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Theory: An Analysis of Intraregional Foreign Policy
Behaviour of Black African States."UNIVERSITY/UNIVERSITÉ Carleton UniversityDEGREE FOR WHICH THESIS WAS PRESENTED/
GRADE POUR LEQUEL CETTE THÈSE FUT PRÉSENTÉE M.A.YEAR THIS DEGREE CONFERRED/ANNÉE D'OBTENTION DE CE DEGRÉ 1976NAME OF SUPERVISOR/NOM DU DIRECTEUR DE THÈSE Brian W. Tomlin

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AN EVALUATION OF THE EXPLANATORY LIMITS OF
STATUS-FIELD THEORY: AN ANALYSIS OF
INTRAREGIONAL FOREIGN POLICY BEHAVIOUR OF
BLACK AFRICAN STATES.

BY

MARGARET A. BUHLMAN B.A.

A THESIS SUBMITTED TO THE FACULTY OF
GRADUATE STUDIES IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE DEGREE OF

MASTERS OF ARTS

DEPARTMENT OF POLITICAL SCIENCE

CARLETON UNIVERSITY

OTTAWA, ONTARIO

MARCH 23, 1976.

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The undersigned recommend to the Faculty
of Graduate Studies acceptance of the thesis

"An Evaluation of the Explanatory Limits of
Status-Field Theory: An Analysis of Intraregional
Foreign Policy Behaviour of Black African States."

submitted by Margaret Buhiman, B.A.
in partial fulfilment of the requirements for the
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April 1976

ABSTRACT

INTERNATIONAL RELATIONS HAS PROGRESSED FROM AN EMPHASIS ON GENERAL SYSTEMS THEORY TO SPECIFIC MULTIDIMENSIONAL THEORIES WHICH ARE TESTABLE. ONE SUCH THEORY, FIELD THEORY IS THE FOCUS OF THIS THESIS. SOCIAL AND STATUS-FIELD THEORY PROPOSE THAT RELATIONSHIP BETWEEN THE SIMILARITIES AND DIFFERENCES ON ATTRIBUTES BETWEEN NATIONS IN A SYSTEM IS THE SOCIAL FORCE DETERMINING THE FOREIGN POLICY BEHAVIOUR IN THAT DYAD. IN ADDITION, WHILE PREVIOUS TESTS TO EXPLAIN A CERTAIN PERCENTAGE OF THE VARIANCE IN BEHAVIOUR BY ATTRIBUTES, THIS THESIS SUGGESTS THAT THE UNEXPLAINED VARIANCE MAY LIE IN THE REGIONAL SUBSYSTEM. THUS, THIS THESIS EXAMINES TWO POINTS, WHETHER (A) ATTRIBUTE DISTANCES INFLUENCE BEHAVIOUR PATTERNS, AND (B) SOCIAL AND STATUS-FIELD THEORY MAY BE EMPLOYED TO EXPLAIN DYADIC BEHAVIOUR WHERE THERE IS A RELATIVELY SMALL ATTRIBUTE DISTANCE IN THE DYAD. THE NATIONS EXAMINED ARE THE 32 BLACK AFRICAN STATES.

IN TESTING FIVE HYPOTHESES DERIVED FROM THE AXIOMS AND HYPOTHESES OF FIELD THEORY, FIVE ATTRIBUTE DIMENSIONS, POWER, ECONOMIC DEVELOPMENT, URBANIZATION, POLITICAL ORIENTATION AND RELIGION, AND THREE BEHAVIOUR DIMENSIONS INTERACTIVE, COMMITTED CONFLICT, AND COOPERATIVE DEEDS BEHAVIOUR ARE ABSTRACTED FROM FACTOR ANALYSIS. CANONICAL ANALYSIS IS USED TO ASSESS THE EMPIRICAL FIT BETWEEN ATTRIBUTE DISTANCE AND FOREIGN POLICY BEHAVIOUR FOR A BEHAVIOUR FREQUENCY ANALYSIS AND A BEHAVIOUR INDEX ANALYSIS.

ACKNOWLEDGMENTS

MANY FRIENDS AND FACULTY MEMBERS WERE GENEROUS IN PROVIDING ADVICE AND ASSISTANCE AT ALL STAGES OF THIS THESIS. SPECIAL THANKS GOES TO BRIAN TOMLIN WHOSE PATIENCE AND ENCOURAGEMENT IN INTERPRETING FIELD THEORY, AND IN THE RESEARCH AND WRITING OF THIS THESIS HAS BEEN BESTOWED INDULGENTLY. I WOULD ALSO LIKE TO EXTEND MY GRATITUDE TO JOHN BUHLMAN FOR HIS GUIDANCE IN THE MATHEMATICAL INTERPRETATION OF FIELD THEORY AND KEN HART FOR HIS ASSISTANCE WITH MANY METHODOLOGICAL AND COMPUTING QUESTIONS.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	111
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CHAPTER

1. THE DEVELOPMENT OF THEORY IN INTERNATIONAL RELATIONS	1
2. THE DEVELOPMENT OF STATUS-FIELD THEORY STATUS FIELD THEORY STATUS-FIELD THEORY	13
3. STATUS-FIELD THEORY AND IMPLICATIONS FOR THE REGIONAL SUBSYSTEM AXIOMS AND THEOREMS REGIONAL ANALYSIS	47
4. APPLIED FIELD THEORY IN A REGIONAL SYSTEM FOREIGN POLICY BEHAVIOUR ATTRIBUTE DIMENSIONS FIELD THEORY EXPLANATIONS OF AFRICAN BEHAVIOUR OPERATIONAL PROCEDURE	75
5. BLACK AFRICAN ATTRIBUTE DISTANCE AND BEHAVIOUR RELATIONSHIP MODEL I ANALYSIS MODEL II ANALYSIS SOCIAL-FIELD THEORY ANALYSIS STATUS-FIELD THEORY ANALYSIS HYPOTHESIS: CONFIRMED OR DISPROVED?	124
6. SUMMARY AND CONCLUSION: FIELD THEORY AND AFRICAN FOREIGN POLICY BEHAVIOUR	167

.....	
APPENDIX	181

BIBLIOGRAPHY	232
--------------------	-----

LIST OF ILLUSTRATIONS

FIGURE

1.	RESEARCH DESIGN	11
2.	A HYPOTHETICAL REPRESENTATION OF ATTRIBUTE SPACE	53
3.	GEOMETRIC REPRESENTATION OF THE BASIC FIELD THEORETICAL RELATIONSHIP BETWEEN ATTRIBUTE SPACE AND BEHAVIOUR SPACE	53
4.	HIERARCHICAL CLUSTERING RESULTS	91
5.	HYPOTHESIZED SIGNS FOR SOCIAL AND STATUS-FIELD THEORY FOR BLACK AFRICA	127

LIST OF TABLES

TABLES

1.	THE SUBORDINATE SYSTEM - AFRICA	72
2.	18 th COLLAPSED CATEGORIES OF BLACK AFRICAN BEHAVIOUR	86
3.	FACTOR ANALYSIS OF 18 BEHAVIOUR TYPES EXCHANGED AMONG 32 BLACK AFRICAN NATIONS	88
4.	INDICATORS FOR ATTRIBUTE DIMENSIONS	98
5.	FACTOR ANALYSIS OF 18 ATTRIBUTE INDICATORS FOR 32 BLACK AFRICAN NATIONS: ORTHOGONAL FACTOR ROTATION	100
6.	RELATIVE PLACEMENT OF NATIONS ACCORDING TO FACTOR SCORES	113
7.	CANONICAL ANALYSIS RESULTS: MODEL I ANALYSIS - SOCIAL FIELD THEORY	130
8.	CANONICAL ANALYSIS RESULTS: MODEL II ANALYSIS - STATUS-FIELD THEORY	133
9.	CANONICAL ANALYSIS RESULTS FOR SOCIAL-FIELD THEORY - FREQUENCY ANALYSIS	138
10.	CANONICAL ANALYSIS RESULTS FOR SOCIAL-FIELD THEORY - BEHAVIOUR INDEX ANALYSIS	143
11.	CANONICAL ANALYSIS RESULTS FOR STATUS-FIELD THEORY - FREQUENCY ANALYSIS	149
12.	CANONICAL ANALYSIS RESULTS FOR STATUS-FIELD THEORY - BEHAVIOUR INDEX ANALYSIS	155
13.	ACTUAL SIGNS FOR SOCIAL AND STATUS-FIELD THEORY HYPOTHESES	161

CHAPTER 1

THE DEVELOPMENT OF THEORY IN INTERNATIONAL RELATIONS

RECENT DISCUSSIONS HAVE PORTRAYED A PREVAILING VIEW THAT INTERNATIONAL RELATIONS THEORY IS IN A STATE OF DISARRAY, WITH A NUMBER OF CONTENDING APPROACHES, AND CONCEPTUAL DISORDER. WHILE THESE PROBLEMS HAVE NOT BEEN CONFINED TO THE RECENT LITERATURE, IT HAS ONLY BEEN IN THE LAST FEW YEARS THAT THESE PROBLEMS HAVE BEEN TAKEN SERIOUSLY. AUTHORS SUCH AS CHARLES MCCLELLAND,¹ ARENO LIJPHART,² AND WARREN PHILLIPS³ HAVE EXAMINED THIS "STATE OF THE FIELD" IN AN ATTEMPT TO DETERMINE WHERE THE DISCIPLINE HAS GONE, AND WHERE IT IS HEADED. A MAJOR, BUT NOT PARTICULARLY USEFUL VIEW OF THE PROBLEM IS REPRESENTED IN THE DICHOTOMY BETWEEN THE TRADITIONAL AND BEHAVIOURAL APPROACHES TO INTERNATIONAL RELATIONS. CHARLES MCCLELLAND, HOWEVER, SPECIFIES A MORE USEFUL STREAM OF DEVELOPMENT, ONE WHICH INCLUDES THREE PHASES OR WAVES THROUGH WHICH THE FIELD HAS PROGRESSED, AND A FOURTH ON WHICH IT IS NOW EMBARKING: TRADITIONAL, REALIST, BEHAVIOUR AND THE FOURTH WAVE OR POSTBEHAVIOURAL PHASE.

1. C.A. MCCLELLAND, "ON THE FOURTH WAVE: PAST AND FUTURE IN THE STUDY OF INTERNATIONAL SYSTEMS," IN THE ANALYSIS OF INTERNATIONAL POLITICS, EDS. J.N. ROSENAU, V. DAVIS, AND M.A. EAST (NEW YORK: THE FREE PRESS, 1972).

2. A. LIJPHART, "THE STRUCTURE OF THE THEORETICAL REVOLUTION IN INTERNATIONAL RELATIONS," INTERNATIONAL STUDIES QUARTERLY 18 (1974).

3. W.R. PHILLIPS, "WHERE HAVE ALL THE THEORIES GONE?" WORLD POLITICS (JANUARY 1974).

ALTHOUGH THEY DISAGREE IN SUBSTANCE, MCCLELLAND AND LIJPHART DEFINE THE FIRST WAVE, OR TRADITIONAL PARADIGM IN TERMS OF A FOCUS ON INTERNATIONAL LAW AND ORGANIZATION WITH AN EMPHASIS ON STATES AS SOVEREIGN ENTITIES. IN THIS APPROACH A NORMATIVE AND DIPLOMATIC HISTORY ORIENTATION IS USED. MCCLELLAND AND LIJPHART, HOWEVER, DISAGREE ON THIS REALIST-IDEALIST APPROACH. FOR MCCLELLAND, THE REALIST PHASE IS CHARACTERIZED BY THE "MOTIVATIONAL, SITUATIONAL, AND BEHAVIOURAL ASPECTS OF INTERNATIONAL POLITICS"⁴ AS DEVELOPED BY MORGENTHAU. MCCLELLAND ARGUES THAT MORGENTHAU HAS "A ~~PARTY~~ ~~TOUR~~ PHILOSOPHICAL BENT" AND HIS ATTITUDE OF INQUIRY DOES NOT BELONG TO A BEHAVIOURIST, BUT WITH HIS SYSTEMATIC APPROACH TO POWER AND INFLUENCE THEORY, HIS WORK WAS SEMINAL IN "OPENING THE FLOOD GATES" OF BEHAVIOURAL INTERNATIONAL RELATIONS THEORY. LIJPHART, ON THE OTHER HAND, VIEWS THE MORGENTHAU REALIST APPROACH AS A "RESTATEMENT AND REFINEMENT OF THE TRADITIONAL POWER POLITICS APPROACH AND BALANCE-OF-POWER THEORY."⁵

BOTH LIJPHART AND MCCLELLAND AGREE THAT RESEARCH EFFORTS IN THE THIRD WAVE, OR BEHAVIOURAL PARADIGM, DEMONSTRATE ATTEMPTS TO SEARCH FOR A RELATIONSHIP AMONG CONCEPTS AND AMALGAMATE NEW APPROACHES INTO AN INTEGRATED GENERAL SYSTEMS THEORY. TWO CONSEQUENCES OF THIS WAVE ARE THE BEHAVIOURISTS INDIFFERENCE TO THE DISTINCTION BETWEEN DOMESTIC AND INTERNATIONAL POLITICS, AND A BETTER UNDERSTANDING OF THE MULTIDIMENSIONAL CHARACTER OF INTERNATIONAL RELATIONS SUCH THAT SCHOLARS NOW PROCEED BEYOND THE CONCERN WITH POWER AND ASSUME THAT

4. MCCLELLAND, "FOURTH WAVE," P. 25.

5. LIJPHART, "THE STRUCTURE," P. 54.

INTERNATIONAL RELATIONS COMPRISES A LARGE NUMBER OF CONCRETE SYSTEMS ALL OF WHICH ARE INTERRELATED.

THUS, AS "THE SYSTEMS APPROACH GRADUALLY INCREASED IN SCOPE AND TOOK ON MORE AND MORE THEORETICAL COMPLEXITY," McCLELLAND CONCLUDED THAT, "THE CURRENT OUTLOOK - PERHAPS IT IS "THE FOURTH-WAVE ORIENTATION" - IS SIMPLY TO ABANDON THE CONCEPTUAL UNIFICATION PROBLEM."⁶ HE SUGGESTS THAT SCHOLARS IN THE FOURTH WAVE ARE MOVING AWAY FROM THE GRAND APPROACH OR SYSTEM THEORY. THE STRESS IS NOW ON LIMITED CONCEPT APPROACHES AND DEFINITIONS OF THE MULTIDIMENSIONAL APPROACHES BECAUSE SUCH "INCHOATE THEORIES" PROVIDE A SUFFICIENT BEGINNING FOR EMPIRICAL RESEARCH, AND, WITH CAREFUL ATTENTION TO EXPLANATION AND GENERALIZATION DURING RESEARCH "SOME THEORETICAL "PAYOFFS" MAY RESULT."⁷ FINALLY, AS A CONSEQUENCE OF THE BEHAVIOURAL DECADE, THERE IS A REQUIREMENT FOR DATA, INCLUDING HISTORICAL DATA. LIJPHART DISAGREES WITH McCLELLAND'S CONCLUSION BY STATING THAT THE POSTBEHAVIOURISTS "SHARE THE TRADITIONALIST'S DISLIKE OF BEHAVIOURAL METHODOLOGY ... BUT THEY TEND NOT TO REVERT TO THE TRADITIONAL MODEL OF INTERNATIONAL ANARCHY."⁸ THUS, THE STATE IS NO LONGER VIEWED AS THE ONLY ACTOR IN INTERNATIONAL POLITICS. INSTEAD, THERE ARE MANY INTERRELATED CONCRETE SYSTEMS WHICH MAY BE STUDIED, SUCH AS THE NATIONAL, EXTRANATIONAL AND SUBNATION SYSTEMS. TO TEST PROPOSITIONS ABOUT A SYSTEM, ONE MUST SPECIFY WHICH SYSTEM IS CONSIDERED USEFUL IN EMPIRICAL RESEARCH. THE SYSTEM CHOSEN IN THIS THESIS IS THE

6. McCLELLAND, "FOURTH WAVE," P. 29.

7. *IBID.*

8. LIJPHART, "THE STRUCTURE," P. 69.

4.

REGIONAL SUBSYSTEM, WHERE THE PROCESSES OF ATTRIBUTE DISTANCES BETWEEN THE NATIONS IN THIS SYSTEM RELATE TO THE BEHAVIOUR EXCHANGED BETWEEN THESE NATIONS. THIS ATTRIBUTE-BEHAVIOUR RELATIONSHIP IS REFERRED TO AS SOCIAL AND STATUS-FIELD THEORY. BEFORE PROCEEDING TO THIS DISCUSSION OF FIELD THEORY, ONE FINAL NOTE IS REQUIRED ON THE CONTINUING CONCERN WITH THEORY IN INTERNATIONAL RELATIONS.

WITH THE EMPHASIS OF THE POSTBEHAVIOUR PHASE IN DATA COLLECTION, ANOTHER IMPORTANT ASPECT OF RESEARCH MUST BE EMPHASIZED. THIS IS THE LOGICAL ADEQUACY OF THE THEORIES BEING EMPLOYED. THE BASIC UNITS OF A THEORY ARE THE STATEMENTS WHICH LOGICALLY CONNECT CONCEPTS. A CONCEPT IS DEFINED AS STANDING "IN PLACE OF A COHERENT SET OF CHARACTERISTICS ... (AND ARE) SOMETIMES DERIVED FROM DISCRETE FACTS (OF THE PHENOMENON BEING STUDIED)."⁹ CONNECTED IN SUCH STATEMENTS, TWO OR MORE OF THESE CONCEPTS MAY FORM EMPIRICAL GENERALIZATIONS WHICH ARE DEDUCED FROM THE THEORY. A FURTHER REQUIREMENT OF A THEORY IS THAT TESTABLE HYPOTHESES BE PRODUCED.¹⁰ THESE HYPOTHESES ARE THE LOWEST FORM OF GENERALIZATIONS OR UNIVERSAL STATEMENTS, DEDUCED FROM AXIOMS OR HIGHER LEVEL GENERALIZATIONS. ONCE OPERATION-ALIZED, THEY MAY BE TESTED EMPIRICALLY TO DETERMINE THE EXTENT TO WHICH THEY CORRESPOND WITH THE REALITY THEY ARE DESIGNED TO PRINCIPALLY EXPLAIN.

WARREN PHILLIPS REITERATES KARL POPPER'S FOUR BASES FOR TESTING A THEORY: EXAMINE THE INTERNAL CONSISTENCY OF THE STATEMENTS,

9. D. EVERSON AND J. PAINE, AN INTRODUCTION TO SYSTEMATIC POLITICAL SCIENCE. (GEORGETOWN, ONT.: IRWIN-DORSEY LTD., 1973), P. 28.

10. PHILLIPS, "THEORIES GONE?" P. 166.

INVESTIGATE WHETHER THE LOGICAL FORM OF THE STATEMENTS ARE EMPIRICAL OR TAUTOLOGOUS, COMPARE THE THEORY WITH OTHERS TO DETERMINE WHETHER AN ADVANCEMENT HAS BEEN MADE, AND EXAMINE THE EMPIRICAL APPLICATION OF THE DERIVED CONCLUSIONS. ¹¹ (THE LATTER POINT SETS UP THE CRITERIA OF FALSIFICATION BY WHICH OTHERS MAY REPEAT THE RESULTS BY REPLICATING THE TEST OF THE HYPOTHESES WITH NEW DATA.

FINALLY, A THEORY IS USEFUL AND PRODUCTIVE IF IT HAS THE CAPACITY TO ADAPT TO CHANGES AS NEW THEORIES ARE DEVELOPED. IT IS ALSO FRUITFUL AND HEURISTIC IF MANY DIFFERENT AND TENABLE HYPOTHESES MAY BE DERIVED FROM IT. ¹² THUS, IF A THEORY CONTAINS ASSUMPTIONS FROM WHICH ARE DEDUCED TESTED HYPOTHESES REPRESENTATIVE OF THE POPULATION, THEN THE THEORY CAN EXPLAIN AND PREDICT BEHAVIOUR.

PHILLIPS INTRODUCES RUDOLPH RUMMEL'S FIELD THEORY, AN ATTEMPT TO LINK INTERNATIONAL BEHAVIOUR OF NATIONS TO NATIONAL ATTRIBUTE DIFFERENCES AND SIMILARITIES AS SUCH A THEORY. HE STATES THAT THE FIRST THREE AXIOMS OF FIELD THEORY AND THE EQUATION DEMONSTRATING THE RELATIONSHIP BETWEEN ATTRIBUTE AND BEHAVIOUR SPACE, ARE EMPIRICAL, PRIMARY AND UNIVERSAL STATEMENTS, AND THAT THE HYPOTHESES ARE PRODUCED DIRECTLY FROM THE AXIOMS. IN EVALUATING FIELD THEORY BY THE FOUR CRITERIA HE STATES:

... (FIELD THEORY) APPEARS TO CONTAIN EMPIRICAL ASSERTIONS THAT ARE NOT TAUTOLOGIES, TO BE INTERNALLY CONSISTENT, AND TO LACK EMPIRICAL

11. *Ibid.*, p. 163.

12. J. GALTUNG, *THEORY AND METHOD OF SOCIAL RESEARCH* (OSLO: UNIVERSITETSFORLAGET, 1967), p. 465. GALTUNG DEFINES A TENABLE HYPOTHESIS AS ONE WHICH "HAS RECEIVED A SATISFACTORY DEGREE OF CONFIRMATION." (p. 337).

FALSIFICATION. IN COMPARISON WITH OTHER THEORIES IT WOULD APPEAR TO EMPHASIZE A NEW POINT: THAT IT IS THE DIFFERENCES AND SIMILARITIES BETWEEN NATIONS WHICH ARE THE FORCES LEADING TO CONFLICT AND COOPERATION.¹³

IT IS USEFUL TO EXAMINE THE CHARACTERISTICS OF FIELD THEORY WHICH LED TO THIS EVALUATION.

SOCIAL AND STATUS-FIELD THEORY TAKE ON CHARACTERISTICS OF A DEDUCTIVE-NOMOTHETIC APPROACH. THAT IS, THE ASSUMPTIONS AND HYPOTHESES ARE DEDUCED FROM THE FIELD THEORY CONCEPT THAT ATTRIBUTES INFLUENCE BEHAVIOUR PATTERNS IN A DYAD. NOMOTHETIC APPROACHES HAVE NO BOUNDS IN TIME AND SPACE, BUT RATHER MAY BE FOUND ACROSS A WIDE NON-CONTIGUOUS TIME-SPACE REGION, AND ARE INTENDED TO CONSTITUTE A GENERAL THEORY OF SOME PHENOMENON.¹⁴ FURTHER, SOCIAL AND STATUS-FIELD THEORY ARE SYNCHRONIC IN THAT THE ATTRIBUTE DIFFERENCES MAY BE GAUGED BETWEEN ANY NUMBER OF NATIONS, AND DIACHRONIC TO THE EXTENT THAT THE SAME NATIONS ARE STUDIED OVER A TIME PERIOD.

FIELD THEORY, WITH ITS AXIOMS DELINEATING THE FRAMEWORK FOR STUDYING THIS RELATIONSHIP BETWEEN ATTRIBUTES AND BEHAVIOUR, HAS BEEN USEFUL AND PRODUCTIVE IN ITS CAPACITY TO ADAPT TO CHANGES AS NEW THEORIES DEVELOPED. WHILE THE ORIGINAL FIELD THEORY DISCUSSED BEHAVIOUR AS A FUNCTION OF PERSON AND ENVIRONMENT,¹⁵ QUINCY WRIGHT

13. PHILLIPS, "THEORIES GONE?" P. 172.

14. REFER TO J. GALTUNG, "THE SOCIAL SCIENCES: AN ESSAY ON POLARIZATION AND INTEGRATION," IN CONTENDING APPROACHES TO INTERNATIONAL POLITICS, EDS. K. KLAUS AND S. VERBA (NEW JERSEY: PRINCETON UNIVERSITY PRESS, 1969), PP. 249-252 FOR A FURTHER DISCUSSION OF THE DIFFERENCES BETWEEN TIME AND SPACE, NOMOTHETIC-IDIOPATHIC AND DIACHRONIC-SYNCHRONIC STUDIES.

15. K. LEWIS, FIELD THEORY IN SOCIAL SCIENCES (NEW YORK: HARPER AND ROW, 1964), P. 25.

WAS FIRST TO CONCEIVE IT AS SOCIAL-FIELD THEORY IN INTERNATIONAL RELATIONS. HERE, THE CONCEPT OF ATTRIBUTE DISTANCE BETWEEN NATIONS, REFERRING TO A COMBINATION OF THE FUNCTION OF SOCIAL AND ENVIRONMENT FACTORS INFLUENCING THE FOREIGN POLICY BEHAVIOUR OF NATIONS WAS INTRODUCED. RUDOLPH RUMMEL, THROUGH WORK ON THE DIMENSIONALITY OF NATIONS (DON) PROJECT, DEVELOPED MORE PRECISE AXIOMS, A METHODOLOGICAL FRAMEWORK FOR SOCIAL-FIELD THEORY AND TESTED IT IN INTERNATIONAL RELATIONS. MATHEMATICAL ASSUMPTIONS CONCERNING THE LINEARITY OF ATTRIBUTE DISTANCES AND THEIR RELATIONSHIP TO BEHAVIOUR WERE USED. DYADIC BEHAVIOUR WAS CONSIDERED TO BE A FUNCTION OF THE DISTANCE VECTORS IN ATTRIBUTE SPACE DEFINED, THROUGH THE TECHNIQUE OF FACTOR ANALYSIS, BY ATTRIBUTE DIMENSIONS CONNECTING THE SOCIAL UNIT VECTORS. THE FIELD ENCOMPASSING THESE NATIONS WAS DEFINED AS A EUCLIDEAN SPACE WITH NATIONS AS POINTS AND VARIABLES AS VECTORS, FOR BOTH ATTRIBUTE AND BEHAVIOUR SPACE. THE BASIC NOTION WAS THAT THE DISTANCE BETWEEN THESE TWO POINTS, THE VECTOR, IN ATTRIBUTE SPACE WAS A FORCE DETERMINING THEIR BEHAVIOUR TOWARDS EACH OTHER IN BEHAVIOUR SPACE. THE LINEARITY ASSUMPTION OF THIS RELATIONSHIP ALLOWED THE INTERRELATIONSHIP AMONG POINTS AND VARIABLES TO BE REPRESENTED AS ANGLES THROUGH THE TECHNIQUES OF MULTIPLE REGRESSION AND CANONICAL ANALYSIS. THIS ANGLE WAS USED TO DETERMINE THE EMPIRICAL FIT BETWEEN ATTRIBUTE DISTANCES AND BEHAVIOUR. THE LINEARITY ASSUMPTION WIDENED THE SCOPE OF SOCIAL-FIELD THEORY, PROVIDING A BASIS FOR FURTHER INQUIRY INTO PROPOSITIONS CONCERNING THIS RELATIONSHIP.

THE AXIOMS AND PROPOSITIONS OF SOCIAL-FIELD THEORY WERE

USED TO DEVELOP A SUBSEQUENT THEORY, STATUS-FIELD THEORY. THE BASIC AXIOMS REGARDED ATTRIBUTE DISTANCES BETWEEN NATIONS AND ITS INFLUENCE ON FOREIGN POLICY BEHAVIOUR, BUT A FURTHER ASSUMPTION WAS ADDED; THAT IS, NATIONS IN A STRATIFIED SYSTEM DESIRE UPWARD MOBILITY. THE HEURISTIC SIGNIFICANCE OF THIS AXIOM PERMITTED THE DEVELOPMENT OF MORE AXIOMS AND THEOREMS FOR THE STUDY OF STATUS ATTRIBUTES AND STATUS BEHAVIOUR. TESTS OF THESE THEORIES HAVE BEEN EXECUTED, AND ARE DISCUSSED IN THE FOLLOWING CHAPTER.

THE PRESENT RESEARCH PRESENTS AN ADDITIONAL EXAMINATION OF THE EMPIRICAL VALIDITY OF SOCIAL AND STATUS-FIELD THEORY. HOWEVER, ITS FIELD OF APPLICABILITY IS ALTERED SLIGHTLY FROM OTHER TESTS OF THE THEORIES. WHILE THESE TESTS CLAIM THAT A CERTAIN PERCENTAGE OF THE VARIANCE OF NATIONS' INTERNATIONAL BEHAVIOUR IS EXPLAINED BY ATTRIBUTES, THIS THESIS SEEKS TO DISTINGUISH THE ORIGINS OF EXPLAINED VERSUS THE UNEXPLAINED VARIANCE BY FOCUSING ON NATIONAL BEHAVIOUR IN A REGIONAL CONTEXT. THAT IS, NATIONS' DECISION-MAKERS PERCEIVE THE SUBSYSTEM LEVEL AS AN IMPORTANT ARENA FOR FOREIGN POLICY PARTICIPATION. FURTHERMORE, ATTRIBUTE DISTANCES EXIST, ALTHOUGH AT SMALLER MAGNITUDES AND DIRECTIONS RELATIVE TO NATIONS IN THE INTERNATIONAL SYSTEM AS A WHOLE. THEREFORE, THIS THESIS EXPLORES THE ABILITY OF SOCIAL AND STATUS-FIELD THEORY TO EXPLAIN BEHAVIOUR AT A LEVEL WHERE THESE DISTANCES ARE SMALL.

WHILE STUDIES FOCUSING ON SOCIAL-FIELD THEORY HAVE SPANNED A LARGE SECTOR OF NATIONS,¹⁶ ARTICLES ON STATUS-FIELD THEORY HAVE

16. SEE FOR EXAMPLE R. VAN ATTA, "FIELD THEORY AND NATIONAL-INTERNATIONAL LINKAGES," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY CO., 1973), P. 208.

FOCUSED ON A LARGE NATION, SUCH AS THE UNITED STATES, AS THE ACTOR NATION. CONSEQUENTLY ANY ATTRIBUTE DISTANCE BETWEEN THE ACTOR-NATIONS AND THE TARGETS HAVE BEEN LARGE. THEREFORE, THESE STUDIES GENERALLY SUPPORT SOCIAL AND STATUS-FIELD THEORY. HOWEVER, IT IS NOT KNOWN IF THE THEORIES EXPLAIN ONLY THE BEHAVIOUR IN DYADS WITH MAXIMUM DISTANCE, OR IF THEY CAN ACCOUNT FOR BEHAVIOUR IN DYADS WITH SMALL DISTANCES, THAT IS, MORE SYMMETRIC DYADS. THIS THESIS THEN PROPOSES TO FOCUS ON THESE MORE SYMMETRIC DYADS, AND IN PARTICULAR DYADS WHICH ARE IN A REGION. THE LITERATURE ON SUBSYSTEM LEVELS SUGGESTS THAT INTERACTION BETWEEN NATIONS IN A REGION IS IMPORTANT, AND THEREFORE IT IS WORTHWHILE TO DETERMINE WHETHER (A) ATTRIBUTE DISTANCES INFLUENCE BEHAVIOUR PATTERNS IN THE REGION, AND (B) SOCIAL AND STATUS-FIELD THEORY ARE ABLE TO EXPLAIN DYADIC BEHAVIOUR WHERE THERE IS A RELATIVELY SMALL ATTRIBUTE DISTANCE IN THE DYAD.

IN APPLYING SOCIAL AND STATUS-FIELD THEORY TO A REGIONAL STUDY, THIS PAPER POSTULATES THAT THE AXIOMS FOR THE THEORIES ARE APPLICABLE BASICALLY TO THE BEHAVIOUR PATTERNS OF THE 32 BLACK AFRICAN NATIONS. THESE NATIONS ARE CHOSEN AS AN EXAMPLE OF A GROUP OF SMALL NATIONS WHICH DO INTERACT IN THE INTERNATIONAL SYSTEM BUT CONSIDER THEIR OWN REGION AS AN IMPORTANT SPHERE OF INTERACTION. SIMILAR TO LARGER AND SMALLER NATIONS IN THE GLOBAL SYSTEM, THEY DIFFER FROM EACH OTHER ON ATTRIBUTE DIMENSIONS, IF ONLY IN JUST A MINIMAL SENSE. ALTHOUGH THE DIFFERENCES ARE SMALL, BECAUSE THESE NATIONS ARE PRESUMABLY SIMILAR IN AREAS SUCH AS ECONOMIC DEVELOPMENT AND POWER, THE DIFFERENCE SHOULD BE ENOUGH TO ASSIGN A RANK OR STATUS TO THESE NATIONS IN A STRATIFIED SYSTEM. IF SOCIAL AND

STATUS-FIELD THEORY ARE VALID THEORIES, THE BEHAVIOUR PATTERNS OF THE NATIONS SHOULD CONFORM TO THAT PREDICTED BY THE THEORIES. THUS, THE HYPOTHESES TESTED IN THIS THESIS ARE SIMILAR TO THOSE TESTED ELSEWHERE, WITH THE DIFFERENCE FOCUSING ON THE REGIONAL ANALYSIS AND SMALL DIFFERENTIATION BETWEEN NATIONS.

FIGURE 1 DEMONSTRATES THE PROCEDURE TO BE FOLLOWED IN TESTING THE HYPOTHESES. THE RESEARCH DESIGN IS SIMILAR TO THAT CARRIED OUT IN OTHER RESEARCH, SUCH AS THAT OF R. RUMMEL,¹⁷ S. RHEE¹⁸ AND R. VAN ATTA,¹⁹ IN ORDER TO COMPARE RESULTS. BOTH ATTRIBUTE AND BEHAVIOUR DATA ARE SUBJECTED TO FACTOR ANALYSIS IN ORDER TO EXTRACT THE MAJOR ATTRIBUTE DIMENSIONS POWER, DEVELOPMENT, URBANIZATION, RELIGION AND POLITICAL ORIENTATION, AND BEHAVIOUR DIMENSIONS, CONFLICT, COOPERATION AND INTERACTIVE BEHAVIOUR. WHILE THE ATTRIBUTE DIFFERENCES BETWEEN NATIONS ARE CALCULATED BY SUBTRACTING THEIR RESPECTIVE FACTOR SCORES ON EACH DIMENSIONS, TWO FORMS OF BEHAVIOUR ARE TESTED IN ORDER TO COMPARE RESULTS OBTAINED FROM THE CANONICAL ANALYSIS. FREQUENCIES ARE USED IN ONE ANALYSIS, AND A BEHAVIOUR INDEX FOR EACH DYAD IS CALCULATED IN ANOTHER. THE ATTRIBUTES AND BEHAVIOUR ARE SUBJECTED TO A CANONICAL ANALYSIS PROCEDURE TO ASSESS THE EMPIRICAL

17. R. RUMMEL, "U.S. FOREIGN RELATIONS," IN PEACE, WAR AND NUMBERS, ED. B.M. RUSSETT (BEVERLY HILLS: SAGE PUBLICATION, 1972).

18. S. RHEE, "CHINA'S COOPERATION, CONFLICT AND INTERACTION BEHAVIOUR," IN ADVANCING AND CONTENDING APPROACHES TO THE STUDY OF CHINESE FOREIGN POLICY, ED. R.L. DIAL (HALIFAX: CENTRE FOR FOREIGN POLICY STUDIES, DALHOUSIE UNIVERSITY, 1974).

19. R. VAN ATTA, "FIELD THEORY AND NATIONAL-INTERNATIONAL LINKAGES," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY CO., 1973).

FIGURE 1. RESEARCH DESIGN

FIT BETWEEN ATTRIBUTE DISTANCES AND FOREIGN POLICY BEHAVIOUR.

FINALLY, TWO MAJOR MODELS ARE EXAMINED. THE FIRST, CALLED MODEL I OF SOCIAL AND STATUS-FIELD THEORY IS TESTED FROM A GENERAL PERSPECTIVE WHEREBY THE PARAMETERS FOR ATTRIBUTE DISTANCES WHICH INFLUENCE BEHAVIOUR ARE ASSUMED TO BE CONSTANT ACROSS ALL DYADS. CONVERSELY, MODEL II ASSUMES THAT THE PARAMETERS VARY FOR EACH ACTOR ON EACH ATTRIBUTE DIMENSION. THUS, WHILE THERE IS ONLY ONE ANALYSIS EACH FOR SOCIAL AND STATUS-FIELD THEORY IN THE MODEL I ANALYSIS, THERE IS ONE ANALYSIS FOR EACH ACTOR FOR EACH THEORY IN THE SECOND MODEL. THE COMPLEXITIES OF THIS ARE DISCUSSED IN GREATER DETAIL IN CHAPTER 4.

IN THE ANALYSIS IT IS EXPECTED THAT RESULTS COMPARABLE TO OTHER TESTS WILL BE FOUND. IT IS FURTHER EXPECTED THAT, ALTHOUGH THE RESULTS FOR SOCIAL-FIELD THEORY WILL BE POSITIVE, THE DIFFERENCES BETWEEN NATIONS ON THE STATUS DIMENSIONS OF POWER AND DEVELOPMENT FOR THE GENERAL AND DYAD-CENTRED MODELS WILL CONFIRM THE GREATER UTILITY OF STATUS-FIELD THEORY IN THE EXPLANATION OF BEHAVIOUR PATTERNS. IT IS EXPECTED ALSO THAT THE RESULTS WILL INDICATE THE VALIDITY OF EMPLOYING SOCIAL AND STATUS-FIELD THEORY AS A MEANS OF EXPLAINING AND PREDICTING BEHAVIOUR AT THE SUBSYSTEM LEVEL, AND THAT INTERACTION BEHAVIOUR IS PATTERNED WITH NATIONS IN A STRATIFIED SYSTEM ACTING TOWARDS EACH OTHER IN CONCURRENCE WITH THE ATTRIBUTE DISTANCES BETWEEN THEM.

CHAPTER 2

THE DEVELOPMENT OF STATUS-FIELD THEORY

THEORY-BUILDING MUST START FROM SIMPLE AND BASIC ASSUMPTIONS AND THROUGH LOGICAL DEDUCTION ELABORATE GRADUALLY A THEORY, THE HYPOTHESES OF WHICH MAY BE TESTED EMPIRICALLY. THIS THESIS COMMENCES THEN, WITH ATTRIBUTE THEORY, THE CATALYST FOR THE BASIC ASSUMPTIONS OF FIELD THEORY.

ATTRIBUTE THEORY IS THE SOURCE OF A CHAIN OF THEORIES BASED ON THE ASSUMPTION THAT THE ATTRIBUTES OF A NATION IN EITHER A DIRECT OR INDIRECT FASHION INFLUENCE THE EXTERNAL BEHAVIOUR OF THAT NATION. NATIONS ARE STUDIED AT THE LEVEL OF THE MONAD; THAT IS, THE ATTRIBUTES OF A NATION SHOULD ACCOUNT FOR ITS BEHAVIOUR TO ALL TARGET OR OBJECT NATIONS TO WHICH IT DIRECTS BEHAVIOUR. FOR EXAMPLE, IN TERMS OF TRADITIONAL RESEARCH IN INTERNATIONAL RELATIONS, ATTRIBUTE THEORY TAKES THE FORM THAT BIG NATIONS TEND TO PURSUE CERTAIN COURSES OF ACTION, WHILE SMALL STATES TEND TO PURSUE OTHERS. THESE STATEMENTS ARE PRESENTED AS PROPOSITIONS CONCERNING NATIONS AND ACTIONS, BUT IN MANY CASES ARE LEFT UNTESTED. THE FOLLOWING SECTION OF THIS CHAPTER PRESENTS A FAIRLY DETAILED DESCRIPTION OF THIS TRADITIONAL USAGE OF ATTRIBUTE THEORY IN THE DISCUSSION OF STATUS. MORE RECENTLY, THE THEORY HAS BEEN EXTENDED, MATHEMATIZED AND TESTED BY SUCH SCHOLARS AS MAURICE EAST AND RUDOLPH RUMEL IN THEIR DISCOURSES ON THE RELATIONSHIPS BETWEEN THE ATTRIBUTES OF SIZE, WEALTH, AND ACCOUNTABILITY AND INTERNATIONAL

BEHAVIOUR. HOWEVER, AS WILL BE SEEN, "ALL STATES ARE TREATED SIMULTANEOUSLY AND ... ANY ONE STATE TENDS TO BE LOST IN THE BROAD GENERAL PICTURE"¹ OF ATTRIBUTE THEORY. THUS, A MORE SPECIFIC THEORY IS REQUIRED TO OBTAIN A CLEAR PERCEPTION OF THE RELATIONSHIP BETWEEN ATTRIBUTES AND BEHAVIOUR.

STATUS

STATUS IS A CONCEPT OFTEN USED IN INTERNATIONAL RELATIONS AND IS EMPLOYED IN ATTRIBUTE THEORY. HERE, THE STATUS OF A NATION IS AN INTRINSICALLY ASSIGNED VALUE BASED ON THE RELATIVE SIMILARITY OR DIS-SIMILARITY TO ANOTHER NATION ON SOME ATTRIBUTE DIMENSION. ATTEMPTS HAVE OFTEN BEEN MADE TO CLASSIFY NATIONS IN TERMS OF TWO PARTICULAR DIMENSIONS: POWER CAPABILITIES AND ECONOMIC DEVELOPMENT. FOR EXAMPLE, ON POWER CAPABILITIES, ONE NATION MAY HAVE A HIGH STATUS WHEN COMPARED TO A LESS POWERFUL NATION, AND THEREFORE LESS STATUS, BUT LOW IN COMPARISON TO A MORE POWERFUL NATION. THUS,

THE BEHAVIOUR AND ATTRIBUTES OF A NATION ARE RELATIVE. IT IS NOT THE ABSOLUTE ECONOMIC DEVELOPMENT OR POWER OF A NATION WHICH COULD BE TAKEN INTO CONSIDERATION (MOST NATIONS TODAY ARE MORE DEVELOPED THAN ANY ONE NATION TWO HUNDRED YEARS AGO), FOR EXAMPLE, BUT ITS RELATIVE POWER VIS-A-VIS SOME EXPLOIT OTHER NATION AND THE ACTION OF ONE NATION TO THE OBJECT'S BEHAVIOUR AND THAT OF ALL OTHER NATIONS.²

NATIONS MAY BE RANKED AND GROUPED INTO CLASSES IN TERMS OF THIS RELATIVE STATUS BY PLACING ONE NATION HIGHER THAN ANOTHER ON AN ORDINAL SCALE,

1. JACK VINCENT, "ATTRIBUTE AND ATTRIBUTE DISTANCE THEORY OF INTERNATIONAL BEHAVIOUR: AN OVERVIEW," (FLORIDA ATLANTIC UNIVERSITY, MIMED, MARCH, 1974), PP. 3-4.

2. RUDOLPH RUMEL, "U.S. FOREIGN RELATIONS CONFLICT, COOPERATION, AND ATTRIBUTE DISTANCE," IN PEACE, WAR AND NUMBERS, ED. BRUCE RUSSETT (BEVERLY HILLS: SAGE PUBLICATIONS, 1972), P. 77.

RANGING FROM HIGH STATUS, ASSOCIATED WITH SOME DESIRABLE QUALITY, TO LOW STATUS.

RATHER THAN DEFINING CLASS IN TERMS OF STATUS, WE DEFINE STATUS IN RELATION TO DEFERENCE CLASSES. TO "HAVE STATUS" IS TO OCCUPY A FAVOURABLE POSITION IN THE PATTERN OF SUCH VALUES AS POWER AND RESPECT; AND IN GENERAL THE STATUS OF A PERSON IS SPECIFIABLE IN TERMS OF HIS RELATION TO DEFERENCE VALUES.

IT IS ASSUMED, THROUGH THE BASIC ASSUMPTION OF ATTRIBUTE THEORY, THAT THE DISTANCE BETWEEN NATIONS ON STATUS WILL RESULT IN DIFFERENT FORMS OF INTERNATIONAL BEHAVIOUR. THREE DIFFERENT APPROACHES HAVE BEEN EMPLOYED IN DETERMINING WHETHER IN FACT THIS IS THE CASE. THESE ARE:

(A) THE TRADITIONAL MODE OF CLASSIFYING NATIONS INTO GREAT, MIDDLE AND SMALL POWERS;

(B) THE GALTUNGIAN APPROACH OF TYPING NATIONS ACCORDING TO A SCHEME SIMILAR TO THE ABOVE, BUT MORE PRECISE IN CLASSIFYING THE INTERNAL CHARACTERISTICS AND BEHAVIOUR OF NATIONS IN THE NOMENCLATURE TOPDOG, MIDDLEDOG AND UNDERDOG;

(C) THE ROSENAU APPROACH OF VIEWING NATIONS IN TERMS OF THREE SPECIFIC ATTRIBUTES OR GENOTYPE VARIABLES WHICH, FOR ROSENAU, ARE THE STATUS ATTRIBUTES USED TO ACCOUNT FOR FOREIGN POLICY BEHAVIOUR - WEALTH, SIZE AND POWER.

THE MOST PROMINENT AND PERHAPS THE MOST TRADITIONAL WAY OF CLASSIFYING NATIONS IS TO PLACE THEM INTO ONE OF THE FIRST THREE CATEGORIES - GREAT, MIDDLE AND SMALL POWERS, FOCUSING ON THE INTERNATIONAL SYSTEM. SCHOLARS USING THIS APPROACH HAVE EMPLOYED VARYING DEFINITIONS

3. HAROLD LASSWELL AND A. KAPLAN, POWER AND SOCIETY (NEW HAVEN: YALE UNIVERSITY PRESS, 1961), PP. 66-67.

OF STATUS. IN ONE CASE STATUS IS DEPENDENT UPON THE CAPABILITIES OR ATTRIBUTES POSSESSED BY NATIONS, IN PARTICULAR THE ACCUMULATIONS OF ECONOMIC RESOURCES, TECHNOLOGY AND POPULATION. THE MORE A NATION IS DEVELOPED, THE MORE LIKELY THE NATION, IN JOHAN GALTUNG'S TERMS, WILL HAVE A HIGH DEGREE OF PROCESSED GOODS AVAILABLE FOR EXCHANGE WITH OTHER NATIONS. PROCESSED GOODS DO NOT MEAN NECESSARILY MASS CONSUMPTION OF ITEMS SUCH AS FOOD, CARS OR HOUSEHOLD GOODS, ALTHOUGH THESE ARE NOT EXCLUDED, BUT ALSO MILITARY HARDWARE (SUCH AS NUCLEAR WEAPONS), TECHNICAL KNOW-HOW (SUCH AS THE MACHINERY FOR PRODUCING GOODS), AND KNOWLEDGE (SUCH AS TEACHERS AND PROFESSIONALS).⁴

THIS EXCHANGE OF GOODS LEADS TO THE SECOND TERM BY WHICH STATUS IS DEFINED - INTERACTION OR BEHAVIOUR EXCHANGES. IT IS MAINTAINED THAT THE AMOUNT AND TYPE OF INTERACTION BETWEEN NATIONS VARIES WITH THE DIFFERENCES IN STATUS CLASSIFICATION OF NATIONS. "EMPIRICAL ANALYSIS INDICATES THAT GENERAL INVOLVEMENT (THROUGH INTERACTION) IS DIRECTLY RELATED TO THE STATUS OF A NATION-STATE IN THE STRATIFICATION SYSTEM."⁵ NOT ONLY DOES INTERACTION RELATE TO STRATIFICATION OF NATIONS IN TERMS OF THE STRATA WITHIN AND BETWEEN WHICH THIS INTERACTION TAKES PLACE, BUT THE SITUATION ARISES WHERE THERE IS "MUCH INTERACTION BETWEEN NATIONS HIGH IN THE RANKING SYSTEM, LESS BETWEEN ONE NATION THAT IS HIGH AND ANOTHER THAT IS LOW, AND LESS BETWEEN TWO NATIONS LOW IN THE SYSTEM."⁶

4. JOHAN GALTUNG, "A STRUCTURAL THEORY OF IMPERIALISM," JOURNAL OF PEACE RESEARCH, 8 (1971): 104.

5. MAURICE EAST, "RANK-DEPENDENT INTERACTION AND MOBILITY," PEACE RESEARCH SOCIETY, PAPERS 14 (1970): 114.

6. IBID., p. 116.

THESE TWO DEFINITIONS, CAPABILITY AND INTERACTION, ARE SEEN IN THE WRITINGS ON GREAT POWERS. THESE NATIONS ARE CONSIDERED TO BE "ECONOMICALLY AND TECHNOLOGICALLY MATURE ... (PERMITTING) SOME NATIONS TO APPLY THESE CAPACITIES TO THE PRODUCTION OF NEW METHODS OF WARFARE,"⁷ AND POSSESSING AN ECONOMIC AND CULTURAL LIFE-STYLE THAT SPILLS OVER AND SPINS OFF ONTO OTHER SOCIETIES. IN TERMS OF THEIR BEHAVIOUR, THESE GREAT POWERS EXERCISE AN IMPACT ON, OR AT LEAST SIGNIFICANTLY MODIFY THE NATURE OF THE INTERNATIONAL SYSTEM BY INFLUENCING THE NATIONS WITHIN THE SYSTEM. NATIONS WHICH EXERCISE AN IMPACT ARE DISCUSSED BY R. KEOHANE AS "SYSTEM-DETERMINING" STATES, MAINLY THE SUPER POWERS, WHILE THOSE EXERCISING SIGNIFICANT INFLUENCE ARE "SYSTEM-INFLUENCING" STATES.⁸ THESE NATIONS ARE "STATES WHICH CANNOT BE DEFEATED IN WAR BY ANY OTHER STATE OR COALITION OF STATES WITHOUT ITS EXACTING COMPARABLE COSTS FROM ITS OPPONENTS," AND AT THE SAME TIME HAVE "THE CAPACITY ... TO ASSUME LASTING HEGEMONIC LEADERSHIP OVER THE OTHERS."⁹

THE DEFINITION OF MIDDLE POWER IS PROBABLY THE MOST CONTENTIOUS AREA IN TRADITIONAL STATUS LITERATURE. AS IMPLIED BY THE WORD 'MIDDLE' ON THE CONTINUUM FROM 'GREAT' TO 'SMALL', MIDDLE POWERS ARE SITUATED AS INTERMEDIARIES BETWEEN THE TWO EXTREMES. THIS DEFINITION HAS BEEN EMPLOYED OFTEN, BUT SAYS VERY LITTLE. WHAT IT DOES SAY IS THAT A NATION ENJOYS THIS MIDDLE STATUS BECAUSE IT OCCUPIES A MIDDLE POSITION IN

7. G. LAGOS, INTERNATIONAL STRATIFICATION AND UNDERDEVELOPED COUNTRIES (CHAPEL HILL: UNIVERSITY OF NORTH CAROLINA PRESS, 1963), P. 12.

8. R.O. KEOHANE, "LILLIPUTIANS' DILEMMAS: SMALL STATES IN INTERNATIONAL POLITICS," INTERNATIONAL ORGANIZATION 23 (SPRING 1969): 295.

9. DAVID VITAL, THE SURVIVAL OF SMALL STATES (WASHINGTON, D.C.: PUBLIC AFFAIRS PRESS, 1971), PP. 4-5.

RESPECT TO MAJOR ELEMENTS OF POWER. THIS MEANING DOES NOT SAY WHERE 'GREAT' ENDS AND 'MIDDLE' BEGINS, AND EVEN IMPLIES AN ASSUMPTION THAT 'MIDDLE' IS NECESSARILY CONDITIONAL ON THE ASSUMPTIONS MADE FOR DEFINING 'GREAT' AND 'SMALL'. IN CARL HOLBRAAD'S ANALOGY:

... LIKE THE MIDDLE CLASS OF DOMESTIC SOCIETY, IT IS THE RANGE WHERE THOSE ONCE AT THE TOP (GREAT POWERS) BUT NOW IN DECLINE JOIN THOSE ORIGINALLY AT THE BOTTOM OF THE SCALE, BUT NOW RISING AND, TOGETHER, SWELL THE RANKS OF THOSE LONG ESTABLISHED IN INTERMEDIATE POSITIONS.¹⁰

THUS, IN THE TRADITIONAL LITERATURE OF CLASSIFYING NATIONS, IT BECOMES DIFFICULT TO DETERMINE EXACTLY WHERE THE LIST OF GREAT POWERS COINCIDES WITH THE TOP OF THE MIDDLE POWER CLASSIFICATION.

A FEW AUTHORS HAVE ATTEMPTED TO DEFINE MIDDLE POWER IN MORE PRECISE TERMS. ERIC HANSON HAS EMPLOYED ECONOMIC POWER AND RESOURCES AS FACTORS FOR DIVIDING NATIONS ACCORDING TO THE LEVEL OF TOTAL AND PER CAPITA INCOME AND PRODUCTIVITY. ALTHOUGH THIS PROVIDES A CONCISE CATEGORIZATION OF NATIONS, SOME NATIONS TEND TO BE PLACED IN CLASSES NOT NORMALLY ASSOCIATED WITH THEIR PERCEPTION OF THEIR STATUS. FOR EXAMPLE, GREAT BRITAIN, FRANCE AND WEST GERMANY ARE SMALL POWERS BY HANSON'S METHOD OF CLASSIFYING NATIONS.¹¹

MIDDLE POWER HAS BEEN DEFINED ALSO IN TERMS OF TRANSACTIONS AND INTERACTIONS IN THE INTERNATIONAL SYSTEM. GALTUNG STATES:

CONCRETELY, IT (THE MIDDLE POWER) WOULD EXCHANGE SEMI-PROCESSED GOODS WITH HIGHLY PROCESSED GOODS UPWARDS AND SEMI-PROCESSED GOODS WITH RAW MATERIAL GOODS DOWNWARDS. IT WOULD SIMPLY BE LOCATED

10. C. HOLBRAAD, "THE ROLE OF MIDDLE POWERS," OCCASIONAL PAPERS, #18 (CARLETON UNIVERSITY, MARCH 1972): 3.

11. E. HANSON, "THE ECONOMIC POLICIES OF A MIDDLE POWER," IN CANADA'S ROLE AS A MIDDLE POWER, ED. K. GORDON (TORONTO: CANADIAN INSTITUTE OF INTERNATIONAL AFFAIRS, 1965), PP. 104-106.

BETWEEN CENTRE AND PERIPHERY WHERE THE DEGREE OF PROCESSING OF ITS EXPORT PRODUCTS IS CONCERNED.¹²

THUS, MIDDLE POWERS USE RAW MATERIALS TO YIELD MOSTLY SEMI-PROCESSED GOODS, SELL THESE TO OTHER NATIONS, THEN BUY BACK THE MANUFACTURED GOODS. MIDDLE POWERS ENGAGE IN A LARGE VOLUME OF TRADE TRANSACTIONS FOR RAW AND MANUFACTURED GOODS. IN TERMS OF INTERACTIONS AND THEIR ABILITY TO BE A LEADER OF OTHER NATIONS, THEY ARE NOT CAPABLE OF INFLUENCING AFFAIRS AS DO GREAT POWERS, BUT NOR ARE THEY RESTRICTED FROM ANY TYPE OF INFLUENCE AT ALL. THEY ARE "SYSTEM-AFFECTING" NATIONS.¹³ RATHER THAN ATTEMPTING TO ASSERT SOME INFLUENCE INDIVIDUALLY, THEY ARE ABLE TO EXERT SOME IMPACT BY WORKING ON A SPECIFIC PROBLEM, OR THROUGH SOME GROUP OR ORGANIZATION.

UNLIKE THE GREAT POWER, MIDDLE POWERS ARE NOT USUALLY CAPABLE OR DESIROUS OF ATTEMPTING TO ALTER THE INTERNATIONAL RELATIONS OF WEAKER STATES. THEIR INVOLVEMENT IS USUALLY LIMITED TO SPECIFIC KINDS OF ECONOMIC, MILITARY AND POLITICAL PARTICIPATION IN ISOLATED COUNTRIES.¹⁴

THE MOST FREQUENTLY DISCUSSED FORUM OF MIDDLE POWER INTERACTION IS IN THE UNITED NATIONS. MIDDLE POWER NATIONS HAVE "FUNCTIONS" WHICH ARE "COMMENSURATE WITH (THEIR) SPECIAL INTERESTS OR COMPETENCE."¹⁵ THE AREAS OF COMPETENCE INCLUDE STRATEGIC LOCATION, ECONOMIC RESOURCES, TECHNOLOGICAL SKILLS AND MILITARY ADEQUACY, ATTRIBUTES POSSESSED IN

12. GALTUNG, "IMPERIALISM," P. 104.

13. KEOHANE, "LILLIPUTIANS' DILEMMAS," P. 296.

14. L. CANTORI AND S. SPIEGEL, "THE INTERNATIONAL SYSTEM OF REGIONS," IN REGIONAL POLITICS AND WORLD ORDER. ED. R. FALK AND S. MENLOVITZ (SAN FRANCISCO: FREEMAN AND CO., 1973), P. 14.

15. JOHN HOLMES, BETTER PART OF VALOUR (TORONTO: CARLETON LIBRARY, 1970), P. 17.

SUFFICIENT QUANTITY TO BE OF SOME VALUE FOR PARTICIPATING IN THE U.N. THE MOST COMMON "FUNCTION" FOR THE MIDDLE POWER IS PEACEKEEPING ACTIVITIES AND THE ROLE OF MEDIATOR IN NEGOTIATIONS - OFTEN WITH BOTH ACTIVITIES OCCURRING AT THE SAME TIME. BESIDES THE FACT THAT MIDDLE POWERS MAY BE WEAKER THAN THE CONTENDING NATIONS AND ARE USUALLY DETACHED FROM THE AREA OF DISPUTE, PAUL PAINCHAUD STATES THAT THESE MIDDLE STATES NOT ONLY ASSIST IN THE UNITED NATIONS AS MEDIATORS, BUT "IN THE SENSE OF A VARIED DIPLOMATIC ACTIVITY, CONSTANTLY AVAILABLE, (ARE) ENGAGED IN ALL INTERNATIONAL PROCESSES."¹⁶

THESE FUNCTIONS AS PEACEKEEPERS ARE CONGRUOUS TO THE PERCEIVED 'STATUS' OF A MIDDLE POWER NATION. THEY ARE PERCEIVED AS FAIRLY AFFLUENT, BUT NOT RICH, AND AS A LIAISON BETWEEN CONTENDING FACTIONS, WHETHER RICH OR POOR, CAPITALIST OR COMMUNIST. BASED ON THESE ATTRIBUTES, MIDDLE POWERS ARE PERMITTED TO PLAY A LIMITED ROLE IN AREAS OUTSIDE THEIR OWN COUNTRY.

AT THE OPPOSITE END OF THE CONTINUUM TO THE GREAT POWER IS THE SMALL POWER. THESE STATES ARE CAPABLE OF LITTLE INFLUENCE OVER THE SYSTEM-WIDE FORCES WHICH AFFECT THEM, NOR ARE THEY ABLE TO MAKE AN IMPACT ON THE INTERNATIONAL SYSTEM. FOR THESE "SYSTEM-INEFFECTUAL" STATES, THEIR "FOREIGN POLICY IS ADJUSTMENT TO REALITY, NOT REARRANGEMENT OF IT."¹⁷ THUS, THREE ASPECTS OF THE SMALL POWERS' POSITION ARE:

- (1) OUTSIDE HELP IS REQUIRED;
- (2) THE STATE HAS A NARROW MARGIN OF SAFETY WITH LITTLE TIME FOR CORRECTING MISTAKES;
- (3) THE STATE'S LEADERS SEE ITS WEAKNESS AS ESSENTIALLY UNALTERABLE.¹⁸

16. PAUL PAINCHAUD, "MIDDLEPOWERMANSHIP AS AN IDEOLOGY," IN CANADA'S ROLE, ED. GORDON, P. 31.

17. KEOWANE, "LILLIPUTIANS' DILEMMAS," P. 296.

18. IBID., P. 293.

SMALL POWERS ARE ECONOMICALLY WEAK, AND THEREFORE POSSESS LIMITED AMOUNTS OF RESOURCES, INCLUDING TECHNICAL AND MILITARY KNOWLEDGE. THEY RELY HEAVILY ON EXTERNAL ASSISTANCE TO FULFILL THEIR NEEDS; THEIR "NARROW MARGIN OF SAFETY" IS DUE PRIMARILY TO THEIR LACK OF CAPABILITY TO INFLUENCE OTHERS AND DEFEND THEMSELVES. THESE STATES MUST TRY TO WITHSTAND PRESSURE FROM OTHERS WHO DESIRE TO CHANGE THEIR BEHAVIOUR. IN AN INTERNATIONAL SYSTEM DESIGNED TO PROMOTE THE INTEREST OF THE MAJOR POWERS, TO THE SMALL POWER,

THE SYSTEM IS ONE OF LIMITED INTERNATIONAL FREEDOM OF ACTION AND DECIDEDLY LITTLE SECURITY FROM AGGRESSION. TO THE EXTENT THAT GOAL ACHIEVEMENT REQUIRES EXTERNAL POWER, THEY HAVE FEWER FEASIBLE OPTIONS THAN THE STRONG; AND THEIR USUALLY NARROW MARGIN OF SAFETY IS HIGHLY DEMANDING OF VIGILANT PRUDENCE. (ONLY THE STRONG CAN HOPE TO "MUDDLE THROUGH.")¹⁹

IN ATTEMPTS TO WIDEN THE "NARROW MARGIN OF SAFETY", SMALL POWERS OFTEN EMBRACE NONALIGNMENT, SEEK PROTECTION FROM A STRONGER POWER, OR, AS IS OFTEN THE CASE, ACQUIRE SOME FORM OF DEFENCE IN COLLECTIVE SECURITY.

NATIONS MAY BE ABLE TO LESSEN THIS "SAFETY" GAP AND OVERCOME THIS "WEAKNESS" IN DEFENCE THROUGH REGIONAL SOLIDARITY. FOR SECURITY, MORE REGIONAL INTERESTS ARE LIKELY TO DEVELOP WHERE THERE IS "ROUGH EQUALITY OF DIPLOMATIC AND INTELLIGENCE APPARATUS, (WITH) DISTINCT INEQUALITY BEYOND THE IMMEDIATE GEOGRAPHICAL NEIGHBOURHOOD."²⁰ THIS ARGUMENT NEED NOT APPLY ONLY TO SMALL POWERS, BUT, AS WILL BE DISCUSSED IN CHAPTER 3, MANY OTHER NATIONS MAY DECIDE IT IS ALSO TO THEIR ADVANTAGE

19. K. KNORR, POWER AND WEALTH (NEW YORK: BASIS BOOKS, 1963), p. 26.

20. KEONANE, "LILLIPUTIANS' DILEMMAS," p. 298.

TO OPERATE IN A GEOGRAPHICAL REGION. AS SMALLER NATIONS FIND LARGER NATIONS ATTEMPTING TO IMPINGE UPON THEIR POLICIES (DOMESTIC AS WELL AS FOREIGN), IT MAY BE TO THEIR ADVANTAGE TO COMBINE INFORMATION GATHERING AND FOREIGN POLICY CONDUCT. BY SUCH A FORM OF COLLECTIVE ACTION, SMALL POWERS MAY BE ABLE TO WITHSTAND THE EFFORTS TO INFLUENCE THEIR BEHAVIOUR BY OTHER NATIONS. THUS,

... IN THE LONG RUN ... THIS POLITICAL INTROVERSION (OF NEW STATES) MIGHT LEAD TO LOOSE REGIONAL AND SUBREGIONAL GROUPINGS WHICH WOULD PROVIDE THE FRAMEWORK WITHIN WHICH COHERENT PATTERNS OF INTERNATIONAL POLITICS AND SEMI-AUTONOMOUS BALANCE OF POWER SYSTEMS COULD EMERGE.²¹

THE AMBIGUITY IN DEFINING GREAT, MIDDLE AND SMALL POWER IS EVIDENT. EVEN IF A PLAUSIBLE DISTINCTION COULD BE DRAWN BETWEEN THEM, THE PROBLEM OF THE DIFFERENTIAL BETWEEN SELF-ASSIGNED AND INTERNATIONALLY AScribed STATUS STILL REMAINS. ON THE OTHER HAND, THERE ARE NATIONS WHICH WERE ONCE ACCORDED A CERTAIN STATUS AND HAVE RETAINED THAT STATUS ALTHOUGH THEY NO LONGER MEET THE CRITERIA FOR THAT POSITION. GREAT BRITAIN, FOR EXAMPLE, RELIES ON ITS PAST PERFORMANCE TO RETAIN ITS PRESENT STATUS AS A GREAT POWER. THESE INCLUDE ITS NUMBER OF FORMER COLONIES; A BELIEF IN ITS ROLE AS THE LEADER OF THE COMMONWEALTH; ITS FORMER NAVAL PROWESS; AND ITS PRIOR ECONOMIC WEALTH SUPPLEMENTED BY COLONIAL RESOURCES. NOW HOWEVER, GREAT BRITAIN HAS FEWER COLONIAL TIES AND IS ONLY A FIGUREHEAD LEADER OF COMMONWEALTH COUNTRIES. FURTHERMORE, ITS MILITARY CAPACITY HAS DECLINED SUBSTANTIALLY TO ONE OF DEFENCE RATHER THAN OFFENCE; AND THE COUNTRY IS WRACKED WITH SUCH

21. *ibid.*, p. 303.

