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A PSYCHOLINGUISTIC MODEL

OF POLITICAL CULTURE

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PREFACE

This dissertation would have been impossible to complete were it not for the assistance of many persons to whom thanks and recognition must be given. First, a special note of thank you to Teresita Ramos for her invaluable assistance in translating the questionnaire into Tagalog, and to the many Filipino East-West Center Grantees who assisted us. I am also grateful to Aleli Agbayani, who administered the questionnaires to her English classes at the University of the Philippines, and to Al Agbayani, who saw to their safe arrival in the Philippines, and return to Hawaii. And a special note of thank you to Amefil Agbayani, for her coordinating and family mobilization efforts.

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ABSTRACT

This dissertation focuses upon, and attempts to illustrate the utility of, a psycholinguistic model for the study of political culture. It is concerned primarily with language and the meaning attributed to political concepts. Rejecting contemporary conceptualizations of political culture, this dissertation instead utilizes the theory and method of representational mediation and semantic differentiation developed by psychologist Charles Osgood. Specifically, the dissertation is concerned with how individuals from two different political and linguistic communities--the Philippines and the United States--think and feel about political life within the context of their own native languages.

The study is based upon one group of 57 Filipino college students and one group of 47 American college students. Each student was asked to differentiate 23 socio-political concepts along 14 adjective-pair scales, the American students in English and the Filipino students in Tagalog. The resultant data were applied to and tested in the psycholinguistic model of political culture. The model of political culture utilized has three component parts: cognitive mapping, the way in which individuals cluster political stimuli (in this case political concepts); cognitive response orientations, the way in which responses to political stimuli cluster; and cognitive saliency, the degree to which responses to stimuli are extreme or highly affective. The first two aspects of the model were interpreted through the use of factor analysis and factor comparison.

Cognitive mapping was found to be highly similar for both populations. Five similar factors emerged for each sample: (1) a political morality or myth factor; (2) a political and social order factor; (3) a political violence or illegitimacy factor; (4) a political power factor; and (5) a factor of uncertain character, characterized only by loadings of the concepts Philippines and Colony. These dimensions of cognitive mapping were found to be highly similar in pattern, but dissimilar in magnitude. The primary cognitive mapping factor for the Filipino students was the political morality or myth factor while the primary factor for the American students was the social and political order factor.

Six factors emerged for the response orientations of American and Filipino college students, five of which were nearly identical for the two samples: (1) political evaluation, (2) political familiarity, (3) political stability, (4) political activity, and (5) political dynamism. Two factors were not comparable: a modernity factor in the Filipino factor structure, and a simplicity factor in the American factor structure. General results were similar to those found in other semantic differential studies, with evaluative, potency, and activity factors of response orientation emerging, but other significant factors were also found, most notably the political familiarity and political stability factors.

The analysis of cognitive saliency indicated that abstract, myth oriented concepts were the most salient for the two samples, and that the most meaningful political objects in both cultures were those

characterized by strength, maturity, nearness, calmness, stability, justice, and goodness.

In conclusion, the dissertation suggests that the psycholinguistic model of political culture be used by political scientists for large-scale studies of political culture--to describe the political cultures of societies, as well as to compare and contrast political cultures, and to search for underlying themes which characterize the political cultures of many polities.

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CHAPTER I

A PSYCHOLINGUISTIC MODEL OF POLITICAL CULTURE

1. Goals and Direction of Research

Political culture has emerged as a major concept and area of inquiry in political science during the past ten years. In its development, theoretical considerations have outweighed empirical efforts, however, and the development and utility of the conceptualization has been subsequently restricted. This dissertation will suggest that an empirical and flexible model of political culture can be derived from Charles Osgood's theory of psycholinguistic meaning, and the dissertation will be used to illustrate the utility of such a model through investigation of the political cultures of samples of American and Filipino college students.

The direction of this study is cognitive, with a focus on language and meaning. It seeks to better understand how people think and feel about politics within the confines of their native languages, and how they interrelate these political cognitions, one to the other. How people think and act within the confines of their native language has importance for the social scientist interested in social and political interaction, for the primary use of language--communication--is in itself social endeavor. We know, for example, that for communication to take place people must be thinking about and talking about similar things, and we know that words have meanings attached to them

which are determined by the individual's or group's particular learning experiences.

Words and language are also the means by which man confronts and attempts to understand reality. By attaching words or symbols to ideas or concrete entities, he is able to sort out, comprehend and communicate, and share his experiences and emotions. Because of its importance, it seems incumbent upon the political scientist to investigate these word meanings in different political and cultural milieu for in such an investigation might lie answers to basic theoretical questions about political behavior which today are only partially answered in the discipline.

The research design and methodology, to be outlined more thoroughly in Chapter II, will essentially be an attempt to measure the meanings attributed to political and social concepts by a sample of students from the University of the Philippines and the University of Hawaii, and to determine empirically, dimensions of cognition and response of relevance to the delineation and study of political culture. The method, semantic differentiation, explores the cognitive aspects of the respondents' political orientations by presenting them with a set of 23 socio-political concepts and fourteen paired adjectives. This method, which is a combination of scaling and paired association techniques allows the measurement of meanings attributed to political objects in the two political cultures. The data will be factor analyzed, and the factor structures compared. In addition, a measure of "meaningfulness" will be utilized to explore patterns of affective

orientations. The concepts and adjective pairs presented to the students in Tagalog and English, are theoretically, reflections of the actual referents and objects in the political systems being studied.

As a pilot study, the goals implicit in this research project were: (1) to investigate and develop a model by which political culture can be studied in an explicit, empirical, and parsimonious manner; a model which would not only allow for the inclusion of many cultures in the analysis, but would also deal with individual responses to a sensitive and sophisticated measuring instrument, rather than with aggregate data; and (2) to test and evaluate such a psycholinguistic model.

With these goals in mind, some of the more important questions to be asked in the research are: Is a psycholinguistic model adequate for the study of political culture? What patterns of similarities and differences are found in the manner in which students from two linguistic and cultural milieu view the political world around them. What types of dimensions of political culture can be found to exist through a psycholinguistic model of political culture? What types of comparisons--statistical and qualitative--can be derived, and what types of generalizations can be generated from a psycholinguistic model of political culture? These are some of the more important questions for which the remainder of this dissertation will attempt to generate answers.

2. The Conceptualization of Political Culture.

The concept political culture has been advocated as a convenient and significant linkage between actual events in the political system and the individual's perception of and response to these events. Political culture is a useful concept in that it helps us to organize and categorize the manner in which individuals in particular polities inter-relate their beliefs and attitudes about political life. It is a high level concept which assists us in making generalizations about patterns and variations of political attitudes and beliefs, and about their implications for political systems characterized by distinctive systemic characteristics. Bridging the "micro-macro" gap is an important theoretical consideration favoring the use of the political culture construct. Eliciting individual responses about perception of and orientation toward the political system allows us to compare and contrast these responses with other characteristics of the political system, such as alienation, hostility, civility, and violence, and to generate hypotheses concerning causal relationships between individual and systemic modes of behavior.

How has this link between individual and systemic political behavior been previously conceptualized? Pye suggests a model of political culture which is unitary, and systemic in nature.

> Since a political culture is built out of the cumulative orientations of a people toward their political process, its dimensions include the limitations imposed by the realities of the power and authority structures of the society, modes of calculation and estimating causality, constellations of values, and patterns of emotional responses.

> Most significantly, a political culture includes: (1) the scope of activities, issues and decisions which are perceived by the people as relevant to the management of political power; (2) the body of wisdom and knowledge of the people which makes it possible for them to comprehend, find meaning in, explain, and predict those behaviors which they perceive as being relevantly political; (3) that faith beyond substantive knowledge which is governed by the prophetic words of those perceived as appropriate spokesmen of the future; (4) the values assumed to be most sensitive to political actions; (5) the standards accepted as valid for appraising and evaluating political conduct; and (6) the legitimate identities people can assume in contending for power, and the common identity which the polity provides for all.[1]

This definition of political culture includes many important cultural-type phenomena, but it lacks the advantage of a single theoretical focus.

The model of political culture most widely accepted today, that of Almond, Verba, and Powell (hereafter the Almond-Verba-Powell model) has a cognitive focus, and has been explicated in The Civic Culture and Comparative Politics: a Developmental Approach.[2] According to Almond and Powell, "Political culture is the pattern of individual orientations toward politics among the members of a political system. . . ." Political culture, as they define it, includes:

> (a) cognitive orientations, knowledge, accurate or otherwise of political objects and beliefs; (b) affective orientations, feelings of attachment, involvement, rejection and the like, about political objects; and (c) evaluative orientations, judgments and opinions which usually involve applying value standards to political objects and events.[3]

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[1]Lucien Pye, Politics, Personality, and Nation Building, (New Haven, 1962), pp. 122-124.

[2]Gabriel Almond and Sidney Verba, The Civic Culture (Boston, 1965; and Gabriel Almond and G. B. Powell, Comparative Politics: A Developmental Approach (Boston, 1966).

[3]Almond and Powell, op. cit., p. 50.

This definition is psychological (cognitive) in nature, since its components are primarily orientations, feelings, and judgments. By assuming a cognitive focus, the Almond-Verba-Powell model of political culture has displaced more impressionistic and historical notions of political culture,[4] and it has been proven as a somewhat more useful and somewhat more empirical link between behavioral and systemic phenomena. Yet in allowing a superior conceptualization of political culture, this model has at the same time, been characterized by significant shortcomings. First, the Almond-Verba-Powell model is inadequate as a cognitive model; and second, the model, as operationalized, does not allow for explicit, empirical, and parsimonious analysis of political culture. Let us expand upon these two criticisms.

An adequate model should indicate the conceptual relationships among its components. While the Almond-Verba-Powell model discusses component parts--affective, cognitive and evaluative orientations--it is not clearly a process-oriented model. It does not give us an understanding of how these dimensions interrelate with one another, nor does it explain clearly how these cognitive dimensions are derived from

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[4]Early studies focused upon the concept National Character as the theoretical equivalent of political culture. The most common meaning of national character deals with a statistical notion of the "modal personality." In searching for a modal personality, social scientists were confronted with an essentially static model--the goal being description, rather than the formulation of laws of human behavior. Thus the modal personality was characterized as "thrifty" or "harsh" or "hard-working," but he was not characterized by tendencies to behave in particular ways. For a thorough discussion see A. Inkeles and D. J. Levinson, "National Character: the Study of Modal Personality and Socio-cultural Systems," in Gardner Lindzey (ed.) Handbook of Social Psychology (Reading, Mass., 1954), vol. II, pp. 977-1020, and Emily Nett, "An Evaluation of the National Character Concept in Sociological Theory," Social Forces, XXXVI (1958), pp. 297-303.

experience and manifested in behavior. This lack of clear conceptualization is partially due to the overlapping characteristics of the constructs cognitive orientation, affective orientation, and evaluative orientation. As defined by Almond, Verba, and Powell, these constructs, it seems, are not mutually exclusive in content and meaning. For instance, does a heightened cognitive orientation produce more intense value judgments or deeper feelings of attachment or rejection to the particular phenomenon being judged? Or can individuals have opinions about political objects (evaluation) without first being emotionally (affectively) involved? Or might not affect and evaluation both be considered parts of cognition? More importantly, is evaluation the only way in which persons judge political objects? In essence we need to better understand how these dimensions relate to one another and how response orientations relate to the stimulus which brings them about. Because the Almond-Verba-Powell model allows no clear representation of how these components work in relation to one another in reality, the manner in which these phenomena have been studied in the past has lacked coherence, easily identifiable empirical referents, and cross-study generalizability.

What of the other requirements for an adequate model of political culture, empirical components and a parsimonious method for analysis and exploitation? An adequate model of political culture, one which purports to represent individuals' psychological orientations to political phenomena, should be one which specifically explicates the relationship of an individual to a perceived stimulus in the world. It should be a model which allows us to look at psychological phenomena in a

parsimonious and generalizable fashion. The model should allow us to test empirically the relationships among the constructs in the model, in order to simplify political phenomena in a fashion that is not only economical, but also meaningful and comprehensible.

The components of the Almond-Verba-Powell model are stipulated rather than empirical response orientations. Derived from older theories of cognitive behavior, their relevance to contemporary cognitive theory and to patterns of thought in non-Western nations is questionable. In the first place, it may be that a cognitive model composed of response orientations alone is inadequate. Far too little is known about cognitive behavior to make any such definitive statement. Another difficulty is that even if the realm of inquiry is restricted to response orientations, the question arises as to what are the "real" dimensions of response orientation? Or more importantly, are there any dimensions of response orientation which are constant across cultures?

Parsimony is the quality most evidently lacking in the Almond-Verba-Powell model of political culture. This is apparent when we examine the research which has used that model, most notably The Civic Culture. An admirable and monumental piece of research in and of itself, that work reflects the considerable difficulty encountered in drawing generalizations from the Almond-Verba-Powell model. Many comparisons are made in cross-tabulation tables to characterize the political cultures of the five nations involved, but each such table must be evaluated separately, remembered, and related to the other. In the end, the description and clustering of political cultures is based

on impression--necessarily because of the involved and irreducible data on which the model is based.

It was these shortcomings that militated against the use of the Almond-Verba-Powell model of political culture, and encouraged the search for a more sophisticated, empirically versatile and parsimonious model.

The ideal vehicle for comparison (later we will suggest such a vehicle) would be one which defines the dimensions of the models components empirically, allows statistical measures of the similarity of the political cultures being examined, and which can empirically define clusters of political cultures, given a sample within which such clusters exist, i.e., a variety of nations or other social units.

The model utilized in this dissertation is a psycholinguistic model of political culture. The logic and utility behind it will now be explicated, and its utility and flexibility explored in light of the above discussion.

3. Theory and Logic of a Psycholinguistic Model of Political Culture.

How people think and act within the confines of their native language has been the topic of discussion for psychologists, philosophers and linguists for many years. It has importance, too, for the social scientist interested in social and political interaction, since the primary use of language, communication, is of central importance to all social and political life. Because language and meaning are central to the social process, they are subsequently of great importance to the understanding of cultural differences in individual behavior. If the

focus of our model of political culture is on word and symbol meanings (perceptions and responses), then it is important that we first consider the theoretical underpinnings of such a focus--the psychological theory which makes such a focus relevant.

It is a generally accepted psychological notion that cognition precedes and accompanies actual behavior. But what exactly are these processes of cognition? How do these processes relate to dimensions of political culture? Answering these questions will not only clarify the relationships among components of the cognitive model, but also the relationships between individual political behavior, political culture, and the traits of a society's political system.

In an attempt to outline an answer to the first question, we must turn to a prominent psychological theory which has gained considerable recognition in the past decade. This theory, developed and tested by Charles Osgood and others, attempts to relate learning and stimulus-response theories of human behavior to language and meaning.[5] It is concerned with the relationship of signs to their significates, and how people encode and decode stimuli which are presented to them

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[5]Charles Osgood, George Suci and Percy Tannenbaum, The Measurement of Meaning (Urbana, Ill., 1957); Charles Osgood and T. Sebeok, Psycholinguistics (Bloomington, Indiana, 1965); Charles E. Osgood, Universals of Language (Cambridge, 1966). For further explication of the theory and model see Charles E. Osgood, "The Mediation Hypothesis," in Arthur W. Staats (ed.) Human Learning (New York, 1964); Sol Saporta (ed.) Psycholinguistics: A Book of Readings (New York, 1961); and John P. De Cecco (ed.) The Psychology of Language, Thought and Instruction, with particular reference to the article by Osgood, "The Nature of Meaning," (New York, 1967).

from the outside world--a type of input/output process. Simply stated, the theory posits that significates (any stimuli in the environment) produce predictable patterns of behavior (responses) in individuals, and all stimuli in the individual's environment are potentially related one to the other. According to the theory, stimulus, response and meaning become intertwined through learning, during the early and later years of socialization, such that certain stimuli assume conditioned responses for individuals.

Does the organism have to be presented with the same stimulus each time in order to have a similar response appear? Osgood posits that he does not, in that a representational mediation process takes place. This is a process through which an individual responds to a sign of the significate in a manner similar to that in which he would respond to the significate itself. As Osgood points out:

> Whenever some stimulus other than the significate is contiguous with the significate, it will acquire an increment of association with some portion of total behavior elicited by the significate as a representational mediation process.[6]

In this way, for example, the barking of a dog becomes the sign of the significate dog. However, the similarity in response would not occur, had not the sign and the significate been contiguous at some previous time. Now the question may be raised, but what about those things in the environment which we have not experienced directly? Osgood utilizes the category of assigns, objects which are assigned meaning through their association (contiguity) with other signs, rather than directly

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[6]Osgood, Ibid., p. 6.

through association with significates. Usually these assigns are words or other symbols.

As an example, let us look at how this theory would operate in terms of political phenomena, and how individuals would respond to assigns. Let us imagine a group of school children, who at a very young age, have never seen nor experienced in any way the phenomenon which in the English language is termed war. They are shown pictures of heroic and gallant looking young men going to war to defend their nation. They are all smiling, and handsome, and the resultant association with the assign war is likely to be a favorable one--provided of course that these children also value happiness, smiles and handsomeness. Take on the other hand, another group of children who have been shown pictures of battle casualties, or who have had direct experience with war. The assign war is contiguous with the pictures or actual experiences of the children, and the resultant association is more likely to be an unfavorable one. It is less likely that they will come to value the significate or referent itself, nor are they likely to come to value signs or assigns of war.

It is obvious from the above discussion that individuals will have general over-all impressions of significates or signs that will differ according to their individual learning experiences. Both their experiences and the contextual situations within which they learn word meanings will undoubtedly effect, in some way, their behavior patterns. If for instance, individuals learn that war is necessary and serves some important purpose, it is more likely that these individuals will value and support the actual significate, war.

To simplify the processes outlined above, the following sequences, perhaps in different order than presented here, are conceptualized in terms of political life: at a very early age, the child either experiences directly, or has some association with the signs of the political process; he assimilates an assign (word or other symbol) and, depending on those around him (family and friends) and his immediate environment, certain meanings will be attached to the particular political symbol or word that he learns. These words may be specifically political, such as "legislator," or they may be only tangentally or contextually related to political life, for example "dissent." The meanings attached to these words, then become for him the means by which his attitudes and beliefs are formed. Individuals only will have attitudes toward some object, or a belief in it if they are cognizant of it; in other words, they will be cognitively involved only if the object or sign has some meaning for them.[7]

Now what is the relationship between individual cognitions, and orientations toward politics, and politics itself: How does looking at word meanings fit into the mainstream of current empirical theory, and, more particularly, notions of political culture? In response to

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[7]In addition to Osgood's behavioristic notions of meaning, what things mean for people has been the subject of numerous theoretical essays. Among these are George H. Mead, Mind, Self, and Society (Chicago, 1934); Hans Gerth and C. Wright Mills, Character and Social Structure (New York, 1952). Also see John B. Carroll (ed.) Language Thought and Reality, The Writings of Benjamin Lee Whorf (Cambridge, Mass., 1964); John B. Carroll, Language and Thought (Englewood Cliffs, New Jersey, 1964); Charles K. Ogden, The Meaning of Meaning (New York, 1953). Charles W. Morris, Signs, Language and Behavior (New York, 1946).

the first question it is generally agreed that language is man's most basic means of communicating with others of his species. When he meets another individual who does not speak the same language as he, he is fairly hard-pressed to communicate about things which are abstract, and can probably make himself understood only through grunting or signs about basic life needs which are also experienced by the other individual. But when common words are used, there is generally some communication among the participants. Common words tend to elicit common meanings in similar cultures or sub-cultures, and common cultures by definition tend to use the same vocabulary and language. Members of a sub-culture of drug addicts, for example, generally know that "horse" is not a four-legged animal, and depending upon your occupation or socio-economic status, "scab" has different connotations in the English language. But generally speaking, we can say that the word "America" has a similar meaning for most Americans; that political elections and campaigns are processes which can be discussed with some degree of agreement as to what they mean. This is because most Americans have shared a common experience with these processes, and they mean fairly similar things to them. They understand and share certain attitudes, meanings and beliefs because of learned connotations attributed to words and symbols.

It is in communication that language and meaning take on a social flavor, and through communication that meanings effect political life. When persons discuss or argue the relevance of favored candidates or campaign strategies, they are employing their language in a social

context. What frequently gives rise to disagreement and conflict is lack of consensus in word meaning. And communication and exchange of meanings is, of course, at the very core of what is politics; the processes by which human beings attempt to influence and change the thought and behavior of others to conform with their own values and beliefs. The basic medium by which this exchange takes place is through our linguistic systems.

Political scientists interested in attitude and belief systems understand that persons who intensely hold credible beliefs and attitudes are potential sources of influence upon other individuals around them. Language and word meanings (psychological phenomena) are the sources of these attitudes and beliefs. In measuring word meanings we are measuring something which is instrumental to the formation of attitudes and beliefs.

In the past, efforts have been expended to analyze content of speeches, pronouncements and international messages to determine meanings, and to determine the existence of a "political myth." Little effort has been expended, however, to measure the meanings of words and symbols to the general populace. It is such an endeavor being undertaken here.[8]

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[8]Content analysis has been the method most utilized by social scientists to examine the meanings of speeches, documents and messages. These searches were prompted by belief that a "political myth" system existed and was maintained by those in control of a political system. However, if such a myth does in fact exist, what effect it has had upon the general populace has not been studied cross-culturally. To study the meanings of political symbols cross-culturally has been suggested by Harold Lasswell in World Politics and Personal Insecurity (New York, 1965), particularly pp. 158-178. Lasswell and others have also conducted numerous content analysis studies attempting to delineate the political myth in a system. For example see H. D. Lasswell et al., The Language of Politics (New York, 1949), and Robert Angell, V. Dunham and J. D. Singer, "Social Values and Foreign Policy Attitudes of Soviet and American Elites," The Journal of Conflict Resolution, 8 (December, 1964).

