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QUARTERLY TECHNICAL REPORT NUMBER 2,  
OCTOBER 1, 1973 - DECEMBER 31, 1973

R. J. Rummel

Hawaii University

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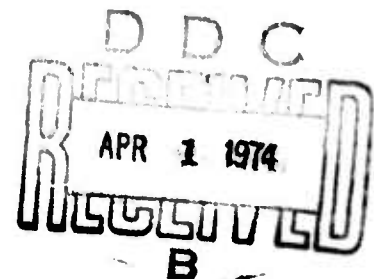
THE DIMENSIONALITY OF NATIONS PROJECT  
Department of Political Science  
University of Hawaii

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ABSTRACT

This is the second quarterly technical report for DON under the contract initiated in 1973. Four kinds of analyses were completed during the quarter. One was an image super-P analysis of behavior and attributes and the linkage of the behavior dimensions delineated to attribute distances. Second, was a re-analysis of the political dimension of nations, which found it split into totalitarian and authoritarian components. Third, was an analysis determining four basic behavior-attributes linkages general to actors as diverse as China, U.S.S.R., and U.S. And fourth, a determination of how actors group in the similarity of their linkages.

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## INTRODUCTION

This second quarterly report is divided into seven sections. The first describes the analyses initiated and completed during the quarter; the results of special significance are highlighted. Methodological problems faced during the analyses along with any computer programs that have been written or revised during the quarter are discussed in the second section. In this and the previous section, technical terms and discussions are avoided where possible. The third section describes the data collections begun and completed during the quarter. Current personnel, personnel commitments made and consultation noted in the fourth section. Project activities are discussed in the fifth section and the sixth section covers project publications, research reports, and monographs in preparation and completed. The final section delineates changes in the DON budget, status of subcontracts, and expenditure to date.

## I. ANALYSES

1.1 Image analysis. A common super-P factor analysis of 91 attributes of nations for each of five years, 1950-1965 was completed. A similar analysis of data for 182 dyads on behavior data was also done. Canonical analysis was then used to link the dyadic behavioral dimensions to the distances between nations on the attribute dimensions.

The result was that an average of fifty percent of the common variation in the overtime dyadic behaviors of Brazil, Burma, China, Cuba, Indonesia, India, Israel, Egypt, Jordan, Netherlands, Poland, U.S.S.R., U.K., and U.S. was explained by distances in development (energy consumption), power, political system, and culture. Moreover, differences in power account for about eighty-five percent of the variance in their conflict towards and cooperation with other nations.

These results are consistent with similar analyses on the same data using component analysis (super-P) on raw and transformed data, indicating that the linkages so far discovered are robust -- they are independent of the specific technique used.

1.2 The political dimension. Previous results have uniformly shown the existence of a totalitarian dimension among nations. The dimension was ambiguous, however, since it was unclear whether it was primarily an authoritarian dimension or a communist vs. non-communist dimension.

However, an oblique rotation of the super-P dimensions of attributes showed that in fact what we were taking as one dimension

comprised two: authoritarian and totalitarian dimensions. What distinguished the two are the right of political opposition citizens have and the degree to which the populace is mobilized towards a future government goal.

The validity of these two dimensions were assessed by comparing them against classifications of political regimes developed by experts in comparative government, and found similar.

1.3 Fundamental equations. One of our aims is to develop a set of basic empirical equations relating international behaviors to nation characteristics. To reduce our varied results to such equations, a pattern analysis was carried out on the coefficients resulting from the image analysis outlined in 1.1 above. The result was to define four basic independent equations as governing the behavior of such nations as China, the U.S., and U.S.S.R. These equations, which are now being written up for publication, link violence, negative communications, alliances, and transactions to energy consumption, power, and totalitarianism.

1.4 Actor groups. To further assess the fundamental relationships we found between behavior and attribute differences, we did a Q-factor analysis of the coefficients found in the analysis of 1.1 above. This analysis defined the actors most similar to each other in their linkages, and the modal linkage underlying this similarity. This also is being written up for publication.

## II. METHODOLOGY AND COMPUTER PROGRAMS

There are no methodological or computer developments to report this quarter.

## III. DATA

The dyad behavior data collection for all Asian nations, 1950-65 was completed last quarter. This quarter we have been rechecking for errors and have sent the data off to an area expert on Asia (Dr. Sang-Woo Rhee) for a final screening.

No additional data collection was done during the quarter.

## IV. PERSONNEL

### 4.1 Project Director

During this quarter, the principal investigator, Professor R. J. Rummel, worked on two manuscripts. One is the final revision of The Dynamic Psychological Field: A Psycho-Philosophical Preface to the Dynamics of Violence and War, which is due for submittal to Sage Publications at the end of January, 1974. The other manuscript is Field Theory Evolving: Theoretical-Empirical Analyses of Nations,

which is a presentation of DON's theoretical framework and associated empirical results. This is planned for submittal to Sage Publications by the end of March, 1974.

In addition, the principal investigator gave a public speech during the quarter on "The UN and the Middle-East War," and taught a class on "Political Psychology."

#### 4.2 Research Assistants

There is nothing new to report this quarter.

### V. DON ACTIVITIES

5.1 Staff meetings. Two-hour staff meetings were held once a week during the quarter to disseminate among staff our results, critically evaluate them, and to try to resolve some research problems that emerged. Meetings were held on the super-P dimensions of attributes and behavior, linkages between them, political dimensions, basic equations of behavior, actor groups, and so on.

5.2 Reading group meetings. Two-hour meetings once a week were continued as a way of acquainting project staff with the fundamental research and scholarly literature related to our efforts.

### VI. PUBLICATIONS AND REPORTS

#### 6.1 Research Reports

68. Choi, Chang-Yoon. "The Contemporary Foreign Behavior of the U.S. and U.S.S.R.: An Application of Rummel's Status-Field Theory." October 1973
69. Rummel, R. J. "A Summary and Annotated Bibliography of Research by the Dimensionality of Nations Project, 1967-1973." December 1973

Because of a continuing external demand for copies of our research reports, we also duplicated more copies of Research Report Number 67.

#### 6.2 Manuscripts

Writing on the manuscript Field Theory Evolving: Theoretical-Empirical Analyses of Nations began this quarter. See 4.1 above.

### VII. BUDGET

7.1 At the conclusion of this quarter, the expenditures of DON were in line with those budgeted.

7.2 Amount Funded

The maximum amount available for reimbursement is \$50,000.00.

7.3 Estimated Expenditures and Commitments

Total expenditures to date (07-01-73 to 12-31-73):\$20,378.32

Total estimated expenditures (07-01-73 through  
06-30-74): \$50,000.00

7.4 Estimated Additional Funds Required: None. All funds  
have been or will be expended under the contract.