ECONOMIC AND INTERNAL PROBLEMS AS A LOW LEVEL OF SELF-SUFFICIENCY, LABOUR TROUBLES AND A LACK OF INTERNAL COHESION VIS-A-VIS SECTARIAN VIOLENCE IN NORTHERN IRELAND, AND SCOTTISH AND WELSH NATIONALISM. GREAT BRITAIN, THEN, IS A GREAT POWER ONLY IN TERMS OF PAST PRESTIGE, NOT IN ABSOLUTE TERMS OF THE POWER IT NOW POSSESSES. SOMETHING MORE SUBSTANTIAL THEN IS REQUIRED IN A DEFINITION OF STATUS.

THE SECOND APPROACH FOR CLASSIFYING NATIONS ACCORDING TO THEIR STATUS IS FOUND THROUGHOUT THE WORKS OF JOHAN GALTUNG. FOR GALTUNG THE STATUS OF A NATION IS DESCRIBED BY THE CHARACTERISTICS OF THE STATE, WHICH ARE A VISIBLE MEANS OF IDENTIFYING NATIONS. ONCE THESE CHARACTERISTICS ARE GIVEN VALUES SPECIFIC TO A NATION, THE SOCIAL POSITION OF THAT NATION VIS-A-VIS OTHERS MAY BE IDENTIFIED. THIS SOCIAL POSITION BECOMES THE BASIS FOR INTERACTION IN A SYSTEM OF NATIONS. GALTUNG COMMENCES CLASSIFYING SOCIAL POSITIONS BY DIVIDING SOCIETY INTO THREE PARTS: "A DECISION-MAKING MUCLEUS (DN) SURROUNDED BY THE CENTRE (C) OF THE SOCIAL STRUCTURE, WHICH AGAIN IS SURROUNDED BY THE PERIPHERY(P)," WITH THE ASSUMPTION THAT "THE SOCIAL CENTRE OCCUPIES POSITIONS THAT ARE SOCIALLY REWARDED, AND THE SOCIAL PERIPHERY POSITIONS THAT ARE LESS REWARDED AND EVEN REJECTED."²² THESE CENTRE NATIONS ARE THE TOPDOGS (T) OF THE SYSTEM, WHILE THE PERIPHERY ARE THE UNDERDOGS (U). MOREOVER, THESE TWO CLASSES CORRESPOND ROUGHLY TO THE GREAT AND SMALL POWERS PREVIOUSLY DISCUSSED. THE DIFFERENCE, HOWEVER, IS IN THE APPROACH USED BY GALTUNG FOR DEFINING SOCIAL POSITION, AND THE ASSERTIONS HE MAKES REGARDING THE RELATIONSHIPS AND BEHAVIOUR BETWEEN NATIONS

22. J. GALTUNG, "FOREIGN POLICY OPINION AS A FUNCTION OF SOCIAL POSITION," PEACE RESEARCH SOCIETY, PAPER (1965): 207. EMPHASIS OMITTED.

POSSESSING THE SAME OR DIFFERENT POSITIONS.

GALTUNG DEFINES A NATION'S SOCIAL POSITION IN TERMS OF ABSOLUTE PROPERTIES SUCH AS SOCIETAL INDICATORS OF EDUCATION AND WEALTH.²³ THE SYSTEM IN WHICH THESE NATIONS INTERACT IS STRATIFIED ACCORDING TO THE RANK OF A NATION ON THESE ATTRIBUTE DIMENSIONS. THUS, GALTUNG DEFINES RANK DIMENSION AS

... A VARIABLE AND LIKE ALL OTHER VARIABLES ITS VALUES, CALLED RANKS, ARE MUTUALLY EXCLUSIVE AND EXHAUSTIVE IN THE SYSTEM OF UNITS (INDIVIDUALS, NATIONS, ETC.) FOR WHICH IT IS DEFINED. UNLIKE MANY OTHER VARIABLES, HOWEVER A RANK DIMENSION IS ORDERED ... AND THERE IS A CLEAR MEANING GIVEN TO "HIGH RANK" AT ONE END OF THE DIMENSION AND "LOW RANK" AT THE OTHER END.²⁴

ONCE THE RANK DIMENSIONS ARE DETERMINED EMPIRICALLY, THE DIMENSIONS MAY HAVE THREE VALUES REFERRED TO PREVIOUSLY AS T (TOPDOG), U (UNDERDOG) AND A FINAL M (MIDDLEDOG). AS IN MOST SOCIAL SITUATIONS, IT IS ASSUMED THAT THE T SOCIAL POSITION IS SOUGHT AND IS SOCIALLY REWARDED, WHILE THE U SOCIAL POSITION IS AVOIDED AND REJECTED. MOREOVER, "THE SOCIETY BELONGS TO THE CENTRE."²⁵

THE STRUCTURAL DIVISION BETWEEN CENTRE-PERIPHERY AND TOPDOG-UNDERDOG IS THE BASIS FOR DIFFERENT "INTERACTION RELATIONS" BETWEEN NATIONS. GALTUNG SUGGESTS THAT THE FIVE MAJOR FORMS OF THIS RELATIONSHIP ARE THE ECONOMIC, POLITICAL, MILITARY, COMMUNICATION AND CULTURAL EXCHANGES, EACH OF WHICH ARE FORMS OF IMPERIALISM.²⁶ THE C

23. FOR A MORE PRECISE SET OF THESE INDICATORS SEE *IBID.*, P. 217.

24. J. GALTUNG, "INTERNATIONAL RELATIONS AND INTERNATIONAL CONFLICT," IN *TRANSACTIONS OF THE SIXTH WORLD CONGRESS OF SOCIOLOGY*, VOL. 1 (INTERNATIONAL SOCIOLOGICAL ASSOC., 1966), PP. 121-122.

25. GALTUNG, "FOREIGN POLICY," P. 206.

26. FOR A MORE DETAILED DISCUSSION OF THE FIVE FORMS OF IMPERIALISM, SEE GALTUNG, "IMPERIALISM," PP. 91-93.

DISSEMINATES ATTITUDES AND KNOWLEDGE. FOR EXAMPLE, ONE DIVISION IS BETWEEN TEACHERS (THE C) WHO TRANSMIT THE CULTURAL MORES FROM THE T TO THE U AND THE LEARNERS (THE P). THUS, IN ANY TYPE OF INTERACTION THE CENTRE HAS THE DOMINANT POSITION, WHEREAS THE PERIPHERY IS IN A SUBORDINATE ROLE.

GALTUNG PROPOSES A STRUCTURE FOR SPECIFIC TYPES OF INTERACTIONS BETWEEN NATIONS WITH DIFFERENT STATUSES. THE STRUCTURE MOST COMMONLY USED IS THE FEUDAL INTERACTION STRUCTURE CHARACTERIZED BY A COMPLETE DIVISION BETWEEN THE TOPDOG AND UNDERDOG. HERE, COMPLETE RANK-CONCORDANCE EXISTS AMONG THE NATIONS IN THE C AND LIKEWISE IN THE P WITH ALL NATIONS RANKED THE SAME WAY ON THE RANK DIMENSIONS. FURTHER, NO INTERACTION EXISTS BETWEEN UNDERDOGS, AND LITTLE BETWEEN UNDERDOGS AND TOPDOGS, BUT THERE IS A GREAT DEAL OF INTERACTION BETWEEN TOPDOGS. THUS, THE SYSTEM OF INTERACTION IS INTERACTION-DEPENDENT.²⁷ THIS STRUCTURE IS REINFORCED BY POSITIVE FEEDBACK. SINCE THE AMOUNT OF INTERACTION IS INDICATIVE OF THE SOCIAL POSITION A NATION HOLDS, IT WILL SEEK TO MAINTAIN ITS POSITION AND THE STATUS QUO OF THE SYSTEM BY ANY MEANS REQUIRED, INCLUDING THE MAINTENANCE OF THE SUBORDINATE POSITION OF THE PERIPHERY. FURTHERMORE, THE MORE THE C HAS, THE MORE IT WILL GET, THEREBY INCREASING ITS INTERACTION TO MAINTAIN AND INCREASE ITS POSITION. A T WILL PREFER TO INTERACT WITH OTHER T'S BECAUSE IT IS ABLE TO ATTAIN MORE REWARDS, IN TERMS OF ADDED RESOURCES, THAN THROUGH INTERACTION WITH A U. THE ONLY TIME A T WILL INTERACT WITH A U IS TO OBTAIN SOME SERVICE PROVIDED BY A U.

27. J. GALTUNG, "RANK AND SOCIAL INTEGRATION," IN SOCIAL THEORY IN PROGRESS, EDS. J. BERGER, ET AL. (NEW YORK: HOUGHTON-MIFFLIN, 1966) PP. 148-150.

IN THIS CONTEXT THE SIGNIFICANCE IS THAT THE SECOND CONDITION (INTERACTION-DEPENDENCE) OF A FEUDAL SYSTEM WILL REINFORCE THE FIRST CONDITION (RANK CONCORDANCE) PERHAPS JUST AS MUCH AS THE FIRST CONDITION WILL REINFORCE THE SECOND CONDITION.²⁸

THUS THE SYSTEM IN ITS CIRCULAR CONCEPTION IS A VERY STABLE STRUCTURE.

THE BEHAVIOUR EXCHANGED BETWEEN NATIONS IN THE FEUDAL STRUCTURE DEPENDS UPON THE INTERESTS THE PARTIES PURSUE IN TERMS OF THEIR LIVING CONDITIONS - LC, MEASURED BY INDICATORS SIMILAR TO THE SOCIAL POSITION OF NATIONS. WHERE THERE IS A GAP IN THE LC BETWEEN NATIONS, THAT IS ONE NATION HAS A HIGHER VALUE IN ITS LC THAN ANOTHER, THEN CONFLICT, OR DISHARMONY OF INTEREST TAKES PLACE. WHERE THERE IS HARMONY OF INTEREST, NO CONFLICT OCCURS.²⁹

COOPERATION OCCURS WHEN NATIONS ARE PURSUING GOALS SUCH AS ECONOMIC GROWTH AND SOCIAL DEVELOPMENT WHICH MAY LEAD NATIONS INTO A HIGHER RANK COMPARISON WITH OTHER NATIONS. COOPERATION IS BASED ON EXCHANGE OF SOMETHING WHICH HAS AN INCREASED VALUE FOR THE OTHER NECESSARY TO ATTAIN THIS HIGH RANK.³⁰ HOWEVER, IN SITUATIONS WHERE THE NATION GAINS TO THE EXTENT THAT IT WILL BE TO THE DETRIMENT OF ANOTHER, CONFLICT ARISES AND IN EXTREME FORM MAY LEAD TO AGGRESSION BY THE OPPRESSED NATION.

HERE, AGGRESSION IS DEFINED AS A NATION'S ATTEMPT TO CHANGE THE EXISTING STRUCTURE OF THE SYSTEM IN ORDER TO ATTAIN DESIRED GOALS. MOREOVER, GALTUNG DISCUSSES THREE POSSIBLE SITUATIONS WHERE AGGRESSION

28. *IBID.*, P. 151.

29. GALTUNG, "IMPERIALISM," PP. 81-82.

30. J. GALTUNG, "A THEORY OF PEACEFUL COOPERATION," COOPERATION IN EUROPE 3 (1970): 9-18.

IS MOST LIKELY TO OCCUR: FROM THE EQUILIBRATED TOPDOG WHICH RANKS HIGH ON ALL OF ITS STATUS DIMENSIONS; FROM THE EQUILIBRATED UNDERDOG LOW ON ALL OF ITS DIMENSIONS; OR FROM THE NATION IN RANK-DISEQUILIBRIUM WHERE IT HAS SOME HIGH POSITIONS AND SOME LOW POSITIONS IN ITS RANK-DIMENSIONS.³¹ GALTUNG QUICKLY DISCOUNTS THE FIRST TWO SITUATIONS BY ARGUING THAT T'S AGGRESSIVE BEHAVIOUR, SUCH AS COLONIAL WARS AND SLAVERY IS NOT AGGRESSION BUT EXPLOITATION BECAUSE T IS TAKING POSSESSION OF SOMETHING WHICH, BY DEFINITION OF ITS POSITION AND INTERACTION IN THE SYSTEM, BELONGS RIGHTFULLY TO IT. THE U IS INCAPABLE OF AGGRESSION BECAUSE IT IS PREOCCUPIED WITH ITS OWN SURVIVAL AND POSSESSES NO RESOURCES WHICH MAY BE DEPLOYED FOR AGGRESSIVE PURPOSES. IT CAN ONLY OBTAIN THESE RESOURCES REQUIRED

PRECISELY BY CHANGING ONE OF HIS U STATUSES INTO A T STATUS AND CONVERTING THAT STATUS INTO A RESOURCE FOR THE DISSOLUTION OF HIS DISEQUILIBRIUM.³²

THUS THE RANK-DISEQUILIBRATED NATION IS MORE LIKELY TO BE AGGRESSIVE BECAUSE, ON THE ASSUMPTION THAT NATIONS SEEK THE HIGHER STATUS AND THE REWARDS COMMENSURATE WITH THE POSITION, A NATION WITH ONE HIGH AND ONE LOW POSITION, TU, WILL ATTEMPT TO CHANGE ITS U STATUS TO A T POSITION. THUS, PRESSURE IS BUILT UP FOR MOBILITY TO EQUALIZE THE DISEQUILIBRATED NATIONS' RANK DIMENSIONS.

DEPENDING UPON WHETHER IT IS THE ASCRIBED OR ACHIEVED STATUS DIMENSION WHICH IS IN DISEQUILIBRIUM, THE PRESSURE FOR MOBILIZATION MAY

31. J. GALTUNG, "A STRUCTURAL THEORY OF AGGRESSION," JOURNAL OF PEACE RESEARCH 1 (1964): 97.

32. *IBID.*, P. 98.

BECOME MANIFESTED IN ONE OF TWO FORMS OF AGGRESSION. WHERE THE STATE HAS OVERACHIEVED, THAT IS, IT HAS ACHIEVED A SOCIAL POSITION WHICH IT WAS NOT GIVEN AT BIRTH, AND WHICH SOCIETY DOES NOT RECOGNIZE, THE SYSTEM IS⁰ BLAMED FOR THE OVERACHIEVER'S LACK OF MOBILITY AND ITS BEHAVIOUR BECOMES EXTRA-PUNITIVE. THE STATE WHICH WAS GIVEN A HIGH ASCRIBED STATUS, BUT HAS ACHIEVED LESS THAN WHAT WAS EXPECTED, CONVERTS ITS AGGRESSIVE FEELINGS INTO INTRA-PUNITIVE MEASURES. THUS, THE UNDER-ACHIEVER IS PITTED AGAINST THE OVERACHIEVER AS THE LATTER ATTEMPTS TO TAKE OVER THE SOCIAL POSITION OF THE FORMER IN A SYSTEM WHERE "ONE'S GAIN IS THE OTHERS LOSS."³³

THE MIDDLEDOG HAS A POSITION IN THIS STRUCTURE OF INTERACTION. BECAUSE NATIONS ON THE BASIS OF SUCH CHARACTERISTICS AS GNP/CAPITA MAY BE PLACED ON A CONTINUUM, THE M ALSO HAS A POSITION RELATIVE TO OTHER NATIONS. IN TERMS OF ATTRIBUTES, GALTUNG, AS HAS BEEN STATED, DEFINES A MIDDLEDOG AS A STATE WHICH PRODUCES SEMI-PROCESSED GOODS, AND EXCHANGES THEM UPWARDS FOR HIGHLY PROCESSED GOODS AND DOWNWARDS FOR RAW MATERIALS. FURTHERMORE, THE M ACTS AS A "GO-BETWEEN" FOR THE C AND P. IN EXAMPLES HYPOTHESIZED BY GALTUNG, WESTERN EUROPE ACTS AS THE GO-BETWEEN FOR THE U.S. AND EASTERN EUROPE, CANADA FOR THE U.S. AND ANGLO-AMERICA, EASTERN EUROPE FOR WESTERN EUROPE AND THE SOVIET UNION.³⁴

THUS, GALTUNG'S TYPOLOGY FOR NATIONS PROVIDES MORE PRECISE

33. *IBID.*, P. 103 FOR A MORE INDEPTH DISCUSSION ON THE DIFFERENCES BETWEEN ASCRIBED AND ACHIEVED STATUS DIMENSIONS.

34. GALTUNG, "IMPERIALISM," P. 105.

DETAIL IN THE DEFINITION OF THE SOCIAL POSITION OF NATIONS AND THE FORM OF INTERACTION WHICH IS HYPOTHEZIZED TO CORRELATE WITH THESE POSITIONS. MAURICE EAST HAS TESTED SOME OF THESE HYPOTHESES. PROCEEDING FROM THE ASSUMPTION THAT "STRATIFICATION THEORY CAN USEFULLY BE APPLIED TO THE ANALYSIS OF BEHAVIOUR IN THE (INTERNATIONAL) SYSTEM,"³⁵ EAST EXAMINED THE CONCEPTS OF RANK-DEPENDENCE, MOBILITY, AND INTERACTION. BY ADDING THE RANKS OF STATES ON CERTAIN ATTRIBUTE DIMENSIONS, EAST DIVIDED THE NATIONS INTO THREE STRATA - HIGH, MIDDLE AND LOW. MOBILITY WAS CALCULATED BY SUBTRACTING A NATION'S RANK ON THE PRESTIGE DIMENSION OF ONE YEAR FROM THE NATION'S RANK THE PREVIOUS YEAR. INTERACTION WAS MEASURED IN TERMS OF THE SHARED MEMBERSHIP IN IGO'S SINCE

THOSE STATES IN THE LOW STRATUM CONSIDER I.O.'S AS A MEANS OF INTERACTING MORE ADVANTAGEOUSLY IN INTERNATIONAL POLITICS. THEY USE INTERNATIONAL ORGANIZATIONS AS A WAY OF INCREASING THE INFLUENCE OF LOW STRATA STATES IN THE SYSTEM AS A WHOLE ... I.O.'S ARE ALSO CONCEIVED OF AS THE BEST WAY TO DEAL WITH HIGH STATUS STATES. ON THE OTHER HAND, HIGH STATUS STATES USE INTERNATIONAL ORGANIZATIONS AS A WAY OF LEGITIMIZING THEIR RELATIONS WITH LOW STATUS STATES ... STATES IN THE MIDDLE STRATUM ARE NOT VERY IMPORTANT IN TERMS OF INTERACTION FOR EITHER THE HIGH OR LOW STATUS STATES ... MOST OF THE STATES ... ARE MORE OR LESS COMMITTED IN TERMS OF THEIR ORIENTATION ON MAJOR ISSUES.³⁶

IN TERMS OF MOBILITY AND INTERACTION EAST FOUND THAT THE UPWARDLY MOBILE NATION WAS MORE LIKELY TO BECOME A MEMBER OF IGO'S OVER TIME THAN WERE DOWNWARDLY MOBILE STATES. FINALLY, A NATION BELONGING TO A

35. EAST, "RANK DEPENDENT," P. 113.

36. *IBID.*, P. 120.

HIGHER STRATA WITH AN ADEQUATE ECONOMIC BASE , WAS MORE LIKELY TO BECOME INVOLVED IN INTERNATIONAL POLITICS.

THE CLASSICAL AND GALTUNGIAN APPROACHES TO CLASSIFYING NATIONS DEMONSTRATE THE ATTRIBUTE AND FOREIGN POLICY BEHAVIOUR VARIATIONS BETWEEN THE GROUPS, WITH THE FORMER BEING VERY ELLUSIVE IN ITS DEFINITIONS OF STATUS. THE CLASSICAL APPROACH DISCUSSES STATUS IN TERMS OF SOME CAPABILITIES WHICH ALLOW A STATE TO EXERCISE CONTROL OVER OTHERS, BUT DOES NOT STATE WHAT TYPES OF BEHAVIOUR ARE INVOLVED. GALTUNG DISCUSSES STATUS GENERALLY AS THE COMPONENTS OF A NATION WHICH CONTRIBUTE TO ITS SOCIAL POSITION IN THE INTERNATIONAL SYSTEM. THE ROSENAU APPROACH DISCUSSES STATUS, AND THE CONSEQUENT FOREIGN POLICY BEHAVIOUR AS DEPENDENT UPON THREE GENOTYPE ATTRIBUTES: WEALTH, SIZE AND POLITICAL ORIENTATION, AND FIVE PROCESS VARIABLES.

JAMES ROSENAU, IN HIS DISCUSSION OF "PRE-THEORY" HAS LED THE WAY IN THE FORMULATION OF SPECIFIC SETS OF PROPOSITIONS AND HYPOTHESES LINKING NATIONAL ATTRIBUTES TO FOREIGN POLICY BEHAVIOUR.. THESE PROPOSITIONS REVOLVE AROUND FIVE PROCESS VARIABLES:

- (1) IDIOSYNCRATIC VARIABLES PERTAINING TO THE INDIVIDUAL DECISION-MAKERS' CONSTITUTION;
- (2) ROLES OCCUPIED BY OFFICIALS MAKING DECISIONS;
- (3) GOVERNMENTAL VARIABLES-REFERRING TO THE GOVERNMENT STRUCTURE WHICH MAY IMPEDE FOREIGN POLICY CHOICES;
- (4) NON-GOVERNMENTAL OR SOCIETAL VARIABLES WHICH INFLUENCE EXTERNAL BEHAVIOUR;
- (5) SYSTEMIC VARIABLES OR THOSE ACTIONS WHICH OCCUR OUTSIDE THE NATION, BUT HAVE AN INFLUENCE ON CHOICES OF FOREIGN POLICY.

ALTHOUGH ROSENAU BELIEVES ALL PRE-THEORIES OF FOREIGN POLICY ARE TRANSLATED INTO THESE FIVE DIMENSIONS, IN ANY ONE STUDY THEIR 'RELATIVE POTENCY' HAS TO BE DECIDED AS TO WHICH SET OF VARIABLES CONTRIBUTES MOST TO FOREIGN BEHAVIOUR. FURTHERMORE, THESE FIVE DIMENSIONS ARE ASSESSED IN TERMS OF THREE GENOTYPE ATTRIBUTES: SIZE, WEALTH AND POLITICAL ORIENTATION. BY EXAMINING THE DICHOTOMY BETWEEN OPEN AND CLOSED POLITICAL SYSTEMS FOR DEVELOPED AND UNDERDEVELOPED COUNTRIES WHICH MAY BE LARGE OR SMALL, THESE THREE ATTRIBUTES GIVE RISE TO EIGHT TYPES OF NATIONS, AND THEREFORE EIGHT DIFFERENT RANKINGS OF THE RELATIVE POTENCY FOR THE FIVE PROCESS VARIABLES.³⁷

IN THIS THESIS, ROSENAU'S THREE GENOTYPE VARIABLES, ELEVATED TO THE RANK OF STATUS VARIABLES, ARE EXAMINED - THE SIZE OF THE COUNTRY, ECONOMIC DEVELOPMENT OR WEALTH, AND POLITICAL ORIENTATION (OPEN OR CLOSED POLITY). THESE, HOWEVER, ARE ONLY THEORETICAL OR PROPOSED STATUS VARIABLES, AND THE TESTS OF WHETHER THESE INDICATORS OF FOREIGN POLICY BEHAVIOUR ARE USEFUL HAS BEEN LEFT LARGELY TO OTHER SCHOLARS. SAWYER PERFORMED A FACTOR ANALYSIS ON 236 ATTRIBUTE VARIABLES FOR 82 NATIONS TO DETERMINE WHETHER IN FACT THESE THREE GENOTYPES WERE MAJOR DIMENSIONS OF NATIONAL ATTRIBUTES. FORTY PERCENT OF THE VARIANCE IN THE ATTRIBUTE DATA WAS ACCOUNTED FOR BY THREE MAJOR DIMENSIONS: SIZE, REPRESENTED BY VARIABLES SUCH AS POPULATION, ENERGY RESOURCES,

37. J. ROSENAU, "PRE-THEORIES AND THEORY IN FOREIGN POLICY," IN APPROACHES TO COMPARATIVE AND INTERNATIONAL POLITICS, ED. R.B. FARRELL (EVANSTON: NORTHWESTERN UNIVERSITY PRESS, 1966), PP. 43-48. REFER TO THE CITED PAGES FOR A DESCRIPTION OF THE FIVE PROCESS VARIABLES, AND TABLE 2 FOR THE RANKING OF THESE VARIABLES ACCORDING TO THEIR RELATIVE POTENCY FOR THE EIGHT TYPES OF SOCIETIES.

POPULATION OF THE LARGEST CITY, EXPORTS PER GNP, AND POPULATION OF THE LARGEST RELIGION; WEALTH MEASURING VARIABLES SUCH AS GNP/POPULATION, AGRARIAN POPULATION, AND THE NUMBER OF MOTOR VEHICLES; POLITICS REPRESENTED BY SUCH VARIABLES AS U.N. VOTE, ENGLISH TRANSLATIONS, EMMIGRANTS PER CAPITA, AND FEMALE WORKERS IN THE LABOUR FORCE.³⁸

SAWYER CONFIRMED THE RELEVANCE OF SIZE, WEALTH AND POLITICAL ORIENTATION AS MAJOR ATTRIBUTE DIMENSIONS.

OTHER STUDIES EXAMINED THE APPLICABILITY OF THESE ATTRIBUTE DIMENSIONS AS THEY RELATE TO BEHAVIOUR, ALTHOUGH THE FORM WHICH THIS BEHAVIOUR TAKES WAS NEVER SPECIFIED BY ROSENAU. STEPHEN SALMORE AND CHARLES HERMANN TESTED ROSENAU'S HYPOTHESIS THAT NATIONS WHICH ARE MEMBERS OF THE SAME GENOTYPE ARE LIKELY TO FOLLOW SIMILAR TYPES OF FOREIGN POLICY. THEY USED SIZE, ACCOUNTABILITY, AND DEVELOPMENT AS INDEPENDENT VARIABLES, AND CORRELATED THESE WITH 63 TYPES OF BEHAVIOUR GROUPED INTO 23 CLASSES. THEIR FINDINGS, HOWEVER, WERE INCONCLUSIVE. IN TWO DIFFERENT TESTS THE AUTHORS FOUND THAT NO ONE OF THE GENOTYPE VARIABLES EXPLAINED A LARGE PART OF THE VARIANCE IN BEHAVIOUR, EACH BEING RELATED ONLY WEAKLY TO FOREIGN POLICY ACTS. FURTHERMORE, WHEREAS SIZE WAS THE BEST OF THE THREE IN ONE TEST, DEVELOPMENT AND PARTICULARLY ACCOUNTABILITY WERE BETTER INDICATORS OF FOREIGN POLICY BEHAVIOUR WHEN THE FREQUENCY OF EVENTS WAS USED.³⁹

38. J. SAWYER, "DIMENSIONS OF NATIONS: SIZE, WEALTH AND POLITICS," AMERICAN JOURNAL OF SOCIOLOGY 17(SEPTEMBER 1967): 147.

39. S.A. SALMORE AND C. HERMANN, "THE EFFECT OF SIZE, DEVELOPMENT AND ACCOUNTABILITY IN FOREIGN AFFAIRS," PEACE RESEARCH SOCIETY, PAPERS (1970): 15-30.

M. EAST LOOKED SPECIFICALLY AT SIZE IN AN ATTEMPT TO EXPLORE THE FEASIBILITY OF TWO MODELS: THE CONVENTIONAL MODEL PROPOSED THAT SMALL STATES BEHAVE THE SAME AS LARGE STATES AND ARE ONLY "LARGE STATES WRIT SMALL"; AND AN ALTERNATE MODEL IN WHICH SMALL AND LARGE STATES DIFFER IN STYLE AND TECHNIQUE WHEN PROCESSING AND REACTING TO FOREIGN POLICY ISSUES. IN LINE WITH ROSENBAUM'S PROPOSITIONS, EAST HYPOTHEZIZED THAT SINCE SMALL STATES POSSESS SMALLER QUANTITIES OF MOST RESOURCES, THEIR BEHAVIOUR DIFFERS FROM THAT OF LARGE STATES. EAST FURTHER DISTINGUISHED BETWEEN SMALL DEVELOPED AND SMALL DEVELOPING NATIONS AND FOREIGN POLICY BEHAVIOUR. WITH THE USE OF EVENTS DATA, EAST SUPPORTED THE ALTERNATE MODEL. HE FOUND THAT SIZE WAS MORE IMPORTANT THAN DEVELOPMENT SINCE THERE WAS NO DIFFERENCE IN BEHAVIOUR PATTERNS BETWEEN SMALL DEVELOPED AND DEVELOPING NATIONS. ALTHOUGH SMALL STATES INITIATED MORE JOINT BEHAVIOUR EVENTS WITH MORE MULTIPLE ACTOR TARGETS THAN LARGE STATES, THEY GENERATED LESS VERBAL AND MORE NONVERBAL BEHAVIOUR.⁴⁰

IN A SIMILAR FASHION R. RUMMEL FOCUSED ON AN ANALYTIC CONCEPTUAL SCHEME OF INTERNATIONAL RELATIONS BY DEFINING ATTRIBUTE SPACE AND BEHAVIOUR SPACE BY EIGHT AND TEN DIMENSIONS RESPECTIVELY, OBTAINED THROUGH THE TECHNIQUE OF FACTOR ANALYSIS. ECONOMIC DEVELOPMENT, SIZE, AND POLITICAL ORIENTATION EMERGED AS THE THREE MAJOR ATTRIBUTE PATTERNS ACCOUNTING FOR THE LARGEST VARIATION IN THREE MAJOR PATTERNS OF

40. M. EAST, "SIZE AND FOREIGN POLICY BEHAVIOUR: A TEST OF TWO MODELS," WORLD POLITICS 25 (JULY 1973): 564-573.

BEHAVIOUR, U.N. VOTING, EMIGRATION AND COMMUNICATION, AND OFFICIAL
CONFLICT BEHAVIOUR.⁴¹

JAMES KEAN AND PATRICK MCGOWAN PROGRESSED FURTHER BY TESTING TWO ATTRIBUTES TAKEN FROM THE LITERATURE ON ATTRIBUTES, THOSE OF SIZE AND MODERNIZATION, AND FOUR RELATED AND SPECIFIC ASPECTS OF PARTICIPATION: INTERNATIONAL INVOLVEMENT, REGIONAL INVOLVEMENT, ORGANIZATIONAL INVOLVEMENT AND FOREIGN POLICY FOCUS.⁴² THEY HYPOTHEZIZED THAT SIZE AND MODERNIZATION INFLUENCED FOREIGN POLICY THROUGH THE INTERVENING VARIABLES OF RESOURCES AND NEEDS. THE AUTHORS CREATED FOUR SUBGROUPS: LARGE AND SMALL STATES, AND MODERN AND LESS MODERN STATES. IN THREE OF THE FOUR TYPES OF PARTICIPATION THE RELATIONSHIP BETWEEN SIZE AND MODERNIZATION WAS SPURIOUS. WHEN THE TWO INTERVENING VARIABLES WERE INTRODUCED, THE LINK BETWEEN THE INDEPENDENT AND DEPENDENT VARIABLES DISAPPEARED. INSTEAD, NEEDS AND RESOURCES WERE LINKED DIRECTLY TO FOREIGN POLICY BEHAVIOUR. THE PATHS BETWEEN THE INTERVENING VARIABLES AND THREE OF THE FOUR INTERACTION PATTERNS WERE CONFIRMED. HOWEVER, FOR REGIONAL INVOLVEMENT, THE DIRECT PATH FROM SIZE AND ESPECIALLY MODERNIZATION WAS SIGNIFICANT. RESOURCES WERE NOT RELATED TO REGIONAL INVOLVEMENT, AND NEEDS WERE RELATED NEGATIVELY. THE AUTHORS CONCLUDED:

OUR FINDINGS SUGGEST THAT THE NATIONAL ATTRIBUTE APPROACH TO THE COMPARATIVE STUDY OF FOREIGN POLICY MAY BE VALID FOR FOREIGN POLICY

41. R. RUMMEL, "INDICATORS OF CROSS-NATIONAL AND INTERNATIONAL PATTERNS," APSR 63 (1969): 127-147.

42. J. KEAN AND P. MCGOWAN, "NATIONAL ATTRIBUTES AND FOREIGN POLICY PARTICIPATION," IN SAGE INTERNATIONAL YEARBOOK OF FOREIGN POLICY STUDIES, ED. P. MCGOWAN (BEVERLY HILLS: SAGE PUBLICATION, 1973), PP. 223-229.

ISSUES OF WORLDWIDE SCOPE WHERE COUNTRIES DO DIFFER ON THESE ATTRIBUTES. HOWEVER, WHEN THE ISSUE IS REGIONAL IN SCOPE, AS IS MUCH OF CONFLICT BEHAVIOUR FOR EXAMPLE, STATES IN THE SAME REGION TEND NOT TO DIFFER GREATLY EXCEPT FOR SIZE, AND THEREFORE THE NATIONAL ATTRIBUTE APPROACH IS LESS USEFUL.⁴³

THUS, ATTRIBUTE THEORY IS MANIFESTED IN THE DISCUSSION OF STATUS THROUGH ITS LINKAGE TO NATIONAL ATTRIBUTES AND FOREIGN POLICY BEHAVIOUR. THE IDEA THAT NATIONS MAY BE RANKED ACCORDING TO SOME STATUS DIMENSION AND THAT THIS RANK INFLUENCES FOREIGN POLICY BEHAVIOUR HAS EVOLVED FROM SPECULATION ABOUT GREAT, MIDDLE AND SMALL POWERS, AND THEIR DIFFERING BEHAVIOUR PATTERNS TO THE EMPIRICALLY TESTABLE HYPOTHESES RELATING SPECIFIC TYPES OF NATIONAL ATTRIBUTES WHICH INFLUENCE SPECIFIC TYPES OF BEHAVIOUR. HOWEVER, THE WORK OF KEAN AND MCGOWAN HAS DEMONSTRATED THAT THESE DISCUSSIONS OF NATIONAL ATTRIBUTES AND FOREIGN POLICY BEHAVIOUR PERTAIN TO ONLY CERTAIN INTERNATIONAL ACTORS AND THEIR FOREIGN POLICY BEHAVIOUR. THEY FOCUS ON FOREIGN POLICY BEHAVIOUR IN AN INTERNATIONAL SYSTEM WHERE IT IS EXPECTED THAT LARGE STATES DOMINATE THE SYSTEM, AND INTERACT MORE THAN SMALL STATES. THIS IS EVIDENT PARTICULARLY IN THE WORK BY GALTUNG. WHAT THESE THEORISTS IGNORE IS THAT SMALL NATIONS DO INTERACT, BUT THESE NATIONS MAY PERCEIVE THE REGIONAL OR SUB-SYSTEMIC LEVEL AS THE IMPORTANT AREA OF INTEREST. SINCE THE NATIONS ARE INTERACTING WITH OTHERS OF SIMILAR BACKGROUNDS, THEY ARE ABLE TO PARTICIPATE ON A MORE EQUITABLE BASIS IN BEHAVIOUR EXCHANGES. THUS, RATHER THAN DISMISS THE NATIONAL ATTRIBUTE AND STATUS APPROACH TO EXPLAINING FOREIGN POLICY BEHAVIOUR AS DID KEAN AND MCGOWAN, THIS PAPER EXAMINES THE APPLICABILITY OF THIS APPROACH FROM A DIFFERENT PERSPECTIVE. AS IS DISCUSSED IN THE FOLLOWING CHAPTER, IT IS ASSUMED

43. *ibid.*, p. 245.

THAT NATIONS INTERACT ON THE REGIONAL LEVEL. ALTHOUGH THE ATTRIBUTE DISTANCES ARE SMALL, IT IS HYPOTHEZIZED THAT THEY ARE IMPORTANT AS FACTORS DETERMINING FOREIGN POLICY BEHAVIOUR.

BEFORE PROCEEDING TO THIS DISCUSSION, HOWEVER, ANOTHER APPROACH IS REQUIRED TO DELINEATE EXPLICITLY THE RELATIONSHIP BETWEEN SPECIFIC ATTRIBUTES AND BEHAVIOUR. WHILE THE ATTRIBUTE APPROACH IS BENEFICIAL FOR GENERALIZATIONS CONCERNING 'LARGE' AND 'SMALL' NATION BEHAVIOUR, IT DOES NOT PROVIDE A FRAMEWORK FOR A MORE DETAILED ANALYSIS OF ATTRIBUTES AND BEHAVIOUR AND SPECIFIC NATIONS. IN ANY DISCUSSION OF GENERALITIES, THE "AVERAGE" CASE IS STUDIED, WITH NO REGARD FOR WHAT ACTUALLY CONSTITUTES AVERAGE, AND WHERE THE NATIONS WHICH DEVIATE FROM THIS MEAN STAND.

FIELD THEORY

FIELD THEORY AS AN APPROACH TO THE STUDY OF FOREIGN POLICY BEHAVIOUR HAS ITS ORIGIN IN THE EARLY SOCIAL SCIENCE CONCEPTION OF KURT LEWIN. THE BASIC STATEMENTS OF FIELD THEORY FIRST EMPLOYED IN PSYCHOLOGY WERE THAT

- (A) BEHAVIOUR HAS TO BE DERIVED FROM A TOTALITY OF COEXISTING FACTS, (B) THESE COEXISTING FACTS HAVE THE CHARACTER OF A "DYNAMIC FIELD" IN SO FAR AS THE STATE OF ANY PART OF THIS FIELD DEPENDS ON EVERY OTHER PART OF THE FIELD.

THE FIRST STATEMENT STRESSES THE INTERRELATIONSHIP REPRESENTED THROUGH THE CONCEPT OF SPACE. IN PARTICULAR "MODOLOGICAL SPACE" REFERS TO A

44. K. LEWIN, FIELD THEORY IN SOCIAL SCIENCE (NEW YORK: HARPER AND ROW, 1964), P. 25.

FINITELY STRUCTURED SPACE WHICH PERMITS A DESCRIPTION OF THE STRUCTURAL RELATIONSHIP BETWEEN A PERSON AND THE ENVIRONMENT. THIS SPACE IS THE ORGANIZATIONAL ZONE FOR ALL FACTS RELATING TO BEHAVIOUR.

THE SECOND PROPOSITION (B) STRESSES THE DYNAMIC ASPECT OF THE THEORY, THAT BEHAVIOUR DEPENDS NOT ON THE PAST OR FUTURE, BUT ON THE PRESENT FIELD WHICH IS AN ADEQUATE REPRESENTATION OF WHAT IS MEANINGFUL IN THE RELATIONSHIP BETWEEN BEHAVIOUR, THE PERSON AND THE ENVIRONMENT. LEWIN CONCEPTUALIZED THE RELATIONSHIP AS BEHAVIOUR (B) BEING A FUNCTION OF THE PERSON (P) AND THE ENVIRONMENT (E), $B = F(P, E)$. MOREOVER, P AND E ARE INTERDEPENDENT, AND AS SUCH THEIR TOTALITY IS THE 'LIFE SPAN' (LS) OF A PERSON WHERE

$$B = F(P, E) = F(LS).^{45}$$

THUS, THE TASK OF EXPLAINING BEHAVIOUR IS DEPENDENT UPON FINDING A SCIENTIFIC REPRESENTATION OF LS AND DETERMINING THE F WHICH LINKS B TO LS. LEWIN DISCUSSED THIS FUNCTION BRIEFLY AS THE FORCE OR RESULTANT FORCES CAUSED BY THE LS WHICH INFLUENCE BEHAVIOUR, OR "THE TENDENCY TO CHANGE" OR LOCOMOTIONS TO CERTAIN BEHAVIOUR POSITIONS.⁴⁶

THUS LEWIN CONCEPTUALIZED A FIELD AS THE TOTALITY OF INTERDEPENDENT COEXISTING FACTS WHICH DETERMINE BEHAVIOUR AND FIELD THEORY AS THE MATHEMATICAL TOOL TO DEMONSTRATE THE RELATIONSHIP BETWEEN BEHAVIOUR AND THE LIFE SPAN.

QUINCY WRIGHT WAS THE FIRST TO APPLY A FIELD THEORY APPROACH TO INTERNATIONAL RELATIONS. HE SUBSTITUTED LEWIN'S PERSON FOR NATION

45. *Ibid.*, p. 240.

46. *Ibid.*, p. 256.

AND THE ENVIRONMENT WAS EXTENDED TO THE SOCIETAL AND SYSTEMIC ENVIRONMENT RATHER THAN THE FAMILY AND PERSONAL SOCIETAL VALUES AND GOALS. FOR WRIGHT, FIELD THEORY WAS AN ANALYTICAL APPROACH, IMPLYING THAT

... EACH INTERNATIONAL ORGANIZATION, NATIONAL GOVERNMENT ASSOCIATION, INDIVIDUAL, OR OTHER "SYSTEM OF ACTION", OR "DECISION-MAKER" MAY BE LOCATED IN A MULTIDIMENSIONAL FIELD. SUCH A FIELD MAY BE DEFINED BY COORDINATES, EACH OF WHICH MEASURES A POLITICAL, ECONOMIC, PSYCHOLOGICAL, SOCIAL, ETHICAL, OR OTHER CONTINUUM INFLUENCING CHOICES, DECISIONS AND ACTIONS IMPORTANT FOR INTERNATIONAL RELATIONS.⁴⁷

A FIELD IS THE CENTRAL CONCEPT AROUND WHICH EVERYTHING IN THE THEORY REVOLVES. NATIONS AND EVENTS ARE LOCATED IN TIME AND SPACE, AND THE FRAMEWORK PROVIDES A MEANS BY WHICH COORDINATES REPRESENT THE LOCATION OF NATIONS AND VARIABLES IN RELATION TO EACH OTHER. THESE COORDINATES CONSIST OF THE CHARACTERISTICS OR PROPERTIES POSSESSED BY THE NATIONS BEING STUDIED. A FIELD ASSUMES THAT "THE CHARACTERISTICS OF THE FIELD AND OF THE ENTITIES WITHIN IT RECIPROCALLY INFLUENCE ONE ANOTHER ... (AND) IT IS APPLICABLE TO ALL SITUATIONS,"⁴⁸ REFLECTING THE INTERDEPENDENCE OF THE PERSON AND THE ENVIRONMENT DISCUSSED BY LEWIN. THUS, IN THE FIELD, THE CHARACTERISTICS OF THE NATION ARE LOCATED AS COORDINATES CALCULATED AS THE DIFFERENCE BETWEEN TWO NATIONS ON THESE CHARACTERISTICS.

IN CONJUNCTION WITH THE DIMENSIONALITY OF NATIONS (DON) PROJECT RUDOLPH RUMMEL INTRODUCED THE NEXT MAJOR ADVANCEMENT IN FIELD THEORY.

⁴⁷. QUINCY WRIGHT, THE STUDY OF INTERNATIONAL RELATIONS (NEW YORK: APPLETON-CENTURY-CROFTS, LTD., 1955), P. 543.

⁴⁸. Ibid., P. 524.

WORKING ON WRIGHT'S CONCEPTUAL FRAMEWORK, RUMMEL PROVIDED THE ANALYTICAL REQUIREMENTS TO TEST THE THEORY. THE CONSTRUCT "FIELD" PROVIDED THE OVERARCHING STRUCTURE WITHIN WHICH ALL THE THEORETICAL STATEMENTS OF THE THEORY ARE SPANNED. "THE FIELD CONCEPT ITSELF DOES NOT SPECIFY THE KINDS OF VARIABLES TO BE INCLUDED; IT ONLY PROVIDES THE RELATIONSHIP AMONG VARIABLES ONCE THEY ARE INCLUDED."⁴⁹ TWO BASIC CONCEPTS WHICH DELINEATE THE DIVISION OF LEWIN'S HODOLOGICAL SPACE ARE ATTRIBUTE (A) AND BEHAVIOUR (B) SPACE. AN ATTRIBUTE IS ANY CHARACTERISTIC OR DIMENSION WHICH DIFFERENTIATES NATIONS, SUCH AS WEALTH, POPULATION SIZE AND RELIGION. THE CONCEPT OF DISTANCE MEASURES THIS DIFFERENTIATION SUCH THAT THE NATIONS ARE PLACED AT A POINT IN A-SPACE DEFINED BY ATTRIBUTE DIMENSIONS, AND ARE DIFFERENTIATED FROM OTHER NATIONS BY THE RELATIVE DISTANCE BETWEEN THE POINTS. THIS DISTANCE PLAYS AN IMPORTANT ROLE IN EXPLAINING THE BEHAVIOUR OF NATIONS IN B-SPACE. IT IS THIS ATTRIBUTE DISTANCE OR RELATIVE POSITION OF DYADS, A PAIR OF NATIONS, WHICH PROVIDES THE SOCIAL FORCE INFLUENCING BEHAVIOUR.

WHEREAS LEWIN DESCRIBED THIS RELATIONSHIP BETWEEN ATTRIBUTES AND BEHAVIOUR AS

$$B = F(P, E) = F(LSP)$$

THE MORE SOPHISTICATED VERSION BY RUMMEL IS

$$W_{i+j,k} = \sum_{l=1}^P \alpha_l^d 1_{i-j,l} \quad (1)$$

(MODEL 1)

49. SANG-WOO RHEE, "CHINA'S COOPERATION, CONFLICT AND INTERACTION BEHAVIOUR," IN ADVANCING AND CONTENDING APPROACHES TO THE STUDY OF CHINESE FOREIGN POLICY, ED. R.L. DIAL (HALIFAX: CENTRE FOR FOREIGN POLICY STUDIES, DALHOUSIE UNIVERSITY, 1974), P. 117.

WHERE $W_{i \rightarrow j, k}$, ANALOGOUS TO B , IS THE k -TH DIMENSION OF BEHAVIOUR SPACE OF NATION i ACTING TOWARD NATION j , AND $d_{i \rightarrow j, l}$ IS THE DISTANCE VECTOR FROM i TO j ON THE ATTRIBUTE DIMENSION, l . THE PARAMETER DESCRIBES THE PRECISE RELATIONSHIP BETWEEN THE ABOVE TWO TERMS. THESE DISTANCES ARE SUMMED (Σ) TO OBTAIN THE TOTAL SOCIAL FORCE.⁵⁰ THUS, THE LOCATION OF A DYAD ON THE DIMENSION OF BEHAVIOUR SPACE IS DETERMINED BY THE DISTANCE VECTOR THAT CONNECTS THE DYAD IN ATTRIBUTE SPACE. THIS PARTICULAR APPROACH TO FIELD THEORY IS CALLED MODEL I, POSTULATING A GENERAL FIELD FORCE WHICH EVOKES SIMILAR BEHAVIOURAL RESPONSES FROM ALL NATIONS IN THE PRESENCE OF VARIOUS ATTRIBUTE DISTANCES. THIS MODEL CORRESPONDS TO LEWIN'S IDEA THAT

FIELD THEORY FINDS IT ADVANTAGEOUS ... TO START WITH A CHARACTERIZATION OF THE SITUATION AS A WHOLE. AFTER THIS FIRST APPROXIMATION, THE VARIOUS ASPECTS AND PARTS OF THE INTERACTION UNDERGO A MORE AND MORE SPECIFIC AND DETAILED ANALYSIS. IT IS OBVIOUS THAT SUCH A METHOD IS THE BEST SAFEGUARD AGAINST BEING MISLED BY ONE OR ANOTHER ELEMENT OF THE SITUATION.⁵¹

IN RESPONSE TO AN INVITATION FOR A MORE DETAILED ANALYSIS OF MODEL I, AND THE LOGICAL AND EMPIRICAL INADEQUACIES IN THIS GENERAL MODEL, A MODEL II HAS BEEN PROPOSED. INSTEAD OF POSITING A GENERAL EQUATION OVER ALL PAIRS, IN THE MODEL THE LINKAGE IS SPECIFIC TO THE PARTICULAR ACTOR NATION i . ALTHOUGH THERE IS CONSIDERABLE LOSS OF GENERALITY WITH THE INCREASED CONTROLS ON THE INPUTS INTO THE THEORY, UNLIKE THE OUTPUT OF MODEL I, BEHAVIOUR IN MODEL II IS UNLIKELY TO BE SYMMETRIC, SINCE THE DISTANCE BETWEEN i TO j WILL DIFFER FROM THAT OF

50. THE DETAILS OF FIELD THEORY AND THE PARAMETER α WILL BE DISCUSSED IN CHAPTER 5.

51. LEWIN, FIELD THEORY, P. 63.

J TO I. THEREFORE, THE SECOND MODEL IS MORE REPRESENTATIVE OF THE ATTRIBUTE DISTANCE BETWEEN ACTORS AND TARGETS. IN EQUATION FORM, THE RELATIONSHIP BETWEEN ATTRIBUTE DISTANCE AND BEHAVIOUR BECOMES:

$$W_{i \rightarrow j, k} = \sum_{l=1}^p \alpha_{i, l} d_{i-j, l} \quad (2)$$

(MODEL II)

WHERE THE PARAMETER α_i IS NOW ACTOR-SPECIFIC FOR THE ACTING NATION I. THE DIMENSIONS REMAIN THE SAME AS IN MODEL I. HOWEVER, "MODEL II DOES IMPLY ... THAT THE FORCES OPERATING FOR A PARTICULAR ACTOR ARE CONSISTENT ACROSS ALL OF ITS DYADIC LINKAGES."⁵² THAT IS, IN ANY PARTICULAR DYADIC SET, SUCH AS CANADA TO THE UNITED STATES, CANADA TO GREAT BRITAIN, CANADA TO CHINA AND SO ON, THE PARAMETER WILL REMAIN THE SAME. FOR A DIFFERENT DYADIC SET, THE PARAMETER WILL BE DIFFERENT FROM THAT OF CANADA. THESE PARAMETERS REPRESENT EACH ACTOR'S IDIOSYNCRASIES IN THAT EACH NATION MAY EMPHASIZE A PARTICULAR ATTRIBUTE DIMENSION. FOR EXAMPLE, CANADA MAY STRESS ITS ECONOMIC DEVELOPMENT, INDIA ITS SIZE, THE SOVIET UNION ITS POLITICAL ORIENTATION. IT WILL BE SEEN LATER HOW THESE MODELS ARE TRANSFORMED INTO WORKING, TESTABLE MODELS BY OPERATIONALIZING THESE ATTRIBUTES.

FINALLY, THE FRAMEWORK FOR FIELD THEORY IS PRESENTED LOGICALLY AND COHERENTLY AS SOCIAL-FIELD THEORY BY RUMMEL. AMONG THE SEVEN AXIOMS THERE ARE PROPOSITIONS RELATING SPECIFIC ATTRIBUTE DIMENSIONS, IDENTIFIED AS EXPLANATORY VARIABLES, TO FOREIGN POLICY BEHAVIOUR DIMENSIONS. HYPOTHESES SPECIFYING A RELATIONSHIP BETWEEN THE CONCEPTS MAY BE DEDUCED FROM THE AXIOMS, AND TESTED.⁵³ MOREOVER, MODELS I AND II

52. R. VAN ATTA AND R. RUMMEL, "TESTING FIELD THEORY ON THE 1963 BEHAVIOUR SPACE OF NATIONS," PEACE RESEARCH SOCIETY, PAPERS 16 (1971): 39.

53. THESE AXIOMS WILL BE DISCUSSED IN CHAPTER 4.

IMPLY THAT THERE ARE TWO FORCES AT WORK IN THE INTERNATIONAL SYSTEM. THE FIRST IS A GENERAL FORCE WHICH AFFECTS ALL NATIONS, AND A SECOND WHICH CONSISTS OF FORCES UNIQUE TO THE INTERNAL STRUCTURE OF EACH ACTOR. THESE SPECIFIC INFLUENCES, IN CONGRUENCE WITH THE GENERAL FORCES, CAUSE EACH NATION TO REACT DIFFERENTLY IN RESPONSE TO THE SAME ATTRIBUTE DIFFERENCES.⁵⁴

THE ACTUAL TESTING OF FIELD THEORY HAS BEEN LIMITED TO A FEW PUBLISHED PAPERS BY RUMMEL AND HIS FOLLOWERS. IN ONE TEST OF SOCIAL-FIELD THEORY, RUMMEL USED THREE DIFFERENT TYPES OF ATTRIBUTES: TWO RANK DIMENSIONS - ECONOMIC DEVELOPMENT AND POWER; FIVE VALUE DIMENSIONS - FEMININE RIGHTS, INTERNATIONALISM, CATHOLICISM, SELF-GOVERNMENT AND COMMUNISM; AND GEOGRAPHIC DISTANCE. THE DEPENDENT VARIABLE WAS A CONFLICT DIMENSION COMPOSED OF VIOLENCE, COMMUNICATION, HOSTILITY AND DIPLOMATIC REPRESENTATION. FOURTEEN NATIONS WERE SAMPLED, SELECTED FOR THEIR HIGH, MIDDLE AND LOW POSITIONS ON THE FACTOR SCORES OF EACH ATTRIBUTE SPACE DIMENSION. THE RESULTS INDICATED THAT WHILE ECONOMIC DEVELOPMENT WAS A POSITIVE INDICATOR FOR DYADS ENGAGING IN CONFLICT, POWER WAS NOT SIGNIFICANT. NEITHER THE CATHOLICISM NOR THE INTERNATIONALISM DIMENSIONS WERE SIGNIFICANT, BUT THE GEOGRAPHIC DISTANCE MEASURE WAS IN THE THEORIZED NEGATIVE DIRECTION, INDICATING THAT THE FURTHER APART NATIONS ARE ON AN ATTRIBUTE THE LESS THEY WILL ENGAGE IN CONFLICT BEHAVIOUR. THUS THE DATA TENDED TO VERIFY THE SOCIAL-FIELD THEORY HYPOTHESES FOR CONFLICT BEHAVIOUR.⁵⁵

54. R. VAN ATTA, "FIELD THEORY AND NATIONAL-INTERNATIONAL LINKAGES," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY CO., 1973), PP. 214-215.

55. R. RUMMEL, "A SOCIAL FIELD THEORY OF FOREIGN CONFLICT BEHAVIOUR," PEACE RESEARCH SOCIETY, PAPERS 4 (1966): 142-145.

TESTS OF SOCIAL-FIELD THEORY HAVE VERIFIED PARTIALLY MODEL II, BUT HAVE UNCONFIRMED MODEL I. USING A DATA SET FOR 1955 AND 1963, RICHARD VAN ATTA EMPLOYED THE ATTRIBUTE DIMENSIONS OF ECONOMIC DEVELOPMENT, SIZE OR POWER CAPABILITY, POLITICAL ORIENTATION, PLUS CATHOLIC CULTURE IN 1963 AS THE SOCIAL FORCE INFLUENCING PRIVATE INTERNATIONAL RELATIONS, ADMINISTRATIVE BEHAVIOUR AND CONFLICT BEHAVIOUR DIMENSIONS. MODEL I SHOWED A LACK OF EMPIRICAL FIT BETWEEN ATTRIBUTE AND BEHAVIOUR SPACE. MODEL II WAS MORE PROMISING, INDICATING A FIT BETWEEN THE TWO SPACES FOR BOTH DATA SETS. THE MOST IMPORTANT ATTRIBUTE DISTANCE IN RELATION TO CONFLICT WAS POWER, AND PRIVATE INTERNATIONAL RELATIONS WAS PREDICTED FROM THE NEGATIVE DIFFERENCE ON THE POWER DIMENSION.⁵⁶

STATUS-FIELD THEORY

FIELD THEORY CONTINUES TO EVOLVE, TREATING MORE CONCRETELY THE SPECIFIC PATTERNS OF RELATIONSHIPS BETWEEN ATTRIBUTES AND BEHAVIOUR. IN A PARSIMONIOUS AND HEURISTIC FASHION, RUMMEL COMBINED FIELD THEORY WITH THE CONCEPT OF STATUS TO FORM YET ANOTHER THEORY - STATUS-FIELD THEORY.

STATUS-FIELD THEORY HAS THE SAME CONCEPTS AND CONSTRUCTS AS SOCIAL-FIELD THEORY. THAT IS, NATIONAL ATTRIBUTES MAY BE PLOTTED IN A-SPACE, AND THE DISTANCE VECTORS BETWEEN NATIONS CALCULATED. THIS DISTANCE IS THE SOCIAL FORCE WHICH INFLUENCES BEHAVIOUR. THERE ARE, HOWEVER, TWO MAJOR DIFFERENCES BETWEEN THE SOCIAL AND STATUS-FIELD THEORIES WHICH CAUSE THEM TO BE DISTINCT. ONE IS THAT IN STATUS-FIELD

56. VAN ATTA, "FIELD THEORY," PP. 241-244.

THEORY THE INTERNATIONAL SYSTEM IS DEFINED AS A STATUS SYSTEM IN WHICH NATIONS ARE LOCATED ON STATUS ATTRIBUTE DIMENSIONS. THE SECOND DIFFERENCE IS IN THE CONCEPTS OF SOCIAL STRATIFICATION AND SOCIAL MOBILITY DISCUSSED PREVIOUSLY. THE MAJOR ASSUMPTION IS THAT NATIONS ARE RANKED ON TWO STATUS DIMENSIONS, POWER AND ECONOMIC DEVELOPMENT RELATIVE TO OTHER NATIONS IN THE STRATIFIED INTERNATIONAL SYSTEM. STATUS DISTANCE ITSELF IS BASED ON THE DIFFERENCE BETWEEN TWO NATIONS ON THE STATUS DIMENSIONS. IT IS THIS DISTANCE, PLUS THE DESIRE FOR A HIGHER STATUS RANK ON BOTH DIMENSIONS WHICH IS THE FORCE INFLUENCING THE BEHAVIOUR OF NATION I TO J. THE AXIOMS AND THEOREMS FURTHER SPECIFY THE DIFFERENT TYPES OF COOPERATION, CONFLICT OR STATUS-DEPENDENT BEHAVIOUR ASSOCIATED WITH DIFFERENT ATTRIBUTE DISTANCES.

FINALLY, STATUS-FIELD THEORY MAY BE TESTED ALSO UNDER THE GENERALIZED EQUATION OF MODEL I OR THE SPECIFIC ACTOR-CENTRED MODEL II. THAT IS, STATUS BEHAVIOUR IS INFLUENCED BY GENERAL STATUS FORCES AFFECTING ALL NATIONS AND UNIQUE STATUS FORCES AFFECTING INDIVIDUAL NATIONS. HOWEVER, THERE HAVE BEEN FEW EMPIRICAL TESTS OF STATUS-FIELD THEORY. MOREOVER, THOSE THAT HAVE BEEN UNDERTAKEN GIVE A VERY LIMITED PERSPECTIVE OF STATUS-FIELD THEORY, ONE CENTRED ON THE UNITED STATES AND THE OTHER ON CHINA.

RUMMEL'S ARTICLE IN BRUCE RUSSETT'S PEACE, WAR AND NUMBERS, ALTHOUGH QUITE SUPERFICIAL, WAS A SEMINAL MOVE TOWARDS STATUS-FIELD THEORY. THREE OF RUMMEL'S HYPOTHESES WERE CONCERNED WITH THE STATUS DIMENSIONS OF ECONOMIC DEVELOPMENT AND POWER. THE BEHAVIOUR SPACE DIMENSIONS WERE CONFLICT BEHAVIOUR, ADMINISTRATIVE BEHAVIOUR AND PRIVATE INTERNATIONAL RELATIONS. RUMMEL'S RESULTS WERE NOT AS STRONG

AS HE HYPOTHEZIZED. THE ECONOMIC DEVELOPMENT DIMENSION WAS NOT IN THE STATED DIRECTION FOR THE COOPERATION THEOREM, AND THE RELATIONSHIPS FOUND TO EXIST BETWEEN ATTRIBUTES AND BEHAVIOUR IN THE CONFLICT BEHAVIOUR THEOREM WERE NOT THOSE PREDICTED. THE STATUS BEHAVIOUR THEOREM WAS CONFIRMED.⁵⁷

SANG-WOO RHEE TESTED STATUS AND SOCIAL-FIELD THEORY USING NINE BEHAVIOUR DIMENSIONS; SIX COOPERATIVE - PENETRATION, FORMAL DIPLOMACY, SUBSTANTIAL COOPERATION, ALLIANCE, ADMINISTRATIVE COOPERATION AND COMMUNICATIONS NETWORK, TWO CONFLICT - PEOPLE'S LIBERATION WAR AND FORMAL CONFLICT, AND THE LAST A TIME VARIABLE; AND TWELVE ATTRIBUTE DIMENSIONS - COMMUNISM, ECONOMIC DEVELOPMENT, POWER, CATHOLIC CULTURE, DIVERSITY, DENSITY, CHINESE SPHERE, POLITICAL STABILITY, POPULATION, NEUTRALISM, MONARCHY AND DOMESTIC CONFLICT.⁵⁸ RHEE FOUND THAT STATUS-DEPENDENT CONFLICT BEHAVIOUR AND COOPERATIVE BEHAVIOUR WAS NOT DEPENDENT UPON ECONOMIC DEVELOPMENT. FORMAL CONFLICT WAS RELATED TO POWER DISTANCE. SUBSTANTIAL COOPERATION WAS DEPENDENT UPON POWER DISTANCE AND ECONOMIC DEVELOPMENT, BUT OTHER DISTANCES OVERWHELMED THE STATUS DIMENSIONS.⁵⁹

STATUS-FIELD THEORY THEN DOES NOT APPEAR PROMISING ON THE BASIS OF THE EMPIRICAL APPLICATIONS WHICH HAVE BEEN CONDUCTED. WITH THE AXIOMS AND THEOREMS DEVELOPED AT PRESENT, THERE IS MUCH MORE HEURISTIC VALUE THEN DEMONSTRATED IN THESE ARTICLES. IT IS VERY DIFFICULT TO

57. RUMMEL, "U.S.," P. 108.

58. RHEE, "CHINA'S," PP. 144-147, 159-160.

59. IBID., PP. 173-4.

CAPTURE ALL THE IMPLICATIONS OF THE THEORY WHEN IT IS VIEWED IN TERMS OF NOT ONLY GREAT POWERS, BUT ALSO SMALL NATIONS. WITH TESTS ON TWO GREAT POWERS ONLY, THERE REMAINS GREAT SCOPE FOR APPLICATION OF THE THEORY TO OTHER NATIONS. THE IMPLICATIONS FOR NATIONS HIGHER AND LOWER IN THE STATUS THAN THE ACTOR NATION HAVE YET TO BE TESTED. FURTHERMORE, IN VIEW OF KEAN AND MCGOWAN'S FINDINGS ON THE REGIONAL LEVEL, IT WOULD BE INTERESTING TO DETERMINE WHETHER THESE THEORIES MAY BE SUCCESSFULLY APPLIED TO NATIONS WHICH HAVE SMALL DYADIC ATTRIBUTE DISTANCES IN COMPARISON WITH OTHER NATIONS IN THE GLOBAL SYSTEM, AND WHETHER THEIR BEHAVIOUR PATTERNS BASED ON THESE DISTANCES ACCURATELY REFLECT THE THEOREMS OF THE THEORIES. THE NEXT CHAPTER EXAMINES STATUS-FIELD THEORY THROUGH A CONSIDERATION OF SMALLER NATIONS IN A REGIONAL CONTEXT.

