# A STUDY OF INTERNATIONAL THREAT

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
John Cobb, Jr.
1964

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#### ABSTRACT

#### A STUDY OF INTERNATIONAL THREAT

by John Cobb, Jr.

This is a study of sources of international threat as perceived by people of different nationalities. It attempts to establish certain correlates of international threat in terms of country characteristics which include ideology, size of population and per capita wealth.

It is assumed here that nations may be defined as organizations, i.e., that the citizens of any nation are interconnected by channels of communication and that they exhibit certain regularities of behavior. One of these regularities is assumed to be a high degree of consensus concerning which other nations are threatening or dangerous. Perceived international threat is defined here as a mechanism which controls the growth of an international community of nations.

A sample of 24 countries was selected which was stratified by ideology (Communist and non-Communist), population (large and small), and level of per capita energy consumption (rich, medium and poor). These three country characteristics—plus the nationality of the subject—were hypothesized to be related to how threatening a country is judged to be.

The sample of subjects included people of five different nationalities. Except for a special subsample of experts in international relations, the sample was made up of graduate students at Michigan State University. Nationality subsamples were made up of four persons each, and the entire sample consisted of only 24 people. With such extremely

small and non-random subsamples, no claim can be made that findings are representative of the five nationalities studied (Brazilians, Egyptians, Indians, Formosan Chinese and Americans).

To operationalize international threat subjects were asked to respond to a 21-point scale marked "safe/not threatening" at one end and "dangerous/ very threatening" at the other. Subjects made an X on this scale for each of the 24 countries to indicate how threatening they judged it to be. These responses were coded as scores of 0-20 with 20 representing maximum threat.

These threat scores were analyzed in various ways. A Q factor analysis of these sets of responses produced a five-factor solution in which American, Indian and Brazilian "types" of responses were discernable, plus two Egyptian "types." This offers an indication that the nationality of the respondent was of importance--(83% of the variance was accounted for)--in defining which countries are judged as threatening and not threatening. It also suggests that despite the lack of sampling procedures, the fact that three of the nationality subsamples are indicated to be different "types" of people lends some substance to the hope that nationality differences and similarities have been tapped.

The analytic technique used to test most hypotheses was a factorial analysis of variance. For this sample--which included subjects from "neutralist" countries such as Egypt and India--Communist countries were seen as more threatening than non-Communist countries, and large countries were perceived to be more threatening than small countries, regardless of ideology. The nationality of the subject again proved to be a strong effect influencing judgements of international threat.

The per capita wealth or energy consumption of a country was also found to influence judgements about threat, but its effects were far more complex than those hypothesized. This variable interacted with all of the others in the analysis, and severely restricted the statistical interpretation of the analysis of variance of threat scores. In general, poor countries were seen as most threatening, rich countries as next most threatening and countries of intermediate wealth as least threatening.

Among the three country characteristics examined, ideology was found to have the strongest influence upon threat judgements. But the nationality of the subject was an even stronger influence.

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bу

John Cobb, Jr.

# A THESIS

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

MASTER OF ARTS

Department of Communication

1964

## **ACKNOWLEDGEMENTS**

I wish to express my appreciation to my advisor, Dr. Malcolm S. MacLean, Jr. for guidance and assistance with this study from planning to presentation; to Dr. Eugene Jacobson, Dr. Randall P. Harrison and Dr. John T. McNelly for constructive criticism and encouragement; to Albert Talbott for assistance with the analysis of variance design and for supervision of data processing; and to Mrs. Shirley Sherman for typing this thesis.

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#### CHAPTER I

## INTRODUCTION

A Theoretical Exploration of the Concept of Threat

Note: This chapter examines various sources of theory and research in an effort to provide a broad theoretical field in which perceived international threat may be defined and studied. A communication model derived from cybernetic theory is proposed.

The variables and hypotheses of immediate theoretical concern in this study are discussed in Chapter II.

The purpose of this study is to investigate the relationship between perceived threat and danger represented by a given country or class of countries and the nationality of the perceiver. There will also be an effort to ascertain the relationship between degree of perceived threat and certain country characteristics such as national population, per capita wealth, and political ideology.

In this study, threat is the dependent variable of major concern. How is threat to be dealt with in theoretical terms? Efforts to study threat have been made at various levels of generality. Several of these levels will be examined here.

The most abstract efforts to include threat in scientific theory have been in the field of cybernetics. Here efforts have been made to formulate theory which deals with communication and control in a wide diversity of systems—astronomical and chemical as well as biological and social. The notion of threat is used in this body of theory in terms of defining the elements of an on-going system or organization. This

study is concerned with three levels of organizations: (1) individuals, (2) nations, and (3) groups or blocs of nations, so this theoretical approach should be of some value here.

In dealing with organizations in general, cybernetic theorists make several axiomatic assumptions. In The Human Use of Human Beings, Norbert Wiener says, "...certain organisms, such as man, tend for a time to maintain and often even to increase the level of their organization... The process by which we living beings resist the general stream of corruption and decay is known as homeostasis... The oxygen and carbon dioxide and salt in our blood, the hormones flowing from our ductless glands, all are regulated by mechanisms which tend to resist any untoward changes in their levels. These mechanisms constitute what is known as homeostasis, and are negative feedback mechanisms." (1)

Weiner goes on to say, "It is the pattern maintained by this homeostasis which is the touchstone of our personal identity... We are but whirlpools in a river of everflowing water. We are not stuff that abides, but patterns that perpetuate themselves." (2) In this approach, both personality and culture may be conceptualized as patterns in the process of transmission which change as they are constrained by communication with other patterns.

W. Ross Ashby, another cybernetic theorist, suggests that external threats and disturbances are not necessary for defining organization, per se, but that they are necessary in defining a viable organization or an organism which acts so as to further it's own survival. Ashby says that "there is not any property of an organization that is 'good' in any absolute sense; all are relative to some given environment, or to some given set of threats or disturbances, or to some given set of problems." (3)

He also says that "the organization (whether of a cat or an automatic pilot or an oil refinery) is judged 'good' if and only if it acts so as to keep an assigned set of variables, the 'essential' variables, within assigned limits." (4)

Here an effort will be made to develop a communication model of the international situation in terms of Ashby's cybernetic theory. It will be conceptualized as a situation in which previously isolated, independent systems become interconnected in a larger system. "An example," of such a situation, says Ashby, "is the embryo nervous system, which starts with cells having little or no effect on one another, and changes, by the growth of dendrytes and formation of synapses, to one in which each part's behavior is very much affected by the other parts." (5)

The proposed communication model would be one which starts with nation-states having little effect upon one another, and changes, by the growth of communication to one in which each country's behavior is very much affected by that of the other countries.

In this view it is the establishment of increasingly large communication channels and flow of messages between countries which has replaced relative independence with conditionality and imposed new constraints upon the behaviors of countries.

Here it is assumed that to the extent that channels of international communication exist, to that extent international organization exists in that constraints have been imposed upon what were relatively independent parts. (Of course, it is not the formal, conscious, planned sort of international organization that is being discussed here.) In these terms, organization need only be defined as conditionality between

parts and regularity of behavior. A further implicit assumption is the one already implied in the definition of homeostasis: systems or organizations tend toward states of equilibrium.

In this theoretical context, threat has no intrinsic qualities, but, rather, expresses a relationship. First, an organization must be defined as a number of interdependent parts: the behavior of each part is constrained by the behavior of other parts. Each part has a number of psosible states: each variable has a number of values. The laws or regularities of the system are such that certain values of states are preferred over others. A threat, then, is any element or event which tends to drive the outcome away from the preferred values of the system's variables.

For a mammal, body temperature must be maintained within certain limits. Anything which tends to push body temperature too high or too low represents a threat to the organism. For a business organization, income and expenses must be kept in balance. Anything which pushes income below expenses represents a threat to the organization.

To describe the proposed model of international relations further, two more concepts must be introduced: boundary maintenance and systemic linkage. The tendency of a system to maintain its independence and relative isolation from other systems will be called boundary maintenance. The tendency for a system to increase its communication and thus its interdependence with other systems will be called systemic linkage.

An extreme example of boundary maintenance in the international sphere is the present U.S. policy toward Cuba. An example of systemic linkage is the change of status of Hawaii and Alaska from territories to states. Other examples of systemic linkage are the installation of the

"hot line" between Washington and Moscow, and the proposed commercial flights between New York and Moscow.

In general, an increase in communication and trade indicates systemic linkage, and an absence, or a reduction in these things indicates boundary maintenance. Here it will be assumed that if a country is perceived as threatening or dangerous, a policy of boundary maintenance will be carried out. If a country is not seen as threatening or dangerous, the potentiality of increased communication and interdependence exists.

In this view threat is a negative feedback mechanism which results in the reduction of systemic linkage.

Such an idea is neither new nor novel. In a book published in 1945, two English anthropologists discussed social change in terms of equilibrium and disequilibrium:

"The positive or cultural forces of social change are new ideals, ideas and intuitions of beauty, and the discovery of new uses for material resources, of new facts and of new techniques...

"The negative or structural forces are intollerable opposition between groups and categories of people that threaten, unless some change is quickly made, to destroy law, logic and convention. These are the forces of disequilibrium." (6)

Godfry and Monica Wilson go on to say that, "So long as foreigners are regarded as dangerous enemies to whom one has no obligations, trade or other cooperation with them is impossible." (7)

Some insight into the nature of international isolation and independence as contrasted with the interdependence created by communication with other countries is offered by the following discussion of Tibet by the current Dalai Lama:

MPerhaps the best known quality of Tibet in the recent past was its deliberate isolation. In the world outside, Lhasa was often called the Forbidden City. There were two reasons for this withdrawal from the world. The first, of course, was that the country is naturally isolated. Until the last decade, the route from the border of India or Nepal to Lhasa was a journey of two months across high Himalayan passes which were blocked for a large part of the year. From my birthplace in the borderland between Tibet and China the journey to Lhasa was even longer, as I have already told—and that borderland itself was over a thousand miles from the sea coast and ports of China.

Isolation was therefore in our blood. We increased our natural isolation by allowing the fewest possible foreigners into our country, simply because we had had experience of strife, especially with China, and had no ambition whatever except to live in peace and pursue our own culture and religion, and we thought to hold ourselves entirely aloof from the world was the best way of ensuring peace. I must say at once that I think this policy was always a mistake, and my hope and intention is that in the future the gates of Tibet will be kept wide open to welcome visitors from every part of the world." (8)

Here a change from a policy of isolation to a policy of increasing external communication is suggested. Visitors from foreign countries were judged as dangerous; now they are considered safe. A policy of boundary maintenance has been abandoned in favor of a policy of systemic linkage.

These opposite sorts of behavior are discernable in many kinds of systems. In molecular systems with high mutual attraction like molecules stick together and expose the least possible surface areas to foreign contact. An example is a ball of mercury. In molecular systems of high capillarity, there is a strong attraction for alien molecules: water spreads out and clings to glass.

Nations in this century rarely assume that the total external environment is threatening and maintain the extreme policy of isolation pursued by Tibet. More often such a social system discriminates some

elements in its environment which are relatively safe or benign from other elements which are relatively threatening or dangerous. And it usually has in its repertory of responses both adaptive and defensive reactions to unfamiliar or changed aspects of the environment.

From the theoretical viewpoint which has been developed here, threat or danger posed by other countries provides negative feedback which restrains and controls the growth of a global international system made up of nation states.

It is also possible with such a model to use another unit of analysis, and consider the "Communist bloc" and the "non-Communist world" as organizations or systems. There is certainly more communication and commerce within these groups of countries than between them.

In terms of the model developed here, the degree of organization existing in the non-Communist world should be indicated in consensus among individuals in non-Communist countries that Communist countries are threatening. However, not as much organization would be expected at this level of analysis as would be expected when nations are the units of analysis.

Stated in general terms, the model developed here assumes that personalities, national cultures and larger patterns of culture may all be conceptualized as patterns in the process of transmission which maintain stability by homeostasis. They change and modify themselves if, and only if, they are constrained by communication with other patterns. Thus both stability and change are taken into account in this communication model at various levels of organization.

(It is interesting to note that in describing A Cross-Polity Survey,

Banks and Textor state that the basic concept used is "pattern.") (9)

As communication imposes conditionalities or constraints upon the behavior of each individual, he may be considered as an interdependent part of a system. Thus the clan, tribe, feudal community and nation may be considered systems to the extent that the communication net imposes constraints upon the behavior of its members.

The socialized individual finds that to maintain his essential biological variables in equilibrium, it is necessary to maintain equilibrium within one or more larger social systems of which the individual is a constrained or interdependent part.

The present age of nationalism may be defined in terms of the formalized boundary maintenance which takes place at national borders.

This suggests that national communication networks impose constraints upon the attitudes of their members concerning external threats. In the terms used here, one index of national organization would be consensus concerning a pattern of external threats.

## Individual Organization

It is assumed here that individual and social change is always mediated by communication. How does this operate at the level of individuals?

Theodore Newcomb sees interpersonal communication as an ABX system in which each message modifies the state of the two-person system in the direction of symetry. In terms of what has been said previously, this "process of co-orientation" can be viewed as change in a two-person social system which is mediated by communication.

Just what happens when a new and relatively novel message is received? The following description is in the nature of a hypothesis which owes much to the work of D. E. Berlyne. In most general terms the problem will be case as the introduction of a new element of information into a system, and the consequent reorganization of the system.

A healthy organism devotes part of its time and energy to environment scanning or information seeking behavior. (Natural selection has provided some assurance that the sensory apparatus is appropriate for attending to external elements which are potential problems, disturbances or threats to survival or well being.) The sense data or new information which filters into the brain is checked against old information which has been gathered during the past and stored in the memory. The result of the check between sense data and memory data is a same/different reaction.

When the check between new and old information yields a "different" response, the healthy individual focuses the senses on the new or unexpected or changed element in the perceptual field. Since the individual has no learned responses or attitudes concerning the new element, there are conflicting response tendencies. The conflict brought about in the self by new information which is contrary to expectations about the environment may have a number of outcomes.

An "exploratory drive" may impel the individual to orient itself toward the uncertain stimulus for maximum stimulation from it, to approach it, and examine it. There is some evidence that unfamiliar objects or events bring about exploratory behavior on the part of healthy organisms.

(This is something like the capillarity of water mentioned earlier in

which there is a strong attraction for alien molecules.)

The first thing that happens during the "orientation reaction" is a scanning-rescanning by the appropriate senses in an effort to increase information and reduce uncertainty. Pavlov called this reaction to a perceived change in the environment the "what is it?" response. Berlyne calls it the orientation reaction. He points out that the same external conditions may bring about a reaction of curiosity, fear, adaptive behavior, or even laughter.

## rerception of Threat

The next step in the process is an evaluative reaction of safe/
dangerous. If the evaluative reaction is "dangerous," then a fight/flight
or attack/retreat decision is made and appropriate behavior is carried
out to maintain the physical and psychological integrity of the individual.

If the evaluative reaction is "safe," then a number of choices are opened including more information seeking and another evaluation. It would seem that a likely sequence of action in response to new information or a novel stimulus is information seeking, tentative "safe" evaluation, more information seeking, another safe/dangerous evaluation, etc. This sort of behavior is exemplified in the gingerly approach to an uncertain stimulus. As long as the safe/dangerous evaluation remains tentative, approach/avoid/approach behavior is likely. From the subjective viewpoint of the individual, an attitude, orientation or policy has not yet been decided upon.

An evaluation of "dangerous" brings about a defensive reaction, while an evaluation of "safe" brings about an adaptive reaction. Both

adaptive and defensive reactions are generalized and pervasive physiological states, and both act to counteract stimulation or information gathering, and reallocate available energy.

The defensive reaction has been thoroughly explored and fitted out with terminology by Freudian psychologists. Ego-defensive behavior includes denial, identification with the agressor, repression, projection, etc. In Irving Sarnoff's definition, ego defense is a response to intolerable fear to minimize incapacitating the ego's perceptual function. He says that threatening events exert the greatest strain on the ego's perceptual function. (10)

In Berlyne's terms the defensive reaction counteracts stimulation:
energy is diverted from the sense organs in favor of the musculature.

(In terms of a national system, this would be equivalent to allocating less money to the diplomats and more to the military.)

One limitation of the intra-individual approach outlined above is that it takes little note of the importance of other individuals in the environment. Theodore Newcomb, in writing about the acquaintance process as a prototype of human interaction suggests that between two given people the process goes on indefinitely: "Participants, however familiar with one another they may already be, acquire information about each other, assess one another's attitudes, and either reinforce existing states of orientation toward each other and toward the common world, or change them, or develop new ones." (11)

This implies that perhaps the other persons and groups making up the interpersonal environment of the individual should constantly be considered as relatively novel stimuli in Berlyne's schema. Each new

encounter offers an opportunity for increasing information and reducing uncertainty and for the evaluation of any information which is classified as different from that received during previous encounters.

Newcomb sees the individual as confronted with the constant problem of maintaining three kinds of equilibrium: (1) intrapersonal, (2) with other individuals and groups, and (3) with the world that we have in common with these persons and groups.

The communication input which provides the constraints within and among these systems consists of (1) direct sensory experience, and (2) the testimony of other people. As long as this communication input is internally consistent, no question arises about the "real" nature of things. But when there is conflicting evidence perceived in communication input, then disturbing questions arise about "myths" and "realities," and conflicting response tendencies are activated.

"Thus," says Newcomb, "we become sensitive to the acquired, drivelike state of strain" which, like other states of drive, may be tolerated for a time at least, but whether endured or appeased, influences behavior." (12)

Two kinds of tendencies in balance-promoting changes in orientations discussed by Newcomb are the autistic and the realistic.

"Insofar as they are characterized by distortion of the testimony of others in balance-maintaining fashion-so that one's orientations neither toward those others nor toward the common world need be changed-we have referred to them as autistic. And insofar as balance is achieved by changing one's own orientations (either attitudes or attractions) rather than by distortions of others orientations, the adoptions, may,

contrarywise, be regarded as realistic." (13)

#### Stress and Strain

This pressure toward equilibrium in interpersonal systems Newcomb calls "strain." "Human socialization necessarily includes the acquiring of many attitudes that are consensual with others' (especially adults') attitudes. To survive requires the acquiring of unfavorable attitudes (like those of adults) toward possibly drowning water, or devouring beasts, or macerating machinery. To adapt comfortably to a stabilized family, community, or social order one must acquire the right attitudes (attitudes like those of one's associates who have already adapted comforably to family, community, etc.) toward cabbages and kings and all else that is culturally approved or disapproved. Socialization, in short, includes the building of danger signals when attitudinal discrepancies with trusted others are perceived." (13) These danger signals provide negative feedback necessary for the maintenance of equilibrium between an individual and a social system.