This dissertation assumes that the universe of political meanings expressed by individuals in the communication process, and learned and internalized by such individuals may be taken and studied as a reflection of or cross-section of the political culture of a group of individuals. In short, this is the logic implicit in the theory of representational mediation, which enables us, in this dissertation, to use words as stimuli in an experimental situation designed to probe the structure and meaning of political culture.

4. A Psycholinguistic Model of Political Culture.

In this dissertation, political culture is broadly viewed as the manner in which members of a particular culture, be it nation, tribe, or group of college students, think and feel about political phenomena and life. The political culture of a group is the way in which they as a group, psychologically orient themselves toward political life. Only as these ideas, values and thoughts are shared, do we have the social creation of culture. All of these ideas, values and thoughts about political life, because they comprise the political culture which is shared and maintained in a society, in turn also act as forces in shaping the psychological orientations of the people toward political life.

Such logic assumes that the universe of meanings generated by social interaction--it might in the sense used by Gerth and Mills, be denoted as the symbol sphere[9]--can be isolated, sampled, and studied as a psycholinguistic model of political culture. Such logic further

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[9]Hans Gerth and C. Wright Mills, op. cit.

suggests that most people participate in politics symbolically, through the manipulation of signs and assigns (symbols), rather than through the manipulation of real things (significates).

How can these cognitive orientations be presented in a formal psycholinguistic model of political culture? We will suggest that three basic components comprise a psycholinguistic model of political culture: cognitive mapping, cognitive response orientations, and cognitive saliency. We will also suggest that within these three components important, and empirically definable sub-dimensions exist. Let us examine each separately.

Cognitive Mapping

By this is meant the cognitive processes through which individuals perceive the political world, and interrelate stimuli, categorizing them according to personally relevant criteria.

Persons perceive a political stimulus and internalize it. This is cognition in its simple form. It may be the actual experience with something or someone political; it may only be the learning or re-experiencing of a familiar sign or word. This entire cognition process is founded upon the meaning of stimuli, since stimuli must be related one to another to be consistent with the notion of representational mediation.

Analysis of cognitive mapping will tell us how individuals cluster symbols, how the individual member of the society perceives contiguity within the "symbol sphere," whether the individual perceives a fused or differentiated political system, and perhaps, how the structure of the symbol sphere is related to the "real" (referent)

structure of the political system. Theorists posit functional and other typologies of processes and objects and actors in the political system, for example the interest articularion and aggregation typologies of the structural-functionalists, yet little effort has been directed toward examining the dimensions of individual perceptions or typologies of the political system.

Such analysis will be useful, first, because the dimensioning of the symbol sphere indicates the associations which new symbols are likely to have when learned by an individual. Symbols which are contiguous in the cognitive mapping of the political culture are likely also to be presented together to the individual as he is socialized. Second, such analysis may be of benefit in that the dimensions of cognitive mapping themselves may be related to systemic political characteristics. It might, for example, be that political systems characterized by violence are that way partly because of the non-sharing of important cognitive mapping dimensions, or other variations in cognitive mapping. These dimensions of cognitive mapping can be empirically defined by using such mathematical clustering techniques as small-space analysis or factor analysis.

Cognitive Response Orientations

By this is meant the pattern of, and underlying dimensions of response orientations to political stimuli. In the semantic differential model, responses are not cognitive, affective, or evaluative (or delimited by some other stipulated boundary), as is the case in the Almond-Verba-Powell model. Rather, all responses are conceived of as being affective responses--feelings of attachment or rejection of

political objects in varying degrees. Affect in this sense is synonymous with involvement, the act of judging, or even awareness of an object or symbol, and highly interrelated to the cognitive system. Once an individual becomes affectively involved with an object--either positively or negatively--he then proceeds to judge the political object with which he is involved. These judgments include evaluation of the particular object or objects, together with other means of making the object in question more clearly consistent with the other beliefs and values which the individual holds. Such dimensions of judgment may include an evaluative dimension, but also response and judgment dimensions such as action, strength and so on, as empirically defined by the respondents. Such dimensions could be expected to vary from culture to culture considerably, with meaningful, discernable and interpretable impacts upon the political systems being studied.

Cognitive Saliency

By this is meant the saliency of the political stimuli to individuals, as the extent to which significant meaning is attributed to various stimuli. The extent to which individuals respond with intensity to political stimuli may be taken as a quantitative measure of affective involvement. Different political objects may have considerably different impacts on the daily lives of individuals, and it can be assumed that certain generalizations can be made about the relevance of certain political objects in different political cultures. On the other hand, we may find that there is subject-affect consistency

cross-culturally. While cognitive response orientation analysis allows for an understanding of affective response types, cognitive saliency would give some indication of which objects were most meaningful to the respondents, and allows us to make inferences as to what attributes make an object meaningful.

Behaviorally, the interrelationships of these three components can be outlined in the following way. Stimuli are perceived by individuals, and clustered according to relevant criteria in the cognitive mapping process. Meanings perceived in these stimuli evoke responses according to the capabilities of the existing and relevant dimensions of cognitive response orientation. The total amount of cognitive activity is reflected in the degree of cognitive saliency. This simply is how we see the components of the model being behaviorally interrelated in individual cognitive processes.

Understanding of these cognitive behavioral interrelationships is necessary if we are to fully understand the comparisons to be made at the societal or cultural level using the psycholinguistic model. Such understanding is also necessary if we are to fully understand the implications of our delineation of political culture for the behavior of individuals effected by the cultures of the societies in which they live.

In a purely behavioral study--one, for example, examining the relationships of such cognitive processes to overt political behavior--the conditions of and interrelations of the three components of the model would be the object of study. Here cultural generalizations are to be made, and the use of the psycholinguistic model of political

culture will focus on the quality of variation among the three components.

5. Conclusion

The three parts of our model—cognitive mapping, cognitive response orientations, and cognitive saliency--taken together form a coherent and explicit model within which political culture can be conceptualized. By looking at these three components, and attempting to generate empirical typologies of their respective dimensions, a greater understanding of political behavior and political culture hopefully can be generated.

Each of the three components of our model will comprise a chapter in this dissertation. Chapter III will focus upon the cognitive mapping aspect of political culture, and attempt to delineate the dimensions within which our two samples of college students cluster political stimuli. Chapter IV will focus upon cognitive response orientations of political culture, and attempt to delineate the dimensions of affective orientation toward political stimuli reflected by the two samples. Chapter V will focus on cognitive saliency among the two samples, the ways in which meaningfulness is attributed to political stimuli by the students in our samples. In Chapter VI, the summary and conclusion, the model will be evaluated, and the empirical results will be summarized. In addition, some suggestions will be made regarding future research projects dealing with political culture.

Before a detailed discussion of the empirical findings can take place, however, let us turn to Chapter II, for a discussion of the construction of the semantic differential questionnaire, the samples utilized to represent the American and Filipino college students, and data processing techniques.

CHAPTER II

SCALE CONSTRUCTION, THE FILIPINO AND AMERICAN COLLEGE STUDENT SAMPLES AND DATA PROCESSING TECHNIQUES

This dissertation utilizes a semantic differential model to outline and typologize the political cultures of the Philippine and American college student samples.[1] The subjects in the two samples were presented with 23 socio-political concepts which they were asked to judge along 14 bi-polar adjective scales. The subjects' duty then was to differentiate the positions of the political objects along these 14 seven-step scales.

As can be seen below, the scaling procedure followed was quite simple. Any weighting could be used, although the two given are most common. Also, any odd number of scale positions could be used. With the seven position scale, the fourth blank from each pole is the

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[1]The semantic differential was developed by psychologists Charles Osgood, George Suci and Percy Tannenbaum and is explicated in The Measurement of Meaning, op. cit. Most notable among other methods which have attempted to measure meaning include Noble's m in which a stimulus' meaningfulness was measured by the number of word associations attached to the given stimulus word. For a discussion of Noble's m and of the use of the semantic differential see: Arthur W. Staats and Carolyn K. Staats, "Meaning and m: Correlated but Separate," Psychological Review, 66 (1959), pp. 136-144; James C. Baxter, "Mediated Generalization as a Function of Semantic Differential Performance," American Journal of Psychology, 74 (1962), pp. 66-76; Edward Malmstrom and Gilbert French, "Scale Symmetry and the Semantic Differential," American Journal of Psychology," 76 (1963); Russel Green and Marvin Goldfriend, "On the Bi-polarity of the Semantic Space," Psychological Monographs, 79 (1965); and David Heise, "Semantic Profiles for 1,000 Most Frequent English Words," Psychological Monographs, 79 (1965).

neutral position, and it is weighted "0" or "4". Direction of the numerical weighting is arbitrary. For the example of Table I, using weighting "b" for example, we can see that a score of -3 on the good-bad scale would indicate that MOTHER means something very good to the respondent(s). A score of +3 on the good-bad scale would mean that mother represents something very bad to the respondent(s). A score of -3 on the happy-sad scale would indicate that MOTHER means something happy.

TABLE I

SAMPLE CONCEPT MOTHER, AND THREE ADJECTIVE PAIR SCALES. WEIGHTING "a" IS THAT WHERE SCALE POSITIONS ARE 1 THROUGH 7, AND THE NEUTRAL POSITION IS 4. WEIGHTING "b" IS THAT WHERE SCALE POSITIONS ARE NUMBERED -3 TO + 3, and 0 IS NEUTRAL

MOTHER

Good	:___:___:___:___:___:___:___:	bad
Strong	:___:___:___:___:___:___:___:	weak
Happy	:___:___:___:___:___:___:___:	sad
a	1 2 3 4 5 6 7	
b	-3 -2 -1 0 +1 +2 +3	

"Each semantic scale, defined by a pair of polar (opposite in meaning) adjectives- assumes to represent a straight line function that passes through the origin of this space, and a sample of such scales then represents a multi-dimensional space."[2] Ideally, the number of

[2]Osgood, op. cit., p. 25.

axes (straight line functions) is then delimited only by the number of relevant dimensions of meaning. In evaluation of scores obtained from scaling, scale positions may be determined for concepts, individuals, or groups. Additionally, more complex mathematical analyses, including factor analysis, may be developed from the raw scores and their interrelations.

In past research with the semantic differential, factor analysis of the semantic space has focused upon adjective pairs only (not concepts), and has resulted in the emergence of three factors which remain quite consistent over the types of concepts being judged. These factors have been termed Evaluative (characterized by such adjective pair scales as good/bad, clean/dirty, and happy/sad), Activity (characterized by such adjective pair scales as fast/slow and young/old), and Potency (characterized by such adjective pair scales as strong/weak, soft/hard). The consistent finding of these "factors" or dimensions in a number of languages has led to the proposition that there is a universality in response dimensions across cultural and linguistic boundaries.[3] When only socio-political objects have been presented to subjects as stimuli, it has been found that a Dynamism factor emerges. This dynamism factor is a combination Potency/Activity factor, indicating a lack of differentiation between these two

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[3] Ibid. These factors generally appear in studies utilizing the semantic differential. In addition, researchers have reported the emergence of a Stability factor and a Receptivity factor. In most cases and studies, the Evaluative factor explains from one-half to two-thirds of the common variance.

dimensions when political objects are being judged.[4] Additionally, a number of researchers, including Osgood, have found a Stability factor to emerge, although less is known about its character or significance.

Most research done since the publication of The Measurement of Meaning has over-responded to Osgood's suggestion that these major factors were most clearly significant, and has assumed the basic character of the semantic space to be described by those three primary factors. The semantic differential used in this research was not "loaded" solely for the types of scales suggested by those factors, and in addition to the types of scales mentioned above, others as well were included.

Construction of the Questionnaire

Techniques utilized for the construction of the semantic differential questionnaire involved several steps. First, a list of political concepts was compiled, according to the interests of the researcher. An effort was made to balance the list with different types of concepts, some referring to political actors and institutions, some to political processes, and some to political abstractions. These concepts were given to five native speakers of Tagalog (the major dialect spoken in the Philippines) for translation into contemporary Tagalog.[5] Two Tagalog informants then evaluated these

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[4] Ibid., p. 74.

[5] Tagalog is a language that is widely used in the Philippines. At this time, a national language, based upon Tagalog, is currently being developed in the Philippines and is called Pilipino--the goal being to create a universal national language.

responses in terms of their own knowledge, and chose the most common translations. This strategy resulted in the selection of the 23 political concepts presented in Table II.[6]

TABLE II

POLITICAL CONCEPTS SELECTED IN ENGLISH AND TAGALOG BY THE RESEARCHER AND AS TRANSLATED INTO TAGALOG

ENGLISH	TAGALOG
Bargaining	Pagkikipagkasunduan
Nation	Bangsa
Society	Lipunan
Politics	Pulitika
Government	Pamahalaan
Freedom	Kalayaan
Family	Pamilya
Law	Batas
Voting	Botohan
War	Giyera
Revolution	Rebolusyon
Peace	Kapayapaan
Police	Pulis
Election	Eleksyon
Politician	Politiko
Army	Hukbo
President	Pangulo
Democracy	Demokrasya
Communist	Kommunista
Colony	Kolonya
Philippines	Pilipinas
America	Amerika
Soldier	Sundalo

[6]Once the political concepts were translated into Tagalog, two other native speakers who knew English were asked to give the closest English meaning of the Tagalog concept. In all 23 cases the translations were accurate.

A listing of 50 adjective pairs was compiled from studies by Osgood and others. Reading Roget's Thesaurus added 87 more adjective pairs. From these, the researcher chose 50 or so of the adjective pairs which seemed best suited for the analysis in terms of variety. Four judges familiar with the semantic differential were instructed to select 20 adjective pairs from these 50, on the basis of (a) pertinence to the basic dimensions of meaning discovered by Osgood, et al. (evaluation, activity and potency), and (b) sensitivity to dimensions of meaning often attributed to political concepts in contemporary political science. The 15 adjective pairs which were most frequently selected by the four judges were given to five native speakers for translation into contemporary, every-day Tagalog. Two other Tagalog informants evaluated the responses in terms of their own knowledge, and chose the most common of the translations where there was disagreement. Of the 15 adjective pairs which reached the translation stage, however, only 14 could be used. One of the adjective-pair sets--efficient/inefficient--could not be translated into a commonly used Tagalog form. The 14 remaining adjective pairs are presented in Table III on the following page.

Each concept was presented to the students in the sample on a separate page, with the same fourteen adjective pairs. The adjective pairs were in the same order shown in Table III, for each concept, but concepts were randomized within each questionnaire.

TABLE III

ENGLISH ADJECTIVE PAIRS
AND TAGALOG TRANSLATIONS

ENGLISH	TAGALOG
common/uncommon	karaniwan/di-karaniwan
mature/childish	may isip/parang batang isip
near/far	malapit/malayo
strong/weak	malakas/mahina
calm/excited	payapa/maligalig
stable/unstable	matatag/di-matatag
just/unjust	makatarungan/di-makatarungan
hard/soft	matigas/malambot
young/old	bata/matanda
fast/slow	mabilis/mabagal
good/bad	mabuti/masama
primitive/modern	makaunang panahon/makabago
happy/sad	masaya/malungkot
simple/complex	simple/di-simple

The Sample Used

Two samples of college students were given the above questionnaire. One was composed of students in an introductory political science class at the University of Hawaii (Honolulu, Hawaii). The other was composed of students in introductory English classes at the University of the Philippines (Quezon City, Republic of the Philippines).

These two groups of students were compared in several ways, to determine the manner in which the two populations varied from each other, and from the populations they are taken to represent, in certain social characteristics. Some characteristics of the two samples are presented in Table IV.

TABLE IV

COMPARISON OF THE UNIVERSITY OF HAWAII AND UNIVERSITY OF THE PHILIPPINES SAMPLES, AS TO LANGUAGE, PLACE OF BIRTH, AGE, UNIVERSITY CLASS, SEX AND FATHER'S OCCUPATION

	University of the Philippines	University of Hawaii
Most proficient in Tagalog	36	0
Most proficient in English	0	45
Born in Manila or Rizal	21	
Born in Honolulu or State of Hawaii		26
Mean age in years	17.3	19.0
Class		
Freshman	28	30
Sophomore	23	14
Junior	5	1
Senior	--	1
Not Indicated	1	1
Male	29	19
Female	27	28
Father's Occupation		
Farmer	1	1
Blue Collar	12	19
White Collar	22	9
Military	4	10
Lawyer	4	-
Education	7	5
Medical	2	-
Arts	1	-
Not Indicated	4	1
Number of Cases	57	47

In terms of language, all of the Filipino students were able to answer the Tagalog questionnaire, even though only 36 of the 57 students in the sample felt Tagalog to be the language in which they were most proficient.[7] Of the remainder, most felt themselves to be most proficient in another Filipino dialect such as Visayan or Iloko but several (3) were most proficient in Chinese. With only one exception, the most proficient language was also the language spoken in the home during childhood. All of the American students were able to take the questionnaire in English, 45 of the 47 students feeling that English was the language they were most proficient in.

Place of birth was taken to be somewhat of an indicator of provinciality, the extent to which individuals tend to come from one geographic region. In the case of both samples, a similar level of provinciality was indicated. In the University of the Philippines sample, 21 of the 57 were from the geographic area near the University of the Philippines, while 26 of the 47 University of Hawaii students came from Honolulu or another part of the State of Hawaii.

The two samples differed somewhat in age, the Filipino sample's mean age being 1.7 years less than that of the American sample. This difference is primarily reflective of an earlier age of entry into the University system in the Philippines. The distribution of class

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[7]The University of the Philippines is located in a Tagalog speaking region and the primary language utilized among Filipinos in this area, regardless of their regional origin, is Tagalog. For those who are not native speakers, Tagalog is a compulsory language in the schools and is one of the three official languages of the Philippines, English and Spanish being the other two.

rankings in the two samples was more similar than age. In the Filipino sample, 51 of the 57 students were freshmen or sophomores, while in the American sample, 44 of the 47 students were freshmen or sophomores. Thus, for these samples, university class provides a better basis for comparison than does age.

The proportion of male and female students in each of the samples is different. In the Filipino sample, the distribution is approximately equal, 27 of the 57 students being female. In the American sample, the female proportion is much larger than the male proportion, some 28 of the 47 student sample.

Students were taken from required courses, so a large spread of academic majors was evident in the sample. Many students in both samples were also undecided about their academic major.

In the realm of social class, the two samples are quite similar. In each sample, one student's father was a farmer. Twelve Filipino students reported blue collar occupations for their fathers, as compared with 19 for the American sample. Twenty-two Filipino students reported white collar occupations for their fathers, as compared with 9 for the American sample. The military was more strongly evident in the occupations of the American students (10) than the Filipino students (4), but the professions (lawyer, educator, and artist) seemed more strongly represented in the Filipino sample.

The differences between the two samples (as to the previously discussed variables) did not intuitively seem large enough to prevent comparison. It was thought that the two samples were sufficiently representative to allow generalizations toward the larger population

of college students in the Philippines and the United States. Yet while the two samples may be comparable and representative of this limited population, it is difficult to draw analogies to the larger populations implied, those of the two countries, the United States and the Philippines.

Social class is the crucial variable in the representativeness of the two samples since it tells us what types of individuals are samples; father's occupation is one index of social class. As noted before, the two samples are fairly similar as to father's occupation. Both samples are similar in being largely middle class, a factor which reflects university selection patterns. But the degree of national representativeness varies for the two samples. The University of Hawaii sample tends to be representative of the larger American population, largely middle class. The Filipino sample is also middle class, but for that reason it is not representative of the national population. Most Filipinos are farmers and their under-representation is evidenced by the one farmer in our sample. This is because the Filipino college population tends to be derived from the social-economic-political elites to a greater extent than in the United States. To say that the generalizations derived from the samples are only applicable to Filipino and American university students is not quite true. While the results found can be most effectively attributed to those two groups, the tendency of the student of comparative politics is to attempt to derive meanings which are applicable to the larger political systems. This is common in all types of social scientific

endeavor. For these reasons we shall refer to the "Tagalog meaning" or to the "English meaning" of X, but it is suggested that the reader interpret the findings as representative of the political cultures of the respective college student populations and hypothetical for the political cultures of the respective national populations.

Data Processing Techniques

Because development of a parsimonious method for the study of political culture was one of the primary concerns and goals of this dissertation, the method most frequently utilized in this paper is factor analysis. A flexible and high powered technique, factor analysis allows us to reduce and simplify extremely complex data and present the results in readily interpretable matrices. The payoffs of utilizing factor analysis in the study of political culture are enormous. Together with the semantic differential as a model and factor analysis as an analytic technique, the prospects of large scale political culture studies become more feasible and realistic. In addition to the use of factor analysis in this dissertation, the Ahmavaara technique of factor comparison--transformation analysis--is utilized. Other, more common statistical techniques are also used, where needed, in the dissertation.

All data were processed on the IBM 7040 and IBM 360 computer systems. Programs of the BIMD and BMD series were used in addition to programs of the University of Chicago computing center and programs written by the researcher.

CHAPTER III

COGNITIVE MAPPING DIMENSIONS

1. Introduction

This chapter will focus upon the relationships among political objects and concepts, as they are perceived by individual members of the two different political cultures. Several questions guide and orient its scope and direction. These questions include: (1) How is the semantic space of political stimuli defined by the individuals in the two samples of college students? Do we find basic similarities in dimensions of cognitive mapping for the (American) English and (Filipino) Tagalog speaking college students? (2) Do we find differentiation of political actor, institution, process, and abstraction dimensions in the two samples? Because the primary focus of this chapter is on "mapping" of conceptual relationships for the two sampled cultures, what empirical relationships and dimensions underlying the data for these two cultures will be observed through factor analysis? (3) After empirically determining the underlying dimensions for each sample, how do the cognitive maps of the two samples compare? Do we find similarity between cognitive maps for the two samples? What more does this tell us about the political cultures of the respective samples? What does this tell us about the cross-cultural regularity of dimensions of political culture?

While factor analysis is being used primarily in this chapter to generate an empirical typology of underlying cognitive dimensions

imputed to political objects through their assigns, we may also utilize it as a hypothesis testing device of relevance to contemporary, interrelated notions of comparative politics, political development theory, and political culture.

