Image Fluctuation and International Events: Public Opinion and Attitude Variance as a Function of President Nixon's Visit to the People's Republic of China

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IMAGE FLUCTUATION AND INTERNATIONAL EVENTS:
PUBLIC OPINION AND ATTITUDE VARIANCE
AS A FUNCTION OF PRESIDENT NIXON'S
VISIT TO THE PEOPLE'S REPUBLIC OF CHINA

A Thesis
Presented to
The Faculty of the Department of Government
The College of William and Mary in Virginia

In Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

by
Terry Dixon Bevels
1973
APPROVAL SHEET

This thesis is submitted in partial fulfillment of the requirements for the degree of

Master of Arts

________________________________________
Author

Approved, June 1973

Jack Edwards

Donald J. Baxter

Chonghan Kim
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The writer wishes to express his appreciation to Professor Donald J. Baxter, under whose guidance this investigation was developed, conducted and reported, for his patient guidance and criticism throughout the investigation. The author is also indebted to Professor Jack Edwards and Professor Chonghan Kim for their careful reading and criticism of the manuscript.
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This study examined the impact of an international event upon the stereotype (combinatorial image) held of a foreign country and its people among randomly selected registered voters of Williamsburg, Virginia. A four group design was employed to measure change in subjects' opinions about and attitudes toward China with an original test instrument.

The conceptual and theoretical background of this study were developed from the article "Effects of Events on National and International Images," by Deutsch and Merritt. A quasi-experimental situation was designed around President Nixon's visit to China to investigate (1) the event's impact as a favorable cue for orientation and evaluation, and (2) the return of public attitude/opinion levels to pre-event status. Checks within the design adequately blocked threats of internal invalidity.

A favorable fluctuation was observed and was attributed to the international event, among both groups tested. However, the hypothesized return to pre-event status was not found. The results suggest that the return of attitudes to pre-event status is a more time-consuming process than the initial conversion from pre-event to post-event levels.
IMAGE FLUCTUATION AND INTERNATIONAL EVENTS:
PUBLIC OPINION AND ATTITUDE VARIANCE
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INTRODUCTION

Man is both a social and political animal. The interactions among men within the social realm offer unlimited avenues of study. The subdiscipline of political socialization incorporates the tenets of man's political and social nature along the lines of explaining political events by individual orientations:

"It [political socialization] is a concept directing attention toward the knowledge, values, and beliefs of the average citizen...Political socialization theory also assumes that the various attitudes citizens have toward political life affect the way in which the state operates."\(^1\)

Every individual, of course, reacts differently in some way from another toward the same stimulus. The key to political sociology, however, lies in identifying social and political stimuli and charting their respective effects. This exploration builds on man's knowledge of himself and aids in self-understanding.

Various schemata have been constructed in viewing the agents of social and political influence. One of the more basic treatments of this issue categorically deals with societal influences.\(^2\) These agents include:

---


\(^2\)Dawson and Prewitt, chapters VII-X.
(1) the family
(2) peer groups
(3) education, the schools, and political learning
(4) social groupings, secondary groups, political experiences, and mass media.

Each agent grouping operates from and contributes to the previous base of the lower agents.

This research concerns the last grouping, specifically the political experiences and mass media, in their effect upon the concept of image formation and fluctuation and a particular setting for its investigation. The paper deals with:

I The Problem, a discussion of the scope of the general theory and field of this type of research,

II The Methodology, a discussion of the method and design of the research,

III The Results, a presentation and discussion of the raw data in light of the hypotheses and the experimental design.
CHAPTER I

PROBLEM

A. Theory

The major portion of the research conducted concerning images has been done by psychologists. From them the study of international images has established several sets of interrelated findings that may be regarded as a "given" base from which further research may be launched. Included in this base is the following construct:

"...an image of a nation (or of any other object) constitutes the totality of attributes that a person recognizes (or imagines) when he contemplates the nation. In abstract terms, one may describe an image as consisting of three analytically distinct aspects: (1)...cognitive attributes by which a person understands the object in an intellectual way...(2)affective component, representing a liking or a disliking for the focal object... (3) action component, consisting of a set of responses to the object that the person deems appropriate in the light of its perceived attributes."3

Images, termed combinatorial constructs, are similar to visual experiences and are relatively interdependent.4


They primarily involve a collection of memories an individual carries of the world and its various aspects. Their interdependence, according to Boulding's concept of "the" image, is that of an aggregate image of the whole world and the possessor's past experiences, summed to total his subjective knowledge and personal beliefs.5

Deutsch and Merritt have hypothesized upon the "Effects of Events on National and International Images".6 Their assumptions and general hypotheses contributed in part to the formulation and execution of this research: "Frequently attitudes shift ... in response to some particular event, only to return to their previous level after some time has passed, usually after other events have moved into the focus of attention."7

A minimum level of interdependence among salient images is necessary for a functioning personality, though internal consistency among and within images will vary among individuals. Another point of variance, the image's operational content, is affected by psychological cross-pressures, which may neutralize ambivalent and self-contradictory images.8