Richard S. Lazarus has studied a variable which he calls "stress."

"This anticipation of potential harm or motive thwarting is the key to
the concept of threat. I regard threat as the central intervening
variable in psychological stress." (14)

In discussing the role of evaluation or "discriminating between dangerous or threatening conditions and benign ones," Lazarus says, "The process of appraising which circumstances are harmful and which are benign is crucial to the production of stress reactions... It seems likely that beliefs or expectations about events based both upon past experience and the present stimulus configuration determine whether a

stimulus will be appraised as threatening." (15)

What has been labeled a safe/dangerous evaluation in previous pages is called "cognitive appraisal" by Lazarus. "The concept of cognitive appraisal implies that the same stimulus can be threatening or not, depending upon the interpretation the person makes concerning its future personal significance... The threat is not simply an attribute of the stimulus; rather it depends for its threat value on this appraisal, which in turn depends upon the person's appraisal of the meaning of the stimulus for the thwarting of motives important to him." (16)

In an experimental situation in which stress reaction was indexed by skin conductance, Lazarus demonstrated that the stress reaction to the same visual event could be significantly modified by varying simultaneously presented verbal commentary (i.e., cognitive appraisal). His conclusion was that the defensive verbal messages—constructed along lines specified by the theory of ego-defense—significantly reduced the threatening impact of a visual event (a motion picture).

Lazarus has demonstrated that "the same stimulus may be threatening or not, depending upon the manner in which it is interpreted." (17)

Perhaps some individuals habitually interpret their environment as being more threatening. Or in Berlyne's terminology, they may habitually make use of a defensive reaction.

John A. Hammes has found that highly anxious individuals rate environmental stimuli higher on a "danger-agression-threat" continuum than less anxious individuals. He operationalized high and low anxiety by Taylor Manafest Anxiety Scale items in multiple choice form on the Heineman Forced Choice Anxiety Scale. Hammes concluded that his findings

support the view that "manifest anxiety" may be considered as a personality characteristic. (18)

Authoritarianism is a well-known concept related to dichotomizing of complex issues, acceptance of authority figures and maintaining a view of the world as hostile and threatening. Non-authoritarianism--as indexed by a low score on the F-scale--is associated with perceptiveness of others. Low scorers tend to be more sensitive to interpersonal relations among their peers. In Berlyne's terms they use their senses more and their muscles less.

Newcomb and others have found that nonauthoritarians are more accurate in estimating the attitudes of people with whom they interact. And O. J. Harvey has found that "higher authoritarianism was reflected in tendencies to form judgmental norms or concepts of novel stimuli more quickly, as manifested in faster reaction time and less variability in the judgments entering into the formation of a concept." (19) In terms of the hypothetical cognitive circuitry described earlier, it would seem that high F-scale scorers move from orientation to evaluation more quickly. And the faster reaction time suggests that they are able to allocate energy from the sensory apparatus to the musculature more quickly—a change associated with the defensive reaction.

Harvey found that high F-scale scorers demonstrated shorter delay in perception of movements and that "...authoritarianism disposes toward faster and more rigid structuring of novel stimuli." He also found that "authoritarianism disposes the individual toward increased closedness of his conceptual system and hence toward warding off events that deviate very far from his simple and narrow-banded interpretative schema."

This suggests that authoritarianism is related to autisim, and this was validated by Newcomb. He found that in an interpersonal relationship with peers, "the relationship between authoritarianism and autisim increases with acquaintance, and may be reversed at early stages of acquaintance if objects of orientation are important enough to induce very strong forces toward balance." (20)

### Perceived Threat in an International Context

The foregoing pages have been an effort to make a case for the position that judgments of "safe/dangerous" or "threatening/not threatening" about aspects of the social reality of an individual are not a randomly selected attitudinal dimension but rather a fundamental evaluative operation which takes place as a system, organization, organism or person maintains equilibrium in a world which includes external threats, disturbances and problems.

It has further been suggested how this conceptual scheme can be fitted into a communication model which defines individuals, nations, and blocs of nations as systems whose degree of independence of other systems is defined by degree of communication with other systems.

Minimum communication with other systems equals maximum independence of the system. Maximum communication between systems imposes maximum constraints and conditionalities upon system behavior. This suggests that growth is taking place and that the systems are becoming sub-systems of a larger system as communication increases. It is thus suggested that the current international situation can be defined in terms of "levels of interdependence." (21)

Within the highly integrated nation-states of the mid-twentieth century, the integration of the system is expressed in terms of many constraints upon the behavior of the individuals, and among these constraints are those which impose consensus concerning threats or disturbances external to the national system.

Ross Stagner has taken a similar position in suggesting that "man come to value his nation, or other social group, as an essential part of his environment, and mobilizes energy to protect it. Further, as a part of this process, he distorts the input of information in such a fashion as to protect valued aspects of his social environment, and these distortions contribute in no small degree to the intensity and bitterness of social conflicts." (22)

Stagner says that "for both theoretical and practical reasons, we should focus on how members of groups perceive other groups, and their goals and tactics," and that "social conflicts are rational if we grant the accuracy of the way in which the participants perceive the issues." (23)

In detailing the role of perception he says that "it can magnify certain information inputs, giving them greater weight; and secondly, the obvious collary, it can diminish the importance of other cues. Finally, actual distortions may occur in quality and magnitude." (24)

In this study, Stagner's admonition to focus on how members of groups perceive other groups will be heeded by utilizing a sample made up of people of different nationalities. Although primary interest is in perceived threat in terms of nations and groups of nations, the extremely small sample of 24 people certainly precludes generalizing about

nationalities. Findings must be interpreted not as generalizations but rather as explorations which indicate that further research may be fruitful.

#### CHAPTER II

# VARIABLES AND HYPOTHESES

The myth is that every Communist state is an unmitigated evil and a relentless enemy of the free world; the reality is that some Communist regimes pose a threat to the free world while others pose little or none...

# J. William Fulbright

"...the people whose decisions determine the policies and actions of nations do not respond to the 'objective' facts of the situation, whatever that may mean, but to their 'image' of the situation."

Kenneth Boulding

"National Images and International Systems"

On Wednesday, March 25, 1964; Senator J. William Fulbright, Chairman of the Senate Foreign Relations Committee, made a speech before the Senate in which he said:

"It is not Communist dogma as espoused within Russia but
Communist imperalism that threatens us and other peoples of the nonCommunist world. Insofar as a great nation mobilizes its power and
resources for agressive purposes, that nation, regardless of ideology,
makes itself our enemy. Insofar as a nation is content to practice
its doctrines within its own frontiers, that nation, however repugnant
its ideology, is one with which we have no proper quarrel."

The study to be described here is concerned with the countries, and the kinds of countries, which are perceived as threatening "us and other peoples of the non-Communist world," and how this is related to such things as power, resources and ideology.

Senator Fulbright believes that simply because a country has a different ideology should not be sufficient grounds for judging it to be threatening or hostile. In this study people of different nationalities were asked to say to what degree 24 countries are dangerous or threatening to the security of themselves and their families. They were also asked to say which of the countries have governments which are Communist, and which, non-Communist.

The correlation of the responses concerning threat and ideology makes it possible to say to what degree each of the people questioned agree with the view that the threat represented by a country is independent of its ideology. Senator Fulbright does not argue that these two things are independent, but rather that there is not a one-to-one relation between the two. In the same speech he said:

"I believe that the Communist world is indeed hostile to the free world in its general and long-term intentions but that the existance of this animosity in principle is far less important for our foreign policy than the great variations in its intensity and character both in time and among the individual members of the Communist bloc. Only if we recognize these variations, ranging from China, which poses immediate threats to the free world, to Poland and Yugoslavia, which pose none, can we hope to act effectively upon the bloc and to turn its internal differences to our own advantage and to the advantage of those bloc countries which wish to maximize their independence."

Thus Senator Fulbright argues that it is important to discriminate among Communist countries which represent different degrees of threat.

He then states as pertinent examples that China poses immediate threats to the free world while Poland and Yugoslavia pose none.

In this study the respondents were asked to express just this kind of judgments about a sample of 24 countires which includes China, Poland Yugoslavia, and also Cuba, a country which Senator Fulbright mentioned in the following terms:

"I think we are bound to conclude that Castro is a nuisance but not a grave threat to the United States... Cuban communism does pose a grave threat to other Latin American countries..."

The data from this study yields information about the degree to which a subsample of Americans see Cuba as a threat and comparisons may be made with the responses of a subsample of Brazilians. It will then be possible to say to what degree the Americans and Brazilians questioned agree with Senator Fulbright's view of the threat posed by

Cuba to Americans and Latin Americans, and further to compare these responses with those of Egyptians, Chinese and Indians questioned. While the samples are far too small to make generalizations about national populations, the data will yield some indications of whether members of a nationality make similar judgments about threat, ideology, etc. and whether the variation in responses within a nationality subsample are as great as the variation of the whole sample of five nationalities.

# Threat, Size and Wealth

In the March 25 speech, Senator Fulbright did not go into great detail about the relationship between the theat a country poses and its power and resources. However, in discussing the situation in Panama he did cite the per capita income of Panama (\$429) and the Canal Zone (\$4,228) as evidence of "the profound social and economic alienation between Panama and the Canal Zone, and its impact on the national feeling of the Panamanians, that underlines the current crisis."

In this investigation, one hypothesis is that the wealth of a country is related to how threatening it is judged to be. That is, rich Communist countries will be seen as more threatening than poor Communist countries. Among non-Communist countries it is expected that the opposite relationship will prevail: rich countries will be judged to be less threatening than poor countries.

One further point should be made about Senator Fulbright's discussion of the crisis over the Panama Canal. He described Panama as "a small nation with a weak economy..." and stated, "I am unable to understand how a controversy with a small and poor country, with virtually no military capacity can possibly be regarded as a test of our

bravery and will to defend our interests."

The Senator evidently does not see Panama as much of a threat, and part of the reason for this is that it is both small and poor. Here it will be hypothesized that a country's size (i.e., national population) as well as its wealth help to determine whether it is seen as posing a threat to the welfare and security of the person responding.

## Myths and Realities

The central theme of Senator Fulbright's speech was the divergence between "cherished myths" and "objective facts." He said:

"As long as our perceptions are reasonably close to objective reality, it is possible for us to act upon our problems in a rational and appropriate manner. But when our perceptions fail to keep pace with events, when we refuse to believe something because it displeases or frightens us, or because it is simply startingly unfamiliar, then the gap between fact and perception becomes a chasm, and action becomes irrelevant and irrational.

"There has always—and inevitably—been some divergence between the realities of foreign policy and our ideas about it. This divergence has in certain respects been growing, rather than narrowing; and we are handicapped, accordingly, by policies based on old myths rather than current realities...

"We are confronted with a complex and fluid world situation and we are not adapting ourselves to it. We are clinging to old myths in the face of new realities, and we are seeking to escape the contradictions by narrowing the permissable bounds of public discussion, by relegating an increasing number of ideas and viewpoints to a growing category of

'unthinkable thoughts.'"

The issue raised by Senator Fulbright is a broad one, and only certain appects of its can be examined within the confines of this study. However, some of the divergences between "perceptions" and "realities" will be examined here.

For example, it is possible to ask a person to make estimates of the populations of a sample of countries and to compare these estimates with data in official United Nations publications. A correlation coefficient will tell how closely these two sets of data agree, and will give an indication of whether the respondent rank ordered the countries in the same way as the U.N. statisticians.

But there are difficulties in making such comparisons, and China makes a good example. It is easy enough to ask someone to make an estimate or guess of the population of China, and this was done in this study. But if this is the "perception," then what is the "reality"? China reports no figures to the United Nations, and any figure printed will be another estimate—a carefully considered one no doubt, but still an estimate. There are other countries in the sample which have taken no national census in recent years, and, here again, population figures will be estimates.

If there are difficulties in specifying the "reality" of which countries are large and which countries are small, and which are rich and which are poor, the difficulties increase when ideology is to be discussed. Which countries have governments which are "very communist," "somewhat communist" or "non-communist"? There are no tables of numbers to consult to discover whether a government is more or less communist.

The respondents in this study were asked to rate the governments of 24 countries on a eight-point scale starting with "most non-communist" and ending with "most communist," and they completed the task without major difficulties.

Thus the "perception" is easy enough to elicit, but the "reality" is harder to find. At this point, it seems best to abandon the reality-perception distinction and only to specify whose perception or classification is being discussed, and under what conditions and at what time the estimate was made.

Each person participating in this study gave his own estimates concerning the degree of threat represented by each of 24 countries and also its population, per capita wealth (energy consumption) and ideology. Since the responses of any one person do not agree 100% with any other person in the sample, it might be argued that fragments of 24 different perceptual worlds of 24 people are represented by the data. Or one might say that 24 varying realities are represented.

At any rate, each of these 24 sets of responses may be compared with a 25th set--data selected from current United Nations publications.

## Nationality as a Variable

Two samples are under consideration in this study: a sample of 24 countries, and a sample of 24 people. Some characteristics of each sample have already been mentioned.

The people were selected primarily on the basis of their nationality. There are five nationality subsamples each made up of four persons. (The sixth subsample of people was made up of international relations experts.)

All respondents were adult male college graduates. Each person in the sample had lived in the country where he was born until he was at least 21 years old with no extended periods of residence in foreign countries, and in all cases the parents of the respondent were of the nationality of the country where the respondent was born. In other words, the persons who participated in the study were all relatively pure national types in that they had been born and raised in the country where their parents had been born and lived.

One of the primary purposes of the study is to find out whether people of different nationalities, when asked the same questions in approximately the same time and place respond in significantly different ways to questions about international threat.

In the preceeding pages, a discussion of the concept of threat in systematic, international, interpersonal and intrapersonal terms has drawn on a large body of theoretical and practical material. How can this be utilized in a small-scale exploratory study? Heinz Eulau suggests that:

"The most feasable alternative is to deal with modest propositions that require simultaneous manipulation of only a few variables, but to do so in a larger conceptual system that, although it cannot be tested directly, serves the very useful purpose of guiding an investigation and giving it theoretical significance." (25)

If threat is to be the dependent variable of major concern, what are the independent variables which will help to account for variation in threat? Rosecrance has examined international politics from a "systems" viewpoint derived from Ashby, and he provides a statement which may assist in developing a few "modest propositions":

"The variety of the disturbance is in turn dependent upon certain intra-actor variables. The number of options which an elite in control of an actor will exercise in the international system is a function of its particular ethos (that is, of the direction in which control is to be exercised), its control of disposable resources, and the quantity of disposable resources available." (26)

This statement will be freely interpreted along with the remarks of Senator Fulbright to develop hypotheses concerning international threat. Thus an effort will be made to take into account viewpoints from both the practical and theoretical worlds of international politics.

Some hypotheses have already been suggested. They will now be restated along with further hypotheses.

## Hypotheses

The first two hypotheses suggest that there is a relationship between perceived threat and the ideology of the government of a country and its total national population.

In a sample of people made up of Egyptians, Indians, Brazilians, Formosan Chinese and Americans, (1) Communist countries will be perceived as more threatening than non-Communist countries, and (2) large countries—regardless of ideology—will be perceived as more threatening than small countries.

The first hypothesis may be interpreted as expressing a relationship between the ideology of the stimulus country and the ideology of the respondents which are assumed to be non-Communist in varying degrees.

The second hypothesis is more directly related to a country characteristic, size of population. Although it is also possible to think of this as a relationship between the population size of the country being judged and the population of the country of the person

responding, this is not implied in the hypothesis. Regardless of the population of the home country of the respondent it is hypothesized that large countries will be seen as more threatening than small countries.

The third hypothesis relates international threat to wealth or what Rosecrance calls "the quantity of disposable resources available."

In this study this will be considered as an energy variable, and it will be indexed as per capita energy consumption. It is assumed that such an index taps the same sort of underlying characteristic that is indexed by per capita gross national product. Edward S. Mason of Harvard University made an international study of per capita energy consumption and per capita gross national product, and concluded that "no country at this state of history can enjoy a high per capita income without being an extensive consumer of energy." (27)

The sample of countries utilized in this study will be divided into equal subsamples of countries of high, medium and low per capita energy consumption. The hypothesis is that there will be no significant differences between the degree of threat represented by countries of different energy levels, but that there will be an interaction between energy level and ideology. Specifically, it is predicted that rich Communist countries will be seen as more threatening than poor Communist countries, but that rich non-Communist countries will be seen as less threatening than poor non-Communist countries.

No further hypotheses will be made about possible interactions between ideology, population and energy, but any significant interactions among these variables will be reported and examined.

# Threat and Nationality of Respondent

Although it is expected that there will be significant differences in mean threat responses of nationality subsamples, there are no detailed hypotheses. This aspect of the study is exploratory, and the general prediction is that there will be significant differences in the mean threat responses of nationality subsamples when countries are divided by ideology, population or energy level.

In line with the view of a country as an organization which constrains the behavior of its citizens, it is also hypothesized that each nationality subsample will produce a pattern of threat responses for the country sample which will be different from that of the other nationality subsamples. In quantitative terms, this is to predict that inter-subject correlations of sets of threat responses will be significantly higher within nationality subsamples than between them.

To summarize, it is predicted that perceived international threat is related to certain country characteristics (ideology, population and energy level) as well as to the nationality of the respondent.

# "Myths and Realities" Operationalized

One difficulty with the hypotheses suggested above is that a country which, according to United Nations statistics, has a small population may be considered by one or more subjects as having a large population. For example, when the countries of the world are rank ordered on the basis of their populations, Australia is clearly one of the smaller countries; yet many people might judge it to be a country with a large population.

This is the problem of "myths and realities" raised by Senator
Fulbright. In this study, this problem will be dealt with by using two
different criteria for making judgements about the characteristics of a
country of interest here. In one case, the experimenter will classify
the countries in the sample as to ideology, population and energy
level--largely on the basis of the latest available U.N. figures. In
the other case the subjects will classify the countries in the sample
by giving their own estimates or judgements about the ideology, population
and energy levels of the countries.

