unknown Principal(s)	6.71	5.87	6.28	5.46	6.08	6.33	6.08	5.99	6.13
Action	5.62	5.46	5.54	7.12	6.79	6.21	7.5	6.90	6.22
Stasis	7.25	7.04	7.14	5.25	6.17	6.29	5.37	5.77	6.46
Oddity	6.96	6.54	6.75	6.71	6.83	6.50	6.08	6.53	6.64
Identification	5.04	5.46	5.25	5.00	5.17	5.5	5.87	5.38	5.32
Simplicity	6.79	7.08	6.93	6.58	6.54	6.87	5.71	6.42	6.675
Intricacy	5.21	4.87	5.04	5.12	5.46	4.71	5.46	5.19	5.11

* Typal Representative

Type II: "Action" Editors and Sports Photographs

Four of the six editors who participated in this study clustered together in Type II: Enid, Blackwell, Ponca City and Newkirk. Table VII shows that Type II editors overall placed highest probable use on Action photographs. The Enid editor, as typical representative, placed a mean probable use of 7.5 on Action pictures compared with 5.37 for Stasis pictures. Following Action, Type II editors overall ranked Oddity (mean = 6.53) highest, followed by Simplicity (mean = 6.42) and Unknown Principal(s) (mean = 5.99).

The Type II editors' overall mean rankings for sports photos indicated greater preferences for Unknown Principal(s) over Known Principal(s), for Oddity over Identification, and for Simplicity over Intricacy, as did the Type I editors. However, the Type II editors tended to prefer Unknown Principal(s) to a lesser extent than did the Type I editors. Type I editors overall ranked Unknown Principal(s) .78 higher than Known Principal(s), while the Type II editors ranked Unknown Principal(s) only .13 higher than Known Principal(s). The Type II editors also tended to prefer Simplicity to a lesser extent than did the Type I editors. Type II editors ranked Simplicity 1.23 higher than Intricacy while Type I editors ranked Simplicity 1.89 higher than Intricacy. Conversely, the Type II editors tended to prefer the Oddity element to a greater extent than did the Type I editors. Type I editors overall ranked Oddity only .5 greater than Identification, while the Type II editors ranked Oddity 1.15 greater than Identification.

In summary, Type II editors are distinguished from Type I editors in their overall preference for the Action element. They also tended

to prefer Unknown Principal(s) and Simplicity less and Oddity more than did Type I editors.

Essentially, then, the two types of editors are most differentiable in their probable use of the Action and Stasis elements. In general, however, they show a similar relationship in the overall probable use of news elements and combinations, as shown in Table VIII, page 56. Type I tended to prefer Stasis and Simplicity to a greater degree than did Type II, which showed greater probable use for Action and Oddity. All types preferred Unknown Principal(s) to Known; Oddity to Identification; and Simplicity to Intricacy.

Probable Use of Sports Photographs: Standardized Scores

Similarities and differences in probable use of sports photographs by the various editor types are described in terms of z-scores. Z-scores indicate individual scores in standard deviation units away from the mean, that is, they tell how many standard deviations the score is above or below the mean of a distribution. While locating a score in relation to the distribution mean, z-scores take into consideration the variability of the entire distribution.

Z-scores are computed in two steps. The first is to subtract the mean from the term to find its distance score. The second is to divide the distance score by the standard deviation of the distribution. For instance, the eighth term in the distribution X_8 , has a corresponding z-score, z_8 , which is found by the following formula³:

$$z_8 = \frac{X_8 - \mu}{\sigma}$$

TABLE VIII
 PROBABLE USE OF NEWSPHOTO ELEMENTS IN SPORTS PHOTOGRAPHS

News Elements	All Editors		Type I Editors		Type II Editors	
	Rank	Mean Use	Rank	Mean Use	Rank	Mean Use
UAOS	1	9.06	1.5	8.83	1	9.17
UAIS	2	7.33	5	6.50	3	7.75
KAOI	3	7.28	8	6.00	2	7.92
KAOS	4	7.11	9.5	5.67	4	7.42
KSOS	5	6.89	3	8.06*	6	6.33
KAIS	6.5	6.50	13	4.83*	5	7.33
USIS	6.5	6.50	1.5	8.83	8	5.33
USOS	8	6.17	4	8.00	9	5.25
UAOI	9	5.83	11	5.50	7	6.00
KSOI	10	5.56	7	6.17	11	5.17
USOI	11	5.28	9.5	5.60	12.5	5.08
KSIS	12	4.67	12	5.00	15	4.50
KSII	13.5	4.61	6	6.33*	16	3.75
UAII	13.5	4.61	15	3.50	10	5.42
KAI	15	4.56	15	3.50	12.5	5.08
USII	16	4.33	15	3.50	14	4.75

The probable use scores for each of the photographs for each editor type in this study were converted to z-scores. Any z-score of 1 or more was considered high in probable use by the editors, while a z-score of -1 or less was considered low in probable use by the editors. The z-scores for each sports news photograph are listed in Appendix C.

Consensus Items

From the z-scores in Appendix C for each sports news photograph for each editor type, similarities and differences in newsphoto judgments could be ascertained through an examination of consensus items, photographs that are similarly ranked by editors.

Table IX lists 16 consensus items--nine that were most probably used by both types of editors and seven least probably used. Table IX shows that all editors most agreed to give higher probable use to Oddity and Action sports photographs. All nine high agreement consensus items contained the Oddity aspect and eight of the nine contained the Action aspect. All editors agreed overall in giving less probable use to the Identification and Intricacy element photographs. Six of the seven least used items contained the Identification element and six of the seven contained the Intricacy element.

The most highly ranked sports photograph for all editors were the Tackle and the Racer pictures (see Figure 4, page 60). Both pictures contained the Unknown, Action, Oddity and Simplicity elements.

The most rejected pictures by all editors were the Kite Flying and Hale Irwin photographs (see Figure 4, page 60). These pictures contained the Identification and Intricacy elements in common.

TABLE IX
HIGH AND LOW CONSENSUS SPORTS NEWS PHOTOGRAPHS: ALL EDITORS

Photo No.	Photo Elements	Description of the Photographs	z-scores
<u>Most Probable Used</u>			
31	UAOS	Tackle	+2.63
32	UAOS	Racer	+2.00
8	KAOI	NHL Hockey	+1.79
19	KSOS	Eddie Hart	+1.58
11	KAOS	UCLA Coach	+1.37
12	KAOS	Joe Frazier	+1.37
33	UAOS	Motorcyclist	+1.16
9	KAOI	Larry Poole	+1.05
39	UAOI	Dog Skiing	+1.05
<u>Least Probable Used</u>			
26	UAII	Kite Flying	-1.79
17	KSII	Hale Irwin	-1.69
45	USII	Skis	-1.58
3	KAI	Olympics	-1.47
13	KSIS	Yankee Stadium	-1.47
43	USII	Sports	-1.37
47	USOI	Ski Clothes	-1.26

High and Low Accepted Photographs by Type I

The 48 sports photographs and their z-scores were ordered from most accepted to least accepted. Table X lists the sports photographs most accepted and least accepted by Type I editors. This listing excludes the consensus photographs for all editors which were ranked higher or lower than the most or least accepted photographs of Type I editors.

Table X shows that Type I editors "played" Unknown Principal(s), Stasis and Simplicity elements high. Of the nine greatest probable use photographs for the Type I editors, seven contained the Unknown Principal(s) element; seven, the Stasis element; and eight, the Simplicity element. However, only the greater probable use of Unknown Principal(s) and the use of the Stasis elements differentiate Type I editors from the Type II editors. Type II editors gave greater play to the Action element and both Type II and Type I gave play to the Simplicity element.

The Type I editors gave the highest play to the Tackle and Football player photographs (see Figure 5, page 62). Both photographs contained the Unknown Principal(s), Oddity, and Simplicity elements favored by the Type I editors. However, only one of them, Football Player, contained the Stasis element which differentiates the Type I editors overall from the Type II editors.

The Type I editors played down photos that contained the Identification and Intricacy elements, especially when those two appeared in combination. The most rejected photographs by the Type I editors were the complicated photographs of the opening ceremonies of the Olympic

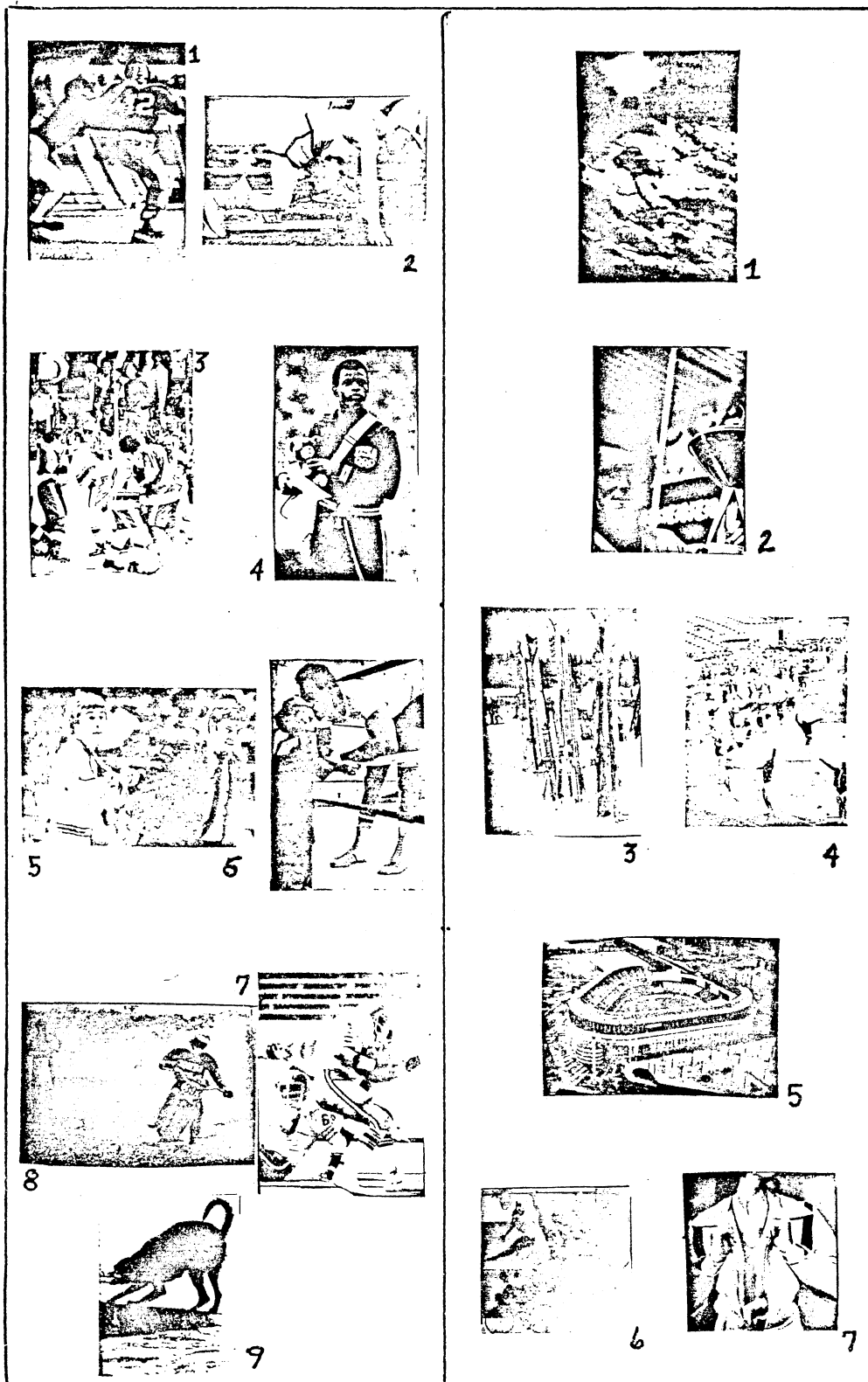


Figure 4: High and Low Consensus Sports Photographs for all Editors

TABLE X
HIGH AND LOW PROBABLE USE OF SPORTS PHOTOGRAPHS: TYPE I

Photo No.	Photo Elements	Description of Photograph	z-score
<u>Most Probable Use</u>			
31	UAOS	•Tackle	+1.83
41	USOS	Football Player	+1.83
42	USOS	Golf Ball in Nest	+1.60
19	KSOS	•Eddie Hart	+1.60
34	USIS	Fisherman	+1.37
36	USIS	Boy with Boat	+1.37
32	UAOS	•Racer	+1.37
16	KSII	All-American Pros	+1.14
35	USIS	Hunter	+1.14
<u>Least Probable Use</u>			
3	KAI	Olympics	-2.05
45	USII	Skiis	-2.05
13	KSIS	Yankee Stadium	-1.83
25	UAI	Archers	-1.83
43	USII	Sports	-1.60

• Pictures which were also given high probable use by Type II editors.

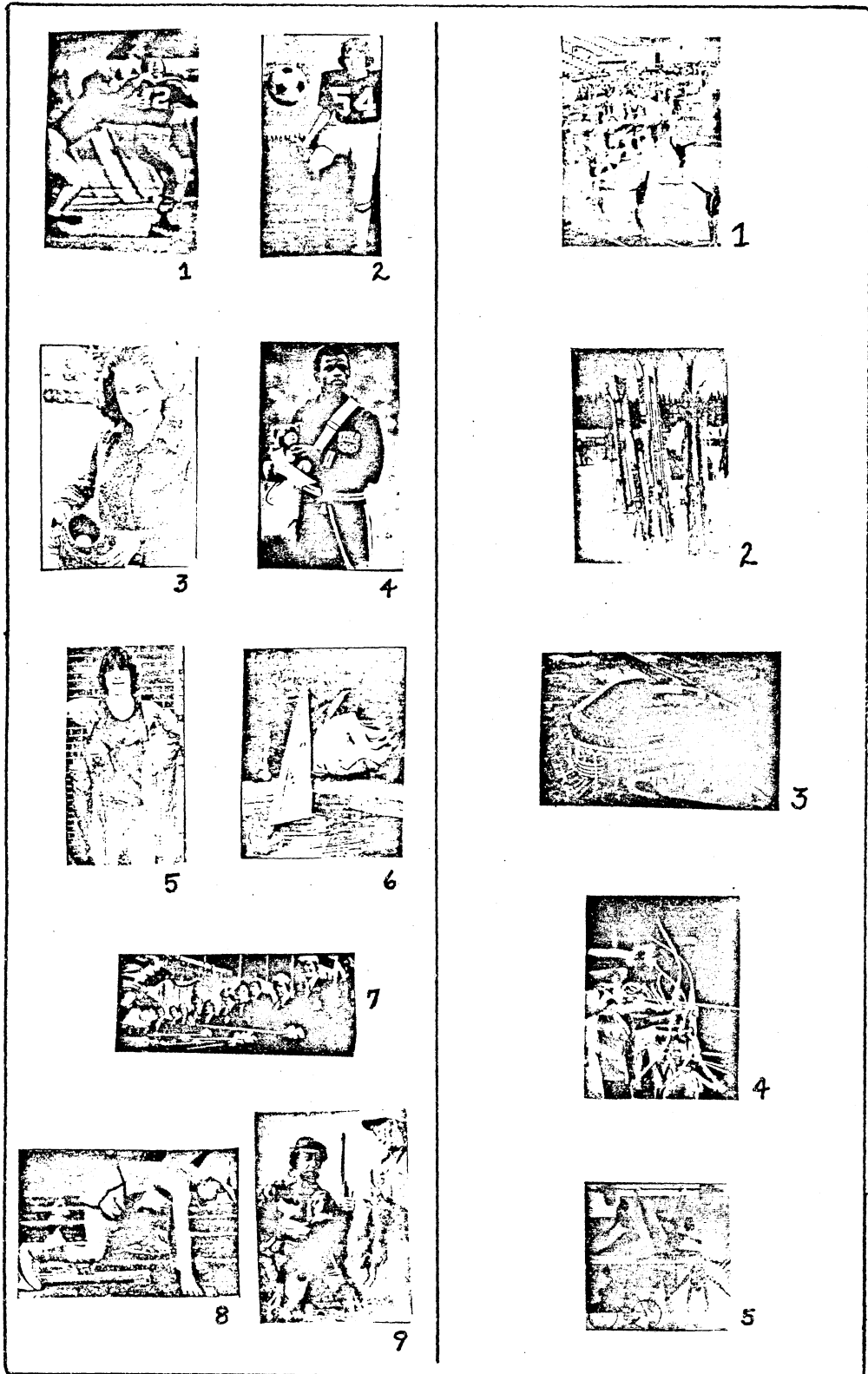


Figure 5: High and Low Accepted Sports Photographs for Type I Editors

games and of the linear patterns created by bundles of standing skis (see Figure 5, page 62).

In line with this analysis, the "Stasis" label given to the Type I editors seems appropriate.

High and Low Accepted Photographs by Type II

Table XI lists the sports photographs most accepted and least accepted by Type II editors. The most accepted photos were those containing the Action, Simplicity, and Oddity elements. Of the 10 most probable use photographs by Type II editors, nine contained the Action element; eight the Simplicity element; and seven, the Oddity element. As seen previously, it is the greater probable use of the Action element that differentiates the Type II editors from the Type I "Stasis" oriented editors.

Type II editors played down photos containing the Stasis and Intricacy elements. The most rejected photographs by Type II were the intricate Hale Irwin and Ski clothes photographs (see Figure 6, page 65).