Because members of the Philippine political system are generally typologized as members of a developing polity, and the American polity is generally termed a more developed polity, we would expect certain different dimensions to emerge from the data. Developing polities, it is theorized, manifest a lack of differentiation among political structures in the system, as to functions and roles. Therefore, there is apt to be a lack of differentiation among the functions and roles of social and political institutions. Many types of political functions, for example, may be found within the family or clan of the developing polity, while in a modern, developed polity, organizationally distinct institutions exist, oftentimes one for the execution of each specific function or set of functions. Awareness of the interrelatedness of and social-functional meaning of political objects should subsequently be reflected in individuals' patterns of cognitive mapping.

In the Tagalog sample, for example, we would expect a relative lack of differentiation among the concepts Bargaining and Family, and concepts symbolizing such political processes as voting and election. In the English sample, on the other hand, we would expect the differentiation of each concept more clearly from each other concept, and we would expect the dimensions of cognitive mapping identified through factor analysis to be similarly more differentiated for the English sample.

It must again be emphasized that factor analysis is the primary analytic technique being used, that it is being used primarily to generate empirical typologies of cognitive mapping dimensions of political culture, and that the above hypotheses are merely generated to guide and orient the discussion in terms of the researcher's assumptions about the data and in terms of other social scientists' assumptions about differences and similarities among political systems and political cultures.

The 23 Tagalog and English political concepts were factor analyzed to determine empirically what clusters of concepts characterized the cognitive mapping of the individuals in the two samples. Factor analysis of concepts, to this researcher's knowledge, is an operation which has never before been done with semantic differential data. This is undoubtedly because the research focus of Osgood and other users of the semantic differential has been primarily response-oriented, aimed at determining the dimensions of individual responses to stimuli, and based upon the factor analysis of adjective-pair scales. The strategy here, of factor analyzing concepts, is, on the other hand, stimulus-oriented.

Since no guidelines were available for the factor analysis of concepts, two general approaches were experimented with. Concepts were first factor analyzed on the basis of a matrix of product-moment correlations derived from individual responses. These correlations were calculated by taking each individual using each adjective-pair scale, as one case judging the 23 concepts. The N for the Tagalog sample with this procedure was (57 x 14 =) 798, and the N for the English sample was (47 x 14 =) 658.

The second factor analysis was based on geometric distances between concepts in the semantic space, as the measure of association. Distances were calculated according to the generalized distance formula of solid geometry:

$$D_{il} = \sqrt{\sum_{j} d_{il}^2}$$

"where D_{il} is the linear distance between the points in the semantic space representing concepts i and 1 and d_{il} is the algebraic difference between the coordinates of i and 1 on the same dimension of factor, j."[1] Such distances were calculated among all 23 of the concepts, with each of the 14 adjective pairs used in the calculation of the distances, and the coordinates used being the mean judgments given in Appendix A. These distances were scaled to range from 0.0. to 1.0, so that they could be interpreted as coefficients of correlation, and factor analyzed. This seemed justifiable, since, as Osgood points out, the D is related to the intraclass r.[2] The resultant Distance matrices (see Apendix B), were then factor analyzed.

Factor structures resulting from the analysis of r and D matrices were compared, with little or no organizational discrepancy being evident between the two structures. This was interesting, since little loss of relationship resulted from use of the more simply derived r matrix. It was, however, decided to use the factor analysis

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[1] Osgood, et al., op. cit., p. 91.

[2] Ibid.

of the distance matrix, because of its greater theoretical suitability for the geometric model of the semantic space. The factor analyses to be examined in the remainder of this chapter then, are based on the Distance matrices.

2. Empirical Dimensions of Cognitive Mapping

A. Cognitive Mapping for the Filipino Sample of College Students.

Five factors were extracted and rotated orthogonally for the Filipino group of students. The rotated factor structure for those students can be seen in Table V. Generally the resultant factor structure was fused, and not differentiated, in the sense that Factor I accounted for nearly half (43.5 per cent) of the common factor variance, and Factors IV and V accounted for only 7.2 per cent and 2.6 per cent of the common variance respectively.

Factor I constitutes what might be termed a political morality or political abstraction factor. Highest loading concepts are Peace[3] (.90), Freedom (.90), and Democracy (.88), terms which generally have an evaluative characterization. Other concepts which are highly loaded on this factor, however, suggest a dimension of political order or social control, to be found within the political morality factor. These concepts include Family (.85), Bargaining (.81), Nation (.76), Government (.76), Law (.75), President (.75), Philippines (.72), and Soldier (.57). The concepts Family, Nation, Government, Law and

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[3]Here, and throughout the dissertation, concepts and adjective pairs presented to Filipino students in Tagalog are given in English in the tables and in the discussion, to avoid the confusion which would be generated by using the Tagalog words themselves.

TABLE V

ROTATED FACTOR MATRIX OF FILIPINO STUDENTS' COGNITIVE MAPPING FOR 23 TAGALOG POLITICAL CONCEPTS[abcd]

	I	II	III	IV	V	Total	h^2
Bargaining	(81)	30	10	19	14		81
Nation	(76)	53	14	08	-05		90
Society	56	(70)	20	10	08		86
Politics	30	(76)	37	15	12		84
Government	(76)	51	14	16	-09		90
Freedom	(90)	19	03	18	08		89
Family	(85)	33	02	01	05		83
Law	(75)	45	14	20	-13		85
Voting	55	72	23	13	05		89
War	-05	12	(92)	-04	-09		88
Revolution	09	21	(89)	07	07		86
Peace	(90)	23	03	11	15		90
Police	50	(73)	26	19	00		88
Election	50	(74)	26	16	01		89
Politician	29	(70)	42	24	16		83
Army	52	(60)	34	33	-08		86
President	(75)	29	12	44	-13		87
Democracy	(88)	26	07	23	-01		90
Communist	10	29	(82)	20	04		81
Colony	24	40	61	07	(51)		87
Philippines	(72)	47	18	01	16		80
America	44	36	16	(74)	09		90
Soldier	57	51	26	39	-20		85
Percent Total Variance	37.2	24.4	15.5	6.2	2.2	85.5%	
Percent Common Variance	43.5	28.6	18.1	7.2	2.6	100.0%	

[a]Factors with loadings greater than .60 are in parentheses, with the exception of Factor V. Decimal points have been eliminated and the numbers rounded.

[b]Factor analysis of these concepts utilized the Mesa 1 Program of the University of Chicago which employs the principle axes solution. Unities were used in the diagonal of the distance matrix factor analyzed.

[c]Only factors with eigenvalues of .5 or greater were rotated in the initial analysis. Subsequently an additional factor was rotated with an eigenvalue of .399.

[d]See Appendix C for unrotated factor structure.

Soldier, especially support the notion of the social order dimension, as do the lower, but significant loadings of such concepts as Society (.56), Army (.52), and Police (.50).

The second factor accounts for 28.6 per cent of the common factor variance, and suggests a political action dimension of cognitive mapping. Highest loading concepts can be seen in Table V to include Politics (.76), Election (.74), Police (.73), Voting (.72), Society (.70), Politician (.70), and Army).60), most of which seem relevant to a political action and participation dimension. The interrelation of the concepts Police and Army with the factor is quite logical in terms of what is known about Philippine political life. Elections are traditionally characterized by considerable violence in the Philippines, and the Philippine Constabulary (national police), local police, and army are often used to control violence in the elections, and sometimes used to foment violence against out-of-power factions. The loading of the concept Society (.70) implies an element of social order quality to the factor, and this implication, as we shall see later, is reinforced by other high loadings: Nation (.53), Government (.51), Soldier (.51), Philippines (.47), and Law (.45).

Factor III accounts for 18.1 per cent of the common factor variance, and is strongly suggestive of a political violence dimension of cognitive mapping. Loading highest on this factor are the concepts Was (.92), Revolution (.89), Communist (.82), Colony (.61), Politician (.42), and Politics (.37). The associative bonds between processes of violence (War and Revolution), processes by which authority

structures are violently changed in a political system, and actors through which such changes may come about (communist, politician) seems an evident one in this factor. The moral aspect of judgment--War, Revolution and Communist are the evaluative opposites of Peace, Freedom and Democracy--implies that the dimension is one of illegitimate political action. This might also explain the loading of Colony on the Factor, since Spanish and American colonization of the Philippines was characterized by considerable violence, and since the Colony concept is antithetical to the notion of a free, dynamic political life.

Factor IV of the Tagalog concept factor structure accounts for 7.2 per cent of the common factor variance, and may be characterized as a power factor, or instruments of political order factor. Highest loading concepts on the factor are America (.74), President (.44), Soldier (.39), Army (.33), and Politician (.24). Such loadings might be considered indicative of a political actor factor, since each of the concepts loading on it refers to aggregate, institutional and individual political actors. This idea can be rejected, however, when we note that such actors as Family and Philippines are not significantly loaded on the factor. What this may connote is a relationship in the minds of these students between America and other instruments of power--a power factor--which is logical in terms of the aggressive American political role in Asia and in the Philippines.

The fifth Tagalog concept factor accounts for only a small portion of the common factor variance, 2.6 per cent, and is difficult to interpret. The only significant loading on the factor is the concept Colony (.51). Of interest here is the lack of association by the

Filipino students of Philippines and Colony--an association readily made by American students, as we shall see in the next section.

Discussion

These resulting factors indicate that the Tagalog speaking college students define political phenomena (concepts) into four, and possibly five major categories: a political order factor, a political morality or political abstraction factor, a political violence or illegitimacy factor, and a political power factor. A graphic illustration of these five cognitive mapping factors is shown in Figure 1. The significance of these dimensions, as the major dimensions of the cognitive mapping of the political culture which the students represent, seems strong. But how consistent are the patterns of cognitive mapping cross-culturally? Let us next examine the dimensions of cognitive mapping for the English speaking American college students, to see whether similar dimensions emerge.

B. Cognitive Mapping for the American Sample of College Students

Five factors were extracted and rotated orthogonally for the American sample of college students. This rotated factor structure is presented in Table VI. The English factor structure for concepts, as can be seen in that table, is somewhat more differentiated than that which was found for the Tagalog students. Here the largest factor accounts for only 37.4 per cent of the common variance, and the smallest factors, Factors IV and V are considerably larger than the two smallest factors of the Tagalog concept factor structure.

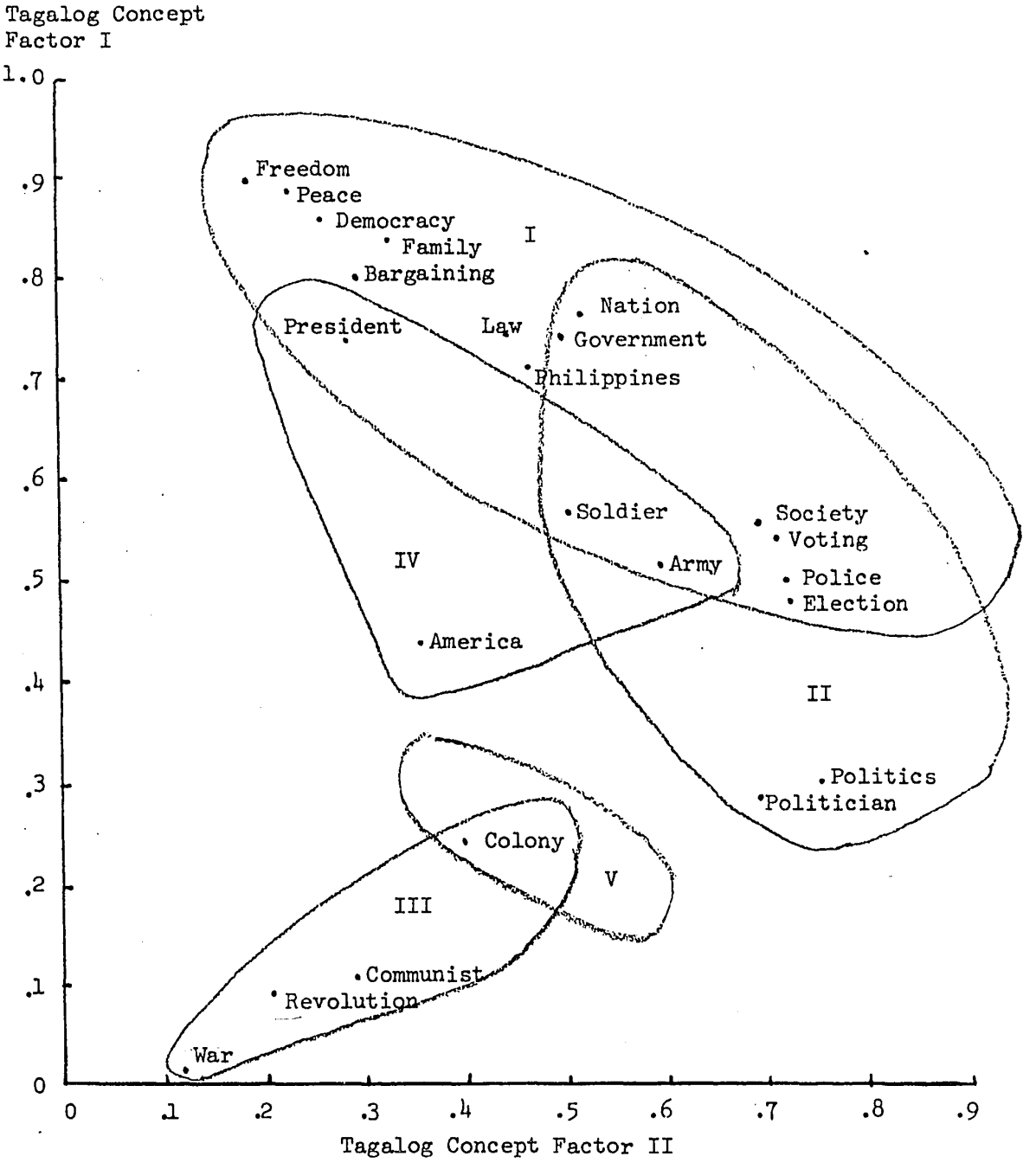

Figure 1. Mapping for Tagalog Political concept factors I, II, III, IV, and V, on the coordinates of Factors I and II. Isoplanes delineate factors on the basis of loadings over .5, or the set of concepts needed to define 50% of the sum of squares of a factor, whichever is greater.

TABLE VI

ROTATED FACTOR MATRIX OF AMERICAN STUDENTS' COGNITIVE MAPPING FOR 23 ENGLISH POLITICAL CONCEPTS [abcde]

	I	II	III	IV	V	h^2
Bargaining	(60)	25	41	45	-08	80
Nation	(68)	48	31	11	-27	86
Society	(81)	20	32	20	-08	85
Politics	56	19	(67)	20	-08	84
Government	(80)	34	26	15	-08	85
Freedom	34	(83)	15	18	-11	87
Family	(64)	47	-02	17	-26	72
Law	(74)	44	09	08	-10	77
Voting	(69)	49	22	17	-22	84
War	12	-04	(87)	09	-00	78
Revolution	14	22	(77)	31	-21	80
Peace	27	(77)	03	38	05	81
Police	(71)	28	25	23	-43	88
Election	(66)	46	31	15	-21	82
Politician	58	17	(61)	27	-17	85
Army	(63)	22	34	14	-49	83
President	(68)	50	18	16	-19	80
Democracy	47	(77)	10	05	-22	87
Communist	25	12	(67)	26	-43	78
Colony	14	14	36	(82)	-09	85
Philippines	29	35	39	(65)	-25	84
America	53	(60)	18	-09	-36	82
Soldier	44	25	36	27	(-64)	86
Common Variance	37.4	22.3	20.6	11.0	8.7	100.0
Total Variance	30.8	18.4	17.0	9.1	7.2	82.5

[a]Factor loadings higher than .60 are in parentheses.

[b]Only factors with eigenvalues of .500+ were extracted and rotated for the above solution.

[c]Decimal points have been eliminated in the above matrix and the factor loadings have been rounded.

[d]This factor analysis utilized the Mesa 1 Factor Analysis Program of the University of Chicago Computing Center. Unities are utilized in the diagonal of the correlation matrix which is factor analyzed.

[e]See Appendix C for unrotated factor matrix.

Factor I of the American college students cognitive mapping, accounting for 37.4 per cent of the common variance, suggests a dimension of political and social control and order maintenance. Loading highest on the factor are the concepts Society (.81), Government (.80), Law (.74), and Police (.71), all of which reflect the order maintenance aspect of the factor. Other concepts loaded on the factor imply a mixture of political participation and order maintenance: Voting (.69), President (.68), Nation (.68), Election (.66), Family (.64), Army (.63), and Bargainint (.60). Family, Army, President and Nation are, like Government, Society, Law and Police, concepts indicative of a social order dimension. Voting and Election are more subtly related to the social order dimension, since they represent mechanisms for change in the political system, but they indicate mechanisms for orderly or "legitimate" change. Bargaining too is relevant to the order dimension, especially when we think of the relevance of this concept to the "consensus" orientation characteristic of American politics in the 1960's.

The second factor accounts for 22.3 per cent of the common variance, and is similar to the political abstraction or morality factor of the Tagalog students' cognitive mapping. Highest loading concepts are Freedom (.83), Democracy (.77), Peace (.77), and America (.60). Other high loadings are President (.50), Voting (.49), Nation (.48), Family (.47), Election (.46), and Law (.44), and it seems, that for the sample of students studied, these concepts are highly interrelated with political morality.

The third factor, which accounts for 20.6 per cent of the common variance, seems to be a political violence or illegitimacy factor. Highest loading concepts on the factor are War (.87), Revolution (.77), Politics (.67), Communist (.67), and Politician (.61). One might not expect Politics and Politician to load on a political violence factor in the cognitive mapping of American college students, but it is possible. Nor would we expect Communist to be only slightly more correlated with a political illegitimacy factor than Politician, and less so than Politics. This suggests the possibility of a sub-dimension of Political activity within what seems to be a political violence factor.

The fourth factor accounts for 11.0 per cent of the common variance, and has the concepts Colony (.82), and Philippines (.65), loaded on it. The meaning of the factor is relatively unclear, but less so than the corresponding factor in Tagalog. Here Colony and Philippines are mapped together, whereas the Filipino students mapped them separately. Probably the factor is a political impotence factor, a political unfamiliarity factor, or a factor of relevance to mapping of the realm of international relations, for which there were no other concepts included in the study which might have helped to define the factor.

Factor V accounts for 8.7 per cent of the common variance, and may be labeled an instruments of order maintenance factor or a political power factor. Highest loading concepts on the factor are Soldier (-.64), Army (-.49), Communist (-.43), Police (-.43), and

America (-.36), all of which are concepts which may be characterized as related to the manipulation of power.

Discussion

Examination of the American students' factor structure showed considerable similarity to the concept factor structure of the Filipino college students. Five common factors emerged: a political order factor, a political morality or abstraction factor, a political violence or illegitimacy factor, a political power factor, and a fifth factor of indeterminate character (that loaded only with the concepts Colony and Philippines). All five of these factors are graphically illustrated in Figure 2.

These cognitive mapping factors seemed very similar to those which emerged for the Filipino college students. To see whether or not the cognitive mapping factors were truly similar cross-culturally, a statistical, rather than an impressionistic technique of factor comparison was utilized. Two questions seemed relevant for this analysis. First, could a better understanding of the factors' meaning be derived from a comparative analysis? Second, could it be said that similar dimensions of cognitive mapping existed in the two samples representing the two distinct political cultures?

3. Factor comparison of Filipino and American College Students' Cognitive Mapping Factor Structures

The factor comparison technique utilized in this study is a technique devised by Ahmavaara.[4] The factor comparison is done by

[4]Ahmavaara, Y., 1954, "The Mathematical Theory of Factorial Invariance Under Selection," Psychometrica 19: 27-38; Ahmavaara, Y. and Markkanen, T., The Unified Factor Model, The Finish Foundation for Alcohol Studies, 1958.