Thus the same variables of classification will serve as the basis for two classifications of threat responses, and two analyses. The experimenter-classified analysis will provide a basis for generalizations concerning specific countries with characteristics specified by U.N. statistics. The subject-classified analysis will provide a basis for making statements, for example, about small, poor, non-Communist countries, although subjects may not always agree which countries in the sample have these characteristics. In both cases the dependent variable will be the threat responses of each subject to each country in the sample.

The estimates or judgements of each subject about the ideology, population and energy level of each country makes it possible to use this limited view of the perceptual world of each subject to make intrasubject examinations of the relation of perceived international threat to perceived country characteristics. In this way it is also possible to test the assumption that these variables are significantly related on a subject by subject basis.

It is also possible to ask whether the relationship between subject estimates of country characteristics and U.N. figures on country characteristics help to explain the threat responses of an individual. Perceived populations and energy levels of countries for each subject will be correlated with U.N. data, and these data will be examined in terms of the "mean threat score" of each individual. This should give some idea of whether lack of information or uncertainty is related to how threatening the extra-national world is judged to be.

# Threat and Perceived Similarity

It has already been hypothesized that non-Communist subjects will perceive Communist countries as threatening. It is possible that other kinds of perceived differences make a country or a nationality seem threatening. In order to investigate this possibility, each subject will be asked to say which nationalities (from the country sample) are most similar to his own and most different to his own. Here the subject will supply his own criteria for similarity and difference. The hypothesis will be that these "difference scores" will be positively correlated with the threat scores of an individual.

These difference scores will also be correlated with ideology scores to provide a crude projective technique for assessing the ideology of each subject on a Communist to non-Communist scale. If Communist nationalities are regarded as "different" and non-Communist nationalities are regarded as similar, the correlation will be highly positive. It is assumed that the multinational sample will provide some variation in correlations, although they are all expected to be positive.

### Threat and World Government

Threat has been defined here as a mechanism which increases national boundary maintenance and reduces the possibility of systemic linkage. The threat responses discussed here have been thought of primarily as bilaterial with an individual country as a stimulus and a person of a given nationality as the respondent. However, it has also been suggested that summing and averaging the threat scores of an individual should give an indication of how dangerous he judges his international environment to be.

If this is the case, then a person with a high mean threat score should be against supra-national arrangements which links his country with other countries in an international system. To investigate this, subjects were asked to indicate one of five degrees of approval or disapproval with the following statement:

I think that my country should give up some of its soverighty to become part of a world government—in the same way that a state or privincial government gives up some of its power to a national government.

The hypothesis is that when subjects are cast into five categories according to the five possible responses to the statement, subjects who most strongly disapprove of world government will have highest mean threat scores, and subjects who most strongly approve of world government will have lowest mean threat scores.

#### CHAPTER III

#### PROCEDURES AND METHODS OF ANALYSIS

Two samples were utilized in this study: (1) a sample of 24 countries used in the questionnaire, and (2) a sample of 24 people who responded to the questionnaire.

The country sample was constructed by the experimenter by selecting countries on the basis of (1) ideology, (2) population size, and (3) energy consumption per capita.

The initial criterion for selection of countries was that they appear in the <u>United Nations Statistical Yearbook</u> for 1962. An effort was also made to limit the sample to countries which would be familiar to college graduates whose professional interests were not in international relations. Within these limitations a country sample of maximum geographic diversity was chosen.

Further details concerning the country sample will be described on the following pages. But first, this will be prefaced by a general description of the measuring instrument. It consisted of a brief introduction and six sections. (Appendix A is a copy of the questionnaire.) The first five sections each asked for responses concerning the same 24 countries, and the sixth section included a world government question and blanks for information about the subject's sex, age, occupation or field of study, educational background, country of birth, nationality, parent's nationality, and foreign countries lived in for at least one year before the age of 21.

The order of presentation of the sections was as follows:

- (1) threat represented by countries (2) similarity of nationalities
- (3) energy consumption per person by countries (4) national populations and (5) ideologies of governments (Communist to non-Communist).

In each section the order of presentation of countries was alphabetical, except for the section on national population in which this order was reversed. Thus if the order of presentation has affected the variability of responses, it is the same for all subjects.

### Ideology

An initial selection of some 50 countries was made from the latest available United Nations publications—principally the <u>U.N. Statistical</u>

Yearbook and the <u>U.N. Demographic Yearbook</u>. These were divided by the experimenter into Communist and non-Communist countries.

The increasing number of "neutralist" countries posed problems which were resolved by the experimenter by casting some of them into each ideological category. Neutralist nations are here defined as 20 countries whose representatives (1) attended a 1961 conference in Belgrade, Yugoslavia, and (2) signed a letter to the Secretary General of the United Nations asking that the 1964 General Assembly be postponed until after a meeting of heads of state of non-alligned nations scheduled to meet in Cairo, Egypt, in October, 1964. (28)

Five of these countries appear in the country sample. Cuba and Yugoslavia are experimenter classified as Communist countries while Algeria, Indonesia and the Congo are classified as non-Communist countries. (Banks and Textor classified Cuba as quasi-Communist rather than Communist. Otherwise, the countries classified as Communist here

are identically classified by Banks and Textor.)

The subjects in this investigation were also asked to classify the governments of each country in the sample on the basis of ideology. They classified the countries according to degree of Communist or non-Communist government orientation on a eight-point scale. Distribution was forced normal so that only one country was allowed to be scored "most non-Communist" and one, "most Communist" in the sample, etc.

This allowed for the countries to be dichotomized according to ideological orientation on the basis of the judgements of the subjects. Countries scored 1 through 4 were called "subject classified as non-Communist" while those scored 5-8 were called "subject classified as Communist."

These two bases of classification were used with each of the three major independent variables in this study. This allowed for the judgements concerning threat to be cast into two matrices: one on the basis of experimenter classifications, and the other on the basis of subject classification. The same type of analysis was carried out on the two matrices.

Experimenter classifications were made primarily on the basis of United Nations published data, and the divergences between the two matrices will yield some idea of how the perceptions and judgements of the subjects vary from this criterion.

## Population

National population figures for mid-1962 were the latest available in the <u>United Nations Demographic Yearbook</u> for the countries under consideration, and these were used for experimenter classification of countries according to population size. A dichotomy was also wanted on

this variable, and countries were classified as "large" if their populations were reported as greater than 16 million in mid-1962, and "small" of their populations were 16 million or less.

Subjects were asked to estimate the populations of each of the countries in the sample to the nearest million, and this provided the basis of subject classifications on this variable. In this case, the mid-point which discriminated "large" from "small" countries was determined by the subjects' estimates. That is, the 12 countries which were considered largest by each subject were classified as "large," and the rest, as "small." If two or more countries at the subject's population midpoint were estimated as having the same population, they were randomly cast into the two categories by the experimenter.

### Wealth and Energy

The initial decision was to use per capita wealth as one of the three major independent variables of the investigation. However, an examination of the <u>U.N. Yearbook of National Account Statistics</u>, 1962, indicated that the latest year that a reasonably complete set of figures was available referred to the year 1958. Also, there were no figures for most Communist countries.

An investigation of other possible indices indicated that per capita figures for consumption of commercial energy were available for a large number of countries for the year 1961, and that Communist countries were included. Also, it had been demonstrated that for data from 62 countries, there was a high positive correlation between per capita gross national product and per capita energy consumption. (29)

The pre-selection of countries was classified into three levels of energy consumption: high, medium and low. In the final sample of 24 countries there are eight countries in each of these categories. But because this variable is nested within the two mentioned previously, the greatest variability within each level is present in the wealth or energy variable.

Subject classifications of countries on this variable were based on individual estimates of the wealth or energy consumption per capita on a 15-point scale. Fart of the instructions on this part of the questionnaire said:

Now you are to make the best estimate that you can about the wealth or poverty of the same list of countries. In order to avoid the problem of equivalency of different currencies, you are asked to judge each country in terms of the amount of coal, hydroelectric power and other sources of commercial energy available to the average person in each country...

In general, you should consider the scale below and the one on the next page, as asking you to make distinctions between richer and poorer countries. The richer that you think a country is—that is, the greater the income of the average person—the farther to the right you should make your "X". However, in case of doubt, you should consider the commercial energy consumption per person as the indicator of wealth...

Note that the scale values (0 to 8000) increase more rapidly as the scale moves from the low values on the left to the high values on the right.

Thus an effort was made to elicit distinctions between countries perceived as rich and poor, and at the same time introduce the general notion of the criterion index for this variable which was per capita energy consumption.

In summary, a sample of 24 countries was constructed by the experimenter in which 12 were classified as Communist and 12 as

non-Communist. The sample was so selected that there were 12 "large" countries and 12 "small" countries. Six of the Communist countries were "large," and six were "small"; six of the non-Communist countries were "large," and six were "small." Within each of these four groups of six countries, there were two relatively poor countries, two countries of intermediate wealth, and two relatively rich countries.

The final result is a 2x2x3 design with two countries (one replication) in each cell. The direction of the nesting assumes that ideology is most important in judgements concerning international threat, and that population size and wealth are successively less important.

This design assumes that all of the cells can be filled with countries of appropriate characteristics as described by U.N. data. How well this was achieved is described by the following table:

TABLE 1

The Country Sample With Criteria Data

			•		Energy
				Population	Consumption Index
				(millions)	(per capita)
Non-Communist	Small	Rich:	New Zealand	2.4	2033
			Switzerland	5.6	1951
	14	edium:	Formosa	11.3	529
			Alberia	11.6	254
		Poor:	Congo	14.8	64
			South Viet-Nam	14.9	60
	Large	Rich:	United States	186.6	8042
	_		France	46.9	2514
	М	edium:	Mexico	37.2	959
			Japan	94.9	1298
		Poor:	Pakistan	96.6	68
			Indonesia	97.7	140
Communist	Small	Poor:	Albania	1.7	337
			North Korea	8.4	528
	M	ledium:	Cuba	7 <b>.7</b>	866
			Hungary	10.1	2496
		Rich:	Czechoslovakia	13.9	5125
			East Germany	16.0	4942

TABLE 1 (continued)

Large Poor:	North Viet-Nam	16.7	5 <b>28</b>
	China (mainland)	686.4	528
Medium:	Yugoslavia	18.8	904
	Roumania	18.7	1433
Rich:	Poland	30.3	3182
	Soviet Union	221.5	2921

The rich-medium-poor order is reversed in the Communist countries so that this listing of pairs of countries represents hypothesized rank order of threat. The prediction is that countries at the top will be least threatening and countries at the bottom will be most threatening.

The cells are certainly not as homogeneous as might be desired. This is especially true in the Communist countries, but very little selection was possible in this case. Bulgaria and Mongolia are the only Communist countries in the U.N. publications which are left out of the sample.

## The Sample of People

The main sample of subjects consisted of 20 male college graduates who were all pursuing graduate studies at the same university. To this was appended a special subsample consisting of four university professors with professional interests in international relations.

An effort was made to introduce nationality as a variable in the investigation by breaking the sample into five subsamples of four persons each. The subsamples consisted of Brazilians, Indians, Chinese (from Formosa), Egyptians and Americans. In all cases the nationality of the subject was that of the country of birth, and none of the subjects had been outside his home country for as much as a year before reaching 21 years of age. And in all cases the parents were both of the same

nationality as the respondent.

(Brazil and Egypt have similar levels of energy consumption and per capita wealth while India is somewhat poorer. India and Egypt are both "neutralist nations" in the terms mentioned earlier, and Brazil had pursued a similar course quite recently.)

Except for the Americans, the sample of people was drawn from a list of foreign students attending Michigan State University. In an effort to obtain a stronger nationality effect in this small sample, subjects were selected from students who had come to the United States to do graduate work, and no undergraduates were included. Selection of subjects was not random but rather was based on the willingness of the subjects to respond to the questionnaire.

No effort was made to control for age or field of study. Data from the questionnaires yields the following information:

TABLE 2

Age and Field of Study of Subjects

Brazilian	s		Questionnaire
	Age	<u>Field</u>	Date
Subject #11	Age 30	Business Administration	3/23/64
Subject #12	26	Business Administration	3/23/64
Subject #13	43	Sociology	4/4/64
Subject #14	40	Business Administration	3/23/64
Egyptians	(UAR)		
Subject #21	30	Education	3/25/64
Subject #22	30	Biochemistry	(none)
Subject #23	23	Education	3/27/64
Subject #24	35	Social anthropology	3/26/64
Chinese	(Formos	sa)	
Subject #31	27	Agricultural Economics	3/24/64
Subject #32	27	Communication	3/23/64
Subject #33		Chemistry	4/4/64
Subject #34	32	Agricultural Engineering	4/5/64
Indians			
Subject #41	25	Agricultural Engineering	3/29/64
Subject #42	25	Electrical Engineering	3/26/64
Subject #43	28	Biochemistry	3/24/64
Subject #44	27	Plant Pathology	3/24/64

TABLE 2 (continued)

Americans	3		
Subject #51	35	Communication	3/27/64
Subject #52	29	Communication	3/24/64
Subject #53		Communication	(none)
Subject #54	_	Communication	(none)
U.S. Expe	erts		
Subject #61	54	International Relations	3/3/64
Subject #62	49	Agricultural Economics	4/20/64
Subject #63		Economics	(none)
Subject #64	40	Journalism	4/27/64

Here it will be assumed that nationality is a much stronger determinant of international attitudes than field of study, and while the selection of the sample of people does not allow for a rigorous check of this assumption, the duplication of departments in different nationality subsamples will allow for an informal examination of this assumption.

A factor analysis of the subjects in terms of their 24 international threat responses will provide one means of checking this assumption.

An examination of the resulting factors should give some indication of whether, say, biochemists and agricultural engineers are on the same factor or on different factors according to their nationalities.

The same analysis should give an indication of whether the two sub-samples of Americans (graduate students and faculty international relations specialists) are similar in their responses concerning international threat.

Most of the responses to the questionnaires were made during the last week of March, 1964, and the remaining ones were made during April. Three of the U.S. experts made their responses some three weeks later

than the rest of the sample. However, it is assumed that this time differential was not significant enough to introduce variability in responses.

# Analytical Procedures

The basic analytical tool will be a factorial analysis of variance in which the factors are ideology (two values), population (two values), wealth (three values) and nationality (six values). The alpha level will be set at the conventional .05 level, and greater levels of significance will be mentioned.

Subjects' judgements about the threats of 24 countries will be cast into two matrices (1) experimenter classified, and (2) subject classified, and identical analyses of variance will be carried out on each one. No hypotheses will be made about differences in the two sets of results, but the differences will be examined and discussed.

The experimenter classified analysis is appropriate for making statements about specific pairs of countries and groups of countries. Here summation will be across subjects on responses about one or more pairs of concrete countries.

In the subject classified analysis, it will no longer be possible to make generalizations about specific countries, since these will vary from one individual to another. Here the common quality of the rows and columns being summed will be values of the variables of classification: ideology, population and wealth. And here generalizations will refer to these kinds of country characteristics.

The analysis of variance table for this design will consist of fifteen possible sources of variance: four main effects, six two-factor

interactions, four three-factor interactions, and one four-factor interaction.

Error terms will be drawn from six other analysis of variance tables—one for each of the six subsamples of people. The sum of squares for individual subjects (within subsamples) will be pooled for the six subsamples and divided by the corresponding degrees of freedom to produce a mean square error appropriate for testing the significance of a main "nationality" effect.

Similarly, sums of squares for subject (within nationality)ideology interaction for the six subsamples will be pooled and divided
by the corresponding degrees of freedom to produce an appropriate
denominator for the F-ratio testing the main ideology effect as well as
the ideology-nationality interaction. The six other error terms to
be used in this analysis will be computed in the same manner.

This computation of a series of different error terms should add more precision to the analysis than is possible when a residual error term is used in a fixed effects model. Individual subjects will be considered as "replicates" of a given nationality.

Also, the set of error terms used here allows the use of analysis of variance procedures with subsamples of subject responses in which the variance is not homogeneous across subsamples.

Simple effects will be tested by t-tests in which the numerator is the difference between a pair of cell means and the denominator will be the mean square error term for the source of variance under consideration. (30)

### Other Analyses

In order to examine the assumptions concerning the relationships between the four main variables being examined, intra-individual correlation coefficients will be computed for pairs of the sets of responses for each subject. This will determine the direction and the strength of the relationship between threat and ideology, threat and population, and threat and energy. Here, individual differences will be visible which were examined only indirectly—in mean square error terms—in the analysis of variance.

To examine the inter-relationships between ideology, population and energy, and their effectiveness in predicting the threat scores of an individual, multiple correlation coefficients will be computed for each individual. These will give an indication of how much of the variation in threat scores can be accounted for by ideology, population and nationality together, and in the three possible pairings.

To examine the relationship between threat scores and subsamples of subjects, a Q factor analysis will be computed. The hypothesis will be that each nationality will have a different pattern of threat scores, and that these differences will produce different factors for each nationality.

Responses on the 21-point threat scale will be treated as equivalent to a 2-sort of countries on a threat dimension. Each subject's set of threat responses will be correlated with that of every other subject, and the resulting matrix of intercorrelations will be submitted to factor analysis. A principal axis solution will be obtained and submitted to varimax rotation to produce orthogonal simple structure.

The factor loadings for the individuals loading highest on each factor will be weighted appropriately to produce a typical set of threat responses for each factor, and these weighted responses will be converted to z-scores. Similarly, sets of responses for each factor concerning ideology, population, energy, and similarity of nationality will be produced. These will provide a check on hypothesized relationships between threat and the independent variables in terms of individual countries.

Responses concerning similarity of nationality have been mentioned briefly in the description of the questionnaire and in the Q analysis.

These responses are similar to the ideology responses in that the instructions require that the nationalities of the 24 countries be ranked on an 8-point scale in a normal distribution pattern.

Correlations of similarity and threat scores for each individual will give an indication of the direction and strength of the relationship between these two sets of responses.

Correlations of similarity and ideology scores for each individual should yield a rough index of the ideology of each subject.

#### Criteria Data

The United Nations data on national populations and per capita energy consumption used to construct the country sample has already been mentioned. Correlations of these data with sets of individual responses will be used to give an indication of how closely each subject's responses correspond to the criteria.

Also, a composite index will be constructed by noting in how many cases each subject's responses on ideology, population, and energy

result in classifying a country in the same cell--of a total of twelve-as that in which U.N. data classifies it. A perfect score here would be 24. These data can be arrayed by subjects, and also by countries.