6Deutsch and Merritt.
7Deutsch and Merritt, p.149.
By their nature, all images have cognitive content, but only some contain cues for evaluation that explicitly imply such notions as good or bad. Similarly, informational detail may require cues for orientation, which relate an image's cognitive content to that of others and provide more meaning and knowledge.\(^9\)

As with visual experiences, mental images generally contain a small number of sharply defined elements in the focus of attention and many elements at the periphery, somewhat less perceived. Images often control interpretation and perception by acting as screens of selection for new messages. In some cases, however, new messages may change the images an individual holds, as well as those held by the culture and communications system.\(^{10}\)

Using studies of public opinion polls, Deutsch and Merritt attempted to construct a general theory of the causal relationship between events and images. By illustrating fluctuations from public opinion data, they contend that images are naturally contained within certain limits and follow a patterned sequence. While individual events may cause sharp fluctuations and returns to the norm, the cumulative effect upon the image changes and patterns remain the most important over a long period of time.

\(^9\)Scott, p.83.

Opinions, attitudes and beliefs parallel the concept of the image. These three concepts may be termed the three levels of an image’s generality and intensity. Opinions are generally public affairs-oriented, concerning short-run and topical evaluations. Attitudes, somewhat stronger in nature, are more inclusive and long-lasting. Beliefs center around the basic values in life and the individual’s perception of existence and safety. The most deep-seated of the three, beliefs are the foundations for opinions and attitudes. Opinions and attitudes are more consciously affected by cognitive content and, as a result, are more susceptible to change: "Opinions are sometimes called impressions or guesses, attitudes are sometimes called values or sentiments."  

Unlike opinions, attitudes — particularly those favorably oriented — toward foreigners are not usually sustained by a tightly knit and stable network of opinion leadership and human communication. They (attitudes) are unstable and tend to vary with the perceived distance between the two groups and their states. It is the assumption of this research that the effect of an event on an attitude — image will reflect the nature of the event. A favorably oriented event will cause a positive fluctuation in opinions and attitudes, or perceived images, of individuals toward the group connected with the event:  

"One commonly found cognitive dimension of international images is the benevolence or malevolence attributed to the nation-object."\textsuperscript{12}

B. Definitions

An event is an occurrence, regardless of its duration. There are three possible types of external events having effects upon images, two of which most directly concern this study.\textsuperscript{13}

Spectacular events can be located easily in time and space. They occur in a specific place and have a definite beginning and end. Spectacular events affect image formation and image change by setting the tenor of corresponding news coverage, striking chords in individual and collective memories, and changing opinion leadership.

Cumulative events are those which take place over a period of four years or more, comprised of a collection of smaller, day-to-day happenings. This concept is not directly applicable to this research and will not be considered.

The third type of event, shifts in governmental and mass media policy, may affect the formation or change of images by acting as managers of public messages about events.

\textsuperscript{12}Scott, p. 73.

\textsuperscript{13}Definitions are those used by Deutsch and Merritt, pp. 135-8.
President Nixon's visit to China represented the climax of a series of increasingly favorable and more positive interactions between the People's Republic of China (PRC) and the United States (US). The sequence of occurrences building up to and surrounding this event follows:

Figure 1 Sequence of Events

<table>
<thead>
<tr>
<th>US Ping-Pong Players tour of PRC</th>
<th>Summer 1971</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chou En-Lai invites Nixon; Nixon accepts</td>
<td>Fall 1971</td>
</tr>
<tr>
<td>US changes on PRC admission to UN; PRC admitted</td>
<td>Winter 1972</td>
</tr>
<tr>
<td>Nixon visits PRC</td>
<td>Spring 1972</td>
</tr>
<tr>
<td>PRC Ping-Pong players tour US</td>
<td></td>
</tr>
</tbody>
</table>

This study focuses upon public opinion and attitude reaction (as image fluctuation) resulting from President Nixon's visit to the People's Republic of China during February 21-28, 1972. The President's trip can be considered as both (1) a spectacular event and (2) a shift in governmental and mass media policy.

C. Previous Research and Literature

Relatively little research has been recorded incorporating the three basic components of this study: (1) international stereotype and image fluctuation, (2) spectacular events
and/or shifts in governmental or mass media policy, and (3) quasi-experimental assumptions and design. Perhaps the very nature of spectacular events and the task of constructing and executing a quasi-experimental design for the control of variables explains this scarcity. Most of the literature stems from public opinion surveys and speculation; only a few incorporate careful design and analysis.

Two studies illustrate the impact of shifts in governmental and mass media policy upon public opinion and attitudes. Event sensitivity was investigated by Rosi. Governmental changes in nuclear testing were treated as the independent variable while public opinion was investigated as the dependent variable as it responded to various shifts in policy. Similarly, Crespi dealt with media coverage (the independent variable) of the Eichmann trial and charted the growing public sympathy (the dependent variable) toward Jews, demonstrating public opinion sensitivity.

National stereotypes and their holder's image changes were investigated by Sinha and Sinha. Among Indians, the stereotype of the Chinese was negatively...

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altered as a result of the Sino-Indian War. Combining the concepts of image fluctuation and spectacular events (event sensitivity), this study demonstrated the impact an international event could have upon public opinion. Similarly, Bauer and Ames discovered that after cross-cultural contact Indian students' stereotypes of the United States and its citizens were positively altered.