CHAPTER 3

STATUS FIELD THEORY AND IMPLICATIONS FOR THE REGIONAL SUBSYSTEM

FIELD THEORY RESTS ON A EUCLIDEAN SPACIAL FORMAT WITH ATTRIBUTE AND BEHAVIOUR SPACE AS THE ANALYTICAL FRAMEWORK FOR SPECIFIC ASSUMPTIONS RELATING POINTS AS NATIONS AND DISTANCE AS VECTORS IN THESE SPACES. THROUGH THE ASSUMPTION OF LINEARITY SURROUNDING THIS FRAMEWORK, ATTRIBUTE DISTANCES ARE LINKED TO BEHAVIOUR VIA THE FORCE CREATED BY THE ATTRIBUTE DISTANCES BETWEEN NATIONS WHICH INFLUENCE THEIR FORM OF INTERACTION. MOREOVER, THE FIELD THEORY OUTLINE IS GENERAL ENOUGH THAT MIDDLE-RANGE THEORIES SUCH AS POWER AND GEOGRAPHICAL LOCATION THEORIES MAY BE INCORPORATED.

IN THIS FASHION, WHILE FIELD THEORY IS ABSTRACT IN RELATION TO THOSE HYPOTHESES TREATING SPECIFIC VARIABLES RELATIONSHIPS, ITS ABILITY TO SUBSUME SUCH HYPOTHESES PROVIDES A GENERAL FRAMEWORK WITHIN WHICH SUCH RELATIONSHIPS CAN BE DEVELOPED AND STRUCTURES.

THE SEMINAL ASPECTS OF STATUS-FIELD THEORY ARE AN EXTENSION OF SOCIAL-FIELD THEORY. THEY HAVE IN COMMON BASIC AXIOMS, THE EUCLIDEAN SPACIAL FORMAT AND THE USE OF LINEAR ALGEBRA. HOWEVER, THE TWO THEORIES DIFFER FUNDAMENTALLY ON THE CONCEPT OF ATTRIBUTE SPACE AND ON THE POSITION OF NATIONS IN THE INTERNATIONAL SYSTEM. IN STATUS

I. R. VAN ATTA, "FIELD THEORY AND NATIONAL-INTERNATIONAL LINKAGE," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD, (NEW YORK: DAVID MCKAY CO., 1973), p. 211.

FIELD THEORY THE ATTRIBUTES, POWER AND ECONOMIC DEVELOPMENT ARE THE STATUS DIMENSIONS WHICH ACT AS THE FORCES ADDUCING BEHAVIOUR BETWEEN NATIONS, AND ARE THE CORNERSTONE IN ESTABLISHING THEOREMS TO TEST THIS RELATIONSHIP. THE STATUS ATTRIBUTE DIMENSIONS CLOSELY CORRESPOND TO THE MORE TRADITIONAL VIEWS OF NATIONAL STATUS. THAT IS, IN A STRATIFIED ARRANGEMENT OF NATIONS, A NATION'S STATUS IS DETERMINED BY ITS POSITION IN THE HIERARCHY BASED ON ITS RELATIVE AMOUNT OF WEALTH, OR ECONOMIC DEVELOPMENT, AND POWER. STATUS-FIELD THEORY FURTHER ATTEMPTS TO OVERCOME THE CRITICISM DIRECTED AGAINST SOCIAL-FIELD THEORY THAT "THE RESEARCH THRUST REVOLVED AROUND AN ATHEORETICAL APPROACH TO THE ANALYSIS OF INTERNATIONAL RELATIONS."² FURTHERMORE, SOCIAL-FIELD THEORY DOES NOT PROVIDE AN EXPLANATION OF THE PATTERN THAT THE LINKAGE BETWEEN ATTRIBUTES AND BEHAVIOUR MIGHT TAKE, ONLY A FRAMEWORK FOR ANALYZING THE LINKAGES. FIELD THEORY PREDICTS THAT CERTAIN ATTRIBUTES INFLUENCE THE BEHAVIOUR OF A NATION TOWARD A TARGET, HOWEVER, IT DOES NOT SPECIFY WHAT TYPES OF BEHAVIOUR ARE A CONSEQUENCE OF PARTICULAR ATTRIBUTE DISTANCES OR WHETHER THE DISTANCE SIGN IS NEGATIVE OR POSITIVE, AND ITS MEANING. FIELD THEORY IS, THEREFORE, A "MATHEMATICAL SKELTON."³

THUS, STATUS-FIELD THEORY IS SUPERIOR TO SOCIAL-FIELD THEORY IN EMULATING THE DEFINITION OF A "THEORY." NOT ONLY DOES IT HAVE VERY EXPLICIT ASSUMPTIONS AT DIFFERENT LEVELS OF GENERALITY, BUT THE THEOREMS

2. G. HILTON, A REVIEW OF THE DIMENSIONALITY OF NATIONS PROJEOT (BEVERLY HILLS: SAGE PROFESSIONAL PAPERS IN INTERNATIONAL STUDIES, 1973), P. 16.

3. SANG-WOO RHEE, "CHINA'S COOPERATION, CONFLICT AND INTERACTION BEHAVIOUR," IN ADVANCING AND CONTENDING APPROACHES TO THE STUDY OF CHINESE FOREIGN POLICY, ED. R.L. DIAL (HALIFAX: CENTRE FOR FOREIGN POLICY STUDIES, DALHOUSIE UNIVERSITY, 1974), P. 127.

ENDEAVOUR TO PROVIDE SOME CAUSAL LINK BETWEEN THE DIRECTION OF ATTRIBUTE DISTANCE VECTORS AND BEHAVIOUR IN AN ATTEMPT TO EXPLAIN BEHAVIOUR. SCHOLARS ARE ABLE THEN TO PREDICT FUTURE BEHAVIOUR WITHIN THE LIMITS OF THE THEORY, THE DATA AVAILABLE AND THE SCHOLAR'S OWN APTITUDE FOR THE SUBJECT MATTER.

THE AXIOMS COMMON TO BOTH THEORIES, PLUS THOSE ADDITIONAL AXIOMS ASSOCIATED WITH STATUS-FIELD THEORY ARE THE CENTRAL POINT FROM WHICH TO COMMENCE A DISCUSSION ON THE CONNECTION BETWEEN ATTRIBUTES, THE ATTRIBUTE DISTANCES BETWEEN NATIONS AND THEIR PROJECTION ON THE DIMENSIONS OF BEHAVIOUR SPACE.

AXIOMS AND THEOREMS

THE FIRST AXIOM PRESENTS THE CONCEPT OF FIELD, DEFINED IN TERMS OF ATTRIBUTES AND INTERACTIONS OF NATIONS:

1. INTERNATIONAL RELATIONS IS A FIELD CONSISTING OF ALL NATIONS ATTRIBUTES AND INTERACTIONS AND THEIR COMPLEX RELATIONSHIPS THROUGH TIME.

ATTRIBUTES ARE THE CHARACTERISTICS BY WHICH NATIONS ARE DIFFERENTIATED FROM EACH OTHER. NATIONS MAY BE DISTINGUISHED IN TERMS OF SIZE, LOCATION, EDUCATION, ENERGY AND ANY OTHER NUMBER OF ATTRIBUTES, SOME OF WHICH WILL BE DISCUSSED. THE INTERACTION BETWEEN NATIONS IS MEASURED AS BEHAVIOUR

4. HILTON, REVIEW, P. 29. THROUGH A THOROUGH READING OF THE LITERATURE ON SOCIAL AND STATUS-FIELD THEORY, HILTON HAS ABSTRACTED THE AXIOMS AND THEOREMS ASSOCIATED WITH THE THEORIES INTO A MORE COMPENDIOUS FORM.

COMPRISED OF IDENTIFIABLE ACTS UNDERTAKEN BY THE OFFICIAL REPRESENTATIVES OF NATIONAL SOCIETIES OR THEIR AGENTS IN ORDER TO CONTROL THE BEHAVIOUR OF THEIR COUNTERPARTS IN OTHER SOCIETIES AND INTERNATIONAL ORGANIZATIONS IN WAYS DESIRED BY INITIATORS.⁵

BEHAVIOUR IS STUDIED AS AN ACTION SENT FROM AN ACTOR TO A SPECIFIC TARGET ON THE ASSUMPTION THAT A NATION'S FOREIGN POLICY AND BEHAVIOUR WILL SHIFT DEPENDING ON WHO IS THE OBJECT NATION. THE RELEVANCE OF CERTAIN ATTRIBUTES OF THE TARGET WILL ALSO INFLUENCE THE TYPE OF BEHAVIOUR SENT TO THAT NATION. THUS, FOR EXAMPLE, CANADA'S BEHAVIOUR TOWARD THE UNITED STATES DIFFERS SUBSTANTIALLY FROM CANADA'S BEHAVIOUR TOWARD INDIA. IN THE FORMER DYAD, THE RELATIONSHIP MAY BE ONE OF HIGHLY TECHNICAL COOPERATION IN TRADE, EXCHANGE OF INFORMATION, AND JOINT VENTURES, SUCH AS THE GREAT LAKES CLEAN-UP, WHILE THE CANADA-INDIA DYAD MAY BE CHARACTERIZED BY TECHNICAL AND MONETARY ASSISTANCE TO THE DEVELOPMENT OF INDIA, AND COOPERATIVE SOCIAL VENTURES THROUGH THE BRITISH COMMONWEALTH TIES. THUS, THE AXIOM PLACES INTERNATIONAL RELATIONS INTO A FIELD COMPOSED OF ATTRIBUTES AND BEHAVIOUR.

AXIOM 2 STATES THAT:

2. THE INTERNATIONAL FIELD COMPRISES A EUCLIDEAN ATTRIBUTE SPACE DEFINING ALL NATIONS ATTRIBUTES AND A EUCLIDEAN SPACE DEFINING ALL NATIONS DYADIO INTERACTIONS⁶

WHERE ATTRIBUTES AND INTERACTIONS ARE PROJECTED AS VECTORS INTO SPACE. THIS AXIOM LOCATES THE FRAMEWORK OF FIELD THEORY WITHIN LINEAR MATHEMATICS BY STATING THAT INTERNATIONAL RELATIONS IS DISCUSSED IN TERMS OF

5. P. MCGOWAN AND M. O'LEARY, COMPARATIVE FOREIGN POLICY ANALYSIS (SYRACUSE UNIVERSITY MARKHAM PUBLISHERS, 1971), PP. 4-5.

6. HILTON, REVIEW, P. 29.

A SPACE WITH POINTS, LINES AND VECTORS. IN EUCLIDEAN SPACE, WHERE ONE STRAIGHT LINE GOES THROUGH TWO POINTS, NATIONS BECOME THE POINTS, AND VARIABLES THE VECTORS. THE MATHEMATICAL REPRESENTATION PROVIDES A CLEAR CONFIGURATION OF THE INTERRELATIONSHIP AMONG VARIABLES AND NATIONS, ASSURING AN OPERATIONAL MEANS OF TESTING THE THEORY.

THE DIMENSIONS IN A-(ATTRIBUTE) SPACE AND B-(BEHAVIOUR) SPACE ARE DEFINED AS FINITE AND LINEARLY INDEPENDENT OF EACH OTHER.⁷ THESE DIMENSIONS ARE THEORETICAL VARIABLES, USUALLY OBTAINED THROUGH A FACTOR ANALYSIS PROCEDURE. BRIEFLY, FACTOR ANALYSIS GROUPS VARIABLES ACCORDING TO THEIR RELATEDNESS, WITH THE ASSOCIATED VARIABLES LOADING ON THE SAME FACTOR, OR DIMENSION. A NAME CORRESPONDING TO THE NAME OF THE DIMENSION, IS ASSIGNED TO SYMBOLIZE THE COHESIVENESS OF THIS GROUP OF VARIABLES. FOR EXAMPLE, THE THEORETICAL DIMENSION OF ECONOMIC DEVELOPMENT MAY BE BASED ON SUCH HIGH LOADING ATTRIBUTES AS GNP, ENERGY CONSUMPTION, AND THE NUMBER OF TELEPHONES. THUS IT IS ASSUMED THAT EACH DIMENSION IS REPRESENTATIVE OF THE VARIABLES WHICH IT SUBSUMES. FURTHERMORE, THE UNDERLYING ASSUMPTION OF ORTHOGONAL ROTATION FACTOR ANALYSIS IS THAT THE DIMENSIONS ARE INDEPENDENT. OTHERWISE, WITH DIMENSIONS TAKING ON DIFFERENT MEANINGS FOR DIFFERENT SCHOLARS, COMPARISON OF RESULTS WOULD NOT BE POSSIBLE, RESULTING IN AN UNSTABLE THEORY WITH LITTLE PREDICTIVE POWER. THEOREM 1 THEREFORE STATES THAT "A FINITE SET OF LINEARLY INDEPENDENT DIMENSIONS GENERATE ATTRIBUTE AND BEHAVIOUR SPACE."⁸

7. R. RUMEL, "A FIELD THEORY OF SOCIAL ACTION WITH APPLICATION TO CONFLICT WITHIN NATIONS," GENERAL SYSTEMS YEARBOOK 10 (1965): 185.

8. HILTON, REVIEW, P. 29.

THE THIRD AXIOM:

3. INTERNATIONAL RELATIONS IS A STRATIFIED SOCIAL SYSTEM.⁹

LEADS INTO ONE OF THE BASIC DIFFERENCES BETWEEN SOCIAL AND STATUS-FIELD THEORY DISCUSSED EARLIER. THERE ARE FOUR THEOREMS AND FIVE DEFINITIONS IN STATUS-FIELD THEORY DERIVED FROM THIS AXIOM WHICH HELP IN THE FORMULATION OF HYPOTHESES. THEOREM 2 STATES THAT STATUS DIMENSIONS ARE A SUBSET OF THE LARGER, MORE GENERAL ATTRIBUTE DIMENSIONS. ON THESE DIMENSIONS NATIONS MAY BE RANKED FROM A HIGH VALUE INDICATING A HIGH STATUS ON THAT DIMENSION, TO NATIONS HAVING A LOW VALUE ON THE SAME DIMENSION, THEREFORE POSSESSING A LOW STATUS.

IN EUCLIDEAN SPACE THE THIRD THEOREM PLACES NATIONS AS VECTORS IN ATTRIBUTE SPACE AND DYADS AS VECTORS IN BEHAVIOUR SPACE. ATTRIBUTES AND BEHAVIOUR ARE THE TWO MAJOR CONCEPTS IN NATION'S ENVIRONMENTS WITHIN THE CONSTRUCT OF SOCIAL SPACE. ATTRIBUTE SPACE CONSISTS OF AN INFINITE NUMBER OF INTERDEPENDENT ATTRIBUTES DEFINED BY VECTORS AND BOUND BY THE TOTAL NUMBER OF NATIONS. WITH NATIONS DEFINED AS POINTS IN ATTRIBUTE SPACE, THE DISTANCE VECTOR BETWEEN ANY TWO NATION-POINTS MAY BE DEFINED WITH ITS DIRECTION BEING THE CORRELATION BETWEEN THE ATTRIBUTES FOR THE NATIONS. THUS, THE ATTRIBUTES FORM THE AXES FOR EUCLIDEAN SPACE WHILE THE SIMILARITY AND DIFFERENCE BETWEEN NATIONS IS LOCATED AS VECTORS IN THE SPACE. (FIGURE 2) BEHAVIOUR SPACE, OR THE INTERDEPENDENCE BETWEEN INTERACTIONS IS SIMILAR IN COMPOSITION TO ATTRIBUTE SPACE. THE INTERACTIONS BETWEEN PAIRS OF NATIONS, DYADS, ARE TREATED AS THE VECTORS IN THE SPACE, WITH THE COMPONENTS OF THE

9. *Ibid.*

FIGURE 2 A HYPOTHETICAL REPRESENTATION OF ATTRIBUTE SPACE

FIGURE 3 GEOMETRIC REPRESENTATION OF THE BASIC FIELD THEORETICAL RELATIONSHIP BETWEEN ATTRIBUTE SPACE AND BEHAVIOUR SPACE

VECTORS BEING THE VALUE OF EACH DYAD ON THE INTERACTION DIMENSIONS. THE BEHAVIOUR DIMENSIONS FORM THE AXES. THE LOCATION OF NATIONS AS DYADS, THE MAGNITUDE OR LENGTH OF THE VECTOR AND THE DIRECTION MAY BE FOUND SINCE THE ORIGIN OF THE EUCLIDEAN SPACE, WHERE THE DIMENSIONS INTERSECT, IS ALWAYS ZERO.

THE FOURTH THEOREM, THE MOBILITY THEOREM STATES THAT "NATIONS DESIRE UPWARD MOBILITY"¹⁰ SINCE A HIGH STATUS IS MORE DESIRABLE THAN A LOW STATUS. FURTHERMORE, THEOREM 5, THE EQUILIBRIUM THEOREM, SUGGESTS THAT "NATIONS HAVING UNBALANCED STATUSES DESIRE TO BALANCE THEM."¹¹ A STATE OF IMBALANCE OCCURS WHEN A NATION IS HIGH ON ONE DIMENSION, SUCH AS ECONOMIC DEVELOPMENT, BUT LOW ON THE OTHER, SUCH AS POWER. THE THEOREM PREDICTS THAT THE NATION DESIRES TO HAVE THE SAME STATUS ON BOTH DIMENSIONS, NOT BY DECREASING THE HIGH STATUS BUT BY CHANGING THE LOW STATUS TO A HIGH ONE.

AXIOM 4 PROVIDES THE LINKAGE BETWEEN ATTRIBUTE DISTANCE VECTORS AND BEHAVIOUR:

4. BETWEEN NATIONS, ATTRIBUTE DISTANCES AT A PARTICULAR TIME ARE SOCIAL FORCES DETERMINING DYADIC BEHAVIOUR AT THAT TIME.¹²

THE POSITION OF DYADS IN BEHAVIOUR SPACE IS A FUNCTION OF THE SOCIAL VECTORS OR THE DISTANCE BETWEEN NATIONS IN THE ATTRIBUTE SPACE. THIS SOCIAL DISTANCE IS THE RELATIVE DISTANCE BETWEEN NATIONS ON THE ATTRIBUTE DIMENSIONS. (FIGURE 2) THE DISTANCE VECTOR, REPRESENTED BY $\vec{D}$ MEASURES THE SPACIAL RELATION BETWEEN CANADA AND INDIA IN TERMS

10. *ibid.*, p. 30.

11. *ibid.*

12. *ibid.*, p. 33.

OF THEIR CHARACTERISTICS ON THREE ATTRIBUTE DIMENSIONS. THEORETICALLY, IT IS THIS $\vec{D}$ WHICH PROVIDES THE FORCE FOR MAPPING THE DYAD IN BEHAVIOUR SPACE. THE SOCIAL FORCES ACT AT THE ORIGIN OF THE BEHAVIOUR SPACE AND THE POSITION OF THE DYAD IS A FUNCTION OF THE RESOLUTION OF THESE FORCES. WHEN THESE FORCES AND THEIR RESULTS ON BEHAVIOUR ARE STUDIED OVER TIME, EQUILIBRIUM WILL EXIST. (FIGURE 3) HOWEVER, ANY CHANGE IN THE ATTRIBUTE DISTANCE VECTORS, $\vec{D}$, WILL FORCE THE VECTOR TO CHANGE AND CONSEQUENTLY BEHAVIOUR WILL BE ALTERED, CREATING A NEW EQUILIBRIUM. THESE SOCIAL FORCES ARE ALSO LIMITED TO THE ENVIRONMENTAL CONDITIONS UNDER WHICH DECISION-MAKERS DECIDE THE NATION'S POLICY. THE FORCES DO NOT INFLUENCE DIRECTLY A NATION'S BEHAVIOUR, BUT RATHER THE PROCESS IS MEDIATED BY A LINK OF HUMAN DELIBERATIONS. STATISTICALLY, THE SOCIAL FORCES EXPLAIN SOME PORTION OF THE BEHAVIOUR, BUT THE UNEXPLAINED PORTION LIES IN THE HUMAN ASPECTS OF FOREIGN POLICY. "IN OTHER WORDS, FIELD FORCES DETERMINE THE DISPOSITIONAL DIRECTION AND MAGNITUDE OF THE BEHAVIOUR; THE ACTOR, HOWEVER MAY CHOOSE OTHER BEHAVIOUR."¹³

THIS RELATIONSHIP BETWEEN ATTRIBUTES AND BEHAVIOUR IS STRESSED IN WHAT RUMMEL HAS CALLED MORE RECENTLY THE "CONCEPT OF RELATIVITY." FIELD THEORY DOES NOT LOOK AT A NATION'S ABSOLUTE ATTRIBUTES AND BEHAVIOUR AS BEING IMPORTANT. RATHER, IT STUDIES ATTRIBUTES AND BEHAVIOUR RELATIVE TO OTHER NATIONS SUCH THAT THE ORIGINS OF THESE DIMENSIONS ARE RELATIVE, AND THE MEAN IS STANDARDIZED TO ZERO. RELATIVITY IS BASIC TO FIELD THEORY TO THE EXTENT THAT "THE RELATIVE

13. RHEE, "CHINA'S COOPERATION," P. 119.

SIMILARITY AND DIFFERENCES BETWEEN NATIONS AFFECT THEIR RELATIVE BEHAVIOUR TOWARDS EACH OTHER."¹⁴ THE ACTING NATION WILL ACT TOWARDS ITS TARGETS IN TERMS OF THE SIMILARITIES BETWEEN THE TWO NATIONS ON THE ATTRIBUTE DIMENSIONS.

AS THE NEXT AXIOM INDICATES, THESE ATTRIBUTE DIMENSIONS LINKED TO BEHAVIOUR IN STATUS-FIELD THEORY ARE STATUS ATTRIBUTES:

5. SOME BEHAVIOUR DIMENSIONS ARE LINEARLY DEPENDENT ON STATUS.¹⁵

THIS AXIOM DELINEATES STATUS-DEPENDENT BEHAVIOUR TO THE DEGREE THAT THE FORM OF INTERACTION BETWEEN NATIONS IS DEPENDENT UPON THEIR RELATIVE DIFFERENCES IN LEVELS OF ECONOMIC DEVELOPMENT AND POWER, THE STATUS ATTRIBUTE DIMENSIONS.

CORRESPONDING TO GALTUNG'S DICTUM ON WHO AND HOW MUCH INTERACTION TAKES PLACE, AXIOM 6 STATES THAT:

6. STATUS BEHAVIOUR IS DIRECTED TOWARD HIGHER RANKING NATIONS AND THE GREATER A NATION'S RANK THE MORE ITS STATUS BEHAVIOUR.¹⁶

STATUS BEHAVIOUR IS DIRECTED TOWARD NATIONS WHICH ARE HIGHER IN RANK NOT ONLY BECAUSE THIS HIGHER RANKING NATION IS A MODEL FOR NATIONS ASPIRING TO INCREASE THEIR STATUS, BUT ALSO AS A MEANS OF ATTAINING GOODS AND KNOWLEDGE TO HELP ACHIEVE THIS ACCELERATION. FURTHERMORE, NATIONS WITH HIGH RANKS INTERACT MORE, ESPECIALLY WITH OTHER HIGH RANKING NATIONS, BECAUSE THEY HAVE THE RESOURCES, SUCH AS GOODS FOR EXCHANGE TO DO SO. THROUGH SUCH EXCHANGE THE NATIONS ENRICH THEM-

14. R. RUMMEL, "SOCIAL TIME AND INTERNATIONAL RELATIONS," IN LOCATIONAL APPROACHES TO POWER AND CONFLICT, EDS. K. COX, D. REYNOLDS AND S. ROKKAN (TORONTO: JOHN WILEY & SONS, 1974), P. 77.

15. HILTON, REVIEW, P. 33.

16. IBID., P. 34.

SELVES FURTHER.¹⁷ THUS, THEY ARE ABLE TO PERPETUATE THEIR OWN STATE OF AFFAIRS AND MAINTAIN THE STATUS QUO THROUGH PARTICIPATION IN THESE ACTIVITIES. THUS,

7. HIGH RANKING NATIONS SUPPORT THE CURRENT INTERNATIONAL ORDER.¹⁸

THEY SUPPORT THE CURRENT INTERNATIONAL ORDER IN ORDER TO SUSTAIN THEIR OWN POSITION IN THAT SYSTEM.

WITH THE FOLLOWING THEOREM STATUS-FIELD THEORY ADDS THE SIGN AND BEHAVIOUR PREDICTION DIMENSION WHICH SOCIAL-FIELD THEORY LACKS. THE COOPERATION THEOREM POSTULATES THE FOLLOWING RELATIONSHIP: "THE HIGHER THE JOINT RANK OF NATIONS I AND J THE MORE COOPERATIVE THEIR BEHAVIOUR."¹⁹ THE JOINT RANK REFERS TO THE INFLUENCE OF BOTH ECONOMIC DEVELOPMENT AND POWER ON TWO HIGH RANKING NATIONS MOTIVATING THEM TO ENGAGE IN MORE COOPERATIVE BEHAVIOUR WITH EACH OTHER THAN WOULD OTHERWISE OCCUR. BY ENGAGING IN THIS COOPERATIVE BEHAVIOUR, THE STATUS QUO IS MORE LIKELY TO BE MAINTAINED RATHER THAN THROUGH CONFLICT, A RELATIONSHIP INCLINED TO DESTROY AN EXISTING STATE OF AFFAIRS AND REPLACE IT BY ANOTHER LESS CONDUOIVE TO THE DESIRES OF HIGH STATUS NATIONS.

STATUS-FIELD THEORY FOCUSES ON THE INEQUALITY BETWEEN NATIONS, WHICH, ACCORDING TO GALTUNG, IS LIKELY TO RESULT IN CONFLICT. AXIOM 8 PROPOSES THE FRAMEWORK FOR THIS BY STATING THAT:

8. NATIONS EMPHASIZE THEIR DOMINANT STATUS AND THE OTHERS' SUBORDINATE STATUS IN INTERACTION.²⁰

17. J. GALTUNG, "A STRUCTURAL THEORY OF AGGRESSION," JOURNAL OF PEACE RESEARCH 2 (1974): 99-100.

18. HILTON, REVIEW, P. 34.

19. IBID.

20. IBID., P. 35.

THIS DISEQUILIBRIUM BETWEEN HOW THE NATION EXPECTS TO BE TREATED ON THE BASIS OF ITS HIGH STATUS, AND HOW IN FACT IT IS TREATED CAUSES THE NATION TO BE IN A STATE OF COGNITIVE DISSONANCE. THIS DISSONANCE OFTEN RESULTS FROM THE DIFFERENCES BETWEEN ASCRIBED (POWER) AND ACHIEVED (ECONOMIC DEVELOPMENT) STATUS. AS DISCUSSED IN THE PREVIOUS CHAPTER, THE STATUS IN DISEQUILIBRIUM DETERMINES THE BEHAVIOUR OF THE NATION. IF THE NATION IS HIGH ON ACHIEVEMENT STATUS, BUT HAS NOT RECEIVED THE RECOGNITION CONGRUENT TO THE POSITION, IT IS LIKELY TO ENGAGE IN CONFLICT BEHAVIOUR, WHILE A NATION WITH THE REVERSE STATUS, LOW ON ACHIEVEMENT AND HIGH ON ASCRIPTION, IS LIKELY TO TAKE INTRA-PUNATIVE MEASURES. THUS, THE MORE TWO NATIONS ARE STATUS INCONGRUENT, THE MORE LIKELY THEIR RELATIONSHIP WILL BE UNCERTAIN SINCE NEITHER IS CERTAIN OF WHAT TYPE OF BEHAVIOUR IS EXPECTED FROM THE OTHER.²¹

THE TYPE OF BEHAVIOUR EXCHANGED BETWEEN NATIONS WHICH ARE STATUS INCONGRUENT IS SUGGESTED BY AXIOM 9 AND ITS THEOREMS:

9. THE MORE SIMILAR IN ECONOMIC DEVELOPMENT STATUS, THE MORE NATIONS ARE MUTUALLY COOPERATIVE.²²

STATES POSSESSING SIMILAR WEALTH HAVE MORE TO GAIN BY COOPERATING, AS THEOREM 6 INDICATES. THEOREM 7 STATES THAT TWO STATUS INCONGRUENT NATIONS WILL HAVE STATUS-DEPENDENT CONFLICT BEHAVIOUR. THUS LESS CONFLICT IS EXPECTED BETWEEN CENTRE-CENTRE (ECONOMICALLY DEVELOPED) NATIONS THAN BETWEEN PERIPHERY-PERIPHERY (ECONOMICALLY UNDERDEVELOPED) NATIONS, AND MORE CONFLICT BETWEEN CENTRE-PERIPHERY NATIONS. THESE RELATIONSHIPS ARE DISCUSSED IN MORE DETAIL IN THEOREMS 8 AND 9, THE FORMER CONCERNING THE RELATIONSHIP BETWEEN ECONOMICALLY DEVELOPED

21. GALTUNG, "AGGRESSION," P. 92.

22. HILTON, REVIEW, P. 36.

NATIONS, THE LATTER REPRESENTING ECONOMICALLY UNDERDEVELOPED NATIONS. BOTH THEOREMS STATE THAT THE CONFLICT BEHAVIOUR BETWEEN NATIONS IS DEPENDENT UPON THEIR DISTANCES ON BOTH DIMENSIONS. THE DIFFERENCES OCCUR IN THE SIGN PREDICTION. IN THEOREM 8, IF NATIONS ARE NOT SIMILAR ON THE ECONOMIC DEVELOPMENT DIMENSION, BUT ARE ON THE POWER DIMENSION, CONFLICT IS LIKELY TO OCCUR. THE OPPOSITE OCCURS FOR ECONOMICALLY UNDERDEVELOPED NATIONS WHERE BEHAVIOUR IS A FUNCTION OF THE LEVEL OF ECONOMIC DEVELOPMENT.

BEHAVIOUR, HOWEVER, IS NOT AN EITHER/OR PROPOSITION. A NATION MAY ENGAGE IN EITHER COOPERATION OR CONFLICT, OR IT MAY ENGAGE IN BOTH COOPERATIVE AND CONFLICTFUL ACTS WITH ITS TARGETS. THIS TYPE OF INTERACTION IS ALSO RELATED TO THE ATTRIBUTE DISTANCE BETWEEN NATIONS. TWO ADDITIONAL THEOREMS, 10 AND 11 PROPOSE TO TAP THIS MIX OF INTERACTIONS. ONCE AGAIN IT IS ASSUMED THAT THIS STATUS ORIENTED BEHAVIOUR DIFFERS FOR ECONOMICALLY DEVELOPED AND UNDERDEVELOPED NATIONS.

THE ECONOMICALLY DEVELOPED STATUS BEHAVIOUR THEOREM (10) STATES THAT "THE STATUS DEPENDENT COOPERATION AND CONFLICT BEHAVIOUR OF ECONOMICALLY DEVELOPED NATIONS TO OTHERS IS A FUNCTION OF THEIR POWER INCONGRUENCE."²³ SINCE THESE NATIONS HAVE RELATIVE ECONOMIC PARITY, THE EXTENT TO WHICH THEY USE THEIR POWER BECOMES A CRUCIAL MATTER IN THEIR BEHAVIOUR. ON THE OTHER HAND, THE STATUS BEHAVIOUR FOR ECONOMICALLY UNDERDEVELOPED NATIONS, THEOREM 11, STATES THAT BEHAVIOUR IS A FUNCTION OF ECONOMIC DEVELOPMENT INCONGRUENCE. SINCE ECONOMIC DEVELOPMENT IS ACHIEVED AS COMPARED TO POWER, IT IS KNOWN FROM THEOREM 4 THAT UNDER-

23. *IBID.*, P. 37.

DEVELOPED NATIONS ARE CONCERNED WITH INCREASING THEIR STATUS ON DEVELOPMENT BY WHATEVER MEANS ARE NECESSARY. IF THE MEANS TO ATTAIN THIS GOAL ARE BLOCKED, CONFLICT MAY BE THEIR LAST RESORT.

FINALLY, THEOREM 12 STATES THAT THE STATUS-DEPENDENT BEHAVIOUR AT TIME T IS LINEARLY DEPENDENT UPON THE STATUS DISTANCE VECTOR BETWEEN THE ACTOR AND TARGET AT THAT SAME TIME.

STATUS-FIELD THEORY IS AN EXPLICIT FRAMEWORK WITH AXIOMS AND THEOREMS DETERMINING THE EXTENT TO WHICH DYADIC BEHAVIOUR IS DEPENDENT UPON THE SOCIAL ATTRIBUTE DISTANCE BETWEEN THE SAME NATIONS. STATUS-FIELD THEORY IS POTENTIALLY FRUITFUL BECAUSE OF THE RICH SET OF HYPOTHESES DERIVED FROM THE AXIOMS AND THEOREMS. THE TESTS OF THESE HYPOTHESES HAVE BEEN DISCUSSED PREVIOUSLY. ALL OF THE TESTS CONCENTRATE ON NATIONS IN THE ENTIRE INTERNATIONAL SYSTEM WHERE ATTRIBUTE DISTANCES BETWEEN ACTOR AND TARGET MAY BE GREAT. THE BASIC ASSUMPTION IS THAT NATIONS VIEW THE GLOBAL SYSTEM AS THE MOST IMPORTANT AREA FOR INTERACTION, AND GAUGE THEIR BEHAVIOUR ACCORDINGLY. THIS SUGGESTS THAT REGIONALLY BASED BEHAVIOUR IS OF NO LESS OR GREATER IMPORTANCE THAN INTERNATIONAL BEHAVIOUR, BUT IS STUDIED COINCIDENT TO THIS GLOBAL INTERACTION.

REGIONAL ANALYSIS

KEAN AND MCGOWAN HAVE QUESTIONED THIS ASSUMPTION OF THE DOMINANCE OF GLOBAL BEHAVIOUR FOR NATIONS. THEY HAVE POINTED OUT THAT ALTHOUGH THE INTERNATIONAL ARENA IS IMPORTANT FOR INTERACTION, THERE MAY BE SOME PART OF BEHAVIOUR NOT TAPPED BY THE LARGE ATTRIBUTE DISTANCES STUDIED THUS FAR IN FIELD THEORY. THE AUTHORS FOUND THAT

FOR REGIONAL INVOLVEMENT TYPES OF FOREIGN POLICY BEHAVIOUR THE DIRECT PATH FROM THE ATTRIBUTES SIZE AND MODERNIZATION WAS SIGNIFICANT, WHILE THE HYPOTHEZIZED LINKS BETWEEN THE INTERVENING VARIABLES NEEDS AND RESOURCES EITHER WERE NOT RELATED TO REGIONAL INVOLVEMENT OR WERE RELATED NEGATIVELY. THEY CONCLUDED THAT "CLEARLY, VARIABLES OTHER THAN THE FOUR NATIONAL ATTRIBUTES ARE RESPONSIBLE FOR MOST OF THE VARIATION IN REGIONAL PATTERNS OF FOREIGN POLICY INVOLVEMENT."²⁴

THE AUTHORS REASONED THAT NATIONAL ATTRIBUTES MAY ACCOUNT FOR SOME OF THE VARIATION OF BEHAVIOUR IN THE INTERNATIONAL SYSTEM BUT THAT IN A DISTINCT REGIONAL SYSTEM WHERE NATIONS HAVE SIMILAR CHARACTERISTICS, ATTRIBUTES SUCH AS NEEDS, RESOURCES AND LEVEL OF MODERNIZATION DO NOT ACCOUNT FOR INTRA-REGIONAL BEHAVIOUR. THIS MAY BE PARTICULARLY TRUE IN REGIONS COMPOSED OF MANY SMALL STATES SINCE KEAN AND MCGOWAN'S SECOND MAJOR CONCLUSION WAS THAT THE MODEL DID NOT FIT SMALL AND LESS MODERN STATES. THESE RESULTS HAVE AN EXPLICIT BEARING ON THIS THESIS THROUGH THE PROVISION OF ANSWERS TO TWO RELATED QUESTIONS: FIRSTLY, WHEREAS PREVIOUS ANALYSES OF FIELD THEORY HAVE CONCENTRATED ON THE INTERNATIONAL SYSTEM INCLUDING DYADS WITH LARGE ATTRIBUTE DISTANCES, THIS THESIS EXAMINES THE POSSIBILITY OF DISCUSSING THE REGIONAL SUB-SYSTEM AS A DISTINCT FIELD FROM THAT INTERNATIONAL SYSTEM; SECONDLY, THIS THESIS ATTEMPTS TO DETERMINE WHETHER ATTRIBUTE DISTANCE, AS PROPOSED IN FIELD THEORY IS THE SOCIAL FORCE EXPLAINING THE VARIATION

²⁴. J. KEAN AND P. MCGOWAN, "NATIONAL ATTRIBUTES AND FOREIGN POLICY PARTICIPATION," IN SAGE INTERNATIONAL YEARBOOK OF FOREIGN POLICY STUDIES, VOL. 1, ED. P. MCGOWAN (BEVERLY HILLS: SAGE PUBLICATION, 1973), P. 241.

IN SUBSYSTEM STATES' FOREIGN POLICY BEHAVIOUR.

THUS, THIS THESIS POINTS OUT THAT UNTIL NOW ANALYSES OF SOCIAL AND STATUS-FIELD THEORY HAVE FOCUSED ON THE FOREIGN POLICY BEHAVIOUR OF DYADS WHICH INCLUDE THOSE WITH VERY LARGE DISTANCE SCORES, FOR EXAMPLE THE U.S. TO EGYPT, OR CHINA TO ALBANIA. IT IS IMPOSSIBLE TO RECOGNIZE FROM THESE RESULTS WHETHER OR NOT THE THEORY ACCOUNTS ONLY FOR BEHAVIOUR IN THESE DYADS WITH THE TARGETS DISTANT FROM THE ACTORS, OR IF THE THEORY ALSO ACCOUNTS FOR BEHAVIOUR IN MORE SYMMETRIC DYADS WHERE THE DISTANCE BETWEEN ACTOR AND TARGET IS SMALL. THAT IS, IT MAY BE THAT MORE OF THE UNEXPLAINED VARIANCE IN BEHAVIOUR ANALYSES OF THESE LARGE DISTANCES MAY BE ACCOUNTED FOR BY THOSE DYADS WITH SMALLER ATTRIBUTE DISTANCES.

IN ADDRESSING THE FIRST QUESTION, THE AXIOMS OF FIELD THEORY EMPHASIZE THE EXHAUSTIVENESS OF ATTRIBUTES AND BEHAVIOUR WITHIN THE STRUCTURE OF THEIR RESPECTIVE SPACES. AXIOMS 1 AND 2 DEFINE INTERNATIONAL RELATIONS AS A FIELD COMPRISED OF A EUCLIDEAN ATTRIBUTE SPACE FOR ALL NATIONS' ATTRIBUTES AND A EUCLIDEAN BEHAVIOUR SPACE DEFINING ALL NATIONS' INTERACTIONS, THUS NOT STIPULATING ANY ARENA FOR NATION INCLUSION IN THE FIELD. THIS THESIS, THEN ASSUMES THAT A FIELD MAY CONSIST OF ANY SYSTEM DEFINED BY NATIONS AND THEIR INTERACTIONS, AND WHICH MAY BE DEMONSTRATED AS A RELEVANT SYSTEM TO THE PARTICIPANTS. THIS IS NOT TO SUGGEST THAT THE INTERNATIONAL SYSTEM IS NOT A SIGNIFICANT ARENA FOR INTERACTION TO THESE ACTORS, BUT THAT,

... APART FROM BEING PART OF THE GLOBAL SYSTEM, THEY (THE NATIONS) MAY BE MEMBERS OF THE DOMINANT SYSTEM AND ONE OR MORE SUBORDINATE SYSTEMS. DIFFERENT ACTIONS AND DECISIONS DERIVE

FROM DIFFERENT ASSOCIATIONS. IT IS USEFUL TO
SEPARATE AND CORRELATE POLICY ACTS WITH
SPECIFIC MEMBER ROLES.²⁵

THE REGION PROVIDES AN ALTERNATE SPHERE FOR NATIONAL INTERACTION WITH
NATIONS OFTEN MORE SIMILAR IN ATTRIBUTE DISTANCES THAN NATIONS OUTSIDE
THE REGION.

VIEWED IN THESE TERMS, THE LITERATURE ON REGIONS STRONGLY
SUGGESTS THAT NATIONS PERCEIVE THE REGIONAL SYSTEM AS AN IMPORTANT
SPHERE OF INTERACTION. THE BASIC REASON FOR THIS PERCEPTION IS THAT
CERTAIN ISSUES ARE RELEVANT ONLY TO NATIONS IN REGIONS, WHILE SOME
GLOBAL ISSUES HAVE LITTLE RELEVANCE TO THEIR FOREIGN POLICY RELATIONS.
THERE ARE SPECIAL INTERESTS WHICH ARE GERMANE TO NATIONS WITHIN A
CERTAIN LOCATION, SUCH AS A BORDER DISPUTE OR A COOPERATIVE AGREEMENT
FOR HYDRO-ELECTRIC POWER, WHILE OTHER ISSUES OUTSIDE THEIR REGION,
SUCH AS THE PALESTINE LIBERATION ORGANIZATION AND ISRAEL ARE NOT
CONSIDERED TO BE AS IMPORTANT. THAT IS,

... WHILE THE SPECIFIC ISSUES AND MIXTURE BETWEEN
REGIONAL AND GLOBAL CONCERNS WILL VARY FROM ONE
SUBSYSTEM TO THE NEXT (YOUNG, 1969:339), THE
CONTEMPORARY INTERNATIONAL SYSTEM IS REGIONAL
SUBSYSTEM DOMINANT BECAUSE, TO MOST ACTORS,
REGIONAL ROLES AND PROBLEMS ARE OF CONSIDERABLY
GREATER IMPORTANCE THAN SYSTEMWIDE ISSUES.²⁶

REGIONAL NATIONS HAVE A CERTAIN AFFINITY AND GEOGRAPHICAL
PROXIMITY WHICH INFLUENCES BOTH THEIR COOPERATIVE AND CONFLICTFUL

25. M. BRECHER, THE NEW SYSTEM OF SMALL STATES: A POLITICAL
ANALYSIS (LONDON: OXFORD UNIVERSITY PRESS, 1963), P. 17.

26. W. THOMPSON, "THE REGIONAL SUBSYSTEM: A CONCEPTUAL
EXPLICATION AND A PROPOSITIONAL INVENTORY," INTERNATIONAL STUDIES
QUARTERLY 17 (MARCH 1973): 111.

BEHAVIOUR TOWARDS EACH OTHER. NATIONS ARE MORE LIKELY TO SOLVE PROBLEMS OF MUTUAL INTEREST BY TACKLING THEM IN A REGION. EACH NATION ALONE MAY BE TOO SMALL ECONOMICALLY TO POSSESS THE REQUIRED RESOURCES TO DEVELOP, AND POLITICALLY TOO WEAK TO WITHSTAND EXTERNAL PRESSURE FROM AGGRESSIVE STATES WITHOUT INCURRING GREAT COSTS. IN TERMS OF CONFLICT BETWEEN NATIONS WITHIN THE REGION, OTHERS MAY ATTEMPT TO INTERVENE IN ORDER TO SETTLE THE DISPUTE BEFORE EXTRAREGIONAL ASSISTANCE COMES BETWEEN THE CONFLICTING GROUPS. IN CASES OF EXTERNAL INTERVENTION IN A COUNTRY, NATIONS MAY ASSIST EACH OTHER. MOREOVER, REGIONAL GROUPS MAY PROVIDE AN EFFECTIVE FORCE FOR PROJECTING THEIR OWN INTEREST WHERE IT IS NECESSARY ON ISSUES EXTERNAL TO THEIR REGION. IN INTERNATIONAL BODIES, SUCH AS THE UNITED NATIONS, THEY MAY PRESS COLLECTIVELY FOR CERTAIN CHANGES OR EXPRESS CERTAIN OPINIONS SUCH AS AFRICAN STATES INSISTING UPON ACTION AGAINST RACISM IN SOUTH AFRICA. THUS, NOT ONLY HAS

... REGIONALISM ... (COME) TO BE SEEN BY POLITICAL LEADERS AS A PANACEA FOR SEVERAL KINDS OF POLITICAL DIFFICULTY: ECONOMIC DEVELOPMENT, WEAKNESS IN POWER AND PRESTIGE IN A WORLD DOMINATED BY SUPERPOWERS AND INTRAREGIONAL CONFLICT,²⁷

BUT "THERE IS, ... , A LONG-TERM STRUCTURAL TREND TOWARDS INTERNATIONAL FRAGMENTATION - A BREAKDOWN INTO SUBSYSTEMS."²⁸ AS REGIONAL GROUPINGS OF NATIONS REALIZE THEY HAVE A STRONGER VOICE AS A COLLECTIVITY THAN THEY DO AS INDIVIDUALS, THEY ARE MORE CAPABLE OF TAKING STEPS TO SOLVE

27. M. BANKS, "SYSTEMS ANALYSIS AND THE STUDY OF REGIONS," ISQ 13 (DECEMBER 1969): 345.

28. J. DOMINGUEZ, "MICE THAT DO NOT ROAR," INTERNATIONAL ORGANIZATION 25 (1971): 197-8.

THEIR PROBLEMS.

A DEMONSTRATION OF THE IMPORTANCE OF THE REGIONAL SYSTEM AS A RELEVANT SPHERE TO THE PARTICIPANTS IS MANIFESTED IN DYADS EVIDENCING TARGET SALIENCE. THAT IS, THE ACTORS REGARD THEIR TARGETS AS IMPORTANT NATIONS WITH WHICH TO INTERACT. THIS TARGET SALIENCE OCCURS PRIMARILY IN THE GEOGRAPHICAL REGIONS IN WHICH ACTORS AND TARGETS ARE LOCATED. THUS, IT IS POSSIBLE TO STUDY THE INTERACTIONS BETWEEN THESE NATIONS. ALTHOUGH THESE INTERACTIONS MAY NOT BE ON A GRAND SCALE SUCH AS WAR OR SUPPLYING MILITARY AID, TO THE NATIONS INVOLVED THEIR ACTIONS CONSTITUTE IMPORTANT EVENTS WITH TARGETS SUBSTANTIAL ENOUGH TO WARRANT THEIR INITIAL ATTENTION.

SINCE INTERACTIONS BETWEEN NATIONS AT THE SUBORDINATE LEVEL ARE IMPORTANT, IT IS WORTHWHILE TO EXAMINE WHETHER THE SAME FACTORS WHICH EXIST IN THE INTERNATIONAL SYSTEM ALSO INFLUENCE REGIONAL FOREIGN POLICY BEHAVIOUR. THAT IS, DO THE ASSUMPTIONS AND THEOREMS OF SOCIAL AND STATUS-FIELD THEORY ENDORE FOR THE RELATIVELY SMALL DISTANCES BETWEEN NATIONS AT THE REGIONAL LEVEL.²⁹ FROM ANALYSTS SUCH AS KEAN AND MCGOWAN, EAST AND GALTUNG, IT MAY BE SEEN THAT THE THEORIES TESTED DO NOT DISCRIMINATE BETWEEN NATIONS WHICH HAVE SMALL DIFFERENTIALS ON ATTRIBUTE DIMENSIONS AND THOSE WITH LARGE DIFFERENTIALS. THE CONCLUSIONS DRAWN ARE THAT THE ATTRIBUTE DIFFERENCES DO NOT EXPLAIN ANY VARIATION IN BEHAVIOUR, OR FURTHER, AS IN THE CASE OF EAST AND

29. THESE REGIONAL DISTANCES ARE CONSIDERED TO BE "RELATIVELY SMALL" RELATIVE TO MUCH LARGER DISTANCES IN THE INTERNATIONAL SYSTEM. AS WILL BE SEEN, THEIR "RELATIVELY SMALL DISTANCES" VIEWED FROM THE REGIONAL PERSPECTIVE MAY NOT BE SO SMALL IN COMPARISON TO OTHER DISTANCES WITHIN THE REGION.

GALTUNG, THAT THESE SMALL NATIONS HAVE LITTLE OR NO FOREIGN POLICY INTERACTIONS. HOWEVER, ACCORDING TO FIELD THEORY, WHERE ATTRIBUTE DISTANCES DO EXIST, THEIR DISTANCES INFLUENCE FOREIGN POLICY BEHAVIOUR. IT MAY BE ARGUED THAT NO TWO NATIONS ARE EXACTLY ALIKE; THEREFORE, SOME AMOUNT OF DISTANCE DOES EXIST BETWEEN NATIONS. THE AIM OF THIS THESIS IS TO DETERMINE WHETHER SOCIAL AND STATUS-FIELD THEORY, FORMALIZED FOR THE GLOBAL SYSTEM WHERE DISPARITIES BETWEEN NATIONS ARE LARGE, MAY ALSO BE APPLIED AND FOUND USEFUL IN THE REGIONAL SYSTEM WHERE THE MAGNITUDE OF THE DISTANCES BETWEEN NATIONS ARE RELATIVELY SMALLER, THAT IS, WHERE THE NATIONS ARE MORE SYMMETRIC THAN IN THE INTERNATIONAL SYSTEM. A SECOND ALTERATION UNDERLYING THIS ANALYSIS IS THAT WHEN NATIONS DO ENGAGE IN FOREIGN POLICY BEHAVIOUR, THEN THIS BEHAVIOUR MAY BE EXPLAINED IN A FASHION SIMILAR TO THAT OF LARGE NATIONS IN THE GLOBAL SYSTEM.

THUS, NOT ONLY IS THERE A SPECIFIABLE ATTRIBUTE DISTANCE BETWEEN REGIONAL NATIONS, BUT THEY ENGAGE IN FOREIGN POLICY BEHAVIOUR WITH OTHER NATIONS IN THE REGION. THIS THESIS TESTS WHETHER PATTERNS IN BEHAVIOUR VARIATION ARE A FUNCTION OF THESE ATTRIBUTE DISTANCES. HOWEVER, BEFORE THE THEORY MAY BE TESTED AT THIS REGIONAL LEVEL, THE DIFFERENCES BETWEEN THE STATUS OF NATIONS IN REGIONS MUST BE EXAMINED IN MORE DETAIL.

SINCE DIFFERENCES EXIST IN THE ATTRIBUTE DIFFERENCE BETWEEN NATIONS IN A REGION, IT IS ASSUMED THAT THEY STILL MAY BE ARRANGED HIERARCHICALLY. THE DIFFERENCE IN THE RANKING FROM THAT OF THE INTERNATIONAL SYSTEM IS IN THE DEGREE OF DISTANCE BETWEEN THE STATES. IN A REGION WHERE NATIONS TEND TO BE MORE SIMILAR THAN DIFFERENT IN

COMPARISON WITH NATIONS ON THE INTERNATIONAL LEVEL, THEIR DIFFERENT ATTRIBUTE DISTANCES WILL BE RELATIVELY SMALL. NATIONS STILL RANGE FROM THOSE HIGH ON THE ATTRIBUTES TO THOSE LOW. SOME NATIONS WILL BE MORE ADVANCED DUE TO GEOGRAPHICAL LOCATION IN THE REGION, FOR EXAMPLE, NATIONS IN TEMPERATE ZONES, AND THE DISTRIBUTION OF MINERAL RESOURCES. POLITICAL BOUNDARIES ARE NOT DRAWN TO "SHARE THE WEALTH" BUT ARE DUE TO POLITICAL CHARACTERISTICS, SUCH AS CONQUEST AND NEGOTIATION, AND CORRESPOND WITH GEOGRAPHICAL CONSIDERATIONS, SUCH AS RIVERS AND MOUNTAIN BARRIERS. THESE ATTRIBUTE DIFFERENCES WILL INFLUENCE FOREIGN POLICY BEHAVIOUR TO THE EXTENT THAT THE

... SUBSYSTEM REPLICATES THE HIERARCHICAL PATTERN OF THE INTERNATIONAL SYSTEM SO THAT MOST COUNTRIES ... ARE ENGAGED IN SUPERORDINATE AND SUBORDINATE RELATIONSHIPS WHICH STRONGLY SHAPE THE SCOPE AND DOMAIN OF THEIR FOREIGN POLICY.³⁰

THAT IS, DEPENDING ON A NATIONS' POSITION IN THE REGIONAL HIERARCHY AND THE DISTANCE BETWEEN NATIONS IN THIS ARRANGEMENT, NATIONS' PATTERNS OF INTERACTION OR BEHAVIOUR WILL LIKEWISE VARY.

WITH NATIONS RANKED IN A STRATIFIED SYSTEM FROM TOPDOG TO UNDERDOG IN THE REGIONAL SYSTEM, ASSUMPTIONS SUCH AS "THE SOCIAL CENTRE OCCUPIES POSITIONS THAT ARE SOCIALLY REWARDED, AND THE SOCIAL PERIPHERY POSITIONS THAT ARE LESS REWARDED AND EVEN REJECTED"³¹ ARE APPLICABLE TO THE REGIONAL SUBSYSTEM. BEHAVIOUR ASSUMPTIONS ARE ALSO MAINTAINED, SUCH AS: STATUS BEHAVIOUR IS DIRECTED TOWARD HIGHER RANKING NATIONS, AND THESE HIGHER RANKING NATIONS SUPPORT THE CURRENT

30. DOMINGUEZ, "MICE," p. 208.

31. J. GALTUNG, "FOREIGN POLICY OPINION AS A FUNCTION OF SOCIAL POSITION," PEACE RESEARCH SOCIETY, PAPERS (1964): 207.

INTERNATIONAL ORDER. IN ORDER TO ENSURE THIS STATUS QUO, THESE NATIONS ENGAGE IN MORE COOPERATIVE BEHAVIOUR WITH EACH OTHER. FOR NATIONS WHICH ARE MORE DISTANT IN ATTRIBUTES, THERE IS LESS NEED FOR COOPERATION, AND PERHAPS MORE REASON FOR CONFLICT UNDER THE MOBILITY THEOREMS WHERE NATIONS DESIRE TO INCREASE THEIR STATUS, BUT ARE KEPT AT THIS LOWER RANK BY THOSE ABOVE THEM. THUS, CONFLICT BETWEEN STATUS INCONGRUENT NATIONS MAY ARISE DUE TO THIS COGNITIVE DISBONANCE.³²

THUS, NATIONS MAY STILL BE GROUPED ACCORDING TO CERTAIN CHARACTERISTICS. CORE NATIONS, OR THOSE IN THE CENTRE WILL HAVE HIGH VALUES ON THE TWO DIMENSIONS, AND THEREFORE A HIGH STATUS, WHILE NATIONS IN THE PERIPHERY OF A REGION WILL HAVE A LOWER RELATIVE STATUS. THE BEHAVIOUR EXCHANGED BETWEEN DIFFERENT COMBINATIONS OF THESE NATIONS IS A FUNCTION OF THE RELATIVE ATTRIBUTE DISTANCES WITHIN A DYAD.

FINALLY, A DEFINITION OF REGION IS REQUIRED IN ORDER TO DETERMINE WHICH NATIONS CONSTITUTE A REGION. IN THE INTERNATIONAL POLITICS OF REGIONS, L. CANTORI AND S. SPIEGEL DEFINE REGIONS AS "THE AREAS OF THE WORLD WHICH CONTAIN GEOGRAPHICALLY PROXIMATE STATES FORMING IN FOREIGN AFFAIRS, MUTUALLY INTERRELATED UNITS."³³ IN FURTHER IDENTIFYING REGIONS, THE AUTHORS STATE:

³². REFER TO THE AXIOMS AND THEOREMS DISCUSSED EARLIER IN THIS CHAPTER FOR A FULLER DISCUSSION OF THESE POINTS.

³³. L. CANTORI AND S. SPIEGEL, THE INTERNATIONAL POLITICS OF REGIONS (NEW JERSEY: PRENTICE-HALL INC., 1970), P. 4.

- (1) EVERY NATION-STATE ... IS A MEMBER OF ONLY ONE SUBORDINATE SYSTEM ...
- (2) ALL SUBORDINATE SYSTEMS ARE GEOGRAPHICALLY DELINEATED ... BY REFERENCE TO GEOGRAPHICAL CONSIDERATIONS, BUT SOCIAL, ECONOMIC, POLITICAL, AND ORGANIZATIONAL FACTORS ARE ALSO RELEVANT ...
- (4) WITHIN THE BOUNDARIES OF THE SUBORDINATE SYSTEM, THERE IS A COMPLEX INTERACTION BETWEEN POLITICAL, SOCIAL AND GEOGRAPHICAL FACTORS ... (AND)
- (8) ... A SUBORDINATE SYSTEM CONSISTS OF ONE STATE, OR TWO OR MORE PROXIMATE AND INTERACTING STATES WHICH HAVE SOME COMMON ETHNIC, LINGUISTIC, CULTURAL AND HISTORICAL BONDS, AND WHOSE SENSE OF IDENTITY IS SOMETIMES INCREASED BY THE ACTIONS AND ATTITUDES OF STATES EXTERNAL TO THE SYSTEM.³⁴

ANY OF THE DEFINITIONS OF REGIONS BASED ON DEFENCE AND ECONOMIC ORGANIZATION DO NOT CORRESPOND TO THE CRITERIA PROPOSED BY CANTORI AND SPIEGEL. NATIONS, IN PARTICULAR GLOBAL GREAT POWERS, ARE OFTEN MEMBERS OF MORE THAN ONE ORGANIZATION, AND THE REGIONS ARE USUALLY EXTRANEUS TO MANY SHARED CHARACTERISTICS. RATHER THAN BEING HOMOGENEOUS GROUPS, THEY TEND TO BE A MIXTURE OF SOCIAL AND POLITICAL DIVERSITIES WITH ONLY A COMMON INTEREST BINDING THEM.

FURTHERMORE, DIFFERENT REGIONS RESULT FROM DIFFERENT DEFINITIONS. A CASE IN POINT IS BRUCE RUSSETT'S ANALYSIS OF REGIONS IN INTERNATIONAL REGIONS AND THE INTERNATIONAL SYSTEM. RUSSETT'S SUBJECTIVE DEFINITION OF REGION EMPLOYED A NUMBER OF VARIABLES UNDER FIVE HEADINGS: SOCIAL-CULTURAL HOMOGENEITY, SHARED POLITICAL ATTRIBUTES, POLITICAL INTER-

34. *IBID.*, PP. 5-6.

DEPENDENCE, ECONOMIC INTERDEPENDENCE, AND GEOGRAPHICAL CONTIGUITY.³⁵

USING FACTOR ANALYSIS TO CONDENSE THE LARGE BODY OF DATA INTO DIMENSIONS WITH WHICH TO CHARACTERIZE EACH REGION, RUSSETT OBTAINED FIVE DIFFERENT SETS OF REGIONS CORRESPONDING TO THESE HEADINGS. IN A FURTHER STUDY, RUSSETT ENDEAVOURED TO LINK GEOGRAPHIC REGIONS WITH ONE SPECIFIC VARIABLE - ECONOMIC ACTIVITY. HE ATTEMPTED TO RELATE REGIONAL TRADING PATTERNS TO GEOGRAPHICAL REGIONS.³⁶ AFTER FACTOR ANALYSING VARIABLES RELATING TO TRADE, RUSSETT FOUND NINE REGIONS. HOWEVER, THE GREAT POWER NATIONS APPEARED IN MORE THAN ONE REGION.

CANTORI AND SPIEGEL'S SECOND PROPOSITION SEEMS ON THE FACE OF IT TO BE A PRIMARY INDICATOR OF REGIONS. NATIONS WHICH ARE GEOGRAPHICALLY PROXIMATE TEND TO HAVE SIMILAR CLIMATES, TOPOGRAPHY, CULTURE, RELIGIONS, AND POLITICAL AND ECONOMIC ORGANIZATIONS. IN STUDYING TRANSACTION FLOWS, STEVEN BRAHMS EMPLOYED THIS GEOGRAPHIC REGIONAL FOCUS "BECAUSE OF THE VERY STRONG INFLUENCE OF GEOGRAPHICAL PROXIMITY ON THE MAGNITUDE OF TRANSACTION FLOWS BETWEEN NATIONS."³⁷ BRAHMS' STUDY DEMONSTRATED THAT THE GOALS OF NATIONS MAY BE DESCRIBED BETTER WHEN REGIONAL BOUNDARIES ARE DEFINED, AND THAT NATIONS PERCEIVE REGIONS TO BE IDENTIFIABLE.

WHEN USING GEOGRAPHY TO DEFINE REGION, CONSENSUS AMONG AUTHORS

35. B. RUSSETT, INTERNATIONAL REGIONS AND INTERNATIONAL SYSTEMS: A STUDY IN POLITICAL ECOLOGY (CHICAGO: RAND McNALLY, 1967), CHAPS. 2-10.

36. B. RUSSETT, "REGIONAL TRADING PATTERNS, 1938-1963," ISQ 12 (DECEMBER 1968):365.

37. S. BRAHMS, "A NOTE ON THE COSMOPOLITANISM OF WORLD REGIONS," JPR 5 (1968):88.

GENERALLY EXISTS AS TO WHICH NATIONS CONSTITUTE A REGION. A COMBINATION OF REGIONS FROM THE WORK OF THREE AUTHORS, BRAHMS,³⁸ KOHN AND DRUMMOND,³⁹ AND COHEN⁴⁰ IS USED. THESE REGIONS ARE: AMERICA, WESTERN EUROPE, EASTERN EUROPE AND THE SOVIET UNION, THE MIDDLE EAST AND THE MAGHREB, AFRICA (SOUTH OF THE SAHARA), ASIA, AND OFFSHORE ASIA AND OCEANIA.

DIFFERENCES OF OPINION MAY EXIST ON THE VALIDITY OF THESE REGIONS AND THEIR MEMBERS SINCE, GENERALLY, NATIONS IN A GEOGRAPHICAL REGION ALSO HAVE RELATIVELY SIMILAR ATTRIBUTES, SUCH AS THE LEVEL OF ECONOMIC DEVELOPMENT OR THE CULTURAL COMPOSITION OF THE NATIONS. HOWEVER, KEEPING IN MIND THE LATTER PART OF CANTORI AND SPIEGEL'S SECOND PROPOSITION, REGIONS HAVE TO BE CONSIDERED ON THE BASIS OF SOME SIMILARITY IN ATTRIBUTES. FOR EXAMPLE, THE MIDDLE EAST IS SEPARATED FROM THE REST OF AFRICA BECAUSE OF THE BASIC DIFFERENCES IN POLITICAL, CULTURAL, ECONOMIC AND SOCIAL MORES.

BLACK AFRICA IS THE REGIONAL SYSTEM CHOSEN FOR THIS STUDY. THE NATIONS IN THIS REGION HAVE A PREDOMINANTLY BLACK POPULATION MAJORITY AND BLACK RULE. (TABLE 1) FOR THIS REASON SOUTH AFRICA AND RHODESIA, GEOGRAPHICALLY LOCATED IN THE REGION, HAVE BEEN OMITTED. THE NATIONS IN THE REGION ARE CONSIDERED TO BE SMALL IN GLOBAL COMPARISONS IN

38. *IBID.*

39. C. KOHN AND D. DRUMMOND, THE WORLD TODAY (TORONTO: MCGRAW-HILL PUBLISHER, 1966), CHAPTER HEADINGS.

40. S.B. COHEN, "THE CONTEMPORARY GEOPOLITICAL SETTING: A PROPOSAL FOR GLOBAL GEOPOLITICAL EQUILIBRIUM," IN ESSAYS IN POLITICAL GEOGRAPHY, ED. C.A. FISHER (LONDON: METHUEN & CO., 1968), P. 69.