Type II editors gave highest play to the Tackle and Racer photographs (see Figure 6, page 65). Both photographs contain the Unknown Principal(s), Action, Oddity, and Simplicity newsphoto elements generally preferred by Type II editors overall. Of the sports photographs in Table X and Table XI, only three pictures appeared on both listings. The Tackle, Racer and Eddie Hart pictures were highly acceptable to both the Type I and Type II editors. The two types, however, did not rank any low acceptance pictures in common.

TABLE XI
HIGH AND LOW PROBABLE USE SPORTS PHOTOGRAPHS: TYPE II EDITORS

Photo No.	Photo Elements	Description of Photographs	z-score
<u>Most Probable Use</u>			
31	UAOS	•Tackle	+2.21
32	UAOS	•Racer	+1.75
8	KAOI	NHL Hockey	+1.75
11	KAOS	UCLA Coach	+1.62
9	KAOI	Larry Poole	+1.62
29	UAIS	Go-Carting	+1.21
19	KSOS	•Eddie Hart	+1.08
4	KAIS	Ilie Nastase	+1.08
28	UAIS	Pole Vaulter	+1.08
33	UAOS	Motorcyclist	+1.08
<u>Least Probable Use</u>			
17	KSII	Hale Irwin	-1.75
47	USOI	Ski Clothes	-1.48
38	UAOI	Fishermen	-1.35
18	KSII	Jim O'Gorman	-1.08
24	KSOI	Marble Tournament	-1.08

• Pictures which were also given high probable use by Type I editors.

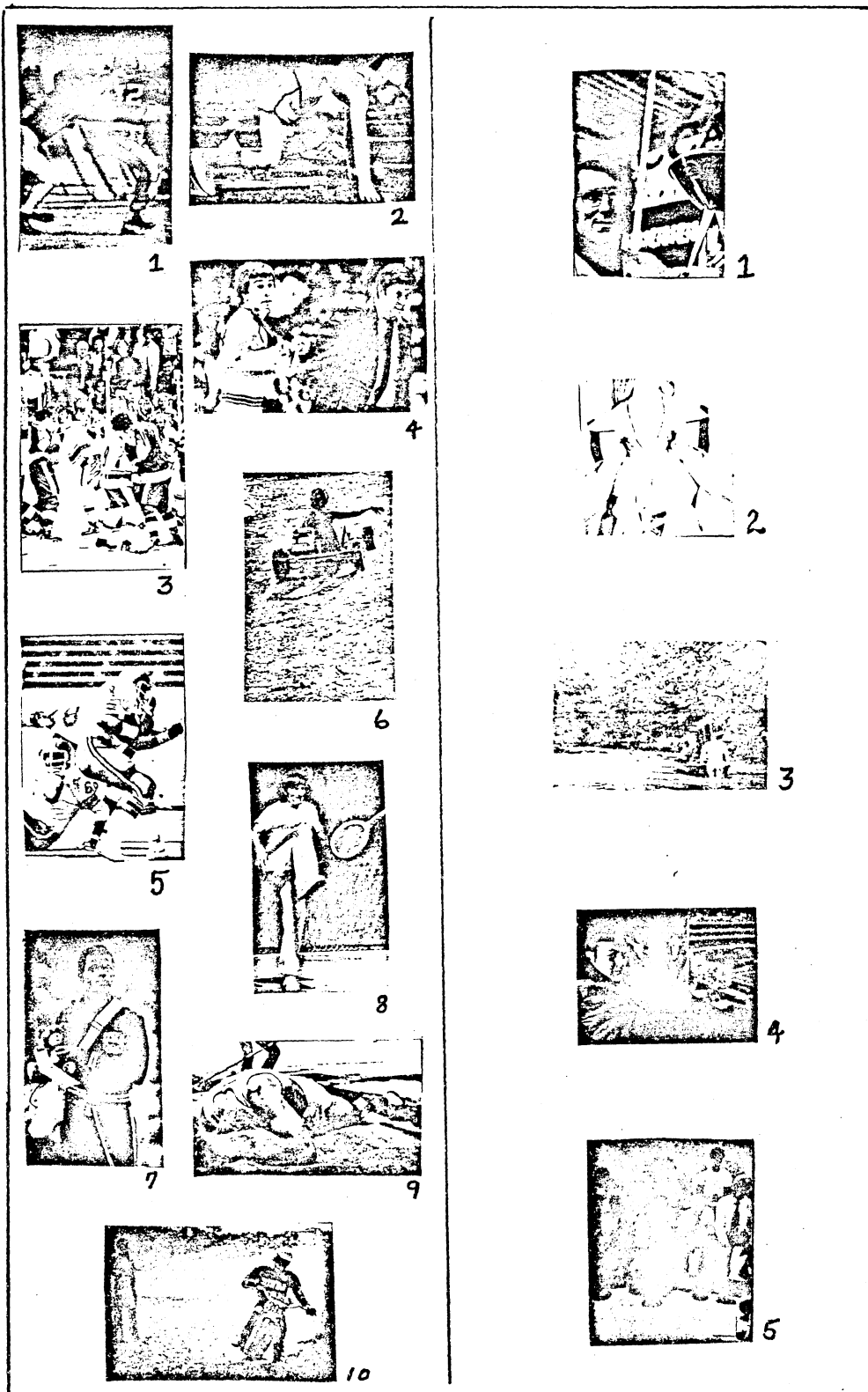


Figure 6: High and Low Accepted Sports Photographs for Type II Editors

Sports Photographs that Differentiate Types of Editors

Table XII lists the sports photographs played higher and those played lower by Type I and Type II editors. These are the photographs which best portrayed differences in probable use patterns and their analysis again confirms the choice patterns already evidenced by Types I and II.

The z-score difference column in Table XII shows that Type I editors played the first 10 pictures higher than did Type II. All 10 of the sports pictures contained the Stasis element and seven of the 10 contained Oddity. The Unknown/Known Principal(s) and the Simplicity/Intricacy elements were evenly divided--five each--among the 10 pictures. The last half of the 20 pictures in Table XII were played lower by Type I editors than by Type II editors. The primary element rejected was Action, which appears in eight of the 10 low acceptance pictures.

The photographs with the greatest differences in acceptance by Type I editors over Type II editors were the Football Player and Fisherman photographs with their emphasis on Unknown Principal(s), Stasis, and Simplicity elements. The photographs with the greatest rejection rates for Type I editors in comparison with Type II editors were the Larry Poole and Archers pictures with their emphasis on Action and Intricacy, thus confirming once again the "Stasis" label for Type I editors and the "Action" label for Type II editors.

TABLE XII
SPORTS PHOTOGRAPHS WITH HIGHER ACCEPTANCE/REJECTION RANKINGS
FOR TYPE I THAN FOR TYPE II EDITORS

Photo No.	Photo Element	Description	z-scores		z-score Difference
			Type I	Type II	
41	USOS	Football Player	+1.83	- .81	+2.64
34	USIS	Fisherman	+1.37	- .94	+2.31
42	USOS	Golf Ball in Nest	+1.60	- .54	+2.14
16	KSII	All-American Pros	+1.14	- .81	+1.95
24	KSOI	Marble Tournament	+ .46	-1.35	+1.81
35	USIS	Hunters	+1.14	- .40	+1.54
21	KSOS	Bill Krisher	+ .46	- .94	+1.22
22	KSOI	Jane Blalock	+ .68	- .54	+ .63
14	KSIS	Roger Staubach	+ .46	- .94	+ .48
37	UAOI	Women's Basketball	- .23	+ .54	- .77
40	USOS	Ski Clothes	- .68	+ .13	- .81
6	KAIS	Roger Maltbie	- .46	+ .40	- .86
39	UAOI	Dog Skiing	- .46	+ .54	-1.00
5	KAIS	Ali	- .46	+ .67	-1.13
23	KSOI	Joe Namath	- .68	+ .54	-1.22
28	UAIS	Pole Vaulter	- .46	+1.08	-1.54
4	KAIS	Ilie Nastase	- .68	+1.08	-1.76
9	KAOI	Larry Poole	- .46	+1.62	-2.08
25	UAII	Archers	-1.83	+ .67	-2.50

General News Photograph Q-Sort: Editor Responses

As mentioned previously, the sports photograph Q-sort was the initial phase of a two-phase study. The six newspaper editors who participated in the sports Q-sort also were asked to Q-sort a deck of 48 general news photographs along an 11-point continuum ranging from least probable use to most probable use. Again, the responses of the editors were intercorrelated and factored.

The resulting Q-matrix of correlation coefficients ranged from a high of .42813 for the Perry-Newkirk editors to a low of only .18211 for the Ponca-Newkirk editors. A search of the data matrix for clusters or types of editors who tended to be similar in their general news photograph judgments revealed that all six editors clustered together as a single type with the Tonkawa editor as the typical representative (see Table XIII).

General News Photograph Preferences for Editors

As was done in the sports Q-sort, each editor's mean probable use of news photo elements was computed by summing the values assigned by individual editors to photographs containing those values in the general news Q-sort. These scores are recorded in Table XIV.

Table XIV shows that the Tonkawa editor, as typical representative, ranked photographs with Action highest (mean = 7.13), as did the editors overall (mean = 6.95). The mean ranking for the Action element for all editors was 6.95. Overall, the editors ranked Simplicity (mean = 6.75) next highest after Action, followed by Unknown Principal(s) (mean = 6.45) and Oddity (mean = 6.19). These rankings

TABLE XIII

INTERCORRELATIONS OF EDITORS' PROBABLE USE OF 48 GENERAL
NEWS PHOTOGRAPHS

	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid
Tonkawa	1.00000	0.38750	0.41563	0.33282	0.30313	0.38750
Perry	0.38750	1.00000	0.42813	0.29829	0.36250	0.20000
Newkirk	0.41563	0.42813	1.00000	0.18211	0.36563	0.39063
Ponca City	0.33282	0.29829	0.18211	1.00000	0.32654	0.40190
Blackwell	0.30313	0.36250	0.36563	0.32654	1.00000	0.31250
Enid	<u>0.38570</u>	<u>0.20000</u>	<u>0.39063</u>	<u>0.40190</u>	<u>0.31250</u>	<u>1.00000</u>
	1.83	1.68	1.78	1.54	1.67	1.69

Typal Representative: The Tonkawa Editor

TABLE XIV
MEAN USE OF GENERAL NEWS PHOTO ELEMENTS

Newsphoto Elements	*Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Mean
Known Principal(s)	5.38	5.71	5.96	5.63	5.50	5.17	5.56
Unknown Principal(s)	6.63	6.29	6.04	6.38	6.54	6.83	6.45
Action	7.13	6.62	7.33	7.08	5.96	7.58	6.95
Stasis	4.88	5.62	4.83	5.12	6.25	4.58	5.21
Oddity	6.58	6.04	6.04	5.83	6.04	6.58	6.19
Identification	5.42	5.96	5.96	6.04	5.96	5.42	5.79
Simplicity	6.42	7.25	6.75	6.63	7.17	6.29	6.75
Intricacy	5.58	4.75	5.17	5.38	4.83	5.71	5.24

* Typal Representative

correspond to the rankings for Sports photograph values by Type II editors in the previously reported Q-sort.

The editors had greater probable use preferences for Action elements over Stasis and for Simplicity over Intricacy than for Unknown over Known Principal(s) or for Oddity over Identification. As Table XIV shows, the editors ranked Action 1.74 higher than Stasis and Simplicity 1.51 over Intricacy. They ranked the Unknown Principal(s) only .89 higher than Known Principal(s) and Oddity only .40 over Identification.

The General News Q-sort is remarkable in three important ways:

1. All editors' responses were highly correlated, indicating across-the-board similarities in judgments of newsphoto dimensions.
2. The newsphoto elements given greatest probable use by the editors overall were Action, Simplicity, Unknown Principal(s), and Oddity--all of which, with the exception of the Unknown Principal(s), had been hypothesized at the outset of this study.
3. Similar preference patterns emerged in the sports photograph Q-sort, with the exception of Type I's preference for the Stasis element over Action in sports photographs.

Similarities in Probable Use of General News Photographs

As in the probable use of sports photographs, similarities in probable use of general news pictures are described in terms of z-scores. It will be recalled that z-scores indicate individual scores in standard deviation units away from the mean of a distribution.

The probable use scores for each of the general news photographs were converted to z-scores. Any z-score of 1 or more was considered high in probable use by the editors, while a z-score of -1 was considered low in probable use by those editors. The z-score for each general news photograph is listed in Appendix C.

Consensus Items

Insight into the newsphoto judgments of the editors can be gained by a careful examination of consensus items--photographs that were similarly ranked by the editors.

Table XV lists consensus items, six that were most probably used and seven least probably used by all editors. The table shows that all editors most agreed to give higher probable use to the Action, Unknown Principal(s), and Simplicity elements in general news photographs. All six high consensus photos contained Action; five of the six contained Simplicity; and five of the six, Unknown Principal(s). All editors agreed overall in giving least probable use to the Intricacy and Identification elements. Six of the low consensus items contained the Intricacy element and five of the seven contained the Identification element.

The most highly ranked photograph for all editors was the dramatic Displaced Person photo which depicts a sobbing woman on the steps of her newly condemned apartment building (see Figure 7, page 73). The second highest ranked picture was of a flaming car crash (see Figure 7, page 73). Both pictures contained Action, Unknown Principal(s), and Simplicity elements.

TABLE XV

HIGH AND LOW CONSENSUS GENERAL NEWS PHOTOGRAPHS: ALL EDITORS

Photo No.	Photo Elements	Description of Photograph	z-score
<u>Most Probable Use</u>			
29	UAIS	Displaced Person	+2.60
28	UAIS	Car Wreck	+2.41
11	KAOS	Queen Elizabeth	+1.93
30	UAIS	Bumper Car Ride	+1.83
31	UAOS	Fire Hydrant	+1.64
37	UAOI	Truck Crash	+1.45
<u>Least Probable Use</u>			
1	KAII	President Carter	-4.23
18	KSII	Dr. Fred House	-1.45
3	KAII	Princess Anne	-1.25
7	KAOI	Santiago Martin	-1.25
48	USOI	Ski Suit	-1.16
35	USIS	Sweet Bread	-1.06
43	USII	Snout	-1.06

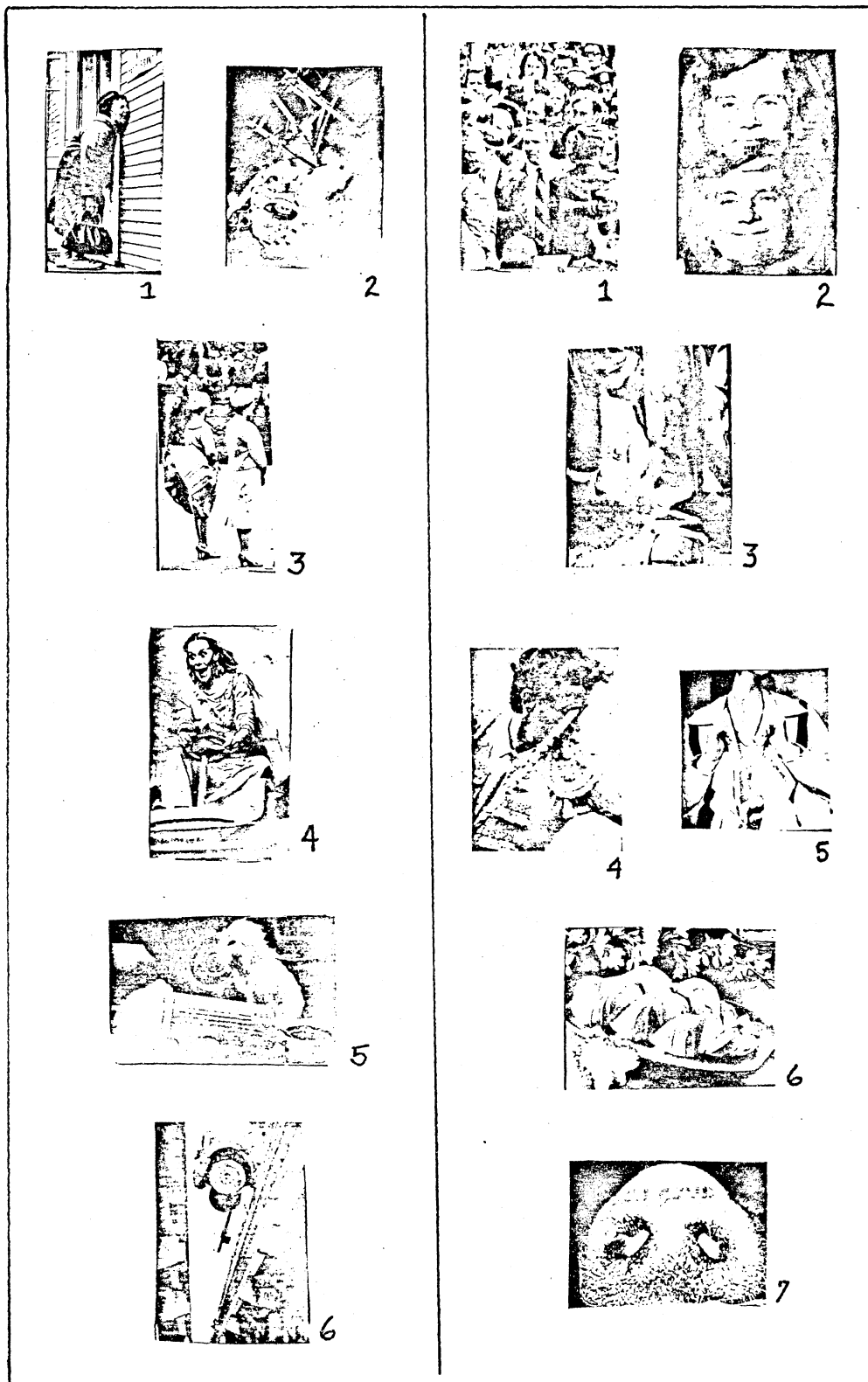


Figure 7: High and Low Consensus General News Photographs for all Editors

The most rejected general news photograph (z-score = -4.23) for all editors was the picture of President Carter, barely distinguishable in a crush of people (see Figure 7). The next most rejected photograph for all editors was the multiple exposure of lecturer Dr. Fred House (see Figure 7). Both pictures contained Known Principal(s), Identification, and Intricacy elements.