In a quasi-experimental setting, Sicinski demonstrated event sensitivity and opinion change toward the subject of the event. Two surveys taken in 1963 just before and immediately after President Kennedy's assassination found that the respondents' perception of the late President's contribution to world peace climbed from 42.5% before the assassination to 83.3% immediately after the event.

The loss of an opinion change over a period of time has been studied by Chen with the use of college students' attitudes toward the Japanese and Chinese positions in the Manchurian crisis. Opinions were measured before, immediately after, and five months after the oral communications, with the finding that the communication produced

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significant change in the direction of the message immediately afterward. However, a complete reversion to original attitudes was found in the final survey analysis.  

This area of study aids in the understanding of international mistrust, biases, conflict and cooperation. Wedge found that unfavorable stereotypes impeded international understanding, suggesting that further research upon such stereotypes and increased socio-educational efforts on their reduction may ease international tension.  

The present study finds itself within this framework in the attempt to investigate the components and operation of international images.

A study of public opinion conducted by the Gallup Poll closely parallels the present research in objectives, if not in method. A survey conducted in 1966 was compared with one taken immediately following President Nixon's return from China (coincidental with the critical survey of the present study). The two Gallup surveys, designed to measure the American public's image of the Chinese, asked respondents to select from a list of twenty-three favorable and unfavorable adjectives which they felt best described the Communist Chinese:

\[^{19}\text{W.K.C.} \text{Chen, "Retention of the Effect of Oral Propaganda,"} \text{Journal of Social Psychology, VII (December, 1936), 479-483.}\]

"The terms 'ignorant', 'warlike', 'sly', and 'treacherous' were most often used in 1965, the last time the measurement was taken. Today, however, 'hard-working', 'intelligent', 'artistic', 'progressive', and 'practical' outweigh any negative terms used to describe the Chinese.

In the 1966 survey, the total of the negative terms used by the public to describe the Communist Chinese outweighed the total positive terms by the ratio of approximately 8 to 5. Today, in contrast, positive terms outweigh negative terms by more than 3 to 1."\(^{21}\)

Other related findings from the same survey revealed that 98\% of Americans questioned had heard or read about the trip, and that for the most part (2/3) they were optimistic about the trip's outcome.

Other public opinion polls dealt with the two other elements of this event; (1) American foreign policy and (2) President Nixon. Two Harris surveys discussed the President's highest point of popularity in two years as a result of the summit conference,\(^{22}\) and the growing popularity of and attention toward American foreign policy.\(^{23}\)

While the public opinion data cited above do not operate under the assumptions of the present study or use the same methods, the tenor of the findings is of great value in estimating the significance of the present study.


D. Hypotheses.

The purpose of this research is to examine the relationship between an international event and public opinion associated with related elements of that event. The event—the independent variable—will be viewed as a causal factor affecting public opinion—the dependent variable—in the light of American perceived images of the Chinese citizenry and government.

The general hypotheses investigated were:

(1) President Nixon's visit as an international event caused a favorable fluctuation in American public opinion toward China.

(2) Following the event, American public opinion and attitudes toward China tended to return to the pre-trip level.
CHAPTER II
METHODOLOGY

In this chapter methodological considerations will be discussed. The methods of data gathering and analyses will also be outlined with respect to the particular needs of this study. The development and use of the test instrument are also included within this discussion.

A. Research Design

The research design employed was quasi-experimental in nature and controlled effectively at least the most obvious threats to internal validity. The design incorporated the factors and logic employed in the designs of time series, equivalent time samples, equivalent materials samples and nonequivalent control groups. The combination of these designs is shown in Figure 2.

\[\text{The rationale and logic incorporated within the assumptions and discussion of the research design are derived from Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally and Company, 1963).}\]
Sample A  
Sample B  
Sample C  
Sample D  

\[ X = \text{President's trip} \]

\[ O_j = \text{Observations (questionnaire measurement points)} \]

Figure 2 The Research Design

The researcher began with an inadequate design and added special features to control suspected sources of invalidity. The resultant research approaches experimentation and is well suited for the limited setting and questions involved in this study.

Sample A consisted of a single panel (Observations \( O_1 \), \( O_2 \) and \( O_3 \)) occurring at one month intervals. The President's trip, here the experimental, or independent, variable \( X \) occurred just prior to the second observation \( O_2 \). The first round of interviews \( O_1 \) served as a control for the second round \( O_2 \), as both the first and second rounds \( O_1 \) and \( O_2 \) served as controls for the third round \( O_3 \).

According to predictions made on the basis of the hypotheses, the relationship among observations would exist in the following pattern:
(a) the measurements at 0₁, would be significantly less than the measurements at 0₂ (0₁ < 0₂);

(b) the measurements at 0₂ would be significantly greater than the measurements at 0₃ (0₂ > 0₃); and

(c) the measurements at 0₁ and 0₃ would be approximately equal (0₁ \approx 0₃).

0₁ < 0₂. 0₁ occurred before the President's trip and is employed in a control function within the panel study. 0₂ occurred immediately after the introduction of X and served to measure the most intense effect of X by a comparison with 0₁ of reactions on a positive-negative continuum toward the People's Republic of China. Therefore, because X (the President's trip) was hypothesized as positively influencing public attitudes/opinions toward China, positive measurement at 0₁ should be less than positive measurement at 0₂.