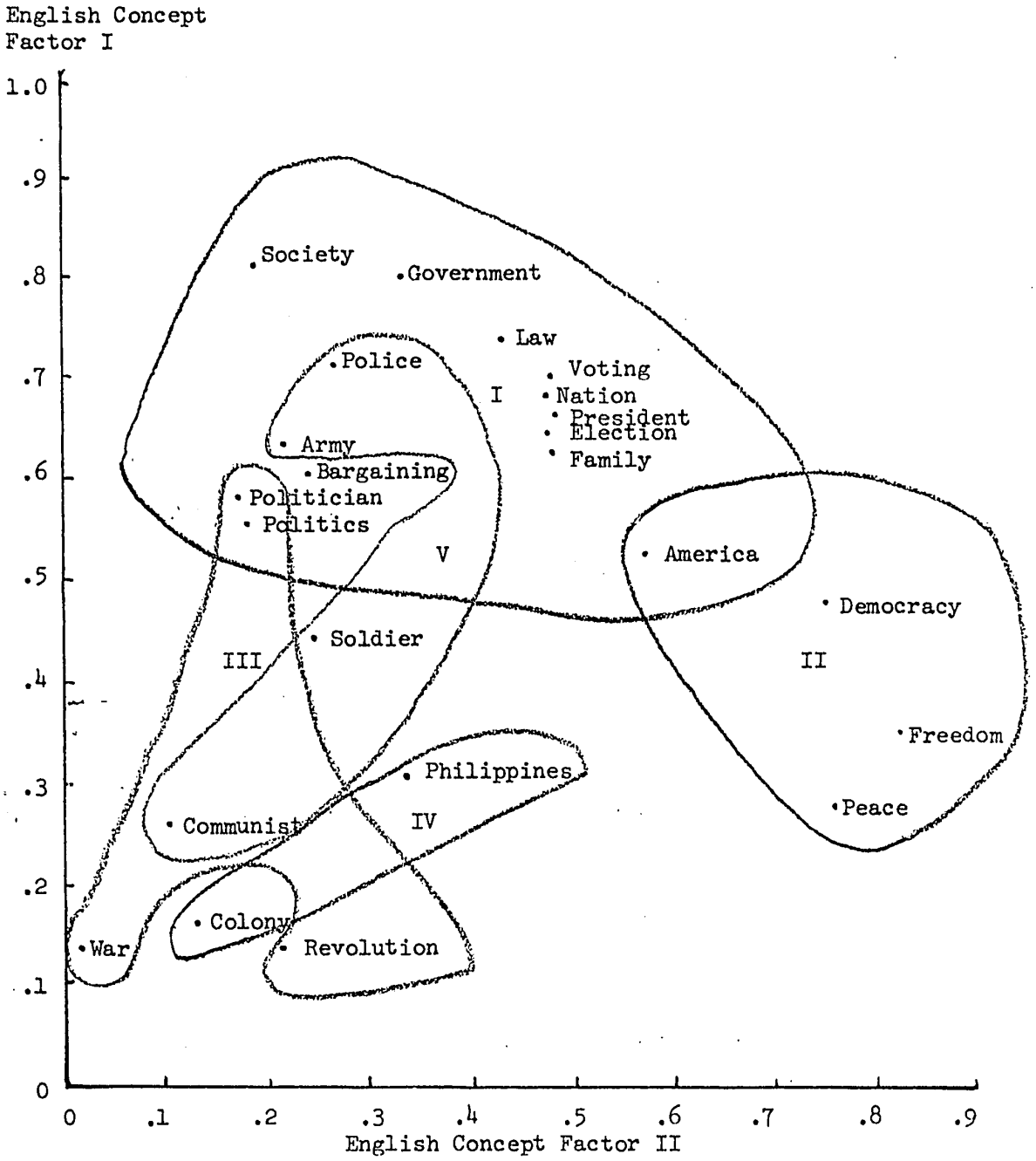

Figure 2. Cognitive mapping of English political concept Factors I, II, III, IV, and V, on the coordinates of factors I and II. Isoplanes delineate factors on the basis of loadings over .5, or the set of concepts needed to define 50% of the sum of squares of a factor, whichever is greater.

rotating the factor structure of one study through the factor structure of another study, by means of a technique which Ahmavaara calls transformation analysis. In this technique

> . . . a transformation matrix is determined that will rotate the factors of one study into the space of another, i.e., that will define the maximum congruence between the two sets of factors. The elements of this transformation matrix normalized measure the relationship between the factors of both studies in the same space. This approach is the same as target rotation. . . . In this case, however, rather than the target being a hypothetical matrix it is composed of the factors of the study against which the findings are to be compared.[5]

The resultant transformation matrix or comparison matrix indicates the degree of invariance between each factor in the rotated study and each factor in the target study, and at the same time a total index of congruity can be derived which indicates the degree of similarity between the two whole factor structures.

In actuality, the factor comparison matrix is the matrix which--through its coefficients acting as regression coefficients--allows the best least squares fit for a rotation (by regression) of one factor structure into the space of another. This regression results in a Check matrix, which is the best fit of the rotation factor structure to the target factor structure, and which then becomes the object of comparison with the target study. Correlation of the components of the Check matrix with the components of the target matrix indicates the over-all degree of congruity between the two factor structures.

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[5]R. J. Rummel. Applied Factor Analysis. Manuscript in preparation, Chapter 17, p. 18, draft of May, 1968, University of Hawaii, Honolulu, Hawaii.

Because the transformation analysis technique of factor comparison is based upon a regression model, there will be variations in results, depending upon whether study A is rotated into the space of study B, or study B is rotated into the space of study A, much as is the case in regression of a pair of variables one on the other, and vice-versa. Little or nothing is said about this problem in the literature dealing with and utilizing transformation analysis, and in fact many studies arbitrarily choose one or the other factor structures to be the target study without consideration of the alternate comparison model, or without an explanation of the criteria used for selection of the target study.

For simplicity, it was decided to present only one factor comparison matrix here, but to do so with some consideration of variations reflected in the alternate factor comparison. The comparison matrix to be examined in this section is that matrix derived from the rotation of the Tagalog (Filipino students') cognitive mapping factor structure into the space of the English (American students') cognitive mapping factor structure.

Making the American students' cognitive mapping factor structure the basis of comparison seemed to have two justifiable advantages: (1) the greater body of research with the semantic differential has been undertaken in English; and (2) rotation of the

Tagalog structure into that which was the researcher's native language seemed to suggest more soundly based comparisons.[6]

Table VII is the comparison matrix to be examined, the coefficients of the matrix indicating the similarity of each pair of factors, and a summary correlation between the check matrix and the English factor structure indicating the over-all congruity of American and Filipino students' cognitive mapping factor structures.

As can be seen in Table VII, the total factor comparison matrix indicates considerable similarity between the cognitive mapping dimensions of the American and Filipino students, a high correlation ($r = .86$) being found between the check matrix and the American students' factor structure.[7] Among the specific factors compared, however, there was considerable variation in content, loading order of concepts, and proportions of common variance accounted for.

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[6]The factor comparison matrix rotating the English cognitive mapping structure into that of the Tagalog Cognitive mapping is presented in Appendix F. Examination of the two factor comparison matrices indicates insignificant differences. Correlation of the components of the two comparison matrices indicated a high degree of congruity (Spearman Rank-Order correlation = .86), with most of the differences found being exhibited in peripheral coordinates of the matrices (those where invariance coefficients were low). Little variability was evident between the alternate comparisons for larger factors (i, II, and III in both studies), but greater amounts of variability was evident in the alternate comparisons of smaller factors (IV and V in both studies).

[7]The Correlation between the Check matrix and the Tagalog factor structure, for the opposite factor comparison, was even higher, $r = .90$.

TABLE VII

FACTOR COMPARISON MATRIX FOR ENGLISH (AMERICAN) AND TAGALOG (FILIPINO) COGNITIVE MAPPING FACTOR STRUCTURES.[a] FACTOR COMPARISON IS THE ROTATION OF THE FILIPINO FACTOR STRUCTURE INTO THE SPACE OF THE AMERICAN FACTOR STRUCTURE. NUMBERS HAVE BEEN ROUNDED AND DECIMAL POINTS HAVE BEEN OMITTED

		English Factors				
		I	II	III	IV	V
TAGALOG FACTORS	I	46	87	07	18	08
	II	92	-22	24	08	22
	III	-00	13	96	16	18
	IV	39	44	-03	-42	69
	V	-34	-20	-09	89	-19

[a]Intraclass correlation between Check Matrix and the American study is .85; product moment correlation between check matrix and the American study is .86.

As can be seen in Table VIII, English concept Factor I, and Tagalog concept Factor II are very similar, the coefficient of invariance being .92. Previously, English concept Factor I had been characterized as a social order and control factor, while Tagalog concept Factor II had been characterized more as a political action or participation factor. Examination of the loading order of concepts given in Table VIII reveals that these characterizations reflect different emphases, in what are essentially identical factors. As can be seen in the table, nine of the twelve highest loading concepts are the same for both factors. Other concepts not found in both factors, for example the English concept Bargaining and the Tagalog concept Politics, share similar meanings.

TABLE VIII

ENGLISH CONCEPT FACTOR I, AND TAGALOG CONCEPT FACTOR II: TWELVE CONCEPTS WITH THE HIGHEST LOADINGS, RANKED BY LOADINGS. COEFFICIENT OF INVARIANCE = .92. CONCEPTS FOUND ON BOTH FACTORS ARE CONNECTED BY SOLID LINE

	English Concept Factor I		Tagalog Concept Factor II	
common variance	37.4%		28.6%	
	Society	.81	Politics	.76
	Government	.80	Election	.74
	Law	.74	Police	.73
	Police	.71	Voting	.72
	Voting	.69	Society	.70
	Nation	.68	Politician	.70
	President	.68	Army	.60
	Election	.66	Nation	.53
	Family	.64	Government	.51
	Army	.63	Soldier	.51
	Bargaining	.60	Philippines	.47
	Politician	.58	Law	.45

The foci of the two factors differ considerably, however, as can be seen in the table. The English concept Factor I may be termed a social or political order factor, in which political participation concepts are subordinate to the social order function of the factor. The Tagalog factor, on the other hand, seems to be a political action and participation factor, within which social order concepts play a smaller subordinate role. This distinction, in and of itself suggests corresponding emphases of orientation for the respective political cultures--an order-maintenance orientation for the American college students' political culture, and a political activism orientation for the Filipino college students' political culture. This generalization,

of course, would have more meaning as applied to the American college students, since the English concept factor I is more significant in accounting for common variance than is the compared Tagalog factor.

In Table IX, are presented English concept factor II, and the Tagalog concept factor I, which are also very similar (coefficient of invariance = .87). Both factors were previously characterized as representing dimensions of political morality or evaluation, since the three purest loadings on the factor--Freedom, Peace and Democracy, are typically attributed such equalities. The abstract nature of these concepts--they have no concrete referents--suggests, too, that the two factors are myth oriented, in the sense of myth suggested by Lasswell and Kaplan:

> The political myth is the pattern of the basic political symbols current in a society.
>
> The basic symbols are those having a bearing on the social structure, not merely on some one particular power relationship or practice. . . . The political myth comprises (the) "fundamental assumptions" about political affairs. It consists of the symbols invoked not only to explain, but also to justify specific power practices.[8]

Patterns of concept loadings reaffirm the "myth" relatedness of these two factors. For the two political systems from which the college students were taken, values or referents of "peace," "freedom," and "democracy" are incessantly used to "justify specific power practices." Similarly, the remaining concepts have an evident bearing

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[8]Harold D. Lasswell and Abraham Kaplan, Power and Society, 1950, pp. 116-117.

TABLE IX

ENGLISH CONCEPT FACTOR II AND TAGALOG CONCEPT FACTOR I: TEN CONCEPTS WITH THE HIGHEST LOADINGS RANKED BY SIZE OF FACTOR LOADINGS. COEFFICIENT OF INVARIANCE = .87. CONCEPTS FOUND ON BOTH FACTORS ARE CONNECTED BY SOLID LINES. DOTTED LINE CONNECTS SIMILAR CONCEPTS.

	English Concept Factor II		Tagalog Concept Factor I	
common variance	22.3%		43.5%	
	Freedom	.83	Freedom	.90
	Peace	.77	Peace	.90
	Democracy	.77	Democracy	.88
	America	.60	Family	.85
	President	.50	Bargaining	.81
	Voting	.49	Nation	.76
	Nation	.48	Government	.76
	Family	.47	Law	.75
	Election	.46	President	.75
	Law	.44	Philippines	.72

upon the social order. President, Nation, Family and Law, are all concepts of relevance to the social order found between the fourth and tenth highest loadings on both factors. Philippines and America are loaded respectively on the Filipino and American concept factors, which indicates some role for nationalism in the political myth factor. Bargaining and Government complete the list of highest loadings for the Tagalog factor, loadings which strengthen the social order character of the myth factor. This is especially clear in terms of the importance of bargaining to Filipino culture and social life. For the English factor, Voting and Election complete the list of ten highest loadings,

in a position similar to that occupied by these concepts in the English social order factor. There, Voting and Election were subordinate to the social order emphasis of that factor. Here Voting and Election are again secondary, holding low positions on the myth factor.

English concept Factor III and Tagalog Concept Factor III are the most similar of the five factors, with an invariance coefficient of .96. Such invariance is high enough to suggest virtual identicality of the factors.

TABLE X

ENGLISH CONCEPT FACTOR III AND TAGALOG CONCEPT FACTOR III: FIVE CONCEPTS WITH HIGHEST LOADINGS RANKED BY SIZE OF FACTOR LOADINGS. COEFFICIENT OF INVARIANCE = .96. CONCEPTS FOUND ON BOTH FACTORS ARE CONNECTED BY SOLID LINES.

	English Concept Factor III		Tagalog Concept Factor III	
common variance	20.6%		18.1%	
	War	.87	War	.92
	Revolution	.77	Revolution	.89
	Politics	.67	Communist	.82
	Communist	.67	Colony	.61
	Politician	.61	Politician	.42

Of the five concepts loading highest on the respective factors, four are common to both the American and Filipino factors: War, Revolution, Communist and Politician. These comparisons give further support to

the validity of the political violence or activity label previously suggested for these factors, and suggest that the dimension reflected in the two structures is one which is clearly found to exist cross-culturally.

English concept Factor V, and Tagalog concept Factor IV compare less clearly than the previous sets of factors, with a coefficient of invariance of .69, yet the common character of the factors is easily seen by examining the distribution of factor loadings. Of the five highest loading concepts, three concepts are common to both the English and Tagalog factors: Soldier, Army, and America. The remaining concepts, communist and Police for the English factor, and President and Politician for the Tagalog factor, supplement the three commonly loaded concepts in suggesting a focus of the factors' meaning--that of Power--indicating a political power factor.

TABLE XI

ENGLISH CONCEPT FACTOR V AND TAGALOG CONCEPT FACTOR IV: FIVE CONCEPTS WITH HIGHEST LOADINGS RANKED BY SIZE OF LOADINGS. COEFFICIENT OF INVARIANCE = .69. CONCEPTS FOUND ON BOTH FACTORS ARE CONNECTED BY SOLID LINES.

	English Concept Factor V		Tagalog Concept Factor IV	
common variance	8.7%		7.2%	
	Soldier	-.64	America	.74
	Army	-.49	President	.44
	Communist	-.43	Soldier	.39
	Police	-.43	Army	.33
	America	-.36	Politician	.24

This power aspect of the two factors is diluted somewhat by other characteristics shared by the higher loading concepts. By and large, each of the concepts loaded on these factors can be characterized as a political actor: the nation actor (America), the institutional actors (Police and Army), and the individual actors (Soldier, Communist, President and Politician). One could justifiably, then, term these factors actor factors, or at least hypothesize that this is their essential meaning. Important actors, such as Nation, Family, Society, Government, and Philippines, however, are not loaded on either factor. This consideration, along with the consideration of the loadings of concepts (especially America, Army, and Soldier) lends greater weight to the hypothesis that the factor represents a power dimension of cognitive mapping.

English concept Factor IV and Tagalog Concept Factor V have an invariance coefficient of .89, suggesting a reasonably high cross-cultural comparability. Both factors, as can be seen in Table XII, focus on the concept colony.

TABLE XII

ENGLISH CONCEPT FACTOR IV AND TAGALOG CONCEPT FACTOR V: TWO CONCEPTS WITH HIGHEST LOADINGS RANKED BY SIZE OF LOADINGS. COEFFICIENT OF INVARIANCE = .89. CONCEPTS FOUND ON BOTH FACTORS CONNECTED BY SOLID LINES

	English Concept Factor IV		Tagalog Concept Factor V	
common variance	11.2%		2.6%	
	Colony	.82	Colony	.51
	Philippines	.65	Soldier	-.20

The high degree of invariance suggests meaningful cross-cultural stability and comparability, as does the relatively important amount of variance accounted for the English factor, but further interpretation is difficult. If the factor is an important one, its significance probably lies in one of several areas of symbols not adequately represented in the sample of concepts included in this study--in the realm of international or other power relations.

4. Differentiation and Non-differentiation in Cognitive Mapping

It was noted previously that the factor structure representing the cognitive mapping of the American college students was more differentiated than that found for Filipino college students.[9] To see exactly how much more differentiation characterized the cognitive mapping of the American students, an F-ratio was computed between the variances of the variances of the factors of the two factor structures.[10] Differentiation of the factor structures was for this purpose defined as the variance of the common factor variances of the factors of the factor structures--the variation of the total factor structure from an hypothetical, ideally differentiated factor structure in which each factor accounts for an equal share of the common variance. The extent to which the English concept factor structure is more differentiated than the Tagalog concept factor structure is given by the

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[9]An excellent examination of differentiation and related cognitive processes is to be found in Harold M. Schroder, et al., Human Information Processing (New York, 1967).

[10]Two notions of variance are involved here, the first indicating the degree of variability in the size of factors, the second indicating the size of factors as the proportion of common factor variance accounted for.

F-ratio, the ratio of the variance of the variances of the factors of the Tagalog concept factor structure to the variance of the variances of the factors of the English concept factor structure.

As can be seen in Table XIII, the cognitive mapping factor structure of the American student sample is much closer to the ideally differentiated factor structure than is that of the Filipino student sample. In the Filipino students' factor structure variances range from 2.6 to 43.5 per cent, while in the American students' factor structure, variances range less, from 8.7 to 37.4 per cent. In this case, F = 2.12, indicating that the Tagalog concept factor structure is roughly twice as fused as the English.[11] This, of course, seemed strong support for the original hypothesis of greater differentiation among stimuli by the American sample of college students, an empirical finding which indicates that the functional specificity of political structures in a polity is reflected in the manner in which individuals perceive and interrelate signs referring to such structures in their cognitive mapping.

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[11]No test of significance was applied to this F ratio as is the usual procedure, since the five factors extracted for each sample of students comprise the population of significant factors for the respective factor structures, and not a sample.

TABLE XIII

DIFFERENTIATION OF COGNITIVE MAPPING FACTOR STRUCTURES FOR AMERICAN AND FILIPINO COLLEGE STUDENTS. F IS THE RATIO OF THE VARIANCE (OR VARIABILITY) OF THE COMMON FACTOR VARIANCES OF THE FACTORS OF THE TAGALOG FACTOR STRUCTURE, TO THE VARIANCE (OR VARIABILITY) OF THE COMMON FACTOR VARIANCES OF THE ENGLISH FACTOR STRUCTURE

F = 2.12

	Common Factor Variances						Sum of Squares of Factors' Variances	Statistical Variance of Factor Structure
	I	II	III	IV	V	Total		
Ideally Differentiated Factor Structure	20.0%	20.0	20.0	20.0	20.0	100.0	0.0	0.0
Filipino Concept Factor Structure	43.5	28.6	18.1	7.2	2.6	100.0	1096.4	274.1
American Concept Factor Structure	37.4	22.3	20.6	11.0	8.7	100.0	517.1	129.3

5. Conclusion

In this chapter, factor analysis and factor comparison have illustrated that at least four general factors emerge in the cognitive mapping of both American and Filipino college students:

(a) a political morality or myth factor;

(b) a political and social order factor;

(c) a political violence or illegitimacy factor;

(d) a political power factor.

Factor comparison suggested considerable and significant cross-cultural stability of these factors, in that rotation of the Filipino factor structure through the space of the American factor structure resulted in a high ($r = .87$) index of similarity. This similarity may be a reflection of the similar nature of the political systems from which the two samples were drawn. It is evident to most students of Philippine politics, for example, that the formal political structures of the United States and the Philippines are very similar, and few would deny the significant impact of the American colonial impression, in further differentiating the Filipino style of politics from those political styles found in other Asian nations. In any case, the findings have numerous implications for larger-type studies of political culture which would deal with cognitive mapping.

Logic and intuition tell us that the coefficient of invariance would probably vary considerably more in comparing cognitive mapping dimensions for other, more different political cultures--for example, those of the United States, the Soviet Union, and Nigeria--or even among sub-cultural units within national areas. Invariance between

cognitive mapping of the American and Canadian political cultures would likely be higher, for example, than invariance between American and Filipino cognitive mapping, and invariance between American and Congolese cognitive mapping would probably be far less significant than that found between the cognitive mapping dimensions of Americans and Filipinos. What is involved here is the basic notion that the psycholinguistic model of political culture allows the empirical comparison of many nations' political cultures within the context of the semantic space. This can be done for cognitive mapping, by taking the invariance coefficients of each pair of nations or localities included in a stury, treating them as correlation coefficients, and factor analyzing the total matrix. The resulting factor matrix would delineate the underlying clusters of nations sharing common political cultures along the cognitive mapping function.

It could be hypothesized for example that three major political culture clusters would be found to define the major variations in cognitive mapping among national political cultures; a European-American political culture; A Socialist-Communist bloc political culture; and an "underdeveloped world" political culture. Impressionistic efforts at identifying such "supra-national" political cultures have, of course, been made by many scholars, but empirical techniques of factor analysis provide underlying dimensions of meaning and similarity which often elude the impressionistic observer. A good example of this is Rummel's work with conflict behavior of nations. In his research, he uses factor analysis to define clusters of nations

as exhibiting similar conflict behavior, which no impressionistic observer would place together, for example, the United States and Turkey. A similar example of how logical and empirical clusterings may differ has been evident throughout this chapter, that difference being that logical/theoretical systems of cognitive mapping, such as structural-functionalism, differ considerably from the empirical systems of cognitive mapping manifested by the students of the two samples investigated here.

The high degree of invariance found between the cognitive maps of the two samples of college students is not, however, the only basis upon which cognitive mapping may be compared cross-culturally. As was noted in the previous section, for example, the cognitive mapping of the American students was more than twice as differentiated as that of the Filipino students. Other differences in relations among concepts in the respective factor structures have, of course, been evident to the reader. The totality of these differences can be discerned in the two matrices of distances among concepts, but consideration of such large matrices detracts from the parsimony of the model. Beyond comparison of the invariance of total factor structures, what other dimensions of comparison are pertinent to the political culture model?

One facet of comparison not immediately relevant to the two cases given here is the number of factors which describe the cognitive mapping of a political culture. With a large enough sampling of concepts and political cultures, it seems likely that different political cultures would be found to vary considerably as to the number of cognitive mapping dimensions needed to describe the cognitive mapping of

individuals in different political cultures. It seems likely that in some nations, one or two major dimensions would describe the cognitive mapping function, while in others many (perhaps more than the number found here) would emerge as significant. The number of factors emerging, is also related in meaning to the "differentiation" of cognitive mapping structures which was previously discussed. In the case of the one or two-factor cognitive mapping structure and the five or six-factor cognitive mapping structure, the cognitive mapping structure with the larger number of factors would be considered more differentiated. Where the number of rotated factors is identical, the factor structure having the smaller variability of variances across factors is considered more differentiated, as in section 4 of this chapter.

Relative size of factors which are otherwise comparable may determine to a great extent the meaning of a political culture's system of cognitive mapping, and the manner and extent to which two political cultures differ. This comparison is possible and useful primarily because the transformation analysis technique of factor comparison is pattern, and not magnitude oriented. This can be seen clearly in Table XIV, where the magnitudes of compared factors are expressed in terms of the proportion of common variance accounted for by each.