Overall Probable Use Patterns of Newsphoto Elements

Six newspaper editors sorted two separate decks of photographs for this study: a deck of 48 general news photographs and a deck of 48 sports photographs. Both Q-sorts were subjected separately to linkage and factor analysis. For the general news photographs, the probable use patterns for all editors were highly correlated; that is, probable use patterns were similar for all editors. For the sports photographs, a "Stasis" cluster of two editors and an "Action" cluster of four editors were factored out.

In the general news Q-sort, editors ranked the newsphoto elements in the following order: Action, 6.95; Simplicity, 6.75; Unknown Principal(s), 6.45; and Oddity, 6.19.

In the Sports Q-sort, Type I editors ranked the newsphoto elements in the following order: Stasis, 7.14; Simplicity, 6.93; Oddity, 6.75; and Unknown Principal(s), 6.28. The Type II editors assigned mean rankings as follows: Action, 6.9; Oddity, 6.53; Simplicity, 6.42; and Unknown Principal(s) 5.99.

Overall, the six editors ranked the newsphoto elements in the following order for the sports pictures: Simplicity, 6.675; Oddity, 6.64; Action, 6.22; and Unknown Principal(s), 6.13.

To discover what "differences made a difference" statistically an analysis of interaction of types of editors and news elements on probable use was conducted. Results are reported in Chapter V.

R-Analysis

In addition to the linkage and factor analyses already cited, an R-analysis was conducted on the data. As was explained in Chapter III, R-analysis involved correlating every photograph's probable use ranking with every other photograph's ranking for each of the two sets of pictures used in this study. The correlations were then factored to determine similarities among pictures in the way they "ordered" the editors.⁴ In this study 48 x 48, or 1,128, correlations were then factored by computer for pictures that loaded high on the same factors. The factors and correlations are reported in Table XVI.

The sports photograph R-analysis yielded three factors or groups of photographs that clustered together, representing similar levels of interest for editors. The groups are listed in Table XVII, page 78. Factors I and II explain three-fourths of the variance in interest orderings and Factor III, only one-fourth.

Factor I pictures overall tended to hold low to moderate interest for the editors with an overall mean ranking of 5.76. Of the 11 pictures that make up the factor, eight contained the Identification element; seven, the Intricacy element; and seven, the Action element. These elements correspond with the elements ranked lowest overall in the sports Q-sort by Type I "Stasis" editors: Action (mean = 5.54), Intricacy (mean = 5.04) and Identification (mean = 5.25).

TABLE XVI

R-FACTOR LOADINGS AND CORRELATIONS FOR SPORTS
AND GENERAL NEWS PICTURES

Pix No.	I Correlation	Sports Photograph Factors			
		Pix No.	II Correlation	Pix No.	III Correlation
3	.65702	7	.57508	8	.75155
4	.69593	14	.64962	18	.72230
9	.58338	19	.61089	40	.83089
13	.69536	20	.78823	46	.97291
23	.80048	21	.55326	48	.56820
27	.63411	26	.92245		
28	.70078	30	.76895		
29	.54169	41	.72258		
39	.58277	47	.90578		
43	.56761				
45	.52663				

TABLE XVI (CONTINUED)

Pix No.	I Correlation	General News Photograph Factors			III Correlation
		Pix No.	II Correlation	Pix No.	
2	.54751	3	.72451	4	.56894
7	.55029	5	.58862	17	.95650
9	.67522	10	.92582	20	.94172
25	.87201	14	.61207	21	.96458
27	.86707	22	.49799	23	.79755
29	.91351	26	.95833	28	.83076
30	.48746	38	.59563	34	.59018
31	.66017	41	.75645	37	.68545
32	.86483	45	.79425	48	.41832
39	.95888	46	.61941		

TABLE XVII
SPORTS PHOTOGRAPH R-FACTORS

Photo No.	Photo Element	Description	Mean Ranking	Grand Mean
<u>FACTOR I</u> (Variance = 14.61, Percent = 41.43)				
3	KAII	Olympics	3.67	
4	KAIS	Ilie Nastase	6.83	
9	KAOI	Larry Poole	7.67	
13	KSIS	Yankee Stadium	3.67	
23	KSOI	Joe Namath	6.17	
27	UAII	Golfer	5.17	5.76
28	UAIS	Pole Vaulter	7.00	
29	UAIS	Go Carting	7.67	
39	UAOI	Dog Skiing	6.33	
43	USII	Sports	5.67	
45	USII	Skis	3.50	
<u>FACTOR II</u> (Variance = 32.7, Percent = 32.66)				
7	KAOI	Pete Rose	5.33	
14	KSIS	Roger Staubach	5.17	
19	KSOS	Eddie Hart	8.50	
20	KSOS	New York Filly	6.67	
21	KSOS	Bill Krisher	5.50	6.04
26	UAII	Archers	5.50	
30	UAIS	Baseball Player	7.33	
41	USOS	Football Player	6.33	
47	USOI	Ski Clothes	4.00	
<u>FACTOR III</u> (Variance = 32.7, Percent = 32.66)				
8	KAOI	NHL Hockey	8.83	
18	KSII	Jim O'Gorman	4.67	
40	USOS	Ski Clothes	5.67	6.20
46	USOI	Desert Green	6.50	
48	USOI	Alaskan Skier	5.33	

Factor II photographs had a higher overall mean ranking, mean = 6.04, by editors than did Factor I pictures. Of the nine sports pictures in the factor, six contain the Stasis element; six, the Oddity element; and six, the Simplicity element. These elements correspond with the elements preferred by Type I editors. It will be recalled that Type I "Stasis" editors' mean ranking for Stasis was 7.14, compared with only 5.54 for the Action element; for Oddity, 6.75, compared with 5.25 for Identification; and for Simplicity, 6.93, compared with 5.04 for Intricacy.

Factor III sports photographs received an overall mean ranking of 6.20. Four out of five of the pictures comprising the cluster contain the Intricacy element rejected by both Type I and Type II editors. It will be recalled that the grand mean rankings for Intricacy by both editor types was 5.11 compared with 6.675 for Simplicity. Four of the five Factor III pictures also contained the Oddity element, which Type II editors tended to prefer to a greater extent than did Type I editors, and the Stasis element, which Type I editors tended to prefer.

The general news photo R-analysis also yielded three factors or clusters of photographs that held similar interest levels for the editors. The three factors are listed in Table XVIII. Each of the three factors are approximately equal, each explaining some one-third of variance in the photographic "ordering" of the editor's picture choices.

Factor I pictures had an overall mean ranking of 6.7 by the editors. Of the 10 general news pictures that make up Factor I, all 10 contain the Action element and seven, the Unknown Principal(s)

TABLE XVIII
GENERAL NEWS PHOTOGRAPH R-FACTORS

Photo No.	Photo Elements	Description	Mean Ranking	Grand Mean
<u>FACTOR I</u> (Variance = 11.01, Percent = 33.28)				
2	KAII	President Ford	7.00	
7	KAOI	Santiago Martin	3.83	
9	KAOI	Burleson (D.-Mo.)	6.50	
25	UAII	Sidewalk Artists	4.50	
27	UAII	Country Music	4.50	6.70
29	UAIS	Displaced Person	10.50	
30	UAIS	Bumper Car Ride	9.17	
31	UAOS	Wooden Leg	8.83	
32	UAOS	Fire Hydrant	5.67	
39	UAOI	Chess Players	6.50	
<u>FACTOR II</u> (Variance = 11.32, Percent = 34.22)				
3	KAII	Princess Anne	3.83	
5	KAIS	Ronald Reagan	5.17	
10	KAOS	Zero Motel	6.00	
14	KSIS	Oklahoma Highway Patrol	5.00	
22	KSOI	County United Fund	4.83	5.58
26	UAII	Accident	6.50	
38	UAOI	Bathers	7.50	
41	USOS	Church Sign	7.00	
45	USII	Wedding	5.17	
46	USOI	Fashions 1976	4.83	
<u>FACTOR III</u> (Variance = 10.75, Percent = 32.5)				
4	KAIS	Patty Hearst	7.17	
17	KSII	Miss Americas	6.17	
20	KSOS	Lindsay Waggoner	5.00	
21	KSOS	Raggedy Ann, Andy	4.83	
23	KSOI	Donny, Marie Osmond	5.00	6.22
28	UAIS	Car Wreck	10.17	
34	USIS	Fall Fashions	5.17	
37	UAOI	Truck Crash	8.50	
48	USOI	Ski Suit	4.00	

element. These elements correspond with elements preferred by all editors in general news photographs. It will be recalled that all six editors ranked Action (mean = 6.95) higher than Stasis (mean = 5.21) and Unknown Principal(s) (mean = 6.45) higher than Known Principal(s) (mean = 5.56).

Factor II general news photographs had a lower overall mean ranking, mean = 5.58, than did Factor I photographs. Correspondingly, six of the 10 pictures contained the Intricacy element rejected by all editors. As has been shown, overall the editors in this study gave the Intricacy element a mean probable use ranking of 5.24 compared with 6.75 for Simplicity.

The Factor III cluster of photographs contain both the Stasis and Known Principal(s) elements and has an overall mean ranking of 6.2. Both elements correspond with elements rejected by all editors in the general news photograph Q-sort.

In summary, the R-analysis of photograph rankings yielded three factors or clusters of photographs with underlying similarities or commonalities for each set of pictures used in this study. Each factor represents a tendency for editors who are interested or not interested in one picture to be correspondingly interested or not interested in another.

Examining the common characteristic underlying each sports picture factor loading, certain patterns became evident. Factor I pictures loaded high the Identification and Intricacy elements, both values highly rejected by Type I editors. Factor II pictures loaded high on the Stasis, Oddity and Simplicity elements preferred by

Type I editors. Factor III pictures loaded highest on the Intricacy element rejected by both Type I and II editors.

Examining the general news photograph clusters, the following patterns of agreement could be observed.

(1) Factor I photographs all contained the Action element highly valued by all editors in the general news photo Q-sort.

(2) Factor II photographs loaded highest in the Intricacy element rejected by all editors in the Q-sorts.

(3) Factor III photos contained both Stasis and Known Principal(s) elements rejected by all editors.

ENDNOTES

¹Fred N. Kerlinger, Foundations of Behavioral Research (New York, 1973), p. 659.

²Malcolm S. MacLean, Jr., "Some Multivariate Designs for Communications Research," Journalism Quarterly, Vol. 40, p. 616.

³John Schumaker, George Weinberg, Statistics: An Intuitive Approach (Belmont, Cal., 1962), p. 48.

⁴MacLean, p. 616.

CHAPTER V

DIFFERENCES IN EDITORS' NEWSPHOTO VALUES

To determine the main and interactive effects of the four news-photo dimensions and their elements on different types of editors and for the different types of pictures, three separate factorial analyses of variance were used. Both a Type III analysis of variance with repeated measures on one factor and a simple two-factor treatments-by-subjects analysis were employed. In two analyses the four newsphoto dimensions and the editor types--two types in one instance and a single type in the other--were the independent variables and the editors' probable use of newsphotos represented the dependent variable. In the third analysis, the four newsphoto dimensions and the two types of photographs--sports and general news--were the independent variables and probable use, the dependent variable. These statistical approaches allowed the researcher to determine significant differences among the news elements and in the overall rankings of news elements by types of editors and by photo content types.

As mentioned, the four independent newsphoto value dimensions were divided into two elements each. The COMPLEXITY dimension was divided into Simplicity and Intricacy elements; the PROMINENCE dimension, into Known Principal(s) and Unknown Principal(s) elements; the DYNAMISM dimension, into Action and Stasis elements; and the UNIVERSALITY dimension into Identification and Oddity elements.

The newsphotos were considered as subjects. In other words, there were 16 groups of three pictures in each of two sets of Q-items which were subjected to types of editors (treatments). In two of the analyses reported in this chapter, the four variables were treated like four classifications of people who responded to all "editor-type" treatments. Two of these editor types were extracted by linkage and factor analysis for the sports photographs and a single editor type for the general news pictures. In the third analysis reported herein, the sports and general news photographs were the treatments.

In the first, or sports analysis, types of editors were included and a 2 x 2 x 2 x 2 x 2 design was employed: EDITOR TYPES X COMPLEXITY X PROMINENCE X DYNAMISM X UNIVERSALITY. This design enabled the researcher to determine statistically significant interactions and differences in mean probable use of newsphoto elements due to the influence of the four newsphoto value dimensions on editor types.

In the second, or general news analysis, a 2 x 2 x 2 x 2 design was employed: COMPLEXITY X PROMINENCE X DYNAMISM X UNIVERSALITY. This design was used to determine statistically significant differences and interactions among newsphoto dimension elements.

In the third analysis, photograph content types were included and again a 2 x 2 x 2 x 2 x 2 design was employed: CONTENT TYPE X COMPLEXITY X PROMINENCE X DYNAMISM X UNIVERSALITY. This design enabled the researcher to determine statistically significant interactions and differences in mean probable use of the eight newsphoto elements due to the influence of the four value dimensions on content types.

It was hypothesized at the outset of this study that the presence of all four dimensions would make a significant difference in the

editors' probable use of news photographs and that there would be no difference in the probable use given these dimensions over sports and general news content types. As will be shown in this chapter, these hypotheses were validated in part. Only two of the original seven hypotheses framing this research were not supported.

Probable Use of Newsphoto Elements in Sports Photographs

Six multivariate analyses comprised the Type III analysis of variance used in exploring the main and interactive effects of newsphoto elements in sports pictures by editor types. The analyses were:

1. PROMINENCE X ^PDYNAMISM X EDITOR TYPES
2. PROMINENCE X ^NUNIVERSALITY X EDITOR TYPES
3. PROMINENCE X COMPLEXITY X EDITOR TYPES
4. DYNAMISM X COMPLEXITY X EDITOR TYPES
5. DYNAMISM X UNIVERSALITY X EDITOR TYPES
6. UNIVERSALITY X COMPLEXITY X EDITOR TYPES

Thus, it was possible to determine the difference in probable use of Action and Stasis, in the case of analysis 4, as well as between Simplicity and Intricacy and any interactive effects of the DYNAMISM and COMPLEXITY dimensions. Additionally, it was possible to determine main effects between types of editors and news elements and the interactive effects of news elements and types of editors.

The findings of these analyses are reported here in reference to the research questions investigated in this study:

1. Was there a significant difference in the editors' probable use of Action and Stasis elements in sports newsphotos?

The answer is no. Twenty-four--i.e. half--of the sport photographs contained the Action element and 24, the Stasis element (see Figure 8). The mean probable use of the photographs is shown in Table XIX.

TABLE XIX
MEAN PROBABLE USE OF DYNAMISM AND PROMINENCE DIMENSION ELEMENTS
IN SPORTS PHOTOGRAPHS

	PROMINENCE		Mean
	Known Principal(s)	Unknown Principal(s)	
<u>DYNAMISM</u>			
Action	5.97	6.48	6.23
Stasis	5.68	5.80	5.74
Means	5.83	6.14	5.99
			Grand Mean

The mean probable use of photographs containing Action, 6.23, was not significantly different from the mean probable use of sports pictures containing Stasis. A difference this small would occur more than five times in a hundred by chance ($F = 1.04$, $df = 1/44$: $p > .05$). This means the editors tended not to differentiate between sports news photographs with Action and Stasis. To them, these two elements had a similar value.

2. Was there a significant difference in editors' probable use of Known and Unknown Principal(s) elements in sports photographs?

Editor II	Types I												
7.33	4.83	Identification Oddity	Action	Known Principal(s)									
7.42	5.67												
4.50	5.00	Identification Oddity	Stasis	Unknown Principal(s)									
6.33	8.00												
6.75	6.50	Identification Oddity	Action	Unknown Principal(s)									
9.17	8.83												
5.33	8.83	Identification Oddity	Stasis	Known Principal(s)									
5.25	8.00												
5.08	3.50	Identification Oddity	Action	Known Principal(s)									
7.92	6.00												
3.75	6.33	Identification Oddity	Stasis	Unknown Principal(s)									
5.17	6.33												
4.58	3.50	Identification Oddity	Action	Unknown Principal(s)									
6.00	5.50												
4.75	3.50	Identification Oddity	Stasis	Unknown Principal(s)									
5.08	5.67												

Figure 8. Mean Probable Use of Newsphoto Elements by Editor Types for Sports News Photographs

Again the answer is no. As is shown in Table XIX, the mean probable use of photographs containing the Known Principal(s) element was 5.83 compared with 6.14 for Unknown Principal(s). This does not represent a statistically significant difference ($F = .45$, $df = 1/44$: $p > .05$).