0₂ > 0₃. 0₂, as stated above, measured the most intense effect of X. 0₃, occurring later, should have measured somewhat less intensity due to increased distance between the independent variable (X) and the last observation (0₃). The hypotheses and literature focus upon the proximity of X as bringing about the measured changes; thus, the measurement at 0₂ should have been greater than that at 0₃.

0₁ \approx 0₃. 0₁ and 0₃ are equidistant from X in this design. It was the assumption of the research hypotheses that the reflexive return of attitudes to a lower level following X would be approximately the same curve as that from 0₁ to 0₂. More simply, the attitudinal level at 0₃, a measure
taken well after the President's trip, would approximate the level at $0_1$, a measure taken well before the President's trip.

The sources of invalidity are kept constant within a panel study over the period of research, reducing within-subject variations to a minimum. The internal sources of invalidity (the basic obstacles any experiment must overcome for interpretation) are thus reduced: history, maturation, instrumentation, regression, selection and mortality. These variables can confound the effect of the dependent variable by the occurrence or introduction of extraneous circumstances and conditions. A short discussion of each follows.26

History. This variable involves the occurrence of a specific event between the measurements in addition to $X$. This threat was unavoidable, considered minimal, and applied to all subjects equally.

Maturation. This variable involves the natural, physical and mental processes that normally occur between two points in time. The short time span and common environment limited the effect of this threat.

Instrumentation. Instrument variation is involved here. Changes in the calibration or observers of this study were not considered problems in that all instrumentation remained the same.

26The information that follows has been summarized from Campbell and Stanley, pp.5-6.
Statistical regression. This threat was avoided in that groups were randomly selected, and not on the basis of their extreme scores.

Selection. This threat was avoided in that subjects were not chosen on the basis of their different scores, but on a random basis.

Experimental mortality. Change of respondents is involved in this threat. The respondents remained identical and stable across three measurement periods. There was no loss or substitution of subjects.

Of the four external threats to validity (criteria through which an experiment becomes generalizable) three posed no problem: interaction of selection and $X$, reactive arrangements and multiple $X$ interference. The fourth, interaction of testing and $X$, did present a threat. A short discussion follows.

Interaction of selection and $X$. This threat involved the interaction effects of $X$ and selection biases. There was no threat from this variable.

Reactive effects of experimental arrangements. This variable precludes generalization of the effect of $X$ in non-experimental settings. This variable does not apply, due to the nature of the design.

Multiple-treatment interference. This threat is only applicable to studies involving more than one experimental variable. It does not apply here.

Interaction (or reactive) effect of testing. This threat
involves the situation whereby a pretest might increase or decrease the subjects' sensitivity to X and consequently cause the obtained results to be unrepresentative for an unpretested population. The subjects' exposure to the instrumentation (at 0₁) may have produced effects that confounded the effect of X and measurement at 0₂. This problem was overcome by the addition of "special features" mentioned above, namely the use of similar test groups in conjunction with the panel.

Samples B (0₄), C(0₅) and D(0₆) were designed for equivalent group comparisons to counter inadequacies in the above design. Assuming equivalent samples, the means (X̄s) of the corresponding panel observations should indicate any significant interaction between testing and X present in the panel design. Thus, the design incorporated the following theoretical relationship:

\[ 0₄ < 0₅ \]
\[ 0₅ > 0₆ \]
\[ 0₄ \approx 0₆ \]

The second analysis group, though, lacks the extrinsic symmetry of experimentation by failing to block several sources of invalidity. The nature of the second group design,

---

27Lane and Rosnow, however, report that pretest-treatment did not have a substantial effect on the magnitude of change of opinions shown a persuasive communication using intervals of 2 - 21 days. Robert E. Lane and Ralph L. Rosnow, "Effects of Pretest-Treatment Interval on Opinion Change," Psychological Reports, XXII (e, 1968), 1035 - 1036.
as stated above, is essentially that of a check upon variations introduced by the interaction of testing and \( \Delta \) in the panel study. The threats to validity, however, prevent the second group from becoming an identical comparative analysis. The threats to validity (from the related external sources) are those of interaction of selection and \( \Delta \) (self-selection) and reactive arrangements (effects not measured through selection and within-group variation).\(^{28}\) The second group's analysis, then, should reveal the general trend found in Sample A, although the group's inadequacies prevent it from producing significantly conclusive trends alone.\(^{29}\) Thus, Samples B, C and D should demonstrate \( 0_4 < 0_5 \) and \( 0_5 > 0_6 \).

### B. Samples and Sampling Method

Four samples were drawn for the study. The first sample (\( 0_1, 0_2, \) and \( 0_3 \)) comprised the panel study and consisted of thirty-one selected subjects, twenty-five of whom were secured for the survey.\(^{30}\) The second (\( 0_4 \)), third

---

\(^{28}\) The former, self-selection, was unavoidable due to the return mail nature of the subjects' responses. The latter is self-explanatory.