As can be seen in Table XIV, the compared factors vary in magnitude similarity (Rank-order correlation of magnitudes of compared factors = .80). Two of the compared factors, the political violence/illegitimacy factors and the political power factors are nearly identical in size. The other three factors all differ considerably in

TABLE XIV

COMPARED FACTORS AS TO AMOUNT OF
COMMON VARIANCE ACCOUNTED FOR

	Filipino	American
Social and Political Order Factor	28.6	37.4
Political Morality or Myth Factor	43.5	22.3
Political Violence or Illegitimacy Factor	18.1	20.6
Political Power Factor	7.2	8.7
Colony-Impotence Factor	2.2	11.2
Total	100.0%	100.0%

size. Although the meaning of this is not clear for the colony/impotence factor, several important implications for the political cultures can be drawn from the magnitude-dissimilarity of the social/political order and political morality/myth factors.

The fact that political morality (myth) and social and political order factors are respectively the largest cognitive mapping factors for Filipino and for American college students is not without meaning for the quality of cognitive mapping in the respective political cultures. This means that the primary criterion for cognitive mapping differs in the two cultures. The primary reaction of an American college student, when presented with a political stimuli, is "how does this relate to the social and political order of our society?" For the Filipino student, the primary reaction is "how does this relate to the social-political myth of our society?" Subtle differences in the <u>foci</u> of

factors mentioned in the section on factor comparison reinforce the hypothesis that considerable differences exist. In the two social/political order factors, for example, it was clear that the Filipino factor was focused primarily on order through participation and interaction (Politics, Election, Police, Voting), while for the American sample, the factor was focused on social and political order through authority and control (Society, Government, Law, Police).

Considerably important implications can be seen in the order of significance by which factors emerge. The general factor--that largest factor which tends to dominate the factor structure--suggests considerable differences between the political cultures in question. Cognitive mapping of the Filipino students is dominated by the political myth factor. This suggests that moralistic or myth oriented considerations are primary in delineating the cognitive mapping of Filipino college students. This is clearly not the case for American college students. The general or largest factor there is the social and political order factor; this implies that notions of order or order maintenance are primary in significance for the cognitive mapping of American college students.

While this chapter has focused upon the stimulus dimensions of political culture, the following chapter will focus primarily on the response dimensions of the model, which should assist us in further delineation of the political cultures of the students in our sample.

CHAPTER IV

COGNITIVE RESPONSE ORIENTATIONS

1. Introduction

In the previous chapter, a mapping of the stimulus aspects of the semantic differential model of political culture was examined, and empirical typologies of cognitive mapping for the political cultures of Filipino and American college students were generated by factor analysis. These typologies were interpreted as indications of the perceived underlying similarity of the objects and concepts being judged. Five such empirical dimensions of cognitive mapping were found to exist in both cultures and to be highly comparable cross-culturally. It was further suggested that a large-scale cross-cultural analysis was feasible, which would attempt to outline underlying similarities in patterns of cognitive mapping in different political systems.

In this chapter, the response dimensions of the semantic differential model of political culture will be the subject of analysis. The goal of the chapter will be to illustrate that the manner in which individuals respond to the stimuli that they are presented with is an additional and important area within which political cultures may be analyzed and compared. These response orientations are indicators of degrees and kinds of affect--the ways in which individuals in a political system tend to react and respond to political stimuli. Operationally,

the dimensions of cognitive response orientations to be examined in this chapter are derived from variations in the judgments of concepts by individuals, along the 14 adjective-pair scales presented in Chapter II. As in Chapter III, determination of the empirical dimensions of cognitive response orientations is carried out through factor analysis and factor comparison.

First, the semantic space for the Filipino and American samples will be factor analyzed along the 14 adjective-pair scales, to determine the general dimensions of cognitive response orientations. Second, factor comparison through transformation analysis will be utilized to test the proposition that cognitive response dimensions are cross-culturally comparable and invariant for our two samples. This proposition is inter-related considerably with other research on the semantic differential--to a much greater extent than was true for the corresponding proposition dealing with cognitive mapping. This is so because response orientations have been subjected to many more, and varied analyses.

As mentioned in Chapter II, several basic dimensions of response orientations have been repeatedly found by researchers working with the semantic differential. Those most commonly found and significant dimensions are evaluation, activity and potency. Most research in political science using the semantic differential has been significantly over-effected by these early findings, and characterized by a tendency to assume the importance of these three dimensions as defining the semantic space. This assumption was rejected by the researcher at the beginning of the research, as was noted in Chapter II. In constructing the

semantic scales for this project, it was felt that a cross-cultural pilot study should first be undertaken to discern in a tentative manner whether or not individuals do restrict themselves to those three dimensions of response when solely political phenomena serve as stimuli. Rather than biasing the questionnaire to elicit responses corresponding to those three dimensions, adjective pairs representing other qualities of judgment were purposely included.

Questions of particular relevance to this chapter included: (1) How are all of the political objects in this study judged in the minds of the two samples of college students? (2) What are the dimensions of cognitive response orientations of individuals toward these political objects or concepts? (3) How do these response orientations differ from those posited by the Almond-Verba-Powell model of political culture? (4) What patterns of cross cultural consistency in response orientations can be found? (5) How can an understanding of the character of the dimensions of response orientations add to our understanding of political culture? (6) How can the patterns of cross-cultural invariance in response orientations add to our understanding of political culture?

2. Empirical Dimensions of Cognitive Response Orientations

A. Cognitive Response Orientations for Filipino College Students

Six factors were extracted for the response orientations of the Filipino college student sample, and rotated orthogonally.[1] The rotated factor structure is presented in Table XV. The six factors which were extracted[2] included factors found by previous researchers, as well as some seemingly unique factors. As was the case with cognitive mapping, the resultant factor structure seemed relatively fused in that one factor accounted for a relatively high amount of common variance (54.0 per cent), and others accounted for relatively little (3.6 and .22 per cent).

Factor I of the Filipino students response orientations may be termed a political evaluation factor, and it accounts for 54.0 per cent of the common factor variance. As can be seen in the table, the most significantly loaded adjective-pair scales are Good/Bad (.80), Just/Unjust (.80), Calm/Excited (.74), Happy/Unhappy (.69), Stable/Unstable (.68), and Mature/Immature (.48), loadings which reflect the same characteristics as the evaluative factors found by Osgood and other researchers.

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[1]The correlation matrix factor analyzed was based upon the responses of each of the students judging 23 concepts by each adjective pair. Each respondent judging each concept by 14 adjective pairs was taken as one case, for a total N of (57 x 23 =) 1311. See Appendix D for correlation matrix.

[2]Factor VI, which has no high loadings and which accounts for very little of the common variance, was rotated primarily to facilitate the subsequent factor comparison of Filipino and American college students' response orientations.

TABLE XV

ROTATED FACTOR MATRIX FOR FILIPINO COLLEGE STUDENTS RESPONSE ORIENTATIONS[abc]

Adjective Pairs	I	II	III	IV	V	VI	h^2
Common/Uncommon	18	-02	(-44)	05	01	01	23
Mature/Immature	(48)	33	-39	10	04	-00	51
Near/Far	30	22	(-44)	-18	-09	-02	38
Strong/Weak	22	(58)	-17	15	05	06	45
Calm/Excited	(74)	11	-18	-03	-12	15	63
Stable/Unstable	(68)	35	-16	12	03	20	66
Just/Unjust	(80)	25	-14	06	01	-07	73
Hard/Soft	08	(63)	-02	07	01	02	41
Young/Old	00	-07	01	(-38)	-10	-00	16
Fast/Slow	16	(59)	00	-05	10	-06	39
Good/Bad	(80)	16	-18	-01	04	-16	73
Primitive/Modern	00	-06	00	-08	(-32)	-00	11
Happy/Sad	(69)	06	-27	-11	02	-02	57
Simple/Complex	(39)	12	-21	-23	-26	04	33
Item Variance 44.2%	23.9	10.7	5.7	2.2	1.6	.10	
Common Variance 100.0%	54.0	24.3	12.9	5.0	3.6	.22	

[a]Factors with eigenvalues of .100 were extracted for this solution. Significant factor loadings are in parentheses and the loadings have been rounded and decimal points excluded in the above matrix.

[b]This factor analysis solution utilized the BIMD series factor analysis program of the UCLA Biomedical Research Center. The program utilizes multiple correlation coefficients in the diagonal of the correlation matrix as the estimate of communality.

[c]See Appendix E for unrotated factor structure.

Factor II accounts for 24.3 per cent of the common variance, and represents what may be termed a political dynamism factor. This is a combination of activity and potency dimensions, which, as Osgood notes, tends to emerge when socio-political concepts are being judged.[3] Here the dynamism factor is characterized by significant loadings of the adjective-pairs Hard/Soft (.63), Fast/Slow (.59), and Strong/Weak (.58). Other high loadings, such as Stable/Unstable (.35), and Mature/Immature (.33), further reinforce the notion that this response dimension relates primarily to individuals' perception of power, strength, and durability in political stimuli.

Factor III of the Filipino students' response orientations accounts for 12.9 per cent of the common factor variance, and represents what may be termed a political familiarity factor. It is primarily characterized by the loadings of the adjective-pair scales Common/Uncommon (-.44), and Near/Far (-.44), and generally it is unlike any factors (to this researcher's knowledge) obtained in other semantic differential studies. This emergence of a familiarity factor indicates that aside from intrinsic qualities, political stimuli are also judged spatially--in terms of their nearness or farness from individuals or other phenomena, or in terms of their occurring or not occurring within the life space of the individual.

Factor IV accounts for 5.0 per cent of the common variance, and represents what may be termed an activity factor. The only significant loading is Young/Old (-.38), so without other grounds for

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[3]Osgood, op. cit., p. 74.

comparison it is difficult to further explicate the meaning of the factor.

Factor V accounts for 3.6 per cent of the common factor variance, and represents what might be termed a modernity-complexity factor. The highest loadings are Primitive/Modern (-.32), and Simple/Complex (-.26). This factor, like the familiarity factor, is very different from those factors most often found in semantic differential research. The higher loading of the adjective-pair scale Primitive/Modern suggests the possibility of a response dimension for Filipino college students which is a reflection of the concern often manifested by theorists and policy makers for "political development," that is, a response dimension in which the stimuli encountered are partially judged for their modernity of "developmental" character.

The sixth factor accounts for only .22 per cent of the common variance, and was, as was noted previously, rotated for the sake of comparison with American students' dimensions of response orientations. Higher loadings on the factor are Stable/Unstable (.20), Calm/Excited (.15), and Good/Bad (-.16). These loadings suggest a stability factor, although the loadings are small and difficult to interpret. Osgood notes that for the largely American populations on which his research was conducted, the stability factor was usually the next most significant, and regularly emergent factor, after the three major factors, although such is not the case here. That the stability factor is generally and significantly important to the response dimensions of a psycholinguistic model of political culture will be illustrated in the subsequent sections.

Discussion

Factor analysis of Filipino students' cognitive response orientations suggests that Filipino college students respond to political stimuli in five, and possibly six major ways. As represented by the six factors, these are: (1) a political evaluation response orientation; (2) a political dynamism response orientation; (3) a political familiarity response orientation; (4) a political activity response orientation; (5) a political modernity/complexity response orientation; and (6) (most tenuously) a political stability response orientation. The significance of the first few factors mentioned seems strong, since they are similar to those found by other researchers, and since they account for appreciable variance. Several of the factors, however, are small in size, or novel in content, and suggest further research. To examine the question as to how stable these response orientations are cross-culturally, and to make them relevant to a more general psycholinguistic model of political culture, let us next examine the response orientations of the American college student sample.

B. Cognitive Response Orientations for American College Students

Six Factors were also extracted and rotated orthoganally for the cognitive response orientations of the American college student sample. As with the Filipino sample, the correlation matrix factor analyzed was based upon individual judgments of the 23 political concepts along 14 adjective pair scales.[4]

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[4]Correlations were derived by taking each student judging each concept along 14 adjective pair scales as one case, for a total N of 23 X 47 = 1081. This correlation matrix is given in Appendix D.

This factor structure differed somewhat from that found for the Filipino students' response orientations. First, the factor structure was much more differentiated than that found for the Filipino sample's response orientations. The largest factor found here was considerably smaller than the largest factor for the Filipino students, accounting for only 40.3 per cent of the common factor variance. Correspondingly, the smaller factors of response orientations were considerably larger for the American sample than for the Filipino sample. Second, the American students' factor structure of response orientations differs from that of the Filipinos, in that it is much more like the response orientations which other researchers have found among American college students.

Factor I, as can be seen in Table XVI, accounts for 40.3 per cent of the common factor variance, and seems to represent a political evaluation factor similar to that found in most semantic differential research. Highest loading adjective-pairs for the factor are Good/Bad (-.78), Just/Unjust (-.73), Happy/Sad (-.66), and Mature/Immature (-.60). The most interesting aspect of the factor is its size. Usually the evaluative factor accounts for more than half of the common factor variance, but it accounts for far less than half here. The size of the factor suggests that evaluation is not as important a response as regards political phenomena as it is regarding more general phenomena, a suggestion contrary to the usual one that politics comprises an area of human affairs which is highly evaluated.

TABLE XVI

ROTATED FACTOR MATRIX FOR ENGLISH FACTOR ANALYSIS OF ADJECTIVE PAIRS FOR TOTAL STUDY[abc]

Adjective Pairs		I	II	III	IV	V	VI	h^2
Common/Uncommon		02	05	(56)	-00	07	-02	32
Mature/Immature		(-60)	30	29	-02	01	-12	56
Near/Far		-21	05	(55)	05	07	-06	36
Strong/Weak		-35	31	(42)	11	28	-22	54
Calm/Excited		-31	(60)	01	05	-07	08	48
Stable/Unstable		-40	(63)	22	11	03	-05	62
Just/Unjust		(-73)	27	04	16	-01	-04	63
Hard/Soft		10	-01	09	00	(45)	-11	23
Young/Old		-09	04	-03	(48)	01	00	24
Fast/Slow		05	-04	19	(37)	30	-03	28
Good/Bad		(-78)	15	09	13	-07	-08	66
Primitive/Modern		20	-19	-05	(-40)	12	25	31
Happy/Sad		(-66)	16	03	07	-19	04	51
Simple/Complex		03	02	-05	-04	-10	(42)	20
Total Variance	42.9	17.3%	8.0	7.0	4.3	3.3	3.0	
Common Variance	100.0	40.3	18.6	16.4	10.0	7.7	7.0	

[a]Significant loadings for each factor are in parentheses. The loadings have been rounded and decimal points omitted.

[b]Factors with eigenvalues of .100 + were rotated.

[c]Factor analysis utilized BIMD series computer program of the UCLA Biomedical Research Center. Squared multiple correlation coefficients were used in the diagonal of the correlation matrix as estimates of communality. See Appendix E for unrotated factor structure.

Factor II is considerably smaller, however, than the evaluative factor. Accounting for 18.6 per cent of the common variance, Factor II suggests a political stability dimension of response orientations. Adjective-pairs which are most highly loaded on the factor are Stable/Unstable (.63), and Calm/Excited (.60). This factor is very similar to the stability factor found by Osgood and other researchers, and as will be pointed out later, it is very similar to the small political stability factor previously found among the response orientations of the Filipino college student sample.

Factor III accounts for 16.4 per cent of the common factor variance, and represents what might be called a political familiarity dimension of cognitive response orientations, similar to that found for the Filipino college students. Highest loading adjective-pair scales are Common/Uncommon (.56), Near/Far (.55), and Strong/Weak (.42). This factor, third in significance here, is, like some of those found for the Filipino students' response orientations, unlike those factors found by other researchers working with the semantic differential. Partial explanation for this may lie in either the selection of adjective-pair scales used, or in the criterion used by researchers as to the number of factors to rotate. In Osgood's thesaurus sampling of adjective pairs, for example, the adjective-pair Near/Far was utilized, but no similar adjective-pairs were included in the analysis.[5] In any case, the size of the political familiarity factor here suggests that it is an important and stable dimension of response orientation.

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[5]Osgood, et al., op. cit., pp. 52-66.

Factor IV accounts for 10.0 per cent of the common factor variance, and represents clearly the political activity dimension of response orientations. Its higher loadings, unlike the Filipino students' activity factor, seems to include all the adjective pairs related to movement, or activity: Young/Old (.48), Primitive/Modern (-.40), and Fast/Slow (.37), and represents fairly well the clear-cut activity dimension found by other researchers.

Factor V accounts for 7.7 per cent of the common factor variance, and its loadings suggest strongly the political potency dimension of response orientations found by other researchers. Three adjective pair scales are significantly loaded on the factor: Hard/Soft (.45), Fast/Slow (.30), and Strong/Weak (.28). The loading of Fast/Slow implies a political dynamism factor, but the size of the Activity factor previously noted lends strength to the suggestion that this is a separate, specifically potency oriented dimension of response orientation.

Factor VI accounts for 7.0 per cent of the common factor variance and represents what might be called a political complexity dimension of response orientation. The most significant loading on the factor is the adjective-pair Simple/Complex (.42), followed by Primitive/Modern (.25). This factor differs from that found for Filipino students, in that that factor was dominated by the adjective-pair scale Primitive/Modern, and this factor is dominated by the adjective pair scale Simple/Complex. This suggests that one dimension of response orientation is evident cross-culturally, but that the focus of the dimension shifts slightly between the two political cultures studied here. In the

American college student sample notions of simplicity/complexity dominate the factor, while in the Filipino college student sample notions of primitiveness/modernity dominate. This reinforces the previously noted hypothesis that the Filipino students' modernity/complexity dimension of response orientations is related to the problems of political development and modernization.

Discussion

Examination of the American students' response orientations showed considerable similarity to the structure of response orientations already delineated for the Filipino students. Six common factors emerged: (1) a political evaluation response orientation; (2) a political stability response orientation; (3) a political familiarity response orientation; (4) a political activity response orientation; (5) a political potency response orientation; and (6) a political complexity response orientation.

To see whether the dimensions of response orientation found for the American college student sample were truly similar to those found for the Filipino sample, the transformation analysis technique of factor comparison was again utilized. It was anticipated that this method (as was the case with cognitive mapping) would allow not only for the testing of similarities between American and Filipino students' response orientations, but also for the formulation of some general propositions about the likely character of response orientation dimensions of political culture.

3. Factor Comparison of Filipino and American College Students' Dimensions of Response Orientation

As can be seen in Table XVII, the general degree of similarity between Filipino and American students' response orientations is quite high, the total invariance of the Filipino and American factor structures being indicated by an intra-class correlation between the check matrix and the American factor structure of .94.[6] This suggests that response orientations are very similar for the two samples, much more so in fact, than was the case with cognitive mapping. The invariance of particular factors, however, varies considerably.

Filipino response orientation factor I and American response orientation factor I are both factors of political evaluation, and are invariant as indicated by a coefficient of invariance of -.79. This suggests that the political evaluation orientation is fairly consistent across the political cultures of our two samples, but other factors are also significantly invariant to the evaluation factors. The Filipino evaluation factor is related to the American stability factor

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[1]This factor comparison, as was the case for the comparison of cognitive mapping factor structures in Chapter III, was based upon the rotation of the Filipino students' factor structure through the space of the American students' factor structure. The alternate factor comparison, where the American students' response orientation factor structure is rotated through the space of the Filipino students' response orientation factor structure is given in Appendix F, Table F.2. Intra-class correlation between the check matrix and the Filipino factor structure for that comparison was .96, slightly higher than for the comparison matrix discussed in this chapter. The two alternate comparison matrices were highly similar, with very little difference appearing for major factors, and little difference in the comparison coefficients for comparable factors.

TABLE XVII

FACTOR COMPARISON MATRIX FOR ENGLISH (AMERICAN) AND TAGALOG (FILIPINO) RESPONSE ORIENTATION FACTOR STRUCTURES.[a] FACTOR COMPARISON IS THE ROTATION OF THE FILIPINO FACTOR STRUCTURE INTO THE SPACE OF THE ENGLISH FACTOR STRUCTURE. NUMBERS HAVE BEEN ROUNDED AND DECIMAL POINTS HAVE BEEN OMITTED.

		American Students' Response Orientation Factors					
		I	II	III	IV	V	VI
Filipino Students' Response Orientation Factors	I.	(-79)	45	-27	14	-25	11
	II.	20	-04	37	31	(83)	-20
	III.	07	03	(-98)	16	-02	10
	IV.	-02	01	04	(-98)	11	-15
	V.	-40	29	17	(75)	-17	(-37)
	VI.	35	(90)	07	22	-09	02

[a]The intraclass correlation between check matrix C and the American factor structure is .94. The product-moment correlation between check matrix C and the American factor structure is .94. Measures of invariance are rounded, and decimal points omitted; most significant invariance measures in parentheses.

factor II (invariance coefficient = .45), while the American evaluation factor is related to the Filipino Modernity factor, factor V (coefficient of invariance = -.40), and also to the Filipino Stability factor, factor VI (invariance coefficient = .35).

American response orientation Factor II, the stability factor is most invariant from the Filipino response orientation factor VI, the Filipino Stability factor (invariance coefficient = .90). The degree

of invariance here, justifies the previous rotation of the Filipino Stability factor, where the size of the factor alone did not. The Filipino students judge political stimuli for their stability/instability in much the same way as American students, but the factor is not large. There may be several reasons for this. Sampling error (of individuals, adjective-pair scales, and concepts) may have prevented the complete emergence of the factor, or it may simply represent a small response factor.

American response orientation Factor III, the familiarity factor, is highly related to Filipino response orientation Factor III, the Filipino Familiarity factor (invariance coefficient = -.98). This means that the familiarity response orientation is similar for American and Filipino college students.

American response orientation Factor IV, the political activity response orientation, is very similar to two of the Filipino students' response orientations. The American Activity factor is most similar to the Tagalog Activity factor, Factor IV (invariance coefficient = -.98), but it is also very similar to the Filipino political modernity response orientation, Factor IV (invariance coefficient = .75). This suggests that what constitutes an activity orientation for American college students, constitutes two related but differentiated response orientations for Filipino college students: modernity and activity.