#### World Government

Finally, the subjects will be divided into five groups on the basis of their response to the world government statement on the last page of the questionnaire. The hypothesis here is a correlational one: strong agreement with the world government statement will be associated with low mean threat scores, and strong disagreement will be associated with high mean threat scores.

### CHAPTER IV

## RESULTS

The principal findings of this study consist of an analysis of variance of threat scores. But before these results are detailed, a few general descriptive findings will be reported.

Below are the average threat scores of individual subjects and individual countries in the two samples:

TABLE 3

Average Threat Scores for Subject and Countries

Subjects		Countries	
Brazilian #11	1.1667	Albania	5.0417
Brazilian #12	1.2917	Algeria	3.4583
Brazilian #13	8.5417	China (mainland)	13.9167
Brazilian #14	.8750	Congo	4.3333
Egyptian #21	5.7083	Cuba	6.8750
Egyptian #22	2.8333	Czechoslovakia	5.0417
Egyptian #23	1.2083	East Germany	6,2917
Egyptian #24	.5417	Formosa	3.6250
Chinese #31	11.1667	France	4.4583
Chinese #32	4.2500	Hungary	5.5000
Chinese #33	1.8333	Indonesia	4.6667
Chinese #34	11.0417	Japan	3.0000
Indian #41	1.6250	Mexico	1.5833
Indian #42	2.7083	New Zealand	.6667
Indian #43	2.7917	North Korea	6,1250
Indian #44	1.6667	North Viet-Nam	6,9167
American #51	11.3333	Pakistan	5,2500
American #52	9.7083	Poland	4.7917
American #53	10.2500	Roumania	4.6250
American #54	8.4583	South Viet-Nam	3.4167

## TABLE 3 (continued)

U.S. Expert #61	.7917	Soviet Union	9.7917
U.S. Expert #62	5.5000	Switzerland	.3333
U.S. Expert #63	10.5000	United States	3.7083
U.S. Expert #64	1.6667	Yugoslavia	4.0417

The questionnaire obviously produced considerably variation in response, both in terms of subjects and of countries. The 21-point scale was scored from zero to twenty. With no further information than that, the expected mean score for any person or country would be 10.

Switzerland and New Zealand have the lowest means and also the lowest standard deviations (not shown). China, the Soviet Union and North Viet-Nam all have the highest means and the highest standard deviations. It seems that it is easier to get international consensus concerning countries which are not threatening than for which countries are threatening.

The countries are listed in the same order as that which was used in the questionnaire. (They were equally spaced in the questionnaire; the groupings of four are arbitrary.) It is possible that the order of presentation might have affected threat scores, but if there is such an effect it seems to be a minor one.

Just as threat responses were averaged for subjects and for countries, it is also possible to average other sets of responses from the questionnaire. Per capita wealth or energy estimates were made on a 15-point scale scored from zero to 70.

TABLE 4

Per Capita Energy Consumption Averages for Subjects and Countries

Subjects		Countries	U.N. Data	
Brazilian #11	18.7	Albania	5.0	0.0
Brazilian #12	15.0	Algeria	3.2	4.0
Brazilian #13	7.1	China (mainland	) 5.0	6.0
Brazilian #14	15.0	Congo	1.5	0.0
Egyptian #21	18.9	Cuba	6.2	8.0
Egyptian #22	5.7	Czechoslovakia	13.2	50.0
Egyptian #23	7.3	East Germany	13.9	50.0
Egyptian #24	8.0	Formosa	6.3	6.0
Chinese #31	8.5	France	30.3	25.0
Chinese #32	17.1	Hungary	10.6	25.0
Chinese #33	21.0	Indonesia	2.9	1.0
Chinese #34	9.8	Japan	24.0	12.0
Indian #41	13.0	Mexico	7.1	8.0
Indian #42	16.7	New Zealand	21.2	25.0
Indian #43	6.0	North Korea	3.0	6.0
Indian #44	19.7	North Viet-Nam	2.8	6.0
American #51	20.0	Pakistan	3.0	0.0
American #52	13.4	Poland	9.0	35.0
American #53	19.9	Roumania	6.6	12.0
American #54	13.5	South Viet-Nam	2.7	0.0
U.S. Expert #61	10.7	Soviet Union	27.4	25.0
U.S. Expert #62	14.5	Switzerland	38.9	18.0
U.S. Expert #63	14.4	United States	64.3	70.0
U.S. Expert #64	5.1	Yugoslavia	12.1	8.0

In terms of the scale and scoring procedure used here, the average energy consumption per capita of the 24 countries in this sample is 17.0 when U.N. criteria data is used. The average estimates of 7 subjects are above this figure, and 17 are below it. There is considerable variation in how this sample of subjects judges the average per capita wealth in this sample of countries.

Subjects were asked to estimate the population of each country in the country sample to the nearest million, and these estimates may be treated just as the threat scores and energy estimates were:

TABLE 5

Average Population Estimates for Subjects and Countries
(in millions)

Subjects		Countries	(	U.N. Data for countries)
Brazilian #11	48.6	Albania	14.0	1.7
Brazilian #12	55.0	Algeria	22.7	11.5
Brazilian #13	69 <b>.6</b>	China	574.0	686.4
Brazilian #14	69.6	Congo	19.2	14.8
Egyptian #21	44.0	Cuba	18.0	7.7
Egyptian #22	67.1	Czechoslovakia	30.7	13.9
Egyptian #23	72.1	East Germany	33.1	16.0
Egyptian #24	46.2	Formosa	28.7	11.3
Chinese #31	71.3	France	57.5	46.9
Chinese #32	69.2	Hungary	28.4	10.1
Chinese #33	56.5	Indonesia	87.0	97.7
Chinese #34	95.5	Japan	100.2	94.4
Indian #41	88.3	Mexico	33.5	37.2
Indian #42	83.7	New Zealand	22.2	2.4
Indian #43	87.3	North Ko <b>rea</b>	34.0	8.4
Indian #44	146.2	North Viet-Nam	30.3	16.7
American #51	63.4	Pakistan	78.8	96.6
American #52	69.7	Poland	26.0	30.3
American #53	78.2	Roumania	21.0	18.7
American #54	73.1	South Viet-Nam	28.4	14,9
U.S. Expert #61	71.0	Soviet Union	232.8	221.5
U.S. Expert #62	82.0	Switzerland	15.2	5.6
U.S. Expert #63	82.0	United States	186.0	186.6
U.S. Expert #64	69.7	Yugoslavia	31.2	18.8

The mean for the U.N. population data used as criteria was 69.7 million. The mean average estimates of 13 subjects are above this criterion, and 10 are below it. Taken at face value, this indicates

that some subjects think that these countries are much more highly populated than do others.

The second and third columns of figures refer to populations of countries in millions. When U.N. data are used as criteria, the populations of 18 countries are overestimated, and 6 countries are underestimated.

The questionnaire also asked for estimates of the ideology of each country on an 8-point non-Communist to Communist scale. Subjects were asked to judge the present governments of the countries in the sample. Responses were forced into a normal distribution, and as a result all subjects have the same means. Therefore only country averages will be presented in this case:

TABLE 6
Average Ideology Estimates for Countries

United States	1.29	Roumania	5.00
Switzerland	2.33	Poland	5.12
Formosa	2.87	Hungary	5.25
Japan	2.92	Yugoslavia	5.41
France	2.96	North Korea	5.50
New Zealand	2.96	North Viet-Nam	5.62
South Viet-Nam	3.42	Albania	5.79
Mexico	3.54	East Germany	5.79
Pakistan	3.83	Cuba	5.79
Congo	3.92	Czechoslovakia	5.83
Algeria	4.08	Soviet Union	7.25
Indonesia	4.17	China	7.62

A low score indicates a non-Communist government and a high score indicates a Communist government. The fact that the twelve countries in the left hand column of Table 6 were all experimenter classified as non-Communist and the other twelve countries as Communist indicates general consensus between the subjects and the experimenter with regard to this variable.

Standard deviations are not shown, but the highest ones were for Albania and Formosa. All other standard deviations were below 1.0.

## Analysis of Variance of Threat Scores

The findings to be reported in the following pages are the results of four identical factorial analyses of variance of threat responses. These responses or scores have been cast into two different matrices, one in which countries are experimenter classified as to ideology, population, and wealth, and another in which the countries are subject classified with regard to these variables.

In each of these two approaches to classification, the threat responses are quantified in two different ways (1) as raw scores, and (2) as standardized scores. This produces the data for the four analyses.

Threat responses for each country were marked on a 21-point scale and are scored from zero to 20. In this analysis the 24 countries in the sample are treated as 12 pairs of countries which are similar in ideology, population and wealth or energy level. The raw scores of pairs of countries are summed so that the sum of any two "replicate" countries may vary from zero to 40.

Standardized scores were produced by computing means and standard deviations for each subject, and translating the raw scores into

standard scores with a mean of 50 and a standard deviation of 10.

Raw scores then, refer to absolute scale values while standard scores refer to relative threat for a given individual.

In the following table the results of the four analyses are summarized.

TABLE 7.
Summary of Four Analyses of Variance

	Threat Scores			
	Experimenter Classified		Subject Classi	
	Raw	Std.	Raw	Std.
<pre>Ideology (Communist/Non-Communist)</pre>	.0005	.0005	.0005	.0005
Population (Large/Small)	.001	.005	.025	.005
Ideology-Population				.01
Energy (Rich/Medium/Poor)	.0005	.0005		
Ideology-Energy	.01	.025		
Population-Energy	.0005	.0005		
Ideology-Population-Energy	.005	.0005		
Nationality (six subsamples)	.05	Contr.	.025	Controlled
Ideology-Nationality		.005	•05	.005
Population-Nationality				
Ideology-Population-Nationality				
Energy-Nationality	.001	.025		
Ideology-Energy-Nationality	.01	.01	.05	
Population-Energy-Nationality	.001	.005	.01	.05

Ideology-Population-Energy-Nationality

These findings will be discussed in detail in the following pages. The discussion will center upon the analysis of the experimenter-classified raw scores, and the other analyses will not be discussed in detail except in cases where they differ significantly from it. For example, the main ideology effect was highly significant in all four analyses, and no purpose would be served by presenting details from the four analyses.

Only significant results are noted in the table above, and blanks indicate a lack of significance at the .05 level.

The order of presentation will be that of the analysis of variance tables: (1) ideology, (2) population, (3) energy, and (4) nationality. That is, the three nested "treatments" will be presented first, and the "levels" last.

### Ideology

The hypothesis is that Communist countries will be perceived as more threatening than non-Communist countries.

The results are as follows:

#### TABLE 8a

Ideology: Average Threat Scores for Communist and non-Communist Countries

	Threat Scores		
	N	Mean	S.D.
(observed)	ervation	ns)	
Experimenter-classified non-Communist countries	144	6.49	8.48
Experimenter-classified Communist countries	144	13.14	12.28

The AOV table shows the following results as the contribution of ideology to the variance in threat responses:

TABLE 8b

## Main Ideology Effect

Source of	Sum of		Mean		Observed	
Variance	Squares	DF	Square	Error	F	F.95
Ideology	3186.6806	1	3186.6806	132.7963	23.9968	4.41 with 1/18 df

The very large F values observed--significant beyond the .0005 level in all four cases--suggest that no subtle distinction is being examined here. Even though 12 of the 24 subjects are from what are sometimes considered neutralist countries, the circumstances surrounding the data gathering (i.e., on the campus of a U.S. university) no doubt contributed to this resounding rejection of a null hypothesis which seems even less tenable after the fact than it did before.

# Population

The theoretical hypothesis here is that, ideology aside, countries with large populations will be seen as more threatening than those with small populations.

Countries were again dichotomized with equal numbers of Communist and non-Communist countries in each category. The results were:

TABLE 9a

Population: Average Threat Scores for Large and Small Countries

	N					
	((	bservations)	Mean	S.D.		
Experimenter-classified small	countries	144	8.38	10,62		
Experimenter-classified large	countries	144	11.24	11.32		

TABLE 9b

### Main Population Effect

Source of	Sum of		Mean			
Variance	Squares	DF	Square	Error	F	F.95
Population	589.3889	1	589.3889	35.8148	16.4566	4.41 with 1.18 df

The conclusion is that whether countries are classified as large and small by United Nations data by the experimenter or by the estimates of each subject, it is possible to reject the null at the .05 level of confidence and state that large countries are perceived as more threatening than small countries by subjects of five different nationalities.

## Ideology and Population

Are these two factors independent in their effects upon threat scores, or do they interact? Here are the results of the experimenter classified analysis:

TABLE 10a

Ideology and Population: Average Threat Scores for non-Communist and Communist, Large and Small Countries

	Small	Large
Non-Communist	5.2778	7.6944
Communist	11.4861	14,7917

Here there are 72 observations in each cell. The AOV table reads:

### TABLE 10b

## Ideology - Population Interaction

Source of Sum of		Mean		Observe	Observed		
Variance	Squares	DF	Square	Error	F	F.95	
IdeoPop.	14.2222	1	14.2222	10.1667	1.3989	4.41 with 1/18 df	

The interaction is not significant, and the effects of ideology and population of a country upon its perceived threat are independent for this sample of people.

### Energy

In contrast with the first two dichotomous factors, this variable is three-valued. Countries were clasified as high, medium or low in per capita energy. The hypothesis is that there will be no significant difference between the three cells when threat scores are classified in this manner. The results of the experimenter classified analysis are:

TABLE 11a

Energy: Average Threat Scores for Experimenter-Classified High, Medium and Low Energy Countries

	N	Mean Threat Sc	ores Std. Dev.					
(observations)								
High energy (rich countries	96	8 <b>.9</b> 479	10.4804					
Medium energy countries	96	8.0729	9.9792					
Low energy (poor) countries	96	12.4167	12,1877					

TABLE 11b

### Main Energy Effect

Source Sum of		Mean		Observed		
of Variance	Squares DF	Square	Error	F	F.95	
Energy	1013.3125 2	506,6563	20.4977	24.7177	3.26 with 2/36 df	

The very large observed F value suggests that there is a highly significant main energy effect, but the direction in the differences

between the means makes it difficult to interpret from the data presented here. The following pages will show that the energy or wealth factor interacts significantly with other factors, and that generalizations about wealth or energy must be limited by these other factors.

When subjects classify the countries in the sample on per capita energy consumption, the results are quite different:

TABLE 12a

Average Threat Scores for Subject-Classified High, Medium and Low Energy Countries

	N (observations)	Threat S Mean	cores Std. Dev.
High energy (rich) countries	<b>s</b> 96	9.4687	10.7233
Medium energy countries	96	9.3854	11.0324
Low energy (poor) countries	96	10.5833	11,2331

TABLE 12b

Main Energy Effect, Subject-Classified Analysis

Source of Sum of		Mean		Observed		
Variance	Squares	DF	Square	Error	F	F.95
Energy	85.8958	2	42.9479	50.8344	.8448	3.26 with 2/36 df

In this case there is no significant difference between these three sets of observations. This is in marked contrast to the findings in the experimenter-classified analysis.

Again, part of the explanation is that energy interacts with other factors in the analysis, and this will be detailed on the following pages.

However, it should be noted that the relative order of the means remains stable across the two analyses: the countries of intermediate wealth are seen as least threatening, the rich countries next most threatening, and the poor countries as most threatening.

Because of the contrast in the results, it seems worthwhile to return for a moment to the experimenter-classified matrix, and to specify the three groups of countries which resulted in highly significant differences in threat scores:

TABLE 13

Experimenter Classification of Countries by per capita Energy Consumption

High per capita Medium per capita Energy Consumption Energy Consumption		Low per capita Energy Consumption			
New Zealand	2033	Formosa	529	Congo	64
Switzerland	1951	Algeria	254	South Viet-Nam	60
United States	8042	Mexico	959	Pakistan	68
France	2514	Japan	1298	Indonesia	140
Czechoslovakia	5125	Cuba	866	Albania	337
East Germany	4942	Hungary	2496	North Korea	528
Poland	3182	Yugoslavia	904	North Viet-Nam	528
Soviet Union	2921	Romania	1433	China (mainland)	528
Mean	3,838	Mean	1,092	Mean	282
S.D.	2,084	S.D.	682	S.D.	223

It is the threat scores of these specific countries which are used in the energy consumption cells in the experimenter-classified matrix. It is obvious that the subject classified matrix cast these

same countries into these three categories in patterns which were different enough to alter the significance of the results.

### Ideology and Energy

In the experimenter-classified analysis, these two factors interacted as follows:

TABLE 14a

Ideology and Energy: Average Threat Scores

Mean Threat Scores

Non-communist countries	Rich	Medium	Poor
	4.7917	5.8333	8.8333
Communist countries	13.1042	10.3125	16.0000

Here there are 48 observations per cell. The AOV table shows:

TABLE 14b

Ideology: Energy Interaction

Source of	Sum of		Mean		Observed	
Variance	Squares	DF	Square	Error	F	F.95
IdeoEnergy	185.8403	2	92.9201	17.6019	5.2790	3.26 with 2/36 df

The interaction of ideology with energy is significant at the .01 level of confidence. (Mean differences of 1.5 are significant.)

When ideology is controlled, poor countries are most threatening at both levels, but there are significant differences between rich and medium Communist countries. This difference is not significant in the case of the non-Communist countries. When energy level is controlled, Communist countries are more threatening at all three levels.

# Results in the subject classified analysis were as follows:

TABLE 15

Ideology and Energy: Average Threat Scores, Subject-Classified Analysis

	Rich	Medium	Poor
Non-Communist countries	5.3750	6.8125	7,3541
Communist countries	13.5625	11.9583	13.8125

Here the relationships between the cell means are the same as in the experimenter-classified analysis, but the pattern has been attenuated enough to reduce it to statistical insignificance.

# Population and Energy

Cell means for the experimenter classified analysis are as follows:

TABLE 16a

Population and Energy: Average Threat Scores

	Rich	Medium	Poor
Small countries	6.1667	9.5208	9.4583
Large countries	11.7292	6.6250	15.3750

Again in the 2x3 table, each cell mean is based on 48 observations.