3. Did the combination of DYNAMISM and PROMINENCE newsphoto dimensions have more or less effect on the editors' probable use of sports pictures?

The question refers to the interactive effects of the DYNAMISM and PROMINENCE dimensions. Analysis of variance of the means in Table XIX revealed no significant interaction ($F = .17$, $df = 1/44$: $p > .05$). The mean use scores of the four combinations of DYNAMISM and PROMINENCE elements were not different enough from the grand mean of 5.99 to exceed chance expectation.

These results imply that editors' use of PROMINENCE and DYNAMISM were independent of each other. A sports picture containing Action, for example, received the "same" probable use regardless of whether Known or Unknown Principal(s) were involved.

4. Was there a significant difference in editor types in giving "play" to PROMINENCE and DYNAMISM dimensions in sports photographs?

This question refers to second order effects. Two types of editors were extracted through linkage analysis of correlated rankings by editors for the 48 sports photographs used in this study. The editor types tended to evaluate the sports pictures differently although, it will be recalled, this difference was relatively weak.

Analysis of variance tests on the mean rankings by editor types for PROMINENCE and DYNAMISM elements by EDITOR TYPES revealed no

significant differences in probable use of these dimensions by Types of editors. Table XX shows the mean probable use of PROMINENCE and DYNAMISM elements by EDITOR TYPES.

The obtained F-ratio of .80 for PROMINENCE and EDITOR TYPES was not significant ($F = .80, df = 1/44: p > .05$); however, there was a significant interaction effect when DYNAMISM was combined with EDITOR TYPES. Table XX suggests that Type I editors tended to "play" sports photographs with Stasis higher than did the Type II editors, who, conversely, tended to give greater probable use to the Action element. While these differences confirm earlier discussion, they are, overall, not statistically significant.

TABLE XX
MEAN PROBABLE USE OF DYNAMISM AND PROMINENCE
DIMENSION ELEMENTS BY EDITOR TYPES

	<u>EDITOR TYPES</u>		
	Type I	Type II	Means
<u>PROMINENCE</u>			
Known Principal(s)	5.71	5.94	5.83
Unknown Principal(s)	6.29	5.95	6.12
Means	6.00	5.95	5.97
			Grand Mean
<u>DYNAMISM</u>			
Action	5.54	6.87	6.21
Stasis	6.46	5.02	5.74
Means	6.00	5.95	5.97
			Grand Mean

5. Was there a significant difference in the editors' probable use of sports news photos with Identification and Oddity elements?

The answer is yes. As Table XXI shows, the mean probable use of sports photographs containing Identification, 6.39, was less than the use of photos with Oddity, 6.64. This difference was statistically significant with and obtained F-ratio of 15.60. A difference this large would occur less than one time in a hundred by chance ($F = 15.60$, $df = 1/44$: $p < .01$). This means the editors tended to rank sports photographs containing Oddity significantly higher than photos with the Identification element.

These findings were confirmed by editors' comments on selection of pictures with the UNIVERSALITY dimension. The Identification content of a picture of a youthful fisherman posed with his trophy fish elicited such responses as "People (readers) love to see pictures like this, but they are dull, dull, dull!" Another editor said of the same photograph, "It lacks interest; it's flat." Other editors gave as a reason for selecting the Oddity content of the Ski Clothes and the Tackle pictures the simple, "It's unusual," or "It makes me want to see what happens next."

6. Was there a significant difference in the editors' probable use of sports newsphotos with Simplicity and Intricacy elements?

The larger mean probable use of Simplicity, 6.74, over Intricacy, 6.30, in Table XXII is statistically significant. The editors preferred the sports news photographs with the Simplicity element over pictures with Intricacy beyond chance expectations ($F = 20.399$, $df = 1/44$: $p < .01$).

TABLE XXI
 MEAN PROBABLE USE OF UNIVERSALITY AND COMPLEXITY
 NEWSPHOTO ELEMENTS IN SPORTS PICTURES

	<u>COMPLEXITY</u>		Means
	Intricacy	Simplicity	
UNIVERSALITY			
Identification	6.64	6.15	6.39
Oddity	5.96	7.33	6.64
Means	6.30	6.74	6.52 Grand Mean

These findings correspond with comments made by editors during the selection process. Photographs that loaded high on Intricacy were said by one editor to have "missed impact" and by another to resemble "globs." The intricate Dog Skiing photograph elicited the response, "It is not clear; it makes no sense by itself." Pictures that contained the Simplicity element were generally considered by the editors to be "good" pictures or photos with "impact."

7. Did the combination of UNIVERSALITY and COMPLEXITY newsphoto elements have more or less effect on the editors' probable use of sports pictures than did either of the elements alone?

The answer is no. As Table XXII shows, the obtained F-ratio of .338 for the UNIVERSALITY and COMPLEXITY interaction indicated no significant difference in probable use ($F = .338, df = 1/44; p > .05$). This means the four combinations of UNIVERSALITY and COMPLEXITY elements were not significantly different from the grand mean of 6.52 to

TABLE XXII
 MEAN PROBABLE USE OF COMPLEXITY AND INTRICACY
 NEWSPHOTO ELEMENTS BY EDITOR TYPES
 IN SPORTS PHOTOGRAPHS

	<u>EDITOR TYPES</u>		Means
	Type I	Type II	
<u>UNIVERSALITY</u>			
Identification	5.25	7.55	6.40
Oddity	6.75	6.54	6.64
Means	6.00	7.04	6.52 Grand Mean
<u>COMPLEXITY</u>			
Intricacy	5.04	7.56	6.30
Simplicity	6.95	6.53	6.74
Means	5.99	7.04	6.52 Grand Mean

have occurred beyond chance expectations. This implies that effects of UNIVERSALITY and COMPLEXITY elements on editors' probable use of sports photographs were independent of each other; i.e., a picture with Oddity, for example, would not be played higher or lower if the picture also contained Simplicity or Intricacy.

8. Was there a significant difference in editor types in giving play to COMPLEXITY and UNIVERSALITY elements in sports photographs?

Overall, the Type I editors tended to evaluate the sports picture elements of UNIVERSALITY and COMPLEXITY similarly. The obtained F-ratio of .94 for EDITOR TYPES was not significant

($F = .94$, $df = 1/44$: $p > .05$). Moreover, the interaction ratio for EDITOR TYPES and the UNIVERSALITY dimension was not significant ($F = 1.72$, $df = 1/44$: $p > .05$). This means the differences in probable use of Identification and Oddity elements by editor types did not exceed chance expectation. However, the interaction between COMPLEXITY and EDITOR TYPES was significant ($F = 13.75$, $df = 1/44$: $p < .01$). While both types of editors overall tended to prefer Simplicity to Intricacy in sports photographs, Type II editors preferred the Intricacy element to a greater extent than did the Type I editors.

This greater higher probable use for Intricacy in sports pictures may have resulted from the editors' pre-conditioned expectations that complex shots make "good" sports pictures. This was reflected in the comments by editors during the sorting process. The intricate NHL Hockey Game picture, for example, was termed "typical" and "expected" and consequently "good" by at least two of the editors.

9. Were there any other significant third order interactions?

Yes, there was one. The combination of PROMINENCE and COMPLEXITY dimension elements did affect the editors' probable use of sports pictures. While there were no significant differences in the "play" given sports photos containing PROMINENCE elements, there was a significant difference, as has been shown, in the play given the COMPLEXITY elements. The mean probable use of pictures containing Simplicity, 6.74, was significantly greater than the mean probable use of Intricacy, 6.30. However, when PROMINENCE was combined with COMPLEXITY, there was significant interaction with an obtained F-ratio of 10.85 ($F = 10.848$, $df = 1/44$: $p < .01$). When the Unknown

Principal(s) element was present, the Simplicity element received greater probable use. Conversely, when the Known Principal(s) element was present, the difference in preferences for Simplicity over Intricacy diminished. It would appear that the presence of identifiable principals in sports pictures reduced the need for simplicity and ease of comprehensibility in photographs.

None of the remaining possible combinations--DYNAMISM and COMPLEXITY, DYNAMISM and UNIVERSALITY, and PROMINENCE and UNIVERSALITY--had an effect on the editors' probable use of sports pictures. All three interactions were insignificant. The obtained F-ratio of .769 for DYNAMISM X COMPLEXITY, of .741 for DYNAMISM X UNIVERSALITY, and of .246 for PROMINENCE X COMPLEXITY were all within chance expectations.

In summary, the variance analyses of dimension elements in sports photographs showed that the presence of UNIVERSALITY and COMPLEXITY in pictures had a significant effect on the editors' probable use of sports news photographs. Editors showed a preference for Simplicity and Oddity elements in probable use of sports pictures. Moreover, when sports pictures contained Unknown Principal(s) elements there was a corresponding increase in preference for Simplicity elements. While editors tended to respond similarly to all sports photograph elements, the two types of editors, extracted through linkage and factor analysis, differed primarily in their probable use of the Action element. Type I editors tended to prefer the Stasis element while Type II editors tended to prefer the Action element.

Probable Use of News Picture Values
in General News Photographs

A two-factor analysis of variance with repeated measures on one factor was used to explore the main and interactive effects of news-photo values in general news pictures for the six editors who participated in this study. Six multivariate analyses comprised the design:

1. PROMINENCE X DYNAMISM
2. PROMINENCE X UNIVERSALITY
3. PROMINENCE X COMPLEXITY
4. DYNAMISM X COMPLEXITY
5. DYNAMISM X UNIVERSALITY
6. UNIVERSALITY X COMPLEXITY

Again, the results of these analyses are reported in reference to the research questions investigated in this study. Mean probable use for each newsphoto element is reported in Figure 9, page 98.

1. Was there a significant difference in the probable use of Action and Stasis elements in general newsphotos?

The answer is yes. As shown in Table XXIII, the mean probable use of the Action element, 6.79, is significantly greater than the mean probable use of the Stasis element, 5.22. A difference this great would occur by chance less than one time in a hundred ($F = 12.74$, $df = 1/44$: $p < .01$). Editors tended to differentiate between general news pictures with Action and Stasis, giving highest mean ratings to the Action element. This stands in contrast to the way editors "played" the elements in sports pictures. It will be recalled that the mean differences in the DYNAMISM elements' ratings were statistically insignificant in probable use of sports pictures.

COMPLEXITY

Simplicity

Intricacy

PROMINENCE

Known Principal(s)

Unknown Principal(s)

Known Principal(s)

Unknown Principal(s)

DYNAMISM

Action

Stasis

Action

Stasis

Action

Stasis

Action

Stasis

UNIVERSALITY

Identification
Oddity

6.61

Identification
Oddity

5.28

Identification
Oddity

5.39

Identification
Oddity

5.17

Identification
Oddity

4.78

Identification
Oddity

5.39

Identification
Oddity

4.56

Identification
Oddity

4.78

Identification
Oddity

5.17

7.50

4.84

4.89

Figure 9. Mean Probable Use of Newsphoto Elements by Editors for General News Photographs

This preference for Action was evidenced during the sorting process and by editors' comments. The Action picture of a small boy peering intently into a beach bath house elicited such responses as "It tells a story all by itself," "Every emotion is apparent," and "Good action." The Stasis element in pictures drew such general comments as "It has no interest" and "It does not attract attention."

TABLE XXIII

MEAN PROBABLE USE OF DYNAMISM AND PROMINENCE
DIMENSION ELEMENTS IN GENERAL
NEWS PHOTOGRAPHS

	<u>PROMINENCE</u>		Mean
	Known Principal(s)	Unknown Principal(s)	
<u>DYNAMISM</u>			
Action	6.11	7.46	6.79
Stasis	5.00	5.43	5.22
Mean	5.56	6.45	6.00
			Grand Mean

2. Was there a significant difference in editors' probable use of Known and Unknown Principal(s) elements in general news photographs?

Again the answer is yes. As shown in Table XXIII, the mean probable use for Unknown Principal(s), 6.45, was greater than the mean probable use for Known Principal(s), 5.56. This difference is significant at the .05 level; that is, the difference could be expected to occur less than five times in a hundred by chance ($F = 4.10$, $df = 1/44$: $p < .05$). This stands in contrast with the way editors "played" the

PROMINENCE elements in sports pictures. As has been noted, the mean differences in the PROMINENCE elements in sports pictures were statistically insignificant.

3. Did the combination of PROMINENCE and DYNAMISM elements have more or less effect on the editors' probable use of general news pictures?

The interaction of the PROMINENCE and DYNAMISM elements was insignificant. The low interaction F-ratio of 1.09 ($F = 1.09$, $df = 1/44$: $p > .05$) indicates the editors' use of PROMINENCE and DYNAMISM were independent of each other. A picture containing Action, for example, would not have been evaluated differently by editors had the picture contained Known or Unknown Principal(s). This parallels the "play" given Action and Stasis and Known and Unknown Principal(s) in sports pictures. It will be recalled that interactive effects of these two dimensions also were insignificant in sports pictures.

4. Was there a significant difference in editors' probable use of Identification and Oddity?

The mean probable use of photographs containing Identification, 5.79, was not significantly different from the mean probable use of general news pictures containing Oddity. Indeed, a difference this small would occur more than five times in a hundred by chance ($F = .80$, $df = 1/44$: $p > .05$). This implies that editors did not distinguish between the Oddity and Identification elements. This appears to be in marked contrast with the editors' probable use of those elements in sports pictures. It will be recalled that editors'

preference for Oddity elements in sports photos over the Identification element was statistically significant.

5. Was there a significant difference in editors' probable use of general news pictures with Intricacy and Simplicity elements?

The answer is yes. As Table XXIV shows, the mean probable use of general news pictures containing Simplicity, 6.48, was greater than the mean probable use of photos with Intricacy, 5.24. The 1.24 difference in means was statistically significant ($F = 10.95$, $df = 1/44$: $p < .01$). These findings correspond with the editors' use of those elements in sports photographs.

TABLE XXIV
MEAN PROBABLE USE OF UNIVERSALITY AND COMPLEXITY
DIMENSION ELEMENTS IN GENERAL
NEWS PICTURES

	<u>COMPLEXITY</u>		Mean
	Intricacy	Simplicity	
<u>UNIVERSALITY</u>			
Identification	4.83	6.75	5.79
Oddity	5.64	6.21	5.93
Mean	5.24	6.48	5.86
			Grand Mean

The preference for Simplicity was evidenced in the editors' remarks during the sorting process. The Intricate picture of Sidewalk Artists, caused one editor to comment, "It is uninteresting. There is no focal point of interest." Another commented, "You can't see

the people--you can't make out the content." In general, the Simplicity-loaded pictures were termed "good" by the editors, or at least "interesting."

6. Did the combination of COMPLEXITY and UNIVERSALITY dimension elements have more or less effect on the editors' probable use of general news photos?

The answer is no. The obtained F-ratio of .32 for the COMPLEXITY and UNIVERSALITY interaction indicates no statistical significance. This means the four combinations of elements were not significantly different from the grand mean of 5.86 ($F = .32$, $df = 1/44$: $p > .05$). The effects of COMPLEXITY and UNIVERSALITY were independent, a finding which corresponds with the independence of the same elements in editors' probable use of the same dimensions in sports photographs.

7. Did the combination of UNIVERSALITY and PROMINENCE dimension elements have more or less effect on the editors' probable use of general news photos?

There is no significant interaction among the Identification-Oddity, Known-Unknown Principal(s) elements. The obtained interaction F-ratio of .03 was negligible, i.e., not beyond chance expectation ($F = .03$, $df = 1/44$: $p > .05$).

8. Did the combination of PROMINENCE and COMPLEXITY dimension elements have more or less effect on the editors' probable use of general news photos?

There was no significant interaction in the four PROMINENCE-COMPLEXITY elements. The obtained interaction F-ratio of .14 was not beyond chance expectation ($F = .14$, $df = 1/44$: $p > .05$).

9. Did the combination of DYNAMISM and COMPLEXITY dimension elements have more or less effect on the editors' probable use of general news photos?

Again the answer is no. The obtained F-ratio of 2.54 was insignificant ($F = 2.54, df = 1/44: p > .05$). While the editors tended to prefer Action over Stasis and Simplicity over Intricacy to a significant degree, the editors' probable use preferences were independent of one another.

10. Did the combination of DYNAMISM and UNIVERSALITY dimension elements have more or less effect on the editors' probable use of general newsphotos?

Again there was no significant interaction among the four dimension elements. The obtained F-ratio of .05 was not beyond chance expectations ($F = .05, df = 1/44: p > .05$). While editors tended to prefer Action over Stasis, they regarded the Identification and Oddity elements similarly. Moreover, the play of Action and Stasis elements did not depend on the Identification and Oddity elements.

In summary, the variance analyses of dimension elements for general news photographs showed that the presence of COMPLEXITY, DYNAMISM, and PROMINENCE in pictures had a significant differential effect on the editors' probable use of general news photographs. Moreover, the editors tended to regard all elements independently of one another--i.e., the probable use of the preferred elements did not depend on the presence of any other element.