TABLE 1

THE SUBORDINATE SYSTEM - AFRICA (SOUTH OF THE SAHARA)

BLACK AFRICA

BOTSWANA	LIBERIA
BURUNDI	LIBYA
CAMEROON	MALI
CENTRAL AFRICAN REPUBLIC	MAURITANIA
CHAD	NIGER
CONGO	NIGERIA
DAHOMEY	RWANDA
ETHIOPIA	SENEGAL
GABON	SIERRA LEONE
GAMBIA	SOMALIA
GHANA	SUDAN
GUINEA	TANZANIA
IVORY COAST	TOGO
KENYA	UGANDA
LESOTHO	UPPER VOLTA
	ZAIRE
	ZAMBIA

TERMS OF MEAN ANNUAL INCOME, MILITARY WEAKNESS, AND POPULATION, BUT THEY DO DIFFER FROM ONE ANOTHER IN THE VALUES THEY POSSESS ON THESE ATTRIBUTES.

SCHOLARS HAVE INDICATED THAT REGIONAL FOREIGN POLICY BEHAVIOUR DOES OCCUR BETWEEN THE AFRICAN NATIONS. IN PARTICULAR, RAYMOND COPSON EXAMINED THE CONFLICT PATTERNS OF AFRICAN NATIONS WITHIN THE REGIONS OF WEST AFRICA, NORTH AFRICA, THE HORN, EAST AND CENTRAL AFRICA AND SOUTH AFRICA. THE CONFLICT PATTERNS IN EACH REGION WERE GAUGED IN TERMS OF THE NUMBER OF EVENTS EXCHANGED BETWEEN NATIONS TO DETERMINE WHETHER THE AMOUNT OF CONFLICT IN THE REGION HAS INCREASED OR DECREASED. COPSON SHOWED THAT THESE STATES DO NOT LIMIT THEIR BEHAVIOUR TO NATIONS WITHIN THEIR IMMEDIATE NEIGHBOURHOOD, BUT ALSO EXCHANGE INTERACTIONS AT THE LARGER BLACK AFRICAN REGIONAL LEVEL.⁴¹

IT MAY ALSO BE ASSUMED THAT ALTHOUGH COPSON EXAMINED ONLY CONFLICTIVE BEHAVIOUR, THE NATIONS ALSO ENGAGE IN COOPERATIVE ACTS. THESE RESULTS TEND TO REFUTE GALTUNG'S ASSUMPTION THAT SMALL UNDERDEVELOPED NATIONS, THE PERIPHERY, TEND NOT TO INTERACT WITH EACH OTHER.⁴² THUS, NOT ONLY ARE THE BLACK AFRICAN NATIONS SMALL IN A GLOBAL PERSPECTIVE, BUT WITHIN THE REGION THEY HAVE ATTRIBUTE DISTANCE DIFFERENCES AND EVIDENCE TARGET SALIENCE.

THUS, WITH A DEFINITION OF GEOGRAPHICALLY PROXIMATE NATIONS,

41. R. COPSON, "FOREIGN POLICY CONFLICT AMONG AFRICAN STATES, 1964-1969," IN SAGE INTERNATIONAL YEARBOOK OF FOREIGN POLICY STUDIES, VOL. 1, ED. P. MCGOWAN (BEVERLY HILLS: SAGE PUBLICATION, 1973), P. 201.

42. GALTUNG, "IMPERIALISM," P. 89.

THIS THESIS IS PREPARED TO EXAMINE THE DURABILITY OF BOTH SOCIAL AND STATUS-FIELD THEORY. THE DURABILITY IS TESTED ON TWO ASPECTS: THE UTILITY OF THE THEORIES IN EXPLAINING FOREIGN POLICY BEHAVIOUR, AND THEIR HEURISTIC VALUE IN TERMS OF THE ABILITY TO USE THEM OVER A WIDE OR NARROW RANGE OF ATTRIBUTE DISTANCES, NATIONS AND DATA. THIS THESIS TESTS THE THEORIES USING CONVENTIONS AS SIMILAR AS POSSIBLE TO PREVIOUS TESTS EMPLOYING THE SAME AXIOMS AND METHODS. IT FURTHER EXAMINES THE HEURISTIC VALUE OF THE THEORIES BY FOCUSING ON A RANGE OF NATIONS NOT TESTED PREVIOUSLY. WHEREAS NATIONS WITH WIDE MAGNITUDES IN ATTRIBUTE DISTANCES HAVE BEEN STUDIED, THIS THESIS TAKES A NARROWER PERSPECTIVE BY GAUGING THE FEASIBILITY OF SOCIAL AND STATUS-FIELD THEORY AT A RANGE WHERE THE MAGNITUDE OF ATTRIBUTE DIFFERENCES BETWEEN NATIONS IS VERY SMALL, IN THE REGIONAL SYSTEM. THE PAPER NOW MOVES TO A RESTATEMENT OF THE AXIOMS IN A MORE EXPLICIT FORM SUCH THAT THE HYPOTHESES APPLICABLE TO THIS BLACK AFRICAN REGION PERSPECTIVE MAY BE DERIVED AND TESTED.

CHAPTER 4

APPLIED FIELD THEORY IN A REGIONAL SYSTEM

THIS THESIS HAS DISCUSSED THE IMPLICATIONS OF CONCEPTS SUCH AS ATTRIBUTES AND FOREIGN POLICY BEHAVIOUR IN SOCIAL AND STATUS-FIELD THEORY. THIS CHAPTER MOVES TO AN EXAMINATION OF OPERATIONAL FORMS FOR TESTING HYPOTHESES RELATING THE CONCEPTS OF FIELD THEORY TO ACTUAL EVENTS IN THE REGIONAL SYSTEM OF BLACK AFRICA.

FOREIGN POLICY BEHAVIOUR

WHEN DEFINING FOREIGN POLICY BEHAVIOUR, A NUMBER OF CONSIDERATIONS MUST BE TAKEN INTO ACCOUNT. THESE INCLUDE A DISCUSSION OF THE FOREIGN POLICY ACTOR, THE TARGET AFFECTED BY THE FOREIGN POLICY ACT, AND THE TYPE OF BEHAVIOUR SENT FROM THE ACTOR TO THE TARGET. THE LATTER QUESTION FOCUSES ON THE TYPES OF BEHAVIOUR TO BE CONSIDERED IN A CONCEPTUALIZATION OF POLICY. CHARLES HERMANN DISCUSSED SUCH CLASSIFICATIONS AS STRATEGIC OR GRAND DESIGNS, GEOGRAPHICAL REGION/POLITICAL ENTITY, SKILLS AND RESOURCES, ACTION PROPERTIES, RELATIONAL ATTRIBUTES AND NATIONAL GOALS.¹ FIELD THEORY PROPOSES THAT A FINITE SET OF LINEARLY INDEPENDENT DIMENSIONS GENERATE BEHAVIOUR SPACE. IT POSITS

1. SEE C. HERMANN, "POLICY CLASSIFICATION," IN THE ANALYSIS OF INTERNATIONAL POLITICS, ED. J. ROSENAU, V. DAVIS AND M. EAST (NEW YORK: THE FREE PRESS, 1972), PP. 60-63 FOR A DESCRIPTION OF THESE CLASSIFICATIONS.

A RELATIONSHIP IN WHICH IT IS IMPERATIVE THAT THE TYPE OF BEHAVIOUR BETWEEN TWO STATES BE DISTINGUISHED FROM THAT OF OTHER STATES, AND THAT THE TARGET BE IDENTIFIED IN ORDER TO DETERMINE THE FORM OF BEHAVIOUR SENT FROM THE ACTOR. THE CONTENT OF THE DIMENSIONS IS TO BE OPERATIONALLY DETERMINED, RATHER THAN DEFINITIONALLY. THUS, HERMANN'S DEFINITION OF FOREIGN POLICY BEHAVIOUR IS ADOPTED FOR THIS THESIS:

FOREIGN POLICY CONSISTS OF THOSE DISCRETE OFFICIAL ACTIONS OF THE AUTHORITATIVE DECISION-MAKERS OF A NATION'S GOVERNMENT, OR THEIR AGENTS, WHICH ARE INTENDED BY THE DECISION-MAKERS TO INFLUENCE THE BEHAVIOUR OF INTERNATIONAL ACTORS EXTERNAL TO THEIR OWN POLITY.²

THE ACTS ARE DISCRETE BECAUSE OF THE NEED FOR AN OPERATIONAL CONCEPT WHICH MAY BE TESTED EMPIRICALLY, REQUIRING EVENTS WHICH MAY BE IDENTIFIED AND CODED WITH SUFFICIENT FREQUENCY TO PERMIT STATISTICAL ANALYSIS. MOREOVER, THE CATEGORIES MUST BE INDEPENDENT IN ORDER TO CAPITALIZE ON THE DIFFERENT TYPES OF FOREIGN POLICY ACTS. THE TERM DEPLOYED TO DENOTE THESE ACTS IS AN EVENT, DEFINED AS

... THE TERM THAT HAS BEEN COINED TO REFER TO WORDS AND DEEDS - I.E., VERBAL AND PHYSICAL ACTIONS AND REACTIONS - THAT INTERNATIONAL ACTORS (SUCH AS GOVERNMENTS, NATIONAL ELITES, INTERGOVERNMENTAL ORGANIZATIONS (IGO'S) AND NONGOVERNMENTAL INTERNATIONAL ORGANIZATIONS (NGO'S) DIRECT TOWARDS THEIR DOMESTIC AND EXTERNAL ENVIRONMENT.³

EACH EVENT LINKING A SUBJECT (ACTOR) AND AN OBJECT (TARGET) IS PART OF AN OVERALL PATTERN OF EVENTS IN THE SYSTEM OF FOREIGN POLICY INTERACTION, AND MAY BE USED IN ORDER TO UNDERTAKE THE COMPARATIVE ANALYSIS

2. *Ibid.*, p. 72.

3. P.M. BURGESS AND W. LAWTON, INDICATORS OF INTERNATIONAL BEHAVIOUR (BEVERLY HILLS: SAGE PUBLICATION, 1972), p. 6.

OF FOREIGN POLICY. ONE OF THE AIMS OF FOREIGN POLICY ANALYSTS IS TO CREATE TYPOLOGIES OF THESE EVENTS SO THAT THE BEHAVIOUR OF NATIONS MAY BE EASILY RECOGNIZED AS FITTING INTO SOME CLASSIFICATION.

CHARLES KEGLEY⁴ AND DON MUNTON⁵ HAVE SUGGESTED THREE POSSIBLE GROUPS OF TYPOLOGIES WHICH ARE APPLICABLE TO FOREIGN POLICY BEHAVIOUR STUDIES. KEGLEY SUGGESTED THAT MOST RESEARCHERS DEFINE FOREIGN POLICY BEHAVIOUR THROUGH DEFINITIONAL, AD HOC OR EMPIRICAL TYPOLOGIES,⁶ WHILE MUNTON SUGGESTED LEAVING THE EVENTS DATA IN NON-AGGREGATED FORM, IDENTIFYING MAJOR DIMENSIONS OF BEHAVIOUR, AND DEVELOPING A TYPOLOGY TO REGROUP EVENTS.⁷ BOTH OF THESE SETS OF TYPOLOGIES ARE NOT EXCLUSIVE, BUT RATHER MAY BE INTEGRATED INTO A GENERAL DISCUSSION OF FOREIGN POLICY BEHAVIOUR.

THE DEFINITIONAL TYPOLOGY "RESTS ON THE ASSUMPTION THAT CLASSES DEFINED REPRESENT CHARACTERISTICS WHICH CLUSTER EMPIRICALLY,"⁸ BUT ARE NOT EASILY VALIDATED, OFTEN CONTAIN NORMATIVE ASSUMPTIONS, LACK OPERATIONAL REFERENTS, AND FINALLY, BECAUSE OF THEIR USE OF COLLOQUIALISMS INVITE SEMANTIC CONFUSION.⁹ ON THE OTHER HAND, THE NON-AGGREGATED EVENTS DATA METHOD DOES NOT MANIPULATE THE EVENT TYPES ON THE ASSUMPTION THAT DISCRETE EVENT TYPES ARE IMPORTANT FOR DISCERNING PATTERNS OF

4. C. KEGLEY, A GENERAL EMPIRICAL TYPOLOGY OF FOREIGN POLICY BEHAVIOUR (BEVERLY HILLS: SAGE PUBLICATION, 1973).

5. D. MUNTON, "IN SEARCH OF THE 'FOREIGN' CONCEPT 'POLICY': CANADIAN INTERNATIONAL EVENT BEHAVIOUR IN A RELATIONAL MODEL," INTER-UNIVERSITY SEMINAR ON INTERNATIONAL RELATIONS (TORONTO: YORK UNIVERSITY, FEBRUARY 1974, MIMED).

6. KEGLEY, TYPOLGY, PP. 8-15.

7. MUNTON, "IN SEARCH," P. 5.

8. KEGLEY, TYPOLGY, P. 8.

9. IBID., P. 9.

BEHAVIOUR, WHEREAS BROADER CATEGORIES WOULD OVER-SIMPLIFY BEHAVIOUR. HOWEVER, THERE IS DIFFICULTY IN WORKING WITH SO MANY CATEGORIES AND CAREFULLY SCRUTINIZING EACH OF THEM.

BOTH KEGLEY'S AD HOC TYPOLOGIES AND MUNTON'S DIMENSIONING PROCEDURE ATTEMPT TO DEVISE A SET OF CATEGORIES FOR THE SYSTEMATIC OBSERVATION OF FOREIGN POLICY BEHAVIOUR OUTPUTS ON THE ASSUMPTION THAT DECISION-MAKERS THINK IN TERMS OF SUCH PATTERNS. WHILE KEGLEY SUGGESTED THAT THESE TYPOLOGIES MAY BE USED FOR ORGANIZING BEHAVIOUR INTO A FRAMEWORK,¹⁰ MUNTON USED THEM, THROUGH THE TECHNIQUE FOR IDENTIFYING UNDERLYING DIMENSIONS OF BEHAVIOUR OF FACTOR ANALYSIS. THE SPECIAL APPEAL OF THIS TECHNIQUE IS THAT IT TAKES A NUMBER OF VARIABLES AND REDUCES THEM TO A MORE MANAGEABLE SIZE. THESE NEW VARIABLES, OR DIMENSIONS, ARE INDEPENDENT OF EACH OTHER. WHAT BECOMES IMPORTANT, THEN, IS THE OVERALL PATTERNS OF BEHAVIOUR, STRESSING THE DIFFERENCE BETWEEN GROUPS RATHER THAN DISCRETE EVENTS. A NUMBER OF SCHOLARS HAVE EMPLOYED THIS TYPOLOGY. FOR EXAMPLE, THREE COMMON DIMENSIONS USED BY RUDOLPH RUMMEL ARE CONFLICT BEHAVIOUR, ADMINISTRATIVE BEHAVIOUR AND PRIVATE INTERNATIONAL RELATIONS.¹¹ STILL OTHERS HAVE PREFERRED TO FOCUS ON TWO DICHOTOMOUS DIMENSIONS. IN ONE PARTICULAR STUDY, SALMORE AND HERMANN¹² DISTINGUISHED BETWEEN VERBAL CO-OPERATION AND CONFLICT AND ACTION COOPERATION AND CONFLICT. MUNTON

10. *IBID.*, P. 10.

11. R. RUMMEL, "U.S. FOREIGN RELATIONS," IN PEACE, WAR AND NUMBERS, ED. B. RUSSETT (BEVERLY HILLS: SAGE PUBLICATION, 1972).

12. S. SALMORE AND C. HERMANN, "THE EFFECT OF SIZE, DEVELOPMENT AND ACCOUNTABILITY IN FOREIGN AFFAIRS," PEACE RESEARCH SOCIETY, PAPERS (1970).

HIMSELF REVISED THE WEIS ACTION SCHEME INTO 15 BROAD CATEGORIES BY COMBINING LOW-FREQUENCY BEHAVIOUR TYPES AND ELIMINATING SOME UNUSED ONES FOR EVENTS INITIATED BY CANADA. TWO MAJOR FACTORS EMERGED FROM THE ORTHOGONALLY ROTATED FACTOR ANALYSIS - PASSIVITY AND CONFLICT. A FURTHER ADVANTAGE TO FACTOR ANALYSIS FOR MUNTON WAS THE CALCULATION OF FACTOR SCORES FOR EACH NATION, WITH THE POSSIBILITY THEN OF RANKING NATIONS ON THESE DIMENSIONS.¹³

OTHER SCHOLARS HAVE PROCEEDED ONE STEP FURTHER IN ELIMINATING BEHAVIOUR CATEGORIES BY EXAMINING ONLY ONE TYPE OF EVENT, CONFLICT ACTIONS, AND FACTOR ANALYSING CONFLICT VARIABLES. THIS IS A STRATEGY ADOPTED BY RUDOLPH RUMMEL. RUMMEL DEFINED CONFLICT AS "A SITUATION IN WHICH TWO OR MORE PARTIES DIRECT THEIR ENERGIES AT EACH OTHER IN ORDER TO ACHIEVE GOALS THAT CAN ONLY BE GAINED AT EACH OTHER'S EXPENSE."¹⁴ HE PERFORMED FACTOR ANALYSIS ON A NUMBER OF VARIABLES AND EXTRACTED THREE FACTORS - WAR, DIPLOMATIC AND BELLIGERENCY. OTHER SCHOLARS TO USE THIS PROCEDURE INCLUDE J. WILKENFELD AND D. ZINNES,¹⁵ R. TANTER,¹⁶ L. HAZELWOOD,¹⁷ AND W. PHILLIPS.¹⁸

13. MUNTON, "IN SEARCH," P. 6.

14. R. RUMMEL, "DIMENSIONS OF CONFLICT BEHAVIOUR WITHIN AND BETWEEN NATIONS," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY CO. INC., 1973), P. 67.

15. J. WILKENFELD AND D. ZINNES, "A LINKAGE MODEL OF DOMESTIC CONFLICT BEHAVIOUR," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY COMPANY INC., 1973).

16. R. TANTER, "DIMENSIONS OF CONFLICT BEHAVIOUR WITHIN NATIONS, 1955-60," PEACE RESEARCH SOCIETY, PAPERS No. 3 (1965).

17. L.A. HAZELWOOD, "EXTERNALIZING SYSTEMIC STRESS," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY COMPANY INC., 1973).

18. W. PHILLIPS, "THE CONFLICT ENVIRONMENT OF NATIONS," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY COMPANY INC., 1973).

THE FINAL FOREIGN POLICY TYPOLOGY TAKES DISCRETE BEHAVIOUR TYPES, COMBINES THEM INTO BROADER BEHAVIOURAL CATEGORIES AND DEMONSTRATED EMPIRICALLY THAT THEY EXIST. THIS APPROACH INVOLVES CATEGORIZING BEHAVIOUR AND CREATING AN EMPIRICAL TYPOLOGY. AN EXAMPLE OF CATEGORIZING BEHAVIOUR WAS EXPLORED BY SALMORE AND MUNTON. THEY CONTENDED THAT A BETTER DISTINCTION BETWEEN THE TWO FACTORS COOPERATION AND CONFLICT SHOULD BE DRAWN RATHER THAN MERELY OVERSIMPLIFYING THE DATA. THE AUTHORS INITIALLY USED 22 GENERAL EVENT CATEGORIES AND DISAGGREGATED CERTAIN BEHAVIOUR TYPES WHICH HAD A GIVEN NUMBER OF EVENTS. THE RESULTING EVENT TYPES WERE SUBJECTED TO FACTOR ANALYSIS TO DETERMINE WHETHER THE CATEGORIES WERE HOMOGENEOUS. THE FINAL RESULT WAS 32 CATEGORIES WHICH, WHEN FACTORED, PRODUCED TWO UNROTATED FACTORS - INVERSE COMMITMENT AND COOPERATION CONFLICT. A THIRD FACTOR WITH NO HIGH LOADING VARIABLES AND SIMILAR TO THE SECOND FACTOR WAS ELIMINATED. ONCE THESE TWO FACTOR SOLUTIONS WERE PLOTTED ON A CARTESIAN GRAPH, SIX "MACRO" EVENT TYPES WERE DISCERNED - THREE CONFLICT - MILITARY CONFLICT ACTION, NON-MILITARY CONFLICT ACTION, VERBAL CONFLICT, AND THREE COOPERATIVE - PARTICIPATION, DIPLOMATIC EXCHANGE AND COOPERATIVE ACTION.¹⁹ IN TESTING THE APPLICABILITY OF THESE SIX CATEGORIES AND TWO DIMENSIONS, THE EVENTS WERE FACTORED FOR DIFFERENT TYPES OF NATION-STATES BASED ON ROSENAU'S GENOTYPE VARIABLES OF SIZE, DEVELOPMENT AND ACCOUNTABILITY. THE RESULTS FOR THE UNROTATED FACTOR PARALLELED THOSE OF INVERSE COMMITMENT AND COOPERATIVE CONFLICT, BUT DISCREPANCIES WERE FOUND WITHIN SMALL AND UNDERDEVELOPED

- 19. S. SALMORE AND D. MUNTON, "AN EMPIRICALLY BASED TYPOLOGY OF FOREIGN POLICY BEHAVIOUR," IN COMPARING FOREIGN POLICIES, ED. J. ROSENAU (TORONTO: JOHN WILEY & SONS LTD., 1974), P. 343.

COUNTRIES. COOPERATIVE ACTION WAS MUCH LESS HIGHLY CORRELATED ON THE FIRST FACTOR, BUT LOADED HIGH ON THE SECOND, AND MILITARY CONFLICT ACTION HAD A GENERALLY LOWER INTERCORRELATION.²⁰

C. KEGLEY HAS CRITICIZED THIS FACTOR ANALYSIS METHOD OF CREATING TYPOLOGIES BECAUSE OF THE NEED TO "EYEBALL" PATTERNS FROM THE FACTOR MATRIX. FACTOR ANALYSIS MAY BE USED TO REDUCE A LARGE NUMBER OF VARIABLES, BUT KEGLEY BELIEVED RESEARCHERS NEED TO DEMONSTRATE THESE RELATIONSHIPS THROUGH GUTTMAN'S "RADEX THEORY", AN EXAMPLE OF WHAT KEGLEY BELIEVED TO BE AN EMPIRICAL TYPOLOGY. THE RADEX IS A "GENERAL ORDER PATTERN FOR THE INTERCORRELATION AMONG A SET OF VARIABLES"²¹ CONSISTING OF TWO PARTS: THE SIMPLEX AND THE COMPLEX. KEGLEY CHOSE TO FOCUS ON THE LATTER, PRODUCED BY ORDERED DATA ARRANGED ON A MATRIX OF THE INTERCORRELATED VARIABLES. THE MATRIX MAY THEN BE INSPECTED TO DETERMINE WHICH VARIABLES HAVE THE MOST IN COMMON BY REARRANGING THE VARIABLES SUCH THAT THE LARGEST CORRELATED VARIABLES CLUSTER ALONG THE MAIN DIAGONAL AND EXTREME LEFT CORNER. A SECOND METHOD OF DETERMINING THESE CLUSTERS OR TYPOLOGIES IS THROUGH FACTOR ANALYSIS. IN ORDER TO DETERMINE THESE CLASSES, THE CIRCUMPLEX MODEL IS USED TO PLACE VARIABLES ON A TWO DIMENSIONAL CARTESIAN GRAPH, AND ROTATE THE AXES 360° TO DELINEATE THE SPATIAL LIMITS. THE AXES REPRESENT THE TWO DIMENSIONS WITH OPPOSITE ENDS INDICATING THE OPPOSITE SIDES OF THE DIMENSION, FOR EXAMPLE PASSIVITY-ACTIVITY OR FRIENDSHIP-HOSTILITY. ONCE THE FOUR QUADRANTS HAVE BEEN DETERMINED, THE VARIABLES ARE PLOTTED WITHIN THE SPATIAL LIMITS BY THEIR FACTOR LOADINGS. THE

20. *IBID.*, P. 346.

21. KEGLEY, TYPOLGY, P. 21.

GRAPH MAY BE INSPECTED TO EXAMINE THE EMPIRICAL TYPOLOGIES WHICH EMERGE. IF ALL QUADRANTS ARE NOT FILLED EQUALLY, AS IN A QUASI-CIRCUMPLEX MODEL, THIS INDICATES GAPS IN THE TYPOLOGY DUE TO THE ORIGINAL VARIABLES NOT COVERING ADEQUATELY ALL TYPES OF BEHAVIOUR.

DON MUNTON ALSO CREATED A SIMILAR TYPOLOGY BY ARRANGING EVENT TYPES ON THE X AND Y COORDINATES OF A TWO-DIMENSIONAL GRAPH. HE COLLAPSED THE EVENT TYPES INTO FIVE CLUSTERS - ACTIVE COOPERATION, EXCHANGE, PARTICIPATION, VERBAL CONFLICT AND ACTIVE CONFLICT²² BY A METHOD HE CALLS "THE OCULAR SPATIAL DISTANCE ROUTINE" OR "EYEBALLING" THE GRAPH. THERE ARE, HOWEVER, MORE SOPHISTICATED STATISTICAL PROCEDURES FOR CLUSTERING VARIABLES WHICH FORM THE OPTIMUM GROUPINGS FOR A GIVEN SET OF OBJECTS. SUCH GROUPINGS SHOULD MAXIMIZE THE AVERAGE INTER-GROUP DISTANCE WHILE MINIMIZING THE AVERAGE INTRA-GROUP DISTANCE. THE PROCEDURE BECOMES VERY COMPLEX, HOWEVER, AS THE NUMBER OF OBJECTS INCREASES SINCE EVERY POSSIBLE GROUPING OF OBJECTS NEEDS TO BE USED "AS A BASIS FOR CALCULATING AN INDEX OF CLUSTER SEPARATION."²³

THUS, THERE ARE THREE POSSIBLE APPROACHES WHICH MAY BE USED TO DETERMINE A TYPOLOGY FOR AFRICAN FOREIGN POLICY BEHAVIOUR. IN THIS THESIS FACTOR ANALYSIS IS EMPLOYED ON A DATA SET DEVELOPED BY PATRICK MCGOWAN IN ORDER TO DETERMINE CATEGORIES OF BEHAVIOUR WHICH SUMMARIZE

22. MUNTON, "IN SEARCH," FIGURE 4, P. 7.

23. D.I. VELOMAN, FORTRAN PROGRAMMING FOR THE BEHAVIORAL SCIENCES (NEW YORK: HOLT, RINEHARD & WINSTON, INC., 1967), PP. 308-9.

AFRICAN BEHAVIOUR. OVER 14,600 FOREIGN POLICY ACTS FOR 32 BLACK AFRICAN NATIONS ARE COMPILED IN THE AFRICAN FOREIGN RELATIONS AND INTERNATIONAL CONFLICT ANALYSIS (AFRICA) PROJECT FOR THE PERIOD JANUARY 1964 - DECEMBER 1966. IT IS ASSOCIATED CLOSELY WITH THE COMPARATIVE RESEARCH ON THE EVENTS OF NATIONS (CREON) PROJECT IN THE NUMBER OF VARIABLES AND THE CODING CONVENTIONS USED. AFRICA'S FOREIGN POLICY ACTS ARE SIMILAR TO WEIS'S "INTERNATIONAL INTERACTION" WITH "A SIMPLE DECLARATIVE ACT" COMPRISED OF A SUBJECT OR ACTOR-NATION, A VERB OR EVENT, AND AN OBJECT OR TARGET.²⁴ SINCE THE USUAL SOURCES OF DATA USED BY THE DON (DIMENSIONALITY OF NATIONS PROJECT) AND WEIS, THE NEW YORK TIMES AND DEADLINE DATA ON WORLD AFFAIRS REPORT VERY LITTLE AFRICAN BEHAVIOUR, A REGIONALLY SPECIALIZED SOURCE WAS BOUGHT IN THE AFRICA RESEARCH BULLETIN. ALTHOUGH MCGOWAN REALIZED THAT THE DATA SET DOES NOT CONTAIN EVERY FOREIGN POLICY ACT, "THE DATA SET DOES APPEAR TO REPRESENT A QUANTITATIVELY RICH SET OF EVENTS, PARTICULARLY IN COMPARISON TO THE AFRICAN RELATED EVENTS CONTAINED IN THE DON, WEIS ~~AND~~ CREON COLLECTIONS."²⁵

THE ORIGINAL DATA-MAKING BY MCGOWAN FOR THE BLACK AFRICAN DATA INVOLVED THREE STAGES. THE FIRST WAS TO IDENTIFY ACTS AND TO TRANSLATE THEM INTO THE SUBJECT-VERB-OBJECT FORM. THE ABSTRACTED EVENTS WERE THEN CODED INTO ONE OF 30 SUBSTANTIVE VARIABLES, INCLUDING THE

24. P.J. MCGOWAN, "DIMENSIONS OF AFRICAN FOREIGN POLICY BEHAVIOUR: IN SEARCH OF DEPENDENCE," CANADIAN ASSOCIATION OF AFRICAN STUDIES (CONFERENCE: OTTAWA, ONTARIO, FEBRUARY 16-18, 1973, Mimeo), p. 6.

25. *IBID.*, p. 7.

ACTOR, TARGET AND ACTION TYPE. THE BEHAVIOUR CATEGORIES WERE SIMILAR TO THE WEIS PROJECT CATEGORIES WITH ONLY A NOMINAL OR CLASSIFICATORY LEVEL OF MEASUREMENT. THIRTY-NINE EXHAUSTIVE AND MUTUALLY EXCLUSIVE ACTION CATEGORIES GROUPED ON A COOPERATIVE-CONFLICT AND VERBAL-PHYSICAL DISTINCTION WERE DEVELOPED FROM THE ORIGINAL 22 WEIS GENERAL CLASSES OF BEHAVIOUR. BASED ON W. CORSON'S MODIFIED WEIS SCHEME SOME CATEGORIES WERE SUBDIVIDED INTO MORE DISCRETE CATEGORIES, SUCH AS PROPOSE AND COMMENT, TO AVOID A HIGH FREQUENCY OF BEHAVIOUR IN THESE CATEGORIES, WHILE OTHERS WERE ADDED, SUCH AS INCREASE MILITARY CAPABILITY, AID OPPONENT AND NEGOTIATE. OTHERS WERE ALSO ADDED SUCH AS INCREASE RELATIONSHIP, ACCEPT, SUBVERT AND THREE CATEGORIES OF ACTS AS NEITHER COOPERATION NOR CONFLICT, TO CORRESPOND WITH THE CREON PROJECT AND TO ENSURE EXCLUSIVITY.²⁶

INTER-CODER RELIABILITY WAS DETERMINED WITH EACH STEP IN THE CODING PROCEDURE. FURTHERMORE, FAVOURABLE COMPARISONS WERE MADE WITH THE WEIS DATA SET FOR THE PERCENTAGE OF ACTS UNDER BROADER CATEGORIES. FOR EXAMPLE, THE PERCENTAGE OF COOPERATIVE ACTS WAS 35.2 FOR THE AFRICA STUDY, AND 33.0 FOR THE 1966 WEIS STUDY, AND THE PERCENTAGE OF ACTS FOR PARTICIPATION WAS 47.1 AND 35.5 RESPECTIVELY.²⁷ WHILE PATTERNS OF BEHAVIOUR WERE COMPARABLE FOR THE COOPERATION DIMENSIONS, AFRICAN STATES MANIFESTED LESS CONFLICT BEHAVIOUR. MCGOWAN CONCLUDED

26. *Ibid.*, pp. 11-12.

27. *Ibid.*, TABLE 3.

THAT "THESE DIFFERENCES ARE TO BE EXPECTED GIVEN THE DIFFERENCES IN THE CAPABILITY LEVELS OF THE STATES STUDIED IN THE TWO PROJECTS (WEIS AND AFRICA)."²⁸ THE HIGH FREQUENCY OF CONFLICT ACTS IN WEIS MAY ALSO BE DUE TO THE TENDENCY OF NEWSPAPERS LIKE THE NEW YORK TIMES TO OVER-REPORT THESE ACTIONS.

IN THIS THESIS, A NUMBER OF STEPS WERE FULFILLED IN PURSUING THE REQUIREMENT OF FIELD THEORY THAT THE BEHAVIOUR DIMENSIONS BE IDENTIFIED. MCGOWAN'S 30²⁹ EVENT TYPES (SEE APPENDIX 5) WERE REDUCED TO 17 BY EMPLOYING A PROCEDURE SIMILAR TO MUNTON'S. FROM THE TOTAL OF 14,699 EVENTS ANY VARIABLES WITH LESS THAN 300 EVENTS WERE COMBINED WITH VARIABLES OF THE SAME ACTION CATEGORY. FOR EXAMPLE, WARN AND REJECT ARE BOTH EXPRESSED CONFLICT VARIABLES AND EXPRESS INTENTION AND THUS WERE COMBINED. ELEVEN EVENTS TYPES WERE ABOVE THE MINIMUM LEVEL REQUIRED, CONTAINING 85.7% OF ALL INTERACTIONS. AFTER THIS POINT, THE FREQUENCY OF EVENTS RAPIDLY DECREASED. FURTHERMORE, THE REMAINING VARIABLES ACCOUNTED FOR FEW EVENT ACTS OVERALL. THE REVISED 18 CATEGORIES, PRESENTED IN TABLE 2, INDICATE THE TYPES OF ACTIONS USED AND THE TOTAL NUMBER OF EVENTS FOR EACH.²⁹

FACTOR ANALYSIS WAS APPLIED TO THE DATA MATRIX OF THE VARIABLES TO DETERMINE THE UNDERLYING "HYPOTHETICAL VARIABLE" TO DEVELOP A CLASSIFICATION SCHEME FOR DELINEATING THE MAJOR EMPIRICAL CONCEPTS

28. *ibid.*, p. 16.

29. MCGOWAN INCLUDED THE NEUTRAL CATEGORIES FOR THOSE ACTIONS WHERE IT WAS IMPOSSIBLE TO DISTINGUISH BETWEEN CONFLICT AND COOPERATIVE BEHAVIOUR. SINCE IT IS NOT KNOWN WHAT THESE CATEGORIES ARE EXACTLY, AND THEREFORE ADD LITTLE TO THE ANALYSIS, THEY HAVE BEEN OMITTED IN THIS THESIS. DENY REMAINS AS AN INDIVIDUAL VARIABLE BECAUSE THE TWO OTHER BEHAVIOUR TYPES IN ITS ACTION CATEGORY HAVE HIGH FREQUENCIES.

TABLE 2

18 COLLAPSED CATEGORIES OF BLACK AFRICAN BEHAVIOUR - FREQUENCY AND
PERCENT OF EACH EVENT TYPES

CATEGORY	VARIABLES	FREQUENCY	PERCENT
AGREE		1730	14.5
CONSULT-VISIT		1651	13.8
POSITIVE COMMENT		1381	11.6
POSITIVE INTENT		1171	9.8
APPROVE		1051	8.8
NEGATIVE COMMENT		852	7.1
ACCEPT		686	5.7
ACCUSE		648	5.4
CARRY OUT AGREEMENT		375	3.1
NEGOTIATE		344	2.9
INCREASE RELATIONSHIP		303	2.5
CONFLICT INTENT	WARN, REJECT, THREATEN - INTENT	436	3.6
PROPOSE-REQUEST	+ PROPOSE, + REQUEST	334	2.8
CONFLICT DEEDS	REDUCE RELATIONSHIP, DEMONSTRATE, EXPEL, SEIZE, SUBVERT, FORCE, INCREASE MILITARY CAPA- BILITY, AID OPPONENT	335	2.8
COOPERATIVE DEEDS	GRANT, REWARD, REDUCE MILITARY CAPABILITY	206	1.7
CONFLICT DESIRE	- PROPOSE, PROTEST, - REQUEST, DEMAND	261	2.2
PROMISE - OFFER	PROMISE, OFFER	135	1.1
DENY		55	.6
		11,954	100.0
NEUTRAL COMMENT		1950	
NEUTRAL PROPOSE		463	
NEUTRAL REQUEST		302	
		2,715	

IN THE BEHAVIOUR. IN FACTOR ANALYSIS, THOSE VARIABLES WHICH VARY UNIFORMLY ARE LINKED INTO A PATTERN OF BEHAVIOUR BY THEIR CORRELATION WITH EACH OTHER. ORTHOGONALLY ROTATED FACTOR ANALYSIS USING THE VARIMAX TECHNIQUE WAS USED TO OBTAIN INDEPENDENT DIMENSIONS.³⁰ THE RESULTS ARE PRESENTED IN TABLE 3. THE INTERPRETATION OF THE THREE RESULTING FACTORS IN TERMS OF PREVIOUSLY IDENTIFIED DIMENSIONS IS NOT APPARENT. HOWEVER, THROUGH AN INSPECTION OF THE FACTOR SCORES, ACTUAL FREQUENCIES AND FACTOR LOADINGS, THE FACTORS MAY BE INTERPRETED TO REPRESENT INTERACTIVE, CONFLICT, AND COOPERATIVE BEHAVIOUR DIMENSIONS.³¹

THE HIGH VARIABLES LOADINGS ON THE FIRST FACTOR ARE VERBAL COOPERATIVE AND CONFLICT VARIABLES - POSITIVE INTENT, POSITIVE COMMENT, APPROVE, NEGOTIATE, NEGATIVE COMMENT, CONFLICT INTENT AND PROPOSE-REQUEST. THE COMMUNALITIES ARE ALSO QUITE HIGH. WHEN THE FACTOR SCORES OF NATIONS ARE TAKEN INTO CONSIDERATION, ALONG WITH THE FREQUENCY OF EVENTS FOR EACH NATION ON EACH VARIABLE (SEE APPENDIX 1),

30. THE METHOD OF FACTORING EMPLOYED WAS THE PRINCIPLE COMPONENTS METHOD WHEREBY FACTORS ARE ARRANGED IN THE ORDER OF THEIR IMPORTANCE. THE FIRST FACTOR TENDS TO BE A GENERAL FACTOR; THAT IS, IT HAS SIGNIFICANT LOADINGS ON EVERY VARIABLE, AND THE REMAINING FACTORS TEND TO BE BIPOLAR. THE DIFFERENCES BETWEEN POSSIBLE METHODS WAS IN THE DECISION OF WHETHER TO REPLACE THE MAIN DIAGONALS WITH THE ESTIMATES OF COMMUNALITY OR UNITIES, AND THE CALCULATION OF THE PROPORTION OF THE TOTAL VARIANCE ACCOUNTED FOR BY THE FACTOR. IN THIS CASE, UNITIES WERE INSERTED IN THE DIAGONALS, AND THE EIGENVALUES COMPUTED FOR THE ROTATED FACTOR STRUCTURE. THE EIGENVALUE (λ) WAS CALCULATED BY $\lambda = \sum (r_{ij}^2)$ WHERE r_{ij} REPRESENTS THE FACTOR LOADING OF A VARIABLE ON THE DIMENSIONS, AND THE PROPORTION OF THE TOTAL VARIANCE EXPLAINED BY EACH DIMENSION WAS CALCULATED BY λ^2 / n . FROM THE UNROTATED FACTOR SOLUTION THE 1.0 EIGENVALUE CUT-OFF CRITERION WAS USED IN DETERMINING THE NUMBER OF FACTORS. REFER TO N.H. NIE, ET AL, SPSS (TORONTO: MC-GRAW-HILL CO., 1975) FOR A DISCUSSION OF THE FACTOR ANALYSIS PROCEDURE USED IN THIS THESIS.

31. REFER TO R. RUMMEL, APPLIED FACTOR ANALYSIS (EVANSTON: NORTHWESTERN UNIVERSITY PRESS, 1910) AND W. COOLEY AND P.R. LOHNES, MULTIVARIATE PROCEDURES FOR THE BEHAVIOURAL SCIENCES (NEW YORK: JOHN WILEY & SONS LTD., 1962).

TABLE 3

FACTOR ANALYSIS OF 18 BEHAVIOUR TYPES EXCHANGED AMONG 32 BLACK AFRICAN
NATIONS^A

	1 INTERACTIVE BEHAVIOUR	2 COMMITTED CONFLICT	3 COOPERATIVE DEEDS	4 ²
CONFLICT INTENT	.93	.20	-.04	.90
PROPOSE-REQUEST	.88	.12	.31	.89
POSITIVE COMMENT	.86	.24	.23	.87
NEGATIVE COMMENT	.82	.48	-.02	.91
POSITIVE INTENT	.78	.37	.33	.85
APPROVE	.72	.24	.49	.82
NEGOTIATE	.62	.18	.37	.56
PROMISE OFFER	.01	.88	.27	.84
CONFLICT DEEDS	.34	.82	.15	.89
ABUSE	.36	.80	.12	.79
DENY	.36	.72	.06	.65
COOPERATIVE DEEDS	.08	.71	.48	.73
CONFLICT DESIRE	.51	.67	.01	.71
CARRY OUT AGREEMENT	.38	.62	.46	.74
INCREASE RELATIONSHIP	.17	-.01	.82	.71
ACCEPT	.14	.36	.78	.76
AGREE	.47	.47	.58	.78
CONSULT-VISIT	.56	.40	.49	.72
EIGENVALUE	5.98	5.11	3.06	
% TOTAL VARIANCE	32.2	28.3	16.9	

NOTE: ^A ORTHOGONALLY ROTATED MATRIX

2 3

OF/DE

A PATTERN EMERGES ALONG THE COOPERATIVE-CONFLICT DICHOTOMY. NATIONS WITH HIGH POSITIVE FACTOR SCORES HAVE A HIGH FREQUENCY OF COOPERATIVE AND CONFLICT EVENTS, ALTHOUGH THERE ARE MORE COOPERATIVE ACTS. AS HIGH POSITIVE FACTOR SCORES DECREASE TO HIGH NEGATIVE FACTOR SCORES FOR THE NATIONS, THE FREQUENCY OF CONFLICT DECREASES RELATIVE TO THEIR COOPERATIVE BEHAVIOUR. FOR EXAMPLE, TANZANIA HAS A 2.94 FACTOR SCORE WITH 40 AGREES AND 15 NEGATIVE COMMENTS. C.A.R. HAS A -.734 FACTOR SCORE WITH 20 AND 0 EVENTS RESPECTIVELY. AS IN THE LATTER CASE, IT IS THE CONFLICT VARIABLES WHICH INFLUENCE THE NATION'S HIGH NEGATIVE FACTOR SCORE, SINCE THE COOPERATIVE VARIABLES DO NOT DECREASE SUBSTANTIALLY. THUS, WHILE COOPERATION AND CONFLICT EVENT TYPES ARE RELATIVELY FREQUENT FOR NATIONS WITH HIGH POSITIVE FACTOR SCORES, THE CONFLICT BEHAVIOUR DECREASES RAPIDLY FOR THOSE WITH HIGH NEGATIVE FACTOR SCORES. A TYPE OF BALANCE THEN EXISTS IN THE BEHAVIOUR BETWEEN THE TWO MAJOR DICHOTOMIES OF COOPERATION AND CONFLICT INTERACTION. THEREFORE, THIS FACTOR IS LABELLED INTERACTIVE BEHAVIOUR.

THE SECOND FACTOR ALSO HAS HIGH COOPERATIVE AND CONFLICT FACTOR LOADINGS. DEEDS APPEAR TO BE AN IMPORTANT FACTOR IN THE COMPOSITION OF THIS DIMENSION. HOWEVER, ALTHOUGH COOPERATIVE DEEDS HAS A HIGH LOADING, THE FREQUENCIES ARE COMPARATIVELY LOW. NATIONS WITH HIGH POSITIVE FACTOR SCORES ENGAGE IN A GREAT AMOUNT OF CONFLICT, BUT ALSO IN A LARGE AMOUNT OF COOPERATION. AS THE FACTOR SCORES BECOME INCREASINGLY NEGATIVE, THE FREQUENCY OF CONFLICT ACTIONS REMAIN CONSTANT, BUT THE FREQUENCY OF COOPERATIVE ACTS DECREASE. AS THIS OCCURS, VERBAL CONFLICT ACTIONS, SUCH AS ACCUSE, BECOME MORE PERDOMINANT. FOR HIGH POSITIVE FACTOR SCORED NATIONS, THIS TYPE OF

CONFLICT IS OBSCURED BY THE COOPERATION. HERE, ALTHOUGH GHANA, KENYA, SOMALIA AND ETHIOPIA ENGAGE IN LARGE QUANTITIES OF COOPERATIVE ACTS, THEY ENGAGE IN MORE CONFLICT. THE AMOUNT OF COOPERATION FOR CAMEROON, IVORY COAST AND SENEGAL, HOWEVER, DECREASES RELATIVE TO CONFLICT. THUS, CONFLICT IS THE DOMINANT FORM OF BEHAVIOUR, AND FOR THIS REASON THE DIMENSION IS REFERRED TO AS COMMITTED CONFLICT.

FACTOR 3 IS EASILY RECOGNIZED AS A COOPERATIVE FACTOR WITH ACCEPT AND INCREASE RELATIONSHIP BY FAR THE HIGHEST LOADING VARIABLES. AS THE FACTOR SCORES OF NATIONS APPROACH A HIGH NEGATIVE, THE FREQUENCY OF THESE EVENTS DECREASES. THESE NATIONS ALSO ENGAGE IN LESS BEHAVIOUR OVER ALL THE TYPES OF EVENTS. THUS, FOR EXAMPLE NIGERIA, IVORY COAST AND NIGER ENGAGE IN LARGE AMOUNTS OF COOPERATION AND LITTLE CONFLICT, WHILE LESOTHO, BOTSWANA AND BURUNDI ENGAGE IN LITTLE OF THESE TYPES OF BEHAVIOUR. THUS, SINCE THE MOST PREVALENT TYPE OF ACTION IS COOPERATIVE AND IN THE FORM OF DEEDS, THIS FACTOR IS CALLED COOPERATIVE DEEDS.

A HIERARCHICAL CLUSTERING TECHNIQUE BASED ON THE FACTOR LOADINGS OF THE 18 BEHAVIOUR TYPES WAS EMPLOYED TO SUBSTANTIATE THESE THREE DIMENSIONS. A GROUPING SOLUTION WAS ATTAINED WITH THREE CLUSTERS AND AN ERROR OF .46. AFTER THIS POINT THE ERROR INCREASES TWOFOLD. THE THREE GROUPS CLOSELY RESEMBLE THE FACTOR SOLUTION, WITH ONLY SLIGHT VARIATION. (FIGURE 4)

FIGURE 4

HIERARCHICAL CLUSTERING RESULTS

GROUP 1

AGREE CONSULT-VISIT
+ COMMENT + INTENT
APPROVE NEGOTIATE
CARRY OUT AGREEMENT
PROPOSE - REQUEST
- COMMENT
CONFLICT INTEREST

GROUP 2

ACCUSE
CONFLICT DEEDS
COOPERATIVE DEEDS
CONFLICT DESIRE
PROMISE - OFFER

GROUP 3

ACCEPT
INCREASE RELATIONSHIP

IT IS CONCEIVABLE THAT AGREE MAY BE PLACED IN EITHER INTERACTIVE BEHAVIOUR OR COOPERATIVE DEEDS SINCE ITS FACTOR LOADING IS SPREAD ACROSS BOTH DIMENSIONS. HOWEVER, IN TERMS OF FREQUENCY OF EVENTS IT IS FELT THAT IT FITS SLIGHTLY BETTER WITH THE THIRD FACTOR SINCE THE AMOUNT OF AGREE EVENTS DECREASES AS FACTOR SCORES BECOME INCREASINGLY NEGATIVE. ON THE OTHER HAND, CARRY OUT AGREEMENT IS INCLUDED IN THE FIRST CLUSTER, WHILE IN THE FACTOR ANALYSIS IT LOADS HIGHLY ON THE COMMITTED CONFLICT DIMENSION, AS WITH THE FREQUENCY OF COOPERATIVE EVENTS DECREASING WITH THE FACTOR SCORES. SINCE BY DEFINITION COOPERATIVE EVENTS ARE MINIMAL IN COMMITTED CONFLICT, THE VARIABLE IN QUESTION REMAINS ASSOCIATED WITH THE SECOND DIMENSION.

THUS THE BEHAVIOUR DIMENSIONS OF THE BLACK AFRICAN NATIONS, ALTHOUGH NOT CLEARLY STRUCTURED DICHOTOMIES BETWEEN TYPES OF BEHAVIOUR, POINT TO THE DIVERSITY IN INTRA-AFRICAN AFFAIRS. AS SUGGESTED BY MCGOWAN,³² AND CONFIRMED IN THE FREQUENCIES OF EVENT TYPES, COOPERATION APPEARS TO BE THE MOST PROMINENT BEHAVIOUR. THERE IS ONE

32. SEE MCGOWAN, "DIMENSIONS," P. 6.

STRONG COOPERATIVE DIMENSION - COOPERATIVE DEEDS - AND THE FIRST FACTOR - INTERACTIVE BEHAVIOUR - STRESSES COOPERATIVE ACTS OVER CONFLICT. THE STRONG INFLUENCE OF CONFLICT IS CONFINED TO THE SECOND FACTOR - COMMITTED CONFLICT. THESE RESULTS SUGGEST THAT CO-OPERATION IS MORE IMPORTANT IN AREAS OF CLOSE PROXIMITY, WITH CONFLICT LIMITED TO VERBAL ACTS. HOWEVER, THE DIMENSIONS ARE SLIGHTLY SIMILAR TO THOSE FOUND BY OTHER AUTHORS DISCUSSED PREVIOUSLY. THE DICHOTOMY BETWEEN CONFLICT AND COOPERATION IS FOUND TO EXIST, AND THE PARTICIPATION ACTIVITIES OF NATIONS IS INCLUDED IN THE FIRST FACTOR LABELLED INTERACTIVE BEHAVIOUR. NATIONS PARTICIPATE IN A GREATER DIVERSITY OF ACTIVITIES ASSOCIATED WITH PARTICIPATION IN EXTRA-NATIONAL ACTIVITIES. TO DETERMINE WHETHER THESE BEHAVIOUR PATTERNS VARY BETWEEN DYADS IN A REGIONAL SYSTEM, FOCUS MUST NOW BE BROUGHT TO THE INDEPENDENT VARIABLES, ATTRIBUTES, WHICH ARE HYPOTHESIZED THROUGH SOCIAL AND STATUS-FIELD THEORY TO INFLUENCE BEHAVIOUR.

ATTRIBUTE DIMENSIONS

AS WITH BEHAVIOUR TYPOLOGIES, SCHOLARS HAVE BEEN CONCERNED WITH CREATING ATTRIBUTE TYPOLOGIES FOR NATIONS. ROSENBAU'S THREE GENOTYPE VARIABLES - SIZE, DEVELOPMENT AND ACCOUNTABILITY - HAVE BEEN FOUND, IN VARYING DEGREES, TO BE IMPORTANT DIMENSIONS OF ATTRIBUTE DIFFERENCE. IN ONE PARTICULAR STUDY, J. SAWYER PERFORMED A FACTOR ANALYSIS ON 236 VARIABLES. THE THREE DIMENSIONS WHICH EMERGED WERE SIZE, WEALTH AND POLITICS, COMPARABLE TO ROSENBAU'S THREE GENOTYPE VARIABLES.³³ ROSENBAU

33. J. SAWYER, "DIMENSIONS OF NATIONS: SIZE, WEALTH AND POLITICS," AMERICAN JOURNAL OF SOCIOLOGY 73 (SEPTEMBER 1967): 51.

AND HOGGARD³⁴ LOOKED AT THE EXTENT TO WHICH INTERNAL NATIONAL ATTRIBUTES AND EXTERNAL INTERNATIONAL OR RELATIONAL ATTRIBUTES DETERMINED FOREIGN POLICY. THEY FOUND THAT, CONTRARY TO THEIR HYPOTHESIS ATTRIBUTES OF SIZE, DEVELOPMENT AND ACCOUNTABILITY WERE MORE POTENT IN THE EXPLANATION OF INTERNATIONAL INTERACTION THAN THE RELATIONAL ATTRIBUTES - DISTANCE, SOCIO-CULTURAL HOMOGENEITY AND MILITARY BALANCE. THEY ALSO FOUND THAT THE IMPACT OF SIZE ON BEHAVIOUR WAS GREATER THAN DEVELOPMENT, AND DEVELOPMENT WAS GREATER THAN ACCOUNTABILITY.

IN A RELATED STUDY, POWELL, ANDRUS, FOWLER AND KNIGHT³⁵ DIS-AGREED WITH ROSENAU AND HOGGARD WITH THE FINDING THAT INTERNAL VARIABLES INFLUENCE FOREIGN POLICY BEHAVIOUR. FOR THEM, SIZE WAS A POWERFUL VARIABLE DOMINATING THE RELATIONAL EFFECTS, BUT THE WHOLE CLUSTER OF THESE INTERNAL VARIABLES HAD LITTLE IMPACT ON BEHAVIOUR. THEY FURTHER PROPOSED THAT SIZE ITSELF WHEN LINKED TO BEHAVIOUR WAS PARTIALLY A RELATIONAL FACTOR. THE AUTHORS CONCLUDED THAT WHILE THE ATTRIBUTES OF ONE COUNTRY INFLUENCE EXTERNAL POLICY, ATTRIBUTE SIMILARITY ALSO INFLUENCES THE BEHAVIOUR IN A DYAD. THUS, THE FREQUENCY OF INTERACTION WAS A FUNCTION OF BOTH NATIONS PREDISPOSITION TOWARD COOPERATION AND CONFLICT.³⁶

34. J. ROSENAU AND G. HOGGARD, "FOREIGN POLICY BEHAVIOUR IN DYADIC RELATIONSHIPS," IN COMPARING FOREIGN POLICIES, ED. J. ROSENAU (TORONTO: JOHN WILEY AND SONS, LTD., 1974).

35. C. POWELL, D. ANDRUS, W. FOWLER AND K. KNIGHT, "A CAUSAL MODELLING APPROACH," IN COMPARING FOREIGN POLICIES, ED. J. ROSENAU (TORONTO: JOHN WILEY & SONS, LTD., 1974).

36. *IBID.*, P. 168.

OTHER STUDIES HAVE ALSO INDICATED THE IMPORTANCE OF THESE THREE ATTRIBUTES. DAVID MOORE FOUND THAT OF EIGHT INTERNAL VARIABLES, THESE THREE EXPLAINED MOST OF THE VARIANCE IN BEHAVIOUR. HOWEVER, HE CONCLUDED THAT, SINCE ACCOUNTABILITY CHANGES AS GOVERNMENTS CHANGE, A MODEL OF ATTRIBUTE INFLUENCES ON FOREIGN POLICY SHOULD INCLUDE ONLY THE FIRST TWO, SIZE AND DEVELOPMENT.³⁷ KEAN AND MCGOWAN ALSO ASSUMED THAT SIZE AND MODERNIZATION, AND THE INTERVENING VARIABLES RESOURCES AND NEEDS, WERE MORE IMPORTANT IN RELATING ATTRIBUTES TO FOREIGN POLICY BEHAVIOUR, ALTHOUGH AS WAS PREVIOUSLY STATED, THEY CONCLUDED THAT THESE ATTRIBUTES WERE NOT THE ONES WHICH INFLUENCED BEHAVIOUR AT A REGIONAL LEVEL OF ANALYSIS.³⁸ MOREOVER, MOORE CONCLUDED THAT "THE RELATIONSHIPS BETWEEN FOREIGN POLICY AND NATIONAL ATTRIBUTES IN ONE GENOTYPE TEND TO BE VERY DIFFERENT FROM THE RELATIONSHIPS IN ANOTHER GENOTYPE, AND THAT THESE DIFFERENCES ARE OBSCURED IN AN ANALYSIS ACROSS ALL NATIONS."³⁹

THUS, THE GENOTYPE VARIABLES AS CATEGORIES FOR TYPOLOGIES OF NATIONS MAY BE TOO LARGE TO OBTAIN AN ACCURATE DESCRIPTION OF NATIONS, REQUIRING A SPECIFIC LOOK AT NATIONS IN EACH ATTRIBUTE CLASSIFICATION. SCHOLARS HAVE FOUND A NUMBER OF FACTOR DIMENSIONS BESIDES THESE THREE WHICH DESCRIBE NATIONS. FOR EXAMPLE, RUMMEL OBTAINED TEN ATTRIBUTE

37. D.W. MOORE, "NATIONAL ATTRIBUTES AND NATIONAL TYPOLOGIES," IN COMPARING FOREIGN POLICIES, ED. J. ROSENAU (TORONTO: JOHN WILEY & SONS, LTD., 1974), P. 251.

38. J. KEAN AND P. MCGOWAN, "NATIONAL ATTRIBUTES AND FOREIGN POLICY PARTICIPATION," IN SAGE INTERNATIONAL YEARBOOK OF FOREIGN POLICY STUDIES, ED. P.J. MCGOWAN (BEVERLY HILLS: SAGE PUBLICATION, 1973), PP. 224-6.

39. MOORE, "NATIONAL ATTRIBUTES," P. 264.

DIMENSIONS, INCLUDING ECONOMIC DEVELOPMENT, INTERNATIONAL COMMUNICATION OR TRANSACTIONS, TOTALITARIANISM, POWER, INSTABILITY, MILITARY CAPABILITIES, PSYCHOLOGICAL MOTIVATIONS, VALUES AND THE NUMBER OF BORDERS.⁴⁰ VAN ATTA EXTENDED THIS LIST OF DIMENSIONS TO 22, SOME OF WHICH WERE ADDITIONAL TO RUMMEL'S DIMENSIONS SUCH AS LINGUISTIC-ETHNIC DIVERSITY AND DENSITY.⁴¹ FURTHER, RUMMEL ADDED ORIENTAL CULTURE, EQUALITY AND SUFFICIENCY.⁴²

CONSIDERING THE SIMILARITIES AMONG THE RESULTS OF THESE VARIOUS EFFORTS AT ATTRIBUTE TYPOLOGY CONSTRUCTION, IT IS EXPECTED THAT THE ATTRIBUTE DIMENSIONS SPECIFIC TO BLACK AFRICA WILL BE SIMILAR TO THE MAJOR DIMENSIONS OBTAINED BY OTHER SCHOLARS. THE AFRICAN NATIONAL INTEGRATION PROJECT BY D. MORRISON AND H. STEVENSON IS A MAJOR SOURCE OF DATA FOR AFRICA, CONSISTING OF APPROXIMATELY 327 VARIABLES GROUPED INTO SIXTEEN CATEGORIES SUCH AS DEMOGRAPHY, CULTURAL PLURALISM, EDUCATION, POLITICAL PARTIES AND INTERNATIONAL TRADE. USING PREVIOUS WORK ON ATTRIBUTE TYPOLOGIES, A NUMBER OF KEY VARIABLES WERE SELECTED WHICH ARE INDICATORS OF THE MAJOR ATTRIBUTE DIMENSIONS. EIGHTEEN VARIABLES WERE CHOSEN ON THE BASIS OF THEIR SIMILARITY TO THE HIGHEST LOADING AND MOST SUBSTANTIVELY INTERPRETABLE VARIABLES IN THE DON'

40. R. RUMMEL, "THE RELATIONSHIP BETWEEN NATIONAL ATTRIBUTES AND FOREIGN CONFLICT BEHAVIOUR," IN QUANTITATIVE INTERNATIONAL POLITICS, ED. J. DAVID SINGER (NEW YORK: FREE PRESS, 1968), PP. 204-12.

41. R. VAN ATTA, "FIELD THEORY AND NATIONAL-INTERNATIONAL LINKAGE," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY COMPANY, 1973), PP. 220-2.

42. RUMMEL, "U.S.," P. 101.

PROJECT DIMENSIONING ANALYSIS.⁴³ VARIABLES WERE ALSO SELECTED TO CORRESPOND WITH GALTUNG'S ANALYTIC VARIABLES FOR THE RANK DIMENSIONS OF NATIONS, BASED ON THE NATIONAL DISTRIBUTION OF AN INDIVIDUAL PROPERTY SUCH AS INCOME PER CAPITA, LIFE EXPECTANCY AND THE RATE OF POPULATION IN PRIMARY OCCUPATIONS. STRUCTURAL VARIABLES PROVIDED INFORMATION ABOUT THE STRUCTURE OF THE NATION, SUCH AS POPULATION AND SIZE. GALTUNG'S INDIVIDUAL DIMENSIONS, 20 IN ALL, WERE DIVIDED INTO FOUR SECTIONS ACCORDING TO THEIR DEGREE OF ASCRIPTION: PURELY ASCRIBED AND INELIBLE, PURELY ASCRIBED BUT NOT INELIBLE, HALF-ACHIEVED AND ACHIEVED.⁴⁴ Thus, ASCRIBED AND INELIBLE ARE THOSE DIMENSIONS RECEIVED BY EACH GENERATION SUCH AS GEOGRAPHICAL LOCATION AND NATURAL RESOURCES, PURELY ASCRIBED BUT DELIBLE DIMENSIONS ARE THOSE SUCH AS POPULATION, RACIAL AND ETHNIC COMPOSITION. THESE DIMENSIONS MAY ONLY BE CHANGED BY DRASTIC PROCESSES BORDERING ON CHANGING THE IDENTITY OF THE NATION. ON A CONTINUUM FROM ASCRIBED TO ACHIEVED DIMENSIONS, "THE 'DEGREE OF ACHIEVEMENT' ROUGHLY CORRESPONDS TO THE DEGREES OF FREEDOM THE INDIVIDUAL OR THE GENERATION HAS IN CHANGING LOCATION ON THE DIMENSION." Thus, VARIABLES SUCH AS PER CAPITA INCOME AND OCCUPATIONAL CATEGORIES ARE HALF-ACHIEVED SINCE, GIVEN A NATION'S ORIGIN, THEY MAY BE INFERRED WITH A RELATIVELY HIGH PROBABILITY. HOWEVER, VARIABLES SUCH AS TECHNOLOGICAL AWARENESS AND ETHICS, ARE ACHIEVED IN THAT THEY INVOLVE PERSONAL EFFORTS TO ACQUIRE SUCH VALUES. FOR EXAMPLE, A NATION MAY

⁴³ VAN ATTA, "FIELD THEORY," PP. 220-1.

⁴⁴ J. GALTUNG, "RANK AND SOCIAL INTEGRATION," IN SOCIAL THEORY IN PROGRESS, ED. J. BERGER, ET AL. (NEW YORK: HOUGHTON-MIFFLIN, 1966), PP. 187-9.

BE GIVEN A CERTAIN IDEOLOGY BY ITS FOUNDING FATHERS (I.E. COMMUNISM), BUT FOR ITS POPULACE TO BE CONVINCED TO BE A "TRUE BELIEVER" IS SOMETHING WHICH REQUIRES PERSONAL CONVICTION.⁴⁵

IN ORDER TO OBTAIN A RELIABLE EVALUATION OF THE EFFECTS OF NATIONAL ATTRIBUTES ON BEHAVIOUR, AN EFFORT WAS MADE TO ENSURE THAT THE YEARS FOR THE BEHAVIOUR AND ATTRIBUTE DATA SETS WERE SIMILAR. THUS, SINCE THE BEHAVIOUR TOOK PLACE BETWEEN 1964 AND 1966, THOSE VARIABLES SIMILAR TO VAN ATTA AND GALTUNG, AND IN THE TIME PERIOD AS CLOSE AS POSSIBLE TO THE BEHAVIOUR WERE CHOSEN. A FINAL CONSIDERATION WAS GIVEN TO THE AMOUNT OF MISSING DATA. IN SOME INSTANCES, TWO VARIABLES WERE SIMILAR IN NATURE BUT DIFFERED IN THE NUMBER OF MISSING CASES. THE VARIABLE WITH THE LEAST MISSING DATA WAS USED.⁴⁶

TABLE 4 SHOWS THE VARIABLES CHOSEN FROM THE BLACK AFRICAN HANDBOOK,⁴⁷ ALONG WITH VAN ATTA'S HIGHEST LOADING VARIABLES ON THE FACTOR DIMENSIONS CORRESPONDING TO THE PROTOTYPE VARIABLES SUGGESTED BY GALTUNG'S ANALYTICAL AND STRUCTURAL VARIABLES. TOTAL MANPOWER IN THE ARMED FORCES WAS USED RATHER THAN DEFENCE EXPENDITURE IN ORDER TO OVERCOME THE PROBLEM OF A LARGE AMOUNT OF MISSING DATA. WHEREAS VAN ATTA EMPLOYED THE VARIABLE CATHOLIC POPULATION PER POPULATION, THIS THESIS DIVIDED RELIGION INTO THREE VARIABLES, INDICATING THE DIVER-

⁴⁵. *IBID.*, P. 187. SEE TABLE 1 FOR THE LIST OF RANK DIMENSIONS.