Results from the AOV table are:

TABLE 16b

# Population-Energy Interaction

Source of	Sum of		Mean		Observed			
Variance	Squares	DF	Square	Error	F	F.95		
PopEnergy	1194.6319	2	597.3160	22.9468	26.0305	3.26 with	2/36	df

This is the largest F value observed in the experimenterclassified analysis, and it seems worthwhile to examine the simple effects in detail. Each of the six means refers to threat scores for four specific countries:

TABLE 17

Countries Experimenter Classified by Energy Level and Population

	Rich	Medium	Poor
Small	New Zealand Switzerland Czechoslovakia East Germany	Formosa Algeria Cuba Hungary	Congo South Viet-Nam Albania North Korea
Large	United States France Poland Soviet Union	Mexico Japan Yugoslavia Rumania	Pakistan Indonesia North Viet-Nam China (mainland)

Differences between each pair of means--excluding diagonals-were tested with t-tests. All differences were significant with the
single exception of the difference between small, poor countries and
small medium (energy) countries. In contrast, the greatest difference
was between large, poor and large, medium (energy consumption) countries.

In the subject-classified analysis, the corresponding cell means were:

TABLE 18

Population and Energy: Average Threat Scores, Subject-Classified Analysis

	Rich	Medium	Poor
Small countries	7.2292	9.1667	9.4167
Large countries	11.7083	9.6041	11.7500

Tests of difference between means revealed only three which were significant. The results may be summarized as follows: When wealth is controlled, large countries are seen as more threatening than small countries at the rich and poor level, but not at the intermediate level. When population is controlled, there is only one significant difference in the table: large, poor countries are more threatening than large countries of medium wealth or energy consumption.

### Ideology, Population and Energy

When these three factors are taken into consideration at the same time, as variables of classification, the 288 observations which form the basis for this analysis are cast into twelve cells with 24 observations in each cell. The mean threat scores in each cell refer to two countries.

TABLE 19a

Ideology, Population and Energy: Average Threat Scores

Non-Communist Countries			Commun	}	
Rich	Small 1.0000	Large 8.5833	Small 11.3333	Large 14.8750	Rich
Medium	7.0833	4.5833	11.9583	8,6667	Medium
Poor	7.7500	9.9167	11.1667	20.8333	Poor

The figures above are from the experimenter-classified analysis.

The AOV table data are:

TABLE 19b

Ideology-Population-Energy Interaction

Source of	Sum of	n of Mean Obs		Observed	oserved			
Variance	Squares D	F	Square	Error	<u>F</u>	F.95		
IdPopEn.	425.0486	2	313.4253	18.6944	11.3683	3.26 with	2/36	df

The observed F is significant at the .01 level, and therefore it seems useful to examine the countries in each cell:

TABLE 20.

Countries Experimenter Classified by Ideology, Population and Energy

	Non-Communist Co	ountries	Communist Countries		
	Small	Large	Small	Large	
Rich	New Zealand	United States	Czechoslovakia	Poland	
	Switzerland	France	East Germany	Soviet Union	
Medium	Formosa	Mexico	Cuba	Yug <b>oslavia</b>	
	Algeria	Japan	Hungary	Roumania	
Poor	Congo	Pakistan	Albania	North Viet-Nam	
	South Viet-Nam	Indonesia	North Korea	China (mainland)	

The means in the last table are difficult to summarize. Exceptions are evident for the main effects which have been reported.

(For examining this table, a difference of 3.1625 between two means indicates a significant difference.)

Communist countries have been found more threatening than non-Communist countries, but Yugoslavia and Roumania are seen as no more threatening than four of the six non-Communist cells. However, with population and energy controlled, there are significant ideology differences in each pair of six cells.

Large countries have been found more threatening than small countries, but when ideology and energy consumption are controlled, the opposite is found at the medium energy consumption level: Formosa and Algeria are seen as more threatening than Mexico and Japan. And Cuba and Hungary are seen as more threatening than Yugoslavia and Roumania

by this sample. The large-small differences are not significant in the case of poor non-Communist countries, and are greatest in the case of poor Communist countries.

Poor countries are more threatening than rich countries only in the small, non-Communist cells and the large, Communist cells. The generalization that poor countries are more threatening than medium energy consumption countries is sustained for the large countries, but rejected for the small countries in this sample.

It is difficult to summarize these findings, but it is possible to note six levels of threat which are attributed to the countries in these cells, plus a seventh level which overlaps two levels:

TABLE 21

Levels of Perceived Threat

Least threat	ening				Me	ost threatening
New Zealand Switzerland		Congo South Viet-Nam	Albania North Korea	Soviet Poland		China(mainland) North Viet-Nam
		United States France	Czechoslovak East Germany			
		Yugoslavia Roumania	Cuba Hungary			

Pakistan Indonesia

Formosa Algeria

In the subject-classified analysis, it will not be possible to specify the countries in each cell. Here are the cell means:

TABLE 22a

Ideology, Population and Energy: Average Threat Scores,
Subject-Classified Analysis

	Non-Communist Countries		Communist Countries		
	Small	Large	Small	Large	
Rich	3.4583	7.2917	11.0000	16.1250	
Medium	7.0833	6,5417	11.2500	12.6667	
Poor	7.0833	<b>7.62</b> 50	11.7500	15.8750	

TABLE 22b

Ideology-Population-Energy Interaction,
Subject-Classified Analysis

Source of Sum of			Mean		Observed	
Variance	Squares	DF	Square	Error	F	F.95
IdPopEn.	11.1319	2	5.5660	34.2766	0.1623	3.26 with 2/36 df

Here the ordinal relationships between the means in most cases remains the same as in the experimenter-classified analysis, but the magnitude of the differences has decreased, and the error term has increased. The result is that when ideology is controlled there are no significant differences between population or energy levels. However, when population and energy are controlled, there are significant differences between the two values of ideology in every case.

### Nationality Subsamples

In previous pages threat scores for the entire sample of people have been cast into cells on the basis of three "treatment" variables.

Now, "levels" or subsamples of subjects will be brought into the analysis.

To put it another way, the focus of interest changes from characteristics of the stimulus country to characteristics of the respondent.

The first question: Is there a main nationality effect? That is, are there significant differences between mean threat scores of subsamples for the entire sample of countries?

TABLE 23a
Nationality: Average Threat Scores for Six Subsamples

	N (observations)	Threat Sco Mean	ores S.D.
Brazilians	48	6.0833	10.0145
Egyptians	48	5.1458	7.3802
Chinese (Formosan)	) 48	14.1458	12.8874
Indians	48	4.3958	6.7026
Americans	48	19.8750	9.4343
U.S. Experts	48	9.2292	9.5410

Since there is no breakdown of countries, the data here is the same for the experimenter-classified and the subject-classified analysis:

TABLE 23b
Main Nationality Effect

Source of Variance	Sum of Squares	DF	Mean Square	Error	Observed F	<u>F.95</u>
Nationality	8899.0417	5	1779.8083	503.0463	3.5381	2.77 with 5/18 df

The main nationality effect is significant at the .05 level, but it is limited by interactions to be reported on the following pages.

Ideology of Country and Nationality of Subject

When threat scores are divided into those of Communist and nonCommunist countries, are there significant differences across the
nationality subsamples? Here are the results in the experimenterclassified analysis:

TABLE 24a

Ideology and Nationality: Average Threat Scores

	Non-Communist	Communist	Difference
Brazilians	.6667	11.5000	10.8333
Egyptians	4.5417	<b>5.7</b> 500	1.2083
Chinese	9.8333	18.4583	8.6250
Indians	4.0000	4.7917	.7917
Americans	13.4167	26,3333	12.9166
U.S. Experts	6.4583	12.0000	5.5417

TABLE 24b

Ideology-Nationality Interaction

Source of	Sum of		Mean		Observe	1		
Variance	Squares	DF	Square	Error	F	F.95		
Nationality- Ideology	1509.9861	5	301.9972	132.7963	2.2741	2.77 with 5	/18 ds	f

Here the interaction approaches but does not reach significance at the .05 level. The differences between Communist and non-Communist means are presented for comparison with the subject classified analysis which follows:

TABLE 25a

Ideology and Nationality: Average Threat Scores,
Subject-Classified Analysis

	Non-Communist	Communist	Difference
Brazilians	1.2083	10.9583	9.7500
Egyptians	4.5417	5.7500	1.2083
Chinese	9.7916	18.5000	8.7084
Indians	3.9167	4.8750	.9583
Americans	13.1250	26.6250	13.5000
U.S. Experts	6.5000	11.9583	5.4583

TABLE 25b

Ideology-Nationality Interaction

Source of	Sum of		Mean		Observed	
Variance	Squares	DF	Square	Error	F	F.95
Nationality- Ideology	1445.2813	5	289.0562	101,1030	2.8590	2.77 with 5/18 df

Here the interaction between ideology and nationality is significant. An examination of pairs of means with t-tests indicates that when subject nationality is controlled, there are no significant differences between Communist and non-Communist countries. Neither are there significant differences across nationalities in the case of non-Communist countries. However, in the case of Communist countries, there are significant differences between the Americans and the Egyptians in the sample, and also between the Americans and the Indians. Here nationality of subject is a somewhat stronger effect than ideology of country.

Population of Country and Nationality of Subject

Does the perceived threat of large, as opposed to small, countries vary significantly across nationality subsamples? Here are the mean cell values and F-ratio data for the experimenter-classified analysis:

TABLE 26a

Population and Nationality: Average Threat Scores

	Small	Large	Difference
Brazilians	5.5833	6.5833	1.0000
Egyptians	3.6667	6.6250	2.9583
Chinese	11.7083	16.5833	4.8750
Indians	1.5000	7.2917	5.7917
Americans	19.1667	20.5833	1.4166
U.S. Experts	8.6667	9.7917	1.1250

TABLE 26b
Population-Nationality Interaction

Source of	urce of Sum of Mean					
Variance	Squares	DF	Square	Error	<u>F</u>	F. 95
PopNat'l.	254.6111	5	50.9222	35.8148	1.4218	2.77 with 5/18 df

Here, there is no significant interaction between the nationality of the subject and the population size of the country. In other words, judgements of the degree of threat associated with large in contrast to small population countries is relatively stable across nationality sub-groups in this sample.

In the table, a significant difference between a pair of means must be greater than 6.27. When nationality is controlled, there is no significant difference between the threat scores of large and small countries, although the means for large countries are higher in every case.

When population is controlled, there are significant differences between nationalities. For small countries the mean for the American subsample is greater than for any other subgroup; for large countries the American mean is greater than the rest with the exception of the Chinese.

For large countries, the Chinese mean is greater than that of the Egyptians, Indians, Brazilians and U.S. experts. For small countries, it is greater than that of Egyptians and Indians. And for small countries only, the mean of the U.S. experts is greater than that of the Indian subsample.

In this table, nationality of the subject is a stronger effect than the population of the country being judged with regard to threat. Chinese and Indian subjects make the greatest distinction between large and small countries in the experimenter-classified analysis.

Ideology, Population and Nationality

In the following table of means, control for ideology has been added to the two factors just previously discussed:

TABLE 27a

Ideology, Population and Nationality: Average Threat Scores

	Non-Commu	nist	Communist		
	Small	Large	Small	Large	
Brazilians	.1667	1.1667	11.0000	12.0000	
Egyptians	2.7500	6.3333	4.5833	6.9167	
Chinese	7.8333	11.8333	15.5833	21.3333	
Indians	1.4167	6.5833	1.5833	8.0000	
Americans	13.5833	13.2500	24.7500	27.9167	
U.S. Experts	5.9167	7.0000	11.4167	12.5833	

TABLE 27b

Ideology-Population-Nationality Interaction

Source of	Sum of		Mean		Observed	
Variance	Squares	DF	Square	Error	F	F.95
<pre>Id.=Pop.= Nationality</pre>	41.1111	5	8.2222	10.1667	0.8087	2.77 with 5/18 df

This triple interaction is not significant. However, it seems useful to examine the means in this table with t-tests. Here any difference greater than 3.5600 is significant. When population and nationality are controlled, there are not always significant differences between Communist and non-Communist countries. They exist for the Brazilian, Chinese, American and U.S. expert subsamples, but not for Egyptians and Indians. These differences are stable across large and small countries.

When ideology and nationality are controlled, small-large differences appear in the case of Communist countries for Chinese and Indians, and in the case of non-Communist countries for Chinese, Indians and Egyptians.

When ideology and population are controlled, nationality differences are evident in all four columns. These will not all be detailed, but it can be seen that the similarity between the Indian and Egyptian subsamples is stable across the four columns. It is also interesting to note that Americans can not only be clearly discriminated from the other nationality subsamples, but from the U.S. experts as well.

# Energy and Nationality

Are there significant differences in threat scores across nationality subsamples for countries of three different energy consumption levels?

Here are the findings from the experimenter-classified analysis:

TABLE 28a

Energy and Nationality: Average Threat Scores

	Rich	Medium	Poor
Brazilians	6.7500	5.5625	5.9375
Egyptians	7.6875	2.6875	5.0625
Chinese	12.5625	12,5625	17.3125
Indians	1.7500	1.5625	9.8750
Americans	16.9375	18.0000	24.6875
U.S. Experts	8.0000	8.0625	11.6250

TABLE 28b

Energy-Nationality Interaction

Source of	Sum of		Mean		Observed		
Variance	Squares	DF	Square	Error	F	F.95	
EnNat.	862.7708	10	86.2771	20.4977	4.2091	2.10 with 10/36 df	

The interaction is significant at the .01 level. When nationality is controlled the only significant differences between rich, medium and poor countries are those between medium and poor countries for Indians and Americans. (A significant difference here must be greater than 5.3806). When energy level is controlled, a number of differences between nationality subsamples are visible, but not all are stable across the three columns.

The corresponding figures for the subject-classified analysis are:

TABLE 29a

Energy and Nationality: Average Threat Scores.
Subject-Classified Analysis

	Rich	Medium	Poor
Brazilians	6.6250	6.1250	5.5000
Egyptians	8.5000	3.000	3.9375
Chinese	12.6875	14.1875	15.5625
Indians	5.1875	2.6875	5.3125
Americans	16.8125	20.6875	22.1250
U.S. Experts	7.0000	9.6250	11.0625

TABLE 29b

Energy-Nationality Interaction

Source of	Sum of		Mean		Observed	
Variance	Squares	DF	Square	Error	<u>F</u>	F.95
EnNat	715.0625	10	71.5062	50.8344	1.0667	2.10 with 10/36 df

In contrast with the previous data, the interaction of energy and nationality is not significant in the case of the subject-classified analysis. The error term has increased considerably, and here a significant difference between a pair of means must be greater than 13.3039.

When nationality is controlled, all differences between threat scores for countries of different energy levels disappear. When energy level of country is controlled, some nationality differences remain.

Americans can be discriminated from Brazilians, Egyptians and Indians for medium and poor countries, but not for rich countries. Here, again, nationality is the stronger effect.

# Ideology, Energy and Nationality

What happens to the findings when ideology is added to the two factors examined above? Here are the results of the experimenter-classified analysis:

TABLE 30a

Ideology, Energy and Nationality: Average Threat Scores

	Non-	Communist		C		
	Rich	Medium	Poor	Rich	Medium	Poor
Brazilians	1.625	0.250	0.125	11.875	10.875	11.750
Egyptians	8.750	2.000	2.875	6.625	3.375	7.250
Chinese	5 <b>.7</b> 50	11.625	12.125	19.375	13.500	22.500
Indians	1.500	1.500	9.000	2.000	1.625	10.750
Americans	7.500	12.375	20.375	26.375	23,625	29.000
U.S. Experts	3,625	7.250	8.500	12.375	8.875	14.750

TABLE 30b

Ideology-Energy-Nationality Interaction

Source of	Sum of		Mean		Observe	d
Variance	Squares	DF	Square	Error	F	F.95
<pre>IdEn Nat'lty.</pre>	534.4931	10	53.4493	17.6019	3.0366	2.10 with 10/36 df

In this table a significant difference between a pair of means must be greater than 9.241. This triple interaction is significant at the .01 level. When energy level and nationality are controlled, there are differences in threat scores between Communist and non-Communist countries for Brazilians at three energy levels, for Chinese at two energy levels (rich and poor), and for Americans at two levels (rich and medium).

When ideology and nationality are controlled, the only significant difference for energy levels of countries is the discriminations that the American subjects make between rich and poor non-Communist countries.

And when ideology and energy are controlled, there are nationality differences in every column except the one for rich, non-Communist countries. In no case are there significant differences between Egyptians and Indians. The similarity of Egyptians and Indians is also stable across the two analyses.

# Population, Energy and Nationality

The final triple interaction to be examined is similar to the last section, but ideology has been replaced by population. The data from the experimenter-classified analysis follows:

TABLE 31a

Population, Energy and Nationality: Average Threat Scores

	Small	Countries		Large	Countrie	S
	Rich	Medium	Poor	Rich	Medium	Poor
Brazilians	5.250	7.500	4.000	8.250	3.625	7.875
Egyptians	2.875	2.500	5,625	12.500	2.875	4.500
Chinese	8.375	13.875	12.875	16.750	11.250	21.750
Indians	1.500	1.375	1.625	2.000	1.750	18.125
Americans	12.625	21.500	23.375	21.250	14.500	26.000
U.S. Experts	6.375	10.375	9.250	9,625	5.750	14.000

TABLE 31b

Population-Energy-Nationality Interaction

Source of	Sum of		Mean		Observe	đ		
Variance	Squares	DF	Square	Error	F	F.95		
PopEn Nat'lty.	946.6181	10	94.6618	22.9468	4.1253	2.10 with	10/36	df

The interaction of these three factors is significant at the .01 level. In this table a difference of 12.047 between a pair of means is the minimum for significance.

When energy and nationality are controlled, in 13 of the 18 cases here the mean threat score for large countries is greater than for small countries, but in only one case does the difference attain significance: the judgements of Indians concerning poor countries.

When population and nationality are controlled, there are no energy effects for small countries, and only one for large countries which reaches significance: in the judgement of the Indian subsample, large, poor countries are more threatening than large rich countries.

When population and energy are controlled, there are significant nationality effects in every column except the one for small, rich countries.

On the next page are displayed both the experimenter-classified and subject-classified tables of means subdivided by all four factors.