Probable Use of Newsphoto Values in General News and Sports Photographs

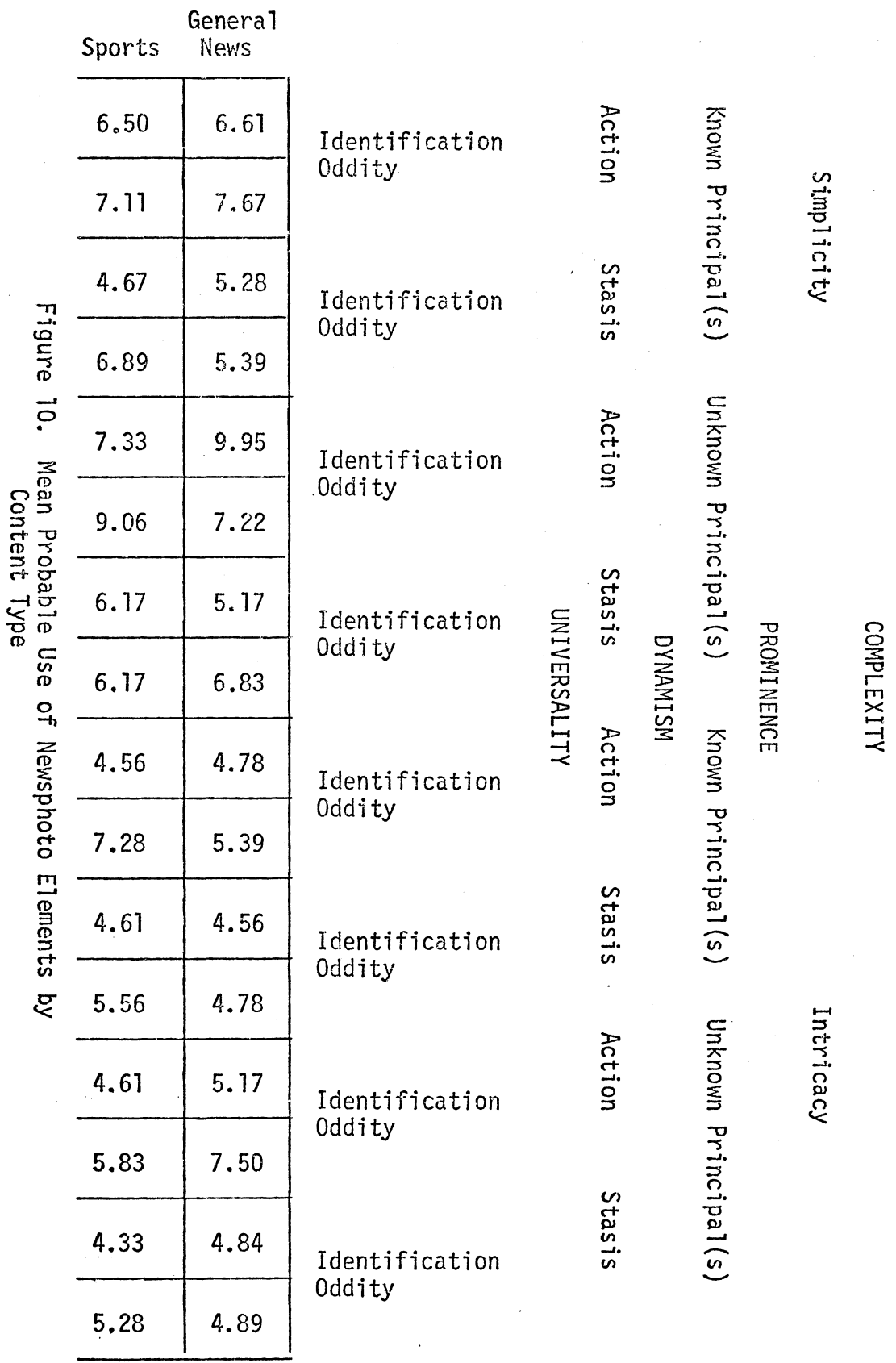
In order to determine statistically significant differences in the probable use of newsphoto values for the two photograph content types used in this study--sports and general news--a Type III analysis of variance was used. This approach also allowed the researcher to examine the interactive relationships of the four newsphoto dimensions for the different photo content types. Six multivariate analyses were examined:

1. PROMINENCE X DYNAMISM X CONTENT TYPE
2. PROMINENCE X UNIVERSALITY X CONTENT TYPE
3. PROMINENCE X COMPLEXITY X CONTENT TYPE
4. DYNAMISM X COMPLEXITY X CONTENT TYPE
5. DYNAMISM X UNIVERSALITY X CONTENT TYPE
6. UNIVERSALITY X COMPLEXITY X CONTENT TYPE

Differences in Newsphoto Elements

An examination of between subjects variance allowed the researcher to determine statistically significant differences in mean probable use of news photo elements (see Figure 10). Additionally, the dependency of one news element or its combination with one or more of the other news elements and the effect of this interaction on probable use could be determined.

Regardless of newsphoto content type, the probable use patterns of newsphoto elements did not differ markedly from the previously reported findings. The newsphoto dimension mean probable uses, shown



in Figure 10, which were statistically significant were DYNAMISM, UNIVERSALITY, and COMPLEXITY.

The obtained F-ratio for DYNAMISM, 12.12, was statistically significant at the .01 level ($F = 12.12$, $df = 1/44$: $p < .01$). All editors tended to prefer the Action element to the Stasis element. The obtained F-ratio for UNIVERSALITY was 5.99, significant at the .05 level ($F = 5.99$, $df = 1/44$: $p < .05$). All editors tended to prefer the Oddity element over the Identification element beyond chance expectation; however, at the .05 probability level, this was the weakest of the significant relationships. The obtained F-ratio for COMPLEXITY, 19.93, was significant at the .01 level ($F = 19.93$, $df = 1/44$: $p < .01$). All editors tended to "play" the Simplicity element higher than the Intricacy element. The PROMINENCE dimension elements were perceived similarly--i.e., Known and Unknown Principal(s) elements did not differ to a statistically significant degree. However, it should be pointed out, there was a tendency to "play" Unknown Principal(s) higher than Known Principal(s) (see Table XXV).

All newsphoto elements functioned independently. There were no statistically significant first order interactions in any of the six analyses. This implies that the probable use of Action, for example, did not depend on the presence of Identification, Oddity, Simplicity or Intricacy.

Interaction: Content Types
and News Elements

As mentioned previously, two separate newsphoto content types were used to frame the separate Q-sorts used in this study: sports

TABLE XXV
 MEAN PROBABLE USE OF DYNAMISM AND COMPLEXITY
 NEWSPHOTO DIMENSION ELEMENTS IN BOTH
 SPORTS AND GENERAL USE PHOTOGRAPHS

	<u>PROMINENCE</u>		Mean
	Known Principal(s)	Unknown Principal(s)	
<u>COMPLEXITY</u>			
Intricacy	5.19	5.31	5.25
Simplicity	6.26	7.28	6.77
Mean	5.73	6.30	6.01 Grand Mean

and general news. An examination of the second and third order interactions, or within effects derived through analysis of variance, indicated whether or not the probable use of newsphoto values depended on content type.

Were there differences in probable use of newsphoto elements by content type? The answer is no, at least none that were beyond chance expectations. All second order interactions determined through Type III analysis of variance were insignificant--that is, they would have occurred more than five times in a hundred by chance alone. It would appear, then, that differences in probable use of newsphoto elements were independent of newsphoto subject/content.

One exception to this general conclusion was the significant ($F = 5.15$, $df = 1/44$: $p < .01$) third order interaction graphed in Figure 11. The graph shows that when the Action and Stasis elements were present, Simplicity was given greater probable use than Intricacy

in both sports and general news pictures. However, when photographs contained the Stasis element, there was a greater tendency for the Intricacy element to be "played" in sports photographs. Thus a greater tolerance for Intricacy in sports photographs is indicated for all editors.

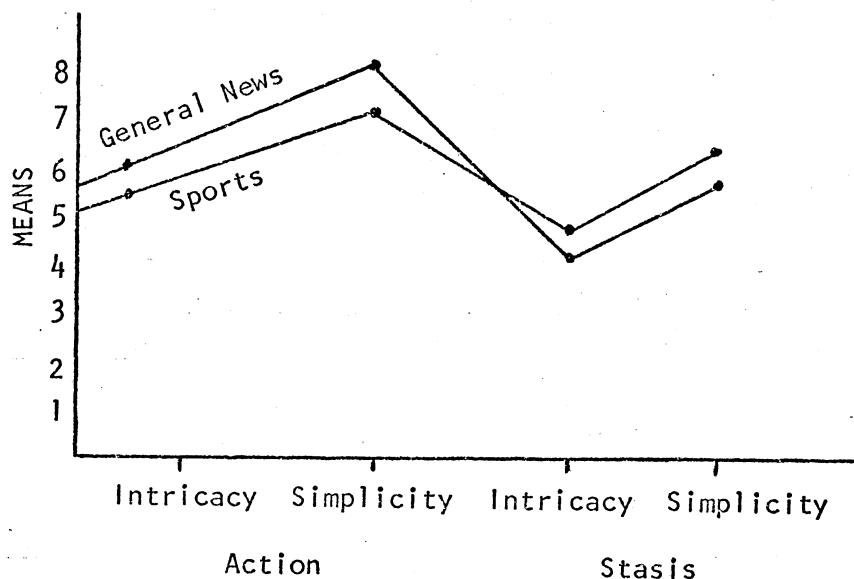


Figure 11. Interaction of DYNAMISM, COMPLEXITY and CONTENT TYPE for Sports and General News Photographs

In summary, one of the major hypotheses underlying this research was that there would be no difference in the probable use of newsphoto dimension values across picture subject content. This hypothesis was validated by the Type III analysis of variance of the probable use of newsphoto values for general news and sports photograph results. There were no statistically significant differences in probable use of newsphoto values between sports and general news picture content. Editors showed preference for Action over Stasis, Simplicity over Intricacy and Oddity over Identification by giving "play" to those

elements. They did not, however, differentiate between the Known and Unknown Principal(s) elements although there was a tendency to rank Unknown Principal(s) higher than Known Principal(s). All elements were seen independently, and probable use of one element did not depend on the presence of any other element or on the subject content, with the exception of a tendency for editors to give Stasis a slightly higher ranking in sports photographs than in general news photographs.

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This study was an attempt to further understand the "nature of news" in photographs. Toward this end, the study attempted, first, to develop a conceptual framework of basic newsphoto dimensions which might serve to identify basic values underlying editorial selection of general news and sports pictures for publication and, secondly, to investigate the judgment-selection process of six editors in light of this framework.

A four-dimensional newsphoto value model was structured with 16 possible combinations of newsphoto elements. Three newsphotos representing each combination of elements were selected for two different types of newsphoto content, sports and general news. In all, 96 photographs were chosen and used to frame two Q-sorts with 48 pictures each.

To determine the probable use hierarchy of newsphoto element combinations in the pictures, six Oklahoma editors were selected to Q-sort the two sets of pictures along an 11-point continuum ranging from "Most Probable Use" to "Least Probable Use."

The independent variables were the four newsphoto dimensions with two elements for each dimension. The dependent variable was the probable use assigned these elements by the six participating editors.

The independent variable dimensions and their elements were:

- A. PROMINENCE
 - a₁. Known Principal(s)
 - a₂. Unknown Principal(s)
- B. DYNAMISM
 - b₁. Action
 - b₂. Stasis
- C. UNIVERSALITY
 - c₁. Identification
 - c₂. Oddity
- D. COMPLEXITY
 - d₁. Simplicity
 - d₂. Intricacy

Summary

With the newsphoto value dimensions drafted, the objective of the study was to explore similarities and differences in editors' probable use of combinations of those newsphoto values as represented in two sets of news pictures, sports and general news. The methodology was based on MacLean's exploratory newsphoto Q-sorts¹ and Ward's study of news story elements.²

In Chapter IV, similarities in news values of six editors were discussed. Correlations determined overall agreements among editors and linkage-factor analysis of those correlations was used to determine types of editors and to explain subsequently variance in mean probable use of newsphotos where differences existed. For sports photographs, two types of editors were extracted: Type I Stasis-oriented editors

editors and Type II Action-oriented editors. There was high correlation in probable use of general news pictures, but linkage analysis yielded no differences in mean probable use by different editor types.

The overall mean probable use of newsphoto elements for sports photographs showed Simplicity highest with a mean of 6.675; followed by Oddity, 6.64; Stasis, 6.46; Action, 6.22; and Unknown Principal(s), 6.13 (see Table VII).

Type I "Stasis" editors ranked Stasis highest, 7.14; followed by Simplicity, 6.93; Oddity, 6.75; and Unknown Principal(s), 6.28. The Type II "Action" editors ranked the Action element highest, 6.90; followed by Oddity, 6.53; Simplicity, 6.42; and Unknown Principal(s), 5.99.

The primary difference between the two editor types in mean probable use of newsphoto elements for sports pictures was in mean probable use of elements within the DYNAMISM dimension and in the rank-order of COMPLEXITY and UNIVERSALITY elements. However, the overall agreement of the editors was relatively high as indicated by the correlations, indicating a tendency for editors to think alike in terms of probable use of different newsphoto elements for sports photographs. Similar z-scores were given 29 of the 48 sports pictures, further indicating a tendency toward similarity in probable use of news elements by both editor types.

The overall mean probable use of newsphoto elements for general news pictures showed Action to be highest with 6.95; followed by Simplicity, 6.75; Unknown Principal(s), 6.45; and Oddity, 6.19. There was a high level of agreement by all editors on these rankings as evidenced by the high correlations. Moreover, these rankings were

similar to the rankings given newsphoto elements in sports photographs with the exception of the overall preference for the Stasis element over Action in sports pictures. For both sets of pictures, editors overall showed a preference for Simplicity, Unknown Principal(s), and Oddity, although the relative rank order of elements differed from picture type to picture type. Table XXVI gives the comparative rank orderings of news elements by content types.

TABLE XXVI
COMPARATIVE RANKINGS OF NEWSPHOTO ELEMENTS
BY CONTENT TYPES

<u>ELEMENT</u>	<u>PHOTO CONTENT</u>			
	<u>Sports</u> Rank Order	Mean	<u>General News</u> Rank Order	Mean
Simplicity	1	6.675	2	6.75
Oddity	2	6.64	4	6.19
Stasis	3	6.46	5	5.21
Action	4	6.22	1	6.95
Unknown Principal(s)	5	6.12	3	6.45

In addition, an R-analysis of photographs was conducted to determine clusters, or factors, of pictures which were perceived as similar by editors. Each factor represented a tendency for editors who were interested or not interested in one picture to be correspondingly interested or not interested in another.

Through linkage-factor analysis, the sports photos yielded three factors. Factor I contained pictures which loaded high on Intricacy and Identification elements, both of which were rejected by Type II editors. Factor II was comprised of pictures which loaded high on the Stasis, Oddity and Simplicity elements preferred by Type I editors. Type III contained the Intricacy elements rejected by all editors in terms of probable use.

R-analysis of general news pictures also yielded three clusters or types of pictures. Type I pictures loaded high on the Action element, which was given greatest probable use by all editors. Type II pictures contained the Intricacy element rejected by all editors. Type III pictures contained the Stasis and Known Principal(s) elements also rejected by all editors. One editor characterized this rejection of Type III pictures during the sort by saying, "Nobody doing something makes a better picture than somebody doing nothin'."

Looking at the different news elements from the standpoint of "differences that make a difference" in editors' probable use of sports newsphotos, the news elements of DYNAMISM, PROMINENCE, COMPLEXITY, and UNIVERSALITY were examined. Analysis of variance indicated that, in sports pictures, the newsphoto elements of UNIVERSALITY and COMPLEXITY showed a significant differential effect on the editors' judgment of sports pictures at the .01 level.

The analysis in Chapter V demonstrated that editors showed a significant preference in each case for sports pictures containing Simplicity and Oddity elements over pictures which did not contain these elements. This tendency indicated that probable use was

affected by the presence of four news elements: Simplicity, Intricacy, Oddity and Identification.

It is interesting to note that the MacLean-Kao study eventually dropped Complexity-Simplicity and Clarity-Obscurity variables from consideration because subjects could not distinguish among them.³ The present findings indicate that this failure may have been due to a lack of mutual exclusivity of the defined elements, i.e., the elements may have been variations of the same value. This researcher's Intricacy-Complexity elements take both MacLean-Kao's Complexity-Simplicity and Clarity-Obscurity elements into account, redefining them in mutually exclusive terms, thus reducing confusion. And the results of this study indicated that the COMPLEXITY dimension is indeed highly insignificant.

The newsphoto elements of the DYNAMISM and PROMINENCE dimensions did not draw enough variation among editors' judgments to be statistically significant. However, when PROMINENCE elements were combined with COMPLEXITY elements, there was an increased preference for Simplicity when sports pictures also contained Unknown Principal(s). And while the Action and Stasis elements did not show significantly different probable use, there was interaction between DYNAMISM and EDITOR TYPES. Type I editors tended to give greater probable use to Stasis while Type II editors "played" the Action element, affirming the results of the previously reported factor analysis of sports picture probable use.

The preference of one group of editors for Stasis in sports pictures bears further examination. The general tendency of sports pictures to incorporate the non-action "record" shot--pictures of

winners with their trophies or medals, of the fisherman with his catch, of members of a team, etc.--as de rigueur photographic content may account for this tendency.