⁴⁶. SINCE THE NUMBER OF MISSING CASES WERE VERY FEW, THE MEAN WAS INSERTED FOR THESE COUNTRIES. THIS PROCEDURE WAS NECESSARY FOR FOUR VARIABLES: ENERGY CONSUMPTION PER CAPITA (FOR 2 NATIONS), PUBLIC INVESTMENT (4), GDP FORMATION (2) AND CUMULATIVE TRADE BALANCE (2).

⁴⁷. D.C. MORRISON ET AL., BLACK AFRICA: A HANDBOOK FOR COMPARATIVE ANALYSIS (NEW YORK: FREE PRESS, 1971).

TABLE 4

INDICATORS FOR ATTRIBUTE DIMENSIONS

<u>DIMENSION</u>	<u>R. VAN ATTA</u>	<u>J. GALTUNG</u>	<u>D. MORRISON</u>
ECONOMIC DEVELOPMENT	GNP/POP TELEPHONES/POP	PER CAPITA INCOME NATURAL RESOURCES	GNP PER CAPITA GROSS DOMESTIC CAPITAL FORMATION TELEPHONES/10,000 POP ENERGY CONSUMPTION/CAPITA TRADE BALANCE PUBLIC INVESTMENT (% GDP)
POWER	DEFENCE EXPENDI- TURES NATIONAL INCOME	POPULATION	POPULATION GDP MEN IN THE ARMED FORCES
POLITICAL ORIENTATION	BLOC MEMBERSHIP	POPULAR PARTICIPATION	EASTERN BLOC REPRESENTATION EASTERN BLOC AID EASTERN BLOC TRADE
RELIGIOUS COMPOSITION	CATHOLIC POP/POP	TRUE BELIEVERS DOMINANT IDEOLOGY	% CHRISTIAN IDENTIFIERS % TRADITIONAL RELIGION IDENTIFIERS % MUSLIM IDENTIFIERS
ETHNIC-LINGUISTIC DIVERSITY	POP OF LARGEST LANGUAGE GROUP/ POP	ETHNIC COMPOSITION	% OF POP SPEAKING DOMINANT VERNACULAR
DENSITY	DENSITY	URBANIZATION SIZE	% OF CITIES ≥ 20,000 POP/ MILLION % OF POP IN CITIES ≥ 20,000

SITY OF RELIGIONS IN THE AFRICAN REGION. CONSIDERATION WAS ALSO GIVEN TO GALTUNG'S DISTRIBUTIONS OF CHARACTERISTICS WHICH REPRESENT STATUS.⁴⁸ ENERGY CONSUMPTION PER CAPITA WAS ADDED AS GALTUNG'S ANALYTIC VARIABLE NATURAL RESOURCES, AN INDICATOR OF GALTUNG'S ASCRIBED DIMENSION. MORE DENSITY VARIABLES WERE USED TO COVER SIZE, POPULATION AND URBANIZATION. FINALLY, VARIABLES TAPPING POLITICAL ORIENTATION AND POWER WERE INCLUDED IN ORDER TO ASCERTAIN MORE CLEARLY REGIONAL DIFFERENCES WHICH MAY APPEAR.

PRINCIPAL COMPONENT FACTOR ANALYSIS WAS PERFORMED ON THE COMPLETE MATRIX FOR THE 18 ATTRIBUTE INDICATORS. THE FACTORS WERE ORTHOGONALLY ROTATED USING THE VARIMAX TECHNIQUE, RESULTING IN A SIX FACTOR SOLUTION AS SEEN IN THE SUMMARY OF THESE DIMENSIONS IN TABLE 5.⁴⁹ THE SIXTH FACTOR WAS NOT LABELLED. IT IS SIMILAR TO FACTOR 4 WHICH IS A BETTER INDICATOR OF THE DICHOTOMIES IN RELIGIOUS DIVERSITY BETWEEN CHRISTIANS AND MUSLIMS. THESE RELIGIONS ARE MORE IMPORTANT THAN THE TRADITIONAL RELIGIONS EVIDENCED IN FACTOR 6. THE RESULTS OF THE DIMENSIONING PROCEDURE CONFORM CLOSELY IN TERMS OF DIMENSION COMPOSITION TO THE ATTRIBUTE-TYPES IDENTIFIED IN TABLE 4, DIMENSIONS WHICH ARE CONSIDERED MAJOR FACTORS INFLUENCING FOREIGN POLICY BEHAVIOUR.

THE POWER AND DEVELOPMENT FACTORS EXPLAIN THE LARGEST AMOUNT OF VARIANCE IN ATTRIBUTES (18.6% AND 16.2% RESPECTIVELY), AND FURTHERMORE CORRESPOND TO RUMMEL'S STATUS DIMENSIONS. POWER IN AFRICA IS A

48. J. GALTUNG, "A STRUCTURAL THEORY OF AGGRESSION," JPR 2 (1964): 115.

49. UNITIES WERE PLACED IN THE DIAGONALS, AND AN EIGENVALUE OF GREATER THAN 1.00 WAS USED AS THE CUT-OFF CRITERION.

TABLE 5

FACTOR ANALYSIS OF 18 ATTRIBUTE INDICATORS FOR 32 BLACK AFRICAN NATIONS: ORTHOGONAL FACTOR ROTATION

	1	2	3	4	5	6	λ^2
	POWER	URBANIZATION	DEVELOPMENT	RELIGION	POLITICAL ORIENTATION		
POPULATION	.96	-.09	-.09	.02	.10	-.02	.95
GDP	.95	.04	-.004	-.002	.15	.07	.93
MEN ARMED	.94	-.04	-.05	.01	.16	.04	.92
POP. IN CITY	.06	.96	-.01	.01	.05	.15	.96
LARGE CITIES	-.03	.86	-.04	.05	-.22	-.16	.81
TELEPHONES	-.14	.72	.45	.13	.16	.21	.84
CAPITAL FORMATION	-.06	.01	.83	.01	.05	-.14	.72
TRADE BALANCE	.14	-.09	.82	.02	-.22	.11	.76
GNP PER CAPITA	-.14	.53	.69	.04	.06	.28	.86
ENERGY PER CAPITA	-.04	.46	.68	.13	.03	.40	.85
PUB. INVESTMENT	-.31	.03	.67	-.05	.10	-.48	.79
% CHRISTIAN	.13	.06	.11	.94	-.03	-.05	.93
% MUSLIM	.11	-.04	.01	-.87	.08	-.45	.97
COMM. REP.	.23	-.05	-.01	-.11	.86	.07	.82
COMM. AID	.14	.08	-.07	.07	.83	-.22	.77
COMM. TRADE	.07	-.21	.10	-.56	.65	.26	.86
% TRADITIONAL REL.	-.32	-.01	-.14	.22	-.11	.77	.77
LANGUAGE	-.26	-.17	-.18	.04	-.05	-.75	.86
EIGENVALUE	3.46	2.15	2.92	2.05	2.06	2.33	
% TOTAL VARIANCE	18.6	11.8	16.2	11.3	11.4	12.9	

COMBINATION OF THREE DIFFERENT STRENGTH INDICATORS - ECONOMIC (GNP), MILITARY (MEN ARMED) AND SIZE-(POPULATION). IN COMPARING THESE LOADINGS WITH THE FACTOR SCORES OF NATIONS AND THEIR RANK ON THE INDIVIDUAL VARIABLES RAW SCORES, RANK IMPLYING ONLY AN ORDERING OF THE NATIONS FROM A HIGH VALUE TO A LOW VALUE, NATIONS WITH HIGH POSITIVE FACTOR SCORES ALSO HAVE A LARGE GNP, ARMY AND POPULATION. THE REVERSE HOLDS FOR NATIONS WITH HIGH NEGATIVE FACTOR SCORES. DEVELOPMENT TAPS VARIABLES RELEVANT TO THE WEALTH OF THE NATIONS - ENERGY CONSUMPTION, CAPITAL FORMATION AS A PERCENT GNP, GNP PER CAPITA, PUBLIC INVESTMENT AND TRADE. ONCE AGAIN A HIGH FACTOR SCORE IS ASSIGNED TO THOSE NATIONS RANKED HIGH ON THE RAW SCORES.

THE SECOND FACTOR IS SIMILAR TO ROSENBAUM'S SIZE GENOTYPE VARIABLE. HOWEVER, URBANIZATION IS A SPECIFIC COROLLARY OF SIZE. IT IS MORE A MEASUREMENT OF GROWTH PATTERNS OF POPULATION. NATIONS WITH A HIGH FACTOR SCORE TEND TO HAVE MORE PEOPLE LIVING IN LARGE CITIES. WITH URBANIZATION THE TELEPHONE IS A PREVALENT MEANS OF COMMUNICATION WITH THE SHORT DISTANCES FOR THE LINES WITHIN THE CITY, AND THE NEED FOR MORE COMMUNICATION BETWEEN CITIES. THUS, THE FACTOR HAS BEEN LABELLED URBANIZATION.

THE FIFTH FACTOR, POLITICAL ORIENTATION, IS AN INDICATION OF PREFERENCES IN INTERNATIONAL COMMITMENTS. A HIGH FACTOR SCORE FOR A NATION INDICATES A LARGE AMOUNT OF FOREIGN AID IS RECEIVED FROM EAST BLOC COUNTRIES, INTERNATIONAL TRADE IS IMPORTANT TO THE NATION, AND THERE IS HIGH DIPLOMATIC REPRESENTATION FROM EAST BLOC COUNTRIES. HOWEVER, WHEREAS A HIGH NEGATIVE FACTOR SCORE INDICATES THAT A NATION DOES NOT RELY HEAVILY ON INTERNATIONAL TRADE AND THEY HAVE FEWER EAST

BLOC DIPLOMATIC REPRESENTATIVES, A NEGATIVE SCORE DOES NOT MEAN THAT THESE NATIONS RECEIVE LESS AID FROM EAST BLOC COUNTRIES.

THE FINAL FACTOR IS CLEARLY A RELIGIOUS DIMENSION. IT DEMONSTRATES THE DIVERSITY IN AFRICAN RELIGIONS WITH NATIONS DIVIDED BETWEEN THOSE PREDOMINANTLY CHRISTIAN AND THOSE WHO ARE MUSLIM. NATIONS WITH A HIGH PERCENTAGE OF CHRISTIAN IDENTIFIERS HAVE A HIGH POSITIVE FACTOR SCORE, WHEREAS NATIONS WITH HIGH NEGATIVE SCORES ARE PREDOMINANTLY MUSLIM.

WITHOUT IDENTIFYING THE CONTENT OF ATTRIBUTE AND BEHAVIOUR DIMENSIONS, FIELD THEORY PROPOSES THAT A AND B-SPACE ARE GENERATED BY A FINITE SET OF LINEARLY INDEPENDENT DIMENSIONS. WITH THESE DIMENSIONS NOW DETERMINED BY FACTOR ANALYSIS AS THE OPERATIONAL PROCEDURE, THE FALSIFIABLE COMPONENTS OF SOCIAL AND STATUS-FIELD THEORY MAY BE DEVELOPED. PROPOSITIONS AND HYPOTHESES APPLICABLE TO BLACK AFRICA MAY BE DERIVED FROM THE AXIOMS AND TESTED USING THE ATTRIBUTE AND BEHAVIOUR DIMENSIONS AS THEY HAVE BEEN DEFINED FOR THE BLACK AFRICAN REGIONAL SYSTEM.

FIELD THEORY EXPLANATIONS OF AFRICAN BEHAVIOUR

THE SOCIAL AND STATUS-FIELD THEORY AXIOMS MAY BE RESTATED IN ORDER TO DERIVE THE PROPOSITIONS AND HYPOTHESES FOR THIS THESIS. IT MUST BE REMEMBERED, HOWEVER, THAT WHILE BOTH THEORIES HAVE THE SAME BASIC AXIOMS AND CONCEPTS, STATUS-FIELD THEORY IS MUCH MORE PRECISE STIPULATING SIGN DIRECTIONS FOR ATTRIBUTE DISTANCE VECTORS AND THE VARIOUS TYPES OF FOREIGN POLICY BEHAVIOUR DEPENDENT UPON THESE DISTANCES. BOTH THEORIES ASSUME THAT THE ATTRIBUTES AND INTERACTIONS

OF NATIONS FORM A COMPLEX INTERRELATIONSHIP WHICH CONSTITUTES INTERNATIONAL RELATIONS, AND IN THIS INSTANCE REGIONAL RELATIONS. ATTRIBUTES AND INTERACTION, OR THE BEHAVIOUR IN WHICH NATIONS ENGAGE, ARE USED ANALYTICALLY AS ATTRIBUTE AND BEHAVIOUR SPACE, WITH THE LOCATION OF ALL NATIONS ATTRIBUTE DISTANCES IN ATTRIBUTE SPACE AND DYADIO INTERACTION LOCATED IN BEHAVIOUR SPACE. SINCE SPACE IS DEFINED IN EUCLIDEAN TERMS, THE ATTRIBUTE DISTANCES BETWEEN NATIONS AND DYADIO BEHAVIOUR ARE PLOTTED AS VECTORS IN THEIR RESPECTIVE SPACES. FINALLY, THESE ATTRIBUTE DISTANCES SERVE AS THE SOCIAL FORCE WHICH DETERMINED BEHAVIOUR IN THE DYAD. THIS IS EXPRESSED IN THE BASIC EQUATION:

$$\vec{W}_{1 \rightarrow j, k} = \sum_{l=1}^p \alpha_l d_{1-j, l} \quad (1)$$

WHERE $\vec{W}_{1 \rightarrow j, k}$ IS THE k -TH DIMENSION OF BEHAVIOUR SPACE ($\vec{W}$) FOR THE ACTOR 1 ACTING TOWARDS THE TARGET OR OBJECT NATION j . $d_{1-j, l}$ REPRESENTS THE DISTANCE VECTOR OR THE DIFFERENCE BETWEEN 1 AND j ON THE l -TH DIMENSION OF ATTRIBUTE SPACE. α DENOTES THE PARAMETER WEIGHT GIVEN TO EACH DIMENSION, AND THE SUM ($\sum$) OF THIS DISTANCE IS THE SOCIAL FORCE DETERMINING BEHAVIOUR. A SLIGHTLY ELABORATED EQUATION

$$\vec{W}_{1 \rightarrow j, k} = \sum_{l=1}^p \alpha_{1, l} d_{1-j, l} \quad (2)$$

RELATES MORE SPECIFICALLY THE ATTRIBUTE DISTANCES BETWEEN ONE ACTOR AND ITS TARGETS (DENOTED BY THE SUBSCRIPT 1 IN α) TO THE BEHAVIOUR IN THIS DYADIO SET. THE WEIGHTS (α) IN THESE TWO EQUATIONS ARE IMPORTANT BECAUSE THEY INDICATE THE STRESSES ON DIFFERENT DECISION-

MAKERS ON ATTRIBUTE DIMENSIONS IN PERCEIVING WHAT FORM OF INTERACTION IS REQUIRED.

SOCIAL-FIELD THEORY PURPORTS TO GO NO FURTHER THAN THIS SUMMATION OF THE DISTANCE FROM THE ACTOR TO THE TARGET ON THE ATTRIBUTE DIMENSIONS WHICH ACTS AS THE SOCIAL FORCE DETERMINING THE BEHAVIOUR IN THE DYAD. STATUS-FIELD THEORY PROGRESSES IN ITS AXIOMATIC DEVELOPMENT ON ONE MAJOR COUNT. THE ASSUMPTION IS THAT THE INTERNATIONAL SYSTEM IS STRATIFIED. THIS ASSUMES THAT NATIONS HAVE A POSITION IN THE SYSTEM RELATIVE TO OTHER NATIONS. IN ORDER TO PRESERVE THIS SYSTEM THEY INTERACT MORE WITH NATIONS WHICH ARE RELATIVELY HIGHER THAN THEMSELVES, AND THE THEORY ASSUMES THAT THE GREATER THEIR RANK THE MORE THEY WILL DO SO. STATUS-FIELD THEORY ALSO STIPULATES THAT NATIONS WILL EMPHASIZE THEIR DOMINANT STATUS, AND THE OBJECTS WEAKER STATUS, AND THAT THESE IMPORTANT STATUSES ARE ECONOMIC DEVELOPMENT AND POWER. WHERE SIMILARITY, PARTICULARLY IN ECONOMIC DEVELOPMENT EXISTS, THESE NATIONS ARE MORE LIKELY TO BE COOPERATIVE, ENSURING THE STATUS QUO OF THE SYSTEM.

ON THE BASIS OF THESE AXIOMS, A NUMBER OF THEOREMS ARE POSTULATED, AND MAY BE EXAMINED IN MORE DETAIL THAN STATED IN THE PREVIOUS CHAPTER. THE FIRST THEOREMS LOOK AT STATUS DIMENSIONS AS A SUBSET OF ATTRIBUTE DIMENSIONS AND SPECIFY THAT NATIONS DESIRE UPWARD STATUS MOBILITY. WHERE NATIONS STATUSES ARE UNBALANCED, THEIR NATURAL INCLINATION IS TO BALANCE THEM. AS DISCUSSED PREVIOUSLY IN THE AXIOMS, SINCE STATES STRESS OTHERS' WEAKER STATUS, STATUS INCONGRUENCE MAY BE CALCULATED BY THE SUMMATION OF THE TWO NATIONS' STATUS DISEQUILIBRIUM: ⁵⁰

50. G. HILTON, A REVIEW OF THE DIMENSIONALITY OF NATIONS PROJECT (BEVERLY HILLS: SAGE PUBLICATION, 1973), PP. 31-2.

$$\pm \alpha(S_{11} - S_{j1}) \pm \alpha(S_{12} - S_{j2})$$

WHERE α IS THE POSITIVE PARAMETER AND S_{11} AND S_{12} ARE NATION 1'S ECONOMIC DEVELOPMENT AND POWER STATUSES RESPECTIVELY. IT IS THIS STATUS INCONGRUENCE WHICH IS THE DISTANCE VECTOR BETWEEN TWO NATIONS STATUS VECTORS ON STATUS DIMENSIONS.

THE BEHAVIOUR IN A DYAD MAY BE EITHER CONFLICT, COOPERATION OR A MIX OF BOTH, DEPENDING ON THE ATTRIBUTE RELATIONSHIPS BETWEEN THE ACTOR AND TARGET. THE COOPERATION THEOREM LOOKS UPON THE JOINT RANK OF NATIONS AS CONTRIBUTING TO COOPERATIVE BEHAVIOUR. THAT IS,

$$CO_{1 \rightarrow j} = -\alpha_{11}d_{1-j,1} - \alpha_{12}d_{1-j,2} \quad (3)$$

WHERE $CO_{1 \rightarrow j}$ IS DIRECTIONAL WITH THE AMOUNT OF COOPERATION OF 1 WITH j . d IS THE STATUS DIFFERENCE BETWEEN THE TWO NATIONS ON THE ECONOMIC DEVELOPMENT (1) AND POWER (2) AS PREVIOUSLY DISCUSSED UNDER THE RANK AND STATUS DISEQUILIBRIUM DEFINITIONS. THE NEGATIVE SIGN IS USED, HOWEVER, BECAUSE THE THEOREM MEASURES THE JOINT RANK OF THE NATIONS BY THEIR DISTANCE, NOT THEIR SUM.

STATUS-FIELD THEORY PRESCRIBES TWO CONFLICT THEOREMS, ONE FOR ECONOMICALLY DEVELOPED STATES (EQUATION 4) AND ONE FOR ECONOMICALLY UNDERDEVELOPED STATES (EQUATION 5);⁵¹

51. *IBID.*, P. 36.

$$CF_{1 \rightarrow j} = \beta_{11} d_{1-j,1} - \beta_{12} d_{1-j,2} \quad (4)$$

AND

$$CF_{1 \rightarrow j} = -(\beta_{11} d_{1-j,1} - \beta_{12} d_{1-j,2}) \quad (5)$$

FOR THE ECONOMICALLY DEVELOPED THEOREM IT IS EXPECTED THAT WHERE CF_{1-j} IS THE CONFLICT BEHAVIOUR OF 1 WITH j, DEVELOPED 1'S WILL EXPORT LOW CONFLICT TO j'S ABOVE THEM AND HIGH CONFLICT TO j'S BELOW, AND ON THE POWER DIMENSION WILL EXPORT HIGH CONFLICT TO j'S ABOVE, AND LOW CONFLICT TO j'S BELOW. WITH THE DIFFERENCE IN SIGNS FOR THE NEXT THEOREM, THE OPPOSITE IS EXPECTED. ECONOMICALLY UNDERDEVELOPED 1'S WILL EXPORT HIGH CONFLICT TO j'S ABOVE, AND LOW CONFLICT TO j'S BELOW, AND ON THE POWER DIMENSION 1 WILL EXPORT LOW CONFLICT TO j'S ABOVE IT AND HIGH CONFLICT TO j'S BELOW.⁵²

FOR THE STATUS BEHAVIOUR THEOREMS THERE IS AGAIN A DIFFERENT THEOREM FOR THE ECONOMICALLY DEVELOPED AND UNDERDEVELOPED NATIONS. THE DIFFERENCES, AS DISCUSSED PREVIOUSLY, ARE IN THE DOMINANT STATUS DIMENSION AND THE SIGN PREDICTION. FOR DEVELOPED STATES, STATUS BEHAVIOUR IS A FUNCTION OF POWER. SINCE IT IS ASSUMED THAT THESE NATIONS ARE ECONOMICALLY DEVELOPED, THE NATIONS ARE CONCERNED WITH HAVING AN ADVANTAGE VIS A VIS OTHERS. ABSOLUTE POWER IS NOT ESSENTIAL,

52. J. VINCENT, "ATTRIBUTE AND ATTRIBUTE DISTANCE THEORY OF INTERNATIONAL BEHAVIOUR," (ATLANTIC UNIVERSITY, MARCH 1974, Mimeo), PP. 7-8.

ONLY ENOUGH TO HAVE AN EDGE OVER OTHERS. THUS, THE RELATIONSHIP BETWEEN THE ACTOR AND TARGET MAY BE STATED AS

$$CO_{1+j} + CF_{1+j} = \gamma_{12} d_{1-j,2} \quad (6)$$

WHERE γ_{12} IS THE POSITIVE PARAMETER EQUATING THE PARAMETERS FOR CO-OPERATION (α_{12}) AND CONFLICT (β_{12}) FOR THE POWER DIMENSION. $1 - j$ IS, THEN THE INCONGRUENCE DISTANCE VECTOR FOR THE POWER STATUS.

UNDERDEVELOPED NATIONS, HOWEVER, STRESS ECONOMIC DEVELOPMENT. AS STATED PREVIOUSLY, ECONOMIC DEVELOPMENT IS AN ACHIEVED STATUS, WHILE POWER IS ASCRIBED. THEREFORE, IT IS EASIER FOR LESS DEVELOPED STATES TO ATTEMPT TO ACHIEVE THE FORMER STATUS, THROUGH COOPERATIVE AND CONFLICTIVE BEHAVIOUR. THUS A TESTABLE EQUATION IS

$$CO_{1+j} + CF_{1+j} = \gamma_{11} d_{1-j,1} \quad (7)$$

WHERE γ_{11} IS THE POSITIVE PARAMETER FOR CONFLICT (β_{11}) AND CO-OPERATION (α_{11}) WITH THE COOPERATION-CONFLICT BEHAVIOUR A FUNCTION OF THE UNDERDEVELOPED NATIONS ECONOMIC DEVELOPMENT INCONGRUENCE.⁵³

FIELD THEORY THEN POSITS A LINK BETWEEN THE ATTRIBUTE DISTANCES IN DYADS AND DYADIC BEHAVIOUR. THIS THESIS POSTULATES THAT THE RESULTS FROM HYPOTHESES BASED ON FIELD THEORY TESTED IN A REGION SHOULD REPLICATE THE FINDINGS IN THE GLOBAL SYSTEM. THAT IS, ATTRI-

53. HILTON, A REVIEW, PP. 37-38.

ATTRIBUTE DISTANCES BETWEEN NATIONS SHOULD ACT AS A SOCIAL FORCE DETERMINING BEHAVIOUR, AND THAT BEHAVIOUR IN A TEST OF THE MORE EXCLUSIVE STATUS-FIELD THEORY SHOULD BE STATUS DETERMINED. THE HYPOTHESES MAY BE TESTED FROM TWO DIFFERENT PERSPECTIVES OR MODELS. IN THE GENERALIZED DYADIO ANALYSIS OF MODEL I, THE BEHAVIOUR OF ALL ACTORS TO ALL OF THE TARGETS IS ANALYSED FROM THE PERSPECTIVE OF ATTRIBUTE DISTANCES BETWEEN THE ACTOR AND THE TARGETS. THUS, THIS MODEL OF FIELD THEORY PROVIDES A GENERALIZED EXPLANATION OF THE RELATIONSHIP BETWEEN THE TWO SETS OF VARIABLES. THE MODEL II PERSPECTIVE IS THE DYADIO SET ANALYSIS. THE ATTRIBUTE DISTANCES FROM ONE ACTOR TO ITS TARGETS ARE CONSIDERED TO BE THE FORCE WHICH INFLUENCES THE BEHAVIOUR OF THAT ACTOR TOWARDS THE OBJECT NATIONS. THUS, THE SECOND ANALYSIS STUDIES EACH OF THE 32 BLACK AFRICAN NATIONS SEPARATELY EACH IN ITS INTERACTIONS WITH ALL OF ITS TARGETS.

FIVE ATTRIBUTE DIMENSIONS ARE USED IN THE HYPOTHESES FOR SOCIAL-FIELD THEORY - POWER, URBANIZATION, DEVELOPMENT, RELIGION AND POLITICAL ORIENTATION FOR BOTH THE GENERALIZED AND DYADIO SET ANALYSES. THE BEHAVIOUR DIMENSIONS ARE INTERACTIVE BEHAVIOUR, COMMITTED CONFLICT AND COOPERATIVE DEEDS. WITH THESE TWO SPACES IDENTIFIED, IT IS NOW POSSIBLE TO TEST THE THEOREMS BY RESTATING THEM AS TESTABLE HYPOTHESES.

THE MOST BASIC PROPOSITION COMES FROM THE WORK OF ROSENAU'S PRE-THEORETICAL PROPOSITION THAT THE DIFFERENCES IN SIZE, ECONOMIC DEVELOPMENT, AND POLITICAL ACCOUNTABILITY OF NATIONS ARE SO ESSENTIAL TO A NATION THAT THEY LEAD TO FUNDAMENTAL DIFFERENCES IN FOREIGN

POLICY BEHAVIOUR.⁵⁴ IN PREVIOUS TESTS THE RELATIONSHIPS SUGGESTED BY THIS PROPOSITION HAVE BEEN FOUND TO EXIST IN VARYING DEGREES. THUS THIS PAPER TESTS THE PROPOSITION ONCE MORE TO SEE IF IT APPLIES TO NATIONS AT A LEVEL WHERE THE DIFFERENCES BETWEEN THEM ARE BOUND TO BE OF A SMALLER MAGNITUDE THAN AT THE GLOBAL LEVEL. FROM THE PRE-THEORY EXTENSION OF ROSENAU AND HOGGARD⁵⁵ THE TYPE OF BEHAVIOUR EXPECTED FROM THESE DIFFERENCES MAY BE HYPOTHESIZED. THUS, THE MORE SIMILAR THE NATIONS ARE IN THE DYAD ON THESE THREE ATTRIBUTE DIMENSIONS, THE MORE LIKELY THEY ARE TO ENGAGE IN COOPERATIVE BEHAVIOUR. FOR THE ATTRIBUTES SPECIFIC TO AFRICA, ROSENAU'S THREE NATIONAL ATTRIBUTES ARE COMPARABLE TO THE URBANIZATION (U), DEVELOPMENT (D) AND POLITICAL ORIENTATION (PO) DIMENSIONS WHICH EMERGED FROM THE FACTOR ANALYSIS. THUS THE HYPOTHESIS MAY BE EXPRESSED AS

$$CO_{i+j} = -\alpha U_{i-j} - \alpha D_{i-j} - \alpha PO_{i-j} + \epsilon \quad (8)$$

WHERE CO IS THE COOPERATION BETWEEN A COUNTRY AND TARGET AND THE α 'S ARE THE WEIGHTS FOR THE ATTRIBUTE DIMENSIONS. THE HYPOTHESIS STATES THAT THE CLOSER THE NATIONS ARE, OR THE LESS THE DISTANCE BETWEEN THEM ON THE ATTRIBUTE DIMENSIONS, THE MORE COOPERATIVE BEHAVIOUR THEY WILL EXCHANGE. THE COROLLARY TO THIS IS THE GREATER THE ATTRIBUTE DISTANCE, THE LESS THE COOPERATION, THE MORE THE CONFLICT.

⁵⁴. J. ROSENAU, "PRE-THEORIES AND THEORIES IN FOREIGN POLICY," IN APPROACHES TO COMPARATIVE AND INTERNATIONAL POLITICS, ED. R. FARRELL (EVANSTON: NORTHWESTERN UNIVERSITY PRESS, 1966).

⁵⁵. ROSENAU AND HOGGARD, "FOREIGN," PP. 125-7.

THE SECOND PROPOSITION IS THE HOMOGENEITY PROPOSITION THAT THE DISTANCE VECTOR BETWEEN THE ACTOR-NATION AND AN OBJECT-NATION ON ECONOMIC DEVELOPMENT, POWER, URBANIZATION, RELIGION AND POLITICAL ORIENTATION DIMENSIONS WILL CONTRIBUTE NEGATIVELY TO THE COOPERATIVE BEHAVIOUR OF THE ACTOR TO THE OBJECT-NATION. THUS, THE MORE SIMILAR NATIONS ARE THE MORE LIKELY THEY ARE TO COOPERATE AND ENTER INTO AGREEMENTS WITH EACH OTHER. THIS HYPOTHESIS BUILDS ON RUMMEL'S⁵⁶ ARTICLE IN WHICH HE ACCOUNTS FOR ANGLO-AMERICAN BEHAVIOUR BY SIMILARITY IN ECONOMIC DEVELOPMENT, DISSIMILARITY IN FOREIGN CONFLICT BEHAVIOUR, THE CATHOLIC NATURE OF THE OBJECT AND THE GEOGRAPHIC CLOSENESS. POWELL, ANDRUS, FOWLER AND KNIGHT, FURTHERMORE, SUGGEST THAT THE INTERRELATION OF A NUMBER OF ATTRIBUTES DIRECTLY AFFECTS THE FOREIGN POLICY BEHAVIOUR OF NATIONS, THEREBY FORMING A COMPLETE EQUILIBRIUM MODEL. THE EQUATION FOR THE HOMOGENEITY PROPOSITION IS:

$$CO_{i+j} = -\alpha P_{i-j} - \alpha U_{i-j} - \alpha D_{i-j} - \alpha R_{i-j} - \alpha PO_{i-j} + g \quad (9)$$

WHERE CO IS COOPERATION, α IS THE PARAMETRIC WEIGHTS ASSIGNED TO THE DIMENSIONS, AND g IS A CONSTANT. P DENOTES THE POWER DIMENSION, U URBANIZATION, D DEVELOPMENT, R RELIGION AND PO DENOTES POLITICAL ORIENTATION. THE HYPOTHESIS IS THE MORE SIMILAR NATIONS ARE IN ECONOMIC DEVELOPMENT, URBANIZATION, POWER, RELIGION AND POLITICAL ORIENTATION, THE MORE THEY WILL ENGAGE IN COOPERATIVE BEHAVIOUR.

THE AXIOMS OF STATUS-FIELD THEORY POSIT THE RELATIONSHIP THAT

56. RUMMEL, "U.S.," P. 105.

THE TWO MAJOR DIMENSIONS OF ECONOMIC DEVELOPMENT AND POWER INFLUENCE STATUS BEHAVIOUR. THAT IS, SOME BEHAVIOUR IS STATUS DEPENDENT; IN THIS THESIS, HOWEVER, NOT ALL OF THESE AXIOMS STATED EARLIER ARE EXPLORED.

THERE ARE SEVERAL MAJOR THEMES WHICH STATUS-FIELD THEORY DISCUSSES AND WHICH ARE TESTED HERE. THE UNDERLYING ASSUMPTIONS HAVE BEEN DISCUSSED PREVIOUSLY RELATIVE TO STATUS, SUCH AS STATUS RELEVANT BEHAVIOUR BEING DIRECTED TOWARDS HIGHER RANKING NATIONS, AND THE GREATER A NATION'S RANK, THE MORE ITS STATUS BEHAVIOUR. FROM THIS IT MAY BE EXPECTED THAT NATIONS DIRECT STATUS DEPENDENT BEHAVIOUR ONLY TO THOSE OBJECTS WHICH ALSO HAVE A HIGH STATUS. THESE NATIONS HAVE A VESTED INTEREST IN MAINTAINING THE PRESENT INTERNATIONAL ORDER, SINCE, AS STATED IN THE DEFINITION OF STATUS, EVERY NATION DESIRES AN UPWARD CHANGE IN ITS STATUS AND ONCE IT IS ACHIEVED, DESIRES TO MAINTAIN THE STATUS. THE MOST NATURAL WAY TO MAINTAIN THIS POSITION IS THROUGH COOPERATION, AND THE BEST PLACE FOR THIS INTERACTION IS WITH OTHER NATIONS IN THE SAME POSITION. THUS, USING THE COOPERATIVE THEOREM (EQUATION 3) RESTATED

$$CO_{i+j} = -\alpha_{iD} d_{i-j,D} - \alpha_{iP} d_{i-j,P} \quad (10)$$

A HYPOTHESIS APPLICABLE TO BLACK AFRICA IS: THE MORE ECONOMICALLY DEVELOPED AND THE MORE POWERFUL THE TARGET NATION, THE MORE AFRICAN NATIONS ENGAGE IN STATUS-DEPENDENT COOPERATIVE BEHAVIOUR.

THE ADJECTIVES "MORE" OR "LESS" ARE USED TO IMPLY THAT THE ACTOR IS RELATIVELY ABOVE, OR BELOW, THE TARGET IN THE QUANTITY OF THE

PHENOMENON BEING COMPARED. THAT IS, A NATION IS ONLY LARGER OR SMALLER IN COMPARISON TO OTHER NATIONS WHICH MAY BE SIMILAR OR DIS-SIMILAR. NOT UNTIL SOME VALUE IS ASSIGNED TO A NATION CAN NATIONS BE COMPARED ON THE BASIS OF THAT VALUE. THUS, TO DISTINGUISH BETWEEN MORE OR "LESS DEVELOPED" NATIONS AND "MORE" OR "LESS POWERFUL" NATIONS, AND TO TEST THE HYPOTHESIS REQUIRING SOME RANKING OF NATIONS, THE MAGNITUDE OF DIFFERENCES BETWEEN NATIONS SHOULD BE APPARENT FROM THEIR FACTOR SCORES ON THE TWO DIMENSIONS OF DEVELOPMENT AND POWER. BY LOOKING AT THE RELATIVE POSITIONS OF NATIONS IN TABLE 6 IN COMPARISON WITH THE ACTORS AND THEIR TARGETS LISTED IN APPENDIX 2, IT MAY BE DETERMINED WHETHER THE PROPOSITION THAT NATIONS INTERACT MORE WITH NATIONS THAT POSSESS THE SAME AMOUNT OR MORE RESOURCES IS CONFIRMED AND WHETHER THIS DISTANCE INFLUENCES BEHAVIOUR IN THE DIRECTIONS PREDICTED BY THE HYPOTHESIS.

AS PREVIOUSLY DISCUSSED, CONFLICT BEHAVIOUR HAS A DIFFERENT SET OF ASSUMPTIONS. BRIEFLY STATED, SOME NATIONS MAY NOT HAVE THE SAME RANK ON BOTH DIMENSIONS OF ECONOMIC DEVELOPMENT AND POWER. THAT IS, A NATION MAY RANK HIGH ON ONE DIMENSION AND LOW ON THE OTHER. HOWEVER, WHILE NATIONS EMPHASIZE THEIR HIGHER STATUS, OTHERS EMPHASIZE THE NATIONS' LOWER STATUS IN INTERACTIONS, AND THIS STATUS DISEQUILIBRIUM PRODUCES COGNITIVE DISSONANCE (AXIOM 8 AND DISSONANCE COROLLARY). SINCE THE DISEQUILIBRATED NATION CANNOT EASILY CHANGE ITS' LOWER STATUS TO A HIGHER ONE, AND IT CANNOT CHANGE ANOTHER NATION'S EMPHASIS TO THE HIGHER ONE, THE NATION REDIRECTS ITS POSITIVE BEHAVIOUR TO NEGATIVE BEHAVIOUR OR CONFLICT. THE TWO TYPES OF STATUS FUNCTION DIFFERENTLY, HOWEVER, WITH RESPECT TO ~~CONFLICT~~

TABLE 6

RELATIVE PLACEMENT OF NATIONS ACCORDING TO FACTOR SCORES ON THE
DEVELOPMENT AND POWER DIMENSIONS

<u>DEVELOPMENT</u>		<u>POWER</u>	
GABON	2.94	NIGERIA	4.35
MAURITANIA	2.41	ZAIRE	2.00
ZAMBIA	1.74	ETHIOPIA	1.38
LIBERIA	1.72	SUDAN	.80
IVORY COAST	.78	GHANA	.52
GUINEA	.42	SENEGAL	.14
SUDAN	.38	UGANDA	.10
MALAWI	.37	CAMEROON	.09
KENYA	.23	KENYA	.07
UGANDA	.23	TANZANIA	.05
LESOTHO	-.00	ZAMBIA	-.07
SENEGAL	-.00	IVORY COAST	-.09
SIERRA LEONE	-.01	NIGER	-.15
ZAIRE	-.04	C.A.R.	-.20
GHANA	-.07	SOMALIA	-.21
TANZANIA	-.19	GABON	-.25
CAMEROON	-.31	LIBERIA	-.30
NIGERIA	-.34	MALI	-.32
ETHIOPIA	-.38	MALAWI	-.33
RWANDA	-.39	CHAD	-.36
MALI	-.41	GAMBIA	-.44
NIGER	-.44	BURUNDI	-.48
TOGO	-.49	TOGO	-.49
SOMALIA	-.52	SIERRA LEONE	-.49
BURUNDI	-.59	LESOTHO	-.50
CONGO	-.65	UPPER VOLTA	-.52
CHAD	-.75	MAURITANIA	-.59
BOTSWANA	-.84	RWANDA	-.64
GAMBIA	-.96	GUINEA	-.64
C.A.R.	-1.05	BOTSWANA	-.75
UPPER VOLTA	-1.26	DAHOMY	-.83
DAHOMY	-1.52	CONGO	-.86

CONFLICT BEHAVIOUR. WHILE POWER IS AN ASCRIBED STATUS, SUCH AS POPULATION AND LAND AREA, AND THEREFORE VIRTUALLY UNALTERABLE, ECONOMIC DEVELOPMENT IS AN ACHIEVED STATUS AND THEREFORE MUCH EASIER TO CHANGE, RELATIVE TO POWER.⁵⁷ THEREFORE, A POSITIVE STATUS DIFFERENCE ON ECONOMIC DEVELOPMENT DOES NOT NECESSARILY LEAD TO CONFLICT. BECAUSE DEVELOPMENT MAY BE ACHIEVED, COOPERATION MAY EXIST BETWEEN TWO NATIONS OF DIFFERENT DEVELOPMENT STATUSES SO THAT THE LOWER NATION MAY RECEIVE THE TECHNICAL KNOWLEDGE FOR MORE DEVELOPMENT. HIGH POWER ON THE OTHER HAND IS MORE DIFFICULT TO OBTAIN. ABSOLUTE STRENGTH DOES NOT MEAN MUCH. RATHER THE RELATIVE STRENGTH OF A NATION COUNTS IN HAVING JUST ENOUGH POWER TO OVERCOME ITS COUNTERPART IN A CONFLICT SITUATION.⁵⁸ CONFLICT THEN IS MORE LIKELY TO OCCUR BETWEEN NATIONS WHICH ARE SIMILAR ON THE POWER DIMENSION. THUS, THE CONFLICT THEOREM (EQUATION 4) IS

$$CF_{1+j} = \beta_{1D} d_{1-j,D} - \beta_{1P} d_{1-j,P} \quad (11)$$

WHERE D IS ECONOMIC DEVELOPMENT AND P DENOTES POWER, SUPPORTS THE HYPOTHESIS THAT THE MORE DISSIMILAR AFRICAN NATIONS ARE ON ECONOMIC

57. STATUS-FIELD THEORY ACTUALLY PRESENTS A CONFLICT THEOREM FOR ECONOMICALLY DEVELOPED AND UNDERDEVELOPED STATES. THIS THESIS EMPLOYS THE THEOREM FOR ECONOMICALLY DEVELOPED STATES SINCE DEVELOPMENT IS A RELATIONAL TERM AND THE BLACK AFRICAN NATIONS ARE RELATIVELY SIMILAR TO EACH OTHER; THAT IS SOME ARE MORE ECONOMICALLY DEVELOPED THAN OTHERS, IN COMPARISON TO ECONOMICALLY DEVELOPED NATIONS OUTSIDE THE REGION.

58. S. RHEE, "CHINA'S COOPERATION, CONFLICT AND INTERACTION BEHAVIOUR," IN ADVANCING AND CONTENDING APPROACHES TO THE STUDY OF CHINESE FOREIGN POLICY, ED. H.L. DIAL (DALHOUSIE UNIVERSITY CENTRE FOR FOREIGN POLICY STUDIES, 1974), P. 136.

DEVELOPMENT AND THE MORE SIMILAR ON POWER, THE MORE CONFLICT ACTIONS THE ACTOR WILL DIRECT TO THE TARGETS.

ON MANY OCCASIONS, HOWEVER, MIXED ACTIONS TAKE PLACE IN AFRICAN BEHAVIOUR. SOME COOPERATIVE AND SOME CONFLICT ACTIONS ARE DIRECTED BY THE ACTOR TO A TARGET. THUS THERE IS THE INTERACTION OR STATUS BEHAVIOUR THEOREM, A COMBINATION OF THE COOPERATION AND CONFLICT THEOREM. THIS EQUATION IS:

$$CO = -\alpha_D d_D - \alpha_P d_P \quad (12)$$

$$+ CF = \beta_D d_D - \beta_P d_P \quad (13)$$

$$CO + CF = (\beta_D - \alpha_D) d_D - (\beta_P + \alpha_P) d_P \quad (14)$$

IF $(\beta_D - \alpha_D)$ IS DENOTED AS γ_D AND $(\beta_P + \alpha_P)$ AS γ_P THEN THE EQUATION FROM (6) BECOMES

$$CO + CF = \gamma_D d_D - \gamma_P d_P \quad (15)$$

HOWEVER, RHEE ASSERTS THAT CO , CF , d_D AND d_P ARE MEASURED AS STANDARD SCORES. THUS, BOTH THE α 'S AND β 'S ARE CORRELATIONS OF CO AND CF WITH THE STATUS DISTANCES. THE PARAMETERS THEN ARE POSITIVE AND VARY BETWEEN 0.0 AND 1.0. THEREFORE, $(\beta_D - \alpha_D)$ SHOULD BE NEAR ZERO, WHILE $(\beta_P + \alpha_P)$ SHOULD BE NEAR UNITY. THEREFORE, THE REVISED EQUATION IS

$$CO + CF = -\gamma_P d_P \quad (16)$$

THUS THE INTERACTION THEOREM SUGGESTS THE FINAL HYPOTHESIS THAT THE MORE POWERFUL THE TARGET NATION IS, THE MORE COOPERATION AND CONFLICT THE ACTOR WILL DIRECT TO IT.

OPERATIONAL PROCEDURE

As has been pointed out, the behaviour dimensions for Africa correspond on Cooperation, Conflict and Interaction. The two major dimensions of Cooperation and Conflict are similar to the dichotomy between the two action types. Interactive behaviour corresponds with the mix of Cooperation and Conflict into a type of participation in the regional system. It is a form of commitment to other nations, and also an interaction factor representing the mix of events exchanged between nations. That is, not only cooperative behaviour is directed towards a target, but also conflict behaviour.

The attribute dimensions are a further reflection that concepts developed at the system level analysis may be applied to a subsystem level. The major dimensions discussed by Rosenau - size, development and accountability, and the status dimensions of Rummel - power and development, are found to exist in the African region, along with a few variables specific to the region, such as religion. It is the purpose of this thesis then, to determine whether consensus may be maintained by verifying the social and status-field theory tests for the study of the Black African region.

One of the more important constructs for structuring the fields in social and status-field theory involves vectors and in this particular case distance vectors, $\vec{D}$. A vector is defined as "a line segment with length and direction in space. The coordinate axes for locating a vector in space are given by the vector's elements."⁵⁹

⁵⁹. Rummel, Factor Analysis, p. 46.

(REFER TO FIGURE 2) FOR EACH ATTRIBUTE DIMENSION, A VECTOR MAY BE DRAWN BETWEEN NATIONS WITH THEIR VALUES ON THE DIMENSIONS BEING THE COORDINATES. THEREFORE, THE RELATIVE DISTANCE BETWEEN NATIONS MAY BE CALCULATED ALONG THIS VECTOR. THE SPATIAL RELATION BETWEEN NATIONS IS THEREBY DEMONSTRATED. THIS DISTANCE VECTOR IS CALCULATED BY THE EQUATION

$$\vec{d}_{i \rightarrow j, l} = \alpha_{j, l} - \alpha_{i, l} \quad (17)$$

WHERE $\vec{d}_{i \rightarrow j, l}$ IS THE DISTANCE BETWEEN THE ACTOR-NATION i AND THE TARGET ON THE l -TH DIMENSION. THE SCORE OF THE ACTOR, α_i , IS SUBTRACTED FROM THAT OF THE TARGET, α_j . THE RESULTING VALUE IS $\vec{d}$. THE FACTOR SCORES OF NATIONS ARE CALCULATED FOR EACH DIMENSION AS AN OVERALL INDICATOR OF THE VARIABLE'S IMPACT ON THE NATION FOR THAT PARTICULAR DIMENSION. THUS, AS DISCUSSED EARLIER, A NATION WITH A HIGH POSITIVE FACTOR SCORE ON A DIMENSION TENDS TO HAVE A HIGH ASSOCIATION WITH THE HIGH LOADING VARIABLES ON THAT DIMENSION. THESE FACTOR SCORES ARE USED IN PLACE OF α_i AND α_j IN EQUATION 16 FOR CALCULATING THE DISTANCE VECTORS.

BEHAVIOUR DIMENSIONS MAY ALSO BE TREATED AS VECTORS WITH COMPONENTS BEING THE VALUE OF EACH DYAD ON THE INTERACTION. BY FIELD THEORY, THE SUMMATION OF ALL THE ATTRIBUTE VECTOR DISTANCES, HOWEVER, PROVIDES THE SOCIAL FORCE WHICH DETERMINES THE BEHAVIOUR IN THE DYAD. THAT IS, "THE POSITION OF A DYAD VECTOR IN BEHAVIOUR SPACE IS A LINEAR VECTOR FUNCTION OF THE DISTANCE VECTORS IN ATTRIBUTE SPACE

CONNECTING THE SOCIAL UNITS."⁶⁰ (REFER TO FIGURE 3) THUS THE BEHAVIOUR IN A DYAD IS A FUNCTION OF THE AMOUNT OF DIFFERENCE BETWEEN THE NATIONS ON ALL THE ATTRIBUTE DIMENSIONS. THAT IS, THE LOCATION OF A DYAD IN BEHAVIOUR SPACE IS A RESULT OF THE SUMMATION OF ALL ATTRIBUTE DISTANCES, OR

$$\vec{W}_{i \rightarrow j, k} = \alpha_{1,1} d_{i-j,1} + \alpha_{1,m} d_{i-j,m} + \dots + \alpha_{1,q} d_{i-j,q} \quad (18)$$

WHERE $\vec{W}_{i-j,k}$ IS THE BEHAVIOUR FROM NATIONS i TO j AS A RESULT OF THE SUMMATION OF THE ATTRIBUTE DISTANCES $1, m \dots q$. THE EQUATION MAY BE SHORTENED TO

$$\vec{W} = \sum \alpha_m \vec{d}_m \quad (19)$$

BEFORE PROCEEDING TO A DISCUSSION OF HOW THIS FORCE IS DETERMINED OPERATIONALLY, THE BEHAVIOUR SCORES USED IN THIS PAPER WILL BE DISCUSSED.

IN TESTING SOCIAL AND STATUS-FIELD THEORY BEHAVIOUR IS EXAMINED USING THE FREQUENCY OF EVENTS AND A BEHAVIOUR INDEX. THE SIMPLE FREQUENCY OF EVENTS, OR THE NUMBER OF EVENTS FROM THE ACTOR TO THE TARGET FOR EACH CATEGORY OF EVENTS IS ONE METHOD OF FINDING THE VECTOR FOR BEHAVIOUR. APPENDIX 1 SHOWS THE DISTRIBUTION OF EVENTS FOR EACH ACTOR, WHILE APPENDIX 2 LISTS THE ACTOR AND ITS TARGETS. WHEREAS ORIGINALLY THERE WERE 992 CASES, THAT IS EACH CASE IS ONE ACTOR INTERACTING WITH ONE TARGET, THE DATA SET IS REDUCED TO 417 CASES, OR THOSE DYADS IN WHICH THERE IS SOME INTERACTION. AS COULD BE EXPECTED

60. R. RUMMEL, "A FIELD THEORY OF SOCIAL ACTION WITH APPLICATION TO CONFLICT WITHIN NATIONS," GENERAL SYSTEMS YEARBOOK 10 (1965):187.

IN A FIELD WHERE NATIONS MUST DIVIDE THEIR ATTENTION TIME BETWEEN NATIONS, THEY DO NOT HAVE THE OPPORTUNITY TO INTERACT WITH EVERYONE, AND THEREFORE SOME DYADS EXCHANGE NO EVENTS. THERE IS NO REASON TO EXAMINE THE ATTRIBUTE DIFFERENCES BETWEEN TWO NATIONS WHICH INFLUENCE FOREIGN POLICY BEHAVIOUR WHEN NO INTERACTIONS OCCUR, SINCE IT WOULD BE FOUND THAT EVEN THOUGH ATTRIBUTE DISTANCES VARY, THERE IS NO CORRESPONDING VARIATION IN BEHAVIOUR BECAUSE IT IS CONSTANTLY ZERO. THUS, THE NUMBER OF DYADIO SETS IS REDUCED FROM 32 TO 23. ALL DYADIO SETS WITH LESS THAN TEN TARGETS WERE OMITTED FROM THE ANALYSIS, SINCE AN N OF LESS THAN 10 WOULD MAKE MOST RESULTS STATISTICALLY UNRELIABLE.

A SECOND TYPE OF ANALYSIS IS USED FOR PLOTTING THE BEHAVIOUR PATTERNS OF DYADS. THE CREATION OF THREE BEHAVIOUR INDEXES, AN INTERACTION INDEX, A CONFLICT INDEX AND A COOPERATION INDEX, ASSIGNS BEHAVIOURAL VALUES FOR EACH DIRECTED DYAD LINKING THE DISCRETE INTERACTIONS FOR EACH DYAD TO THE DIMENSIONS OF BEHAVIOUR, AND ALSO ACTS AS A SUBSTITUTE FOR THE FREQUENCY OF EVENTS TEST IN DETERMINING FIRSTLY WHETHER A DYADIO BEHAVIOUR SCHEME IS EXPLAINED BY THE ATTRIBUTE DISTANCES, AND IS EMPLOYED TO DETERMINE WHETHER MUCH IS LEARNED FROM THE ORIGINAL ARBITRARY CLASSIFICATION OF EVENTS INTO THE 18 TYPES OF BEHAVIOUR, OR THE BEHAVIOUR INDEX.

THE IDEA OF EMPLOYING AN INDEX HAS BEEN USED PREVIOUSLY BY JACK VINCENT ET AL. IN THEIR PAPER B-SPACE IS REPRESENTED BY A COOPERATION AND A CONFLICT INDEX WHICH COMBINES WEIGHTED MEASURES OF THE TWO TYPES RESPECTIVELY ON A 5-POINT CONTINUOUS SCALE. A SET OF JUDGES RATED EACH ACTION TYPE, MEAN RESPONSES WERE COMPUTED AND THE MEASURES REPRESENTING HIGH CONFLICT AND HIGH COOPERATION WERE GIVEN HEAVY

WEIGHTS. THUS, THE FINAL INDEXES REPRESENTED A SUMMATION OF THE MEASURES WEIGHTED ACCORDING TO THE JUDGES' MEAN SCORES ACROSS A THREE-YEAR PERIOD.⁶¹ THE METHOD EMPLOYED IN THIS PAPER WORKS ON A SIMILAR PRINCIPLE OF WEIGHTING, BUT IS NOT AS ARBITRARY IN THE DECISIONS OF ARRANGING THE BEHAVIOUR HIERARCHICALLY. RATHER A PROCEDURE IS FOLLOWED TO CREATE THE BEHAVIOUR INDEXES USING THE EQUATION

$$BI = \sum_{k=1}^{18} \left[y_{k,1} \left(\frac{f_{1+1,k} - \bar{X}_{1,k}}{\sigma_{1,k}} \right) \right] \quad (20)$$

WHERE BI DENOTES THE BEHAVIOUR INDEX, $y_{k,1}$ THE FACTOR SCORE COEFFICIENT FOR EACH VARIABLE ON A FACTOR, $f_{1+1,k}$ THE FREQUENCY OR RAW SUMMATION OF EACH VARIABLE FOR THE PARTICULAR DYAD, $\bar{X}$ AND σ THE MEAN AND STANDARD DEVIATION FOR THAT VARIABLE.

THREE BEHAVIOUR INDEXES ARE CALCULATED FOR EACH OF THE 23 DYADIC SETS CORRESPONDING TO THE THREE FACTOR SOLUTION OF THE BEHAVIOUR VARIABLES IN THE FACTOR ANALYSIS REPORTED EARLIER - INTERACTIVE BEHAVIOUR, COMMITTED CONFLICT AND COOPERATIVE DEEDS. SINCE THE PROCEDURE FOR CREATING THE BEHAVIOUR INDEX IS THE SAME FOR ALL THREE, THE DISCUSSION OF THE COMPONENTS OF EQUATION 20 IS IN TERMS OF THE FIRST BI, OR THE INTERACTION INDEX.

THE INTERACTION BI IS COMPOSED OF THE EVENT FREQUENCIES WEIGHTED BY 18 DIFFERENT FACTOR SCORE COEFFICIENTS FROM THE INTERACTIVE BEHAVIOUR FACTOR DIMENSION. THIS PROVIDES THE WEIGHT IN THE INDEX SO

61. J. VINCENT ET AL., "EMPIRICAL TESTS OF ATTRIBUTE, SOCIAL FIELD AND STATUS FIELD THEORY ON INTERNATIONAL RELATIONS DATA," ISQ 14 (DECEMBER 1973): 415-417.

THAT HIGH LOADING VARIABLES SUCH AS POSITIVE COMMENT AND CONFLICT INTENT ARE STRESSED MORE IN THE INDEX, REFLECTING THEIR IMPORTANCE. THUS, THE Y'S ARE IDENTICAL IN ALL 23 DYADIO SETS ON THE FIRST INDEX, BUT DIFFER FOR THE OTHER TWO. THE TOTAL FREQUENCY OF EACH OF THE 18 TYPES OF BEHAVIOUR FOR EACH DYADIO SET IS INCLUDED IN ORDER TO REFLECT THE DISPERSION OF EVENTS. (SEE APPENDIX 1 FOR THESE TOTAL NUMBER OF ACTS OF EACH EVENT TYPE FOR EACH OF THE 23 ACTORS.) THE MEAN AND STANDARD DEVIATION FOR EACH OF THESE BEHAVIOUR TYPES FOR 23 ACTORS ARE ALSO CALCULATED AND ENTERED INTO THE EQUATION.⁶² THE FREQUENCY, MEAN AND STANDARD DEVIATION FOR EACH BEHAVIOUR TYPE IS THE SAME FOR ALL THE INDEXES, UNLIKE THE Y. THE RESULTS OF EACH COMPONENT

$$\left[Y_{k,l} \left(\frac{f_{1-1,k} - \bar{X}_{1,k}}{S_{1,k}} \right) \right]$$

BASED ON A SINGLE BEHAVIOUR VARIABLE ARE SUMMED TO FORM AN OVERALL INDEX OF BEHAVIOUR IN EACH DYADIO SET. THE BEHAVIOUR INDEX THEN REPRESENTS THE NUMBER OF DYADS WHERE THERE IS INTERACTION, SO THEN IN EACH DYADIO SET DIFFERS (APPENDIX 2) AND THE INDEX IS WEIGHTED TO REPRESENT THE TYPE OF BEHAVIOUR EXCHANGED.⁶³

A FINAL METHOD IS REQUIRED TO SPECIFY HOW MUCH OF THE VARIANCE IN BEHAVIOUR IS EXPLAINED BY ATTRIBUTE DISTANCE. RUMMEL SUGGESTED THAT THE BEHAVIOUR BE REGRESSED ONTO THE DISTANCE VECTORS.⁶⁴ THIS

62. SINCE THE FREQUENCY OF EVENTS IS MEASURED ON AN INTERVAL SCALE, IT IS HAPPENSTANCE THAT THERE ARE 0 ACTS BETWEEN NATIONS RATHER THAN 1 OR 32. THERE IS NO QUALITATIVE DIFFERENCE BETWEEN 0 ACTS AND 1 ACT. WHERE THE FREQUENCY IS 0, THE MEAN AND STANDARD DEVIATION ARE ALSO 0, IN WHICH CASE THAT COMPONENT OF EQUATION (20) MUST BE SELECTED OUT, OTHERWISE DIVISION BY 0 CAUSES THE ANSWER OF THE EQUATION TO BE INFINITY.

63. ALTHOUGH IT IS DIFFICULT TO COMPARE THE MONADIO FACTOR SCORES OF NATIONS IN THE FACTOR ANALYSIS WITH THE DYADIO BEHAVIOUR INDEX SCORES, BECAUSE THE BASIS OF THE INDEX IS THE FACTOR SCORE COEFFICIENTS AND FREQUENCY OF EVENTS THE NATIONS WITH HIGH INDEX SCORES ALSO HAVE HIGH FACTOR SCORES.

64. RUMMEL, "SOCIAL ACTION," P. 145.

TECHNIQUE HAS BEEN APPLIED BY SOME AUTHORS SUCH AS VINCENT ET AL.⁶⁵
 A MORE PREVALENT METHOD, AND ONE WHICH RUMMEL USES IS CANONICAL
 ANALYSIS. FOR BETTER COMPARATIVE RESULTS, THE LATTER IS EMPLOYED HERE.

CANONICAL ANALYSIS EXAMINES THE RELATIONSHIP BETWEEN TWO SETS
 OF MEASUREMENTS MADE ON THE SAME SUBJECTS. EACH OF THE TWO SETS MAY
 HAVE MORE THAN A SINGLE UNDERLYING DIMENSION, THUS BEING COMPOSITE
 INDEXES. THE CANONICAL CORRELATION MAXIMIZES THE CORRELATION BETWEEN
 THE LINEAR FUNCTIONS OF THESE TWO SETS, AND IS INTERPRETED AS EQUI-
 VALENT TO THE SIMPLE PRODUCT MOMENT, r .⁶⁶ THE FIRST CANONICAL CORREL-
 ATION IS USUALLY THE LARGEST. THE RESULTANT CORRELATIONS ARE THE
 CANONICAL VARIATES, WHICH ARE ORTHOGONAL TO EACH OTHER, AND THE NUMBER
 OF VARIABLES MUST BE LESS THAN THE NUMBER OF VARIABLES IN THE SMALLER
 SET. THE NUMBER OF VARIATES ALSO DEPENDS UPON WHETHER OR NOT ALL THE
 VARIANCE IS EXPLAINED BY THE FIRST CANONICAL VARIATE. IF NOT, THE
 PROCESS CONTINUES FINDING NEW LINEAR COMBINATIONS OF THE SETS UNTIL
 IT ACCOUNTS FOR THIS VARIANCE. THE EIGENVALUES ARE ALSO GIVEN. THEY
 REPRESENT THE PROPORTION OF VARIANCE IN ONE VARIATE EXPLAINED BY THE
 VARIATIONS IN THE OTHER CANONICAL VARIATES, AND ARE INTERPRETED AS r^2 .
 THE CANONICAL COEFFICIENTS ARE EQUIVALENT TO THE STANDARDIZED
 REGRESSION WEIGHTS OR THE CONTRIBUTION OF THE INDIVIDUAL VARIABLES TO
 THE CANONICAL VARIATES. FINALLY, THE TRACE CORRELATION ASSESSES THE
 OVERALL EMPIRICAL FIT BETWEEN THE ACTUAL BEHAVIOUR SPACE AND THE

65. VINCENT, EMPIRICAL TESTS."

66. THE DIFFERENCE BETWEEN CANONICAL AND REGRESSION ANALYSIS
 IS THE NUMBER OF VARIABLES STUDIED AT ONE TIME. IN THE FORMER, THE
 INDEPENDENT AND DEPENDENT VARIABLES ARE COMPOSITES OF MANY VARIABLES,
 WHILE THEY ARE SIMPLE VARIABLES IN THE LATTER.

ATTRIBUTE DISTANCE.⁶⁷

THIS CHAPTER HAS PROVIDED A MORE DETAILED DISCUSSION OF THE TEST OF SOCIAL AND STATUS-FIELD THEORY TO BE CONDUCTED IN THIS THESIS TO DETERMINE WHETHER THE AXIOMS, THEOREMS AND PROPOSITIONS FROM THE SYSTEM LEVEL MAY BE APPLIED TO THE REGIONAL LEVEL. AS HAS BEEN NOTED THUS FAR, THE ATTRIBUTE AND BEHAVIOUR DIMENSIONS CORRESPOND TO THOSE DIMENSIONS USED IN THE GLOBAL LEVEL. THAT IS, MAJOR ATTRIBUTE DIMENSIONS INCLUDE POWER, DEVELOPMENT AND POLITICAL ORIENTATION, WHILE THE COOPERATIVE-CONFLICT DICHOTOMY IN BEHAVIOUR ALSO SURFACES FROM THE FACTOR ANALYSIS OF THE BEHAVIOUR EVENTS. THE DIFFERENT HYPOTHESES ARE OPERATIONALIZED TO TEST THE VARIOUS COMBINATION OF ATTRIBUTE DISTANCE VECTORS FOR ALL NATIONS GENERALLY, AND FOR INDIVIDUAL DYADIO SETS USING TWO FORMS OF BEHAVIOUR, THE RAW FREQUENCIES AND THE THREE BEHAVIOUR INDEXES. CANONICAL ANALYSIS PROVIDES THE METHOD FOR ASCERTAINING THE EMPIRICAL FIT BETWEEN ATTRIBUTE SPACE AND BEHAVIOUR SPACE FOR THE HYPOTHESES.

WITH THE PROCEDURE DETAILED, THIS THESIS CAN NOW MOVE TO THE TESTING OF THE TWO THEORIES. AN ANALYSIS OF THE FINDINGS MAY THEN BE REPORTED FOR THE GENERAL MODEL | FIRST WITH SOCIAL FIELD THEORY DISCUSSED USING THE FREQUENCY AND BEHAVIOUR INDEX, COMPARED TO THE RESULTS FOR STATUS FIELD THEORY. THE RESULTS FROM THE DYADIO SETS MAY THEN BE NOTED, FOLLOWING A SIMILAR FORMAT.

67. THE TRADE CORRELATION IS CALCULATED BY $\bar{r} = \sqrt{\sum r_k^2 / g}$ WHERE r_k^2 IS THE K-TH SQUARED CANONICAL CORRELATION AND g IS THE NUMBER OF CANONICAL CORRELATIONS. $\bar{r}$ IS THE PERCENT OF THE VARIATION IN BEHAVIOUR THAT IS DEPENDENT UPON ATTRIBUTE DISTANCES.