Each of the 72 cells consists of four observations. The AOV table data are:

TABLE 32a
Four-factor Interaction

Source of Variance	Sum of Squares	DF	Mean Square	Error	Observe F	d <u>F.95</u>
Experimenter-	Classified					
IdPop EnNatl.	218.6181	10	21.8618	18.6944	1.1694	2.10 with 10/36 df
Subject-Class	ified					
IdPop EnNatl.	435.6180	10	43.5618	33.3715	1.3053	2.10 with 10/36 df

TABLE 32b

Four-factor Breakdown: Average Threat Scores

# Experimenter-Classified

					<b>7</b> 9								-
	Brazilians	Egyptians	Chinese	Indians	Americans	U.S. Experts		Brazilians	Egyptians	Chinese	Indians	Americans	U.S. Experts
ies Poor	15.50	8,50	28,25	19,75	34,00	19,00	ies Poor	9,25	7.00	24.25	11.00	28,00	15.75
Communist Countries Large Countries r Rich Medium Po	7.25	2,50	12,75	1,75	21,50	6,25	Communist Countries Large Countries r Rich Medium Po	11.00	2.75	20,50	2.00	28,50	11.25
nmunist Larg Rich	13,25	9.75	23,00	2,50	28,25	12,50	munist ( Larg Rich	14.50	12.50	22,25	7.25	27.50	12,75
Õ	8.00	<b>6.</b> 00	16.75	1.75	24.00	10.50	0	8.75	4.50	17.75	1,25	25,25	13.00
Small Countries h Medium Po	14.50	4.25	14.25	1.50	25.75	11.50	sified Small Countries h Medium Po	13,50	4.25	10.75	1.75	26.00	11.25
Sm <b>a</b> Rich	10.50	3.50	15.75	1.50	24,50	12.25	Subject-Classified s oor Rich Me	8.75	3.50	15.50	6.00	24,50	7.75
ries Poor	.25	.50	15,25	16,50	18.00	00.6	Subjer ries Poor	00.4	.50	14.75	7.50	12,50	6.50
, t	00.0	3,25	9,75	1,75	7,50	5,25	ξE	00.00	1.25	16.25	1.50	11.25	00.6
Non-Communist Countries tries Large Cour Poor Rich Mediun	3,25	15,25	10,50	1,50	14,25	6,75	Non-Communist Countries tries Large Cou Poor Rich Mediu	3.25	13.00	2.00	1.25	14.25	7.00
on-Commu ries Poor	00.00	5,25	9.00	1,50	22,75	8.00	on-Commu ries Poor	00.00	3,75	5.50	1.50	22,75	00.6
Non-C Small Countries h Medium Po	.50	.75	13,50	1,25	17,25	9,25	Non-C Small Countries th Medium Poo	00.00	3.75	9.25	5,50	17.00	7.00
Sma Rich	00.00	2,25	1.00	1.50	.75	.50	Sma Rich	00.00	2.00	8.00	6.25	1.00	• 50
	Br.	Egy.	ch.	Ind.	Am.	Exp.		Br.	Egy.	ch.	Ind.	Am.	Exp.

In neither case is the interaction significant.

With only four observations in each cell, there are very few significant differences in the tables. Here t-tests will be abandoned in favor of a search for an examination of the directions of increases and decreases in threat scores.

When population, energy and nationality are controlled, in 32 of the 36 cases there are increases from non-Communist to corresponding Communist cells. In the cases of small, rich countries and large medium energy countries, there are no differences for Indians. And in the case of large, rich and large, medium countries, there are larger scores for non-Communist countries for Egyptians.

When the other three factors are controlled, the effects of the total population of a country interact strongly with nationality at the medium energy level, but interact very little with nationality in the case of rich and poor Communist countries. This pattern is stable across both tables. For all six subsamples, the means for large Communist countries—both rich and poor—is greater than the means for small Communist countries.

It is even more difficult to generalize about the effects of energy level upon threat scores in these tables. The Chinese, Indian and American subsamples tend to see large, poor countries as more threatening than small, poor countries. And in the case of the American subsample, poor countries are almost always seen as more threatening than rich countries. This tendency is also visible in the case of the U.S. experts.

Little can be added about nationality effects which has not been visible in previous tables. There is a strong tendency for the American subsample to have the highest threat score in every category. And in every category the scores of U.S. experts are lower than those of the American subsample. Egyptians and Indians tend to have relative low scores in all categories.

To summarize the results which have been presented, and to display the relative differences between mean squares, error terms, and observed F values, these elements in the two AOV tables will be presented together here:

TABLE 32c

Experimenter-Classified Analysis

Source of Variance	Mean Square	Error	F	df	F.95
Ideology	3186.6806	132.7963	23.9968	1/18	4,41
Population	589.3888	35.8148	16.4566	1/18	4.41
Ideology-Population	14.2222	10.1666	1.3989	1/18	4.41
Energy	506.6563	20.4977	24.7177	2/36	3.26
Ideology-Energy	92.9201	17.6019	5.2790	2/36	3.26
Population-Energy	597.3160	22.9468	26.0305	2/36	3,26
Ideology-Population-Energy	212.5243	18.6944	11.3683	2/36	3.26
Nationality	1779.8083	503.0463	3.5381	5/18	2.77
Ideology-Nationality	301.9972	132.7963	2.2741	5/18	2.77
Population-Nationality	50.9222	35.8148	1.4218	5/18	2.77
Ideology-PopNationality	8.2222	10.1666	.8087	5/18	2.77
Energy-Nationality	86.2771	20.4977	4.2091	10/36	2.10
Ideology-Energy-Nationality	53.4493	17.6091	3.0366	10/36	2.10
Population-Energy-Nationali	ty 94.6618	22,9468	4.1253	10/36	2.10
IdeolPopEnergy-National	ity 21.8618	18,6944	1.1694	10/36	2.10

Of the eight error terms used in this analysis, it can be seen that the one for nationality is, by far, the largest. And despite this, the main nationality effect is significant. (In the following pages, the results of a Q factor analysis show that three of the nationality subsamples load highest on separate factors, while a fourth is split into two factors.)

Of the three very large observed F values, two are for main effects and the third is for population-energy interaction.

When each of the 288 observations in the experimenter-classified analysis is correlated with the corresponding observation in the subject-classified analysis, the product moment correlation between the two sets of observations is .87. Despite this high correlation, there are five cases among the fifteen sources of variance in which one raw score analysis produces a significant effect and the other does not.

Only in the case of ideology-nationality interaction are the results significant in the subject-classified analysis and not significant in the experimenter-classified analysis.

TABLE 33
Differences Between Two Analyses

	Levels of Sign	Difference		
	Experimenter Classified	Subject Classified		
Ideology	.01	.01		
Population	.01	.05		
Ideology-Population	n.s.	n.s.		
Energy	.01	n.s.	E.C. greater	

TABLE 33 (continued)

Ideology-Energy	.01	n.s.	E.C. greater
Population-Energy	.01	n.s.	E. C. greater
Ideology-Population-Energy	.01	n.s.	E.C. greater
Nationality	•05	.05	
Ideology -Nationality	n.s.	.05	S.C. greater
Population-Nationality	n.s.	n.s.	
Ideology-Population-Nationality	n.s.	n.s.	
Energy-Nationality	.01	n.s.	E.C. greater
Ideology-Energy-Nationality	.01	.05	
Population-Energy-Nationality	.01	.01	
IdeolPopEnergy-Nationality	n.s.	n.s.	

### Some Additional Findings

In the analyses of variance, subsamples of people and pairs of countries have been treated as units of analysis. On this and the following pages additional data will be presented in terms of individual people and countries.

One assumption of this investigation is that the threat represented by a country is related to the ideology, population and energy level of the country as well as the nationality of the respondent. Intra-individual correlation coefficients should yield an indication of whether these relationships hold for this sample of people and countries:

Intra-Individual Correlations Between Sets of Threat Scores and Sets of Ideology, Population and Energy Estimates for 24 Countries

	High Threat- Communist Ideology		High Threat-High Energy Consumption
Brazilian #11	•70	•46	10
Brazilian #12	.48	•57	14
Brazilian #13	.74	.31	•06
Brazilian #14	.53	.63	16
Egyptian #21	•22	18	44
Egyptian #22	.21	.73	•68
Egyptian #24	25	.39	.76
Egyptian #24	.09	.07	.02
Chinese #31	.68	.33	46
Chinese #32	.29	.74	•38
Chinese #33	.53	.82	24
Chinese #34	.68	• 22	42
Indian #41	•26	.67	19
Indian #42	.48	•94	15
Indian #43	.17	.62	07
Indian #44	•18	• ##	02
American #41	.61	•25	33
American #52	.87	•27	49
American #53	.75	. 46	41
American #54	.73	•36 <sub>.</sub>	44
U.S. Expert #61	05	.35	.52
U.S. Expert #62	.63	•62	23
U.S. Expert #63	<b>.7</b> 5	• 24	69
U.S. Expert #64	•55	.74	16

When N=24, r must be greater than .344 to be significantly different from zero. Of the 72 correlation coefficients presented, only 60% are significant. Moreover, there seems to be some patterning by nationalities. In no case is the assumption of a relationship between threat and ideology validated for the Egyptian subsample, and in only one case is it validated for the Indian subsample. In neither the Indian nor the Brazilian subsamples is the threat-energy relationship

validated. However, in some cases the low <u>linear</u> r may be due to curvalinearity indicated in earlier analyses.

On the positive side, the strongest relationship between threat and population is in the Indian subsample, and the strongest relationship between threat and ideology is in the American subsample. There is only one case (Subject #24) in which none of the three independent variables is related to threat.

# Multiple Correlations

When the three independent variables are combined or paired, how well do they predict the threat scores of an individual? In the following table a multiple r for the three is followed by the corresponding  $r^2$ , and then by  $r^2$  for the three possible pairs of independent variables:

TABLE 35
Multiple Correlations: Three Predictors of Threat

			r <sup>2</sup>	r <sup>2</sup>	r <sup>2</sup>
	Multiple	Multiple	Delete	Delete	Delete
	r	r <sup>2</sup>	Energy	Pop.	Delete Ideology
Brazilian #11	.77	.59	.57	.58	.34
Brazilian #12	.68	•46	.43	.23	.40
Brazilian #13	.87	.75	.57	.75	.10
Brazilian #14	.73	.53	.54	.29	. 42
Egyptian #21	.47	.22	•12	.22	.20
Egyptian #22	.87	•75	.54	.49	.75
Egyptian #23	.79	.62	.27	.59	.62
Egyptian #24	.11	.01	.01	.01	.00
Chinese #31	•71	.51	.47	.49	.36
Chinese #32	.82	.68	•55	.38	•65
Chinese #33	•93	.86	.81	.28	.81
Chinese #34	.69	.48	.47	.47	. 26
Indian #41	.73	.54	.46	.07	•50
Indian #42	•98	•95	.89	.23	•95
Indian #43	.69	.47	.40	.03	.44
Indian #44	.46	.21	. 20	.03	.21

TABLE 35 (continued)

American #51	.61	.37	.37	.37	.19
American #52	.87	.77	.76	.76	.34
American #53	<b>.7</b> 9	.62	.62	.57	.41
American #54	.76	.57	.54	•55	.35
U.S. Expert #61	.61	.37	.15	. 29	.37
U.S. Expert #62	.75	•57	.57	.42	.44
U.S. Expert #63	.82	.67	<b>.</b> 5 <b>7</b>	.67	.52
U.S. Expert #64	.80	.64	.64	.32	.57

The multiple correlation coefficients in the first column are significantly different from zero in 21 of the 24 cases. The exceptions are subjects #21, #24, and #44. For 16 of the 24 subjects, the three predictor variables can account for over half of the variation in threat scores.

Concerning the last three columns, there is no clearly discernable pair of independent variables which is better than the other two. Only in the case of the Indian subsample does there seem to be a notable nationality effect here.

### Q Analysis

The previous section has examined the relationship between ideology, population, and energy and the dependent variable, threat. In order to examine the relationship between threat and the nationality of the respondents, a Q factor analysis of threat scores was used. In Table 36, a factor represents a grouping of subjects around a common pattern of threat scores. (The highest factor loading for each subject is underlined).

The Kiel-Wrigley criterion indicated a four-factor solution, but the five-factor solution was selected since it more clearly discriminates four of the five nationalities in the sample of people. Here are the rotated factor loadings:

TABLE 36
Analysis: Rotated Factor Loadings

	•				Factor	Cammu
	Factor I	Factor II	Factor III	Factor T	V V(Favo-	commu-
	(American)	(Indian)	(Egyptian I)	(Brazilia	n)+{on TI	nagities
	(American)	(Indian)	(Lgyptian 1)	(Brazilia	mycron 11	. /(11 )
Brazilian #11	.39	.30	.17	.80	.00	.91
Brazilian #12	.22	.24	.40	. 87	.16	.89
Brazilian #13	.52	.06	. 22	.48	.35	
Brazilian #14	26	.15	.35	• 75	11	
				-		
Egyptian #21	• 24	.26	.22	.03	. <u>•63</u>	.57
Egyptian #22	.13	.23	.89	.28	.01	.94
Egyptian #23	04	10	.92	09	00	.87
Egyptian #24	.00	.07	.10	03	<u>. 91</u>	.67
					• Table	
Chinese #31	.74	.31	.21	20	09	.74
Chinese #32	.18	.29	.69	.41	14	.77
Chinese #33	.42	.51	05	•59	16	.82
Chinese #34	.73	.12	05	. 23	.29	.68
Indian #41	.06	.97	<b></b> 02	.15	02	.96
Indian #42	.25	• <u>97</u> • <u>76</u>	.10	.50	.01	.90
Indian #43	•05	.97	.01	.15	03	.97
Indian #44	•06	• <u>97</u>	01	.16	02	.97
		_				
American #51	• <u>78</u>	11	.23	.33	.18	.82
American #52	.87	.01	09	.34	.10	.89
American #53	. 84	.28	.11	.22	04	.8 <b>5</b>
American #54	. 84 . 69	.16	.04	. 34	.35	.73
U.S. Expert #61	.04	12	. <u>89</u>	.21	.08	.85
U.S. Expert #62		.08	• 38	<u>.60</u>	.00	.86
U.S. Expert #63	.87	00	14	. 33	18	.91
U.S. Expert #64	.42	.38	.21	• <u>72</u>	01	.88
% of variance	24%	18%	15%	19%	6 <b>%</b>	
					Total =	83%

This five-factor solution accounts for 83% of the variation in threat scores. It is relatively easy to interpret in terms of nationality subsamples. However, the Chinese and the U.S. expert subsamples do not

.

produce factors of their own.

By weighting the highest loading subjects on each factor appropriately, it is possible to produce a set of threat scores for each type of subject. These findings will not be reported in detail, but rather will concentrate on the countries that each type sees as more or less threatening than does any of the other types. (Eight countries which were consensus items for the five types will be eliminated from the discriminating items.)

TABLE 37.

More and Less Threatening Countires for Nationality Types

More Threatening	Factor	Less Threatening
North Viet-Nam North Korea Indonesia Albania	I (American)	Switzerland New Zealand United States Mexico
Pakistan Switzerland	II (Indian)	Cuba North Viet-Nam Soviet Union
China Cuba East Germany	IV (Brazilian)	Congo France
Soviet Union United States France	III (Egyptian I)	Albania Hungary North Korea
Hungary Congo Mexico New Zealand	V (Egyptian II)	Indonesia Pakistan East Germany China

The eight countries for which threat scores were relatively stable across the five factors were Algeria, Czechoslovakia, Formosa, Japan,

Poland, Roumania, South Viet-Nam and Yugoslavia. Weighted threat scores for these countries tended to be in the middle of the threatening-not threatening scale, and slightly to the not threatening side. Five of the eight were experimenter-classified as medium energy consumption countries.

By weighting the standardized scores for other variables in the same way that the threat responses were weighted for each of the five factors, it is possible to make further generalizations concerning relationships between variables and how these relationships vary from one nationality to another. Some findings concerning Factor I (American) responses will be reported as an example:

The American "type" here sees North Viet-Nam, Indonesia and Yugoslavia not only as more threatening than do the other "types" but also as more Communist than they do. North Korea is seen as more threatening, more Communist and poorer. Algeria is seen by the American "type" as more threatening, more Communist, poorer and more different, relative to the responses of the other nationality types.

On the other hand, Switzerland is seen as less threatening and more similar. France is seen as larger and richer. New Zealand is seen as less threatening, more non-Communist, richer and more similar than it is seen by other types. And Hungary is seen as less Communist and more similar in nationality.

However, not all of the responses fall together so neatly. For the American type of response, Poland is seen as more threatening and larger, but also as more similar in nationality. Cuba is seen as larger and more different. Japan is seen as less threatening and smaller while Mexico is seen as less threatening and larger. Mexico is also seen as richer and more different.

# Similarlity

There is one set of responses for which results have not yet been reported. Subjects were asked to say which of the 24 nationalities of the country sample were most similar and most different from their own in terms of an eight-point scale. The correlations of these responses with threat scores and ideology estimates were as follows:

TABLE 38

Correlations of Similarity Estimates with Threat and Ideology Estimates

	Low Similarity- High Threat	Low Similarity- Communist Ideology
Brazilian #11	•52	.67
Brazilian #12	.02	.31
Brazilian #13	.23	.34
Brazilian #14	35	.04
Egyptian #21	•53	• 29
Egyptian #22	.00	.01
Egyptian #23	.40	.00
Egyptian #24	•04	•24
Chinese #31	.01	.29
Chinese #32	34	.16
Chinese #33	30	.18
Chinese #34	.29	•55
Indian #41	45	06
Indian #42	.41	.41
Indian #43	<b>5</b> 0	.09
Indian #44	17	10
American #51	.49	<b>.</b> 56
American #52	.41	.43
American #53	.50	<b>. 5</b> 6
American #54	.45	. 27
U.S. Expert #61	35	01
U.S. Expert #62	.36	.57
U.S. Expert #63	.63	. 34
U.S. Expert #64	.19	.47

A low similarity score indicates that a nationality is very similar to that of the subject. Thus the American subjects are most likely to score a less similar nationality as belonging to a more threatening country. The opposite tendency can be noted in three of the Indian subjects.

The similarity-ideology correlations should give a rough indication of the ideology of the subject. Here a high correlation indicates that the same countries have been judged as non-Communist and "similar" in nationality.

### Correlations with Criteria

In the construction of the country sample, United Nations data on national populations and per capita energy consumption were utilized. As an indication of how much the estimates of each subject varied from the U.N. figures, correlation coefficients were computed for the estimates of each subject and the criteria.