In regard to the probable use hierarchy of the combinations of newsphoto elements for sports Pictures, Table XXVII reveals that editors tended to place highest probable use on sports pictures with Unknown Principal(s), Action, Oddity and Simplicity. Lowest probable use was placed on pictures with the Identification-Intricacy combination which appears in the bottom four rankings.

TABLE XXVII
HIERARCHY OF NEWSPHOTO ELEMENTS
IN SPORTS PHOTOGRAPHS

Rank	Newsphoto Element	Mean Probable Use	Rank	Newsphoto Element	Mean Probable Use
1	UAOS	9.06	9	UAOI	5.83
2	UAIS	7.33	10	KSOI	5.56
3	KAOI	7.28	11	USOI	5.28
4	KAOS	7.11	12	KSIS	4.67
5	KSOS	6.89	13.5	KSII	4.61
6.5	USIS	6.50	13.5	UAII	4.61
6.5	KAIS	6.50	15	KAII	4.56
8	USOS	6.17	16	USII	4.33

Again looking at "differences that make a difference," the news elements of the four newsphoto dimensions for general news photos were

examined. Analysis of variance indicated that, in general news pictures, the newsphoto elements of COMPLEXITY, DYNAMISM, and PROMINENCE had a significant differential effect on the editors' probable use of general news pictures.

Analysis in Chapter V showed that, as far as general news pictures were involved, editors showed a significant preference for pictures with Simplicity, Action, and Unknown Principal(s) over pictures that did not contain these elements. Moreover, all elements were independent of one another--i.e., the probable use of the preferred elements did not depend on the presence of any other element.

These findings differ somewhat from the findings concerning probable use of newsphoto elements in sports pictures. In sports pictures, UNIVERSALITY was a significant newsphoto dimension while in general news pictures, DYNAMISM and PROMINENCE were significant dimensions. The only dimension shared by both sports and general news pictures was COMPLEXITY.

The preference for Unknown Principal(s) in general news pictures stands at odds with the findings of similar studies regarding news values in news stories.⁴ However, a similar finding was reported when news values in television news were explored.⁵ Although the finding bears further exploration and study, it may be related to the immediacy of visual communication. In written communication, the printed word stands as a barrier between the receiver and communicator since words are symbols bearing no resemblance to the things they represent and must be translated in order for the receiver to "see" the event/person/thing involved. Photographs and television visuals are much more direct. Assuming Simplicity, pictures do not require

as much interpretative effort since pictorial symbols closely resemble the things they stand for. The Known Principal(s) element, then, may add an extra dimension--another clue--to interpreting written symbols while the immediacy of pictorial symbols may actually lessen the need for such "clueing."

In regard to the probable use hierarchy of the 16 combinations of newsphoto elements for general news pictures, Table XVIII shows that editors tended to place highest probable use on general news pictures with Unknown Principal(s), Action, Simplicity, and Oddity elements, all of which occurred in four of the five top ranked pictures. Lowest probable use was placed on pictures with the

TABLE XVIII
HIERARCHY OF NEWSPHOTO ELEMENTS
IN GENERAL NEWS PICTURES

Rank	Newsphoto Element	Mean Probable Use	Rank	Newsphoto Element	Mean Probable Use
1	UAIS	9.95	9	KSIS	5.28
2	KAOS	7.67	10.5	UAII	5.17
3	UAOI	7.50	10.5	USII	5.17
4	UAOS	7.22	12	USOI	4.89
5	USOS	6.83	13	USII	4.84
6	KAIS	6.61	14.5	KAII	4.78
7.5	KSOS	5.39	14.5	KSOI	4.78
7.5	KAOI	5.39	16	KSII	4.56

Identification-Intricacy combination which occurred in three of the four lowest ranked pictures.

In order to determine actual statistically significant differences in the probable use of newsphoto values dimensions between the two photograph content types used in this study, overall mean probable use rankings for each type were analyzed utilizing Type III analysis of variance. Analysis of variance results indicated the newsphoto elements of DYNAMISM, COMPLEXITY, and UNIVERSALITY showed significant differential effects on the editors' judgment of newsphotos.

Analysis in Chapter V demonstrated that editors showed an overall significant preference for pictures containing Action, Simplicity and Oddity elements over pictures which did not contain these elements. The PROMINENCE newsphoto dimension over the two content types did not show enough variation from editors' judgments for each type to be statistically significant. Moreover, all elements were seen independently, indicating that probable use of one element did not depend on the presence of any other element or on the subject content, with one exception. Although editors generally preferred the Action element to the Stasis element, when sports pictures did contain the Stasis element, there was a tendency for editors to give Intricacy a slightly higher ranking.

Testing the Hypotheses

Hypothesis No. 1

This hypothesis stated that the mean probable use of newsphotos containing Known Principal(s) would be greater than the mean probable

use of newsphotos containing Unknown Principal(s): \bar{X} Known Principal(s) $>$ \bar{X} Unknown Principal(s). This hypothesis was not supported.

The obtained P-ratio for Known and Unknown Principal(s) in sports pictures was insignificant, i.e., not beyond chance expectation. Moreover, the general tendency was for editors to rank Unknown elements higher than Known elements (see Table XX). Conversely, the obtained F-ratio for these same elements in general news pictures was significant at the .05 level. But here, too, the hypothesis was negated. Editors showed a preference for Unknown Principal(s) over Known Principal(s) in general news photos.

When the two types of picture content were subjected to analysis of variance, the F-ratio for Known and Unknown Principal(s) was insignificant. This means that over both content types, the PROMINENCE elements were perceived similarly. However, it should be noted, that there was a tendency for editors to "play" Unknown Principal(s) higher than Known Principal(s) regardless of content type (see Table XXV).

Hypothesis No. 2

This hypothesis stated that the mean probable use of newsphotos containing Oddity would be greater than the mean probable use of pictures containing Identification elements. This hypothesis was supported.

Editors showed a statistically significant ($p < .01$) preference for the Oddity element over Identification in sports photographs. As Table XXI shows, the mean probable use of sports pictures with Identification was 6.39 compared with 6.64 for Oddity. In general news

pictures, the mean probable use of photographs containing Identification was not significantly different from the mean probable use of pictures containing Oddity. However, an examination of the mean rankings of the UNIVERSALITY elements also shows a tendency for editors toward greater preference for the Oddity element in general news pictures.

There was no significant interaction among the elements themselves or among the elements and editor types in either case. This means that all elements operated independently and were not ranked higher or lower in the presence of any other element.

When the two content types were analyzed for significant differences in the "play" given UNIVERSALITY elements, the obtained F-ratio was significant at the .05 level. Over both subject types, editors tended to prefer the Oddity element to the Identification element, thus supporting the hypothesis.

Hypothesis No. 3

This hypothesis stated that the mean probable use of newsphotos containing Action would be greater than the mean probable use of photos containing Stasis. This hypothesis was supported.

Table XXIII shows the mean probable use of Action in general news pictures, 6.79, was higher than the mean probable use of Stasis, 5.22. This difference was significant at the .01 level. All elements functioned independently, indicating the "play" given the DYNAMISM elements did not depend on the presence of any other factor.

On the other hand, the DYNAMISM F-ratio did not appear statistically significant in the case of sports pictures. Although, overall,

Action tended to rank higher than Stasis in sports pictures, the mean probable use of Action over Stasis was not statistically significant ($p > .05$). However, the interaction of EDITOR TYPES and DYNAMISM elements in sports pictures was significant at the .01 level. Type I editors tended to select sports photos with Stasis while Type II editors tended to select pictures with the Action element.

When the DYNAMISM element was examined over both types of content, the F-ratio for DYNAMISM was statistically significant at the .01 level. This means that for both types of picture content, Action was preferred to Stasis to a significant degree, supporting the initial hypothesis.

Hypothesis No. 4

This hypothesis stated that the mean probable use of pictures containing Simplicity would be greater than the mean probable use of pictures containing the Intricacy element. This hypothesis was supported in all three analyses of variance in this study.

In sports pictures the larger mean probable use of Simplicity, 6.74, over Intricacy, 6.3, was statistically significant at the .01 level (see Table XXI). Moreover, the interaction between COMPLEXITY and EDITOR TYPES was significant at the .01 level. While both types of editors preferred Simplicity, Type I editors preferred the Simplicity element to a greater degree than did Type II editors.

This general preference for the Simplicity element was repeated in the findings for general news pictures. As Table XXIV shows, the mean probable use of general news pictures containing Simplicity, 6.48, was significantly greater than the mean probable use of

Intricacy, 5.24 ($p < .01$). The elements functioned independently of one another--i.e., the probable use of Simplicity did not depend on the presence of any other element or factor.

When the differences in Simplicity and Intricacy probable use for both sports and general news content types were compared, it again was confirmed that Simplicity was preferred to Intricacy beyond chance expectation ($p < .01$). However, it also was found that, while Simplicity was given greater probable use than Intricacy in both sports and general news pictures, when sports photographs contained the Stasis element, there was a greater tendency for the Intricacy element to be "played" in sports photographs.

Hypothesis No. 5

This hypothesis stated that for all editors, the mean probable use of Action would be greater than the mean probable use of Oddity, Simplicity, and Known Principal(s). This hypothesis was not supported.

As Table XXVI shows, editors overall showed a preference for Simplicity, Unknown Principal(s), Oddity, and Action--and in the case of sports pictures, for the Stasis element as well--although the relative rank order of the elements differed from picture type to picture type.

While the preference for Action was statistically significant over both content types, the mean probable use of the Action element did not exceed the mean probable use of all other preferred elements. The mean rank orderings for elements over all content types are presented in Table XXIX.

TABLE XXIX
COMPARATIVE RANKINGS OF NEWSPHOTO ELEMENTS
FOR ALL CONTENT TYPES

Element	Rank	Grand Mean
Simplicity	1	6.71
Action	2	6.58
Oddity	3	6.41
Unknown Principal(s)	4	6.212

Hypothesis No. 6

This hypothesis stated that there would be significantly high correlation among the editors on overall probable use of newsphoto elements in the news pictures in the two Q-sorts used in this study. This hypothesis was supported.

As Table XIII shows, all correlations among editors on the probable use of the 48 general news photographs were significant at the .01 level, except two. These 34 significant correlations indicated a high degree of agreement among the editors in probable use of the four newsphoto elements.

Of the 36 correlations among editors on probable use of the newsphoto elements in sports photographs, 31 were significant at the .01 level, again indicating a high level of agreement in probable use by the editors.

These findings suggest that the four dimensions of newsphoto elements used to frame this project--DYNAMISM, UNIVERSALITY, COMPLEXITY, and PROMINENCE--can be used to predict editors' probable use of newsphotos.

Hypothesis No. 7

This hypothesis stated that there would be no difference in the mean probable use of news elements between the Q-sort composed of sports pictures and the Q-sort composed of general news pictures. This hypothesis was supported.

When the two content types were compared for significant differences in "play" given the four dimension elements across content lines, all differences were found to be statistically insignificant ($p > .05$).

Conclusions

It was not too long ago that news pictures were considered more or less an expendable adjunct to the story content of most newspapers. Today's editors have been forced to reconsider their attitudes. Pictures are a powerful communication force in their own right and are an increasingly essential part of the reporting process. As such, pictures must submit to the techniques of editing along with news stories and features.

The photography editor--and in practice this generally means anyone who edits pictures--must determine, first, whether a picture should be published and, then, how to play it on the printed page. To date there is little authoritative insight into the process by

which these decisions are made. There are no "gatekeeper" studies, no series of explorations into the nature of news photographs, such as exist for news stories. Indeed, most photo editing texts still espouse a "feeling for pictures" as the greatest tool that a picture editor can develop.

Since editors are beginning to come to terms with the significance of news photography, there is an immediate need to know more about news photographs and photographic editing beyond the "feeling" level. Yet, as MacLean pointed out:

It is curious how little research has been done on pictorial communication. A good picture, we believe, can tell a lot--fast--and with a big wallop that the reader won't forget. Yet we have practically no research on how we can best make or select those 'good' pictures to do such jobs for us.⁶

This study was an attempt to investigate one aspect of the nature of news photography. The study attempted, first, to isolate and define some of the news values that might be intrinsic to the complex decision-making process involved in selecting newsphotos for publication and, secondly, to examine those values in light of the selection process of six newspaper editors.

Since it is obvious that there can be no one definition for what makes a news picture "great" or "good" or even "printable," the researcher developed a four dimensional framework of newsphoto values modeled after Ward's three-dimension news model for exploring the nature of news. These four dimensions had two elements each: UNIVERSALITY: Oddity, Identification; PROMINENCE: Known Principal(s), Unknown Principal(s); DYNAMISM: Action, Stasis; and COMPLEXITY: Simplicity, Intricacy. There were 16 possible combinations of the various elements represented in each of two series of 48 photographs.

As the results of this research show, a fairly high prediction of newsphoto judgment patterns can be ascertained by characterizing news pictures in terms of these four dimensions, although there must be others that are yet to be identified.

In general, editors evidenced a preference for Action, Oddity, Simplicity, and Unknown Principal(s) in selecting news photographs for publication.

For sports pictures, editors evidenced a preference for Simplicity first, followed by Oddity. The editors divided among themselves on giving "play" to the DYNAMISM element. One group of editors preferred the Stasis element in sports pictures, while another group of editors tended to prefer the Action element.

This tendency to play Stasis may be related, as has been suggested earlier, to the tendency of much sports photography to incorporate stereotyped "record" shots as standard fare.

It also may be related to the journalistic background of the editors involved in the decision-making process, to the size of the newspapers on which they work, and to their perceptions of readers expectations. Both editors who constituted the Stasis preference group had no journalism training or background. Both were from smalltown newspapers with subscribers who they felt expected to see "their kids' and relatives' pictures in the paper." Using this rationale, a picture of the hometown sandlot baseball team standing "all in a row" would have more value in the selection process than a dramatic shot of a world famous pole vaulter at the precise moment of victory. On the other hand, the Action preference group of editors

had some journalism training, were from larger newspapers, and did not share the same assessment of their readers' expectations.

The MacLean-Kao study of picture prediction behavior of editors lends support to these observations. MacLean and Kao found that when editors were given information about their intended audiences, they were able to predict which pictures would appeal to those audiences. However, when editors do not have accurate information about audiences, or have insufficient information, they are unable to make accurate predictions.⁷ Clearly editors develop, in an absence of information, stereotyped concepts about reader preferences that color their probable use patterns in selecting pictures for publication. Likewise, in an absence of training in photographic editing, editors may respond by selecting stereotyped pictures.

As the results of this study indicate, what editors seem to be looking for in sports pictures for publication are pictures which portray the unusual and which are presented in a simple, easy-to-comprehend manner. Beyond that, the amount of action depicted depends on a value system that may have as much to do with the perceived needs of subscribers, right or wrong, as with the content of the picture.

When the editors were asked to respond to general news photographs, they evidenced a preference for Action, Simplicity and Unknown Principal(s) in pictures. Overall, what editors seem to value in news pictures is strong action, simply understood, involving people. The fame or status of the people does not matter.

As was mentioned previously, this preference for Unknown Principal(s) is contrary to research findings dealing with the news

elements in news stories. It may be related, however, to the immediacy of visual communication, which serves in essence as what Shramm refers to as immediate reward.⁸ When the action and content of pictures, which are symbols that closely resemble the things they stand for, are easily understood and satisfactorily appealing through action content, there is little need for the Known Principal(s) element.

When the two content types, sports and general news, were compared for significant differences in overall preference patterns, it was found that editors overall preferred pictures with Action, Simplicity, and Oddity. Editors seem to value, given a choice, news pictures which contain strong action and the unusual, stated in a simple, easy-to-comprehend manner.

Understanding these preference patterns may help to explain why editors choose some photos for publication while others, which, by technical or artistic standards, are excellent, are not selected. Understanding, too, may help to teach students something of the news-photo editing process beyond a simplistic admonition to develop a "feeling for pictures." But above all, an understanding of these patterns may serve as a starting place for more intensive research into the nature of news photographs.

Recommendations

As yet we have little systematic knowledge of the syntax and vocabulary of some forms of modern dance or radio-TV production, or layout and design. There is no recorded grammar for these codes. The experts in these fields have difficulty in telling us what their structuring procedures are, or even what their vocabulary is. This may not affect their own artistic behavior, but it does make it difficult to teach newcomers to the profession to analyze the characteristics of message production, or to measure the effects of their messages.⁹

This lack of systematic knowledge extends to the art of news photographs which, like layout and design, has been largely a code without a vocabulary.

The use of the four dimension newsphoto model developed in this study would provide an initial approach to defining the code operant in the art of newsphotographs and the editing decision-making process. Moreover, it could be used to answer the question of what makes news pictures different from other kinds of pictures.

By defining the structure of elements arranged to encode news pictures, the four dimensional structure developed in this study could provide also a tool for deviating from subjectivity and value judgments in introducing students to news photography editing. It would be something beyond the "develop a feeling for pictures" approach espoused by current texts in the field.

The model could be adapted to classroom exercises dealing with selecting pictures for publication. For example, each students could be given a series of pictures with and without the preferred elements outlined in this study and asked to sort them for publication. Mistakes in sorting then could become the subject for classroom discussion and instruction.