\(^{29}\) Because of the second group's inadequacies, a different level of statistical confidence is used: \( p < .05 \). The level used for the independent panel study is \( p < .01 \), a more conclusive measure. The nature of the second group's role (as a check) permits such a variation. Thus, all analyses involving \( 0_4, 0_5 \) and \( 0_6 \) will be evaluated at \( p < .05 \).

\(^{30}\) The remaining six were not used in the survey because: one had moved, two were inaccessible, three refused.
(0_5) and fourth (0_6) samples consisted of 150 names each with no repetition and coincided in time with 0_1, 0_2, and 0_3 respectively. All samples were selected at random from the list of registered voters of Williamsburg, Virginia in February, 1972. The list contained approximately 3,300 names of approximately 9,500 residents of the city.

No attempt was made toward a quota or nonrandom sample in order to achieve the greatest degree of representativeness. Neither was there an effort to determine the subjects' demographic characteristics. The researcher felt such an attempt might have discouraged participation and produced reluctance among subjects. The sex and race, however, of each respondent of the panel study was discernable by the researcher. Tables 1 and 2 compare the U.S., Virginia, Williamsburg, and Sample A by sex, race and age. This is not meant to justify a strict universal application or generalizability of this study, but serves as a reference point in evaluating the similarities among these characteristics among these groups. The importance of these tables is found in the fact that Sample A does not vary substantially from the ratios presented for the other groups by the

---

31 The sampling method was manually conducted. The registered voters' list consisted of four equally sized boxes of names (listed alphabetically). The researcher divided each sample size by four, thereby estimating the number of subjects drawn from each box. The subjects were then selected from each box by a random method; that is, each name within each box had an equal opportunity for selection. Separate and identical procedures were used for each of the four samples.
characteristics of age, sex and race. The tests of the hypotheses, then, were upon groups not recognizably unrepresentative, at least in these two dimensions of the population from which they were drawn.

Table 1  United States, Virginia, Williamsburg and Sample A by Sex and Age

<table>
<thead>
<tr>
<th>Groups</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States (a)</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Virginia (b)</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>Williamsburg (c)</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Sample A</td>
<td>48%</td>
<td>52%</td>
</tr>
</tbody>
</table>

**(a) 15 years and older  
(b) 14 years and older  
(c) 16 years and older


Table 2  United States, Virginia, Williamsburg and Sample A by Race and Age

<table>
<thead>
<tr>
<th>Groups</th>
<th>White</th>
<th>Non-white</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States (a)</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>Virginia (b)</td>
<td>83%</td>
<td>17%</td>
</tr>
<tr>
<td>Williamsburg (c)</td>
<td>89%</td>
<td>11%</td>
</tr>
<tr>
<td>Sample A</td>
<td>84%</td>
<td>16%</td>
</tr>
</tbody>
</table>

**(a) 15 years and older  
(b) 14 years and older  
(c) 16 years and older

 Returned rates for mailed questionnaires generally range from ten to fifty percent. The return rates for the three mailed sample groups were above average, in that the net rate (column \( \frac{3}{1-2} \% \)) was never less than fifty percent. The return rates of the three mailed samples and related computational data are displayed in Table 3.

Table 3 Return Rates by Sample for Mailed Study

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mailed</th>
<th>Returned to Sender(^a)</th>
<th>Completed Returns</th>
<th>( \frac{3}{1-2} % )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample B (C(_4)) 150</td>
<td>8</td>
<td>77</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>Sample C (C(_5)) 150</td>
<td>7</td>
<td>73</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>Sample D (C(_6)) 150</td>
<td>4</td>
<td>84</td>
<td>57%</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Unopened opinionnaires returned to researcher because addressee had moved or was deceased.

C. Pretest and Instrumentation

A pretest, or pilot study, was conducted to develop and refine the test instrument. A sixteen item opinionnaire was given to two Introductory Government classes at the College of William and Mary, using sixty-three subjects. The instrument was intended to measure multidimensional aspects of the subjects' attitudes toward China upon such diverse topics as trade, tourism, personal characteristics and war. Though the test instrument could

not possibly measure every facet of an individual's combinatorial image of the Chinese, the assumption was that an opinionnaire could provide a representative composite of current attitudes.

The test was constructed so that responses could be numbered on a continuum according to positive or negative attitudes. A Likert scale using five alternative responses for each opinion statement was used, containing these choices: strongly agree, agree, don't know, disagree and strongly disagree. The statements were randomly positive, and negative in opinion direction, in the attempt to disguise any experimenter-related expectations or bias. The subjects' responses were decoded on a positive continuum for analysis, where five became the most favorable response on a scale from one to five. For example, a negatively oriented statement with a response of strongly disagree would represent the most favorable alternative and be scored as a five. Similarly, a positively oriented statement marked strongly agree would also be scored as five.

The assumption of the instrument was incorporated in the pretest analysis. The interdependence of the images in and of themselves contain individual facets supposedly tested by the test instrument. That is, if the opinionnaire presumed to measure a cohesive set of interrelated opinions,
each question should represent an integral contribution to the total image. The method of analysis determining this relationship was the Pearson product moment correlation coefficient.

The Pearson r was used to define the positive contribution each question made to the particular total of each opinionnaire; thus, each statement was measured sixty-three times to determine its homogeneity with the total test, less that particular statement. Table 4 shows the 13 of 16 questions satisfying the Pearson r criteria (significant at p < .01) and the Likert scaling code employed. Three questions were lost due to their failure to meet the criteria of r(p > .01).

D. Experimental Procedure and Variable Measurement

The panel study consisted of three surveys (0₁, 0₂, and 0₃) of twenty-five people (subjects) taken at one month intervals. The subjects were asked to complete the opinionnaire, with no survey lasting more than a total of one week. Coincident with the panel survey at 0₁, 0₂ and 0₃ were the mailed opinionnaires at 0₄, 0₅ and 0₆, respectively.

Each mailed opinionnaire contained three articles:

---

33 Pretest analysis was performed by an IBM 360 at the Computer Center of the College of William and Mary. The program and related information can be found in Norman H. Nie, Dale H. Bent, and C. Hadlai Hull, Statistical Package for the Social Sciences (New York: McGraw-Hill Book Company, 1971).
<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Don't Know</th>
<th>Disagree</th>
<th>Strongly Disagree (+ or -)</th>
<th>Question</th>
<th>Pearson r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>In my opinion, improved relations with the Chinese can only hurt the US.</td>
<td>+.6269</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>I don't trust the motives of the Chinese government.</td>
<td>+.5154</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>12</td>
<td>1</td>
<td>I think it would be interesting to visit China.</td>
<td>+.5756</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>I think China represents a threat to democracy in the world.</td>
<td>+.4711</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>In my opinion, China is responsible for most of the problems in South East Asia.</td>
<td>+.3216</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>I think more trade should exist between China and the United States.</td>
<td>+.5225</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>In my opinion, China represents a threat to the United States.</td>
<td>+.4212</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>I don't think increased contact between China and the United States will accomplish anything important.</td>
<td>+.5211</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>In my opinion Chinese tourists should be encouraged to visit the United States.</td>
<td>+.3618</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>I don't think the Chinese government treats its citizens well.</td>
<td>+.3590</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>I would like to see closer relations between China and the United States.</td>
<td>+.7873</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>I think President Nixon's trip to China is a good thing.</td>
<td>+.5011</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>In my opinion, the United States should encourage friendly relations with China.</td>
<td>+.5243</td>
</tr>
</tbody>
</table>
(1) an introductory cover letter, explaining the general goals and procedures of the instrument, (2) the opinionnaire and (3) a stamped, addressed return envelope. Each mailed group was posted one day before the respective panel observation began to assure identical time periods. Similarly, the mailed groups were terminated one day following the completion of the panel observation.

Variable measurement involved the change and direction of attitude responses from $0_1 (0^4)$ to $0_2 (0^5)$ and from $0_2 (0^5)$ to $0_3 (0^6)$. Each opinionnaire was decoded from the Likert scale to a favorable-unfavorable continuum. Having 13 statements, the possible scores ranged from 13 ($13 \times 1 = 13$, or least favorable) to 65 ($13 \times 5 = 65$, or most favorable). The total response for each opinionnaire, then, was used as the $X$, or raw score. Thus, a group's mean ($\bar{X}$) represented the average individual response for that group.

Missing data occurred when subjects failed to respond to a statement. Such cases averaged less than 2% of the responses per question per group. A substitute score was introduced in this case by determining the average response to a particular statement for that particular set, thereby supplying a neutral score (that is, not extreme) while retaining the total number of actual respondents.

E. Method of Data Analysis

Data in the form of group means were examined to refute or confirm the hypotheses. These comparisons were
discussed in detail above. After inspecting the data to determine general trends, four phases of data analysis were performed.

(1) Panel Study. An analysis of variance with repeated measures was performed to determine the impact and significance (if any) upon public opinion attributed to President Nixon's visit to China.\textsuperscript{34} The analysis of variance, an operation designed to detect variations among sets of data, separated and distinguished the effects of residuals (intra-group variances) from those of treatments (inter-group variances). A t-test, though a less sensitive instrument, was used to evaluate differences hypothesized between particular pairs of means. The t-test analysis is discussed in item (4) of Chapter II, below.

(2) Two-Group Comparison. t-tests were employed in the comparison of characteristics among samples A, B, C and D. This device was an attempt to discover the effect of the self-selection threat to the second group (samples B, C and D) and the appearance of any interaction of testing and X occurring in Sample A. In addition, the t-test was used to test the groups for similar characteristics (range, variance, means, etc.) to satisfy the criteria for internal homogeneity, necessary for sample group comparison.

\textsuperscript{34}Statistical procedures used were not uncommon and can be found in Janet T. Spence, et. al., \textit{Elementary Statistics}, 2nd ed., Century Psychology Series (New York: Appleton-Century-Crofts, 1968).
(3) Mailed Study. An analysis of variance with unequal cell size and non-repeated measures was performed to determine the impact and significance (if any) upon public opinion attributed to President Nixon's visit to China. Individual t-tests again were used to determine significant differences as hypothesized between particular pairs of means. See Part 4 below.

(4) t-test of Hypothesized Relations. t-tests were employed to determine the specific direction of significant trends within the analysis of variance sections among particular pairs of groups.
CHAPTER III
RESULTS

A. Findings

Data in the form of group means were examined for the general hypothesized trends to determine the necessity of further analysis. The means of the six groups are presented in Figure 3. The general hypotheses are stated below with confirmation (✓) or disconfirmation (x) notations adjacent. The hypothesized relationships were found to exist by an "eyeball" analysis and warranted a more detailed investigation, discussed in Chapter II Part E, Method of Data Analysis. These analyses assumed the presence of these general relationships and sought to determine the statistical significance of the findings.

(1) Panel Study. The analysis of variance data for the panel study is presented in Table 5. The analysis of

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within Groups</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>15.96</td>
<td>7.35</td>
<td>.01</td>
</tr>
<tr>
<td>Residuals</td>
<td>48</td>
<td>2.17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FIGURE 3

GROUP MEANS BY TIME BY SAMPLE

February 1972  X  Feb-March  April 1972

RAW SCORES

49
48
47
46

"EYE BALL" ANALYSIS

Hypothesis Confirmed

$0_1 < 0_2$  ✓
$0_2 < 0_3$  ✓
$0_4 < 0_5$  ✓
$0_5 < 0_6$  ✓

$\bar{x}_1 = 45.56$  $\bar{x}_4 = 45.72$
$\bar{x}_2 = 46.64$  $\bar{x}_5 = 48.48$
$\bar{x}_3 = 45.08$  $\bar{x}_6 = 48.11$

- President's Trip
- Panel Study (N=25)
- Mailed Study (N; $0_1=7$  $0_2=7$  $0_3=7$  $0_4=7$  $0_5=7$  $0_6=7$)
variance indicated the source of fluctuation due to the event (effects of X) rather than residuals (differences among people), supporting and confirming the hypothesis.

(2) Two-Group Comparison. The t-test results for the two-group comparisons are displayed in Table 6. No significant differences were found (1) between the response-sets of the corresponding observations or (2) in the characteristics of the compared group of scores when considering homogeneity of means, range and variance. Thus, Samples A, B, C and D shared common characteristics and were sufficiently random for the present analysis.

Table 6 t-tests for Two-Group Comparisons

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Homogeneity</th>
<th>p &gt; .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \sigma_1 \approx \sigma_4 )</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>( \sigma_2 \approx \sigma_5 )</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>( \sigma_3 \approx \sigma_6 )</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

(3) Mailed Study. The analysis of variance data for the mailed study is presented in Table 7. The analysis indicated confirmation and support of the first hypothesis.

Table 7 Analysis of Variance for Mailed Study

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>171.07</td>
<td>3.24</td>
<td>.05</td>
</tr>
<tr>
<td>Within Groups</td>
<td>231</td>
<td>52.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(4) t-tests of Hypothesized Relations. The t-test data for the selected two-group comparisons is presented in Table 8. The comparisons explored the hypothesized trends found existing in the "eyeball" analysis of Figure 3. t-tests of the panel study and $0_4 < 0_5$ were found significant at $p<.01$ and $.05$ respectively,\(^{35}\) however, no significant difference was found in $0_5 > 0_6$.

Table 8 t-tests for selected paired-comparisons

<table>
<thead>
<tr>
<th>Source of Variance as Hypothesized</th>
<th>p</th>
<th>Confirmation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0_1 &lt; 0_2$</td>
<td>.01</td>
<td>✓</td>
</tr>
<tr>
<td>$0_2 &gt; 0_3$</td>
<td>.01</td>
<td>✓</td>
</tr>
<tr>
<td>$0_1 \approx 0_3$</td>
<td>.01</td>
<td>✓</td>
</tr>
<tr>
<td>$0_4 &lt; 0_5$</td>
<td>.05</td>
<td>✓</td>
</tr>
<tr>
<td>$0_5 &gt; 0_6$</td>
<td>.05</td>
<td>X</td>
</tr>
</tbody>
</table>

B. Interpretations

The data analysis conclusively support the first hypothesis, and raise questions (both substantial and procedural) about the second. The study and its findings are presented in summary form in Table 9. The visit as an international event did cause a favorable fluctuation in American public opinion toward China among the subjects \(^{35}\)See Footnote 29 for explanation of two levels of confidence.
Table 9 Summary of Findings

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Significant</th>
<th>Trend Present</th>
<th>Conclusive Support</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Panel Study</td>
<td>Mailed Study</td>
<td></td>
</tr>
<tr>
<td>(1) President Nixon's visit as an international event caused a favorable</td>
<td>Yes (0₁ &lt; 0₂)</td>
<td>Yes (0₄ &lt; 0₅)</td>
<td>Yes</td>
</tr>
<tr>
<td>fluctuation in American public opinion toward China.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) American public opinion and attitudes toward China tended to return to</td>
<td>Yes (0₂ &gt; 0₃)</td>
<td>No (0₂ &gt; 0₆)</td>
<td>No</td>
</tr>
<tr>
<td>the pre-trip level.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

of the two groups observed. However, public opinion and attitudes toward China did not return to the pre-trip level within the time provided by the study in both groups, though there was a significant return within the panel study.

A consideration of the limitations of this study must include discussions of (1) the samples, (2) the research design, (3) variable measurement and (4) statistical analysis. The discussions focus upon possible deficiencies as obstacles to generalization and their effect upon conclusions.

(1) The Samples. The obstacles in the present study stemming from sample-selection are not serious threats to generalization. The samples were drawn randomly from the
list of registered voters of Williamsburg, whereby the characteristics of age, sex and race were used to compare the similar ratios of Sample A, the United States, Virginia and Williamsburg (See Tables 1 and 2). Further comparative analysis was considered unnecessary. The mailed opinionnaires, though dependent somewhat upon self-selected and non-repetitive responses, returned at a fairly high rate (see Table 3). The inter-group tests for homogeneity established the samples' characteristics as qualified for independent analysis.

(2) The Research Design. The research design was constructed to minimize and offset deficiencies anticipated in other components of this study (as in the samples above). No serious obstacles or limitations arose from the research design. An unanticipated phenomena occurred, however, relating to the research design. The purpose behind the inclusion of Samples E, C and D, their comparative analysis with Sample A, and their analysis of variance was that of a check against anticipated heightened responses of Sample A due to interaction of testing and X.

An unanticipated effect manifested itself, however, as the difference between scores at $0.2-0.5$ and $0.3-0.6$ became greater due to lower response averages within the panel study (see Figure 3). This reaction can logically be attributed to one or both of the following two explanations:
(a) testing had a dampening effect upon responses to X within the panel study, rather than a heightening effect as anticipated; or (b) responses from Samples B, C and D came from those people most influenced by X and failed to record the views of the less interested, while the panel study included responses from both categories. Each can be viewed as a product of an individual subjects' reluctance or sense of constraint.

(3) Variable Measurement. No threats were perceived through the instrument or its use. The scores within the groups approached curves of normal distribution. This distribution indicates that the logic underlying the instrument -- that is, its function as a coherent sampler of some general feeling toward the People's Republic of China -- was not undermined. The distribution of scores, then, moved to focus upon a more favorable (mean) position as a result of the event.

(4) Statistical Analysis. The statistical analyses employed for the study dispersed any questions as to the legitimacy of its support for the first hypothesis and subsequent doubt of the second through the design of internal crosschecks. All samples and the corresponding score groups assumed equivalent were determined to be statistically homogeneous. Analysis of variance procedures separated between subject effects from within subject effects.
The t-test procedure employed proved that the sample groups were indeed random and comparable groups.

Support for the Deutsch and Merritt hypotheses stated earlier, that "Frequently attitudes shift ... in response to some particular event" can be found with this study. Their corollary, however, that the attitudes will "return to their previous level after some time has passed ..." cannot be supported here, considering only the time allowed within this study. Though the first hypothesis was conclusively confirmed in this setting, the second hypothesis was neither completely confirmed nor disconfirmed. Chen's study\(^{36}\) using a five month interval, and the present study suggest that the initial fluctuation is gained over a much shorter period than it is lost; that is, the subjects' attitudinal return to the pre-event status is a more time-consuming process than the conversion from pre-event to post-event levels.

C. Conclusions

The results of this research support the general theory concerning images, opinions, attitudes and beliefs presented in Chapter I, Section A. Images do appear to have a coherent interrelationship, as was assumed by the use of a multidimensional opinionnaire. The use of Boulding's concept of an interdependence of societal and economic characteristics associated with the image projected by PRC.

\(^{36}\) See footnote 19.
appears justified. The fluctuation of independent response sets was almost unified. Opinionnaire items regarding war, trade, tourism, democratic principles and American national security related to the PRC fluctuation favorably as a function of the President's visit. They appear to support Boulding's concept of "the" image.

Opinions, attitudes and beliefs appear to be the structural components of image formation and maintenance. Opinions, the most flexible of these variables, most likely are represented by the individual opinionnaires at each particular sample period. Attitudes, somewhat more stable, are represented by the composite response sets as a more indicative index of public response and intermediate stability. Beliefs, the strongest of these factors and what may be considered the underlying foundation of the previous two elements, can be viewed as the total concept of the image. Beliefs remain little changed by isolated events over a long period of time, which the current research would suggest but does not conclusively support.

The results of this study offer general support for, and concurrence with, the previous literature cited in Chapter I, Section D: international events do cause sharp fluctuations of images held by national groups. Studies of compiled public opinion data and previous research qualify and define President Nixon's visit to China as a significant international event. The current
research also points to the parallels between the significant reaction by the sample groups and the studies conducted by Gallup. The Gallup polls, it should be noted, through their long use and established credibility, lend strength and further support the representative nature of the samples and the plotted public reaction.

In particular, the Sicinski, Sinha and Sinha and Chen studies demonstrated public opinion/attitude fluctuation in the direction of, and as a result of, the nature of the event. The Chen study specifically lends itself to the present study due to its extended post-event time period and subsequent observation. The trend found in this research suggests that had the time measurement been extended, a return to the pre-event level might have occurred among all groups used in this study. Further research into the relationship between the initial impact of the event and the time lapse for a return to pre-event levels may prove explorable and interesting. Care must be first taken, however, to find an event with a measurable impact and to play adequately for additional ramifications through cross-pressures.
BIBLIOGRAPHY


VITA

Terry Dixon Bevels