Previously, it was suggested that the Filipino modernity factor (V) was similar to the complexity factor of the American sample. This is not indicated by the comparison matrix. The Filipino Modernity factor (V) is most clearly related to the American Activity factor (IV)

(invariance = .75), and next most clearly related to the American Evaluative factor (I) (invariance = -.40). Invariance between the Filipino Modernity factor (V), and the American Complexity factor (VI) is only -.37, which indicates little similarity of the factors, and little cross-cultural comparability.

The American response orientation Factor V, the potency factor, is highly similar to the potency or dynamism response orientation of Filipino response orientation Factor II (invariance = .83). Cross-cultural comparability is strongly indicated by the degree of invariance between the two factors, and by the lack of indicated invariance with other factors.

Discussion

These factor comparisons indicate that there is considerable similarity of response orientations of political culture among American and Filipino college students. The check matrix-factor matrix correlation of .94 indicates that patterns of response orientation are nearly identical for the two samples. For specific factors, high coefficients of invariance were found between evaluative, stability, familiarity, activity and potency dimensions of response orientation.

These comparisons show fairly well that response orientations are factorially similar for the two political cultures, but what other comparisons can be made in order to cast light on the nature of the political cultures in question? One additional way of comparing the factor structures is to examine the extent to which they are separately differentiated.

4. Differentiation and Non-Differentiation in Response Orientations of Political Culture

Previously it was noted that the factor structure of political response orientations was more differentiated for American than for Filipino college students. By this is simply meant that American students' response orientation factors are all more significant in size, that there are fewer very large or very small factors, and that as a whole the factors tend to be characterized by a more or less even distribution of variance, than is the case for the response orientation factors of the Filipino students. The proposition to be tested is that the American students' response orientation factor structure is more differentiated than that of the Filipino students, and this proposition can be tested in the same fashion as the similar proposition for cognitive mapping that was tested in Chapter III.

Differentiation of the response orientation is, for this purpose, defined as the variance of the variances of the factors of the factor structures--the variation of the total factor structure from an hypothetical, ideally differentiated factor structure in which each factor accounts for an equal share of the common variance. The extent to which the American response orientation factor structure is more differentiated than the Filipino response orientation factor structure is given by the F - ratio, the ratio of the variance of the variances of the factors of the Filipino response orientation factor structure to the variance of the variances of the factors of the American response orientation factor structure.

As can be seen in Table XVIII, the response orientation factor structure of the American sample is much closer to the ideally

TABLE XVIII

DIFFERENTIATION OF RESPONSE ORIENTATION FACTOR STRUCTURES FOR AMERICAN AND FILIPINO COLLEGE STUDENTS. F IS THE RATIO OF THE VARIANCE (OR STATISTICAL VARIABILITY) OF THE COMMON FACTOR VARIANCES OF THE FACTORS OF THE FILIPINO FACTOR STRUCTURE, TO THE VARIANCE (OR STATISTICAL VARIABILITY) OF THE COMMON FACTOR VARIANCES OF THE AMERICAN FACTOR STRUCTURE

F = 2.62

	Common Factor Variances							Sum of Squares of Factors' Variances	Statistical Variance of Factor Structure
	I	II	III	IV	V	VI	Total		
Ideally Differentiated Factor Structure	16.6%	16.6	16.6	16.6	16.6	16.6	100.0	0.0	0.0
Filipino Response Orientation Factor Structure	54.0	24.3	12.9	5.0	3.6	.2	100.0	2044.3	408.8
American Response Orientation Factor Structure	40.3	18.6	16.4	10.0	7.7	7.0	100.0	780.7	156.1

differentiated factor structure than the factor structure of the response orientations of the Filipino sample. For each set of factors from I to VI, the American students' factor is closer to the proportion of variance for the ideally differentiated factor structure, and the variation in size of factors is greater for the Filipino students. This is reflected in an F - ratio of 2.62,[7] which indicates that the American response orientation factor structure is approximately two and one-half times as differentiated as the Filipino response orientation factor structure, or conversely, that the Filipino factor structure is two and one-half times as fused as the American factor structure. The extent to which American students response orientations are more differentiated than those of Filipino students is greater than the difference in differentiation found between cognitive mapping structures in Chapter III (F = 2.12). The fact that American college students manifested more differentiated cognitive patterns in both cognitive mapping and response orientation indicates strongly that the notions of functional specificity, which theorists have interrelated with the developmental theory of contemporary comparative politics, so have empirical referents in the minds of individuals within the respective political systems.

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[7]No test of significance was applied to this F ratio, as is the usual procedure, since the six factors extracted for each sample of students comprise the population of significant factors for the respective factor structures, and not a sample.

Conclusion

This chapter of the dissertation has focused upon cognitive response orientations to socio-political stimuli. As measures of affect, a typology was generated through factor analysis of these response dimensions for both the English speaking and Tagalog speaking samples, and these typologies were compared through transformation analysis. It was pointed out that there was a similarity in the typologies and it was posited that these response dimensions were stable across the two samples.

What does an analysis of this aspect of the cognitive model further tell us about the political cultures of our two samples? First, the model enabled the generation of empirical typologies without necessitating the stipulation of categories, which may, or may not have been, within the context of the semantic space, important for the particular culture being studied. These typologies of response enabled us to gauge reactions or types of emotional involvement with political objects by the students in the two samples. These response dimensions primarily, and most significantly, included: (1) for the English speaking sample, a political evaluation response dimension, a political stability response dimension, and a political familiarity dimension; and (2) for the Tagalog speaking sample, a political evaluation dimension, a political dynamism response dimension, and a political familiarity dimension.

Second, and most important, our knowledge about these response dimensions/orientations may be useful in placing the Almond-Verba-Powell model in proper perspective. The reader will recall that in

Chapter I, several inadequacies militated against the use of this model. These inadequacies included the lack of conceptual clarity with regard to the constructs cognitive, affective and evaluative orientations.

Cognitive theorists have posited that cognitive and affective systems, as theoretical constructs, are inter-related.[8] In this dissertation we were not specifically concerned with making distinctions between these cognitive and affective systems and also viewed them as essentially interrelated processes and have chosen to deal with the construct of affective orientation. It may be, however, that cognitive mapping dimensions may give us greater insights into cognitive systems and help us to delineate and understand them. The empirical typologies generated in this particular analysis have, however, allowed us to make some clarification of the constructs affective orientation and evaluative orientation as utilized in the Almond-Verba-Powell model. By measuring kinds and degrees of emotional involvement, we have demonstrated that evaluation is only one means--although a significant and dominant one--by which individuals involve themselves with political stimuli. Evaluation is merely one kind of involvement, one type of affect. The other major ways in which individuals judge political stimuli--for potency, activity, dynamism, and familiarity among others, have already been discussed at length above. Because of these findings, although they remain tentative, a refinement and re-conceptualization of the Almond-Verba-Powell model might be in order.

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[8] Milton Rokeach, The Open and Closed Mind, New York, 1960, pp. 398-401.

If interests lie primarily in response dimensions, the semantic differential model utilized in this dissertation fulfills two important criteria: (1) it is harmonious with the goals of scientific cross-cultural inquiry--it is a parsimonious way of looking at vast quantities of individual response data--and (2) it is in harmony with contemporary theory in both the fields of psychology and psycholinguistics.

Comparatively speaking, the empirical results of this chapter has enhanced our knowledge of the political cultures of these students and has given us indicators for future research. The striking similarities presented in the invariance matrix were indications that although the political systems varied greatly, responses to political objects--affective orientations--may be generally consistent ones across national and linguistic boundaries. There is a certain beauty--perhaps in the orderliness of it all--to conceive of the idea that, although men have different habits, histories, languages, and lead totally different lives, that the manners in which they respond to political stimuli may be universal responses. This however, is a question which must be the subject of numberous research projects encompassing many language systems and cultures, allowing for consistent comparisons.

Several hypotheses can be derived from the data presented in this chapter to guide future inquiry. These are:

(1) Political objects are responded to or judged similarly across linguistic boundaries.

(2) Response dimensions to political objects include: an evaluative response orientation, dynamic response orientations,

stability response orientations, and most importantly for future testing, a familiarity response orientation.

(3) Depending upon one's choice of adjective pairs, a Familiarity factor potentially may explain more of the variation in the data than either a Dynamic or Stability factor. This may indicate a time-space relationship with the phenomenon being judged. That it emerged significantly for both the Tagalog speaking sample and the English speaking sample would tend to indicate that it was not merely a reflection of time conscious and time oriented western man. These feelings of closeness (attachment) or distance (uninvolvement) may be important in furthering our understanding of affect.

(4) Evaluation of political objects may not be as potent a phenomena as researchers in the past have assumed. This may be especially true when political phenomena are being judged. As this study has indicated, the amount of variation explained in the data by the evaluative factor was less than fifty per cent for both samples, and interestingly, less variation was explained by the Evaluative factor for the English speaking sample. This of course needs further study and testing, focusing on a broader selection of political and social concepts and certainly with a larger and more representative sample size.

This chapter has attempted to typologize types of affective response orientations. In the following chapter, the subject of the discussion will focus upon object-affect. Cognitive Salience, as the chapter is called, will attempt to outline the political objects toward

which the subjects are most and least affectively oriented. In addition, we will attempt to indicate what qualities and attributes give a political object meaning in terms of the adjective-pair scales utilized in this study.

CHAPTER V

COGNITIVE SALIENCY

1. Introduction

In the previous two chapters, cognitive mapping and cognitive response orientations of American and Filipino college students have been typologized and interpreted. The cognitive mapping section has indicated the manner in which political stimuli are divided up or clustered, while the response orientation section has indicated how responses to these political stimuli are clustered. As regards these two aspects of the psycholinguistic model of political culture, considerable comparability was found between the two student samples.

In order to more fully explicate the political culture model, the dimension of concept/object saliency also needs to be examined, and in this chapter an attempt will be made to examine the degree to which political objects (symbols) are salient--meaningful or not--for the respondents of our two samples. What is the relevance of cognitive saliency for the psycholinguistic model of political culture? How is it relevant for political behavior? How can we define cognitive saliency? Let us first turn to the task of definition.

2. Cognitive Salience/Affect

Cognitive saliency may be viewed as the quantitative aspect of the affect which is measured qualitatively in the section dealing with

cognitive response orientations. In that section, the primary focus of inquiry was on how people orient themselves toward, judge, and respond to political stimuli. Here the focus is not how, or what ways, but rather how much. Degree of involvement with political stimuli--in terms of the act of judging--should be a variable of interest to the delineation of political culture, and of particular relevance to the connection between political behavior and political systems' behavior. This becomes clearer if we consider the implications of a pattern of saliency in which the most salient political objects in a system are represented by such symbols as War, Power, Army, and/or Soldier. Saliency should be conceptualized as a measure of involvement or affect, and delineation of the patterns of saliency/affect evident in the system would tell us much about the aspects of political life which individuals see as pertinent to or actually within their life space. Saliency/affect may even mean that those concepts or objects which are more salient may be those which are used more than other symbols in the political life of the society; that they are the symbols which alone serve to be most representative of the symbol sphere of the society.

Operationally, we may define saliency/affect as the degree of meaningfulness or polarization evidenced by a sample's judgment of a concept. Statistically, the polarization of a concept is the measure of the distance between the concept and the origin of the semantic space, across adjective-pair axes, and it reflects the extent to which the concept has meaning, or is distant from meaninglessness, in the semantic space. Saliency in this respect, provides a measure of

affect or involvement which is not related solely to evaluation, as was the case with the Almond-Verba-Powell model of political culture. Rather, saliency provides a measure of the total reaction, without regard to qualitative criteria. As affect, saliency is of considerable importance to the characterization of a political culture. Where cognitive mapping told us which concepts were clustered together, cognitive salience tells us toward which objects the subjects are most emotionally involved.

How salient different political objects are is of great importance for understanding political phenomena. This is so primarily because affect represents the cognitive aspect of political participation. Cognitive involvement must precede behavioral (physical) involvement in politics and so saliency becomes of particular importance if we are to relate political culture to the political life of a society. The importance of affect/involvement is not neglected in the Almond-Verba-Powell model of political culture (as noted previously, affective orientations represent one of the three basic components of their model), but its use in their model is somewhat overladen with evaluative annotations. This is reflected in the Almond and Powell definition--that affective orientations are "feelings of attachment, involvement, rejection and the like about political objects"[1]--as well as in the usage of The Civic Culture, where definitions clearly overlap, and where "positive affective orientations

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[1]Almond and Powell, op. cit., p. 50.

are stipulated as likely to occur with positive evaluative orientations.[2]

Several questions guide the analysis of concept saliency/affect. First, can it be said that either group, American or Filipino college students, is more affectively oriented toward political objects? Second, what socio-political concepts are most or least meaningful for American and Filipino college students? Third, do we find similar concepts to be polarized in the two samples? Fourth, can anything be said about the perceived attributes in terms of the adjective-pair scales, which characterize objects that are polarized? And finally, are patterns of polarization derivation cross-culturally comparable?

In Table XIX presented on the next page, it can be seen that the measure of polarization indicates that the more meaningful concepts in both groups appear to be the more abstract political concepts. Generally, these political objects appear to be judged as more meaningful for the Tagalog sample, indicating more emotional involvement with the concepts than is demonstrated by the English sample. Let us turn to a more specific discussion of particular concepts, keeping in mind that these scores are not only measures of evaluation but are measures of total object affect; therefore, for example, while the concept War in this study may not be evaluated positively, there is, nevertheless, high emotional attachment to and/or involvement with the symbol.

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[2]Almond and Verba, op. cit., p. 26.

TABLE XIX

POLARIZATION[ab] SCORES AS MEASURES OF COGNITIVE SALIENCY OF POLITICAL OBJECT CONCEPTS FOR THE ENGLISH SPEAKING (AMERICAN) AND TAGALOG SPEAKING (FILIPINO) COLLEGE STUDENT SAMPLES

ENGLISH		TAGALOG	
Concepts	Concept Polarization	Concepts	Concept Polarization
Law	6.31	Freedom	6.70
War	6.12	Family	6.43
Family	6.03	Peace	6.28
America	5.96	Democracy	6.20
Peace	5.73	President	6.19
Democracy	5.69	America	5.89
Freedom	5.48	Law	5.74
Government	5.22	Bargaining	5.66
President	5.03	War	5.62
Army	4.88	Government	5.22
Voting	4.76	Nation	5.03
Society	4.75	Soldier	5.01
Election	4.73	Philippines	4.31
Nation	4.63	Society	4.07
Police	4.42	Voting	4.04
Politics	4.28	Army	4.03
Soldier	4.15	Revolution	4.01
Bargaining	3.91	Communist	3.97
Revolution	3.95	Election	3.96
Communist	3.82	Police	3.84
Politician	3.55	Politics	3.68
Colony	2.59	Politician	3.50
Philippines	1.80	Colony	1.68

Rank difference correlation coefficient r = .73, significant at the .01 level of confidence.

[a]Polarization scores are measures of "meaningfulness" in that they measure how far the concept in question is distant from the point of origin (meaninglessness) in the semantic space.

[b]The following formula is used to compute polarization:

$$P = \sqrt{\sum_{1}^{14} (\bar{M})^2}$$

In the English sample, the most meaningful of the concepts include Law (6.30), War (6.12), Family (6.03), America (5.96), Peace (5.73), Democracy (5.69), and Freedom (5.48). Similarly, in the Tagalog sample, we find the concepts Freedom (6.70), Peace (6.28), Democracy (6.20), President (6.19), and America (5.89) to be the most salient for the subjects in the sample. It is interesting to note that among the more salient concepts in the English sample, is the concept War (6.12). Whether the feelings of the American sample were those of fondness for or disdain of the phenomena is a significant question, but of equal importance is the fact that there is a high degree of emotional involvement with the stimulus--indicating de facto acceptance of the phenomenon even though it be negatively judged. The concept War has more meaning for the respondents than the concepts Peace, Democracy and Freedom. That it would have precedence over these other concepts might be only natural in light of the upheavals that have taken place within the past two decades and the important role that war has played in American foreign policy during that time.

The emergence of Law as the most salient in the group of English concepts in some way reaffirms the position that the American political culture is one which is "legal, ethical and theological rather than analytical."[3] That emphasis is placed upon law as something sacred in the American political system is a possibility; certainly experience impressionistically tells us that it is emphasized

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[3]Lasswell, World Politics and Personal Insecurity, op. cit., p. 164.

in the American political culture. Because emphasis is placed upon constitutional means for change, the concept Law is very interrelated with the order-maintaining processes of the political system. That it should be judged most meaningful of all the concepts in the semantic space indicates a preoccupation with order by the American sample of college students; a preoccupation which the reader will recall was also evidenced by the importance of the political order factor in the cognitive mapping of the American sample.

Similarly, in the Philippines, the core and nucleus of political life is said to be the family. The concept Family is more salient for the Filipino sample than the counterpart word is for the American sample. It, too, has order maintaining purposes and involvement by the students in the sample with the concept would indicate that it, together with abstract mythical concepts, plays an important and significant role in the political cultures of these students.

The meaningfulness of the concepts America and Philippines also deserve some attention in that the positions they occupy in the table above are most interesting. The concept America (5.69) is more meaningful for the English speaking sample than the concept Philippines is for the Tagalog speaking sample (4.31). Indeed, even the concept America (5.89) has more meaning for the Tagalog speaking sample than the symbol for their own nation, Philippines. On the contrary, however, we find the concept Philippines to be relatively nearer to meaninglessness for the English sample (1.80) indicating that as an object, the name or entity Philippines is a conceptual void for the

American sample. Even the concept Colony (2.59) has more meaning for the American students.

What of the concept Revolution? For both samples, we find that it is a less salient, and to that extent then, a less accepted experience, than the concept War. In both samples, the concept of Revolution (English 3.95, Tagalog 4.01) has less meaning than the concept War (English 6.12, Tagalog 5.62). It is possible that revolutions are outside the realm of the life space of the American and Tagalog samples and that war is a more meaningful and accepted notion.

An observation that has been made about the Philippine political culture is that it is a culture based on bargaining between individuals to obtain influence and goods, and that the concept of Politics, as it is known in the American political arena, is less meaningful for Philippine political life. Similarly, bargaining as a process oriented word, is less utilized in American English. Therefore it can be posited that politics should be a more salient phenomenon for the English speaking sample than the Tagalog speaking sample, and bargaining more salient for the Tagalog speaking sample than the English speaking sample. That this is so is indicated in Table XIX. The concept politics is more salient for the English speaking sample than for the Tagalog speaking sample (English Politics 4.28, Tagalog Politics, 3.68) and the concept Bargaining is considerably more salient for the Tagalog speaking sample than it is for the English speaking sample (Tagalog Bargaining 5.66, English Bargaining, 3.91).

A similar pattern emerges for the concepts Election and Voting. The English sample is more affectively oriented to these two process

concepts than is the Tagalog speaking sample, indicating a greater acceptance of these aspects of partisan politics on the part of the American students. Similarly, the English speaking sample is more affectively oriented to two order maintaining institutions: Police and Army. (English Police 4.42, Tagalog Police 3.84; English Army 4.88, Tagalog Army, 4.03). Certain other similarities also emerge for the two samples. The concept Communist is similarly salient for the Filipino and American students: English 3.82, Tagalog 3.97 while the concept Politician is similarly non-salient for the two samples: English 3.55, Tagalog 3.50.

Overall, there is considerable similarity in concept affect between the two political cultures as indicated by the rank order correlation of the polarization scores of the English and Tagalog concepts, R = .73, which is significant at the .01 level of confidence.

What generalizations can be made about the patterns of saliency evident in the two samples? First, it can be pointed out that the Tagalog sample is more affectively oriented to the political objects as a whole than is the English sample. Their judgments were consistently stronger, indicating that the political objects being judged were more meaningful for them and more intensely judged than they were for the students in the English sample.

Second, the concepts in both samples that are most salient appear to be abstract myth oriented concepts. Peace, Democracy, and Freedom, together with Law and Family, are highly polarized in both samples. Generally, the most highly salient concepts in both cultures

are the political morality and political order concepts. With the exception of War in the American sample, political violence concepts and partisan political participation concepts are low in saliency. That these symbols might be part of what Lasswell terms the political myth is one conceivable way of looking at these political objects toward which the subjects in both samples are most affectively oriented. The most meaningful of the concepts/symbols may be those in each of the cultures which are most prevalent in sustaining the system--those which elicit intense emotional responses.

That certain concepts are meaningful for both samples and others differed greatly was quite apparent in Table XIX. The question of what gives a concept or political object meaningfulness for the individuals in the two samples, may give us clearer understanding of why these items are salient. What attributes does a political object exhibit to make it a meaningful one in the particular culture under examination? Do we find any similarities in patterns of meaningfulness derivation between the two samples?

3. Patterns of Saliency/Affect Derivation

As an index of the characteristics of meaningfulness, the polarization scores of concepts presented in the previous section of this chapter (Table XIX) were correlated with the means of the concepts on fourteen adjective pairs. The table presented on the next page is one in which the reflections of attribute meaningfulness is evident (Table XX). A high correlation means that meaningfulness is related, in a possibly causal way, to the qualities which individuals

TABLE XX

CORRELATIONS BETWEEN POLARIZATION SCORES AND ADJECTIVE PAIRS' MEANS. ENGLISH N = 23, TAGALOG N = 23, SINCE CORRELATIONS ARE DERIVED FROM MEANS IN APPENDIX A

Adjectives	Correlations	
	English	Tagalog
Common/Uncommon	-.274	-.203
Mature/Childish	-.402	-.610
Near/Far	-.703	-.321
Strong/Weak	-.801	-.667
Calm/Excited	-.388	-.570
Stable/Unstable	-.434	-.614
Just/Unjust	-.485	-.609
Hard/Soft	.011	-.335
Young/Old	.046	.165
Fast/Slow	.091	-.334
Good/Bad	-.431	-.551
Primitive/Modern	.401	.089
Happy/Sad	-.370	-.479
Simple/Complex	.517	-.482
Standard Deviation	-.254	-.631

Rank order difference correlation between English and Tagalog adjective pairs = .63, significant at the .05 level of confidence.

perceive as characterizing political concepts. Thus we may posit that it is that particular quality which makes an object salient or meaningful.