Other Areas of Research

In regard to the findings of this study, the author suggests further research which might help gain insight into the nature of news photographs:

1. A study to explore dimensions other than the COMPLEXITY, UNIVERSALITY, DYNAMISM, PROMINENCE elements defined in this study that may act singly or in concert to identify significant newsphoto values.
2. A study comparing newsphoto values of readers with those of editors.
3. A study of the relationship between journalism training and newsphoto value preferences.
4. A study of the "play" given the defined newsphoto values of UNIVERSALITY, DYNAMISM, and SIMPLICITY in pictures with and without people as subject content.
5. A study to compare newsphoto judgments with the judgments of television news editors.
6. A study comparing news judgments of smalltown newspaper editors with those of metropolitan newspaper editors.

As Berlo suggests in his book on the process nature of communication, what has not been defined cannot be effectively taught. The model developed in this study has attempted to begin the defining of the elements of the newsphoto code and means to structure those elements. But most of all, it has attempted to pave the way for further research into the "art" of news pictures.

ENDNOTES

¹Malcolm S. MacLean, Jr. and Anne Li-An Kao, Editorial Prediction of Magazine Picture Appeals, (Iowa City, Iowa, 1965).

²Walter J. Ward, "News Values, News Situations and News Selection: An Intensive Study of Ten City Editors." (unpub. Ph.D. dissertation, University of Iowa, 1967).

³MacLean and Kao, pp. 38-83.

⁴Lorenzo E. Carter, "News Values of Editors-Reporters on Five Oklahoma Newspapers," (unpub. Masters' thesis, Oklahoma State University, 1970).

George R. Rhoades, "News Values and News Decisions of Selected Associated Press and United Press International News Men in Oklahoma," (unpub. Masters' thesis, Oklahoma State University, 1971).

⁵James K. Buckalew, "A Q-analysis of Television News Editors' Decisions," Journalism Quarterly, Vol. 46 (Spring, 1969), pp. 135-137.

⁶Malcolm S. MacLean, Jr. and Anne Li-An Kao, "Picture Selection: An Editorial Game," Journalism Quarterly, Vol. 37 (Autumn, 1960), p. 515.

⁷MacLean and Kao, Editorial Prediction.

⁸Schramm, "The Nature of News," pp. 288-303.

⁹David K. Berlo, The Process of Communication. (New York, 1960), p. 58.

BIBLIOGRAPHY

- Advertising Research Foundation. The Continuing Study of Newspaper Reading. New York: started in 1939.
- Arnold, George. "Theoretical Views of the Photography Editor as Gatekeeper," (unpub. Master's thesis, Oklahoma State University, 1974).
- Associated Press. APME Redbook 1950 New York: The Associated Press, 1950.
- Badii, Naim. "The Nature of News in Four Dimensions," (unpub. Master's thesis, Oklahoma State University, 1977).
- Berlo, David K. The Process of Communication. New York: Holt, Rinehart and Winston, Inc., 1957.
- Brown, Charles. News Editing and Display. Westport: Greenwood Press, 1952.
- Bruning, James L. and B. L. Kintz. Computational Handbook of Statistics. Glenview: Scott, Foresman and Co., 1968.
- Buckalew, James K. "A Q-Analysis of Television News Editors' Decisions." Journalism Quarterly, Vol. 46 (Spring, 1969), pp. 135-137.
- Carter, Lorenzo E. "News Values of Editors-Reporters on Five Oklahoma Newspapers." (unpub. Master's thesis, Oklahoma State University, 1970).
- Ellard, Roscoe, John Mills, Jr., and Laura Vitray. Pictorial Journalism. New York: McGraw-Hill Book Co., Inc., 1939.
- Feininger, Andreas. The Perfect Photograph. Garden City: American Photographic Book Publishing Co., 1974.
- Fonesca, Luis and Bryant Kearn. "Comprehension of Pictorial Symbols: An Experiment in Rural Brazil" (Monograph).
- Fosdick, James and Percy Tannenbaum. "The Encoder's Intent and Use of Stylistic Elements in Photographs." Journalism Quarterly, Vol. 41 (Spring, 1964) pp. 175-182.

- Gieber, Walter J. "Across the Desk: A Study of 16 Telegraph Editors." Journalism Quarterly, Vol. 33 (Fall, 1956), pp. 199-205.
- Gilmore, Gene and Robert Root. Modern Newspaper Editing. Berkeley: The Glendessary Press, 1971.
- Hazard, William. "Responses to News Pictures: A Study in Perceptual Unity." Journalism Quarterly, Vol. 37 (Fall, 1960), pp. 515-524.
- Hicks, Wilson. Photographic Communication: Principles, Problems and Challenges, Ed. R. Smith Schuneman. Dubuque: Wm. C. Brown Co., (New York, 1976), p. 37.
- Hightower, Paul. "Readers See What They Want to See in Photographs." Grassroots Editor. (Spring, 1976), pp. 13-14.
- Junas, Lil. "Photographers and Editors Differ in Big and Little Ways," National Press Photographer, Vol. 27 (November, 1972), pp. 6-9.
- Kalish, Stanley E. and Clifton C. Edom. Picture Editing. New York: Rinehart and Co., 1951.
- Kerlinger, Fred N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, Inc., 1973.
- Leu, Jon Robert. "The Effects Photographic Compositional Elements on the Selection of News Pictures by Various Groups of Individuals," (unpub. Master's thesis, Iowa State University, 1972).
- MacLean, Malcolm. "Some Multivariate Designs for Communications Research." Journalism Quarterly, Vol. 30, pp. 614-622.
- MacLean, Malcolm and William R. Hazard. "Women's Interest in Pictures: The Badger Village Study." Journalism Quarterly, Vol. 30 (Spring, 1953), p. 139.
- MacLean, Malcolm and Anne Li-An Kao. Editorial Predictions of Magazine Picture Appeals. Iowa City: School of Journalism, University of Iowa, 1965.
- MacLean, Malcolm and Anne Li-Ann Kao. "Picture Selection: An Editorial Game." Journalism Quarterly, Vol. 40, pp. 230-232.
- MacLean, Malcolm and Hans Toch. "Perception Communication and Education Research: A Transactional View," AV Communication Review, Vol. 10 (Sept., 1962), p. 139.
- McCall, Floyd and Robert B. Rhodes. Press Photography: Reporting with a Camera. New York: The Macmillan Co., 1961.

- Rhoades, George R. "News Values and News Decisions of Selected Associated Press and United Press International Newsmen in Oklahoma," (unpub. Master's thesis, Oklahoma State University, 1971).
- Sanders, Keith P. "A Brief Look at Photojournalism Research," Photojournalism: Principals and Practices, Ed. Clifton C. Edom. Dubuque: Wm. C. Brown Co., 1976.
- Schramm, Wilbur. "The Nature of News." Mass Communications. Ed. Wilbur Schramm. Urbana: University of Illinois Press, 1949, pp. 288-303.
- Schumaker, John and George Weinberg. Statistics: An Intuitive Approach. Belmont: Brooks-Cole Publishing Co., 1962.
- Spaulding, Seth. "Research on Pictorial Illustration." Audio-Visual Communication Review. Vol. 3, pp. 35-45.
- Stephenson, William. The Study of Behavior: Q-Technique and Its Methodology. Chicago: University of Chicago Press, 1953.
- Stephenson, William. "Principles of Selection of News Pictures." Journalism Quarterly, Vol. 37, pp. 411-421.
- Swanson, Charles E. "What They Read in 130 Daily Newspapers." Journalism Quarterly, Vol. 32, pp. 411-421.
- Ward, Walter J. "News Values, News Situations, and News Selection: An Intensive Study of Ten City Editors." (unpub. Ph.D. dissertation, University of Iowa, 1967).
- Ward, Walter J. The Nature of News in Three Dimensions. Oklahoma State University Bureau of Media Research: School of Journalism and Broadcasting, 1973.
- Whiting, John R. Photography Is a Language, Chicago: Ziff-Davis Publishing Co., 1946.
- Woodburn, Bert W. "Reader Interest in Newspaper Pictures." Journalism Quarterly, Vol. 24 (Sept., 1947), p. 197.

APPENDIXES

APPENDIX A
Editors' Q-Sort Scores

EDITORS' SPORTS PICTURE Q-SORT SCORES

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
1.	KAII	Brave's No. 1	3	5	8	4	2	9	31	5.17	
2.	KAII	Tom Weiskopf	5	5	5	3	4	7	29	4.83	4.56
3.	KAII	Olympics	1	2	4	5	5	5	22	3.67	
4.	KAIS	Ilie Nastase	4	5	10	3	9	10	41	6.83	
5.	KAIS	Ali	4	6	7	8	8	6	39	6.50	6.50
6.	KAIS	Roger Maltbie	4	6	7	9	5	6	37	6.17	
7.	KAOI	Pete Rose	6	4	10	4	5	3	32	5.33	
8.	KAOI	NHL Hockey	9	7	9	9	11	8	53	8.83	7.28
9.	KAOI	Larry Poole	5	5	8	11	9	8	46	7.67	
10.	KAOS	Kurt Schoenkoff	3	5	6	4	4	8	30	5.00	
11.	KAOS	UCLA Coach	5	8	11	10	6	9	49	8.17	7.11

EDITORS' SPORTS PICTURE Q-SORT SCORES (CONTINUED)

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
12.	KAOS	Joe Frazier	4	9	8	8	8	7	49	8.17	
13.	KSIS	Yankee Stadium	3	1	6	6	3	3	22	3.67	
14.	KSIS	Roger Staubach	7	7	6	2	7	2	31	5.17	4.67
15.	KSIS	Dean Smith	3	9	3	7	4	5	31	5.17	
16.	KSII	All-America Pros	9	8	3	7	4	4	35	5.83	
17.	KSII	Hale Irwin	2	7	1	3	2	5	20	3.33	4.61
18.	KSII	Jim O'Gorman	6	6	1	5	7	3	28	4.67	
19.	KSOS	Eddie Hart	11	8	9	9	6	8	51	8.50	
20.	KSOS	New York Filly	9	6	6	5	7	7	40	6.67	6.89
21.	KSOS	Bill Krishee	7	7	5	5	5	4	33	5.50	
22.	KSOI	Jane Blalock	6	9	4	6	6	4	35	5.83	

EDITORS' SPORTS PICTURE Q-SORT SCORES (CONTINUED)

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
23.	KSOI	Joe Namath	5	4	10	5	5	8	37	6.17	5.56
24.	KSOI	Marble Tournament	6	8	3	4	4	3	28	4.67	
25.	UAII	Archers	1	3	4	7	2	9	33	5.50	
26.	UAII	Kite Flying	7	2	6	1	1	2	19	3.17	4.61
27.	UAII	Golfer	4	4	5	6	6	6	31	5.17	
28.	UAIS	Pole Vaulter	6	4	8	4	9	11	42	7.00	
29.	UAIS	Go Carting	7	6	7	8	8	10	46	7.67	7.33
30.	UAIS	Baseball Player	10	6	7	5	9	7	44	7.33	
31.	UAOS	Tackle	11	9	9	11	10	11	61	10.17	
32.	UAOS	Racer	7	11	7	10	10	10	55	9.17	9.06
33.	UAOS	Motorcyclist	8	7	9	10	6	7	47	7.83	

EDITORS' SPORTS PICTURE Q-SORT SCORES (CONTINUED)

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
34.	USIS	Fisherman	8	10	2	3	7	5	35	5.83	
35.	USIS	Hunters	10	7	2	7	6	6	38	6.33	6.50
36.	USIS	Boy with Boat	8	10	4	7	8	7	44	7.33	
37.	UAOI	Women's Basketball	6	5	7	9	3	9	39	6.50	
38.	UAOI	Fishermen	8	4	3	6	1	6	28	4.67	5.83
39.	UAOI	Dog Skiing	7	3	6	8	8	6	38	6.33	
40.	USOS	Ski Clothes	6	3	6	6	11	2	34	5.67	
41.	USOS	Football Player	10	10	8	2	3	5	38	6.33	6.17
42.	USOS	Golfball in Nest	8	11	5	8	6	1	39	6.50	
43.	USII	Sports	2	3	6	1	7	4	23	3.83	
44.	USII	Preparing for Race	5	8	4	6	6	5	34	5.67	4.33

EDITORS' SPORTS PICTURE Q-SORT SCORES (CONTINUED)

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
45.	USII	Skiis	2	1	4	7	3	4	21	3.50	
46.	USOI	Desert Green	6	6	5	6	10	6	39	6.50	
47.	USOI	Ski Clothes	9	2	5	2	5	1	24	4.00	5.28
48.	USOI	Alaskan Skier	<u>5</u>	<u>6</u>	<u>2</u>	<u>6</u>	<u>7</u>	<u>6</u>	<u>32</u>	5.33	
			288	288	288	288	288	288	1732		

EDITORS' MIXED NEWS PICTURE Q-SORT SCORES

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
1.	KAII	President Carter	3	2	6	4	3	3	21	3.50	
2.	KAII	President Ford	6	7	9	9	4	7	42	7.00	4.78
3.	KAII	Princess Anne	5	2	6	2	2	6	23	3.83	
4.	KAIS	Patty Hearst	6	10	8	9	5	5	43	7.17	
5.	KAIS	Ronald Reagan	4	6	9	4	4	4	31	5.17	6.61
6.	KAIS	Chou-en-lai	6	6	9	9	8	7	45	7.50	
7.	KAOI	Santiago Martin	5	5	2	3	2	6	23	3.83	
8.	KAOI	New York landmark	6	1	7	6	7	8	35	5.83	5.39
9.	KAOI	Burleson (D.-Mo.)	6	6	6	9	5	7	39	6.50	
10.	KAOS	Zero Mostel	8	6	7	3	6	6	36	6.00	
11.	KAOS	Queen Elizabeth	10	9	5	11	11	10	56	9.33	7.67

EDITORS' MIXED NEWS PICTURE Q-SORT SCORES (CONTINUED)

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
12.	KAOS	President Carter	6	5	10	6	9	10	46	7.67	
13.	KSIS	Me1 Brooks	1	6	5	5	5	4	26	4.33	
14.	KSIS	Okla. Hwy. Patrol	5	7	6	1	7	4	30	5.00	5.28
15.	KSIS	Col. Sanders	7	7	6	4	10	5	39	6.50	
16.	KSII	Washington, D. C.	2	3	4	7	4	4	24	4.00	
17.	KSII	Miss Americas	8	8	6	6	6	3	37	6.17	4.56
18.	KSII	Dr. Fred House	2	4	3	2	5	5	21	3.50	
19.	KSOS	License Tag	9	3	4	8	9	5	38	6.33	
20.	KSOS	Lindsay Waggoner	6	8	5	5	4	2	30	5.00	5.39
21.	KSOS	Raggedy Ann, Andy	6	8	4	5	5	1	29	4.83	
22.	KS0I	County United Fund	4	7	8	4	3	3	29	4.83	

EDITORS' MIXED NEWS PICTURE Q-SORT SCORES (CONTINUED)

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
23.	KSOI	Donny, Marie Osmond	7	6	5	6	3	3	30	5.00	4.78
24.	KSOI	Nicki Lauda	1	5	3	7	5	6	27	4.50	
25.	UAII	Sidewalk Artists	5	4	3	8	1	6	27	4.50	
26.	UAII	Accident	8	6	10	3	6	6	39	6.50	5.17
27.	UAII	Country Music	7	4	1	7	1	7	27	4.50	
28.	UAIS	Car Wreck	11	11	10	10	11	8	61	10.17	
29.	UAIS	Displaced Person	11	10	11	11	9	11	63	10.50	9.95
30.	UAIS	Bumper Car Ride	9	7	11	10	8	10	55	9.17	
31.	UAOS	Wooden Leg	10	9	7	10	8	9	53	8.83	
32.	UAOS	Fire Hydrant	7	4	6	6	2	9	34	5.67	7.22
33.	UAOS	Charity	5	9	8	6	7	8	43	7.17	

EDITORS' MIXED NEWS PICTURE Q-SORT SCORES (CONTINUED)