CHAPTER 5

BLACK AFRICA ATTRIBUTE DISTANCE AND BEHAVIOUR RELATIONSHIP

A NUMBER OF ASPECTS OF FIELD THEORY ARE TO BE TESTED IN THIS THESIS, REQUIRING A NUMBER OF PARTITIONS OF THE AFRICAN DATA SET IN ORDER TO ASSESS FULLY THE IMPLICATIONS OF BOTH SOCIAL AND STATUS-FIELD THEORY. IN THE ANALYSIS TO FOLLOW, FIELD THEORY IS EXPLORED THROUGH THE INVESTIGATION OF THE DYADIO FOREIGN POLICY BEHAVIOUR OF 32 BLACK AFRICAN NATIONS. SINCE NOT EVERY ACTOR INTERACTS WITH EVERY TARGET, THE NUMBER OF DYADS IS REDUCED TO 417. TWO TYPES OF ANALYSIS TAKE PLACE INITIALLY ON ALL OF THESE DYADS. MODEL I ANALYSIS IS PERFORMED ON ALL THE DYADS SIMULTANEOUSLY IN ORDER TO ASSESS THE EMPIRICAL FIT BETWEEN ATTRIBUTE DISTANCES AND BEHAVIOUR. THAT IS, THE MODEL ATTEMPTS TO DETERMINE WHETHER A GENERALIZATION MAY BE MADE FOR ALL DYADS THAT CERTAIN ATTRIBUTE DISTANCES PREDICT TO CERTAIN TYPES OF BEHAVIOUR FOR SOCIAL-FIELD THEORY AND STATUS-FIELD THEORY ASSUMPTIONS AND HYPOTHESES.

THE 417 DYADS ARE PARTITIONED AGAIN FOR A MODEL II ANALYSIS OF THE DATA. HERE, EACH DYADIO SET IS EXAMINED. THAT IS, THE MODEL ATTEMPTS TO EXPLAIN THE FOREIGN POLICY BEHAVIOUR FOR EACH ACTOR AND ALL OF ITS TARGETS BY THE ATTRIBUTE DISTANCES WHICH EXIST WITHIN THE DYADIO SET AS COMPARED TO THE FORM OF BEHAVIOUR EXHIBITED. THUS THERE ARE A POTENTIAL 32 DYADIO SETS IN WHICH TO EXAMINE THE HYPOTHESES FOR

SOCIAL AND STATUS-FIELD THEORY. HOWEVER, FOR STATISTICAL REASONS CERTAIN LIMITATIONS ARE PLACED ON THE DYADIC SETS TO BE ANALYSED. ONLY DYADIC SETS WITH AT LEAST 10 TARGETS ARE STUDIED SINCE AS PREVIOUSLY STATED, THE RESULTS FOR SETS WITH FEWER THAN 10 CASES MAY NOT BE STATISTICALLY VIABLE BECAUSE THE CHANCES OF INFLATING THE RESULTS ARE MUCH HIGHER WHERE THERE ARE FEWER CASES.

FINALLY, THE BEHAVIOUR TYPES IN MODELS I AND II SOCIAL AND STATUS-FIELD THEORY ARE EXAMINED FROM TWO PERSPECTIVES - THE FREQUENCY OF EVENTS AND THE BEHAVIOUR INDEX. THE DISTANCE BETWEEN NATIONS ON THE ATTRIBUTE DIMENSIONS ARE CORRELATED WITH THE FREQUENCY OF EVENTS EXCHANGED BETWEEN DYADS FOR BEHAVIOUR DIMENSIONS AND ALSO WITH A WEIGHTED INDEXATION OF BEHAVIOUR DIMENSIONS.

THUS, FIVE HYPOTHESES ARE TESTED IN THIS THESIS AND ARE DERIVED FROM THE AXIOMS FOR THE TWO MODELS AND TWO FORMS OF BEHAVIOUR. OF THE FIVE HYPOTHESES, TWO EXAMINE THE EXPLANATORY LIMITS OF SOCIAL-FIELD THEORY FOR A NUMBER OF ATTRIBUTE DIMENSIONS, WHILE THE REMAINING THREE HYPOTHESES TEST PROPOSITIONS RELATED TO STATUS-FIELD THEORY. TO RECAPITULATE THESE HYPOTHESES STATED IN THE PREVIOUS CHAPTER, THESE ARE:

1. THE LESS THE DISTANCE BETWEEN NATIONS ON THE ATTRIBUTE DIMENSIONS, THE MORE COOPERATIVE BEHAVIOUR THEY WILL EXCHANGE.

$$CO_{i+j} = -\alpha U_{i-j} - \alpha D_{i-j} - \alpha PO_{i-1} + q \quad (8)$$

$$CP_{i+j} = \alpha U_{i-j} + \alpha D_{i-j} + \alpha PO_{i-j} + q \quad (9b)$$

2. THE MORE SIMILAR NATIONS ARE IN ECONOMIC DEVELOPMENT, URBANIZATION, RELIGION AND POLITICAL ORIENTATION, THE MORE THEY WILL ENGAGE IN COOPERATIVE BEHAVIOUR.

$$CO_{1+j} = -\alpha U_{1-j} - \alpha D_{1-j} - \alpha R_{1-j} - \alpha PO_{1-j} + \beta \quad (9)$$

3. THE MORE ECONOMICALLY DEVELOPED AND THE MORE POWERFUL THE TARGET NATION, THE MORE IS AN AFRICAN NATION'S STATUS-DEPENDENT COOPERATIVE BEHAVIOUR.

$$CO_{1+j} = -\alpha_{1D^d_{1-j,D}} - \alpha_{1P^d_{1-j,P}} \quad (10)$$

4. THE MORE DISSIMILAR AFRICAN NATIONS ARE ON ECONOMIC DEVELOPMENT AND THE MORE SIMILAR ON POWER, THE MORE CONFLICT ACTIONS THE ACTOR WILL DIRECT TO THE TARGETS

$$CP_{1+j} = \beta_{1D^d_{1-j,D}} - \beta_{1P^d_{1-j,P}} \quad (11)$$

5. THE MORE POWERFUL THE TARGET NATION IS, THE MORE COOPERATION AND CONFLICT THE ACTOR WILL DIRECT TO IT.

$$CO_{1+j} + CP_{1+j} = -\gamma_P^d \quad (16)$$

THESE HYPOTHESES MAY BE PLACED IN A SUMMARY TABULAR FORM IN ORDER TO STUDY PICTORALLY THESE RELATIONSHIPS ACCORDING TO THEIR SIGN PREDICTION IN THE EQUATIONS. BY REFERRING TO FIGURE 5, THE FIVE HYPOTHESES ARE OUTLINED SUCH THAT, FOR EXAMPLE, THE COOPERATION HYPOTHESIS IS ASSOCIATED NEGATIVELY WITH THE DISTANCE OF THE TARGET FROM THE ACTOR ON THE DEVELOPMENT AND POWER DIMENSIONS. THUS, WITH

THIS SUMMARY THE CONFIRMATION, OR REFUTATION OF THESE HYPOTHESES MAY BE DISCUSSED VIS A VIS AN ANALYSIS OF THE DATA FOR THE TWO MODELS AND THE TWO THEORIES.

FIGURE 5

HYPOTHEZIZED SIGNS FOR SOCIAL AND STATUS-FIELD THEORY

FOR BLACK AFRICA

ATTRIBUTE SPACE DIMENSIONS

HYPOTHESIS	BEHAVIOUR	POWER DIST.	URB. DIST.	DEV. DIST.	REL. DIST.	POL. Or. DIST.
1. LINKAGE	COOP, CONF.		±	±		±
2. HOMGEN.	COOP		-	-	-	-
3. COOP	COOP	-		-		
4. CONF.	CONF.	-		+		
5. STATUS	COOP + CONF.	-				

MODEL 1 ANALYSIS

THE MODEL 1 ANALYSIS OF BLACK AFRICAN FOREIGN POLICY BEHAVIOUR ATTEMPTS TO ASSESS THE EMPIRICAL FIT BETWEEN ATTRIBUTES AND BEHAVIOUR ON THE ASSUMPTION THAT A GENERALIZED RELATIONSHIP ACROSS ALL 417 DYADS AND 23 DYADIC SETS EXISTS. THIS ASSUMPTION IS FOUNDED IN THE EQUATION $\bar{W}_{i \rightarrow j, 1} = \sum \alpha_1 d_{i \rightarrow j, 1}$ (1) DISCUSSED IN THE PREVIOUS CHAPTER. THAT IS, THE PARAMETER α REMAINS CONSTANT FOR ALL DYADS IN THIS MODEL. THUS, THE WEIGHTS FOR THE ATTRIBUTE DISTANCES IN THE FINAL CANONICAL ANALYSIS EMPLOYED TO DETERMINE WHETHER OR NOT THERE IS A RELATIONSHIP BETWEEN ATTRIBUTE DISTANCES AND BEHAVIOUR ARE NOT ALLOWED TO VARY FOR EACH ACTOR AND ITS TARGETS.

IN ANALYSING THE RESULTS FOR MODEL 1, SOCIAL-FIELD THEORY, THEN STATUS-FIELD THEORY, ARE EXAMINED FOR BOTH THE FREQUENCY AND BEHAVIOUR INDEX DIMENSIONS OF FOREIGN POLICY. CANONICAL ANALYSIS IS EMPLOYED TO REGRESS THE FIVE ATTRIBUTE DISTANCE DIMENSIONS - POWER, URBANIZATION, DEVELOPMENT, RELIGION AND POLITICAL ORIENTATION - FOR SOCIAL-FIELD THEORY, AND THE TWO STATUS DIMENSIONS - POWER AND DEVELOPMENT - FOR STATUS-FIELD THEORY WITH THE DIMENSIONS OF BEHAVIOUR. CANONICAL VARIATES ARE DEFINED AS THE NUMBER OF PAIRS OF LINEAR COMBINATIONS DERIVED FROM EACH OF THE SETS OF VARIABLES, AND REFLECT THE IMPORTANCE OF THE VARIABLES IN THE SUBSETS. A CORRESPONDING CANONICAL CORRELATION IS DETERMINED BETWEEN A SET OF ATTRIBUTE DIMENSIONS ON ONE SIDE AND A SET OF BEHAVIOUR DIMENSIONS ON THE OTHER SIDE, AND THE NUMBER OF CANONICAL CORRELATIONS MUST BE EQUAL TO OR LESS THAN THE SMALLEST NUMBER OF VARIABLES SINCE THE CANONICAL VARIATES FROM EACH SUBSET ARE MEANT TO CORRESPOND SUCH THAT THE FIRST CANONICAL VARIATE FROM THE ATTRIBUTE SET AND THE FIRST FROM THE BEHAVIOUR SET CORRELATE MAXIMALLY WITH EACH OTHER, AND SO ON FOR SUBSEQUENT VARIATES. IN THIS THESIS THERE ARE FOUR VARIATES FOR THE FREQUENCY ANALYSIS AND THREE FOR THE BEHAVIOUR INDEX ANALYSIS FOR SOCIAL-FIELD THEORY, AND TWO EACH FOR STATUS-FIELD THEORY.

FINALLY, THREE MAIN STATISTICS ARE EMPLOYED TO ASCERTAIN THE AMOUNT OF VARIATION IN FOREIGN POLICY BEHAVIOUR EXPLAINED BY THE ATTRIBUTE DISTANCES. THE CANONICAL CORRELATION IS THE AMOUNT OF CORRELATION BETWEEN EACH CORRESPONDING PAIR OF CANONICAL VARIATES, AND ITS SQUARE, EQUIVALENT TO THE EIGENVALUE, REPRESENTS THE AMOUNT

OF VARIANCE IN ONE CANONICAL VARIATE THAT IS ACCOUNTED FOR BY THE OTHER CANONICAL VARIATES.¹ AS DISCUSSED IN CHAPTER 3, THE TRACE CORRELATION ($\bar{r}$) MEASURES THE OVERALL RELATIONSHIP FOR ALL THE CANONICAL CORRELATIONS BETWEEN THE ATTRIBUTE DIMENSION SET AND THE BEHAVIOUR DIMENSION SET. THE TRACE CORRELATION SQUARE ($\bar{r}^2$) MAY BE INTERPRETED AS THE PERCENTAGE OF VARIATION IN THE DIMENSIONS OF AFRICAN BEHAVIOUR ACCOUNTED BY THE ATTRIBUTE DIMENSIONS IN THE FIELD THEORY MODELS.

TABLE 7 PROVIDES THE ESSENTIAL STATISTICS NECESSARY TO GAUGE THE OVERALL LINEAR RELATIONSHIP BETWEEN ATTRIBUTE DIMENSION AND FOREIGN POLICY BEHAVIOUR FOR MODEL 1 OF SOCIAL-FIELD THEORY. THE TRACE CORRELATION COEFFICIENT ($\bar{r}$) FOR THE FREQUENCY STUDY IS .11 WITH $\bar{r}^2$ INDICATING THAT APPROXIMATELY 1.2 PERCENT OF VARIATION IN THE FOUR DIMENSIONS OF AFRICAN BEHAVIOUR IS ACCOUNTED BY THE SOCIAL-FIELD THEORY MODEL. THE CANONICAL CORRELATIONS, REPRESENTING THE CORRELATION BETWEEN RESPECTIVE CANONICAL VARIATES ARE FAIRLY LOW. THE FOUR r 'S, .19, .09, .05 AND .03 CORRESPOND TO THE FOUR VARIATE COLUMNS IN TABLE 7 CONNECTING THE VARIATES IN THE BEHAVIOUR DIMENSIONS ON ONE SIDE OF THE EQUATION TO THE CORRESPONDING VARIATES FOR THE ATTRIBUTE DIMENSIONS ON THE OTHER SIDE, THUS FORMING A LINEAR REGRESSION EQUATION. THUS, THE FIRST EQUATION

$$-1.53 \text{ OFW} + .92 \text{ CFD} = .66 \text{ DEV} + .56 \text{ POL} \quad (r = .19) \quad (1)$$

1. N. NIE, ET AL. SPSS (NEW YORK: MCGRAW-HILL INC., 1975), P. 517.

TABLE 7

CANONICAL ANALYSIS RESULTS: AFRICAN ATTRIBUTE DISTANCE AND FOREIGN
POLICY BEHAVIOUR, MODEL 1 ANALYSIS - SOCIAL FIELD THEORY

FREQUENCY			INDEX		
NO. OF CANON. VARS.	EIGENVALUE	CANON. CORREL.	NO. OF CANON. VARS.	EIGENVALUE	CANON. CORREL.
1	.04	.19	1	.16	.40
2	.01	.09	2	.05	.22
3	.00	.05	3	.00	.07
4	.00	.03			

TRACE = .11 TRACE = .27

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

	CANONICAL VARIATES			
	1	2	3	4
BEHAVIOUR				
COW	.52	-.05	.95	.02
CFW	-1.53	-.58	.65	-.67
COD	-.56	.87	.02	.18
CFD	.98	.05	-.73	1.44
ATTRIBUTES				
POW	.14	.37	-.25	.75
URB	-.17	.11	.95	-.10
DEV	.65	-.68	-.07	.15
REL	.52	.13	.38	.33
POL	.55	.51	-.25	-.52

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

	CANONICAL VARIATES		
	1	2	3
BEHAVIOUR			
IBI	.78	.02	-.72
CFI	-.13	.99	-.64
COP	.40	.94	.47
ATTRIBUTES			
POW	-.97	.16	-.10
URB	.06	-.13	.31
DEV	.15	.05	-.10
REL	.07	.12	.98
POL	-.25	-.96	-.14

WHERE CFW REPRESENTS CONFLICT WORDS, CFD MEANS CONFLICT DEEDS, DEV DEVELOPMENT AND POL IS POLITICAL ORIENTATION, REVEALS THAT AFRICAN CONFLICT BEHAVIOUR IS EXPLAINED MAINLY BY THE LEVEL OF DEVELOPMENT; THE MORE DISTANT THE OBJECT NATIONS ARE TO THE ACTOR ON DEVELOPMENT, THE GREATER IS THE LEVEL OF CONFLICT DEEDS AND THE LESS THEIR CONFLICT WORDS. THAT IS, NATIONS CHANGE THEIR BEHAVIOUR FROM WORDS TO DEEDS WITH DISTANCE ON DEVELOPMENT.² CONFLICT, MOREOVER, IS RELATED SECONDARILY TO AN INCREASE IN DISTANCE ON THE POLITICAL ORIENTATION DIMENSION.

THE SECOND EQUATION SPECIFICALLY ASCRIBES A COOPERATIVE DEEDS TYPE OF BEHAVIOUR TO AFRICAN NATIONS, BUT ASSOCIATES THIS TO A SIMILARITY IN DEVELOPMENT, AS SEEN IN THE COEFFICIENT:

$$.87 \text{ COD} \approx .68 \text{ DEV} \quad (R = .09) \quad (2)$$

WHERE COD IS COOPERATIVE DEEDS. THIS EQUATION IMPLIES THAT COOPERATIVE BEHAVIOUR AMONG NATIONS IS A FUNCTION OF, OR IS INFLUENCED BY, A SIMILARITY IN THEIR LEVEL OF DEVELOPMENT. THE MORE THEY ARE SIMILAR IN ECONOMIC DEVELOPMENT, THE MORE THE NATIONS ENTER INTO COOPERATIVE ACTS.

THE RESULTS FOR THE BEHAVIOUR INDEX ARE SLIGHTLY BETTER. (TABLE 7) THE OVERALL RELATIONSHIP ($\bar{R}$) IS .27 WHILE THE TRACE FOR THE FREQUENCY ANALYSIS IS .11. THUS, 7.3% OF THE TOTAL VARIANCE IS EXPLAINED BY THE INDEX ANALYSIS AS OPPOSED TO 1% IN THE FREQUENCY

2: VARIABLES WITH COEFFICIENTS GREATER THAN 0.55 ARE INCLUDED IN THE EQUATIONS GENERALLY. THE $\approx$ SIGN INDICATES THAT THE EQUATION IS AN APPROXIMATION SINCE THE LESS IMPORTANT VARIABLES ARE OMITTED.

ANALYSIS. THE CANONICAL CORRELATIONS ARE .40 AND .22 FOR THE FIRST TWO EQUATIONS, EXPLAINING 16.3% AND 4.8% OF THE VARIATION IN BEHAVIOUR, RESPECTIVELY. THE FIRST EQUATION STRESSES THE BALANCE BETWEEN COOPERATIVE AND CONFLICTIVE ACTS AS RELATED NEGATIVELY TO THE POWER DIMENSION SUCH THAT

$$.78 \text{ IBI} \hat{=} -.97 \text{ POW} \quad (3)$$

WHERE IBI REPRESENTS THE INTERACTIVE BEHAVIOUR INDEX. THUS, THE MORE SIMILAR NATIONS ARE IN POWER, THE MORE LIKELY THEY ARE TO ENGAGE IN BALANCED INTERACTIVE BEHAVIOUR. THE SECOND EQUATION

$$.99 \text{ CFI} + .94 \text{ COI} \hat{=} -.96 \text{ POL} \quad (4)$$

INDICATES THAT SIMILARITY IN POLITICAL ORIENTATION IS ASSOCIATED WITH THE CONFLICT INDEX (CFI). MOREOVER, IT ACCOUNTS ALSO FOR COOPERATIVE BEHAVIOUR (COI), ONCE AGAIN SUGGESTING A MIXTURE OF THE TWO FORMS OF BEHAVIOUR.

THUS, THE RESULTS OF SOCIAL-FIELD THEORY AT THIS GENERALIZED LEVEL TELL LITTLE ABOUT AFRICAN BEHAVIOUR AND ATTRIBUTE DISTANCE, WHETHER THE FREQUENCY OF EVENTS OR THE BEHAVIOUR INDEX IS EMPLOYED.

STATUS-FIELD THEORY IN MODEL 1 FARES NO BETTER. (TABLE 8) FOR THE FREQUENCY ANALYSIS THE OVERALL TRACE IS .10, WITH A $\bar{R}^2$ OF .01. THE FIRST EQUATION HAS A CANONICAL CORRELATION OF .13 AND INVERSELY RELATES CONFLICT WORDS AND COOPERATIVE DEEDS WITH DEVELOPMENT.

$$.94 \text{ COD} + .93 \text{ CFW} \hat{=} -.99 \text{ DEV} \quad (5)$$

THESE RESULTS COMPARE TO THE RESULTS OF THE FREQUENCY ANALYSIS OF MODEL 1 SOCIAL-FIELD THEORY. WHEREAS EQUATIONS (1) AND (2) RELATED THE MORE DISTANCE IN DEVELOPMENT TO LESS CONFLICT WORDS, AND THE MORE SIMILAR THE MORE COOPERATIVE DEEDS, THE BEHAVIOUR INDEX RESULTS

TABLE 8

CANONICAL ANALYSIS RESULTS: AFRICAN ATTRIBUTE DISTANCE AND FOREIGN
POLICY BEHAVIOUR, MODEL 1 ANALYSIS - STATUS FIELD THEORY

<u>FREQUENCY</u>			<u>INDEX</u>		
<u>NO. OF CANON. VARB.</u>	<u>EIGENVALUE</u>	<u>CANON. CORREL.</u>	<u>NO. OF CANON. VARB.</u>	<u>EIGENVALUE</u>	<u>CANON. CORREL.</u>
1	.02	.13	1	.15	.39
2	.00	.04	2	.00	.04
TRACE = .11			TRACE = .28		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

	<u>CANONICAL VARIATES</u>	
BEHAVIOUR	1	2
COW	-.50	.12
CFW	.93	-1.55
COD	.95	.44
CFD	-.78	1.33
ATTRIBUTES	1	2
POW	.02	1.01
DEV	-.99	.14

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

	<u>CANONICAL VARIATES</u>	
BEHAVIOUR	1	2
IBI	-.78	.22
CFI	.24	1.04
COI	-.27	.91
ATTRIBUTES	1	2
POW	.96	.30
DEV	-.18	.99

SUGGEST THAT THE MORE SIMILAR NATIONS ARE IN DEVELOPMENT THE MORE THEY ENGAGE IN COOPERATIVE DEEDS AND CONFLICT WORDS. THE SECOND EQUATION

$$-1.55 \text{ CFW} + 1.33 \text{ CFD} \hat{=} 1.01 \text{ POW} \quad (R = .04) \quad (6)$$

DEMONSTRATES THAT THE MORE DISSIMILAR NATIONS BECOME IN THE POWER DIMENSION, THE MORE THEY ENGAGE IN AN INCREASING AMOUNT OF CONFLICT DEEDS BUT A DECREASE IN THE AMOUNT OF CONFLICT WORDS.

THE RESULTS OF THE BEHAVIOUR INDEX ARE ONCE AGAIN ONLY SLIGHTLY BETTER THAN THE FREQUENCY RESULTS. THE $\bar{R}$ IS .28 AND THE R^2 IS 7.84. THE FIRST CANONICAL EQUATION EXPLAINS 15.6% OF THE VARIATION IN INTERACTIVE BEHAVIOUR BY DISSIMILARITY IN POWER:

$$-.78 \text{ IBI} \hat{=} .96 \text{ POW} \quad (R = .39) \quad (7)$$

WHERE NATIONS DO NOT HAVE POWER PARITY, THEY ARE LESS LIKELY TO ENGAGE IN COOPERATIVE BEHAVIOUR, THE MAJOR TYPE OF BEHAVIOUR FOR STATES WITH LOW FACTOR SCORES ON THIS INDEX. FOR THE REMAINING STATES, A MIX OF BEHAVIOUR IS EXHIBITED, BUT COOPERATION DOMINATES. THE FINAL CANONICAL EQUATION PORTRAYS A PATTERNED RELATIONSHIP BETWEEN CONFLICT AND COOPERATION, AND DEVELOPMENT:

$$1.04 \text{ CFI} + .91 \text{ COI} \hat{=} .99 \text{ DEV} \quad (R = .04) \quad (8)$$

WHERE A COMBINATION OF CONFLICT AND COOPERATION ARE A FUNCTION OF THE DEVELOPMENTAL LEVEL OF NATIONS.

THUS, LOOKING AT THE OVERALL VARIANCE IN THE EQUATIONS, THE DATA DO NOT CORROBORATE EMPIRICALLY THE SOCIAL AND STATUS-FIELD THEORIES AT THE GENERAL LEVEL FOR BLACK AFRICAN BEHAVIOUR, ALTHOUGH PATTERNS ARE VISIBLE FOR THE VARIANCE THAT IS EXPLAINED. THE LACK OF AN EMPIRICAL FIT OF THE DATA IS A FINDING SIMILAR TO THE RESULTS

OBTAINED BY DIFFERENT SCHOLARS IN ANALYSIS OF OTHER DYADIC SETS.³ FURTHERMORE, WITH THE PARAMETERS KEPT CONSTANT ACROSS ALL SETS OF NATIONS, THE BEHAVIOUR OF NATION I TO J IS ASSUMED TO BE THE EXACT OPPOSITE OF THE BEHAVIOUR FROM J TO I. HOWEVER, THE FACT THAT THE NATIONS DO DIFFER ON ATTRIBUTES AND BEHAVIOUR IS REFLECTED IN THE LOW VALUES FOR THE TRACE CORRELATION AND THE PATTERNS WHICH DO EMERGE, REPRESENTING THE AMOUNT OF VARIANCE EXPLAINED FOR ALL SETS WITH THE ATTRIBUTE AND BEHAVIOUR DIMENSIONS EMPLOYED.

MODEL II ANALYSIS

IN ORDER TO GAUGE THE DIFFERENCES BETWEEN NATIONS, SCHOLARS ENGAGED IN THE DON PROJECT HAVE PROPOSED MODEL II. IN THIS APPROACH SOCIAL AND STATUS-FIELD THEORY ARE EXAMINED FROM THE PERSPECTIVE OF INDIVIDUAL DYADIC SETS, ALLOWING THE PARAMETERS WEIGHTS TO VARY FOR EACH ACTOR-NATION. THAT IS, THIS MODEL LINKS THE PARAMETER TO THE ACTING NATION IN THE DYAD. IN THIS WAY, THE BEHAVIOUR OF ONE NATION TO ANOTHER IS UNLIKELY TO HAVE THE SYMMETRIC ASPECTS AS ARE PRE-DICTED IN MODEL I, ALTHOUGH SYMMETRIC BEHAVIOUR IS ALLOWED. THUS, IN THE EQUATION

$$\bar{w}_{i \rightarrow j, 1} = \sum \alpha_{i, 1} a_{i \rightarrow j, 1} \quad (2)$$

LINKAGES ARE SPECIFIC TO THE PARTICULAR ACTOR-NATION I. WHILE THE

3. FOR EXAMPLE SEE R. VAN ATTA, "FIELD THEORY AND NATIONAL-INTERNATIONAL LINKAGES," IN CONFLICT BEHAVIOUR AND LINKAGE POLITICS, ED. J. WILKENFELD (NEW YORK: DAVID MCKAY CO.; INC., 1973), AND R. VAN ATTA AND R. RUMMEL, "TESTING FIELD THEORY ON THE 1963 BEHAVIOUR SPACE OF NATIONS," PEACE RESEARCH SOCIETY PAPERS 16 (1970).

DIMENSIONS OF ATTRIBUTE SPACE ARE THE SAME FOR ALL ACTORS, THE RELATIVE WEIGHTING OF THESE DIMENSIONS IN PREDICTING BEHAVIOUR DIFFER FROM ACTOR TO ACTOR. THE RESULTS OF SOCIAL AND STATUS-FIELD THEORY ARE SUMMARIZED FOR THE 23 DYADIO SETS WITH MORE THAN 9 TARGETS. RATHER THAN DISCUSS EACH DYADIO SET FOR THE SECOND MODEL, ONLY A SAMPLE OF DYADS CHOSEN AS REPRESENTATIVE OF DYADS WITH SIMILAR TRACE CORRELATIONS ARE DISCUSSED IN THE THESIS. THESE RESULTS ARE DISPLAYED IN TABLES 9 THROUGH 13, AND THE RESULTS FOR THE REMAINING DYADIO SETS ARE LISTED IN APPENDIX 3 AND 4.⁴

SOCIAL-FIELD THEORY ANALYSIS

THE CANONICAL REGRESSIONS FOR EACH OF THE DYADIO SETS IN SOCIAL-FIELD THEORY FIT A FIVE-DIMENSIONAL SUBSPACE OF THE ATTRIBUTE SPACE TO A FOUR-DIMENSIONAL SUBSPACE OF BEHAVIOUR SPACE FOR THE FREQUENCY ANALYSIS. THUS THERE ARE FOUR CANONICAL VARIATES FOR EACH DYADIO SET, CORRESPONDING TO THE SPACE LIMITATIONS OF THE SMALLER NUMBER OF VARIABLES. AS MENTIONED PREVIOUSLY, THE CANONICAL CORRELATION (R) IS THE STATISTIC EMPLOYED TO ASCERTAIN WHETHER A RELATIONSHIP EXISTS BETWEEN THE TWO SPACES. IN FEW CASES ARE THE CORRELATIONS AFTER THE FIRST OR SECOND VARIATE VERY HIGH, RESULTING IN THE PRESENTATION OF ONLY THE FIRST TWO CANONICAL VARIATES BEING REPORTED. FINALLY, THE CANONICAL COEFFICIENTS ARE ESSENTIAL IN DETERMINING THE STRUCTURE OF THE RELATIONSHIP BETWEEN ATTRIBUTE AND BEHAVIOUR SPACE PRODUCING

⁴ THE DEGREES OF FREEDOM AND SIGNIFICANCE LEVELS ARE NOT REPORTED HERE BECAUSE OF THE SMALL "N" FOR MOST OF THE DYADIO SETS. THIS SMALL SIZE RESULTS IN DIMINUTIVE DEGREES OF FREEDOM IN MOST CASES, CONSEQUENTLY LEADING TO A LOW AND OFTEN UNINTERPRETABLE SIGNIFICANCE LEVEL.

THESE CORRELATIONS. AN ARBITRARY DECISION WAS MADE TO REPORT ONLY THOSE COEFFICIENTS EXCEEDING .60 IN THE ACTUAL EQUATION, THEREBY LIMITING THE DIMENSIONS BEING STUDIED TO THOSE WHICH APPEAR TO EXPLAIN THE MOST VARIATION IN BEHAVIOUR AND ATTRIBUTES.

AS MENTIONED IN THE MODEL 1 ANALYSIS, THE TRACE CORRELATION MEASURES THE OVERALL EMPIRICAL FIT BETWEEN THE TWO SPACES. THE TRACE CORRELATION COEFFICIENTS FOR THE FREQUENCY ANALYSIS OF SOCIAL-FIELD THEORY (TABLE 9) RANGE FROM .13 TO .56 WHICH MEANS THAT ONLY 1.7% TO 31.4% OF THE VARIATION IN BEHAVIOUR IS ACCOUNTED FOR BY THE ATTRIBUTE DISTANCES. THE AVERAGE CANONICAL CORRELATION SQUARED FOR THE FIRST VARIATE IS .34. ALTHOUGH HIGHER THAN THAT FOR MODEL 1, THE EIGENVALUES ARE SMALL. FURTHERMORE, THE AVERAGE VARIATION IN BEHAVIOUR FOR ALL DYADIC SETS EXPLAINED BY ATTRIBUTE DISTANCES FOR THE FIRST EQUATION IS 1.9 PERCENT.

THE MOST IMPORTANT FINDING IS THAT WHICH LINKS DIFFERENCES AND SIMILARITIES ON INTERNAL CHARACTERISTICS WITH CONFLICT BEHAVIOUR FOR NATIONS WITH A RANGE OF LOW TO HIGH TRACE CORRELATIONS. (TABLE 9) CONFLICT DEEDS IS THE MOST FREQUENT FORM OF BEHAVIOUR FOR ALL THE NATIONS, ALTHOUGH NOT NECESSARILY THE MOST PROMINENT FORM OF ACTION EMPLOYED. IN TERMS OF THE ATTRIBUTE DISTANCES IT IS ASSOCIATED WITH URBANIZATION IN THE SECOND CANONICAL VARIATE. FOR EXAMPLE, THE EQUATION FOR MALI

$$.74 \text{ CFD} = -.77 \text{ URB} \quad (R = .25) \quad (9)$$

SUGGESTS THAT THE MORE SIMILAR MALI IS TO ITS TARGET IN THE LEVEL OF URBANIZATION, THE MORE IT ENGAGES IN CONFLICT DEEDS. THIS

TABLE 9

CANONICAL ANALYSIS RESULTS FOR SOCIAL-FIELD THEORY - FREQUENCY ANALYSIS^A

ACTOR	CAM.		MALI		NIGER		TOGO		U.V.		ZAM.	
TRADE CORR.	.13		.22		.22		.28		.39		.56	
CANONICAL CORR.	.20	.14	.31	.25	.32	.26	.51	.17	.64	.42	.78	.64
ATT.	POW											
	URB	-.65		-.77		-.77		-.75		-1.09		
	DEV	.72										
	REL	(.50)		.78		-.70						
	POL	(.48)						.72		1.04		-.90 (.54)
BEH.	COW	.65		.71 .82		.62 .86		-.92				
	CFW	1.32						-.82		-.73 -1.49 -1.44		.89 -1.97
	COO	-.71				-.66		.71				-.65
	CFD	.90		.80 -1.05 .74		1.11 .66		.99		.63 1.83		1.81

NOTE: ^A THOSE CANONICAL COEFFICIENTS REPORTED LESS THAN .60 ARE
PLACED IN PARENTHESIS.

RELATIONSHIP IS CONSTANT FOR MOST DYADIC SETS,⁵ EXCEPT FOR EXAMPLE ZAMBIA WHERE CONFLICT DEEDS ARE RELATED TO POLITICAL ORIENTATION, ALTHOUGH THE CANONICAL VARIATE FOR THE ATTRIBUTE IS SMALLER THAN IN DYADIC SETS WHERE URBANIZATION IS EMPHASIZED.

CONFLICT WORDS APPEAR TO BE AN IMPORTANT FORM OF BEHAVIOUR FOR NATIONS WITH LOW TRACE CORRELATIONS OR HIGH TRACES. CAMEROON IS REPRESENTATIVE OF NATIONS WITH $\bar{r}$ BETWEEN .13 AND .17. IN THIS PARTICULAR CASE, THE RELATIONSHIP BETWEEN THE TWO SETS OF VARIABLES ON THE FIRST CANONICAL EQUATION EXPLAINS APPROXIMATELY 4.0% OF THE VARIATION IN CONFLICT BEHAVIOUR BY THE LEVEL OF DEVELOPMENT. THE RELATIONSHIP MAY BE STATED AS:

$$-1.32 \text{ CFW} \doteq .72 \text{ DEV.} \quad (10)$$

THE MORE DISTANT THESE PARTICULAR NATIONS ARE TO THEIR TARGETS ON THE DEVELOPMENT DIMENSION, THE LESS THEY ENGAGE IN CONFLICT WORDS. THE ATTRIBUTE DIMENSION FOR NATIONS WITH HIGH TRACE CORRELATION CHANGES, REVEALING THE RELATIONSHIP THAT THE MORE SIMILAR NATIONS ARE ASSUMED TO BE IN URBANIZATION, THE LESS THEY ENGAGE IN CONFLICT WORDS. FOR EXAMPLE, 17.8% OF UPPER VOLTA'S BEHAVIOUR IS EXPLAINED BY THE EQUATION

$$-1.44 \text{ CFW} \doteq -1.09 \text{ URB.} \quad (11)$$

FINALLY, FOR THIS LAST GROUP OF NATIONS THE SECOND CANONICAL VARIATES REVEAL A RELATIONSHIP BETWEEN BOTH TYPES OF CONFLICT AND URBANIZATION FOR A MAJORITY OF THE NATIONS. AS SHOWN BY TOGO'S

5. TABLE 13, TO BE DISCUSSED LATER IN THIS CHAPTER, SUMMARIZES THE NUMBER OF CASES WHICH FALL INTO EACH CATEGORY OF PATTERNS. THIS ALSO APPLIES TO ALL SUBSEQUENT DISCUSSIONS SIMILAR TO THIS.

CANONICAL EQUATION

$$.99 \text{ CFD} - .73 \text{ CFW} \hat{=} -.75 \text{ URB.} \quad (R = .17) \quad (12)$$

AS THE DISTANCE ON THE LEVEL OF URBANIZATION DECREASES IN TOGO'S DYADS, IT ENGAGES IN MORE CONFLICT DEEDS BUT LESS CONFLICT WORDS.

LASTLY, NATIONS WITH $\bar{R}$ 'S FALLING BETWEEN APPROXIMATELY .18 AND .26, WHERE 3.2% TO 6.8% OF THE VARIANCE IS EXPLAINED BY THE CANONICAL VARIATES, ENGAGE IN COOPERATIVE WORDS AS WELL AS CONFLICT DEEDS, AND THIS IS ASSOCIATED WITH THE RELIGION DIMENSION IN THE FIRST CANONICAL EQUATION. THERE ARE VARIATIONS, HOWEVER, IN THE DIRECTION OF CONFLICT WORDS AND RELIGION. IN MOST CASES, THE EQUATION REPRESENTATIVE OF MALI

$$-1.05 \text{ CFD} + .71 \text{ COW} \hat{=} .78 \text{ REL.} \quad (R = .31) \quad (13)$$

SUGGESTS THE RELATIONSHIP THAT THE MORE DISSIMILAR NATIONS ARE IN RELIGION, THE LESS THEY ENGAGE IN CONFLICT DEEDS AND THE MORE THEY ENGAGE IN COOPERATIVE WORDS. FOR NATIONS, SUCH AS NIGER, THE EQUATIONS SUGGEST THAT THE MORE SIMILAR NATIONS ARE IN RELIGION, THE MORE THEY ENGAGE IN COOPERATIVE WORDS AND CONFLICT DEEDS.

THEREFORE, THE MOST PREVALENT RESULT IS THAT CONFLICT WORDS ARE ASSOCIATED WITH RELIGION AND URBANIZATION. IN EXAMINING THE RELATIONS DELINEATED FOR BEHAVIOUR, THIRTEEN OF THE DYADIC SETS (57%) SHOW RELIGION AS A SOCIAL FORCE, AND SIXTEEN SETS (70%) SHOW URBANIZATION AS THE STRONGEST SOCIAL FORCE INFLUENCING BEHAVIOUR ON THE SECOND CANONICAL VARIATE. THESE TWO ATTRIBUTE DIMENSIONS CORRESPOND CLOSELY TO THE CONFLICT DIMENSIONS IN THE CANONICAL EQUATIONS, SUGGESTING A PATTERN OF RELATIONSHIPS AMONG THESE VARIABLES IN BLACK AFRICAN BEHAVIOUR.

THE PATTERNED RELATIONS BETWEEN AFRICAN NATIONS EMPLOYING THE BEHAVIOUR INDEXES HAVE AN INCREASE IN THE AMOUNT OF VARIANCE IN BEHAVIOUR EXPLAINED BY THE ATTRIBUTE DIMENSIONS. THE TRACE CORRELATIONS RANGE MUCH HIGHER, FROM .26 TO .81, OR 6.8% TO 66%. (TABLE 10) THE AVERAGE EIGENVALUE FOR THE FIRST CANONICAL VARIATE IN THIS INSTANCE IS 52.1 PERCENT, IN COMPARISON TO THE 14 PERCENT EXPLAINED IN THE FREQUENCY ANALYSIS. THE DIFFERENCE IN RESULTS USING THE TWO FORMS OF MEASUREMENT MAY BE DUE TO THE FORMAT FOR THE BEHAVIOUR INDEX. AS DISCUSSED IN THE PREVIOUS CHAPTER, A RATHER COMPLEX PROCEDURE IS USED TO CREATE THE INDEX INVOLVING THE FACTOR SCORE COEFFICIENTS FOR EACH BEHAVIOUR TYPE, THE FREQUENCY AND MEAN FOR THE EVENTS AND THE VARIANCE. THE EQUATION (21) WEIGHTS EACH EVENT TYPE BY ITS FACTOR SCORE COEFFICIENT. THE COEFFICIENTS ON THE FIRST FACTOR DIMENSION CORRESPOND TO THE Y'S IN THE FIRST INDEX, AND SO FORTH. THE FREQUENCY OF EVENT TYPES BETWEEN DYADS ARE CONSTANT FOR ALL THE INDEXES SINCE THE FREQUENCY OF INTERACTIONS DO NOT CHANGE. WHERE INTERACTIONS DO NOT OCCUR THE EVENT IS OMITTED, OTHERWISE THE RESULT OF AN EQUATION WITH A STANDARD DEVIATION OF 0 WOULD BE INFINITY. THUS, THE INDEX STRESSES BEHAVIOUR BUT IGNORES NON-BEHAVIOUR. A FINAL INFLUENCE ON THE DIFFERENCE BETWEEN THE FREQUENCY AND INDEX RESULTS MAY BE IN THE NUMBER OF INDEXES, THREE RATHER THAN THE FOUR DIMENSIONS IN THE FREQUENCY ANALYSIS. BY LIMITING THE NUMBER OF CANONICAL VARIATES TO A MAXIMUM OF THREE, THE AMOUNT OF VARIANCE EXPLAINED BY EACH IS INCREASED BECAUSE THERE ARE FEWER VARIATES EMPLOYED IN THE EXPLANATION OF THE BEHAVIOUR SPACE. THEREFORE, THE RESULTS OF SOCIAL-FIELD THEORY FOR THE INDEX ANALYSIS

SHOULD BE MORE SUCCINCT THAN PREVIOUSLY FOUND.

A SUMMARY OF SOME OF THE RESULTS FOR THE SOCIAL-FIELD THEORY BEHAVIOUR INDEX ANALYSIS ARE REPORTED IN TABLE 10. THE INTERACTIVE BEHAVIOUR INDEX (IBI) IS THE MOST COMMON FORM OF BEHAVIOUR EVIDENCED ACROSS ALL NATIONS, SUGGESTING THE IMPORTANCE OF BOTH COOPERATION AND CONFLICT INTERACTION, BUT WITH LESS OF AN EMPHASIS ON CONFLICT. THE BEHAVIOUR FOR NATIONS IS DEFINED FURTHER BY THE PRESENCE OF A SECOND FORM OF BEHAVIOUR INDEX, EITHER THE CONFLICT INDEX (CFI) OR THE COOPERATION INDEX (COI).

THE COOPERATIVE INDEX APPEARS IN NATIONS WITH LOW AND HIGH TRACE CORRELATIONS WITH THE VARIANCE IN BEHAVIOUR EXPLAINED BY THE RELIGION DIMENSION. NATIONS WITH $\bar{r}$ 'S BETWEEN .26 AND .35 HAVE EQUATIONS SIMILAR TO TOGO:

$$.60 \text{ IBI} - .64 \text{ COI} \hat{=} -.67 \text{ REL.} \quad (r = .55) \quad (14)$$

HERE 30.3% OF VARIATION IN TOGO'S COOPERATIVE BEHAVIOUR IS ACCOUNTED FOR BY RELIGION. THUS, THE MORE SIMILAR NATIONS ARE IN RELIGION, THE MORE THEY ENGAGE IN MIXED BEHAVIOUR, BUT THEY ENGAGE IN LESS CO-OPERATIVE ACTS. A SECOND ATTRIBUTE, AS WELL AS THE CONFLICT BEHAVIOUR INDEX DIMENSION EMERGES ON THE SECOND CANONICAL VARIATE FOR MOST OF THE NATIONS WITH LOW $\bar{r}$. IN THE CASE OF TANZANIA, DISTANCE IN POLITICAL ORIENTATION AS WELL AS SIMILARITY IN RELIGION EXPLAIN ITS VARIATION IN CONFLICT BEHAVIOUR. THE AMOUNT OF VARIANCE EXPLAINED BY THE SECOND VARIATE IS GENERALLY SMALL. THE $\bar{r}$ FOR TANZANIA AND TOGO ARE .20 AND .15 RESPECTIVELY. A SIMILAR RELATIONSHIP OCCURS WITH ACTORS HAVING AN $\bar{r}$ OVER .56. THE DIFFERENCE HERE IS THAT THEY ALSO ENGAGE IN CONFLICT BEHAVIOUR. THE CANONICAL EQUATION FOR

TABLE 10

CANONICAL ANALYSIS RESULTS FOR SOCIAL-FIELD THEORY - BEHAVIOUR INDEX ANALYSIS

ACTOR		TAN.		TOG.		NIG.		GHA.	
TRACE CORR.		.32		.33		.42		.50	
CANON. CORR.		.53	.20	.55	.15	.63	.37	.73	.42
ATT.	POW					-.99		-.80	.64
	URB								.81
	DEV.				-.67				
	REL	-.78	(-.56)	-.67	(.57)		.76		
	POL		.81		(-.55)		(.50)		
BEH.	IBI	.76	-.61	.60	.64	(.55)	-.87	.73	
	CFI		.80		-.91	-.73	-.64		.94
	COI	(-.41)		-.64					.64

ACTOR		DAH.		ETH.		GUI.		MAU.		MALI	
TRACE CORR.		.50		.56		.64		.71		.81	
CANON. CORR.		.70	.45	.66	.62	.81	.64	.85	.79	.92	.82
ATT.	POW	.63		-.68					.70		
	URB		.75			.60	-.94			-.79	.60
	DEV				.79						
	REL	(.50)	(-.58)		.61	.73	(.54)	.87			.92
	POL	(.58)	.72	-.60		-.79	(.55)		1.13		
BEH.	IBI						- 1.14	2.57	1.59	.66	3.08
	CFI	.94	-.79	.65	.94	.61	1.26	(.56)	2.20	-.95	5.14
	COI	.89	.69	.98		1.54	1.41	-1.31		-.62	2.58

MAURITANIA

$$2.57 \text{ IBI} + .56 \text{ CFI} - 1.31 \text{ COI} \hat{=} .87 \text{ REL.} \quad (15)$$

SUGGESTS THAT 72.3% OF THE VARIATION IN ALL OF ITS BEHAVIOUR IS ACCOUNTED FOR BY RELIGION. THE MORE NATIONS ARE DISSIMILAR IN RELIGION, THE MORE THEY ENGAGE IN BEHAVIOUR ASSOCIATED WITH INTERACTION, IN PARTICULAR CONFLICT BEHAVIOUR, BUT THE LESS THEY ENGAGE IN COOPERATIVE BEHAVIOUR. POLITICAL ORIENTATION AND URBANIZATION ARE ALSO ATTRIBUTE DIMENSIONS WHICH EXPLAIN SOME OF THE VARIATION IN BEHAVIOUR. FOR EXAMPLE, 64.9% OF GUINEA'S BEHAVIOUR IS EXPRESSED IN THE EQUATION

$$1.54 \text{ COI} + .61 \text{ CFI} \hat{=} -.79 \text{ POL.} + .73 \text{ REL.} + .60 \text{ URB.} \quad (16)$$

SUCH THAT THE MORE SIMILAR GUINEA AND ITS TARGETS ARE IN POLITICAL ORIENTATION AND THE MORE DISTANT THEY ARE IN RELIGION AND URBANIZATION, THE MORE THEY ENGAGE IN COOPERATIVE AND CONFLICTIVE BEHAVIOUR. THE SECOND CANONICAL VARIATES FOLLOW SIMILAR PATTERNS AS THE FIRST.

FINALLY, A THIRD PATTERN OF RELATIONSHIPS EXISTS FOR NATIONS IN THE INTERMEDIATE ZONES BETWEEN THE NATIONS WITH HIGH AND LOW TRACES WITH BEHAVIOURAL PATTERNS BORDERING ON THE OTHER TWO GROUPS. ONCE AGAIN, THE INTERACTIVE BEHAVIOUR INDEX DEMONSTRATES THE GENERAL MIX OF BEHAVIOUR; HOWEVER, THE DOMINANT INTERACTION BEHAVIOUR IS THE CONFLICT INDEX, A RELATIONSHIP FOUND PREVIOUSLY ON THE SECOND VARIATE FOR LOW $\bar{R}$. POWER IS ALSO THE DOMINANT ATTRIBUTE DIMENSION, ALTHOUGH RELIGION PREVAILS THROUGH THE SECOND CANONICAL VARIATE. THUS, FOR EXAMPLE, THE EQUATION FOR NIGERIA

$$-.73 \text{ CFI} + .55 \text{ IBI} \hat{=} -.99 \text{ POW.} \quad (R = .63) \quad (17)$$

SUGGESTS THAT THE MORE POWER PARITY BETWEEN NIGERIA AND ITS TARGETS

THE LESS THEY ENGAGE IN CONFLICT BEHAVIOUR AND THE MORE THEY ENGAGE IN INTERACTIVE BEHAVIOUR, WHICH IS PREDOMINANTLY COOPERATION. NATIONS, SUCH AS DAHOMEY AND ETHIOPIA, EXPERIENCE BEHAVIOUR PATTERNS SIMILAR TO NATIONS WITH HIGH $\bar{R}$, EXCEPT THAT THE INTERACTIVE BEHAVIOUR INDEX IS NOT AN IMPORTANT TYPE OF BEHAVIOUR. POWER AND URBANIZATION ARE THE ATTRIBUTE DIMENSIONS WHICH ACCOUNT FOR THE BEHAVIOUR, ALONG WITH RELIGION AND POLITICAL ORIENTATION. FOR EXAMPLE, 49% OF DAHOMEY'S CONFLICT AND COOPERATION INTERACTION IS EXPLAINED BY DISTANCE ON POWER, POLITICAL ORIENTATION AND RELIGION:

$$.94 \text{ CFI} + .89 \text{ COI} \hat{=} .63 \text{ POW.} + .58 \text{ POL.} + .50 \text{ REL.} \quad (18)$$

THE MORE DISTANCE BETWEEN DAHOMEY AND ITS TARGETS IN POWER, POLITICAL ORIENTATION AND RELIGION, THE MORE IT ENGAGES IN CONFLICT AND COOPERATIVE BEHAVIOUR. THE DISTANCE ON THE POWER DIMENSION IN THIS CASE DIFFERS FROM OTHERS IN THE MIDDLE CATEGORY OF $\bar{R}$. AS SEEN IN NIGERIA, AND ALSO IN GHANA AND ETHIOPIA, MORE CONFLICT (EXCEPT FOR NIGERIA) AND COOPERATION IS A FUNCTION OF THE SIMILARITY BETWEEN NATIONS IN POWER. MOREOVER, AS IN THE CASE OF UPPER VOLTA (APPENDIX 3) POLITICAL ORIENTATION INFLUENCES COOPERATIVE BEHAVIOUR AS SHOWN IN THE EQUATION

$$.69 \text{ COI} \hat{=} .93 \text{ POL.} \quad (R = .58) \quad (19)$$

OR, THE MORE SIMILARITY IN POLITICAL ORIENTATION, THE MORE THE COOPERATIVE BEHAVIOUR. AGAIN THIS TYPE OF RELATIONSHIP IS SIMILAR TO THAT FOUND IN DYADIC SETS WITH HIGH TRACE CORRELATIONS.

OVERALL, THERE IS A PROGRESSION FROM NATIONS WITH LOW TRACE CORRELATIONS AND THE ATTRIBUTE DIMENSION RELIGION EXPLAINING THE MOST VARIATION IN COOPERATION BEHAVIOUR, TO NATIONS WHERE POWER AND

POLITICAL ORIENTATION ARE THE SOCIAL FORCES EXPLAINING CONFLICT BEHAVIOUR FIRSTLY, THEN COOPERATIVE BEHAVIOUR, AND FINALLY TO NATIONS WITH HIGH $\bar{R}$ IN WHICH THE VARIATION IN COOPERATIVE AND CONFLICTIVE BEHAVIOUR IS ACCOUNTED FOR BY URBANIZATION, RELIGION, AND POLITICAL ORIENTATION.

IN COMPARING BRIEFLY THE RESULTS OF SOCIAL-FIELD THEORY FREQUENCY AND BEHAVIOUR INDEX RESULTS, THE ANALYSIS OF THE INDEX DATA APPEARS TO CONFIRM THE HYPOTHESES FOR SOCIAL-FIELD THEORY BETTER THAN THE FREQUENCY RESULTS, ALTHOUGH NEITHER ARE AS SATISFACTORY AS HOPED. THE LINKAGE HYPOTHESIS THAT THE MORE SYMMETRIC NATIONS ARE IN ATTRIBUTE DISTANCE THE MOST COOPERATIVE BEHAVIOUR, AND THE COROLLARY THAT THE MORE ASYMMETRIC THE MORE CONFLICT WAS CONFIRMED PARTIALLY IN A NUMBER OF CASES. THAT IS, PARTS OF THESE RELATIONSHIPS OCCURRED, FOR EXAMPLE, IN THE EQUATION

$$1.54 \text{ COI} + .61 \text{ CFI} = -.79 \text{ POL.} + .73 \text{ REL.} + .60 \text{ URB.} \quad (16)$$

WHICH VERIFIES PARTIALLY THE COOPERATIVE ASPECT OF THE LINKAGE HYPOTHESIS THAT SIMILARITY IN POLITICAL ORIENTATION INFLUENCES THE EXCHANGE OF MORE COOPERATION, AND PARTIALLY ITS COROLLARY THAT DISTANCE ON URBANIZATION, AND ALSO RELIGION, PERPETUATE MORE CONFLICT BEHAVIOUR. OTHER EXAMPLES OF THIS PARTIAL CONFIRMATION OF THE COOPERATIVE LINKAGE HYPOTHESIS INCLUDE EQUATIONS (13) AND (19). WHEN $|B|$ IS REGARDED AS A COOPERATIVE INDEX, THE OCCURRENCES OF CONFIRMING THE HYPOTHESES INCREASE SUCH AS EQUATION (14)

$$.60 |B| = -.67 \text{ REL.}$$

THE HOMOGENEITY HYPOTHESIS, THE MORE SIMILAR NATIONS ARE IN DEVELOPMENT, URBANIZATION, RELIGION AND POLITICAL ORIENTATION THE

MORE THEY ENGAGE IN COOPERATIVE BEHAVIOUR IS CONFIRMED SLIGHTLY BETTER THAN THE LINKAGE HYPOTHESIS IN BOTH THE FREQUENCY AND BEHAVIOUR INDEX RESULTS. OTHER THAN NATIONS WITH LOW TRACE CORRELATIONS IN THE BEHAVIOUR INDEX RESULTS, IF ONE CONSIDERS ONLY THE COOPERATIVE BEHAVIOUR DIMENSIONS IN TABLES 9 AND 10, PARTS OF THE HYPOTHESIS ARE CONFIRMED SINCE ONE OF THE ATTRIBUTE DIMENSIONS GENERALLY HAS A NEGATIVE SIGN, INDICATING SIMILARITY ON THAT DIMENSION. FOR EXAMPLE, IN EQUATIONS (13), (16) AND (19), SIMILARITY IN RELIGION AND POLITICAL ORIENTATION ARE THE SOCIAL FORCES BEHIND AN INCREASE IN COOPERATIVE BEHAVIOUR, AND IN PARTICULAR CO-OPERATIVE WORDS IN THE FREQUENCY ANALYSIS. IN THE FREQUENCY RESULTS, URBANIZATION AND COOPERATION EMERGE TOGETHER ON THE SECOND CANONICAL VARIATE AS IN THE CASE OF MALI AND NIGERIA RESPECTIVELY:

$$.82 \text{ COW} = -.77 \text{ URB.} \quad (R = .25) \quad (20)$$

$$.86 \text{ COW} = -.77 \text{ URB.} \quad (R = .26) \quad (21)$$

FINALLY, IN A NUMBER OF CASES EITHER THE ATTRIBUTE DIMENSIONS OR THE BEHAVIOUR DIMENSIONS HAVE THE PREDICTED SIGNS, BUT NOT SIMULTANEOUSLY. SUCH IS OFTEN THE CASE WITH URBANIZATION FOR GHANA, DAHOMEY AND GUINEA IN THE BEHAVIOUR INDEX RESULTS. THUS, RELIGION, POLITICAL ORIENTATION AND URBANIZATION, IN THAT ORDER ARE THE VARIABLES MOST OFTEN ACCOUNTING FOR COOPERATIVE BEHAVIOUR IN THE HOMOGENEITY HYPOTHESIS, BUT NOT NECESSARILY SIMULTANEOUSLY, FOR SOCIAL-FIELD THEORY. IT IS HOPED THAT BETTER CONFIRMATION OF THE HYPOTHESES WILL BE ATTAINED IN THE RESULTS FOR STATUS-FIELD THEORY.

STATUS-FIELD THEORY ANALYSIS

STATUS-FIELD THEORY PROVIDES A DIFFERENT PERSPECTIVE ON THE RELATIONSHIP BETWEEN ATTRIBUTE AND BEHAVIOUR SPACE. WHILE THE BEHAVIOUR DIMENSIONS REMAIN THE SAME, THE FOUR FREQUENCY DIMENSIONS AND THREE BEHAVIOUR INDEX DIMENSIONS, THE ATTRIBUTE DIMENSIONS CONSIST OF POWER AND DEVELOPMENT ONLY. THEREFORE, THE GREATEST NUMBER OF CANONICAL VARIATES AND CORRELATIONS MAY BE EQUAL TO TWO ONLY, CORRESPONDING TO THE SMALLEST SET OF DIMENSIONS, THE ATTRIBUTE DIMENSIONS. TO BE CONSISTENT WITH WHAT HAS PREVIOUSLY BEEN DONE, THE FREQUENCY ANALYSIS IS DISCUSSED FIRST, FOLLOWED BY THE BEHAVIOUR INDEX ANALYSIS.

THE TRACE CORRELATIONS FOR THE FREQUENCY ANALYSIS (TABLE 11) ARE VERY LOW. WITH THE EXCEPTION OF ZAMBIA ($\bar{R} = .41$) THE TRACE COEFFICIENTS RANGE FROM .11 TO .25. OF THESE, MOST ARE BELOW .18. THIS MEANS THAT THE PERCENT OF THE VARIANCE IN BEHAVIOUR ACCOUNTED FOR BY ATTRIBUTE SPACE IS BETWEEN 1.2% AND 3.2%, WITH THE PERCENTAGE FOR THE LARGEST TRACE COEFFICIENT BELOW 17%. IT IS NOT SURPRISING, THEREFORE, THAT THE AVERAGE AMOUNT OF VARIANCE EXPLAINED BY THE FIRST CANONICAL IS LESS THAN 20%. HOWEVER, FROM THE VARIANCE IN BEHAVIOUR EXPLAINED BY THE ATTRIBUTE DIMENSION, TWO MAJOR PATTERNS WITH SLIGHT VARIATIONS IN BOTH EMERGE, ONE FOR EACH ATTRIBUTE DIMENSION. A SUMMARY TABLE OF THESE RESULTS IS DISPLAYED IN TABLE 11 AND THE MORE DETAILED ONE IN APPENDIX 4.

THE FIRST PATTERN OF RELATIONSHIPS CENTRES AROUND THE DEVELOPMENT ATTRIBUTE DIMENSION, AND IS THE FIRST, THEREFORE ASSUMED TO BE

TABLE 11

CANONICAL ANALYSIS RESULTS FOR STATUS-FIELD THEORY - FREQUENCY ANALYSIS

AUTOR	CAM.	GHA.	ETH.	I.C.	KEN.
TRACE CORR.	.11		.11	.12	.13
CANON. CORR.	.02	.003	.16	.03	.18
POW ATT. DEV	1.01	1.02	1.02	1.02	1.01
COW CFW BEH. COD CFD	1.23 .73 -.61	-.77 1.08 1.52	-.62 -1.32 -.89	-.64 -1.09 1.03	-.61 .99 .96

AUTOR	SEN.	NIGER	MAU.	U.V.	ZAM.
TRACE CORR.	.14		.15	.17	.41
CANON. CORR.	.15	.13	.19	.24	.54
POW ATT. DEV	1.00	1.01	1.01	1.02	.96
COW CFW BEH. COD CFD	-.98 .90	-.74 -.95	-.94 -.90	-.75 .90	-.53 .65

THE MOST IMPORTANT, CANONICAL VARIATE. THE CANONICAL CORRELATIONS BETWEEN DEVELOPMENT AND BEHAVIOUR ARE ALSO HIGHER THAN THOSE OF THE SECOND VARIATE, ALTHOUGH THE COEFFICIENTS ARE LOW, RANGING FROM .02 TO .54. IN A MAJORITY OF THE CASES, APPROXIMATELY 70% HAVE A NEGATIVE SIGN PROCEEDING THE CANONICAL VARIATE COEFFICIENT (THE PARAMETER) FOR DEVELOPMENT. THE NEGATIVE SIGN INDICATES A SIMILARITY IN DEVELOPMENTAL LEVELS BETWEEN ACTOR AND TARGET. THE FIRST DOMINANT PATTERN TO EMERGE IS A RELATIONSHIP BETWEEN DEVELOPMENT AND CONFLICT WORDS. THE EQUATION FOR IVORY COAST

$$1.09 \text{ CFW} = -.99 \text{ DEV.} \quad (r = .17) \quad (22)$$

SUGGESTS THAT THE MORE SIMILAR IVORY COAST IS TO ITS TARGETS IN DEVELOPMENT, THE MORE IT ENGAGES IN CONFLICT WORDS. THIS RELATIONSHIP EMERGES FOR MORE THAN 80% OF THE CASES. IN A FEW CASES, SUCH AS NIGER

$$-.95 \text{ CFW} = 1.01 \text{ DEV.} \quad (r = .19) \quad (23)$$

THE SIGNS ARE REVERSED SO THAT THE RELATIONSHIP IS THE MORE DISTANT ON DEVELOPMENT, THE LESS THE CONFLICT WORDS. STILL, A SMALL MINORITY OF OTHERS DEMONSTRATE A DIFFERENT RELATIONSHIP, SUCH AS UPPER VOLTA.

A SECOND PATTERN OF BEHAVIOUR CONGRUENT WITH THE PREVIOUS ONE IS THE RELATIONSHIP BETWEEN DEVELOPMENT AND CONFLICT DEEDS. IN THIS CASE THE DEVELOPMENT DIMENSION ACCOUNTS FOR THE VARIATION IN BOTH CONFLICT WORDS AND CONFLICT DEEDS. THE EQUATION FOR CAMEROON IS SIMILAR TO THAT FOUND IN NATIONS WITH LOW (LESS THAN .12) AND HIGH (GREATER THAN .17) TRACE CORRELATION COEFFICIENTS. IT STATES

$$1.23 \text{ CFW} - .61 \text{ CFD} = -.99 \text{ DEV.} \quad (r = .02) \quad (24)$$

OR, THE CLOSER NATIONS ARE IN DEVELOPMENT TO CAMEROON, THE MORE THEY ENGAGE IN CONFLICT WORDS AND THE LESS THEY ENGAGE IN CONFLICT DEEDS. FOR THE REMAINING NATIONS, CONFLICT WORDS IS THE ONLY TYPE OF BEHAVIOUR ACCOUNTED FOR BY DEVELOPMENT, WITH THE EXCEPTION OF SENEGAL.

THIS LEADS TO A FINAL BEHAVIOUR PATTERN INVOLVING COOPERATIVE DEEDS. ALTHOUGH THE LEAST OFTEN BEHAVIOUR DIMENSION OCCURRING WITH A HIGH CANONICAL COEFFICIENT OF THE THREE, IT DOES SURFACE FOR A FEW OF THE NATIONS WHICH ALSO EXHIBIT CONFLICT DEEDS. THUS, FOR EXAMPLE, THE EQUATION FOR ZAMBIA

$$1.03 \text{ COD} + .65 \text{ CFW} - .65 \text{ CFD} \hat{=} -.89 \text{ DEV} \quad (R = .54) \quad (25)$$

IMPLIES THAT SIMILARITY IN DEVELOPMENT ACCOUNTS NOT ONLY FOR MORE CONFLICT WORDS AND LESS CONFLICT DEEDS, BUT ALSO MORE COOPERATIVE DEEDS BETWEEN ZAMBIA AND ITS TARGETS.

THE SECOND MAJOR PATTERN OF RELATIONSHIPS BETWEEN ATTRIBUTES AND BEHAVIOUR REVOLVES AROUND THE POWER DIMENSION AND IS CONTAINED WITHIN THE SECOND CANONICAL VARIATE. THE PARAMETER IN THE EQUATIONS SIGN IS POSITIVE FOR 100% OF THE CASES, INDICATING DISTANCE BETWEEN ACTOR AND TARGET. THE BEHAVIOUR PATTERNS ARE NOT AS COHERENT AS THOSE RELATED TO DEVELOPMENT, AS REVEALED BY THE CANONICAL CORRELATION COEFFICIENTS.

UNLIKE DEVELOPMENT, DISTANCE ON THE POWER DIMENSION IS ASSOCIATED WITH AN INCREASE IN COOPERATIVE DEEDS. FOR EXAMPLE, THE RELATIONSHIP BETWEEN THE TWO DIMENSIONS IS

$$.96 \text{ COD} \hat{=} 1.01 \text{ POW} \quad (R = .09) \quad (26)$$

FOR MAURITANIA. AS THE POWER DIFFERENTIAL BETWEEN MAURITANIA AND ITS TARGETS INCREASES, SO ALSO DOES THE AMOUNT OF COOPERATIVE DEEDS. THIS

RELATIONSHIP DOES NOT OCCUR, HOWEVER, WHERE CONFLICT WORDS APPEARS TO BE THE MAJOR DIMENSION, AS STATED IN THE RELATIONSHIP THAT AN INCREASE IN POWER DISPARITIES IS A SOCIAL FORCE INFLUENCING A DECREASE IN THE AMOUNT OF CONFLICT WORDS. THE CANONICAL EQUATION FOR SENEGAL IS SUCH A CASE:

$$-.74 \text{ CFW} \approx 1.00 \text{ POW} \quad (R = .13) \quad (27)$$

THIS RELATIONSHIP SUGGESTS THAT WHILE SENEGAL RESPONDS TO AN INCREASE IN DISTANCE IN POWER BY ENGAGING IN MORE COOPERATIVE DEEDS, IT RESPONDS BY ENGAGING IN LESS CONFLICT WORDS. THEREFORE, BOTH TYPES OF NATIONS MAY BE ATTEMPTING TO BECOME MORE FRIENDLY WITH THEIR TARGETS IN THE WAKE OF THE TARGET'S INCREASED POWER. WHERE CONFLICT WORDS DO EMERGE ALONG WITH COOPERATIVE DEEDS, SUCH AS GHANA

$$.77 \text{ COO} - .61 \text{ CFW} \approx 1.02 \text{ POW} \quad (R = .03) \quad (28)$$

THIS ALSO IS ASSUMED TO BE THE CASE.

ASSOCIATED WITH POWER IS THE TREND THAT WHILE NATIONS MAY DECREASE IN THEIR AMOUNT OF COOPERATIVE WORDS, THEY WILL STILL ENGAGE IN COOPERATIVE DEEDS. THE EQUATION FOR KENYA, FOR EXAMPLE

$$.96 \text{ COO} - .61 \text{ COW} \approx 1.01 \text{ POW} \quad (R = .06) \quad (29)$$

SUGGESTS THAT AS KENYA'S TARGETS BECOME MORE POWERFUL, KENYA INCREASES ITS COOPERATIVE DEEDS BUT ALSO DECREASES ITS COOPERATIVE WORDS. THIS MAY SUGGEST THAT IN ORDER TO REMAIN IN FAVOUR OF A MORE POWERFUL TARGET, KENYA BECOMES MORE FORTHRIGHT IN ASSERTING ITS FRIENDLINESS BY ENGAGING IN MORE COOPERATIVE ACTIONS.

A FINAL BEHAVIOUR PATTERN SUGGESTS THAT POWER DISPARITY ALSO ACCOUNTS FOR THE VARIATION IN CONFLICT DEEDS. THIS RELATIONSHIP OCCURS IN CONJUNCTION WITH COOPERATIVE WORDS, DEEDS OR BOTH. AS IN

THE CASE OF ETHIOPIA,

$$1.20 \text{ CFD} - .81 \text{ CFW} - .64 \text{ COW} + .61 \text{ COD} \doteq 1.02 \text{ POW} \quad (R = .04) \quad (30)$$

THE EQUATION STATES THAT AS THE POWER DISPARITY BETWEEN ETHIOPIA AND ITS TARGETS INCREASES, ETHIOPIA ENGAGES IN LESS CONFLICT AND COOPERATIVE WORDS AND MORE CONFLICT AND COOPERATIVE DEEDS. THIS IMPLIES THAT ETHIOPIA BECOMES MORE FORCEFUL IN ITS COOPERATIVE AND CONFLICTIVE ACTIONS AS A TARGET BECOMES MORE POWERFUL, AND THEREFORE MORE ASSERTIVE.

GENERALLY THEN, WHILE THE TRADE CORRELATION COEFFICIENTS ARE HIGHER FOR THE DEVELOPMENT DIMENSION PATTERNS, ALTHOUGH NOT AS HIGH AS WOULD BE LIKED, DEVELOPMENT IS MOST CLOSELY ASSOCIATED WITH CONFLICT, AND POWER WITH COOPERATION FOR THE FREQUENCY RESULTS OF STATUS-FIELD THEORY. ADDED TO THIS ARE OTHER BEHAVIOUR DIMENSIONS WHICH HELP TO EXPLAIN AFRICAN FOREIGN POLICY BEHAVIOUR. ONLY NIGERIA, TOGO AND UGANDA DO NOT FOLLOW THESE PATTERNS. WHEREAS MOST NATIONS HAVE A HIGH SCORE ON ONE ATTRIBUTE DIMENSION PER CANONICAL VARIATE AND A SCORE OF APPROXIMATELY .05 FOR THE SECOND, THESE THREE NATIONS HAVE HIGHER COEFFICIENTS ON THE SECOND DIMENSION. ALSO, THE IMPORTANCE OF POWER AND DEVELOPMENT ARE REVERSED, WITH POWER ON THE FIRST CANONICAL VARIATE. FOR NIGERIA, THE POWER DISPARITY INFLUENCES AN INCREASE IN COOPERATIVE DEEDS, AS PREVIOUSLY FOUND, BUT A DECREASE IN CONFLICT DEEDS. THE RELATIONSHIP BETWEEN DEVELOPMENT AND CONFLICT WORDS IS THE SAME, EXCEPT THAT THE SIGNS ARE REVERSED. THE RESULTS FOR TOGO AND UGANDA ARE THE SAME AS WITH OTHER NATIONS, WITH THE EXCEPTION THAT POWER IS MORE IMPORTANT, AND THAT A DECREASE IN CONFLICT WORDS IS GIVEN A HIGHER PRIORITY. FOR DEVELOPMENT, MORE CONFLICT DEEDS ARE EXCHANGED, AS OPPOSED TO LESS, AND LESS CONFLICT WORDS AS

OPPOSED TO MORE.

THUS FAR, THE RESULTS FOR THE STATUS-FIELD THEORY FREQUENCY ANALYSIS HAVE BEEN THE MOST FRUITFUL IN TERMS OF THE COHERENT PATTERNS TO EMERGE. THE MAJOR PROBLEM, HOWEVER, LIES IN THE LOW TRACE CORRELATION COEFFICIENTS.

TABLE 12 PROVIDES THE FINAL DATA ANALYSIS FOR STATUS-FIELD THEORY. ONCE AGAIN THE TRACE CORRELATIONS RANGE HIGHER THAN THOSE OF THE FREQUENCY ANALYSIS, FROM .10 TO .64. THE AVERAGE AMOUNT OF BEHAVIOUR EXPLAINED BY ATTRIBUTE DISTANCES FOR THE FIRST CANONICAL VARIATE IS APPROXIMATELY 47%. THE PATTERN OF RELATIONSHIPS BETWEEN ATTRIBUTES AND BEHAVIOUR, HOWEVER, ARE NOT AS PRECISE AS THOSE OF THE FREQUENCY ANALYSIS, AND POWER EMERGES AS THE DOMINANT VARIABLE FOR THE FIRST VARIATE, WHILE DEVELOPMENT LOADS ON THE SECOND. THE PATTERNS WHICH ARE MANIFESTED, GENERALLY RELATE AN INCREASE IN POWER DISPARITY WITH AN INCREASE IN CONFLICT AND COOPERATION, WHILE SIMILARITY IN DEVELOPMENT IS ASSOCIATED WITH A DECREASE IN CONFLICT.

THE IMPORTANCE PLACED UPON POWER IS SHOWN TO BE REVERSED FOR NATIONS WITH TRACE CORRELATION COEFFICIENTS OF LESS THAN .30. ALTHOUGH POWER EXPLAINS LESS OF THE VARIATION IN BEHAVIOUR THAN DEVELOPMENT (R 'S BETWEEN .05 AND .20), THE RELATIONSHIP BETWEEN POWER AND, IN THIS INSTANCE, COOPERATION ALONE IS SIMILAR TO OTHER DYADIO SETS. FOR EXAMPLE, SIERRA LEONE'S EQUATION

$$.83 \text{ COI} = .75 \text{ POW} \quad (R = .06) \quad (31)$$

SUGGESTS THAT THE MORE POWER DISPARITY BETWEEN IT AND ITS TARGETS, THE MORE SIERRA LEONE ENGAGES IN COOPERATIVE BEHAVIOUR. FOR A MAJORITY OF THE ACTORS, HOWEVER, POWER PROVIDES A SOCIAL FORCE FOR

TABLE 12

CANONICAL ANALYSIS RESULTS FOR STATUS-FIELD THEORY - BEHAVIOUR INDEX ANALYSIS

ACTOR	S.L.	Us.	GUI.	DAM.	MALI
TRACE CORR.	.10		.35		
CANON. CORR.	.13	.16	.48	.37	.42
		.18	.09	.49	.54
ATT. POW	.67				
DEV	.80	1.02	.79	.99	.86
		-1.00	.65	1.03	.93
			.91		
IBI		.63	-1.17	.91	2.37
BEH. CFI	.97	-.56	1.34	1.03	3.55
COI	(.55)	.68	1.93	.72	3.93
					1.32
					1.02

ACTOR	MAUR.	NIGER	LIB.	CAM.
TRACE CORR.	.44			
CANON. CORR.	.58	.52	.53	.64
	.23	.62	.75	.77
ATT. POW		.39	.05	.42
DEV	-.92	.97	-.70	.79
			.72	.64
			.68	.90
IBI	-1.68	.68	.83	
BEH. CFI	-1.62	-.61	-.81	4.63
COI	.64	2.07	-1.12	6.27
		.85	(-.54)	1.06
		1.19	-.81	1.01
		(.52)		-2.04

BOTH CONFLICT AND COOPERATIVE BEHAVIOUR. THE CANONICAL EQUATION FOR CAMEROON

$$1.06 \text{ CFI} + 1.01 \text{ COI} = .79 \text{ POW} \quad (r = .77) \quad (32)$$

STATES THAT AS DISTANCE BETWEEN CAMEROON AND ITS OBJECT-NATIONS INCREASES ON THE POWER DIMENSION, CAMEROON ENGAGES IN MORE CONFLICT AND COOPERATIVE FORMS OF BEHAVIOUR. THE EQUATIONS FOR OTHER NATIONS SUGGEST THE SAME RELATIONSHIP BUT WITH THE SIGNS OF THE COEFFICIENTS REVERSED. FOR EXAMPLE, THE EQUATION FOR LIBERIA

$$-1.12 \text{ CFI} - .82 \text{ COI} = -.70 \text{ POW} \quad (r = .75) \quad (33)$$

STATES THAT 56.3% OF THE VARIATION IN DECREASING AMOUNTS OF CONFLICT AND COOPERATIVE BEHAVIOUR FOR LIBERIA IS ASSOCIATED WITH A DECREASE IN THE POWER DIFFERENCES BETWEEN LIBERIA AND ITS TARGETS. AN EXCEPTION IS MAURITANIA. THERE, A DECREASE IN POWER DISPARITY INFLUENCES A DECREASE IN CONFLICT BEHAVIOUR, BUT ALSO AN INCREASE IN COOPERATION. FINALLY, FOR DYADIO SETS IN WHICH THE OVERALL VARIANCE ACCOUNTED FOR BY THE FIRST CANONICAL CORRELATION IS GREATER THAN 23% ($r = .48$), THE INTERACTIVE BEHAVIOUR INDEX EMERGES AS A FORM OF BEHAVIOUR ASSOCIATED WITH THE POWER DIMENSION. AS AN EXAMPLE, THE CANONICAL EQUATION FOR MALI

$$3.93 \text{ CFI} + 2.37 \text{ IB} + 2.32 \text{ COI} = .86 \text{ POW} \quad (r = .54) \quad (34)$$

STATES THAT AS POWER DISPARITIES INCREASE IN THE DYADIO SET, MALI ENGAGES IN MORE INTERACTION (IB BEING COOPERATION AND CONFLICT) BUT STRESSES CONFLICT FIRST, FOLLOWED BY COOPERATION.

ACCORDING TO THE CANONICAL VARIATE COEFFICIENTS, DEVELOPMENT IS ASSOCIATED MOST STRONGLY AND POSITIVELY WITH CONFLICT. THAT IS, AS DEVELOPMENT DISTANCES INCREASE, CONFLICT INCREASES. SIERRA LEONE

IS A CASE IN POINT, ALTHOUGH DEVELOPMENT IS ASSOCIATED WITH THE FIRST CANONICAL VARIATE. ITS EQUATION

$$.97 \text{ CFI} \doteq .80 \text{ DEV} \quad (R = .13) \quad (35)$$

IMPLIES THAT THE MORE SIERRA LEONE IS DISTANT FROM ITS TARGETS IN DEVELOPMENT, THE MORE IT ENGAGES IN CONFLICT BEHAVIOUR. THE COROLLARY OF THIS RELATIONSHIP EXISTS BETWEEN OTHER STATES. FOR EXAMPLE, THE EQUATION FOR UGANDA

$$-.56 \text{ CFI} \doteq -1.00 \text{ DEV} \quad (R = .18) \quad (36)$$

STATES THAT IN THIS DYADIC SET AS POWER DISPARITY DECREASES BETWEEN THE ACTOR AND TARGET, UGANDA ENGAGES IN LESS CONFLICT. THIS SUGGESTS THAT IN THIS TYPE OF RELATIONSHIP OF EXCHANGING GOODS, AS NATIONS APPROACH PARITY IN DEVELOPMENT, THERE IS LESS OF A NEED TO INTERACTION IN CONFLICT TYPES OF BEHAVIOUR. ONCE AGAIN THE INTERACTIVE BEHAVIOUR INDEX EMERGES ALSO AS A CONSEQUENCE OF DISSIMILARITY IN LEVELS OF DEVELOPMENT. AS SEEN IN THE EQUATION FOR MALI,

$$5.13 \text{ CFI} + 3.55 \text{ IBI} + 1.02 \text{ COI} \doteq .93 \text{ DEV} \quad (R = .25) \quad (37)$$

DISTANCE IN DEVELOPMENT INFLUENCES THE AMOUNT OF BOTH COOPERATIVE AND CONFLICT BEHAVIOUR, AS EXPRESSED IN IBI, BUT PRIMARILY IN CONFLICT. FINALLY, THE DEVIANT CASE FOR THE DEVELOPMENT ATTRIBUTE DISTANCE IS CAMEROON, WHERE AN INCREASE IN THE DISTANCE BETWEEN IT AND ITS TARGETS INFLUENCES A DECREASE IN THE AMOUNT OF INTERACTION BEHAVIOUR, IN PARTICULAR CONFLICT, FOLLOWED BY COOPERATION.

THUS, THE PATTERNS FOR THE RELATIONSHIP BETWEEN THE STATUS ATTRIBUTE DIMENSIONS AND BEHAVIOUR IN THE BEHAVIOUR INDEX RESULTS ARE NOT AS DISTINCTIVE AS THOSE IN THE FREQUENCY ANALYSES. FOR THE FORMER, BEHAVIOUR PATTERNS TEND TO VARY ACROSS THE DYADIC SETS

EXCEPT THAT IVORY COAST AND UPPER VOLTA HAVE PATTERNS DISSIMILAR TO OTHER DYADIC SETS, AND THE SETS WITH LOW TRACE CORRELATION COEFFICIENTS, THAT IS LESS THAN .20, DIFFER FROM THE REMAINING SETS ON THE VARIABLES WHICH EMERGE ON THE FIRST CANONICAL VARIATE.

IN COMPARING THE RESULTS FOR THE FREQUENCY AND BEHAVIOUR INDEX WITH THE HYPOTHESES FOR STATUS-FIELD THEORY, THE RESULTS ARE NOT VERY ENCOURAGING. NONE OF THE HYPOTHESES ARE CONFIRMED AS THE DATA STAND BECAUSE NONE OF THE CASES FOR THE FREQUENCY ANALYSIS AND ONLY TWO CASES, LIBERIA AND MAURITANIA FOR THE INDEX RESULTS HAVE THE PREDICTED SIGNS AFFIXED TO THE POWER DIMENSION. (REFER TO FIGURE 6)

FOR EXAMPLE, EQUATION (26)

$$.96 CDD \approx 1.01 POW \quad (26)$$

SUGGESTS THE HYPOTHESIS THAT THE MORE DISTANT NATIONS ARE IN POWER PARITY THE MORE THEY ENGAGE IN COOPERATIVE DEEDS, WHEREAS THE COOPERATIVE HYPOTHESIS STATES THAT THE MORE SIMILAR NATIONS ARE ON THE POWER DIMENSION THE MORE THEY ENGAGE IN COOPERATIVE ACTS. A SIMILAR SITUATION OCCURS IN THE BEHAVIOUR INDEX, FOR EXAMPLE, EQUATION (31) FOR SIERRA LEONE. THE RESULTS FOR THE CONFLICT HYPOTHESIS ALSO DEMONSTRATE THE PROBLEM OF THE POWER DIMENSIONS' SIGN. AS SEEN IN PART OF EQUATION (30) FOR THE FREQUENCY ANALYSIS AND (32) FOR THE BEHAVIOUR INDEX

$$1.20 CFD \approx 1.02 POW \quad (30)$$

AND

$$1.06 CFI \approx .79 POW \quad (32)$$

THE EQUATIONS STATE THAT AS POWER DISPARITIES INCREASE, SO DOES THE AMOUNT OF CONFLICT. THE ACTUAL HYPOTHESIS, HOWEVER, IS THAT AS POWER

DISPARITIES DECREASE, THE AMOUNT OF CONFLICT INCREASES. THE STATUS HYPOTHESIS, FINALLY, IS NOT CONFIRMED. ONLY FOR LIBERIA AND MAURITANIA IS THE DISTANCE BETWEEN THESE NATIONS AND THEIR TARGET DECREASING, BUT STATUS-DEPENDENT CONFLICT AND COOPERATION IS ALSO DECREASING, RATHER THAN INCREASING AS HYPOTHESIZED. FOR OTHER DYADIC SETS SUCH AS CAMEROON IN EQUATION 32,

$$1.06 CFI + 1.01 COI \hat{=} .79 Pow. \quad (32)$$

THE RELATIONSHIP IS THE MORE DISSIMILAR IN POWER, THE MORE STATUS-DEPENDENT CONFLICT AND COOPERATION.

THE RESULTS FOR RELATIONSHIPS BETWEEN DEVELOPMENT AND BEHAVIOUR ARE SLIGHTLY BETTER. THE COOPERATION HYPOTHESIS IS CONFIRMED PARTIALLY IN THE FREQUENCY AND BEHAVIOUR INDEX ANALYSIS THROUGH SUCH EQUATIONS AS

$$1.03 COD + .65 CFW - .65 CFD \hat{=} -.89 DEV \quad (25)$$

AND

$$.98 COD \hat{=} -.86 DEV \quad (R = .07) \quad (38)$$

FOR SUDAN. WHEREAS THE COMPLETE HYPOTHESIS IS THE MORE SIMILAR NATIONS ARE ON ECONOMIC DEVELOPMENT AND ON POWER, THE MORE THEY ENGAGE IN STATUS DEPENDENT COOPERATION, THESE RESULTS SUGGEST THAT THE MORE SIMILAR NATIONS ARE ON DEVELOPMENT, THE MORE THEY ENGAGE IN COOPERATION. APPROXIMATELY 31% OF THE CASES FOR THE FREQUENCY ANALYSIS AND ONLY 17% FOR THE BEHAVIOUR INDEX HAVE THIS RELATIONSHIP ON THE FIRST CANONICAL VARIATE.

THE CONFLICT HYPOTHESIS IS CONFIRMED PARTIALLY FOR THE DEVELOPMENT ASPECTS IN 30% OF THE BEHAVIOUR INDEX DYADIC SETS ANALYSIS, BUT ONLY TWO, ZAIRE AND UPPER VOLTA

.73 CFD $\pm$ 1.01 DEV ($r = .17$) .90 CFW $\pm$ 1.02 DEV ($r = .24$) (39, 40)

POSSESS COEFFICIENT SIGNS IN THE PREDICTED DIRECTION. THUS, THE RELATIONSHIP SUGGESTED FOR THESE FEW CASES IS THAT THE MORE DISTANCE BETWEEN ACTOR AND TARGET ON DEVELOPMENT, THE MORE CONFLICT IN WHICH THEY ENGAGE

THUS, THE RESULTS FOR THE STATUS-FIELD THEORY HYPOTHESES AS THEY STAND ARE NOT VERY ENCOURAGING. A FINAL COMPARISON IS UNDERTAKEN TO EXAMINE ALL OF THE HYPOTHESES FOR SOCIAL AND STATUS-FIELD THEORY WITH THE RESULTS FROM THE DATA.

HYPOTHESES: CONFIRMED OR DISPROVED?

IN REFLECTING UPON THE HYPOTHESES STATED AT THE OUTSET OF THIS CHAPTER, TABLE 13 REPRESENTS THESE HYPOTHESES IN A FORMAT SIMILAR TO FIGURE 3. THE SIGNS OF THE FIRST AND SECOND CANONICAL CORRELATION FOR ALL THE DYADIC SETS HAVE BEEN ABSTRACTED. IN THIS WAY, THE ACTUAL DIRECTION OF THE ATTRIBUTE-DISTANCE BEHAVIOUR RELATIONSHIP MAY BE COMPARED WITH THOSE PREDICTED PREVIOUSLY. THE PREDICTED SIGN IS RECAPITULATED BEFORE THE PRESENTATION OF THE RESULTS FOR EACH HYPOTHESIS. BELOW THESE ARE THE ACTUAL NUMBER OF TIMES THIS RESULT WAS ATTAINED FOR BOTH SOCIAL AND STATUS-FIELD THEORY.⁶

ONE STRIKING FINDING IS THE NON-CONFIRMATION OF ALL THE STATUS-FIELD THEORY HYPOTHESES IN TOTAL AS SEEN BY

6. THERE ARE THEN A POSSIBLE 46 INSTANCES IN WHICH THE SIGNS COULD BE IN THE PREDICTED DIRECTION. THOSE COEFFICIENTS COUNTED IN TABLE 13 HAVE A MINIMUM VALUE OF .50. THE VALUES USED ARE FROM APPENDIX 3 AND 4. NOTE THAT THE COI, AND CFI BEHAVIOUR FOR THE BEHAVIOUR INDEX RESULTS FOR THE STATUS HYPOTHESIS INCLUDE THE INTERACTIVE BEHAVIOUR INDEX. ALSO THE CF AND CQ INCLUDE BOTH CONFLICT WORDS AND DEEDS, AND COOPERATION WORDS AND DEEDS.

TABLE 13

ACTUAL SIGNS FOR SOCIAL AND STATUS-FIELD THEORY HYPOTHESES^A

HYPOTHESES	BEHAVIOUR	POW.	URB.	DEV.	REL.	POL.	OR.
1. LINKAGE	SIGN	+/+	+/-	+/-			+/-
	FREQ. CF/CO	32/27	1/15	8/3			9/6
	B.I. CFI/COI	20/16	5/8	6/5			13/10
	IBI	22					
2. HOMO.	SIGN	+	-	-	-	-	
	FREQ. CO	27	15	3	6	6	
	B.I. COI	16	8	5	14	10	
	IBI	22					
3. COOP.	SIGN	+	-	-			
	FREQ. CO	25	0		18		
	B.I. COI	23	2		13		
	IBI	12					
4. CONF.	SIGN	+	-	+			
	FREQ. CF	29	0	9			
	B.I. CFI	18	2	20			
5. STATUS	SIGN	++	-				
	FREQ. CO + CF	13	0				
	B.I. COI+CFI	16	2				

NOTE^A: FREQ. MEANS THE BEHAVIOUR FREQUENCY ANALYSIS, WHILE B.I. REFERS TO THE BEHAVIOUR INDEX ANALYSIS, CO COOPERATION, COI COOPERATION INDEX, IBI THE INTERACTIVE INDEX, AND SO ON.

THE FREQUENCY ANALYSIS AND ONLY TWICE IN THE INDEX ANALYSIS FOR LIBERIA AND MAURITANIA. ON THE OTHER HAND, THE PREDICTED SIGNS IN BEHAVIOUR OCCUR UPWARDS TO 70% OF THE DYADIO SETS IN THE LINKAGE HYPOTHESIS. FINALLY, THE FREQUENCY OF TIMES IN WHICH ATTRIBUTES AND BEHAVIOUR ARE IN THE PROPER DIRECTION DOES NOT NECESSARILY CORRESPOND TO ACTUAL EQUATIONS WHICH SUPPORT THE HYPOTHESES IN THEIR ENTIRETY. FOR EXAMPLE, THE PREDICTED SIGNS FOR THE FREQUENCY RESULTS OF THE COOPERATION HYPOTHESIS WERE $+CO \equiv -POW, -DEV$. THE EQUATION FOR SIERRA LEONE

$$-1.09 CFW + .55 COW \equiv .78 POW + .70 DEV. \quad (41)$$

INDICATES THAT ALTHOUGH COW IS IN THE PROPER DIRECTION (AND THEREFORE INCLUDED IN THE FREQUENCY OF 25 FOR THE ACTUAL DIRECTION) POW AND DEV ARE NOT IN THE PREDICTED DIRECTION. FOR THE CONFLICT HYPOTHESIS, ONLY DEV. IS PREDICTED. AS HAS BEEN STATED, NONE OF THE STATUS-HYPOTHESES ARE CONFIRMED TOTALLY, AND WITH A CUT-OFF VALUE OF .50 NONE OF THE SOCIAL-FIELD THEORY HYPOTHESES ARE CONFIRMED.⁷

SINCE ALL OF THE HYPOTHESES HAVE BEEN DISCUSSED PREVIOUSLY, THEY WILL ONLY BE DISCUSSED BRIEFLY NOW. THE FIRST HYPOTHESIS RELATES COOPERATION AS A FUNCTION OF THE SIMILARITY IN THE ATTRIBUTES OF URBANIZATION, DEVELOPMENT AND POLITICAL ORIENTATION, WHILE CONFLICT IS A FUNCTION OF DISTANCE BETWEEN ACTOR AND TARGET ON THESE SAME DIMENSIONS. IN THE FREQUENCY ANALYSIS CONFLICT BEHAVIOUR WAS SUBSTANTIATED IN CONNECTION WITH DEVELOPMENT AND POLITICAL ORIENTATION.

7. BY LOWERING THIS CUT-OFF CRITERION TO .40 THE RESULTS DO INDICATE SOME SUPPORT FOR THE ENTIRE SOCIAL-FIELD THEORY HYPOTHESES SUCH AS IN THE CASE OF MAURITANIA AND NIGER IN THE COOPERATION SECTION OF THE LINKAGE HYPOTHESIS.

COOPERATION WAS GENERALLY A FUNCTION OF SIMILARITY IN URBANIZATION AND POLITICAL ORIENTATION FOR THE LINKAGE HYPOTHESIS. THE DOMINANT TYPE OF BEHAVIOUR ASSOCIATED WITH CONFLICT WAS CONFLICT DEEDS IN 32 OF THE FREQUENCY ANALYSES, WHILE COOPERATION WAS COMPOSED OF CO-OPERATIVE DEEDS FOR 27 CASES, AND BEHAVIOUR FOR 22 CASES OF THE INDEX WAS INTERACTIVE BEHAVIOUR AND THE COOPERATIVE INDEX (16 CASES) SUGGESTING THE IMPORTANCE OF COOPERATION FIRSTLY, AND CONFLICT AS A SECONDARILY IMPORTANT TYPE OF BEHAVIOUR. THE HOMOGENEITY HYPOTHESIS FOR THE FREQUENCY RESULTS FOR COOPERATIVE BEHAVIOUR AND THE INDEX RESULTS FOR 181 SHOWED COOPERATION WAS A FUNCTION OF URBANIZATION, POLITICAL ORIENTATION AND RELIGION.

THE HYPOTHESES RELATED SPECIFICALLY TO STATUS-FIELD THEORY PROPOSE SEVERAL RELATIONSHIPS BETWEEN THE STATUS DIMENSIONS OF POWER AND DEVELOPMENT TO COOPERATION AND CONFLICT. THE THIRD HYPOTHESIS SPECIFICALLY STATES THAT DISTANCE ON POWER AND DEVELOPMENT CONTRIBUTES NEGATIVELY TO THE RELATIVE COOPERATIVE ACTIONS OF BLACK AFRICAN STATES TOWARD TARGETS OF FOREIGN POLICY BEHAVIOUR. THE RESULTS OF THE FREQUENCY AND INDEX RESULTS CONFIRM PARTIALLY THIS HYPOTHESIS BECAUSE THE POWER DIRECTION IS POSITIVE IN ALL BUT TWO OF THE CASES IN THE INDEX ANALYSIS. IN 18 CASES FOR THE FREQUENCY ANALYSIS AND 13 FOR THE INDEX ANALYSIS, DEVELOPMENT IS IN THE PROPER DIRECTION AS ARE 25 CASES FOR COOPERATION AND 23 FOR COI AND 12 FOR 181 RESPECTIVELY. THUS, ONLY THE DEVELOPMENT ASPECT OF THE HYPOTHESES MAY BE CONFIRMED FOR 35% OF THE FREQUENCY ANALYSIS CASES AND 27% OF THE INDEX CASES. THE RESULTS FOR THE COOPERATION HYPOTHESIS, THEN SUGGESTED THAT DISTANCE IN POWER AND SIMILARITY IN DEVELOPMENT CONTRIBUTE TO

COOPERATION.

THE FOURTH HYPOTHESIS, THE SECOND STATUS HYPOTHESIS STATES THE MORE DISTANCE BETWEEN ACTOR AND TARGET IN DEVELOPMENT AND THE MORE SIMILAR IN POWER, THE MORE THESE NATIONS ENGAGE IN CONFLICT, HENCE THE CONFLICT HYPOTHESIS. AGAIN, HOWEVER, THE POWER ASPECT OF THE HYPOTHESIS IS NOT CONFIRMED, AND THE RESULTS FOR THE REMAINDER OF THE HYPOTHESIS ARE CONFIRMED FOR 40% OF THE CASES FOR THE FREQUENCY ANALYSIS AND 27% FOR THE INDEX ANALYSIS. IN ANOTHER 44% AND 21% RESPECTIVELY A COROLLARY TO THIS HYPOTHESIS APPEARS, SUCH THAT THE MORE SIMILAR NATIONS ARE IN DEVELOPMENT, THE LESS CONFLICT BEHAVIOUR IN WHICH THEY ENGAGE. IN A MAJORITY OF THE UNEXPLAINED CASES, THE CONFLICT DIMENSION EITHER IS RELATED NEGATIVELY TO ATTRIBUTE DISTANCE, OR THE CANONICAL CORRELATION COEFFICIENT IS LOW.

THE RESULTS FOR THE FINAL HYPOTHESIS THAT THE MORE SIMILAR ARE THE ACTOR AND TARGET IN POWER, THE MORE THEY ENGAGE IN STATUS-DEPENDENT COOPERATIVE AND CONFLICT BEHAVIOUR, SUGGEST THAT WHILE 28% OF THE STATUS BEHAVIOUR FOR THE FREQUENCY ANALYSIS CASES AND 35% FOR THE INDEX RESULTS WERE IN THE PREDICTED DIRECTION, POWER INCONGRUENCE DID NOT INFLUENCE STATUS-DEPENDENT COOPERATIVE AND CONFLICT BEHAVIOUR. THUS, THE RESULTS COMPLETELY REJECT THE STATUS HYPOTHESIS.

IT IS DIFFICULT FROM THIS ANALYSIS TO ASSESS THE STATUS OF THE STATUS-FIELD THEORY HYPOTHESIS. IT IS ENCOURAGING THAT RESULTS OF THE THEOREMS AND HYPOTHESES TESTED DID INDICATE A SEPARATION BETWEEN COOPERATIVE AND CONFLICT BEHAVIOUR ON THE ONE HAND, AND DEVELOPMENT

ON THE OTHER. HOWEVER, THE HYPOTHESES WERE NOT CONFIRMED FOR THE POWER DIMENSION. IN PREVIOUS RESEARCH ON THE RELATIONSHIP BETWEEN BEHAVIOUR AND ATTRIBUTE DISTANCE, RUMMEL CONCLUDED THAT RELATIVE STATUS ON DEVELOPMENT AND POWER DIMENSIONS EXPLAIN WESTERN EUROPEAN PLUS DETERRENT BEHAVIOUR FOR THE UNITED STATES DYADS.⁸ HOWEVER, RHEE'S RESULTS CORRESPOND TO THOSE FOUND IN THIS THESIS, THAT IS "THE JOINT VALUES OF CHINA'S COOPERATION AND CONFLICT BEHAVIOUR WAS DETERMINED MAINLY BY POWER DISTANCE ALONE, DID NOT HOLD UP IN THE DATA."⁹ THUS, THE RESULTS FOR THE POWER DIMENSION DEMONSTRATE A DISADVANTAGE OF STATUS-FIELD THEORY, THAT THE HYPOTHESES DO NOT EXPLAIN VARIATION IN BEHAVIOUR FOR BLACK AFRICAN STATES BY THE POWER DIMENSION AS WAS THEORIZED.

THE TRACE CORRELATION COEFFICIENTS WERE NOT AS HIGH FOR ALL THE BLACK AFRICAN NATIONS AS WERE EXPECTED. WHILE THE RESULTS FOR SOCIAL-FIELD THEORY WERE GENERALLY ACCEPTED WITHIN THE MATHEMATICAL AND THEORETICAL CONFINES OF FIELD THEORY, THE TRACE CORRELATIONS WERE LOW, SUGGESTING THAT THE BEHAVIOUR PATTERNS WERE NOT SENSITIVE TO THE SHIFT IN ATTRIBUTE DISTANCES BETWEEN ACTOR AND TARGETS AND THE RESULTS RELATE ONLY TO A SMALL AMOUNT OF VARIANCE. FURTHERMORE, IN THE RESULTS FOR THE STATUS-FIELD THEORY HYPOTHESES, IT WAS DIFFICULT TO INTERPRET WHICH OF THE CANONICAL VARIATES WAS THE MOST IMPORTANT.

8. R. RUMMEL, "U.S. FOREIGN RELATIONS," IN PEACE, WAR AND NUMBERS, ED. B. RUSSETT (BEVERLY HILLS: SAGE PUBLICATION, 1972), P. 109.

9. S. RHEE, "CHINA'S COOPERATION, CONFLICT AND INTERACTION BEHAVIOUR," IN ADVANCING AND CONTENDING APPROACHES TO THE STUDY OF CHINESE FOREIGN POLICY, ED. R.L. DIAL (DALHOUSIE UNIVERSITY: CENTRE FOR FOREIGN POLICY STUDIES, 1974), P. 176.

WHILE THE CANONICAL CORRELATION FOR THE FIRST VARIATE TENDED TO BE HIGHER THAN THE SECOND, POWER AND DEVELOPMENT WERE FORCED TO SPLIT BETWEEN THE TWO VARIATES, OFTEN RESULTING IN POWER HAVING THE HIGHEST COEFFICIENT ON THE SECOND VARIATE. IN TERMS OF THE EIGENVALUE, IT WAS DEEMED THAT DEVELOPMENT WAS THE MORE IMPORTANT DIMENSION IN EXPLAINING BLACK AFRICAN BEHAVIOUR. LASTLY, THE CANONICAL CORRELATION COEFFICIENTS FOR THE FREQUENCY ANALYSIS WERE MUCH LOWER THAN THOSE OF THE INDEX. PART OF THIS MAY HAVE BEEN CAUSED BY THE DIFFERENT NUMBER OF BEHAVIOUR DIMENSIONS IN THE TWO ANALYSES, AND THEREFORE THE FEWER VARIATES REQUIRED TO EXPLAIN THE BEHAVIOUR PATTERNS IN THE INDEX ANALYSIS.

OVERALL, IT IS DIFFICULT TO SAY THAT THE FIVE HYPOTHESES GENERATED BY SOCIAL AND STATUS-FIELD THEORY WERE CONFIRMED BY THIS THESIS. IT IS ENCOURAGING THAT SOME OF THE COOPERATIVE AND CONFLICT BEHAVIOUR ARE A LINEAR FUNCTION OF THE ATTRIBUTE DISTANCES OF FOUR OF THE DIMENSIONS, AND THAT THE LINEAR APPROACH THROUGH THE FIELD THEORETICAL MODELS DOES EXPLAIN SOME OF THE VARIATION IN BLACK AFRICAN FOREIGN POLICY BEHAVIOUR. HOWEVER, MORE RESEARCH AND EMPIRICAL TESTING OF THE DATA IS REQUIRED IN ORDER TO ASSESS MORE FULLY THE THEORIES' IMPLICATIONS FOR NATIONS IN A SUBORDINATE SYSTEM WHERE THE MAGNITUDE OF ATTRIBUTE DISTANCE BETWEEN THE NATIONS IS SMALL.

CHAPTER 6

SUMMARY AND CONCLUSION: FIELD THEORY AND AFRICAN FOREIGN POLICY BEHAVIOUR

THIS THESIS HAS PRESENTED AN EMPIRICAL TEST OF SOCIAL AND STATUS-FIELD THEORY. THE PURPOSE OF ANY THEORY IS TO PRESENT A SET OF ASSUMPTIONS AT BOTH A HIGH LEVEL OF GENERALITY, PROVIDING THE "INNER CORE" OF THE THEORY, AND A LOW LEVEL OF MORE SPECIFIC HYPOTHESES. IN THIS THESIS, THESE HYPOTHESES WERE DEDUCED FROM AXIOMS DERIVED FROM THE LITERATURE ON FIELD THEORY AND UNDERWENT TESTS OF FALSIFICATION TO DETERMINE WHETHER IN FACT THEY CORRESPOND TO REALITY. IN THIS PARTICULAR CASE, THE BLACK AFRICAN NATIONS WERE USED TO TEST THE APPLICABILITY OF THESE HYPOTHESES. AT THE SAME TIME, A REPLICATION OF SIMILAR STUDIES WAS CARRIED OUT EMPLOYING DIFFERENT DATA TO HYPOTHESES TESTED PREVIOUSLY.

FOR A THEORY TO BE VIABLE, IT MUST BE ABLE TO CHANGE AS NEWER AND BETTER THEORIES EITHER ADD TO OR SUBSUME IT. FOR SOCIAL AND STATUS-FIELD THEORY, THE PROCESS OF THEORY-BUILDING HAS BEEN CHARACTERIZED BY CONTINUED ATTEMPTS TO SUBSUME OTHER THEORIES WITHIN THEIR AXIOMATIC STRUCTURE. SOCIAL-FIELD THEORY BEGAN WITH INITIAL WORK IN SOCIOLOGY AND PSYCHOLOGY ON THE ASSUMPTION THAT THE CHARACTERISTICS OF A UNIT WERE REFLECTED IN THE TYPES OF BEHAVIOUR EXHIBITED. FOLLOWING FIRST QUINCY WRIGHT, OTHER INTERNATIONAL RELATIONS SCHOLARS BEGAN

TO EXPAND FIELD THEORY FOCUSING ON THE ATTRIBUTES OF NATIONS AND FOREIGN POLICY BEHAVIOUR. RUDOLPH RUMMEL EMPLOYED THE HEURISTIC QUALITIES OF SOCIAL-FIELD THEORY TO DEVELOP A METHODOLOGICAL APPARATUS TO TEST THE THEORY EMPIRICALLY BY ASSUMING THAT THE DISTANCE VECTORS OF ATTRIBUTE SPACE FOR THE ACTOR AND TARGET WERE THE SOCIAL FORCE INFLUENCING THE FOREIGN POLICY BEHAVIOUR BETWEEN NATIONS.¹ THE FIELD IN WHICH THIS SPACE WAS LOCATED WAS DEFINED AS A EUCLIDEAN SPACE. THE LINEARITY ASSUMPTION OF THE RELATIONSHIP BETWEEN POINTS AND VECTORS IN THIS SPACE ALLOWED THE INTERRELATIONSHIP AMONG POINTS TO BE REPRESENTED AS ANGLES. THE METHOD OF FACTOR ANALYSIS PROVIDED THE LIMITS PLACED ON SPACE IN TERMS OF VARIABLES DESCRIBING THE ATTRIBUTES AND BEHAVIOUR AND MAY IN FACT HAVE PREDATED THE MATHEMATICAL ASSUMPTIONS OF EUCLIDEAN SPACE.²

THE SEVEN AXIOMS OF SOCIAL-FIELD THEORY PROVIDED THE LINKAGE BETWEEN THE BASIC THEORETICAL STATEMENTS, AND THE METHODOLOGY PROVIDED A MEANS OF TESTING THE HYPOTHESES DEDUCED FROM THE AXIOMS. THE THEORY WAS EXTENDED TO TWO MODELS. FOR ONE OF THESE, THE PARAMETER FOR ATTRIBUTE DISTANCE WAS THE SAME FOR ALL DYADS, WHILE A SECOND MODEL WAS ABLE TO EXPLAIN MORE OF THE VARIANCE IN FOREIGN POLICY BEHAVIOUR BY THESE VARYING PARAMETERS.

SOCIAL-FIELD THEORY FURTHER EVOLVED TO INCLUDE RESEARCH IDEAS

1. R. RUMMEL, "A FIELD THEORY OF SOCIAL ACTION WITH APPLICATION TO CONFLICT WITHIN NATIONS," GENERAL SYSTEMS YEARBOOK 10 (1965).

2. G. HILTON, A REVIEW OF THE DIMENSIONALITY OF NATIONS PROJECT (BEVERLY HILLS: SAGE PUBLICATION, 1973), P. 16. HILTON STRESSES THAT THESE "PRELIMINARY EXCURSIONS WITH THE DATA" WERE NECESSARY TO DEVELOP A "RIGOROUS TESTING OF FIELD THEORY."

PROPOSED BY OTHER SCHOLARS SUCH AS JOHAN GALTUNG AND MAURICE EAST ON STATUS AND FOREIGN POLICY BEHAVIOUR. SOCIAL-FIELD THEORY WAS REVISED TO FORM STATUS-FIELD THEORY BY RUMMEL, JACK VINCENT AND SANG-WOO RHEE. THE BASIC AXIOMATIC AND MATHEMATICAL STRUCTURES WERE PRESERVED, BUT A FURTHER ASSUMPTION WAS ADDED; NAMELY, THAT NATIONS MAY BE GROUPED INTO A STRATIFIED SOCIAL SYSTEM, AND, FURTHER THAT THE POWER AND DEVELOPMENT ATTRIBUTE DIMENSIONS FOR DYADS PROVIDED THE BASIC VECTOR DISTANCES WHICH INFLUENCE FOREIGN POLICY BEHAVIOUR. THE THEORY WAS DESIGNED TO TAP STATUS AS THE ANALYTIC CONSTRUCT USED TO MEASURE A NATION'S RELATIVE LOCATION ON THESE SPECIFIC DIMENSIONS. THE DIFFERENCE BETWEEN THE LOCATION OF THE ACTOR AND TARGET MAY LEAD TO STATUS INCONGRUENCE FOR A NATION. THE RESULTING BEHAVIOUR WAS A FUNCTION OF THIS INCONGRUENCE, AND A VARIETY OF VARIABLES OR SITUATIONS AS OUTLINED IN THE STATUS-FIELD THEORY AXIOMS. BASED ON THESE NINE AXIOMS, RUMMEL DEDUCED THIRTEEN THEOREMS, MOST OF WHICH WERE DISCUSSED PREVIOUSLY, AND SOME OF WHICH WERE TESTED.

THIS THESIS ATTEMPTED TO REPLICATE THE APPLICATIONS OF SOCIAL AND STATUS-FIELD THEORY USING DIFFERENT DATA THAN HAD PREVIOUSLY BEEN EMPLOYED, AND TESTING THE THEORIES IN A CONTEXT PREVIOUSLY IGNORED. IN STUDIES SUCH AS THAT BY RHEE ON CHINA³ AND RUMMEL ON THE UNITED STATES,⁴ THE SCOPE OF THE DISTANCE BETWEEN THESE TWO NATIONS

3. S. RHEE, "CHINA'S COOPERATION, CONFLICT AND INTERACTION BEHAVIOUR," IN ADVANCING AND CONTENDING APPROACHES TO THE STUDY OF CHINESE FOREIGN POLICY, ED. R.L. DIAL (DALHOUSIE UNIVERSITY: CENTRE FOR FOREIGN POLICY STUDIES, 1974).

4. R. RUMMEL, "U.S. FOREIGN RELATIONS?" IN PEACE, WAR AND NUMBERS, ED. B. RUBBETT (BEVERLY HILLS: SAGE PUBLICATION, 1972).

AND THEIR TARGETS WAS LARGE. WHILE THE RESULTS SUPPORTED PARTIALLY SOCIAL AND STATUS-FIELD THEORY, ONE DOES NOT KNOW IF THE THEORY ACCOUNTED FOR BEHAVIOUR IN ONLY THOSE DYADS IN WHICH THERE WERE LARGE ATTRIBUTE DISTANCES, OR WHETHER THE THEORY CAN ALSO ACCOUNT FOR BEHAVIOUR IN MORE SYMMETRIC DYADS: THAT IS, DOES THE THEORY ACCOUNT FOR BEHAVIOUR IN DYADS WHERE THE DISTANCE BETWEEN THE ACTOR AND TARGET IS SMALL, OR IS THIS THE CORE AREA IN WHICH UNEXPLAINED VARIANCE IS CONCENTRATED? THIS THESIS MADE CERTAIN THAT IN FOCUSING ON SYMMETRIC DYADS, ACTORS EVIDENCED INTERACTION IMPORTANCE. THERE WAS LITTLE SENSE IN ATTEMPTING TO DISCERN PATTERNS OF RELATIONSHIPS BETWEEN ATTRIBUTE DISTANCES AND BEHAVIOUR WHEN NO INTERACTIONS TOOK PLACE OR FOR DYADS IN WHICH INTERACTION WAS OF RELATIVELY LOW IMPORTANCE. THEREFORE, A REGIONAL FOCUS WAS CHOSEN. FROM PREVIOUS LITERATURE ON THE SUBSYSTEM, IT WAS ASSUMED THAT NATIONS IN REGIONS REGARD THE REGION AS AN IMPORTANT SUBSYSTEM OF FOREIGN POLICY BEHAVIOUR. THUS, IN TESTING SOCIAL AND STATUS-FIELD THEORY, THE 32 BLACK AFRICAN NATIONS WERE STUDIED. ALL THE ASSUMPTIONS, THEOREMS AND HYPOTHESES REMAINED INTACT, AND THE METHODOLOGY EMPLOYED IN OTHER STUDIES WAS USED TO COMPARE RESULTS.

A NUMBER OF PROCEDURAL STEPS, WITH SATISFACTORY RESULTS, WERE TAKEN BEFORE TESTING THE HYPOTHESES. IN FACTOR ANALYSING THE ATTRIBUTE AND BEHAVIOUR DATA, THE RESULTS REPORTED IN CHAPTER 4 WERE SHOWN TO CORRESPOND WITH THOSE OF OTHER AUTHORS. THE ATTRIBUTE DIMENSIONS, POWER, URBANIZATION, DEVELOPMENT, RELIGION AND POLITICAL ORIENTATION WERE SIMILAR TO THOSE OF VAN ATTA, RUMMEL AND RUSSETT. THE BEHAVIOUR

FACTOR DIMENSIONS WERE NOT AS APPARENT AS THE ATTRIBUTE DIMENSIONS, NOR WERE THEY AS APPARENT AS THOSE OBTAINED BY OTHER AUTHORS SUCH AS C. KEGLEY AND R. VAN ATTA. HOWEVER, AFTER INSPECTING THE RESULTS OF THE FACTOR ANALYSIS, THE DIMENSIONS WERE INTERPRETED AS INTERACTION, COMMITTED CONFLICT, AND COOPERATION BEHAVIOUR. THESE DIMENSIONS WERE SIMILAR TO STATUS CONFLICT AND COOPERATION BEHAVIOUR DISCUSSED IN STATUS-FIELD THEORY THEOREMS, AND WERE SIMILAR TO THOSE OBTAINED BY S.-W. RHEE.⁵ BASED ON THESE THREE FACTORS, FREQUENCY DIMENSIONS AND BEHAVIOUR INDEXES WERE EMPLOYED IN THE DATA ANALYSIS. THE FREQUENCY ANALYSIS WAS COMPARABLE TO PREVIOUS STUDIES SUCH AS THAT BY VINCENT ET AL,⁶ WHILE THE BEHAVIOUR INDEX ANALYSIS WAS UTILIZED AS AN INDICATOR OF THE EMPHASIS PLACED ON EACH BEHAVIOUR TYPE BY INDIVIDUAL ACTORS.⁷ THUS, THE BASIC CONSTRUCTS WERE VIABLE TO THE EXTENT THAT THE BEHAVIOUR AND ATTRIBUTE DIMENSIONS CONFORM TO RESULTS PREVIOUSLY FOUND.

IN THE GENERAL ANALYSIS OF RELATED ATTRIBUTE DISTANCES AND BEHAVIOUR, CERTAIN PATTERNS OF RELATIONSHIP EMERGED FOR DIFFERENT ASPECTS OF THE TWO THEORIES. IN THE MODEL I ANALYSIS FOR SOCIAL AND STATUS-FIELD THEORY, A VERY LOW LEVEL OF EMPIRICAL CORRESPONDENCE EMERGED USING THE TRACE CORRELATION AS AN ESTIMATE. THIS REINFORCED PREVIOUS FINDINGS WHICH SUGGESTED THAT THE MOST GENERAL LEVEL OF ANALYSIS PROVIDED LITTLE GUIDANCE IN EXPLAINING BEHAVIOUR. FOR THIS REASON MODEL II WAS FORMED AS AN EXTENSION AND CLARIFICATION OF MORE

5. RHEE, "CHINA'S," P. 131.

6. J. VINCENT ET AL, "EMPIRICAL TESTS OF ATTRIBUTE, SOCIAL FIELD AND STATUS FIELD THEORY ON INTERNATIONAL RELATIONS DATA," ISQ 14 (DECEMBER 1973).

7. IBID.

DISTINCT RELATIONS BETWEEN ATTRIBUTE DISTANCE AND BEHAVIOUR. HOWEVER, A MAJOR DISADVANTAGE TO THIS MODEL WAS THE LOSS OF GENERALITY IN EXPLAINING FOREIGN POLICY BEHAVIOUR BY ATTRIBUTE DISTANCES ACROSS ALL NATIONS IN ONE ANALYSIS.

THE RESULTS FOR THE FREQUENCY AND BEHAVIOUR INDEX ANALYSIS FOR SOCIAL-FIELD THEORY DIFFERED, WITH THE LATTER HAVING MUCH HIGHER AVERAGE TRACE CORRELATIONS. THE INDIVIDUAL CANONICAL CORRELATIONS WERE NOT AS SIGNIFICANT AS EXPECTED, WITH THE EXCEPTION THAT THE INDEX RESULTS WERE MORE STRONGLY SUPPORTED WITH HIGHER CORRELATION COEFFICIENTS. THE MAJOR FORM OF BEHAVIOUR PREDICTED FOR THE FREQUENCY ANALYSIS WAS CONFLICT, MOST OFTEN ASSOCIATED WITH URBANIZATION AND POLITICAL ORIENTATION. FOR THE BEHAVIOUR INDEX ANALYSIS, POLITICAL ORIENTATION PLAYED A MAJOR ROLE IN CONTRIBUTING TO CONFLICT BEHAVIOUR. THE URBANIZATION AND DEVELOPMENT DIMENSIONS DID NOT APPEAR TO BE AS STRONG AS HYPOTHEZED BY SOCIAL-FIELD THEORY. RATHER THAN EXPLAIN COOPERATIVE BEHAVIOUR AS PREDICTED IN THE SECOND HYPOTHESIS, CONFLICT WAS ASSOCIATED WITH DISTANCE ON THESE ATTRIBUTE DIMENSIONS. ONLY IN THE CASE OF URBANIZATION FOR THE FREQUENCY ANALYSIS AND POLITICAL ORIENTATION FOR THE INDEX ANALYSIS DID COOPERATION APPEAR AS AN IMPORTANT FORM OF BEHAVIOUR.

THE SECOND MAJOR SECTION OF THIS STUDY WAS TO EXAMINE THE IMPACT OF THE STATUS ATTRIBUTES, POWER AND DEVELOPMENT, ON BLACK AFRICAN COOPERATION, CONFLICT AND MIXED INTERACTION OR STATUS-BEHAVIOUR, THE HYPOTHESES OF WHICH WERE DEDUCED FROM STATUS-FIELD THEORY. THE TEST RESULTS WERE UNSATISFACTORY BECAUSE PREDICTED

SIGNS OF THE ATTRIBUTE AND BEHAVIOUR COEFFICIENTS WERE NOT CONFIRMED FOR THE POWER DIMENSION, AND THE HYPOTHEZED SIGNS WERE ONLY CONFIRMED PARTIALLY FOR DEVELOPMENT. EITHER THE SIGNS FOR THE ATTRIBUTES OR BEHAVIOUR WERE IN THE REVERSED DIRECTION, OR THE SIGNS FOR BOTH WERE IN THE WRONG DIRECTION, INDICATING A REVERSAL IN THE HYPOTHESES. FOR EXAMPLE, RATHER THAN CONFIRMING THE HYPOTHESIS THAT INCREASED COOPERATIVE BEHAVIOUR WAS A FUNCTION OF DISTANCE ON POWER AND DEVELOPMENT, THE ACTUAL RELATIONSHIP WAS THAT COOPERATION BEHAVIOUR WAS NEGATIVELY RELATED TO SIMILARITY ON POWER AND DEVELOPMENT.

THE FIRST COOPERATION HYPOTHESIS ENCOMPASSED EITHER CONFLICT BEHAVIOUR IN THE CASE OF THE FREQUENCY ANALYSIS, OR A MIX OF CONFLICT AND INTERACTIVE BEHAVIOUR IN THE INDEX ANALYSIS. ALTHOUGH SIMILARITY ON POWER AND DEVELOPMENT PLAYED A MAJOR ROLE IN CONTRIBUTING TO CO-OPERATIVE BEHAVIOUR, ONLY DEVELOPMENT WAS IN THE PREDICTED DIRECTION, SUGGESTING THAT DISTANCE ON POWER AND SIMILARITY ON DEVELOPMENT CONTRIBUTED POSITIVELY TO COOPERATIVE INTERACTION.

THE STATUS-DEPENDENT CONFLICT HYPOTHESIS THAT BLACK AFRICAN NATIONS' CONFLICT WAS A FUNCTION OF SIMILARITY ON POWER AL⁸ WAS NOT CONFIRMED BY THE DATA, CONFORMING TO RESULTS OBTAINED BY RHEE. THE DOMINANT SOURCE OF BLACK AFRICAN STATUS-DEPENDENT BEHAVIOUR WAS NOT SIMILARITY IN POWER, BUT RATHER DIFFERENCE. MOREOVER, THESE STATE'S BEHAVIOUR WAS GENERALLY A CONFIGURATION OF CONFLICT ONLY, RATHER THAN A MIXTURE OF COOPERATION AND CONFLICTUAL BEHAVIOUR. ALTHOUGH CONFLICT

8. RHEE, "CHINA'S," P. 176.

WAS GENERALLY IN THE PREDICTED DIRECTION, IT WAS ASSOCIATED ALSO WITH DECREASING COOPERATIVE INTERACTION, SUGGESTING THAT BLACK AFRICAN NATIONS DISTINGUISH SHARPLY BETWEEN THE TWO FORMS OF BEHAVIOUR, AND FURTHERMORE, DIRECT EITHER ONE OR THE OTHER TO THEIR TARGETS.

AS WAS DISCUSSED IN THE CONCLUSION TO CHAPTER 5, IT IS DIFFICULT FROM THIS ANALYSIS TO ASSESS THE UTILITY OF SOCIAL AND STATUS-FIELD THEORY. THERE ARE A NUMBER OF DISADVANTAGES TO THE THEORIES, SOME OF WHICH HAVE BEEN DISCUSSED, SUCH AS THE LOSS OF GENERALITY IN MOVING FROM MODEL 1 TO MODEL II IN ORDER TO EXPLAIN A LARGE PORTION OF THE VARIANCE IN BEHAVIOUR. ANOTHER PROBLEM WITH SOCIAL AND STATUS-FIELD THEORY IS THE AXIOMS AND THEOREMS THEMSELVES. WHILE THE AXIOMS IMPLY LOGICALLY CERTAIN RELATIONSHIPS AND OPERATIONALIZATION, IT IS DIFFICULT TO UNDERSTAND THE FULL MEANING OF THE SIGN PREDICTIONS FOR THE RELATIONSHIP BETWEEN INCREASING AND DECREASING ATTRIBUTE DISTANCE. THE THEORY IS AMBIGUOUS IN THAT IT FAILS TO SPECIFY THE POINT AT WHICH THE SIGNS OF THE DIFFERENCE BETWEEN FACTOR SCORE COEFFICIENTS FOR A DYAD INDICATE A CHANGE IN BEHAVIOUR. FOR EXAMPLE, TWO PREVIOUS STUDIES USED LARGE NATIONS (U.S. AND CHINA) AS ACTORS, THEREBY SIMPLIFYING THE THEORY BECAUSE ALL OR MOST TARGETS WERE DISTANT FROM THE ACTOR, NECESSITATING THE USE OF THEOREMS RELEVANT TO ECONOMICALLY DEVELOPED NATIONS, WITH VIRTUALLY ALL DISTANCE SIGNS INDICATING A POSITIVE RELATIONSHIP AND SHOWING FEW DYADS IN WHICH THE MAGNITUDE BETWEEN ALL THE ACTORS AND TARGETS WAS SMALL. TO RECTIFY THIS POSITION, THIS THESIS HAS STUDIED NATIONS WHICH WERE KNOWN TO HAVE TARGETS IN WHICH THE MAGNITUDE AND DISTANCE BETWEEN THE ACTOR AND TARGET WAS SMALL OVERALL. AT THE SAME TIME, THROUGH SUBSYSTEM

LITERATURE IT WAS KNOWN THAT THESE NATIONS CONSIDER OTHERS IN THE REGION TO BE IMPORTANT FOR INTERACTION. HOWEVER, SOCIAL AND STATUS-FIELD THEORY DID NOT APPEAR ENCOMPASSING ENOUGH TO MONITOR THESE SMALL ATTRIBUTE DIFFERENCES BETWEEN NATIONS, OR AT LEAST IN THE DIRECTIONS PREDICTED BY THE THEORIES. WHAT IS REQUIRED IS MORE PRECISE AXIOMS DIFFERENTIATING BETWEEN NATIONS AND AXIOMS TO MONITOR THE MOST MINISCULE CHANGES IN ATTRIBUTE DISTANCE. WHILE THE STATUS-FIELD THEORY WAS ABLE TO DO THIS FOR THE DEVELOPMENT DIMENSION, BEHAVIOUR WAS LEFT UNEXPLAINED BY THE POWER DIMENSION.

FINALLY, ALTHOUGH FIELD THEORY REQUIRES THE FACTOR ANALYSIS PROCEDURE TO PRODUCE INDEPENDENT ATTRIBUTE AND BEHAVIOUR DIMENSIONS, THE OPERATIONAL ADEQUACY OF THE BLACK AFRICAN BEHAVIOUR MAY BE CRITICIZED. WHILE THE ATTRIBUTE DIMENSIONS OBTAINED WERE WELL WITHIN THE REQUIREMENTS OF SOCIAL AND STATUS-FIELD THEORY, THE BEHAVIOUR DIMENSIONS WERE DIFFICULT TO INTERPRET. FIELD THEORY STRICTLY DICHOTOMISES BEHAVIOUR AS CONFLICT AND COOPERATION, WITH NO ASSUMPTIONS OR THEOREMS CONCERNING BEHAVIOUR OUTSIDE THESE CATEGORIES, OR A MIXTURE OF THE TWO INTO ONE DIMENSION. THEREFORE, WHILE THE DIMENSIONS IN THIS THESIS WERE LABELLED, THEY WERE NOT DEFINED AS CLEARLY AS THOSE IN THE THEORIES. FOR EXAMPLE, COMMITTED CONFLICT WAS COMPOSED OF CONFLICT DEEDS, ACCUSE, DENY AND CONFLICT DESIRE, BUT IT ALSO INCLUDED PROMISE-OFFER, COOPERATIVE DEEDS AND CARRY OUT AGREEMENT. ONLY AFTER EXAMINING THE FACTOR SCORES OF NATIONS AND THE FREQUENCY OF EVENTS COULD THE DIMENSION BE LABELLED.

THERE ARE A NUMBER OF THEORETICAL ADVANTAGES TO FIELD THEORY WHICH STIMULATE ITS USE IN INTERNATIONAL RELATIONS. THE FIRST IS

THE CONCEPT OF "FIELD" ITSELF. DEFINED AS A EUCLIDEAN SPACE WITH NATIONS AS POINTS AND VARIABLES AS VECTORS, THE FIELD PROVIDES A CONFIGURATION DEMONSTRATING THE INTERRELATIONSHIP AMONG VARIABLES AND NATIONS. SECONDLY, THE FIELD IS EXHAUSTIVE. THAT IS, BEHAVIOUR IS A FUNCTION OF THE INTENSITY OF FIELD FORCES, WHICH IS THE COMBINATION OF ALL ENVIRONMENTAL CONDITIONS UNDER WHICH LEADERS MAKE DECISIONS ABOUT THE NATION'S POLICY. MOREOVER, THROUGH ITS MATHEMATICAL FRAMEWORK, FIELD THEORY LOOKS AT THE ACTUAL DISTANCE BETWEEN THE ACTOR AND TARGET TO EXPLAIN WHY AND HOW THESE DISTANCES INFLUENCE BEHAVIOUR, AND WHY VARYING DISTANCES SHOULD EXPLAIN VARYING BEHAVIOUR. THUS, BEHAVIOUR MAY BE DETERMINED PRECISELY BY ACTUAL SIMILARITIES BETWEEN NATIONS, AND MAY BE INCLUDED WITHIN A LARGER CONTEXT. THIS THESIS IS AN EXAMPLE OF RESEARCH TAKING DIFFERENT HYPOTHESES AND INCORPORATING THEM INTO FIELD THEORY. IN ORDER TO OBTAIN A CLEARER UNDERSTANDING OF STATUS-FIELD THEORY, AXIOMS AND PROPOSITIONS FROM THE THEORY WERE TESTED. IN ADDITION, ASSUMPTIONS RELATING REGIONAL BEHAVIOUR TO NATIONS' PERCEPTIONS OF THE REGION AS AN IMPORTANT SPHERE OF INTERACTION WERE USED TO TEST THE APPLICABILITY OF BOTH SOCIAL AND STATUS-FIELD THEORY IN THIS CONTEXT. THERE ARE, MOREOVER, OTHER TYPES OF "MIDDLE-RANGE" THEORIES WHICH MAY BE INCORPORATED INTO THIS GENERAL FIELD THEORY FRAMEWORK AND WHICH, AT THE SAME TIME, ARE EXTENSIONS OF THE THEORY.

ONE POSSIBLE AREA WHICH MAY BE INCLUDED IN THE STUDY OF STATUS-FIELD THEORY IS THE ROLE OF ELITE PERCEPTION, AS DELINEATED BY RUMMEL'S ELITE COROLLARY, "A NATION'S ELITE IDENTIFY WITH THEIR RANK

AND STATUS CONFIGURATION."⁹ WHILE HUMAN BEHAVIOUR IS CONDITIONAL ON ENVIRONMENTAL SITUATIONS, THE HUMAN'S POSITION IN THE ENVIRONMENT ALTERS HIS PERCEPTION OF IT. IT IS ONE THING TO SAY THAT THE ENVIRONMENTAL FACTORS INFLUENCE BEHAVIOUR, BUT THIS LINK IS MEDIATED BY HUMAN PERCEPTION, MOTIVATION, IDEOLOGIES AND IDIOSYNCRASIES. WHILE THE DISTANCE IN POWER AND ECONOMIC DEVELOPMENT BETWEEN NATIONS MAY BE PREDICTED TO RELATE TO CONFLICT BEHAVIOUR, THE LEADER OF THE ACTOR-NATION MAY PERCEIVE THAT THERE ARE BENEFITS TO BE GAINED FROM POSITIVE RELATIONS WITH THE TARGET IN ECONOMIC OR SECURITY AREAS, FOR EXAMPLE THEREBY FACILITATING AN EXCHANGE IN COOPERATIVE ACTS RATHER THAN CONFLICT.

ANOTHER CONCEPTUALIZATION FOR ELABORATING THE STRUCTURE OF FIELD THEORY IS THE USE OF ISSUE AREAS AS SUGGESTED BY ROSENAU.¹⁰ THAT IS, THE ACTIONS OF NATIONS CLUSTER AROUND CERTAIN ISSUES AND DIFFERENCES IN ECONOMIC DEVELOPMENT, SIZE AND POLITICAL ORIENTATION AFFECT BEHAVIOUR IN DIFFERENT WAYS DEPENDING ON THE ISSUE. EACH ISSUE CONSISTS OF A CLUSTER OF VALUES, THE VALUE OF WHICH MAY BE BASED ON THESE ATTRIBUTE CONSIDERATIONS.

FINALLY, THE AXIOMS AND COROLLARIES OF STATUS-FIELD THEORY PROVIDE FURTHER HEURISTIC VALUE FOR THE STUDY OF THE RANK OF NATIONS, STATUS MOBILITY AND STATUS INCONGRUENCE. INDIVIDUAL STUDIES ON THESE

9. *IBID.*, P. 129.

10. J. ROSENAU, "PRE-THEORIES AND THEORIES IN FOREIGN POLICY," IN APPROACHES TO COMPARATIVE AND INTERNATIONAL POLITICS, ED. R. FARRELL (EVANSTON: NORTHWESTERN UNIVERSITY PRESS, 1966), P. 53.

TYPES HAVE BEEN CARRIED OUT BY VARIOUS AUTHORS, SUCH AS GALTUNG,¹¹ WALLACE,¹² AND EAST.¹³ THESE AXIOMS SUGGEST, FIRST OF ALL, THAT NATIONS DESIRE TO GAIN UPWARD MOBILITY AND, CONSEQUENTLY A HIGHER STATUS. IF THEY POSSESS HIGH STATUS ON ONE DIMENSION, BUT RETAIN A LOW STATUS ON ANOTHER, THEN THE NATION IS IN A STATE OF STATUS DISEQUILIBRIUM. MOREOVER, WHEN TWO NATIONS IN A DYAD HAVE DIFFERENT STATUS RANKS AND THEY THEMSELVES ARE STATUS DISEQUILIBRATED, THEN STATUS INCONGRUENCE RESULTS. ONCE AGAIN, PRESUMING THAT NATIONAL DECISION-MAKERS PERCEIVE THESE STATUS DIFFERENCES, THE FOREIGN POLICY BEHAVIOUR OF THE NATION WILL DIFFER FOR DYADS DEPENDING ON THE NATIONS WHICH ARE STATUS INCONGRUENT AND DISEQUILIBRATED, AND WHICH DIMENSION, POWER OR DEVELOPMENT, INFLUENCES THE BEHAVIOUR EXCHANGED BETWEEN THESE NATIONS.

JACK VINCENT HAS PROPOSED FALLACIOUSLY THAT THE REFINEMENT OF STATUS-FIELD THEORY TO RELATIVE STATUS-FIELD THEORY SURMOUNTS THE PROBLEMS OF THE LOSS IN GENERALITY ASSOCIATED WITH MODEL 11.¹⁴ DYADIC SETS ARE PARTITIONED ACCORDING TO THE POSITION OF DYADS ON THE POWER AND ECONOMIC DEVELOPMENT DIMENSIONS AND ARRAYED INTO CONFIGURATIONS SIMILAR TO GALTUNG'S TT, TU, UT AND UU CATEGORIES. PATTERNS OF BEHAVIOUR SIMILAR TO ALL DYADS IN THE PARTITION SHOULD EMERGE. WHILE

11. J. GALTUNG, "A STRUCTURAL THEORY OF AGGRESSION," JPR 2 (1964).

12. M. WALLACE, "STATUS, FORMAL ORGANIZATION, AND ARMS LEVELS AS FACTORS LEADING TO THE ONSET OF WAR, 1820-1964," IN PEACE, WAR AND NUMBERS, ED. B. RUSSETT (BEVERLY HILLS: SAGE PUBLICATION, 1972).

13. M. EAST, "STATUS DISCREPANCY AND VIOLENCE IN THE INTERNATIONAL SYSTEM," IN THE ANALYSIS OF INTERNATIONAL POLITICS, ED. J. ROSENAU, V. DAVIS, AND M. EAST (NEW YORK: THE FREE PRESS, 1972).

14. J. VINCENT, "ATTRIBUTE AND ATTRIBUTE DISTANCE THEORY IN INTERNATIONAL BEHAVIOUR," (ATLANTIC UNIVERSITY, MARCH 1974, Mimeo).

AT FIRST GLANCE THE PROPOSAL MAY BE HAILED AS "A STEP IN THE RIGHT DIRECTION," UPON FURTHER SCRUTINY IT BECOMES APPARENT THAT IN PLACE OF MODEL I'S ONE DYADIO SET, SUCH AS CANADA TO ALL OF ITS TARGETS, VINCENT IS SUGGESTING THE PARTITION OF EACH DYADIO SET SUCH THAT THERE ARE NOW FOUR PARTITIONED SETS. THUS, CANADA IS STUDIED AS A IT TOWARDS ALL TARGETS WHICH ARE DISTANT FROM, AND BELOW IT IN ECONOMIC DEVELOPMENT AND FOR THE TU PARTITION AS A TOPDOG ON ECONOMIC DEVELOPMENT AND AN UNDERDOG ON POWER VIS-A-VIS OTHER TARGETS, AND SO ON. IN ACTUALITY THEN, THERE IS AN EVEN GREATER LOSS IN GENERALITY WITH FOUR TIMES THE ORIGINAL DYADIO SETS TO ANALYSE.

RELATIVE STATUS-FIELD THEORY, HOWEVER, REMAINS AS AN HEURISTIC VALUE IN THE CONCEPTION OF RELATIVE STATUS. THAT IS, THE EXAMINATION OF DYADIO SETS THROUGH AXIOMS AND THEOREMS SIMILAR TO STATUS-FIELD, BUT IN TERMS OF THE POSITION OF THE ACTOR RELATIVE TO ITS TARGETS. HOWEVER, ALTERATIONS ARE REQUIRED, SUCH AS EXAMINING ALL THE DYADIO SETS IN EACH PARTITIONED SET, THAT IS, FOR EXAMPLE ALL IT'S TOGETHER, IN ORDER TO IMPROVE THE LEVEL OF GENERALITY WITHOUT A SUBSEQUENT CHANGE IN THE PARSIMONY OF THE THEORY.

THUS, THE THEORETICAL EXPANSION OF FIELD THEORY SEEMS TO BE PROGRESSING STEADILY FROM THE ORIGINAL ATHEORETICAL BEGINNINGS OF SOCIAL-FIELD THEORY TO STATUS-FIELD THEORY AND ON TO ADDITIONAL POSSIBLE REFINEMENTS. ONE OF THE MOST IMPORTANT ASPECTS OF A THEORY IS IN ITS HEURISTIC VALUE. A "DEAD-END" THEORY PROVIDES LITTLE IN THE WAY OF A MORE IMAGINATIVE VIEW OF DETERMINANTS OF FOREIGN POLICY BEHAVIOUR, WITH ANY POSSIBLE EXTENSION OF THE THEORY PRECLUDED ON THE

BASIS OF AN ABSENCE OF PUZZLES GENERATED FROM THE ORIGINAL THEORY. HOWEVER, WITH A HEURISTIC THEORY THE ORIGINAL FORM MAY BE EXPANDED OR MODIFIED TO CONFORM TO NEW FINDINGS AND DIRECTIONS IN INTERNATIONAL RELATIONS. ALTHOUGH THE HYPOTHEZED RESULTS IN THIS PAPER WERE CONCLUSIVE ONLY PARTIALLY, IT EXPLORED A PREVIOUSLY UNEXPLORED AREA OF APPLICATION FOR THIS BODY OF THEORY. IN THIS WAY, ONE IS ABLE TO IMPROVE UPON THE EXISTING THEORIES BY EXAMINING IN MORE DETAIL THE RELATIONSHIP BETWEEN STATUS, ATTRIBUTE DISTANCE AND FOREIGN POLICY BEHAVIOUR AT A SUBSYSTEM LEVEL. IN THE REGION ATTRIBUTE DISTANCES DO EXIST IN DYADS AND THE RELEVANCE OF THIS AND STATUS TO BEHAVIOUR MUST BE EXPLORED MORE FULLY TO DETERMINE THE EXTENT TO WHICH SOCIAL AND STATUS-FIELD THEORY MAY BE APPLIED TO NATIONS AND SYSTEMS OUTSIDE AN INTERNATIONAL SYSTEM PERSPECTIVE.

APPENDIX 1A

TOTAL FREQUENCY OF EVENTS IN EACH CATEGORY FOR EAOT AOTOT

AOTOT	AGREE	CONG-VIS.	+COM.	+INT.	APPROVE	-COM.	ACCEPT	ACQUSE	CAR-OUT	AGR.	NEGOT.
BOTSWANA	0	0	0	0	0	0	0	1	0	0	0
BURUNDI	18	12	2	7	7	3	0	8	2	2	3
CAMEROON	13	13	7	4	5	1	10	1	5	4	4
C.A.R.	20	17	9	3	3	0	4	3	2	2	2
CHAD	30	16	2	8	14	1	0	5	0	0	0
CONGO	8	8	8	5	8	3	1	4	2	2	0
DANOMBY	23	20	11	8	22	5	21	13	2	3	2
ETHIOPIA	31	15	11	12	8	13	5	24	1	1	7
GABON	2	5	5	0	5	0	0	2	0	0	0
GAMBIA	0	4	1	3	4	0	0	0	0	0	0
GHANA	35	51	28	25	10	24	8	35	16	16	16
GUINEA	23	25	8	4	18	11	1	17	2	5	5
IVORY COAST	46	45	30	16	37	29	2	14	1	23	23
KENYA	45	31	54	27	19	1	0	0	0	0	0
LESOTHO	1	1	3	1	0	1	6	10	1	1	10
LIBERIA	12	9	11	7	12	1	3	5	1	1	2
MALAWI	5	3	9	5	4	3	3	2	2	2	8
MALI	20	20	29	7	19	2	1	0	1	1	2
MAURITANIA	8	7	8	3	4	2	1	2	2	2	7
NIGER	29	31	3	7	24	3	1	22	5	5	11
NIGERIA	24	23	16	15	15	10	1	5	0	0	8
RWANDA	25	7	0	6	5	0	1	4	2	2	5
SENEGAL	17	14	31	11	4	4	5	0	4	4	10
SIERRA LEONE	8	16	0	1	9	0	5	54	7	7	3
SOMALIA	12	4	9	16	13	44	3	2	0	0	27
SUDAN	17	11	13	12	11	5	2	3	12	3	2
TANZANIA	40	32	62	40	37	15	5	7	5	5	11
TOGO	20	16	39	26	9	14	2	16	2	2	4
UGANDA	39	37	25	11	20	15	4	12	5	4	14
UPPER VOLTA	33	23	11	4	19	7	1	18	2	2	4
ZAIRE	50	19	20	29	5	6	5	2	5	5	4
ZAMBIA	34	57	22	27	17	5	6	2	5	5	4

APPENDIX 1^A - CONT'D

ACTOR	INO.	REL.	CONF.	INT.	PROPOSE-REQ.	CONF.	DEEDS	COOP.	DEEDS	CONF.	Des.	PROM-OFF
BOTSWANA	0	0	0	0	0	0	0	0	0	0	0	0
BURUNDI	0	0	3	0	0	3	1	0	0	7	0	1
CAMEROON	5	0	1	0	6	1	0	0	0	0	0	0
C.A.R.	0	2	3	0	1	2	4	1	1	2	2	2
CHAD	0	0	0	0	3	3	3	3	3	3	0	0
CONGO	6	5	1	4	3	1	1	5	1	1	2	0
DAHOMEY	5	1	0	0	7	6	1	8	4	0	3	0
ETHIOPIA	0	0	0	0	1	1	0	6	0	0	0	1
GABON	9	2	7	0	2	22	0	2	10	10	21	0
GAMBIA	13	0	0	1	6	0	17	3	2	3	0	0
GHANA	1	0	8	0	1	0	3	0	10	3	3	0
GUINEA	0	1	4	0	17	0	0	0	10	0	2	0
IVORY COAST	0	1	0	0	0	9	0	0	0	0	0	0
KENYA	0	1	0	0	0	0	0	0	0	0	0	0
LESOTHO	0	1	0	0	0	0	0	0	0	0	0	0
LIBERIA	0	1	1	0	3	3	0	2	0	0	0	0
MALAWI	0	0	2	0	0	1	2	2	2	2	0	0
MALI	0	1	0	0	14	4	2	2	0	0	0	0
MAURITANIA	0	0	0	0	2	1	2	2	0	0	1	1
NIGER	7	12	6	2	1	3	9	2	8	0	3	3
NIGERIA	1	1	1	1	7	2	2	1	0	0	2	1
RWANDA	2	2	3	3	0	2	1	0	3	3	1	0
SENEGAL	1	1	3	3	3	4	5	3	1	1	4	4
SIERRA LEONE	0	0	15	15	1	8	3	6	20	3	3	3
SOMALIA	5	2	7	2	3	6	6	6	3	2	1	1
SUDAN	4	4	11	4	2	9	1	5	3	4	4	4
TANZANIA	0	0	4	4	9	6	5	5	4	4	3	3
TOGO	0	0	4	6	3	3	4	4	13	1	3	3
UGANDA	8	1	4	4	10	17	5	4	1	1	1	1
UPPER VOLTA	0	0	4	6	7	5	4	4	1	1	1	1
ZAIRE	0	0	4	6	3	3	4	4	13	1	1	1
ZAMBIA	1	1	4	4	7	5	1	1	1	1	1	1

NOTE: WITH THE LOW FREQUENCY OF DENY EVENTS, THEY HAVE BEEN ADDED TO THE CONFLICT DESIRE CATEGORY.

APPENDIX 2

ACTORS WITH 10 OR MORE TARGETS

CAMEROON →	C.A.R. GABON MAURITANIA ZAIRE	CHAD GHANA NIGER	CONGO MALAWI NIGERIA	ETHIOPIA MALI SENEGAL
CHAD →	CAMEROON GHANA SENEGAL	C.A.R. NIGER SUDAN	CONGO NIGERIA TANZANIA	GABON RWANDA ZAIRE
CONGO	CAMEROON ETHIOPIA SOMALIA	GABON TANZANIA	C.A.R. GHANA UPPER VOLTA	CHAD GUINEA ZAIRE
DAHOMY →	CAMEROON GABON KENYA NIGER	C.A.R. GHANA LIBERIA NIGERIA	CHAD GUINEA MALI SOMALIA	ETHIOPIA IVORY COAST MAURITANIA TOGO
ETHIOPIA →	CAMEROON GAMBIA MALAWI RWANDA TANZANIA	CHAD GHANA MALI SENEGAL UGANDA	CONGO IVORY COAST MAURITANIA SOMALIA ZAIRE	DAHOMY KENYA NIGERIA SUDAN ZAMBIA
GHANA →	BURUNDI DAHOMY IVORY COAST MALAWI NIGERIA SOMALIA UGANDA	CAMEROON ETHIOPIA KENYA MALI RWANDA SUDAN UPPER VOLTA	C.A.R. GAMBIA LESOTHO MAURITANIA SENEGAL TANZANIA ZAIRE	CONGO GUINEA LIBERIA NIGER SIERRA LEONE TOGO ZAMBIA
GUINEA →	CAMEROON LIBERIA SENEGAL UPPER VOLTA	CONGO MALI SIERRA LEONE ZAIRE	GHANA MAURITANIA SOMALIA	IVORY COAST NIGER TANZANIA
IVORY COAST →	CAMEROON ETHIOPIA LIBERIA SENEGAL UGANDA	C.A.R. GABON MALI SOMALIA UPPER VOLTA	CONGO-B GHANA NIGER TANZANIA ZAIRE	DAHOMY GUINEA NIGERIA TOGO
KENYA →	ETHIOPIA LIBERIA SOMALIA ZAIRE	GAMBIA MALAWI SUDAN ZAMBIA	GHANA NIGERIA TANZANIA	GUINEA SIERRA LEONE UGANDA

LIBERIA →	DAHOMY KENYA TANZANIA	GHANA NIGERIA TOGO	GUINEA SENEGAL ZAIRE	IVORY COAST SIERRA LEONE
MALI →	BURUNDI GUINEA NIGERIA UPPER VOLTA	DAHOMY IVORY COAST SENEGAL ZAIRE	ETHIOPIA MAURITANIA TANZANIA	GHANA NIGER UGANDA
MAURITANIA →	DAHOMY IVORY COAST SUDAN	ETHIOPIA MALI ZAIRE	GHANA NIGERIA	GUINEA SENEGAL
NIGER →	CAMEROON ETHIOPIA IVORY COAST SUDAN	C.A.R. GAMBIA MALI TOGO	CHAD GHANA MAURITANIA UPPER VOLTA	DAHOMY GUINEA SENEGAL ZAIRE
NIGERIA →	CAMEROON GABON IVORY COAST MALI SIERRA LEONE TOGO ZAMBIA	CHAD GAMBIA KENYA MAURITANIA SOMALIA UGANDA	DAHOMY GHANA LESOTHO NIGER SUDAN UPPER VOLTA	ETHIOPIA GUINEA LIBERIA SENEGAL TANZANIA ZAIRE
SENEGAL →	CAMEROON GHANA MAURITANIA ZAIRE	CHAD GUINEA NIGERIA	ETHIOPIA IVORY COAST TANZANIA	GAMBIA MALI TOGO
SIERRA LEONE →	ETHIOPIA IVORY COAST NIGERIA	GAMBIA KENYA UGANDA	GHANA LIBERIA ZAMBIA	GUINEA MALAWI
SUDAN →	CAMEROON GHANA NIGERIA ZAIRE	C.A.R. GUINEA SOMALIA ZAMBIA	CHAD KENYA TANZANIA	ETHIOPIA NIGER UGANDA
TANZANIA →	BURUNDI GUINEA MAURITANIA SOMALIA	CONGO IVORY COAST NIGERIA UGANDA	ETHIOPIA KENYA RWANDA ZAIRE	GHANA MALAWI SENEGAL ZAMBIA
TOGO →	*C.A.R. GHANA NIGER	CONGO IVORY COAST NIGERIA	DAHOMY LIBERIA UPPER VOLTA	GABON MAURITANIA ZAIRE

UGANDA →	BURUNDI ETHIOPIA MAURITANIA SUDAN	CAMEROON GHANA NIGERIA TANZANIA	CHAD IVORY COAST RWANDA ZAIRE	CONGO KENYA SOMALIA ZAMBIA
UPPER VOLTA →	C.A.R. GABON MALI ZAIRE	CONGO GHANA NIGER	DAHOMY GUINEA NIGERIA	ETHIOPIA IVORY COAST TOGO
ZAIRE →	BURUNDI CONGO KENYA NIGERIA TANZANIA	CAMEROON ETHIOPIA LIBERIA RWANDA UGANDA	C.A.R. GHANA MALAWI SENEGAL ZAMBIA	CHAD IVORY COAST MALI SUDAN
ZAMBIA →	BOTSWANA GHANA MAURITANIA TANZANIA	BURUNDI KENYA NIGER UGANDA	CONGO LIBERIA RWANDA ZAIRE	ETHIOPIA MALAWI SIERRA LEONE

3 3

OF/DE

APPENDIX 3

CAMEROON

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0393	.1983	1	.8826	.9395
2	.0191	.1383	2	.4231	.6505
3	.0047	.0687	3	.1892	.4349
4	.0003	.0176			
TRACE = .1256			TRACE = .7058		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	.6512	.2983	.7163	-.3906
CFW	-1.3174	.0960	.1714	-1.3491
COO	-.7082	-.0748	.5409	.5613
CFD	.9014	.8031	-.6165	1.3411
ATTRIBUTES	1	2	3	4
POW	.1227	-.3649	-.2787	.8959
UR3	-.2097	-.6579	.4962	.3971
DEV	.7200	-.3060	-.5893	.0679
REL	.5015	.4503	.5707	-.1157
POL	.4800	-.2843	.1981	.1255

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	1.1583	-3.4858	2.8807
CFI	-.1911	-4.3394	4.6836
COI	-.5681	-.5858	2.5948
ATTRIBUTES	1	2	3
POW	-.7545	.4915	-.1578
URB	-.4511	-.2885	-.2646
DEV	.2788	.7082	-.6765
REL	.5255	-.3996	.1304
POL	.0820	.7549	.6060

APPENDIX 2

CHAD

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0426	.2064	1	.7941	.8911
2	.0230	.1516	2	.3579	.5983
3	.0052	.0724	3	.0406	.2014
4	.0004	.0187			
TRACE = .1334			TRACE = .6274		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
CON	.6178	.2646	.7162	-.4702
CFW	-1.3221	.2725	-.0864	-1.3269
COO	-.7571	-.1050	.5511	.4903
CFD	.9973	.6649	-.3389	1.4451
ATTRIBUTES	1	2	3	4
POW	.1827	.3190	-.1715	.9282
URB	-.3615	-.6313	.5396	.3135
DEV	.7223	-.3717	-.5067	.1605
REL	.4736	.3897	.6477	-.1446
POL	.4615	-.3679	.1765	.0630

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	-.4433	.9372	.0186
CFI	.0429	-.0400	1.0020
COI	1.0131	.1792	.0512
ATTRIBUTES	1	2	3
POW	.4170	.1299	-.2799
URB	-.8669	.1055	-.2240
DEV	.5612	.4403	.0294
REL	-.1089	.1158	.9437
POL	.5246	.9271	-.4234

APPENDIX 3

CONGO

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0486	.2204	1	.9174	.9378
2	.0231	.1520	2	.5822	.7630
3	.0054	.0735	3	.2881	.5367
4	.0004	.0211			
TRACE = .1389			TRACE = .7718		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	.5526	.3315	.7210	-.4988
CFW	-1.3497	.1213	-.1952	-1.3122
COO	-.7631	-.1801	.5361	.4760
CFO	.9477	.7751	-.2456	1.4428
ATTRIBUTES	1	2	3	4
POW	.1831	.3457	-.2327	.8926
URB	-.2303	-.6924	.5164	.3807
DEV	.7604	-.2777	-.5259	.1206
REL	.4562	.4029	.6745	-.0835
POL	.4993	-.2927	.1125	-.0105

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	-1.0708	-2.0629	1.2345
CFI	1.2585	.4087	-.0495
COI	.5947	2.2938	-.2516
ATTRIBUTES	1	2	3
POW	-.7775	.5749	-.5249
URB	-.7842	-.4167	.1478
DEV	.7146	.3578	-.1951
REL	.3778	-1.0180	.0522
POL	-.1277	.0591	.8902

APPENDIX 2

DAHOMEY

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0555	.2356	1	.4841	.6958
2	.0252	.1588	2	.2051	.4529
3	.0120	.1095	3	.0694	.2635
4	.0006	.0241			
TRACE = .1526			TRACE = .5028		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	.5909	.3351	.6925	-.4814
CFV	-1.3248	.4594	-.3254	-1.3199
COD	-.7908	-.1635	.5573	.3963
CFD	1.0223	.4481	-.0802	1.6057
ATTRIBUTES	1	2	3	4
POW	.1571	.2511	-.3078	.5522
URB	-.3378	-.5958	.6429	-.1638
DEV	.7333	-.4205	-.4525	-.2686
REL	.4734	.4764	.6293	-.4430
POL	.4375	-.3633	.1988	.7913

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.1082	-.4594	1.1937
CFI	.9393	-.7851	.2992
COI	.8945	.6703	-.1459
ATTRIBUTES	1	2	3
POW	.6292	-.0853	-.4343
URB	-.1394	.7494	.1685
DEV	.0264	.1668	.4727
REL	.4972	-.5774	.6642
POL	.5786	.7232	-.1284

APPENDIX J

ETHIOPIA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0493	.2221	1	.4291	.6550
2	.0326	.1804	2	.3799	.6160
3	.0070	.0839	3	.1265	.3557
4	.0021	.0325			
TRACE = .1496			TRACE = .5583		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

	1	2	3	4
BEHAVIOUR				
CUN	.6372	.4309	.7500	.0313
CFY	-1.3293	.6545	.4622	-1.2215
COO	-.7462	-.1943	.3073	.6434
CFD	1.0061	.1848	-1.0360	1.3285
ATTRIBUTES				
POW	-.0100	.0300	-.4635	.8608
URB	-.2940	-.4504	.8573	.1580
DEV	.4543	-.6483	-.3803	.3341
REL	.5500	.4656	.5664	.3133
POL	.5749	-.3235	-.1029	-.2301

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

	1	2	3
BEHAVIOUR			
IBI	.0935	.4904	.9884
CFI	.6530	.9421	.0087
COI	.9756	-.3460	.0991
ATTRIBUTES			
POW	-.6816	.0142	-.2646
URB	-.2271	-.1489	-.2770
DEV	.2520	.7875	-.6464
REL	-.2461	.6142	.6972
POL	-.5990	.3341	-.4182

APPENDIX 3

GHANA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0547	.2339	1	.5266	.7257
2	.0356	.1887	2	.1792	.4233
3	.0152	.1231	3	.0299	.1729
4	.0006	.0239			

TRACE = .1627

TRACE = .4952

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	.6512	.2071	.8168	-.0862
CFW	-1.1906	.6544	.3380	-1.3591
COO	-.7915	-.3757	.3995	.4283
CFD	.8469	.2909	-.5696	1.6385
ATTRIBUTES	1	2	3	4
POW	.0931	.0917	-.2942	1.0194
URB	-.3907	-.5926	.6209	-.0534
DEV	.3493	-.7032	-.1149	.2683
REL	.4497	.1602	.8866	.0983
POL	.6927	-.1788	-.4025	-.0259

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.7312	.4691	-.6037
CFI	-.4444	.9418	-.3144
COI	.1030	.6404	.8324
ATTRIBUTES	1	2	3
POW	-.7950	-.1803	-.2071
URB	-.2582	.6433	.4971
DEV	.4512	.2526	-.0228
REL	-.0691	.8083	.1620
POL	-.1432	.7321	.8228

APPENDIX 3

GUINEA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0862	.2936	1	.6628	.8141
2	.0486	.2205	2	.4070	.6379
3	.0208	.1417	3	.1432	.3784
4	.0034	.0585			
TRACE = .1989			TRACE = .6356		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
CON	.7722	.4189	-.3660	.5155
CFW	-.1853	-.3457	-1.4870	-1.0980
COO	-.5136	-.7244	-.3096	.4792
CFD	-.6136	.9662	1.1324	.9651
ATTRIBUTES	1	2	3	4
POW	-.0528	.1409	.0972	.0820
URB	.3890	-.8182	-.5161	-.1444
DEV	.3108	-.3333	.7790	.4768
REL	.7135	.2178	-.3771	.6035
POL	.6045	.1810	.2654	-.7280

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	-.2179	-1.1386	.8505
CFI	.6113	1.2619	.8767
COI	1.5434	1.4099	-.0892
ATTRIBUTES	1	2	3
POW	.0233	.3639	-.2127
URB	.6009	-.9404	-.4103
DEV	-.1240	-.1466	-.5162
REL	.7290	.5419	-.0901
POL	-.7868	.5498	-.7022

APPENDIX 3

IVORY COAST

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0887	.2979	1	.4218	.6495
2	.0460	.2145	2	.2435	.4938
3	.0205	.1430	3	.0698	.2643
4	.0022	.0464			
TRACE = .1967			TRACE = .4945		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	.7641	.5200	-.0526	.5735
CFW	.1043	-.2389	-1.7721	-.6968
COO	-.4068	-.7217	-.3454	.5664
CFD	-.8947	.8206	1.3208	.6370
ATTRIBUTES	1	2	3	4
POW	-.0925	.0907	.0612	.1033
URB	.4321	-.7624	-.5563	.1519
DEV	.2902	-.3435	.8846	.2103
REL	.6500	.3095	-.1058	.7333
POL	.6399	.1346	.0008	-.7358

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	-.9229	.4746	.2778
CFI	.8798	.3040	.6157
COI	.1789	-.5792	.8975
ATTRIBUTES	1	2	3
POW	.0230	.0471	-.1613
URB	-.6509	-.1249	.2641
DEV	.3385	-.4398	.8088
REL	-.6950	.1082	-.1040
POL	.0442	-.9342	-.3956

APPENDIX J

KENYA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0755	.2747	1	.2404	.4903
2	.0393	.1982	2	.0956	.3092
3	.0322	.1489	3	.0426	.2065
4	.0010	.0317			
TRACE = .1857			TRACE = .3548		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	.6571	.7634	-.0868	.4217
CFW	.0833	-.2360	-1.6823	-1.0102
COD	-.4280	-.5047	-.4994	.6504
CFO	-.9522	.7025	1.3926	.6730
ATTRIBUTES	1	2	3	4
POW	-.1757	.0060	-.0419	.8375
URB	.4866	-.6632	-.5260	.0439
DEV	.3938	-.3533	.8287	.2794
REL	.6487	.4540	.0085	.4212
POL	.5583	.1060	-.2522	-.2884

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.3254	1.0225	-.0859
CFI	-.9239	.7195	.6202
COI	-.1544	.0868	1.2661
ATTRIBUTES	1	2	3
POW	-.10053	-.1789	.2840
URB	.2436	.7751	-.3719
DEV	-.3220	.2373	-.1043
REL	.2932	-.2274	.7903
POL	.0776	-.5490	.0288

APPENDIX 3

LIBERIA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0960	.3098	1	.8591	.9269
2	.0521	.2283	2	.5762	.7591
3	.0238	.1544	3	.0926	.3044
4	.0020	.0451			
TRACE = .2083			TRACE = .7135		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	.7110	.8192	.0945	.2106
CFV	.1213	.0917	-1.7830	-.8444
COO	-.3338	-.3415	-.5363	.7912
CFD	-1.0325	.3737	1.5428	.5820
ATTRIBUTES	1	2	3	4
POW	-.1144	.0231	-.0501	.3722
URB	.3813	-.6628	-.5867	.2537
DEV	.3922	-.4856	.7733	.0853
REL	.7155	.3416	.0935	.6117
POL	.5896	.1036	-.3089	-.6199

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	1.4474	-.0443	-.0279
CFI	.8338	.6193	-1.0338
COI	-.2845	1.2137	.0267
ATTRIBUTES	1	2	3
POW	.3387	.2740	.6363
URB	.7127	-.0014	.9140
DEV	-.3795	-.5035	.3605
REL	.2654	.2354	.3442
POL	.6519	-.6783	-.5751

APPENDIX 3

MALI

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0974	.3120	1	.8509	.9224
2	.0618	.2486	2	.6789	.8240
3	.0322	.1793	3	.4172	.6459
4	.0008	.0280			
TRACE = .2190			TRACE = .8054		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COV	.7456	.8160	-.0885	.1282
CFV	.1448	-.3366	-1.5297	-1.2148
COD	-.2243	-.4949	-.6245	.6904
CFD	-1.0499	.7414	1.1687	.9741
ATTRIBUTES	1	2	3	4
POW	-.1489	-.0797	-.0883	.8507
URB	.3754	-.7689	-.3319	.0025
DEV	.4039	-.2096	.8892	.2147
REL	.7773	.4203	-.0152	.3096
POL	.4915	-.1478	-.3885	-.2997

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.6560	3.0756	-4.2437
CFI	-.8549	5.1426	-4.2394
COI	-.6182	2.5837	.2155
ATTRIBUTES	1	2	3
POW	.3049	.2767	-.0790
URB	-.7860	.5994	-.4260
DEV	-.2041	.1976	-.2698
REL	.2244	.9181	-.0759
POL	.4148	-.3081	-.8656

APPENDIX JMAURITANIASOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0979	.3129	1	.7293	.8540
2	.0648	.2546	2	.6203	.7876
3	.0274	.1655	3	.1497	.3869
4	.0014	.0370			
TRACE = .2188			TRACE = .7070		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

	1	2	3	4
BEHAVIOUR				
COV	-.5772	.8939	-.1813	.2376
CFW	-.1600	-.3443	-1.6126	-1.1023
COO	.0538	-.6716	-.4767	.6759
CFD	1.1339	.5388	1.1964	.9861
ATTRIBUTES				
POW	.1135	-.1633	-.0493	.5172
URB	-.5169	-.7143	-.3076	.1455
DEV	-.4593	-.1161	.8905	.0394
REL	-.7007	.4884	.0514	.5581
POL	-.4493	.0072	-.4521	-.5975

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

	1	2	3
BEHAVIOUR			
IBI	2.5733	1.5939	-1.1257
CFI	.5573	2.1961	1.8310
COI	-1.3118	-.0548	3.3041
ATTRIBUTES			
POW	.2747	.7045	.8893
URB	-.1165	.2309	-.1636
DEV	-.0007	.1731	-.4971
REL	.8687	-.2776	-.6272
POL	.0276	1.1269	-.1138

APPENDIX 3

NIGER

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.1016	.3187	1	.6468	.8042
2	.0658	.2564	2	.4212	.6490
3	.0218	.1476	3	.1556	.3995
4	.0001	.0119			
TRACE = .2172			TRACE = .6394		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	CANONICAL VARIATES			
	1	2	3	4
CON	-.6162	.8617	-.1245	.2734
CFW	-.1447	-.4406	-1.8770	-.4637
COO	.0821	-.6585	-.1841	.8105
CFD	1.1063	.6607	1.4339	.5028
ATTRIBUTES	CANONICAL VARIATES			
	1	2	3	4
POW	.1221	-.1735	-.0113	1.0049
URB	-.4696	-.7717	-.2767	-.4125
DEV	-.4162	-.0112	.9125	.2301
REL	-.6957	.4120	.0196	-.1468
POL	-.4557	-.0132	-.5368	.3441

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	CANONICAL VARIATES		
	1	2	3
IBI	.2283	-.6115	.7868
CFI	.9532	.8812	.1366
COI	-.0193	1.1834	.5759
ATTRIBUTES	CANONICAL VARIATES		
	1	2	3
POW	.2912	1.1323	-.2372
URB	-.4678	.1471	.2104
DEV	-.2388	.1551	1.0273
REL	-.5922	-.3279	.0660
POL	-.8211	.0908	-.3309

APPENDIX 3

NIGERIA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VAR.	FREQUENCY		NO. OF CANON. VAR.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0904	.3007	1	.4016	.6337
2	.0410	.2025	2	.1358	.3685
3	.0137	.1169	3	.0130	.1141
4	.0054	.0735			
TRACE = .1939			TRACE = .4282		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	-.2023	.8177	.1654	.6882
CFW	.8942	-.3655	-1.8388	1.1295
COO	-.3567	-.8857	.2165	.3814
CFD	.0609	.0099	2.1572	-1.0165
ATTRIBUTES	1	2	3	4
POW	-.4381	-.5118	-.4666	-.6532
URB	-.1359	-.5087	.2203	.8034
DEV	-.1533	.6365	.0946	-.6640
REL	-.8857	.5171	-.3449	.5102
POL	-.5281	-.4020	.7371	-.2235

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.5496	-.8681	.4409
CFI	-.7252	-.6436	.9495
COI	-.1914	.4309	1.1628
ATTRIBUTES	1	2	3
POW	-.9978	-.1083	.0739
URB	-.0391	.0157	-.2426
DEV	.0160	.1676	.6389
REL	-.0834	.7643	.5021
POL	-.1861	.4962	-.7901

APPENDIX 3

SENEGAL

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.1092	.3304	1	.1631	.4039
2	.0527	.2296	2	.0377	.1942
3	.0094	.0967	3	.0065	.0808
4	.0017	.0414			
TRACE = .2078			TRACE = .2638		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COV	.3976	.5310	-.4307	.7522
CFV	-1.2122	.2332	-2.0566	-.7896
COO	.3245	-.9770	-.3394	-.0846
CFD	.3222	-.6687	2.1249	1.1639
ATTRIBUTES	1	2	3	4
POW	.4219	-.1480	-.0848	-.5168
URB	.2342	-.4356	-.0948	.9020
DEV	.1076	.8108	.6351	-.0512
REL	.6757	.4965	-.5029	.3565
POL	.5332	-.5835	.5984	-.2191

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.7324	.6148	.3004
CFI	.3531	-.7639	.7175
COI	-.4437	.0861	1.0237
ATTRIBUTES	1	2	3
POW	-.1121	-.5404	.7006
URB	.0330	.0165	.2670
DEV	-.0388	-.4285	.2290
REL	-.7875	.5209	.3680
POL	-.4547	-.7331	-.4909

APPENDIX 3SIERRA LEONESOCIAL-FIELD THEORY RESULTS

No. OF CANON. VARS.	FREQUENCY		No. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.1192	.3453	1	.1540	.3925
2	.0532	.2304	2	.0470	.2169
3	.0089	.0943	3	.0098	.0990
4	.0031	.0556			
TRACE = .2144			TRACE = .2649		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	-.5974	.4187	.4396	.8265
CFW	1.0679	.8033	-1.8924	.9970
COD	-.1390	-.9575	-.4005	.1644
CFD	-.0784	-1.1072	2.0991	-.8705
ATTRIBUTES	1	2	3	4
POW	-.4254	-.1166	-.1646	.2119
URB	.0523	-.2169	.7826	.7206
DEV	-.2819	.5138	.3584	-.7923
REL	-.7063	.5407	.0165	.3391
POL	-.4591	-.8740	.0742	-.3113

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.9148	-.3442	.2436
CFI	.1555	.8721	.6088
COI	-.2231	-.2010	1.0387
ATTRIBUTES	1	2	3
POW	-.1907	.2628	.7884
URB	.1200	-.6751	.5152
DEV	-.1593	.6395	.2349
REL	-.7512	-.5654	.0182
POL	-.4950	.5011	-.0342

APPENDIX 3

SUDAN

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.1717	.4143	1	.2890	.5376
2	.0498	.2232	2	.0715	.2673
3	.0082	.0908	3	.0058	.0764
4	.0025	.0503			
TRACE = .2408			TRACE = .3494		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	-.1999	-.6371	.6589	.6126
CFW	.9131	-.0758	.8230	-.8416
COD	-.5390	.8069	.3428	-.2940
CFD	.0370	.6638	-.8026	1.1032
ATTRIBUTES	1	2	3	4
POW	-.4582	-.1647	-.4989	-.0280
URB	-.3057	-.4472	.6634	.7251
DEV	.0488	-.3015	-.9881	-.0080
REL	-.2491	-.7629	.0962	-.6157
POL	-.8636	.5442	-.0362	.0421

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
ISI	.7229	-.5961	-.3621
CFI	.5420	.9304	-.3778
COI	-.2962	.4357	-1.1074
ATTRIBUTES	1	2	3
POW	-.2486	.0879	-.6232
URB	.2070	-.3457	-.4117
DEV	-.2996	.4761	-.5168
REL	-.9110	-.4302	-.0630
POL	-.2779	.8129	.1411

APPENDIX 3

TANZANIA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.1940	.4404	1	.2783	.5175
2	.0282	.1681	2	.0400	.1999
3	.0059	.0766	3	.0069	.0830
4	.0016	.0402			
TRACE = .2395			TRACE = .3290		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

BEHAVIOUR	CANONICAL VARIATES			
	1	2	3	4
CON	-.1465	-.3243	-1.0601	-.1853
CFW	.9115	.4360	.0098	-1.1517
COD	-.5353	.9247	.1786	.0387
CFD	.0586	.0099	.0120	1.5482
ATTRIBUTES	CANONICAL VARIATES			
	1	2	3	4
POW	-.3265	-.6947	-.1548	.5767
URB	-.4102	.0680	-.8404	-.6644
DEV	.0727	-.7647	.6017	-.0188
REL	-.5123	-.0930	.6004	-.6077
POL	-.6672	.2607	-.1065	.6146

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

BEHAVIOUR	CANONICAL VARIATES		
	1	2	3
IBI	.7639	-.6104	.2232
CFI	.3766	.7954	.7822
COI	-.4127	.0301	1.1055
ATTRIBUTES	CANONICAL VARIATES		
	1	2	3
POW	-.3082	-.1219	-.3301
URB	.2649	-.2395	.9572
DEV	-.4005	.3908	.0291
REL	-.7778	-.5583	.3394
POL	-.3886	.8080	-.0621

APPENDIX 3

TOGO

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.2628	.5127	1	.2994	.5472
2	.0286	.1692	2	.0231	.1521
3	.0214	.1067	3	.0110	.1050
4	.0008	.0276			
TRACE = .2754			TRACE = .3333		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
CON	.0656	-.9161	.6008	.2018
CFW	-.8153	-.7345	-1.0761	-.3952
COD	.7114	.1099	-.6915	.5003
CFD	-.1997	.9948	.8917	.8766
ATTRIBUTES	1	2	3	4
POW	.4829	-.3835	.3497	.5529
URB	.4776	-.7526	-.3976	-.3829
DEV	-.0336	-.2522	.5377	.7692
REL	.2804	-.2277	.8048	-.5595
POL	.7172	.5185	-.5109	.0993

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.6032	.6394	.4890
CFI	.2344	-.9107	.6477
COI	-.6382	-.1854	.9218
ATTRIBUTES	1	2	3
POW	-.4701	.0814	.4433
URB	.3575	.3298	.1929
DEV	-.4866	-.6729	.6265
REL	-.6654	.5723	.0812
POL	-.4123	-.5553	-.5635

APPENDIX 3

UGANDA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.2199	.4689	1	.3167	.5628
2	.0757	.2751	2	.0408	.2019
3	.0294	.1714	3	.0283	.1682
4	.0073	.0854			
TRACE = .2880			TRACE = .3586		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
CON	.1647	-.4189	-.7522	.6281
CFW	-.2770	-1.9391	.2520	-.8624
COO	.8596	-.0540	.6817	.1308
CFD	-.6482	1.7157	.2743	1.1804
ATTRIBUTES	1	2	3	4
POW	.4871	.7366	-.0096	-.0155
URB	.6479	-.5713	-.5764	.6591
DEV	.0114	.0085	.0389	-1.2311
REL	.0806	.2484	-.8626	-.3436
POL	.6069	.2324	.7542	.0945

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.7119	.6984	-.0973
CFI	.2283	-.1627	1.0783
COI	-.5340	.6636	.7162
ATTRIBUTES	1	2	3
POW	-.3700	-.0010	.2737
URB	.4656	.6030	.6439
DEV	-.3534	-1.1788	-.1477
REL	.6268	.1519	-.3410
POL	-.5069	.1004	.7200

APPENDIX 3

UPPER VOLTA

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.4162	.6451	1	.3373	.5807
2	.1789	.4229	2	.1019	.3193
3	.0181	.1344	3	.0658	.2565
4	.0064	.0803			

TRACE = .3935

TRACE = .4102

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	-.0812	-.5804	.6173	-.5526
CFW	-1.4880	-1.4381	-1.2429	.6326
COD	.5012	-.4609	.1938	.7680
CFD	.6273	1.8301	1.5990	-.2814
ATTRIBUTES	1	2	3	4
POW	.1963	-.0498	.1169	.7528
URB	-.1736	-1.0899	.7827	-.3931
DEL	.0090	.0775	-.9199	.8936
REL	.1043	-.2887	-.8955	-.2484
POL	1.0351	.3334	.2289	.0152

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	-.7197	.1059	.8736
CFI	-.1734	-.9523	.7185
COI	.6946	-.0036	.8129
ATTRIBUTES	1	2	3
POW	.2973	-.6936	.6472
URB	-.1525	.2014	.7640
DEV	.0559	-.6846	-.7921
REL	.4060	.3891	.0999
POL	.9286	-.1199	-.2449

APPENDIX 3

ZAIRE

SOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0505	.2248	1	.7293	.8540
2	.0241	.1554	2	.1738	.4168
3	.0110	.1044	3	.0447	.1213
4	.0007	.0248			
TRACE = .1466			TRACE = .5530		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2	3	4
COW	.5415	.1199	.7914	-.4938
CFW	-1.3563	.2076	-.1679	-1.3145
COD	-.7846	-.1484	.4696	.5154
CFD	1.0654	.7903	-.1286	1.3786
ATTRIBUTES	1	2	3	4
POW	.2618	.3658	-.2092	.8165
URB	-.3486	-.6816	.4725	.4327
DEV	.7753	-.3277	-.4898	.1619
REL	.4461	.2745	.7511	-.0195
POL	.4052	-.3921	.1574	-.1421

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2	3
IBI	.5013	.9353	-.1281
CFI	.2512	-.6147	1.7851
COI	-.5573	.0894	1.7497
ATTRIBUTES	1	2	3
POW	.5967	-.4094	.0094
URB	-.0670	-.3764	-.5216
DEV	.2706	.1454	-.8341
REL	-.2936	-.9379	-.2320
POL	-.5522	.4712	-.2207

APPENDIX 3ZAMBIASOCIAL-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.6093	.7806	1	.5740	.7577
2	.4090	.6395	2	.1815	.4161
3	.1921	.4383	3	.0535	.2312
4	.0417	.2043			
TRACE = .5594			TRACE = .5192		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2	3	4
	.4722	.1240	.4584	-.7591
CON	.8940	-1.9707	-.1841	.0774
CFY	-.6504	-.6334	.4422	-.2265
COO	-.5881	1.8082	.8209	.6719
CFD				
ATTRIBUTES	1	2	3	4
	-.1266	-.4011	-.2461	-.0594
POW	.4115	.4568	-.0653	-.8316
URB	.4674	.3301	-.9712	.1933
DEV	.0467	-.4130	-.9487	-.4982
REL	-.9033	.5441	.0145	.2285
POL				

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2	3
	-.6270	.9004	.1760
IBI	.4472	1.0174	-.4658
CFI	.5793	.7309	.6886
COI			
ATTRIBUTES	1	2	3
	.2175	.0915	-.4063
POW	-.3386	.1321	.6838
URB	-.4687	-.8498	-.2590
DEV	-.1077	-.8707	.5158
REL	.9196	-.0858	-.1999
POL			

APPENDIX 4CAMEROONSTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0201	.0204	1	.5985	.7736
2	.0034	.0034	2	.2328	.4825
TRACE = .1086			TRACE = .6447		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	-.2559	.1945
CFW	1.2283	-.7686
COD	.7328	-.2823
CFD	-.6145	1.5164
ATTRIBUTES	1	2
POW	.0199	1.0080
DEV	-.9973	.1482

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.5874	-4.6309
CFI	1.0630	-6.2658
COI	1.0084	-2.0386
ATTRIBUTES	1	2
POW	.7892	.6428
DEV	-.4844	.8952

APPENDIX 4CHADSTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0214	.1463	1	.2285	.4780
2	.0034	.0587	2	.0383	.1957
TRACE = .1153			TRACE = .3652		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	-.2147	.3096
CFW	1.2297	-.7759
COO	.7072	-.3408
CFD	-.5935	1.4749
ATTRIBUTES	1	2
POW	.0178	1.0096
DEV	-.9974	.1578

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.3183	-.9125
CFI	.0023	-.3470
COI	1.0252	-.0753
ATTRIBUTES	1	2
POW	.7960	.6081
DEV	.6534	-.7592

APPENDIX I

CONGO

STATISTICAL THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0245	.1565	1	.6241	.7900
2	.0039	.0621	2	.0617	.2483
TRACE = .1191			TRACE = .5854		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	-.1987	.2354
CFW	1.2250	-.7210
COD	.7425	-.3231
CFD	-.6401	1.4736
ATTRIBUTES	1	2
POW	-.0497	1.0101
DEV	-1.0062	.1017

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	.2735	-.5989
CFI	-1.0695	-.0453
COI	.1370	-.4185
ATTRIBUTES	1	2
POW	.4898	.8870
DEV	-.7965	.6263

APPENDIX 2

DIAGNOSIS

STATUS-FIELD THEORY RESULTS

NO. OF CANONICAL VARB.	FREQUENCY		NO. OF CANONICAL VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0292	.1708	1	.2367	.4865
2	.0020	.0445	2	.0316	.1778
TRACE	.1248		TRACE	.2661	

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	-.1819	.1199
CFW	1.1720	-.2944
COO	.7432	-.5534
CFD	-.5640	1.1397
ATTRIBUTES	1	2
POW	-.0260	1.0129
DEV	-1.0039	.1373

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.0092	.9104
CFI	1.0285	.2207
COI	.7161	.3681
ATTRIBUTES	1	2
POW	.9964	.2526
DEV	-.0150	1.0278

APPENDIX 4

ETHIOPIA

STATUS-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0230	.1515	1	.3504	.5920
2	.0015	.0392	2	.0819	.2862
TRACE = .1109			TRACE = .4648		

CANONICAL REGRESSION ON DIFF. OF FREQ. - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	.1156	-.6407
CFW	1.3237	-.8067
COU	.2357	.6081
CFD	-.5075	1.2049
ATTRIBUTES	1	2
POW	.0511	1.0218
DEV	-.9880	.2657

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.1722	-.3026
CFI	-1.0909	.0657
COI	-.4354	-.8929
ATTRIBUTES	1	2
POW	.4676	.8815
DEV	-.8476	.5365

APPENDIX 4

GHANA

STATUS-FIELD THEORY RESULTS

NO. OF CANON. VAR.S.	FREQUENCY		NO. OF CANON. VAR.S.	BEHAVIOUR INDEX	
	E. GENVALUE	CANON. CORREL.		E. GENVALUE	CANON. CORREL.
1	.0244	.1563	1	.4870	.6979
2	.0009	.0299	2	.0017	.0408
TRACE = .1122			TRACE = .4943		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	.0616	-.6158
CFW	1.0708	-.6113
COD	-.0178	.7668
CFD	-.1124	.8938
ATTRIBUTES	1	2
POW	.0080	1.0220
DEV	-.9983	.2189

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.7205	.5163
CFI	.4043	.0288
COI	-.1925	-.9585
ATTRIBUTES	1	2
POW	.8149	.5884
DEV	-.5040	.8696

APPENDIX 4GUINEASTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0272	.1649	1	.2317	.4813
2	.0008	.0288	2	.0081	.0901
TRACE = .1183			TRACE = .3459		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	.0964	-.2281
CFW	1.0180	.5134
COO	-.0643	1.0405
CFD	-.0557	-.5200
ATTRIBUTES	1	2
POW	.0062	1.0227
DEV	-.9987	.2203

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.5225	-1.1742
CFI	1.1365	.4213
COI	1.9335	.5537
ATTRIBUTES	1	2
POW	.7899	.6513
DEV	-.4669	.9111

APPENDIX 4IVORY COASTSTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0293	.1713	1	.0980	.3134
2	.0012	.0342	2	.0081	.0898
TRACE = .1232			TRACE = .2300		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	.0163	-.5518
CFW	1.0947	.3836
COD	-.0297	1.0329
CFD	-.1198	-.2624
ATTRIBUTES	1	2
POW	.0092	1.0216
DEV	-.9981	.2180

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	.3497	.6776
CFI	-.3991	.5652
COI	-1.0633	.1956
ATTRIBUTES	1	2
POW	.3670	.9318
DEV	-.9105	.4171

APPENDIX 4KENYASTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0321	.1793	1	.4230	.6504
2	.0032	.0563	2	.0053	.0728
TRACE = .1322			TRACE = .4624		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	.0630	-.6127
CFW	.9896	-.0617
COO	.3418	.9637
CFD	-.0922	-.0412
ATTRIBUTES	1	2
POW	.0897	1.0177
DEV	-.9778	.2960

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	2.3402	-.3630
CFI	-5.3609	4.6928
COI	-6.8762	4.6677
ATTRIBUTES	1	2
POW	.6431	.8104
DEV	.9481	-.4148

APPENDIX 4LIBERIASTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0397	.1992	1	.5655	.7520
2	.0025	.0498	2	.0029	.0537
TRACE = .1449			TRACE = .5331		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	.1547	-.7002
CFW	1.0081	.2883
COO	.2560	.9817
CFD	-.1304	-.3142
ATTRIBUTES	1	2
POW	.0002	1.0211
DEV	-1.0000	.2065

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.8100	.8319
CFI	-1.1222	-.4827
COI	-.8116	-.5399
ATTRIBUTES	1	2
POW	-.6977	.7165
DEV	.7248	.6891

APPENDIX 4

MALI

STATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0412	.2029	1	.2934	.5417
2	.0038	.0613	2	.0645	.2540
TRACE = .1496			TRACE = .4232		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	.0406	-.7962
CFW	.9625	.1389
COO	.3886	.9255
CFD	-.0763	-.2324
ATTRIBUTES	1	2
POW	.0146	1.0162
DEV	-.9973	.1955

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	2.3656	3.5540
CFI	3.9156	5.1349
COI	2.3236	1.0253
ATTRIBUTES	1	2
POW	.8632	.5270
DEV	-.3929	.9322

APPENDIX 4MAURITANIASTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0386	.1965	1	.3336	.5776
2	.0061	.0783	2	.0520	.2280
TRACE = .1489			TRACE = .4398		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	.0878	-.7489
CFW	.8976	.3993
COO	.1575	.9618
CFD	.0603	-.3452
ATTRIBUTES	1	2
POW	-.0961	1.0137
DEV	-1.0136	.0965

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-1.6839	1.4779
CFI	-1.6212	2.0702
COI	-.6642	-.1232
ATTRIBUTES	1	2
POW	-.9223	.3868
DEV	.3998	.9167

APPENDIX 4

NIGERSTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0360	.1898	1	.3858	.6211
2	.0065	.0803	2	.1496	.3868
TRACE = .1449			TRACE = .5177		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	.0840	-.9382
CFW	-.9519	.5772
COD	.0442	.7677
CFD	-.0764	-.4293
ATTRIBUTES	1	2
POW	.0959	1.0024
DEV	1.0065	.0201

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.6115	.6753
CFI	.8465	-.2160
COI	1.1891	.5215
ATTRIBUTES	1	2
POW	.9689	-.2474
DEV	.2433	.9700

APPENDIX 4NIGERIASTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0338	.1838	1	.3882	.6230
2	.0097	.0985	2	.0041	.0643
TRACE = .1473			TRACE = .4428		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	-.6216	.3050
CFW	.4828	-1.3832
COO	.7357	-.3547
CFD	-.8474	.4516
ATTRIBUTES	1	2
POW	.8996	.4648
DEV	-.3176	.9615

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.4433	-.1301
CFI	.8082	.4753
COI	.1639	1.2166
ATTRIBUTES	1	2
POW	.9980	.1711
DEV	-.0121	1.0125

APPENDIX B

SENEGAL

STATISTICAL THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0236	.1537	1	.0178	.1335
2	.0159	.1261	2	.0029	.0541
TRACE = .1403			TRACE = .1014		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	-.3981	.2889
CFW	.9845	-.7406
COO	.9013	.4661
CFD	-.4890	-.1386
ATTRIBUTES	1	2
POW	-.0226	1.0038
DEV	-1.0018	.0676

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.4406	-.1557
CFI	.9909	-.0503
COI	.3701	.9566
ATTRIBUTES	1	2
POW	.7392	.6195
DEV	.9431	-.6753

APPENDIX 4

SIERRA LEONESTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0210	.1451	1	.0173	.1315
2	.0093	.0963	2	.0038	.0620
TRACE = .1228			TRACE = .1024		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

BEHAVIOUR	CANONICAL VARIATES	
	1	2
CON	.5518	-.0478
CFW	-1.0941	.6290
COD	-.3213	.9149
CFD	.1179	-.9241
ATTRIBUTES	CANONICAL VARIATES	
	1	2
POW	.7774	.6345
DEV	.6967	-.7222

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

BEHAVIOUR	CANONICAL VARIATES	
	1	2
IBI	-.3766	-.0797
CFI	.9676	-.3049
COI	.5455	.8342
ATTRIBUTES	CANONICAL VARIATES	
	1	2
POW	.6686	.7483
DEV	.8011	-.6043

APPENDIX B

SUDAN

STATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0242	.1556	1	.0168	.1297
2	.0046	.0673	2	.0077	.0876
TRACE = .1200			TRACE = .1104		

CANONICAL REGRESSION COEFFICIENTS - STATUS THEORY

CANONICAL VARIATES

BEHAVIOUR	1	2
	-----	-----
COW	.2619	.0084
CFW	-1.0487	.0661
COO	-.1747	.9899
CFD	.0457	-.4672
ATTRIBUTES	1	2
	-----	-----
POW	.9005	.4445
DEV	.5256	-.8558

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
	-----	-----
IBI	.3788	-.2376
CFI	-1.0381	-.3544
COI	-.7475	.7701
ATTRIBUTES	1	2
	-----	-----
POW	.0306	1.0038
DEV	-.9967	.1228

APPENDIX 4

TANZANIA

CANONICAL THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0330	.1816	1	.0165	.1286
2	.0043	.0655	2	.0101	.1006
TRACE = .1363			TRACE = .1153		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	.4071	.1420
CFW	-.8667	-.8371
COD	-.5666	.8452
CFD	.0323	.3473
ATTRIBUTES	1	2
POW	.8782	.4932
DEV	.5943	-.8131

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.2333	-.8484
CFI	-.9454	.5410
COI	.0603	.6456
ATTRIBUTES	1	2
POW	.9789	.2372
DEV	-.1188	1.0002

APPENDIX 4

TOGO

STATUS-FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0473	.3274	1	.0533	.2308
2	.0110	.1047	2	.0121	.1101
TRACE = .1705			TRACE = .1805		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	.2805	.8350
CFW	-.9887	-.8871
COD	.5867	.0203
CFD	-.0108	1.0168
ATTRIBUTES	1	2
POW	.8776	.4912
DEV	.5820	-.8202

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.4455	.4051
CFI	.1196	-1.0475
COI	.9487	-.2378
ATTRIBUTES	1	2
POW	.8537	.5316
DEV	.6196	-.7922

APPENDIX B

UGANDA

STATISTICAL THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0728	.2698	1	.0340	.1845
2	.0480	.2191	2	.0175	.1324
TRACE = .2457			TRACE = .1603		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	-.0139	-.1990
CFW	-.7916	-1.9433
COD	.7328	-.3327
CFD	.2167	1.0322
ATTRIBUTES	1	2
POW	.8668	.5295
DEV	.6731	-.7606

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	.6316	-.7120
CFI	-.5559	.0103
COI	.3997	.6807
ATTRIBUTES	1	2
POW	-.0050	1.0157
DEV	-1.0009	.1730

APPENDIX 12

UPPER VOLTA

STATUS-FIELD THEORY 12 BULYS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0580	.2408	1	.0929	.3047
2	.0028	.5027	2	.0396	.1990
TRACE = .1741			TRACE = .2572		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCY

CANONICAL VARIATES

BEHAVIOUR	1	2
COW	.2942	-.5262
CFW	.9020	-.5070
COD	.7690	.6924
CFD	-1.5528	.7144
ATTRIBUTES	1	2
POW	.2281	.9934
DEV	1.0188	-.0317

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEX

CANONICAL VARIATES

BEHAVIOUR	1	2
IBI	-.0987	.9332
CFI	.9862	.4275
COI	.5229	.7130
ATTRIBUTES	1	2
POW	.9080	.4631
DEV	.6300	-.8013

APPENDIX LZAIRESTRUCTURAL FIELD THEORY RESULTS

NO. OF CANON. VARS.	FREQUENCY		NO. OF CANON. VARS.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.0279	.1671	1	.4086	.5920
2	.0048	.0693	2	.0278	.2812
TRACE = .1276			TRACE = .4670		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	.1807	.1356
CFW	-1.2617	-.7056
COU	-.7583	-.2555
CFD	.7267	1.5052
ATTRIBUTES	1	2
POW	.1404	1.0030
DEV	1.0126	.0203

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	.4367	-.8806
CFI	.1802	1.4444
COI	-.6750	.8495
ATTRIBUTES	1	2
POW	.8959	.4486
DEV	.5030	-.8665

APPENDIX 4ZAMBIASTATUS-FIELD THEORY RESULTS

NO. OF CANON. VARB.	FREQUENCY		NO. OF CANON. VARB.	BEHAVIOUR INDEX	
	EIGENVALUE	CANON. CORREL.		EIGENVALUE	CANON. CORREL.
1	.2929	.5412	1	.1905	.4364
2	.0366	.1913	2	.0194	.1394
TRACE = .4058			TRACE = .3238		

CANONICAL REGRESSION COEFFICIENTS - FREQUENCYCANONICAL VARIATES

BEHAVIOUR	1	2
COW	-.0619	-.4116
CFW	.6465	1.6711
COO	1.0316	-.0786
CFD	-.6507	-1.7925
ATTRIBUTES	1	2
POW	.3305	.9563
DEV	-.8948	.4722

CANONICAL REGRESSION COEFFICIENTS - BEHAVIOUR INDEXCANONICAL VARIATES

BEHAVIOUR	1	2
IBI	.0018	-.2291
CFI	.8256	.6056
COI	.9995	-.5211
ATTRIBUTES	1	2
POW	.3226	.9590
DEV	-.8987	.4648

APPENDIX 5

REVISED CORSON TYPOLOGY OF FOREIGN POLICY BEHAVIOUR

VERBAL (WORDS)			NON-VERBAL (DEEDS)
ACTOR'S EVALUATION AND PERCEPTIONS	ACTOR'S DESIRE	ACTOR'S INTENT	
CONFLICT	1140 DENY 1120 ACCUSE 1020 NEG. COMMENT	3150 DEMAND 3130 PROTEST 3100 NEG. PROPOSE 3090 NEG. REQUEST	5170 THREATEN 5160 WARN 5110 REJECT 5020 NEG. INTENTION
COOPERATION	2020 POS. COMMENT 2040 APPROVE	4090 POS. REQUEST 4100 POS. PROPOSE 4250 NEGOTIATE	6020 POS. INTENTION 6100 OFFER 6050 PROMISE 6080 AGREE
NEUTRAL	9020 NEUTRAL COMMENT	9090 NEUTRAL REQUEST 9100 NEUTRAL PROPOSE	9020 NEUTRAL INTENTION
			7220 FORCE 7180 DEMONSTRATE 7230 INCREASE MILITARY CAPABILITY 7240 AID OPPONENT 7190 REDUCE RELATIONSHIP 7210 SEIZE 7200 EXPEL 7280 SUBVERT
			8010 YIELD 8030 CONSULT-VISIT 8060 GRANT 8070 REWARD 8260 REDUCE MILITARY CAPABILITY 8270 CARRY OUT AGREEMENT 8290 INCREASE RELATIONSHIP 8300 ACCEPT

SOURCE: P.J. MCGOWAN, "DIMENSIONS OF AFRICAN FOREIGN POLICY BEHAVIOUR: IN SEARCH OF DEPENDENCE," CANADIAN ASSOCIATION OF AFRICAN STUDIES CONFERENCE, OTTAWA (FEBRUARY, 1973) (MIMED.).

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