As the correlations in Table XX indicate, the most meaningful political objects for the English speaking sample are those concepts which exhibit the characteristics of Strength (-.801) and Nearness (-.703). In addition, concepts are judged as meaningful (elicit affective orientations) if they exhibit Complexity (.517), Maturity (-.402),

Justice (-.485), Goodness (-.431), Stability (-.434), and Calmness (-.388).

Objects which are Strong (-.667), Mature (-.610), Stable (-.614), and Just (-.609) are most meaningful or salient for the Filipino sample of students. In addition, concepts are salient for the Filipino sample if they are perceived as being Good (-.551), Calm (-.570), Simple (-.482), and Happy (-.479).

Interestingly, these correlations indicate that strength or potency of political objects is the quality most relevant to the eliciting of strong affective responses, suggesting that in both political cultures examined, power represents the quality most capable of stimulating cognitive political behavior.

4. Discussion and Conclusion

Examination of patterns of cognitive saliency for the American and Filipino college students revealed several aspects, within which the patterns of affect were similar.

In both cultures, political myth and political order concepts elicited more affective responses from the students than did political violence or political participation concepts. This seemed true with the exception of War, which was characterized by high affective involvement for the American student sample. In the Filipino sample political myth concepts were more salient than in the American sample, and in the American sample, political order, and political participation concepts were more salient than was the case for Filipino students. Filipino students seemed to be more affectively involved with the

political stimuli in the total sense, but as regards pattern, there was general similarity in the degree of affect toward political objects (rank-order correlation = .73).

Patterns of saliency/affect/meaningfulness derivation were also found to be fairly similar for the two samples, as indicated by a rank-order correlation of .63. Most salient concepts in both cultures tended to be those characterized by strength, stability and positive evaluation.

CHAPTER VI

SYNOPSIS AND RECOMMENDATIONS.

1. A Psycholinguistic Model of Political Culture: Results of the Application

The reader will recall that the goals of this dissertation were: (1) to delineate and typologize aspects of the political cultures of American and Filipino college students; and (2) to evaluate a psycholinguistic model of political culture. The empirical results of the application yielded interesting and conclusive findings about the two samples, and provided encouragement for future projects which might use the psycholinguistic model.

What were the results of our investigation? What have the dimensions of cognitive mapping, cognitive response orientations and cognitive saliency, taken together, told us about political culture? Let us first recapitulate the findings of each of these aspects of the model.

A. Substantive Conclusions

Cognitive Mapping

In this section of the dissertation, five basic dimensions of cognitive mapping were found for both American and Filipino college students, and these dimensions were shown to be very similar cross-culturally. The five basic dimensions of cognitive mapping which emerged were: (1) a political myth or political morality factor, (2) a social and political order factor, (3) a political violence factor, (4) a political power factor, and (5) a factor of uncertain

character on which only the concepts Colony and Philippines were loaded. Total factor structures of cognitive mapping for the two samples were very similar as indicated by transformation analysis factor comparison. However, several qualitative differences were apparent. Most notable was the difference in character of the largest factor found for the respective groups of students. For the American college students the primary cognitive mapping factor was the social and political order factor. For the Filipino college students the primary cognitive mapping factor was the political morality or myth factor. Within the political order factors found for each sample there were also differences of emphasis which seemed significant. Within the political order factor of the American college students, the principal emphasis seemed to be on the maintenance of political order through social and political authority and control. Within the political order factor of the Filipino college students, the principal emphasis seemed to be on the maintenance of political order through political participation and interaction.

It was suggested that these similarities were the result of similar experiences with political institution, process, and actor concepts which were presented as stimuli. It was further suggested that wider deviations might appear were different types of cultures or societies--tribal cultures and modern cultures, Western and Eastern cultures, Socialist and Capitalist cultures, and so on--to be the object of analysis.

Cognitive Response Orientations

Similarity in response dimensions was significantly apparent in Chapter IV. General results indicated the emergence of six factors in each sample, of which five in each sample were shown, through transformation analysis factor comparison, to be statistically comparable. These five comparable factors were (1) political evaluation, (2) political familiarity, (3) political stability, (4) political activity, and (5) political potency/dynamism. Two factors which emerged, but which had no unique cross-cultural equivalent were (a) a modernity factor for the Filipino students, and (b) a complexity factor for the American students.

These factors were fairly similar to the factors found in other semantic differential studies, in that traditionally noted factors such as evaluation, potency and activity were found for both samples. The factor structures did, however, reflect some factors not found by other researchers, most notably a familiarity factor. Between the factor structures of the American and Filipino students' response orientations, the greatest differences were in the size of factors. Evaluation and Potency/Dynamism were more important in delineating the response orientations of the Filipino students than they were for American students, while Stability and Familiarity were more relevant to the response orientations of the American students, than to those of the Filipino students.

It was pointed out that these response dimensions represent different types of affect, that affective and cognitive processes are highly interrelated, and that individuals learn to perceive and judge

stimuli in a possibly simultaneous fashion. In light of the linguistic relativity hypothesis of Whorf,[1] the similarities in response orientation evidenced by Filipino and American college students lend additional credence to the hypothesis that there is universalism and not relativity in affective response systems; additionally there is the suggestion implicit in that hypothesis, that there is universality in political response orientations as well.

Cognitive Salience

While analysis of response dimensions focused upon types of affective responses, the cognitive saliency chapter focused upon degree of affect, or extent to which individuals were involved with political stimuli (symbols). Examination of saliency, operationally defined as semantic polarization, illustrated that abstract, "myth oriented" political concepts were the concepts with which individuals were most affectively involved, followed generally by social order concepts, and then by concepts of violence and partisan politics. Greatest differences in affective orientation toward political concepts is evidenced in the higher affect of American students for War and Army and political participation concepts, and the different affective orientation of the two samples toward the concepts America and Philippines.

Patterns of saliency/meaningfulness derivation were also similar for the two samples, though not to the same extent as patterns of object saliency. The adjective qualities most clearly associated with saliency/affect for the American college students were strength,

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[1]Carroll (ed.), Language, Thought and Reality, op. cit.

nearness, complexity, goodness, justice, modernity, stability and maturity. The adjective qualities most clearly associated with saliency/affect for the Filipino college students were strength, stability, justice, maturity, goodness, calmness, happiness, and simplicity. In both cultures, strength and potency seemed to be the qualities most important in eliciting affective involvement.

Discussion

The over-all generalizations that can be made about comparing and contrasting the two student populations would seem to be most important for the evaluation of the model of political culture. What over-all generalizations can be made?

First, the Filipino college students were found to be much more affectively involved with, and more emotionally intense about the political objects being judged than was the case for the American students. This was most clearly reflected in the cognitive saliency dimension of political culture, where higher affect was evident for the Filipino students as regards almost every concept.

Second, the Filipino college students seemed to be more evaluation-oriented than did the American college students, and in this respect, also more affectively involved with the stimuli. This was reflected most clearly in the greater significance of the evaluative factor found for Filipino students' response orientations, but it was also reflected in the greater significance of the Filipino students' political myth factor of cognitive mapping.

Third, American students' factor structures of cognitive mapping and cognitive response orientations were considerably more

differentiated than was so for Filipino students. American students' cognitive mapping dimensions were more than twice as differentiated as those of Filipino students, while American students' response orientations were more than two and one-half times as differentiated as those of the Filipino students. These results indicated that the cognitive orientations of American students were generally more complex, and reflective of the qualities of functional specificity which theorists have suggested distinguish the modern from the developing polity.

Fourth, the order orientation of the American students' cognitive mapping seemed highly significant in indicating the differences between the two samples. While the primary orientations of Filipino college students seemed to be toward political morality and participation, the primary orientation of American students seems to be toward order, authority and control.

Fifth, and most important, it was readily apparent that the comparison of Filipino and American college students' political cultures indicated considerable similarity. Similarity--significant enough statistically, that the bases of comparison turned out, for the most part, to be comparison of large differences in emphasis within what appeared to be significant pattern similarity. These considerations were taken as indicative of basic underlying similarities between the two political cultures considered, and as suggestive of the possibility of cross-cultural universality in dimensions of political culture.

B. Methodological Conclusions

As was done for substantive matters, several conclusive statements can be made concerning the methodological procedures employed in this study.

First and foremost, the use of factor analysis to obtain dimensions of cognitive mapping proved to be a more efficient method for the analysis of concepts than did the use of total distance matrices. The analysis of distance matrices through impressionistic observation, the technique which Osgood suggests in the Measurement of Meaning, proved to be too difficult, and unsuited for the derivation of generalizations. The distance scores for this study, though based on a small sample of concepts, came out in a 46 by 46 matrix (or two 23 by 23 matrices), too unwieldy for impressionistic interpretation. Factor analysis served well, however, in reducing the data to manageable and meaningful categories, and making more feasible the subsequent cross-cultural comparisons.

Second, the use of factor analysis to examine the underlying dimensions of response orientations and the extension of factor analytic interpretation to concepts, for the delineation of dimensions of cognitive mapping, suggests a logical progression for the model, toward the factor analysis of individuals, or types of individuals. Factor analysis of two sides of the semantic differential data bloc logically suggests factor analysis of individuals, and this type of analysis might prove highly useful to the expansion of our knowledge of political culture. Osgood suggests that distances between individuals provide an ideal of clusterings or groupings, much as distances were used

used in this dissertation to factor analyze concepts. Such analysis might prove very useful by providing empirical delineation of political sub-cultures within a given society, and such information would be highly useful in indicating the degree of integration and shared value underlying a theoretically common national political culture.

Third, the methods used by the researcher to select concepts and adjective pairs was somewhat weakened by the restrictions in questionnaire size. Results gained from an analysis based upon 23 concepts and 14 adjective pairs are useful and suggestive, but they can not be definitive. Larger scale studies, where the number of concepts and adjective pairs is expanded would seem to be in order, if definitive statements are to be made about political culture. Also, it would seem as though saliency offers a suitable guide for the selection of concepts, where sampling, and not exhaustive analysis is necessary. Thus the concepts examined and compared could be selected prior to analysis, on the basis of their relevance to the political lives of the individuals in a given culture. The same holds true for adjective pairs, since pilot studies could serve to delineate and extract those adjective pairs which are most relevant to the response orientations of individuals in a given society.

Fourth, in a more extended study of political culture, the stability of response orientations could be tested across concepts to see if the same response orientations emerge when stimuli are varied. Osgood suggests that the meaning of adjective-pair scales changes with

the connotative meaning of the concept being judged, that there is considerable concept-adjective-pair-scale interaction. This hypothesis and other related hypotheses should be more thoroughly tested in the realm of political phenomena. Similarly, it can be suggested that cognitive mapping dimensions vary considerably when adjective-pair scales are changed. This hypothesis is different from that suggested by Osgood, but just as worthy for examination in the development of a psycholinguistic model of political culture.

Fifth, factor analysis and transformation analysis proved to be analytic techniques of considerable power and merit. While factor analysis has been the logical tool of analysis characterizing most semantic differential research, its relevance here, to the typology and comparison of political cultures can in no way be underestimated. With factor analysis and transformation analysis factor comparison, we can not only derive characterizations and comparisons of individual political cultures, but we can also move toward the analysis of political culture themes underlying the political cultures of all polities, as a logical progression. Factor comparison and other techniques allow the generation of single statistical indices of similarity between components or the totalities of political cultures of many nations, and such correlations can, in a higher-order analysis, be factor analyzed to determine the basic political cultures or themes of political cultures current in the world today.

Sixth, and finally, the semantic differential model itself has proven to be a useful method for making cross-cultural comparisons of political culture. Most importantly, the psycholinguistic model of

political culture proved its utility by generating typologies of cognitive mapping and cognitive response orientations, which it seems to the researcher, could not have been generated by another contemporary model of political culture. Interrelated with this aspect of utility, is the advantage of clarity evident in the psycholinguistic model of political culture. The fact that the model allowed the researcher to work with individual responses rather than aggregate data, and yet allowed the reduction of that individual data into systemic generalizations, suggests that the psycholinguistic model of political culture is an ideal method and theory for building theory about individual and group psychological orientations to political life in many cultures and sub-cultures throughout the world.

2. Recommendations for future applications

Several explicit recommendations may be made regarding future applications of this model to the study of political culture.

First, political scientists should consider the application of this model of political culture to a large sample of nations or polities, where different languages are spoken. Such applications would have considerable importance for the understanding of political culture. As was suggested in Chapter III, it need not be assumed that the underlying dimensions of political culture would be those readily apparent to the casual observer. This type of analysis would also be of great utility to the development of rigorous cross-cultural studies of many forms of political behavior, since the delineation of meanings

and implications of political concepts allows for more accurate conceptualization and translation of research designs.

Second, the psycholinguistic model of political culture should be applied to samples of nations characterized by similar languages, to discern the effect of milieu on linguistically common symbols and concepts, and to determine to what extent, if any, language and not milieu is responsible for the differences manifested by a particular political culture or set of political cultures.

This type of study could be carried out with English speaking nations, for example the United States, England, Canada, Australia, and New Zealand, or in the many Spanish and many Arabic speaking nations.

Third, the psycholinguistic model could be applied to single country studies, by looking at the political cultures of sub-cultural entities within the country or countries in question. This model, for example, could be used to compare the political cultures of Americans who speak standard English with Americans who speak deviant dialects, such as the dialect of English spoken by many American Negroes. This type of analysis would be highly relevant to the study of politics in countries characterized by a lack of national integration--for example present day United States, Canada, and many of the nations which are characterized by some researchers as "developing."

More general considerations become interrelated with the prospect of large scale studies of political culture. Such studies as those suggested above could be concerned with general political concepts such as the ones used in this study, or they could include more concrete, specific concepts as well. These types of concepts could include proper

names of individual and institutional actors salient for the particular culture in question. Examples of these types of concepts might include: Hukbalahap--the name of the body of insurgents who fought the Japanese in the Philippines during World War II, and who fought the American-backed Manila government during the post-war era; particular political parties found in the nations studied--for example Nationalista and Liberalista for the Philippines, and Democratic and Republican for the United States; individual actors, such as President Marcos or President Johnson; and nation-state actors such as Russia, China, Japan, America and so on. Such dealing with unique political objects can still allow for parsimonious crosscultural comparisons, if the denotative meaning of concepts is stipulated, or if proper statistical controls are utilized.

A fourth important type of research design to which the psycholinguistic model of political culture might be applied relates to the place of political phenomena in the total life or culture of the polity in question. As was noted previously, five definable and interpretable cognitive mapping factors emerged in our two samples: a factor of political myth concepts, a factor of political order concepts, a factor of political violence concepts, a factor of political power concepts, and a fifth factor of uncertain character.

How do these dimensions of political symbols (or any others that might be discovered) relate to the total culture of a given society? Given a large sample of social, economic, political, religious, scientific and miscellaneous concepts, will we find (through factor

analysis) a general political phenomenon factor, or what might be termed a political culture factor? Will we find several factors of political culture, such as those found here, also differentiated from other cultural factors? Or will we find general concept factors within which political phenomena represent only one aspect of a more inclusive category?

These questions relating to the character of the integration of the political culture with the total culture of a society are just as important as the lower-level question of comparisons of political cultures. Here the key problem is to determine the way in which the political culture is differentiated or not differentiated from other aspects of the society's culture. Similar in a cognitive sense to the questions previously dealt with, of differentiation among cognitive mapping and response orientations, this problem has larger implications for the total political system.

In conclusion, it can be suggested that the initiation of large scale studies of political culture be more clearly related to systemic traits of political behavior, both in terms of internal and international political styles.

It is important that traits of political system behavior be related to such a readily quantifiable model of political culture, because variation in cognitive orientations toward political life may be measured accurately, related to the behavior patterns evident in the society, and used to generate soundly based, mathematical theories and laws of human political behavior.

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APPENDICES

APPENDIX A: MEAN JUDGMENTS OF 23 POLITICAL CONCEPTS BY 14 ADJECTIVE PAIRS FOR FILIPINO AND AMERICAN COLLEGE STUDENTS

Table A.1. Mean judgments of 23 English political concepts along 14 adjective-pair scales. A negative sign (-) indicates that the mean judgment is in the direction of the first adjective of the adjective pair set. A positive sign (+) indicates that the mean judgment is in the direction of the second adjective of the adjective pair set. Mean judgments are based on N of 47.

	common uncommon	mature childish	near far	strong weak	calm excited	stable unstable	just unjust	hard soft
BARGAINING	-1.92	-1.77	- .73	- .94	+ .55	+ .59	- .73	-1.07
NATION	-2.09	-1.69	-1.18	-1.79	+ .08	- .75	-1.03	- .43
SOCIETY	-2.73	-1.28	-1.37	-1.43	- .09	- .58	- .41	- .52
POLITICS	-2.22	-1.07	- .79	-1.15	+1.61	+ .72	- .03	- .71
GOVERNMENT	-2.66	-1.75	-1.39	-1.83	+ .08	-1.18	-1.09	- .45
FREEDOM	+ .08	-2.28	-1.22	-2.05	- .22	- .75	-2.26	- .56
FAMILY	-2.75	-2.13	-2.05	-2.20	- .81	-1.54	-1.56	+ .14
LAW	-2.58	-2.13	-1.69	-2.18	- .96	-2.07	-1.20	-1.35
VOTING	-1.77	-2.30	-1.83	-1.28	+ .25	- .90	-1.45	- .43
WAR	-1.69	+1.31	- .75	-1.11	+2.38	+2.00	+1.04	-2.28
REVOLUTION	- .58	- .28	+ .02	- .60	+2.19	+1.80	- .20	-1.11
PEACE	+ .27	-2.41	+ .21	-1.00	-1.92	- .49	-2.24	- .41
POLICE	-2.66	-1.43	-1.18	-1.54	- .20	-1.11	- .71	-1.28
ELECTION	-1.81	-1.96	-1.54	-1.56	+1.02	- .56	-1.26	- .49
POLITICIAN	-2.13	- .87	- .90	- .90	+1.08	+ .08	+ .21	- .69
ARMY	-2.39	-1.03	-1.03	-2.07	+ .12	-1.69	- .56	-1.83
PRESIDENT	-1.45	-2.32	- .79	-1.94	- .83	-1.49	-1.45	- .92
DEMOCRACY	- .83	-2.15	-1.79	-2.15	-1.15	-1.66	-1.88	- .32
COMMUNIST	-1.22	- .69	- .15	-1.20	+ .76	- .15	+1.02	-1.88
COLONY	+ .40	- .09	+ .93	+ .63	+ .36	+ .68	+ .55	- .52
PHILIPPINES	- .54	- .54	+ .68	- .03	- .42	- .03	- .60	- .43
AMERICA	-1.79	-1.81	-2.20	-2.22	- .58	-1.49	-1.35	- .11
SOLDIER	-2.39	-1.28	-1.09	-1.41	- .09	- .52	- .49	-1.35

Table A.1. Continued

	young old	fast slow	good bad	primitive modern	happy sad	simple complex
BARGAINING	+1.17	- .13	-1.37	- .83	- .28	+ .85
NATION	- .22	- .60	-1.56	+ .85	- .86	+1.87
SOCIETY	+1.89	- .45	-1.03	+1.17	- .47	+1.53
POLITICS	+ .63	- .81	- .62	+ .34	+ .14	+2.27
GOVERNMENT	+ .91	+ .27	-1.47	+ .12	- .47	+2.40
FREEDOM	- .54	+ .23	-2.62	+ .40	-1.98	+1.36
FAMILY	+ .38	- .26	-2.15	+ .23	-2.20	- .15
LAW	+ .82	+ .68	-1.83	+ .44	-1.37	+2.44
VOTING	+ .44	- .37	-1.94	+ .80	- .71	+ .91
WAR	+1.00	- .77	+1.38	-1.35	+2.23	+2.21
REVOLUTION	- .39	-1.83	- .15	- .47	+ .63	+1.17
PEACE	+ .12	+1.12	-2.69	+ .14	-2.39	+1.59
POLICE	+ .12	- .45	-1.49	+ .55	- .13	+ .70
ELECTION	+ .27	- .69	-1.98	+ .80	- .88	+1.19
POLITICIAN	+ .61	- .81	- .24	+ .40	- .13	+1.65
ARMY	+ .17	-1.37	-1.09	+ .23	+ .25	+1.40
PRESIDENT	+1.00	- .56	-1.47	+1.06	- .64	+1.59
DEMOCRACY	- .58	+ .17	-2.18	+1.10	-1.47	-1.74
COMMUNIST	- .37	-1.28	+1.27	+ .31	+1.02	+1.21
COLONY	+ .89	+ .93	+ .25	-1.52	.00	- .28
PHILIPPINES	- .35	+ .06	- .94	- .35	- .35	+ .48
AMERICA	- .92	-1.20	-2.03	+1.78	-1.09	+2.04
SOLDIER	-1.41	-1.13	- .81	- .28	+ .51	+ .29

Table A.2. Mean judgments of the 23 Tagalog (Filipino) political concepts along 14 adjective-pair scales. A negative sign (-) indicates that the mean judgment is in the direction of the first adjective of the adjective-pair set. A positive sign (+) indicates that the mean judgment is in the direction of the second adjective of the adjective-pair set. Mean judgments are based upon N of 57. Tagalog political concepts and adjective-pairs are given in their English translations.