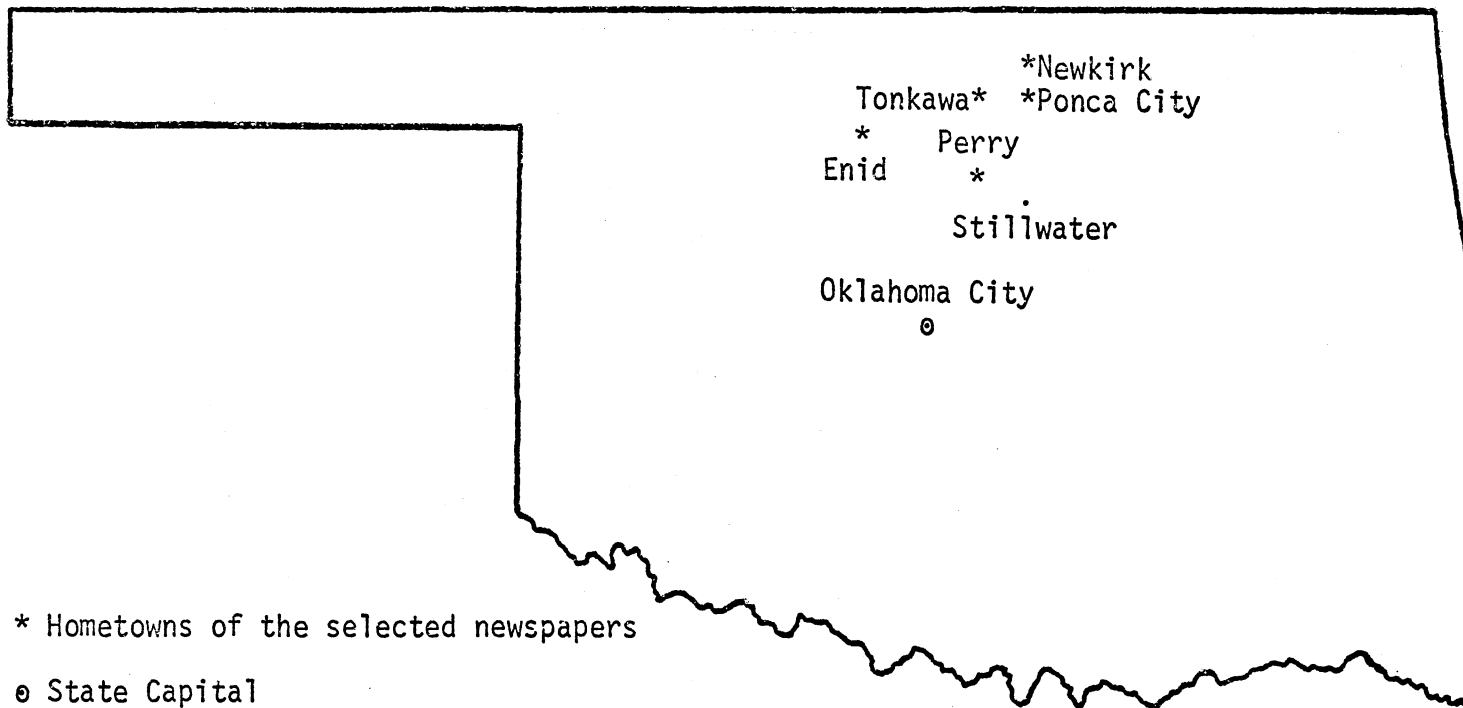
Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
34.	USIS	Fall Fashions	4	7	4	7	7	2	31	5.17	
35.	USIS	Sweet Bread	3	4	4	6	7	1	25	4.17	5.17
36.	USIS	Boy with Boat	5	8	2	7	8	7	37	6.17	
37.	UAOI	Truck Crash	10	9	9	8	10	5	51	8.50	
38.	UAOI	Bathers	8	10	7	3	6	11	45	7.50	7.50
39.	UAOI	Chess Players	9	5	5	8	3	9	39	6.50	
40.	USOS	Boy with Tomato	4	11	8	5	6	7	41	6.83	
41.	USOS	Church Sign	8	8	7	5	6	8	42	7.00	6.83
42.	USOS	For Sale	3	5	8	6	10	8	40	6.67	
43.	USII	Snout	2	3	1	8	6	5	25	4.17	
44.	USII	Ticks	3	6	2	5	9	6	31	5.17	4.84

EDITORS' MIXED NEWS PICTURE Q-SORT SCORES (CONTINUED)

Picture No.	News Element	Theme	Tonkawa	Perry	Newkirk	Ponca City	Blackwell	Enid	Total	Mean	Total Mean
45.	USII	Wedding	7	5	7	1	7	4	31	5.17	
46.	USOI	Fashions 1976	7	3	5	2	6	6	29	4.83	
47.	USOI	Art Gallery	4	1	6	7	8	9	35	5.83	4.89
48.	USOI	Ski Suit	<u>9</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>2</u>	<u>24</u>	4.00	
			288	288	288	288	288	288	1728		

APPENDIX B

OKLAHOMA MAP SHOWING HOMETOWNS
OF THE SELECTED NEWSPAPERS



- * Hometowns of the selected newspapers
- ⊙ State Capital
- Stillwater, Oklahoma State University

OKLAHOMA
 Miles
 0 30 60
 Kilometers
 0 30 60

APPENDIX C

Z-SCORES FOR GENERAL NEWS
AND SPORTS NEWSPHOTOS

Newsphoto Elements	Sports News Picture Description	Z-Scores by Editor Types			
		Type I	Type II	All Types	
1.	KAII	Brave's No. 1	- .91	- .13	- .52
2.	KAII	Tom Weiskopf	- .46	- .67	- .74
3.	KAII	Olympics	-2.05	- .67	-1.47
4.	KAIS	Ilie Nastase	- .68	+1.08	+ .52
5.	KAIS	Ali	- .46	+ .67	+ .32
6.	KAIS	Roger Maltbie	- .46	+ .40	+ .11
7.	KAOI	Pete Rose	- .46	- .27	- .42
8.	KAOI	NHL Hockey	+ .91	+1.75	+1.79
9.	KAOI	Larry Poole	- .46	+1.68	+1.05
10.	KAOS	Kurt Schoenkoff	- .91	- .27	- .63
11.	KAOS	UCLA Coach	+ .23	+1.66	+1.37
12.	KAOS	Joe Frazier	+ .23	+ .94	+1.37
13.	KSIS	Yankee Stadium	-1.83	- .81	-1.47
14.	KSIS	Roger Staubach	+ .46	- .94	- .52
15.	KSIS	Dean Smith	0.0	- .94	- .52

Newsphoto Elements	Sports News Picture Description	Z-Scores by Editor Types			
		Type I	Type II	All Types	
16.	KSII	All-American Pros	+1.14	- .81	- .11
17.	KSII	Hale Irwin	- .68	-1.75	-1.69
18.	KSII	Jim O'Gorman	0.0	-1.08	- .84
19.	KSOS	Eddie Hart	+1.60	+1.08	+1.58
20.	KSOS	New York Filly	+ .68	+ .13	+ .42
21.	KSOS	Bill Krishee	+ .46	- .94	- .32
22.	KSOI	Jane Blalock	+ .68	- .54	- .11
23.	KSOI	Joe Namath	- .68	+ .54	+ .11
24.	KSOI	Marble Tournament	+ .46	-1.35	- .84
25.	UAII	Archers	-1.83	+ .67	- .32
26.	UAII	Kite Flying	- .68	- .89	-1.79
27.	UAII	Golfer	- .91	- .13	- .52
28.	UAIS	Pole Vaulter	- .46	+1.08	+ .63
29.	UAIS	Go Carting	+ .23	+1.21	+1.05
30.	UAIS	Baseball Player	+ .91	+ .54	+ .84

Newsphoto Elements	Sports News Picture Description	Z-Scores by Editor Types			
		Type I	Type II	All Types	
31.	UAOS	Tackle	+1.83	+2.28	+2.63
32.	UAOS	Racer	+1.37	+1.75	+2.00
33.	UAOS	Motorcyclist	+ .68	+1.08	+1.16
34.	USIS	Fisherman	+1.37	- .94	- .11
35.	USIS	Hunters	+1.14	- .40	+ .21
36.	USIS	Boy with Boat	+1.37	+ .27	+ .84
37.	UAOI	Women's Basketball	- .23	+ .54	+ .32
38.	UAOI	Fishermen	0.0	-1.08	- .84
39.	UAOI	Dog Skiing	- .46	+ .54	+ .21
40.	USOS	Ski Clothes	- .68	+ .13	- .21
41.	USOS	Football Player	+1.83	- .81	+ .21
42.	USOS	Golfball in Nest	+1.60	- .54	+ .32
43.	USII	Sports	-1.60	- .80	-1.37
44.	USII	Preparing for Race	+ .23	- .40	- .21
45.	USII	Skiis	-2.05	- .81	-1.58

Newsphoto Elements	Sports News Picture Description	Z-Scores by Editor Types			
		Type I	Type II	All Types	
46.	USOI	Desert Green	0.0	+ .40	+ .32
47.	USOI	Ski Clothes	- .23	-1.48	+1.26
48.	USOI	Alaskan Skier	- .23	- .40	- .42

	<u>Newsphoto Elements</u>	<u>General News Pictures Description</u>	<u>Z-Scores All Editors</u>
1.	KAII	President Carter	-4.23
2.	KAII	President Ford	+ .58
3.	KAII	Princess Anne	-1.25
4.	KAIS	Patty Hearst	+ .68
5.	KAIS	Ronald Reagan	- .48
6.	KAIS	Chou-en-lai	+ .87
7.	KAOI	Santiago Martin	-1.25
8.	KAOI	New York Landmark	- .10
9.	KAOI	Burleson (D.-Mo.)	+ .29
10.	KAOS	Zero Mostel	0.0
11.	KAOS	Queen Elizabeth	+1.93
12.	KAOS	President Carter	+ .97
13.	KSIS	Mel Brooks	- .97
14.	KSIS	Oklahoma Hwy. Patrol	- .58
15.	KSIS	Col. Sanders	+ .29
16.	KSII	Washington, D. C.	-1.16
17.	KSII	Miss Americas	+ .10
18.	KSII	Dr. Fred House	-1.45
19.	KSOS	License Tag	+ .19
20.	KSOS	Lindsay Waggoner	- .58
21.	KSOS	Raggedy Ann, Andy	- .68
22.	KSOI	County United Fund	- .68
23.	KSOI	Donny, Marie Osmond	- .58
24.	KSOI	Nicki Lauda	- .87

	<u>Newsphoto</u> <u>Elements</u>	<u>General News Pictures Description</u>	<u>Z-Scores</u> <u>All Editors</u>
25.	UAI I	Sidewalk Artists	- .87
26.	UAI I	Accident	+ .29
27.	UAI I	Country Music	- .87
28.	UAIS	Car Wreck	+2.41
29.	UAIS	Displaced Person	+2.60
30.	UAIS	Bumper Car Rider	+1.83
31.	UAOS	Wooden Leg	+1.64
32.	UAOS	Fire Hydrant	- .19
33.	UAOS	Charity	+ .68
34.	USIS	Fall Fashions	- .48
35.	USIS	Sweet Bread	-1.06
36.	USIS	Boy with Boat	+ .10
37.	UAOI	Truck Crash	+1.45
38.	UAOI	Bathers	+ .87
39.	UAOI	Chess Players	+ .29
40.	USOS	Boy with Tomato	+ .48
41.	USOS	Church Sign	+ .58
42.	USOS	For Sale	+ .39
43.	USII	Snout	-1.06
44.	USII	Ticks	- .48
45.	USII	Wedding	- .48
46.	USOI	Fashions 1976	- .68
47.	USOI	Art Gallery	- .10
48.	USOI	Ski Suit	-1.16

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE

Department of Journalism and Mass Communication
Oklahoma State University
Stillwater, Oklahoma

I am conducting research in conjunction with the Mass Communication Department of Oklahoma State University and you have been selected to participate in this project.

I am interested in finding out as much as possible about people's preferences for news pictures. In order to analyze effectively the data I have collected, I need your help in answering the following demographic questions.

Your responses will remain confidential and you will not be identified by name at any time during the study or during the tabulation of results and their analysis.

Thank you for your time and consideration.

1. Sex: male _____ female _____
2. In what age group do you fall: 15-20 _____, 21-30 _____, 31-40 _____, 41-50 _____, 51-60 _____, 61-70 _____, 70 and over _____.
3. What is your educational level: 0-8 _____, 9 _____, 10 _____, 11 _____, 12 _____, 13 _____, 14 _____, 15 _____, 16 _____, 17+ _____.
4. What is your occupation? _____
Your title? _____
For whom do you work? _____
5. Do you subscribe to any newspapers or magazines? Yes _____
How many? _____ No _____
What are they? _____

6. Are you Catholic _____, Protestant _____, Other _____
7. Are you Democrat _____, Republican _____, Other _____
8. What kind of sports do you like? _____
9. What are your hobbies? _____

10. How many art courses have you taken?

High School	0	1	2	3	4	5
College	0	1	2	3	4	5
Service	0	1	2	3	4	5
One the Job	0	1	2	3	4	5
Correspondence	0	1	2	3	4	5

11. How many photography courses have you taken?

High School	0	1	2	3	4	5
College	0	1	2	3	4	5
Service	0	1	2	3	4	5
On the Job	0	1	2	3	4	5
Correspondence	0	1	2	3	4	5

12. Do you own a still camera of any type? yes____, no____. What type?_____

13. On the average, how many pictures do you take monthly?_____

0-20_____ 20-40_____ 40-60_____ 60-80_____ 80-100_____ 100+_____.

For newspaper editors only:

1. What is your paper's circulation size?

2. How long have you been with the present paper?

3. Who does the picture editing on your paper as a general rule?

4. Who generally selects pictures for publication?

5. What do you estimate is the percentage of your paper's news hole being filled with pictures?

6. What is your usual source of pictures for publication?

7. Describe, to the best of your knowledge the value and interests of a typical reader of your newspaper.

APPENDIX E

R-SCORE FACTOR MATRICES

R-SCORE MATRIX

Pictures: Mixed News Subjects

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Tonkawa	3	6	5	6	4	6	5	6	6	8	10	6	1	5	7	2	8	2	9	6
Perry	2	7	2	10	6	6	5	1	6	6	9	5	6	7	7	3	8	4	3	8
Newkirk	6	9	6	8	9	9	2	7	6	7	5	10	5	6	6	4	6	3	4	5
Ponca City	4	9	2	9	4	9	3	6	9	3	11	6	5	1	4	7	6	2	8	5
Blackwell	3	4	2	5	4	8	2	7	5	6	11	9	5	7	10	4	6	5	9	4
Enid	3	7	6	5	4	7	6	8	7	6	10	10	4	4	5	4	3	5	5	2

Pictures: Sports Subjects

Tonkawa	3	5	1	4	4	4	6	9	5	3	5	4	3	7	3	9	2	6	11	9
Perry	5	5	2	5	6	6	4	7	5	5	8	9	1	7	9	8	7	6	8	6
Newkirk	8	5	4	10	7	7	10	9	8	6	11	8	6	6	3	3	1	1	9	6
Ponca City	4	3	5	3	8	9	4	9	11	4	10	8	6	2	7	7	3	5	9	5
Blackwell	2	4	5	9	8	5	5	11	9	4	6	8	3	7	4	4	2	7	6	7
Enid	9	7	5	10	6	6	3	8	8	8	9	7	3	2	5	4	5	3	8	7

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Tonkawa	6	4	7	1	5	8	7	11	11	9	10	7	5	4	3	5	10	8
Perry	8	7	6	5	4	6	4	11	10	7	9	4	9	7	4	8	9	10
Newkirk	4	8	5	3	3	10	1	10	11	11	7	6	8	4	4	2	9	7
Ponca City	5	4	6	7	8	3	7	10	11	10	10	6	6	7	6	7	8	3
Blackwell	5	3	3	5	1	6	1	11	9	8	8	2	7	7	7	8	10	6
Enid	1	3	3	6	6	6	7	8	11	10	9	9	8	2	1	7	5	11
Tonkawa	7	6	5	6	1	7	4	6	7	10	11	7	8	8	10	8	6	8
Perry	7	9	4	8	3	2	4	4	6	6	9	11	7	10	7	10	5	4
Newkirk	5	4	10	3	11	6	5	8	7	7	9	7	9	2	2	4	7	3
Ponca City	5	6	5	4	7	1	6	4	8	5	11	10	10	3	7	7	9	6
Blackwell	5	6	5	4	2	1	6	9	8	9	10	10	6	7	6	8	3	1
Enid	4	4	8	3	9	2	6	11	10	7	11	10	7	5	6	7	9	6

	39	40	41	42	43	44	45	46	47	48	Mean
Tonkawa	9	4	8	3	2	3	7	7	4	9	6.0
Perry	5	11	8	5	3	6	5	3	1	2	6.0
Newkirk	5	8	7	8	1	2	7	5	6	3	6.0
Ponca City	8	5	5	6	8	5	1	2	7	4	6.0
Blackwell	3	6	6	10	6	9	7	6	8	4	6.0
Enid	9	7	8	8	5	6	4	6	9	2	6.0
Tonkawa	7	6	10	8	2	5	2	6	9	5	6.0
Perry	3	3	10	11	3	8	1	6	2	6	6.0
Newkirk	6	6	8	5	6	4	4	5	5	2	6.0
Ponca City	8	6	2	8	1	6	7	6	2	6	6.0
Blackwell	8	11	3	6	7	6	3	10	5	7	6.0
Enid	6	2	5	1	4	5	4	6	1	6	6.0

VITA

Barbara A. W. Smith

Candidate for the Degree of
Master of Science

Thesis: THE NATURE OF NEWS PHOTOGRAPHS IN FOUR DIMENSIONS:
DYNAMISM, PROMINENCE, COMPLEXITY, UNIVERSALITY

Major Field: Mass Communications

Biographical:

Personal Data: Born in Ponca City, Oklahoma, March 21, 1942,
the daughter of Mr. and Mrs. Harold Wilson.

Education: Graduated from Sulphur High School, Sulphur,
Louisiana, in May, 1960; received Bachelor of Arts degree in
English from McNeese State University in 1967; completed
requirements for Masters of Science degree at Oklahoma State
University in December, 1977.

Professional Experience: Reporter, Southwest Star, 1960;
teacher, St. Joseph's Cathedral School, 1962-63; teacher,
St. Charles Academy, 1963-65; teacher, Marion High School,
1967-68; substitute teacher, Ponca City school system, 1968;
teacher, Sulphur High School, 1968-69; teacher, Great Mills
High School, 1969-72; teacher, Ponca City High School,
1972; teaching assistant Oklahoma State University School
of Journalism and Broadcasting, 1975-76; Director of Public
Information, Northern Oklahoma College, 1976-present.