The third column below consists of a similar indicator: the number of cases in which the ideology, population and energy responses of the subject resulted in classifying a country in the same way that it was classified in the country sample constructed by the experimenter on the basis of U.N. data.

Estimates concerning populations were obviously better than estimates concerning per capita wealth or energy consumption. Ideology estimates of each subject were correlated with every other subject, and produced correlation coefficients above .70, except for Subject #44. A similar correlation matrix for energy consumption estimates showed less consensus in this sample for this variable than for ideology.

TABLE 39

Correlations of Subjects' Estimates and U.N. Criteria Data

	Population Correlation	Energy Correlation	Classification Score
Brazilian #11	.74	.46	9
Brazilian #12	.97	.62	12
Brazilian #13	1.00	.73	16
Brazilian #14	1.00	.86	15
Egyptian #21	.79	.69	13
Egyptian #22	.9 <b>9</b>	.62	10
Egyptian #23	.90	.62	9
Egyptian #24	.95	.52	9
Chinese #31	.97	.66	12
Chinese #32	•99	.54	16
Chinese #33	.97	.62	13
Chinese #34	.97	.63	7
Indian #41	.99	.56	15
Indian #42	•99	.60	10
Indian #43	.97	.66	9
Indian #44	. 74	.64	6
American #51	.92	.69	16
American #52	1.00	.63	13
American #53	•99	.62	11
American #54	.97	.61	11
U.S. Expert #61	1.00	.81	13
U.S. Expert #62	•99	.70	12
U.S. Expert #63	.99	.72	9
U.S. Expert #64	1.00	.74	18

From the results in the previous table, it would seem that the U.S. experts live up to their title, although the Brazilians fare almost as well. Although the variability within subsamples may be as great as that between subsamples, the Egyptians and the Indians seem to be the lowest scoring subsamples for this table.

It is also possible to array the classification scores in another way to show which kind (subject-classified) of countries are classified

in accord with U.N. data:

TABLE 40
Classification Scores by Country Characteristics

Non-Communist, sma	ll, rich medium poor	34 17 31	Communist	small,	poor medium rich	17 16 17
lar	ge, rich medium poor	41 24 40		large,	poor medium rich	23 11 23

There is more subject-U.N. data agreement in the non-Communist than in the communist countries, and more agreement concerning large countries than concerning small countries. It is also interesting to note that in each group of three countries, the medium energy country has the lowest score. This tendency is stronger in small, non-Communist and large, Communist countries.

### World Government

On the final page of the questionnaire, subjects were asked to indicate their degree of agreement with a statement that their country should give up some of its sovereignty to a world government. The hypothesis was that low average threat scores would be associated with strong agreement with the world government statement. The results were:

TABLE 41

Mean Threat Scores for Subjects Classified by Responses to World Government Statement

	N	Mean Threat Score
Strongly agree	7	13.58
Agree	8	9.84
Uncertain	4	7.71
Disagree	2	9.00
Strongly disagree	3	4.28

The results are in the opposite direction of what was hypothesized: strong agreement with the world government statement is associated with high threat scores. This is partially explained by the differences in mean threat scores of subsamples which have already been examined.

When "strongly agree" is given a score of one and "strongly disagree" is given a score of five, the results by subsamples are as follows:

TABLE 42
Subsample Means for World Government and Threat Scores

	World Government Mean	Threat Mean
Brazilians	2.25	6.08
Egyptians	3,25	5.15
Chinese	2.25	14.15
Indians	3.00	4.40
Americans	2.25	19.87
U.S. Experts	1.50	9,23

The greater disagreement of Egyptians and Indians with the world government statement, and their relatively low threat scores is a partial explanation for the previous table.

#### CHAPTER V

### DISCUSSION

We are here, as on a darkling plain

Swept with confused alarms of struggle and flight

Where ignorant armies clash by night.

### Matthew Arnold

This study has been an effort to examine the nature of threat in an international context in terms of its relationships to several other variables. Organization theory suggests that threat may be defined as a relationship between an organization and external elements or events which tend to drive certain variables of the organization away from their preferred values.

A communication model of the international situation was suggested in which the function of threat was to increase boundary maintenance or to decrease systemic linkage between countries. It was also suggested that groups of countries might be examined as organizations, and that one check on their degree of organization would be that there be consensus across nationalities concerning countries which are threatening.

To test this hypothesis—as well as others to be restated—a sample of subjects made up of equal subsamples of graduate students of different nationalities was selected. Despite the fact that the nationality of the subject was of primary interest, such a small—scale

study can make no claim to generalize findings to university graduates of different nationalities. The investigation must be considered an exploratory one, and findings only as suggestive of directions for further research.

The sample of people was necessarily made up of non-Communist nationalities, and this was capitalized upon in the case of the hypothesis suggested above. One indication of organization in the non-Communist world would be consensus across several nationalities that Communist countries are threatening.

In order not to hypothesize an obvious relationship, five nationality subsamples were selected not only on the basis of geographic diversity but also to include nationalities which might be considered as neutral in terms of a Communist/non-Communist dichotomy. The nationalities in the sample were Brazilians, Egyptians, Indians, (Formosan) Chinese, and Americans.

In selecting a sample of countries which would become items in a questionnaire, two other criteria were added to ideology. These were the size of the national population, and the per capita energy consumption of the country. It was hypothesized that, in this multinational sample, Communist countries would be seen as more threatening than non-Communist countries and that large countries—regardless of ideology—would be seen as more threatening than small countries. (The more complex factor of per capita energy consumption will be discussed later.)

# Ideology

As expected, it was found that the ideology of a country had a very strong effect upon how threatening a country was judged to be.

Communist countries were seen as considerably more threatening than non-Communist countries. Moreover, when the countries were split into Communist and non-Communist groups on the basis of the judgments of each subject, the effect was slightly stronger.

This is to say that there was not complete agreement in the sample of people concerning which countries should be classified as Communist, but once a country was perceived as Communist it was very likely to be judged as relatively threatening.

When population and energy consumption are controlled, the effect of ideology on threat scores is shown to be influenced by these factors. If a Communist country is large it is seen as somewhat more threatening than if it is small, but this must be modified by the finding that both rich and poor large Communist countries are seen as more threatening than those of intermediate wealth. This can be partially explained by the high threat generally attributed to both the Soviet Union (relatively rich) and China (relatively poor).

When the nationality of the person responding is brought into the analysis, this has a definite influence on the importance of ideology in determining threat scores. For the Indian and Egyptian subsamples, ideology doesn't make much difference. For the Chinese and Brazilian subsamples, it has a greater effect; and for the American subsample it has the greatest effect.

These results are in line with the findings of Lazarus that it is not the stimulus characteristics alone which define threat, but rather the way in which they are interpreted. These results also suggest that a case for non-Communist "organization" can be made for subjects in the

American, Brazilian and Chinese subsamples, but the case is much weaker for subjects in the Indian and Egyptian subsamples.

The similarity-ideology correlationships (Table 38) are fairly reliable indicators of the importance of ideology in influencing judgements about threat. (Compare Tables 24-25 with Table 38). The correlations of the American subsample are highest, followed by those of the Brazilian and Chinese subsamples. Those of the Egyptian and Indian subsamples are lower; two Indian subjects have slightly negative correlations.

If the similarity-ideology correlations are interpreted as indicators of the ideology of the respondent along a Communist to non-Communist scale, then the influence of ideology as a stimulus characteristic must be reinterpreted as a relationship between the ideology of the respondent and the perceived ideology of the country.

In these terms the subjects in this study with similarityideology correlations near zero can be defined as not significantly
linked to the Communist nor the non-Communist "world"--or organization
in the sense that it has been used here. That is to say that their
behavior is not significantly constrained by communication with either
of these organizations.

For example, two of the Egyptian subjects and three of the Indians subjects have ideology-similarity correlations which are quite close to zero. The highest threat-ideology correlation among these five subjects is .26. In contrast, the <u>lowest</u> threat-ideology correlation in the American subsample is .61.

In terms of the theory which has been cited, these data can be interpreted as indicators that the American subjects are highly constrained parts of a non-Communist system or organization while the Indian

and Egyptian subjects tend to be on the periphery of this system.

One difference between the effect of ideology and the effect of population and energy level should be noted. Population and energy effects tended to be attenuated in the subject-classified analysis, while ideology effects sometimes increased slightly. This was observable in the Chinese, the American and the Indian subsamples. The opposite occurred in the case of the Brazilian subsample.

One unexpected finding about ideology was that there was more consensus in this multinational sample concerning ideology than there was concerning per capita wealth or energy consumption. Subjects rated the governments of 24 countries on an 8-point scale from most Communist to most non-Communist in a forced normal distribution. In an intercorrelation matrix, all correlations were above .70 except those for Subject #44--a striking deviant in this respect.

(A similar matrix for per capita energy consumption produced notably lower correlations, but they were based on a 15-point scale in which distribution was not forced.)

There are no widely accepted criteria for judging which governments are most to least Communist and most to least non-Communist, but there seems to be a fair degree of consensus across nationalities in this sample about this.

### Population

Generally speaking, <u>large countries</u> were perceived as more threatening than small countries but this must be qualified. The most striking exception is that threat scores for Mexico, Japan, Yugoslavia and Roumania--classified as relatively large--were lower than those for

Formosa, Algeria, Cuba and Hungary--classified as small. All eight of these countries were experimenter-classified as medium per capita energy countries--neither rich nor poor.

In the corresponding case in the subject-classified analysis, the unexpected reversal in the direction of threat scores disappears, and there is no significant difference in the threat scores for large and small countries in the medium energy category.

In interpreting these findings, it is helpful to examine the scores which were developed to indicate that a subject's classification of a country was in agreement with criteria data. Scores for medium energy countries are relatively low. This helps to explain the differences in the two analyses mentioned above.

When the eight countries mentioned above are segmented into Communist and non-Communist pairs, the small countries are still considered the more threatening by the subjects in this sample.

In general, the large-small breakdown in countries makes a contribution to the variation in threat scores which is independent of the ideology of the country and the nationality of the respondent. However size of population is strongly affected by the per capita energy consumption of the country.

The kind of subject-country relationship noted in the ideology results is less visible in the case of population. Across the two analyses it is the Chinese and Indian subsamples that make the greatest small-large distinctions in attributing threat to certain countries. That they both agree on the strong threat posed by mainland China is only a partial explanation since there are 12 countries in each category when scores are broken down by nationality and population.

An examination of the threat-population correlations (Table 34) shows the relationship between perceived threat and estimated population of all 24 countries for each individual. There is a great deal of variation within sub-samples, but correlations for Indians are .44 and higher while correlations for Americans are .46 and lower. But with the exception of one Egyptian subject, all threat-population correlations are positive.

In the case of ideology, it seemed to be the most non-Communist subjects who saw Communist countries as most threatening. At least the data from this study has been interpreted in these terms. But in the case of population, it is the subjects from a very large country who tend to see large countries as threatening. The significance of this finding, however, may be nation-specific: Indians tend to see China and Pakistan as threatening, and they are both large countries.

# Energy

The hypothesis here was that there would be no main energy effect on threat scores, but an interaction with ideology. In the case of the non-Communist countries, it was expected that threat would increase from rich to medium to poor countries, and in the case of Communist countries it was hypothesized that threat would increase from poor to medium to rich countries. This did not prove to be the case. In this study energy was much more complex in its effects upon threat scores than either ideology or population.

In the first place, several significant differences between the experimenter-classified and subject-classified analyses involve the energy factor. In five sources of variance in which the experimenter-

classified analysis produced significant differences while the subjectclassified analysis did not, the energy factor was involved.

The experimenter-classified analysis produced a significant main energy effect, a significant interaction of energy with ideology, population and nationality plus a triple interaction of ideology-population-energy. In the subject-classified analysis, none of these effects were significant.

Perhaps the most striking difference between the two analyses is that the main energy effect in the experimenter-classified analysis was significant at the .0005 level while in the subject-classified analysis it was insignificant, i.e., there were no significant differences in threat scores when subjects divided the 24 countries into three categories: rich, medium, and poor in terms of per capita energy.

Generally, poor countries were seen as more threatening than rich countries, and these as more threatening than medium energy countries.

The direction of these differences was stable across the two analyses. When controls are added, this direction holds for Communist countries and for large countries but not for non-Communist nor for small countries. When nationality of the subject is added as a control, the specified direction hold for all six subsamples in the case of Communist countries, but only in the experimenter-classified analysis. It holds for four nationalities in the case of large countries.

In the light of these findings, the value of the threat-energy correlations for each individual (Table 34) must be questioned, since the assumption of linearity is not always fulfilled. However the fact that 18 of the 24 are negative validates the analysis of variance finding

that poor countries are generally seen as most threatening.

The consensus items across the five types of threat responses found in the Q analysis can also be interpreted in terms of an energy effect. The eight countries for which threat scores were relatively stable across five types of responses included five countries which are experimenter-classified as medium energy consumption countries: Formosa, Algeria, Japan, Yugoslavia and Roumania. The general tendency was to consider them as meither completely non-threatening nor very threatening.

One further interpretation is possible from the analysis of threat scores in terms of energy levels with the nationality of the subject as a control. The American subsample and the U.S. experts see righ countries as least threatening, medium energy countries as more threatening and poor countries as most threatening. The Chinese subjects also tend to maintain this order. In contrast, the Brazilian and Egyptian subjects see rich countries as most threatening. The Indian subsample is like the American subjects in seeing poor countries as most threatening, but they rank rich countries second.

This complex interaction of energy level with nationality is difficult to interpret, but there is an indication that subjects from a rich country are less likely to see rich countries as threatening than subjects from relatively poor countries. The Chinese agreement with the American pattern is indicated also by the results of the Q factor analysis: two of the Chinese subjects load very high on the "American" factor, an indication that they may have been more "Americanized," at least in terms of their threat responses.

Perhaps the effect of energy level of country upon perceived threat—as indicated in these findings—can best be generalized in terms which take both stimulus country and subject nationality into account.

An energy hypothesis based on these findings would predict that the perceived threat of a country increases as per capita energy consumption increases above a certain point and also increases as per capita energy consumption decreases below this certain point. The influence of the respondent would be a factor in defining the point of minimum threat. For people from rich countries the point would be higher and for people from poor countries it would be lower.

The rationale for such a hypothesis would be that in terms of calories, clothing and shelter, human beings require a certain amount of energy per year in order to survive. The average person in a highly industrialized country consumes perhaps a thousand times as much energy per year as such a person in a very poor country. Countries which are poor are seen as threatening to other countries because they want to increase their consumption of energy, and may be perceived as wanting to increase it at the expense of other countries. Countries which are, say, above the world median in per capita energy consumption are seen as threatening because of the surplus energy at their disposal which may be used for aggressive purposes.

It has been found that other factors interact with energy, so such a hypothesis must be qualified. It will have a stronger effect for large countries than for small countries, and it will have a stronger effect for countries perceived as having a different ideology than for countries having the same ideology.

An alternative hypothesis would eliminate the <u>per capita</u> aspect of energy consumption and use a total for each country. In terms of the responses elicited in this study, such a figure for each country for

each subject could be obtained simply by multiplying the estimated per capita energy consumption by the estimated population of a country.

If power is defined as energy release per time unit, and energy consumption is equated with energy expenditure, then this variable might better be defined as national power. In retrospect, this variable should be a more appropriate kind of measure to relate to threat and ideology (and similarity) which treat a country as an undifferentiated unit of analysis.

A disadvantage of this procedure would be that, according to findings for this sample, there is little variability in population estimates of countries across subjects while there is greater variability in estimates concerning wealth. A power factor would obscure the contribution that wealth estimates make in increasing the variability, "error," and uncertainty in a given sample of subjects.

# Nationality

There are a number of factors involved in this study which might conceivably reduce the effect of the different nationalities of the subjects in this study. Except for one subsample, subjects were all graduate students in an American university. The questionnaire was in English. The experimenter was an American, and an "aquiesence effect" might have been produced. American mass media were the most available source of information about international events. The directions for the scale on sources of international threat and danger did not ask about threat to the subject's country but rather in terms of "you and your family."

Despite all of these things, nationality proved to be the strongest factor in the analysis.

An unexpected result was a main nationality effect. This has various possible interpretations. One is that the differences in mean threat scores across nationalities indicate reliable differences in terms of perceived international threat.

If the responses are taken at face value, the relatively high threat responses of the American subjects might be taken as an indication that they live in a more threatening international environment than the other subjects. An assumption here is that the country sample is indicative of the international environment in general.

In this view the Indian and Egyptian subjects perceive their international environment as relatively non-threatening; the Chinese responses were more similar to those of the Americans, and the Brazilian subsample was in between these two pairs.

It is interesting to note that the subsample of U.S. experts was closest to the Brazilians in terms of both mean and standard deviation of threat scores, and significantly lower than the American subsample.

It is difficult to say whether this was due to expertise or to other factors. The four Michigan State faculty members which made up this subsample were some 10 to 15 years older than the graduate students in the American subsample, and this is a possible source of difference. The relatively high accuracy of Brazilian and U.S. expert responses in terms of U.N. criteria data lends some support to the interpretation that

this intermediate level of perceived international threat is associated with greater knowledge of the international situation.

If the threat scale used here may be equated with Hammes' "danger-aggression-threat" scale, then subjects in the American subsample must be considered as manifesting higher anxiety than any other group of subjects, including the U.S. experts. It seems entirely possible that Ph.D. candidates in the American subsample might exhibit greater manifest enxiety than the faculty members who responded to the questionnaire.

An entirely different interpretation would be to assume that, subject matter aside, persons of different nationalities react to such a questionnaire in different ways. Such subject-measuring instrument interaction might lead Indian subjects to tend to make X's on the left-hand side of the page and American subjects to check near the middle. It is certainly possible that such an effect contributes to the differences in scoring patterns across nationalities. However, this makes the differences between the two subsamples of Americans more difficult to explain.

If differences in mean threat scores of individuals are to be interpreted as a hint of national differences in anxiety levels, then the responses to the world government statement add difficulties to this interpretation.

It was hypothesized that individuals with low mean threat scores would tend to agree with the world government statement, and that individuals with high mean threat scores would tend to disagree. The results of this study show that the two sets of responses are related, but the tendency is in the opposite direction of the one hypothesized: strong

agreement with the world government statement tends to be associated with relatively high threat scores.