	common uncommon	mature childish	near far	strong weak	calm excited	stable unstable	just unjust	hard soft
BARGAINING	-1.32	-1.92	- .90	-1.39	-1.90	-1.74	-2.23	- .67
NATION	-2.22	-1.93	-1.29	-1.37	-1.32	-1.51	-1.64	-1.20
SOCIETY	-2.23	-1.39	-1.18	-1.22	-1.02	-1.43	- .71	- .72
POLITICS	-2.09	- .81	-1.11	-1.97	+ .70	- .29	- .22	-1.04
GOVERNMENT	-2.08	-1.99	-1.16	-1.76	-1.50	-1.79	-1.57	-1.41
FREEDOM	-1.37	-2.34	-1.60	-1.93	-2.16	-2.11	-2.55	-1.30
FAMILY	-2.65	-1.92	-1.85	-1.93	-2.00	-1.97	-1.71	- .81
LAW	-2.29	-2.08	-1.20	-2.00	-1.64	-1.76	-1.95	-1.46
VOTING	-1.72	-1.48	-1.02	-1.39	- .16	- .95	-1.29	-1.06
WAR	+1.07	+ .52	+ .29	-1.57	+2.52	+1.36	+1.49	-1.55
REVOLUTION	+ .85	.00	+ .57	-1.16	+2.49	+ .64	+ .21	-1.15
PEACE	-1.74	-1.90	-1.34	-1.55	-2.41	-1.81	-2.37	- .62
POLICE	-2.06	- .83	- .74	-1.41	- .58	-1.04	- .95	-1.46
ELECTION	-1.74	-1.58	- .97	-1.55	+ .19	- .79	-1.32	-1.02
POLITICIAN	-1.71	- .83	- .60	-1.69	+ .36	- .50	- .06	-1.15
ARMY	- .88	-1.65	- .72	-2.02	- .62	-1.34	- .97	-1.50
PRESIDENT	-1.09	-2.72	- .83	-2.36	-1.83	-2.20	-2.09	-1.76
DEMOCRACY	-1.43	-2.09	-1.55	-2.15	-2.09	-2.08	-2.23	-1.23
COMMUNIST	+ .38	- .74	+ .40	-1.48	+1.36	- .36	+1.29	-1.58
COLONY	- .25	- .29	+ .21	+ .08	+ .17	+ .29	+ .26	- .13
PHILIPPINES	- .88	-1.44	-1.85	- .79	-1.44	-1.16	-1.43	- .55
AMERICA	- .99	-1.69	+1.14	-2.71	-1.23	-2.34	-1.23	-1.71
SOLDIER	-1.39	-1.88	- .55	-2.08	- .55	-1.93	-1.60	-1.71

Table A.2. Continued

	young old	fast slow	good bad	primitive modern	happy sad	simple complex
BARGAINING	+1.66	- .41	-2.29	- .64	-1.76	- .34
NATION	+ .36	- .55	-1.55	.00	-1.36	- .55
SOCIETY	+ .10	- .48	- .90	+ .42	-1.11	+ .43
POLITICS	+ .19	- .78	- .37	+ .47	- .64	+ .52
GOVERNMENT	+ .26	- .55	-1.64	+ .17	-1.25	- .11
FREEDOM	+ .40	- .67	-2.76	- .20	-2.36	- .32
FAMILY	+ .15	- .53	-2.16	- .64	-2.23	-1.30
LAW	+ .64	- .79	-2.16	- .18	- .64	+ .26
VOTING	+ .43	- .33	-1.60	+ .40	-1.15	+ .35
WAR	+ .64	- .60	+1.96	- .32	+2.54	+1.92
REVOLUTION	+ .21	- .92	+ .50	- .64	+1.68	+1.17
PEACE	+ .24	- .55	-2.64	- .13	-2.43	- .53
POLICE	+ .26	- .97	-1.04	+ .43	- .71	- .23
ELECTION	+ .49	- .62	-1.34	+ .47	- .85	+ .08
POLITICIAN	+1.59	- .81	- .11	+ .22	- .39	+ .56
ARMY	+ .45	-1.08	-1.18	- .04	- .08	+ .10
PRESIDENT	+ .52	-1.53	-1.74	+ .52	-1.20	- .65
DEMOCRACY	+ .28	- .95	-2.20	+ .29	-1.86	- .67
COMMUNIST	- .13	-1.08	+1.19	+ .66	+1.56	+1.05
COLONY	+ .10	+ .24	+ .10	-1.09	+ .38	+1.01
PHILIPPINES	- .55	- .36	-1.64	+ .10	-1.55	- .65
AMERICA	+ .78	-1.71	-1.32	+1.54	-1.65	+ .61
SOLDIER	+ .56	-1.67	-1.36	- .04	- .11	- .74

APPENDIX B: SCALED DISTANCES AMONG 23 TAGALOG AND 23 ENGLISH POLITICAL CONCEPTS

Table B.1. Scaled distances among 23 Tagalog (Filipino) political concepts. Distances are scaled to range between .0 and 1.0, so that a distance of 1.0 means high similarity, and a distance of .0 indicates no similarity. Tagalog political concepts are presented in their English translations.

	1	2	3	4	5	6	7	8	9	10	11	12	13
1 BARGAINING	1.00	.80	.70	.55	.79	.81	.76	.79	.73	.09	.26	.83	.68
2 NATION		1.00	.84	.67	.93	.78	.82	.86	.83	.15	.31	.80	.82
3 SOCIETY			1.00	.77	.84	.66	.70	.77	.86	.25	.39	.69	.86
4 POLITICS				1.00	.67	.50	.54	.63	.79	.41	.54	.51	.81
5 GOVERNMENT					1.00	.79	.80	.89	.83	.15	.31	.80	.81
6 FREEDOM						1.00	.81	.78	.68	.00	.17	.90	.63
7 FAMILY							1.00	.76	.68	.01	.17	.84	.67
8 LAW								1.00	.78	.14	.30	.77	.76
9 VOTING									1.00	.27	.44	.69	.86
10 WAR										1.00	.76	.00	.30
11 REVOLUTION											1.00	.18	.45
12 PEACE												1.00	.65
													1.00

Table B.1. Continued

	14	15	16	17	18	19	20	21	22	23
1 BARGAINING	.69	.58	.69	.75	.80	.28	.44	.73	.61	.70
2 NATION	.81	.65	.77	.78	.83	.37	.49	.81	.64	.78
3 SOCIETY	.83	.74	.78	.68	.71	.47	.58	.78	.64	.73
4 POLITICS	.82	.85	.75	.56	.55	.60	.63	.64	.58	.68
5 GOVERNMENT	.80	.65	.79	.81	.85	.38	.48	.79	.68	.79
6 FREEDOM	.64	.48	.64	.79	.89	.21	.34	.73	.60	.67
7 FAMILY	.66	.51	.63	.72	.82	.22	.36	.74	.54	.66
8 LAW	.76	.62	.78	.80	.82	.34	.45	.72	.65	.76
9 VOTING	.93	.75	.81	.70	.72	.47	.59	.78	.65	.76
10 WAR	.30	.44	.33	.10	.05	.70	.53	.17	.18	.24
11 REVOLUTION	.47	.57	.49	.26	.22	.76	.67	.34	.32	.41
12 PEACE	.65	.49	.63	.75	.87	.21	.37	.77	.59	.65
13 POLICE	.87	.78	.83	.70	.69	.51	.59	.75	.67	.80
14 ELECTION	1.00	.78	.83	.69	.69	.50	.59	.75	.65	.78
15 POLITICIAN		1.00	.76	.56	.54	.62	.66	.60	.60	.68
16 ARMY			1.00	.75	.70	.55	.59	.72	.69	.86
17 PRESIDENT				1.00	.85	.33	.38	.69	.72	.80
18 DEMOCRACY					1.00	.27	.37	.77	.65	.73
19 COMMUNIST						1.00	.64	.38	.42	.47
20 COLONY							1.00	.53	.40	.49
21 PHILIPPINES								1.00	.56	.69
22 AMERICA									1.00	.70
23 SOLDIER										1.00

Table B.2. Scaled distances among 23 English (American) political concepts. Distances are scaled to range between 0 and 1.0, so that a distance of 1.0 means high similarity, and a distance of .0 indicates no similarity of concepts.

	1	2	3	4	5	6	7	8	9	10	11	12
1 BARGAINING	1.00	.71	.72	.75	.72	.59	.59	.60	.73	.45	.62	.53
2 NATION		1.00	.77	.72	.83	.70	.70	.74	.84	.32	.52	.58
3 SOCIETY			1.00	.73	.80	.55	.64	.70	.76	.37	.49	.48
4 POLITICS				1.00	.70	.50	.48	.54	.66	.56	.70	.40
5 GOVERNMENT					1.00	.63	.67	.81	.79	.33	.45	.54
6 FREEDOM						1.00	.65	.64	.73	.15	.40	.75
7 FAMILY							1.00	.69	.75	.12	.32	.55
8 LAW								1.00	.72	.20	.32	.57
9 VOTING									1.00	.27	.48	.59
10 WAR										1.00	.62	.07
11 REVOLUTION											1.00	.31
12 PEACE												1.00

	13	14	15	16	17	18	19	20	21	22	23
1 BARGAINING	.74	.74	.76	.68	.67	.56	.59	.58	.71	.54	.69
2 NATION	.83	.86	.74	.77	.81	.76	.56	.41	.64	.80	.72
3 SOCIETY	.78	.75	.77	.73	.76	.61	.54	.43	.58	.64	.62
4 POLITICS	.69	.72	.89	.68	.61	.50	.68	.50	.65	.55	.66
5 GOVERNMENT	.78	.78	.71	.74	.78	.69	.51	.40	.58	.69	.64
6 FREEDOM	.62	.71	.51	.56	.70	.81	.38	.37	.57	.68	.64
7 FAMILY	.70	.70	.53	.60	.69	.71	.35	.31	.50	.68	.58
8 LAW	.72	.68	.57	.68	.77	.74	.41	.30	.48	.69	.56
9 VOTING	.81	.90	.69	.71	.81	.76	.50	.41	.62	.75	.68
10 WAR	.35	.32	.54	.40	.25	.14	.60	.45	.42	.18	.41
11 REVOLUTION	.51	.54	.68	.53	.43	.34	.68	.57	.66	.38	.59
12 PEACE	.51	.55	.42	.44	.62	.69	.30	.39	.55	.52	.43
13 POLICE	1.00	.79	.74	.84	.78	.67	.60	.44	.65	.70	.79
14 ELECTION		1.00	.73	.73	.77	.71	.53	.42	.63	.74	.68
15 POLITICIAN			1.00	.73	.65	.53	.73	.55	.69	.58	.70
16 ARMY				1.00	.74	.61	.65	.41	.60	.67	.77
17 PRESIDENT					1.00	.77	.51	.39	.59	.73	.63
18 DEMOCRACY						1.00	.39	.31	.53	.80	.57
19 COMMUNIST							1.00	.55	.62	.44	.67
20 COLONY								1.00	.72	.26	.47
21 PHILIPPINES									1.00	.49	.66
22 AMERICA										1.00	.62
23 SOLDIER											1.00

APPENDIX C: UNROTATED FACTOR MATRICES FOR ENGLISH AND TAGALOG POLITICAL CONCEPTS

Table C.1. Unrotated factor matrix of 23 Tagalog (Filipino) political concepts. Ten of the 23 unrotated factors are presented, accounting for 92.7% of the common factor variance. Factor loadings are rounded to two places, and decimal points omitted.

	Factors										
	I	II	III	IV	V	VI	VII	VIII	IX	X	h^2
BARGAINING	84	-26	-17	-06	11	-01	-20	17	05	19	92
NATION	92	-17	01	-09	-13	-04	06	05	-13	00	93
SOCIETY	89	04	20	-14	-02	02	16	06	-12	-00	90
POLITICS	81	32	28	-09	03	22	-10	-12	01	-08	94
GOVERNMENT	92	-18	00	-00	-13	-05	06	08	-17	01	94
FREEDOM	81	-39	-26	-03	06	11	-07	-02	09	02	92
FAMILY	81	-35	-14	-18	-05	11	-00	-13	-14	-10	89
LAW	89	-19	-03	06	-14	-09	-10	11	-18	07	91
VOTING	91	06	20	-10	-04	01	04	15	13	09	94
WAR	30	80	-31	01	-22	11	01	19	01	-18	95
REVOLUTION	48	74	-29	00	-04	-03	-03	05	11	-00	87
PEACE	82	-38	-24	-13	09	12	-01	-01	06	02	92
POLICE	90	11	23	-02	-05	-01	05	-01	00	-03	89
ELECTION	90	11	24	-06	-06	01	-01	09	17	07	93
POLITICIAN	80	36	22	-02	11	17	-23	-07	-06	-05	92
ARMY	89	13	10	16	-06	-17	-06	-08	09	02	90
PRESIDENT	84	-24	-12	30	-02	-07	-01	-09	03	-10	90
DEMOCRACY	86	-34	-21	04	-01	06	00	-07	04	-07	92
COMMUNIST	54	69	-19	12	-01	09	15	-22	-10	30	99
COLONY	63	51	-10	-26	35	-31	-05	-01	-12	-08	98
PHILIPPINES	85	-11	-05	-24	02	-09	28	-10	19	-05	93
AMERICA	75	-02	06	48	32	12	19	17	-04	-05	98
SOLDIER	87	00	06	27	-12	-21	-10	-14	06	-04	93
percent common variance	65.4	12.9	3.4	2.9	1.7	1.5	1.4	1.2	1.2	1.0	92.7

Table C.2. Unrotated factor matrix of 23 English (American) political concepts. Ten of the 23 unrotated factors are presented, accounting for 90.6% of the common factor variance. Factor loadings are rounded to two places, and decimal points are omitted.

	Factors										
	I	II	III	IV	V	VI	VII	VIII	IX	X	h^2
BARGAINING	84	17	07	23	03	13	-01	20	-04	03	87
NATION	91	-14	-10	-05	02	08	01	-10	-11	-00	89
SOCIETY	85	-00	-21	27	07	-02	06	-07	06	-14	88
POLITICS	82	33	-13	06	21	17	18	-02	10	02	91
GOVERNMENT	87	-13	-16	20	11	-11	02	-02	-06	14	89
FREEDOM	76	-33	33	-20	15	04	00	09	-03	-04	88
FAMILY	76	-35	-01	06	-12	08	-31	12	38	-01	98
LAW	79	-32	-11	14	07	-31	-00	-02	06	26	93
VOTING	89	-20	-04	04	01	17	-13	-00	-10	-11	91
WAR	45	67	-11	-13	32	-25	-31	14	-09	-10	98
REVOLUTION	66	54	12	-21	11	17	-02	01	04	29	91
PEACE	65	-32	52	00	14	-12	22	22	03	-09	93
POLICE	90	-04	-16	04	-21	-03	-01	11	-09	-03	90
ELECTION	89	-11	-07	00	05	26	-08	-02	-13	-08	91
POLITICIAN	85	31	-12	07	08	11	17	-05	14	-06	92
ARMY	85	05	-24	-07	-21	-14	09	08	-11	01	88
PRESIDENT	86	-23	-03	04	02	-15	05	-06	-08	-05	84
DEMOCRACY	79	-41	14	-22	08	-09	-04	-11	03	01	89
COMMUNIST	70	48	-05	-22	-11	-10	15	-08	20	-16	91
COLONY	57	44	49	24	-18	-11	-16	-24	-04	-04	95
PHILIPPINES	77	27	38	06	-17	05	02	-08	-05	09	86
AMERICA	79	-32	-11	-28	01	05	-05	-27	00	01	90
SOLDIER	81	15	-08	-20	-37	02	02	20	-04	05	91
percent of common variance	62.8	10.2	4.6	2.6	2.4	2.1	1.7	1.6	1.3	1.2	90.6

APPENDIX D: PRODUCT MOMENT CORRELATIONS AMONG 14 TAGALOG AND 14 ENGLISH ADJECTIVE PAIRS

Table D.1. Product-Moment correlations among 14 Tagalog (Filipino) adjective pairs. Correlations are based upon (57 x 23 =) 1311 cases, where each Filipino student judging each concept by the fourteen adjective pairs was taken as a case. English translations of adjective pairs are utilized for this table. Correlations are rounded to two places, and decimal points are omitted. Squared Multiple r's in diagonal.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Common/Uncommon	15	27	29	12	20	19	18	-01	-07	-01	21	-03	25	16
2	Mature/Childish		44	41	39	46	52	56	26	-09	27	52	-06	43	28
3	Near/Far			29	25	34	31	36	16	12	19	36	04	34	30
4	Strong/Weak				36	25	44	33	43	-12	41	29	-04	23	11
5	Calm/Excited					57	64	63	12	01	15	62	05	58	40
6	Stable/Unstable						60	67	29	-07	29	58	-07	50	32
7	Just/Unjust							69	22	-04	27	77	-02	58	35
8	Hard/Soft								30	-10	44	14	-05	07	13
9	Young/Old									09	-01	-03	05	04	13
10	Fast/Slow										29	27	-10	15	12
11	Good/Bad											67	-01	65	35
12	Primitive/Modern												06	-03	14
13	Happy/Sad													51	37
14	Simple/Complex														25

Table D.2. Product-Moment correlations among 14 English (American) adjective pairs. Correlations are based upon (47 x 23 =) 1081 cases, where each American student judging each concept by the 14 adjective-pairs was taken as a case. Correlations are rounded to two places; decimal points are omitted. Squared multiple r's in diagonal.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Common/Uncommon	22	17	39	27	02	16	00	05	-06	16	05	-04	-04	-02
2 Mature/Childish		48	33	48	38	49	54	-03	03	02	56	-21	47	-09
3 Near/Far			27	39	08	24	19	07	05	12	22	-10	18	-07
4 Strong/Weak				44	28	49	38	19	09	20	37	-21	25	-18
5 Calm/Excited					39	58	39	-07	09	-07	33	-21	34	08
6 Stable/Unstable						52	51	-02	09	05	44	-28	34	-03
7 Just/Unjust							56	-07	14	03	69	-27	53	-03
8 Hard/Soft								15	-02	22	14	23	13	-27
9 Young/Old									14	23	13	-27	11	02
10 Fast/Slow										17	01	-13	-09	-03
11 Good/Bad											58	-27	60	-06
12 Primitive/Modern												21	-21	19
13 Happy/Sad													44	04
14 Simple/Complex														11

APPENDIX E: UNROTATED FACTOR MATRICES FOR ENGLISH AND TAGALOG ADJECTIVE PAIRS

Table E.1. Unrotated factor structure for factor analysis of English (American response orientations (adjective pairs). Six factors are presented, accounting for 100.0% of the common factor variance. Factor loadings are rounded to two places, and decimal points are omitted.

	Factors						
	I	II	III	IV	V	VI	h^2
Common/Uncommon	-17	44	-21	-04	-20	-06	32
Mature/Childish	-72	04	-15	-09	06	-02	56
Near/Far	-37	38	-16	-15	-17	-04	36
Strong/Weak	-60	40	-03	03	11	02	54
Calm/Excited	-54	-17	-08	38	-01	01	48
Stable/Unstable	-71	05	-07	33	02	-03	62
Just/Unjust	-75	-19	08	-09	06	10	63
Hard/Soft	05	38	-05	04	23	18	23
Young/Old	-17	02	42	05	-16	04	24
Fast/Slow	-08	38	30	00	-08	15	28
Good/Bad	-75	-19	05	-24	03	05	66
Primitive/Modern	38	-02	-34	-05	05	23	31
Happy/Sad	-62	-31	-02	-17	-06	04	51
Simple/Complex	08	-20	-12	11	-27	22	20
percent common variance	59.7	17.4	8.7	6.8	4.3	3.1	100.0

Table E.2. Unrotated factor structure for factor analysis of Tagalog (Filipino) response orientations (adjective pairs). Six factors are presented, accounting for 99.9% of the common factor variance. Factor loadings are rounded to two places, and decimal points are omitted. English translations are given for the Tagalog adjective pairs.

	Factors						
	I	II	III	IV	V	VI	h^2
Common/Uncommon	29	-12	-11	-34	-01	-00	23
Mature/Childish	67	09	-04	-20	00	-03	51
Near/Far	49	-04	-33	-13	06	01	38
Strong/Weak	49	45	-04	-06	-06	-00	45
Calm/Excited	73	-23	04	09	-15	06	63
Stable/Unstable	77	08	14	03	-16	10	66
Just/Unjust	82	-08	17	08	05	-07	73
Hard/Soft	34	53	-09	09	-03	-03	41
Young/Old	-03	-18	-26	19	10	10	16
Fast/Slow	37	45	-08	13	13	02	39
Good/Bad	80	-17	15	06	16	-09	73
Primitive/Modern	-02	-14	-18	12	-15	-15	11
Happy/Sad	70	-26	01	-00	09	05	57
Simple/Complex	35	-18	-27	13	-07	-02	33
percent common variance	70.6	15.3	6.1	4.6	2.3	1.0	99.9%

APPENDIX F: FACTOR COMPARISON MATRICES ROTATING ENGLISH ADJECTIVE PAIR AND CONCEPT FACTOR STRUCTURES THROUGH THE SPACE OF TAGALOG ADJECTIVE PAIR AND CONCEPT FACTOR STRUCTURES

Table F.1. Factor comparison matrix for English (American) and Tagalog (Filipino) cognitive mapping factor structures.[a] Factor comparison is the rotation of the English factor structure into the space of the Tagalog factor structure. Invariance coefficients have been rounded to two places, and decimal points have been omitted.

		Tagalog Factors				
		I	II	III	IV	V
English Factors	I	56	79	-21	09	03
	II	94	-23	02	23	-02
	III	-24	13	96	06	-00
	IV	60	38	04	-23	66
	V	-12	35	34	86	-09

[a]Intraclass correlation between the Check matrix and the Filipino study is .90, and the product moment correlation between the check matrix and the Filipino study is .90.

Table F.2. Factor comparison matrix for English (American) and Tagalog (Filipino) response orientation factor structures.[a] Factor comparison is the rotation of the English factor structure into the space of the Tagalog Factor structure. Invariance coefficients have been rounded to two places, and decimal points have been omitted.

		Tagalog Factors					
		I	II	III	IV	V	VI
English Factors	I	-89	-35	22	03	04	20
	II	67	31	00	32	-04	59
	III	18	01	-97	-15	-08	01
	IV	10	25	14	-93	18	-11
	V	28	95	10	07	-10	-01
	VI	71	21	-30	-41	-44	02

[a]Intraclass correlation between the Check matrix and the Filipino study is .96, and the product moment correlation between the check matrix and the Filipino study is .96.