There were two reasons for the use of the world government statement in this study. One was that negative responses to a similar statement
had been shown to be regularly correlated with high r-scale scores across
six European nationalities. The other was that agreement could be interpreted as favoring "systemic linkage" with foreign countries in
general.

Conversely, the threat scale responses may be interpreted as indicating the degree of "boundary maintenance" appropriate to individual foreign countries. In these terms, the hypothesis is that a person who, in general, sees a low need for boundary maintenance with the countries in this sample will favor systemic linkage with foreign countries in general.

This did not prove to be the case, and the findings suggest that other variables must be added to any effort at explanation. Nationality of the respondent is probably one such variable. Egyptian and Indian subjects tend to have low mean threat scores and also tend to disagree with the world government statement. American and Chinese subjects tend to have high mean threat scores and tend to agree with the world government statement.

Brazilians and U.S. experts have intermediate levels of threat scores and tend to agree with the world government statement. It is the U.S. experts group which shows the strongest agreement of the six subsamples.

The extremely small number of subjects in this sample make any generalizations questionable. And, in the case of the world government question, the use of one response per subject must be considered as a very crude index of a general attitude concerning foreign countries.

Still, the direction of the findings at least allows some basis for the formation of new hypotheses.

It is perhaps better to interpret the mean threat scores of individuals as indicative of an arousal level concerning international affairs. If this is quite low, as in the case of the Indian and Egyptian subjects here, it may indicate that there is little attention to or interest in events outside the home country. The national system is perceived as relatively independent of other national systems, and most attention is on events within the national system. External events are noticed in gross, black and white terms. A few countries are seen as very threatening, and the rest are hardly noticed.

The independence of the national system is valued, and there is little desire for systemic linkage with other countries. There is relatively little information about the external world.

On the other hand, arousal level concerning events external to the national system may rise so high that anxiety is a chronic condition, and many foreign countries are then seen as quite threatening. This is more likely in an industrialized country with a great deal of regular communication with other countries. Here there will be greater knowledge of foreign countries and international events, and there will be finer discriminations concerning the threat associated with individual foreign countries. In this study, the American and Chinese subsamples approximate

this pattern of behavior.

Between these two possibilities is a third which is represented by the U.S. expert and Brazilian subsamples in this study. Here, the national system is also perceived as having a great deal of communication and thus interdependence with other national systems. But this position is characterized by more information and less uncertainty about external events: international communication is perceived as having consensual as well as conflictual elements. The result is less anxiety about the international situation; or, in terms of this study, lower threat scores.

These three types of response complexes are suggestive rather than exhaustive. They are limited, for example, to cases in which a national communication network influences the behavior of the individuals within a country. Also, it is assumed that education has been held fairly constant in five of the subsamples here, and this is certainly a variable both within and between countries.

(P.A. Smith has found that in the United States people with low education and low prestige tend to react to crisis events and prefer an aggressive foreign policy while better educated people with higher prestige see international relations as a flow of events and are generally in favor of a more moderate policy.)

The results of the Q factor analysis substantiate the important role of nationality in the perception of international threat. The hypothesis was that the threat responses of nationality subsamples would produce different factors. This was best demonstrated in the case of the American and the Indians subsamples, and to a lesser degree in the

case of the Brazilian subsample. The four Egyptian subjects produced two factors.

Neither the Chinese nor the U.S. experts produced factors of their own, but were distributed over the American, the Brazilian, and one of the Egyptian factors (Factor III).

The fact that only one U.S. expert had his highest loading on the American factor might be interpreted as suggesting that knowledge at the expert level reduces the constraint that is imposed by nationality in evaluating sources of international threat.

The fact that two of the Chinese subjects have higher loadings on the American factor than one of the American subjects raises a question about the "Chineseness" of these subjects. It would be interesting to know how much time these subjects have spent in the United States in comparison with other foreign subjects in the sample, but such information was not requested in the questionnaire.

The 2 analysis of responses concerning international threat not only accounted for 83% of the variation in threat scores, but also defined the responses of each individual in terms of each of the five factors.

Although it is outside the bounds of this study, such a technique may offer a quantitative approach to indexing acculturation. It does offer a rather simple tool for quantifying international similarities and differences in common terms, i.e., the names of countries. If nationality of subject constrains threat responses as much as is suggested here, this might be done with relatively small national samples.

Along with the clear results obtained from the Q factor analysis
(Table 36) in explaining variation in threat responses by the nationality

of the person responding, the multiple correlation coefficients (Table 35) suggest that perceived country characteristics can also be used with some success to predict threat responses.

The effectiveness of ideology, population and per capita energy responses as predictors of threat scores seems to vary as much within as between subsamples. There is at least one subject in each subsample in which less than 40% of the variation in threat scores is accounted for by these three predictor variables.

And, except for the U.S. experts, there is one person in each nationality subsample in which the three selected variables account for at least 75% of the variation in threat scores. Perhaps the U.S. experts take more things into account in judging how threatening a country is.

Among the country characteristics which have been taken into consideration here, ideology has been found to have the greatest influence upon perceived international threat. Ideology is a particularly strong predictor when it is interpreted as a relationship between the person responding and the country being judged.

Per capita energy consumption has also been shown to be related to the perceived threat of a country, but its effect is not a simple one.

It effect seems to increase as threat increases. Uncertainty or lack of knowledge about the per capita wealth of a country seems to cause a regression toward a mean or average threat value for countries in general.

There is an indication that perhaps energy should also be interpreted as a relationship: subjects from rich countries are less likely to see rich countries as threatening than subjects from poor countries. The third kind of country characteristic examined here was national population. This sample of people made fairly accurate estimates of country populations, and this variable is stable across nationalities and regardless of ideology. Here there seems to be the strongest case for treating a variable as a stimulus characteristic which does have an effect on perceivel threat.

Of all the variables considered here, the nationality of the respondent has the strongest effect upon the perceived threat attributed to a sample of countries. Anthropologists would be pleased with the finding: Meanings of international threat seem to be, above all, in peoples.

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APPENDIX A

QUESTIONNAIRE

INTE	RNATIO	DNAL	SURVEY
324	Union	Buil	ding

Project No.
Phase No.
Subject No.

This is a study about the general international situation as it appears in the early months of 1964. Your cooperation is requested in answering the various questions on the following pages. Your responses should be your best estimates based on your previous knowledge and careful judgement.

For each question please make the best estimate or guess that you can at this time. It is important that you respond to all questions.

You may take as much time as you need.

Below are the instructions for the topic on the next page.

Everyone is interested in maintaining and protecting their own and their family's peace and well being. In the light of the current international situation, which of the countries listed represents the greatest threat or danger to your own and your family's well being and security?

If you think a certain country is extremely threatening and dangerous to the security of you and your family, place an "X" in one of the spaces near the extreme right of the page on the appropriate line. If you think that a country is not at all dangerous nor threatening, then place an "X" near the far left of the page on the appropriate line.

The more threatening and dangerous that you think that a country is, the farther to the right you should place your "X" for that country. You should think of the horizontal line as representing maximum threat and danger on the right and steadily decreasing to the complete absence of threat and danger on the left.

Below are samples to illustrate the topic on the next page. In the following example, Bulgaria is estimated to be a fairly threatening and dangerous country, and the "X" has been placed on the right-hand side of the page:

PERFECTLY SAFE Not threatening	VERY DANGEROUS Threatening
Bulgaria::_:_:_:_:	Threatening
In the next example, Bulgaria i represent very little threat:	is judged to be fairly safe, and to
PERFECTLY SAFE	VERY DANCEROUS

After you understand the instructions, turn the page.

In the light of the current international situation, which of the countries listed below represent the greatest threat or danger to your own and your family's well being, safety and security?

The more threatening and dangerous that you think a certain country is, the farther to the right you should place your "X" for that country. Check back to the examples on the previous page if you do not clearly understand the instructions.

Read through the whole list of countries on this page before you begin to answer. Be sure to use as many of the different horizontal spaces as you need to indicate the different degrees of threat and danger represented by the countries listed on this page.

PERFECTLY SAFE Not threatening 

Make sure you have made an "X" in a space on each line to represent the degree of threat or danger represented by each country. Then turn the page.

The information requested below is your best estimate of the similarities and differences between people of different nationalities. Of course, not all people of one nationality have the same characteristics, and in responding to the questions below, you should have in mind the average person--neither the best nor the worst of a country's people.

- 1. Look at the names of all the nationalities listed below. Which nationality is most similar to your own? Write a "1" in front of that nationality. (If your own nationality is listed, write a "1" in front of it.)
- 2. Which nationality of those listed is most different from your own? Write an "8" in front of the nationality which is most different from your own.
- 3. From the nationalities which you have not marked yet, select two that are most similar to the people of your country. Place a "2" in front of each of them.
- 4. Choose two of the remaining nationalities which are most different from your own, and place a "7" in front of each of these two nationalities.
- 5. Now choose four other nationalities which--among those which remain--are most similar to your own, and place a "3" in front of each of them.
- 6. Now choose four more nationalities among those remaining which are most different from your own, and place a "6" in front of each of these four.

If you have followed the instructions above, there should be ten nationalities remaining which you have not yet numbered.

- 7. Choose five of the nationalities which are left which are more similar to your own, and place a "4" in front of each of them.
- 8. Place a "5" in front of the five nationalities which are left.

	Albanians	Mexicans
	Algerians	New Zelanders
	(mainland) Chinese	North Koreans
	Congalese	North Vietnamese
	Cubans	Pakistani
	Czechoslovakians	Poles
	East Germans	Roumanians
entre en	Formosan Chinese	South Vietnamese
and the second s	Frenchmen	Russians
	Hungarians	Swiss
-	Indonesians	Americans(USA)
	Japanese	Yugoslavians

After you have placed a number in front of all of the nationalities listed above, according to the instructions, turn the page.

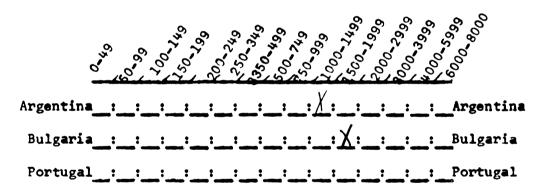
Now you are to make the best estimate that you can about the wealth or poverty of the same list of countries. In order to avoid the problem of equivalency of different currencies, you are asked to judge each country in terms of the amount of coal, hydroelectric power and other sources of commercial energy available to the average person in each country.

Before making any X's, you should look at all of the countries especially the list on the next page—and decide whether the ones listed are generally rich or poor, and whether they vary a little or a great deal in wealth. Be as accurate as possible in indicating the differences of wealth between countries.

For example, the average person in a very highly industrialized country consumes 8,000 units of commercial energy a year while the average person in a poor, underdeveloped and unindustrialized country, such as Yemem, consumes far less.

In general, you should consider the scale below—and the one on the next page, as asking you to make distinctions between richer countries and poorer countries. The richer that you think a country is—that is, the greater the income of the average person—the farther right you should make you "X". However, in case of doubt, you should consider the commercial energy consumption per person as the indicator of wealth.

Note that the scale values (0 to 8000) increase more rapidly as the scale moves from the low values on the left to the high values on the right.



In the example above, one person has estimated that in Argentina the average energy consumption per person is 1000-1500 units in Argentina, and 1500-2000 units in Bulgaria.

For practice, before turning the page, make an estimate of the wealth per person of Portugal. Then turn the page.

Make an "X" on each of the lines below to indicate the per capita wealth of each country. For detailed instructions, see the previous page.

# Energy Consumption Per Person

* * * * * * * * * * * *	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
10/0/1/4/ 1/3/5/1/3/	7/2/2/2/2

Albania:_	_:_	_:_	_:_	_:_	_:_	_:	_:_	_:_	_:_	_ <b>:</b> _	_:_	_:_	_:_	_:_	Albania
Algeria:	_:_	_:_	_:_	_:_	_:_	:_	:_	_:_	_:_	_ <b>:</b> _	_;_	_:_	_;_		Algeria
(mainland)China:	_:_	_;_	_:_	_:_	_:_	_;		_:_	_:_		_:_	_;_	_;_		China(mainland)
Congo:	_:_	_:_	_:_	_:_	_;_	_;		_;_	_:_	_:_	_:_	_;_	_;_	_;_	Congo
Cuba:	_:_	_:_	_:_	_:_	_;_			_:_	_ <b>:</b> _	_ <b>:</b> _	_:_	_;_	_:_	_;_	Cuba
Czechoslovakia:	_:_	_:_	_:_	_:_	_:_			_;_	_;_	_;_	_;_	_;_	_;_	_;_	Czechoslovakia
East Germany:	_:_	_:_	_:_	_:_	_;	:		_:	_ <b>:</b> _	_ <b>:</b> _	_:_	_:_	_:_	_:_	East Germany
(Taiwan)Formosa:	_;_	_:_	_:_	_:_	_:_	_:_	.;_	_;_	_:_	_;_	_:_	_:_	_;_	_:_	Formosa(Taiwan)
France:	_:_	_:_	_:_	_:_	_:_	_:_	.:_	_:_	_:_	_;_	_:_	_:_	_:_	_:_	France
Hungary:	_:_	_:_	_:_	_:_	_:_		<b>:</b> _	_:_	_ <b>:</b> _	_:_	_:_	_:_	_;_	_;_	Hungary
Indonesia:	_:_	_:_	_:_	_:_	_:_		:_	_:_	_:_	_:_	_:_	_:_	_;_	_:_	Indonesia
Japan:	_:_	_;_	_:_	_:_	_:_	-:_	:_	_:_	_:_	_;_	_:_	_:_	_;_	_;_	Japan
Mexico:	_:_	_:_	_:_	_:_	_:_	:_		_;_	_:_	_:_	_:_	_;_	_:_	_:_	Mexico
New Zealand:	_:_	_:_	_:_	_:_	_:_	.:_	_;_	_:_	_;	_:_	_:_	_:_	_:_	_:_	New Zealand
North Korea:	_:_	_:_	_:_	_:_	_:_	_;	_;_	_:_	_;_	_:_	_:_	_:_	_:_	_:_	North Korea
North Viet-Nam:	_:_	_:_	_:_	_:_	_;_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	North Viet-Nam
Pakistan:	_1_	_:_	_:_	_:_	_;_	_:_	<b>.:_</b>	_:_	_:_	_:_	_:_	_:_	_:_	_:_	Pakistan
Poland:	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	Poland
Roumania:	_;_	_:_	_;_	_:_	_;_	_:_	_:_	_:_	_;_	_:_	_:_	_:_	_:_	_;_	Roumania
South Viet-Nam:	_:_	_;_	_:_	_:_	_;_	_;		_:_	_;_	_:_	_:_	_:_	_;_	_;_	South Viet-Nam
Soviet Union:	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	Soviet Union
Switzerland:	_:_	_:_	_:_	_:_	_:_	_;		_:_	_:_	_;_	_:_	_:_	_;_	_:_	Switzerland
United States:	_:_	_:_	_;_	_:_	_:_	:	_:_	_:_		_:_	_:_	_:_	_:_	_:_	United States
Yugoslavia:	_:_	_;_	_:_	_;_	_:_	-: -:	.:_	_:_	_:_	_:_	_:_	_:_	_:_	_:_	Yugoslavia

Make sure you have made an "X" on each line to indicate the wealth per person of each country. Then turn the page.

In the space provided below, please make your best estimate of the total national population of each of these countries to the nearest million. For example, if your best guess of the total population of Italy is fifty million, write a "50" in the space by the name of the country:

Now make your best estimate of the populations of the countries listed below:

Yugoslavia	Japan
United States	Indonesia
Switzerland	Hungary
Soviet Union	France
South Viet-Nam	Formosa (Taiwan)
Roumania	East Germany
Poland	Czechoslovakia
Pakistan	Cuba
North Viet-Nam	Congo
North Korea	China (mainland)
New Zealand	Algeria
Mexico	Albania

Before turning the page, please make sure that you have made at least a rough guess about the population of each country to the nearest million.

Below are listed the same countries you have seen on previous pages.

This time you are to examine them in terms of the degree to which each government is communist or non-communist.

- 1. Look at the names of all the countries listed below. Which country has a government which is the most non-communist, that is, which government has the least communist influence of any on the list? Mark a "l" in front of this country.
- 2. Which country has a government which is the most completely communist one on the list? Place an "8" in front of this country.
- 3. From the countries you have not yet marked, select two countries which have the most non- communist governments. Mark a "2" in front of each of these two countries.
- 4. Choose two of the remaining countries which have the most communist governments. Mark a "7" in front of each of these two countries.
- 5. Now choose four of the countries you have not yet marked which have the most non-communist governments, and place a "3" in front of these four countries.
- 6. Choose four of the countries you have not yet marked which have the most communist governments, and place a "6" in front of these four countries.
- 7. If you have followed carefully the instructions above, there should now be ten countries on the list below that you have not yet marked. Select five of the ten which have the most non-communist governments, and place a "4" in front of these five countries.
  - 8. Place a "5" in front of the five countries which are left.

Albania	Mexic	20		•
Algeria	New	Zealand		_
China (mair	nland)North	n Korea		
Congo	North	n Viet-Nam Su	mmary of Instruction	5
Cuba	Pakis	stan 1	one (most non-	•
Czechoslov	akiaPolam		Communist) twos	_
East German	ny Roum		threes fours	Cal
Formosa (Ta	aiwan)Sout!	5 n Viet-Nam 4	fives sixes	
France	Sovie	et Union 1	se <b>vens</b> eight	
Hungary	Swit	zerland	(most Communist)	
Indonesia	Unite	ed States		•
Japan	Yugos	slavi <b>a</b>		

After you have placed a number in front of each of the countries according to the instructions above, turn the page.

Please indicate your disapproval or approval of the following statement:

I think that my country should give up some of its soverignty to

become part of a united world government -- in the same way that a state or provincial government gives up some of its power to a national government. \_\_\_Approve Strongly disapprove Uncertain Disapprove Strongly approve Thank you for your cooperation. Your responses will be treated in a completely confidential manner, and no names of individuals will be used in any report of this study. Please fill in the biographical information requested: Name (name not necessary) Male Female Sex: Age:\_\_\_\_ Occupation or field of study: College or university graduate \_\_\_ Yes No In what country were you born? What is your nationality? Is either your mother or your father of a nationality different from that of the country in which you were born? Yes No Name any country--or countries--other than your own that you lived in for more than one year before the age of 21: Date\_\_\_\_

THE END

COMMENTS:

