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UNIVERSALS IN THE CONTENT AND STRUCTURE OF VALUES: THEORETICAL ADVANCES AND EMPIRICAL TESTS IN 20 COUNTRIES

Shalom H. Schwartz*

I. Introduction

"The value concept, more than any other, should occupy a central position . . . able to unify the apparently diverse interests of all the sciences concerned with human behavior." These words, proclaiming the centrality of the value concept, were written by a psychologist (Rokeach, 1973, p. 3), but similar stands have been taken by sociologists (e.g., Williams, 1968) and anthropologists (e.g., Kluckhohn, 1951). These theorists view values as the criteria people use to select and justify actions and to evaluate people (including the self) and events. We, too, adopt this view of values as criteria rather than as qualities inherent in objects.

This article discusses work that is part of a larger project intended to explore the importance of values in a wide variety of contexts. The project addresses three broad questions about values. First, how are the value priorities of individuals affected by their social experiences? That is, how do the common experiences people have, because of their shared locations in the social structure (their education, age, gender, occupation, etc.), influence their value priorities? And, how do individuals' unique experiences (trauma, relations with parents, immigration, etc.) affect their value priorities? Second, how do the value priorities held by individuals affect their behavioral orientations and choices? That is, how do value priorities influence ideologies, attitudes, and actions in the political, religious, environmental, and other domains?

*This article was written with the collaboration of Sonia Roccas and Lilach Sagiv of the Department of Psychology of The Hebrew University. They have contributed to the development of the research reported here, performed most of the analyses, and critiqued successive versions of the manuscript.

To date, aspects of these first two questions have most often been studied within single cultures (e.g., Feather, 1975; Homer & Kahle, 1988; Levy, 1990; Rokeach, 1973). However, the current project is also concerned with the extent to which systematic associations among values, social experience, and behavioral orientations hold across cultures. Associations that are universal would point to fundamental processes relating value priorities to their antecedents and consequences. Associations that are culture specific would direct attention to important culture-linked moderators. The identification of such moderators would enrich our understanding of how value priorities function.

Third, the project addresses the question of cross-cultural or cross-national differences in value priorities and seeks to identify some of their causes and effects. For example, how do the value priorities of matched groups from countries as diverse as China, Poland, Spain, the United States, Venezuela, and Zimbabwe differ? What aspects of the ecology, history, technology, and social and political structures of the societies from which these groups are drawn might account for these differences in value priorities? How might the differences in value priorities account for differences among the societies in other domains, such as educational policies, political involvement, health, law, etc? In tackling this broad question, we have taken whole cultural groups as our unit of analysis, following in the footsteps of Hofstede's (1980) monumental work. Furthermore, in our search for causal links, we have adopted the ecocultural framework that guides much contemporary cross-cultural psychology research (Berry, 1975, 1986; Georgas, 1988; Segall, Dasen, Berry, & Poortinga, 1990).

Work on this third question raises the problem of whether dimensions of values that are meaningful in the study of individuals might also apply at the cultural level. In the current discussion, we limit our analyses to dimensions of values at the individual level, which is the appropriate level for the study of the first two questions. Preliminary analyses at the cultural level indicate that somewhat different value dimensions emerge when cultures are taken as the unit of analysis. Nonetheless, in contrast to Hofstede's (1980) findings, the dimensions derived at the two levels in our research appear to be closely related (Schwartz, *in press*).

In this article, we deal with a set of basic issues that must be resolved before the three broad questions elaborated above can be researched effectively:

1. Value content: It is necessary to identify first the substantive content of human values. What types of values are likely to be recognized and used to form priorities within and across all cultures? What might determine the nature of the content of values? Do values form some universal set of types?
2. Comprehensiveness: Have we identified a comprehensive set of values types? That is, does the set include all the types of values to which individuals are likely to attribute at least moderate importance as criteria of evaluation? If the value set is not comprehensive, studies of the correlates

of value priorities will be compromised: Influential values that might counterbalance or outweigh the values that were measured would necessarily be overlooked, so the assessed priorities would be distorted.

3. Equivalence of meaning: Do the values have the same or similar meanings among the differing groups of persons under study? Minimal equivalence of meaning is a sine qua non for effective cross-cultural comparison. Even within societies, equivalence of meaning cannot be taken for granted in comparisons of groups differentiated by age, gender, education, etc.
4. Value structure: Consistent conflicts and compatibilities among values (e.g., conflict between independence and conformity; compatibility between equality and helpfulness) may point to a meaningful structure that underlies relations among single values. Does such a value structure exist? Is it universal?

Identification of a universal structure would permit the derivation of basic value dimensions that could be used for purposes of comparison. Evidence that groups have similar value structures would justify assumptions about equivalence of meaning of the values comprising the structure. Variations in value structures across groups would suggest interesting differences in the ways these groups organize their understanding of the world. Note that *structure* refers to the relations of conflict and compatibility among values, not to their relative importance to a group or individual. The latter is referred to as *value priorities* or *hierarchies*.

The first steps in tackling these basic issues were taken by Schwartz and Bilsky (1987, 1990). They proposed a tentative theory of the universal content and structure of human values, which they tested with data from seven countries. In this article, we revise that theory with numerous modifications and extensions. We also introduce a new values instrument developed on the basis of the revised theory. We then assess the viability of the revised version of the theory with data gathered from 40 samples in 20 countries. Finally, we propose ways to use the theory and instrument to generate and test hypotheses about the antecedents and consequences of value priorities.

II. Theory Development

A. THE EARLY VERSION OF THE THEORY¹

Schwartz and Bilsky (1987, 1990) generated a conceptual definition of values that incorporates the five formal features of values recurrently mentioned in the

¹This overview is necessarily brief. For a full presentation, see Schwartz and Bilsky (1987, 1990).

literature. Values (1) are concepts or beliefs, (2) pertain to desirable end states or behaviors, (3) transcend specific situations, (4) guide selection or evaluation of behavior and events, and (5) are ordered by relative importance. Values, understood this way, differ from attitudes primarily in their generality or abstractness (feature 3) and in their hierarchical ordering by importance (feature 5) (cf. Bem, 1970, and Rokeach, 1973, but contrast Levy and Guttman, 1974).

In addition to the formal features of values, Schwartz and Bilsky (1987, 1990) proposed that the primary content aspect of a value is the type of goal or motivational concern that it expresses. They derived a universal typology of the different contents of values by reasoning that values represent, in the form of conscious goals, three universal requirements of human existence to which all individuals and societies must be responsive: needs of individuals as biological organisms, requisites of coordinated social interaction, and survival and welfare needs of groups. From an evolutionary viewpoint (Buss, 1986), these goals have crucial survival significance.

Eight distinct motivational types² of values were derived from the three universal human requirements. For example, the motivational type *restrictive conformity* was derived from the prerequisite of smooth interaction and group survival, which prescribes that individuals restrain impulses and inhibit actions that might hurt others. The eight types derived were prosocial, restrictive conformity, enjoyment, achievement, maturity, self-direction, security, and power. Responses to the Rokeach Value Survey (Rokeach, 1973), or to variants of it, supported the assumption that individuals in seven different countries experienced the first seven values types as distinct. Additional values presumed to measure power were included for one sample and emerged as distinct. Interrelations among all the Rokeach values were accounted for by the hypothesized motivational types; with these 36 values, no further motivational types emerged empirically (Schwartz & Bilsky, 1990).

In addition to propositions regarding the universal content of values, the theory specified a set of dynamic relations among the motivational types of values. Actions taken in the pursuit of each value type have psychological, practical, and social consequences that may be compatible or may conflict with the pursuit of other value types. For example, actions intended to express obedience (restrictive conformity) are likely to conflict with actions in pursuit of independence (self-direction), but they are compatible with actions promoting social order (security). Based on an analysis of the likelihood of conflict or compatibility between each pair of value types, an overall structure of relations among the seven value types was postulated.

Findings for the samples studied suggested that the dynamics of conflict and compatibility among the motivational types of values had much in common across the seven countries. For example, there was strong evidence for the

²We have relabeled what were formerly called *motivational domains* as *motivational types*.

universality of compatibility among value types that support smooth social relations (security, prosocial, restrictive conformity), among those concerned with self-enhancement (achievement, enjoyment), and among those expressing comfort with or reliance on one's uniqueness (maturity, self-direction). There was also strong evidence for the universality of value conflict between an emphasis on independence of thought and action versus conforming self-restraint (self-direction vs. restrictive conformity) and between concern for others versus pursuit of personal success (prosocial vs. achievement).

B. MODIFICATIONS OF THE THEORY: VALUE CONTENT

With regard to value content, we have modified the earlier version of the theory in several ways. First, we define and derive three potentially universal motivational types of values that were mentioned only briefly by Schwartz and Bilsky (1990), and we specify methods for measuring them. To date, the tradition and stimulation value types have neither been derived fully nor studied empirically, and the power type has been examined only tentatively. Second, we develop the possibility that spirituality may constitute another universal type with unusual characteristics, and we propose ways to examine this type. Third, based on empirical findings and on conceptual considerations, we suggest modifications of the definitions and contents of four of the earlier types (enjoyment, maturity, prosocial, security). These modifications are intended to sharpen the meanings of the types, thereby clarifying their origins in universal requirements and their relations to other value types. We relabel three of these earlier types to reflect their changed meanings.

We now present the hypothesized motivational types of values according to the revised theory, elaborating only on modifications. Following the description of each type, we list in parentheses the specific values included in our new survey instrument, primarily in order to measure that type. The meaning of each type is thus made more concrete and explicit. For some types, other values were judged *a priori* to express the goal of that type as a secondary meaning. Such values are endowed with multiple meanings that link them to more than one value type. Table I summarizes the postulated links of each of the single values in our survey with the motivational types of values. It indicates the primary motivational type associated with each value, and, where appropriate, a secondary type as well.

1. Self-Direction

The defining goal of this value type is independent thought and action—choosing, creating, exploring. Self-direction was derived from organismic needs for control and mastery (e.g., Bandura, 1977; Deci, 1975; White, 1959) and

TABLE I
POSTULATED ASSOCIATIONS OF SINGLE VALUES
WITH MOTIVATIONAL TYPES OF VALUES

Primary motivational type and value	Secondary motivational type
Self-direction	
Freedom	—
Creativity	—
Independent	—
Choosing own goals	—
Curious	—
Self-respect	—
Stimulation	
An exciting life	—
A varied life	—
Daring	—
Hedonism	
Pleasure	—
Enjoying life	—
Achievement	
Ambitious	—
Influential	Power
Capable	—
Successful	—
Intelligent	Self-direct, universalism
Self-respect	—
Power	
Social power	—
Wealth	—
Authority	—
Preserving my public image	Security
Social recognition	Achievement
Security	
National security	—
Reciprocation of favors	Conformity
Family security	—
Sense of belonging	—
Social order	—
Healthy	Hedonism
Clean	Conformity
Conformity	
Obedient	—
Self-discipline	—
Politeness	—
Honoring of parents and elders	Tradition
Tradition	
Respect for tradition	—

(continued)

TABLE I (*Continued*)

Primary motivational type and value	Secondary motivational type
Devout	Spirituality
Accepting my portion in life	Spirituality
Humble	Conformity
Moderate	Security
Spirituality	
A spiritual life	—
Meaning in life	Universalism
Inner harmony	Universalism, security
Detachment	—
Benevolence	
Helpful	—
Responsible	Conformity
Forgiving	—
Honest	—
Loyal	Conformity
Mature love	Universalism
True friendship	—
Universalism	
Equality	—
Unity with nature	Spirituality
Wisdom	—
A world of beauty	—
Social justice	—
Broad-minded	—
Protecting the environment	—
A world at peace	—

interactional requirements of autonomy and independence (e.g., Kluckhohn, 1951; Kohn & Schoeler, 1983; Morris, 1956). Although the goal of this type remains unchanged, we have changed the set of values intended to measure it so as to fit this goal more closely (creativity, freedom, choosing own goals, curious, independent).

2. *Stimulation*

Stimulation values derive from the presumed organismic need for variety and stimulation in order to maintain an optimal level of activation (Berlyne, 1960; Houston & Mednick, 1963; Maddi, 1961). This need is probably related to the needs underlying self-direction values (cf. Deci, 1975). Biologically based variations in the need for stimulation and arousal, conditioned by social experience, may produce individual differences in the importance of stimulation values. Such

a biological base has been claimed for thrill-seeking (Farley, 1986), a personality variable related to stimulation values. The motivational goal of stimulation values is excitement, novelty, and challenge in life (a varied life, an exciting life, daring).

3. Hedonism

This value type, derived from organismic needs and the pleasure associated with satisfying them, is referred to by scholars from many disciplines (e.g., Bentham, 1938/1948; Freud, 1933; Morris, 1956; Williams, 1968). It was formerly called "enjoyment" in order to justify including two values from the Rokeach list, happiness and cheerful. Neither of these values is convincingly derived from organismic needs, however. By dropping them we can define the motivational goal of this type more sharply as pleasure or sensuous gratification for oneself³ (pleasure, enjoying life).

4. Achievement

The defining goal of this value type is personal success through demonstrating competence according to social standards. Competent performance is a requirement if individuals are to obtain resources for survival and if social interaction and institutional functioning are to succeed. Achievement values are mentioned in many sources (e.g., Maslow, 1959; Rokeach, 1973; Scott, 1965). As defined here, achievement values emphasize demonstrating competence in terms of prevailing cultural standards, thereby obtaining social approval. This differs from McClelland's (McClelland, Atkinson, Clark, & Lowell, 1953) definition of achievement motivation to meet internal standards of excellence. The latter is more closely related to self-direction values (ambitious, successful, capable, influential).

5. Power

Power values are probably grounded in more than one type of universal requirement. The functioning of social institutions apparently requires some degree of status differentiation (Durkheim, 1893/1964; Parsons, 1957), and a dominance/submission dimension emerges in most empirical analyses of interperson-

³Happiness is assuredly an important value for many people. However, its empirical location in past research, very near the center of the multidimensional projection of the values space in each sample, indicated that its meaning is complex and ambiguous. Happiness can apparently be attained through the successful pursuit of any of the different types of values and it is positively correlated with them all.

al relations both within and across cultures (Lonner, 1980). To justify this fact of social life, and to motivate group members to accept it, groups must treat power as a value. Power values may also be transformations of the individual needs for dominance and control identified by analysts of social motives (e.g., Korman, 1974; Schutz, 1958). Power values have been mentioned by value analysts as well (Allport, 1961; Gordon, 1960). We view the central goal of power values as attainment of social status and prestige, and control or dominance over people and resources (authority, wealth, social power, preserving my public image, social recognition).

Both power values and achievement values focus on social esteem. However, achievement values (e.g., successful, ambitious) emphasize the active demonstration of competence in concrete interaction, whereas power values (e.g., authority, wealth) emphasize the attainment or preservation of a dominant position within the more general social system.

6. Security

The motivational goal of this value type is safety, harmony, and stability of society, of relationships, and of self. It derives from basic individual and group requirements (cf. Kluckhohn, 1951; Maslow, 1959; Williams, 1968). One might postulate the existence of a single security value type or of two separate types, individual and group. This depends upon whether we assume that some security values serve primarily individual interests (e.g., healthy) and others serve primarily collective interests (e.g., national security), or that even values that refer to collectivities express, to a significant degree, the goal of security for self (or those with whom one identifies). In order to address this question empirically, we included individual security values, absent in past research, in our new value survey (social order, family security, national security, reciprocation of favors, clean, sense of belonging, healthy).

7. Conformity⁴

The defining goal of this value type is restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms. It is derived from the requirement that individuals inhibit inclinations that might be socially disruptive if interaction and group functioning are to run smoothly. Conformity type values are mentioned in virtually all value analyses (e.g., Freud, 1930; Kohn & Schooler, 1983; Morris, 1956; Parsons, 1957). As we define them, conformity values emphasize self-restraint in everyday interaction,

⁴Formerly called *restrictive conformity*.

usually with close others (obedient, self-discipline, politeness, honoring parents and elders).

8. Tradition

Groups everywhere develop symbols and practices that represent their shared experience and fate. These eventually become sanctioned-as-traditions and customs that are valued by the group's members (Sumner, 1906). Traditional modes of behavior become symbols of the group's solidarity, expressions of its unique worth, and presumed guarantors of its survival (Durkheim, 1912/1954; Parsons, 1957). Traditions most often take the form of religious rites, beliefs, and norms of behavior (Radcliffe-Brown, 1952). The motivational goal of tradition values is respect, commitment, and acceptance of the customs and ideas that one's culture or religion impose on the individual (respect for tradition, humble, devout, accepting my portion in life, moderate).

9. Spirituality

Theologians, philosophers, and sociologists of religion emphasize that the basic rationale for traditional creeds and customs is to endow life with meaning and coherence in the face of the seeming meaninglessness of everyday existence (e.g., Buber, 1958; Niebuhr, 1935; Tillich, 1956; Yinger, 1957). Most religions supply answers to the question of the ultimate meaning of reality by referring to some supernatural being or force; nonreligious perspectives, such as humanism, locate sources of meaning in the natural world (Glock & Stark, 1965; Kaplan, 1961). These answers refer to what is commonly known as spiritual concerns. Hence, we label the relevant value type spirituality.

If answering the question of ultimate meaning is a basic human need (Coles, 1990; Niebuhr, 1935; King, 1954), then spirituality values may constitute another universal type. The motivational goal of such values would be meaning and inner harmony through the transcendence of everyday reality. The idea that spiritual values are a universal type raises two problems. First, the pursuit of meaning and coherence as described by theologians and philosophers may entail a level of sophisticated, effortful thought that is beyond that in which most people typically engage. Instead, most people may satisfy their need for coherence through pursuing tradition, security, and conformity values. Thus, spirituality values may not serve as guiding principles for all people.

Second, it is most likely that spirituality is represented by different values for different groups. Examination of literature on the major Eastern and Western religions and philosophies reveals that spiritual values take widely varying forms. Meaning or coherence may be found, for example, through contact with the supernatural, unity with nature, social action on behalf of one's group,

detachment from material cares and personal desires, or discovering one's "true" self (Heschel, 1955; Kaplan, 1961; King, 1954). Hence, no particular set of spiritual values may be universally distinctive, even if a general spirituality type of value is universal.

The set of potential spirituality values studied here was gleaned from widely varied sources. The values include a spiritual life, meaning in life, inner harmony, detachment, unity with nature, accepting my portion in life, and devout. Spirituality was viewed as the secondary meaning for the last three values.

A consistent grouping of any subset of these values in the analyses from different cultures would constitute evidence both for the universal existence of a spirituality type and for its common meaning. The emergence of different consistent groupings in different culture areas would suggest that there are several types of spirituality values rather than a single, universal spirituality type. The absence of any consistent groupings would support two interpretations: Either the theological and philosophical goals of spirituality do not serve as guiding principles for most people, or these goals are subsumed within and expressed through other value types. Including presumed spirituality values, a motivational type whose universality we doubt, puts to the test our ability to discriminate empirically between universal and nonuniversal value types.

10. Benevolence

This is a more narrowly defined version of the earlier *prosocial* value type. Whereas prosocial referred to concern for the welfare of all people in all settings, benevolence focuses on concern for the welfare of close others in everyday interaction. The narrow focus is more in keeping with Schwartz and Bilsky's (1987) derivation of this type from the need for positive interaction in order to promote the flourishing of groups (cf. Kluckhohn, 1951; Williams, 1968) and from the organismic need for affiliation (cf. Korman, 1974; Maslow, 1959). The motivational goal of benevolence values is preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, loyal, forgiving, honest, responsible, true friendship, mature love).

11. Universalism

This value type includes the former *maturity* value type and part of the former prosocial value type. The maturity type had not been derived a priori from universal human requirements, but it emerged empirically in all seven countries studied. Although we have linked it post hoc to Maslow's (1959) notion of the self-actualized person, it did not seem related to any clear, universal motivation. We therefore examined the results from the first few samples studied here in

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search of a partitioning of values that would be conceptually stronger. This search suggested the new value type we have labeled universalism.⁵

The motivational goal of universalism is understanding, appreciation, tolerance, and protection for the welfare of all people and for nature. This contrasts with the narrower focus of benevolence values. The motivational goal of universalism values can be derived from those survival needs of groups and individuals that become apparent when people come into contact with those outside the extended primary group and become aware of the scarcity of natural resources. People may then realize that failure to accept others who are different and treat them justly will lead to life-threatening strife, and failure to protect the natural environment will lead to the destruction of the resources on which life depends. Although such values may be absent in the few remaining small, isolated, homogeneous cultures, they are likely to be recognized to some degree in virtually all others.

Research on collectivist versus individualist cultures demonstrates the importance of distinguishing between the universalism and benevolence types of prosocial concern (Schwartz, 1990a, in press). Members of collectivist cultures tend to show great concern for the welfare of members of their own ingroup but relative indifference to the needs of outsiders. Members of individualist cultures tend to distinguish less sharply between ingroups and outgroups when responding to their needs (Triandis, 1990; Triandis, McCusker, & Hui, 1990). This suggests a pattern of much greater emphasis on benevolence than on universalism values in collectivist cultures and more equal emphasis on both value types in individualist cultures (broad-minded, social justice, equality, world at peace, world of beauty, unity with nature, wisdom, protecting the environment).

We address three basic theoretical questions regarding the content of the 11 motivational types of values: Are all of the value types present as distinctive organizing principles in all samples? Do the same specific values constitute each motivational type in each culture? Are any other value types necessary to account for the organization of single values?

Operationally, evidence for or against the existence of value types and the consistency of the single values that constitute them is provided by examination of two-dimensional projections of the multidimensional space that represents the correlations among all single values within each sample (see Section III,B,3). Some variation in the distinctiveness of types and in the location of single values across samples seems likely. In that case, we can seek broader categories that

⁵We also reexamined the smallest space projections of the value intercorrelations for the seven countries analyzed in the past (Schwartz & Bilsky, 1987, 1990), applying the new distinction between universalism and benevolence value types. This new distinction fit the earlier data better than the former distinction between maturity and prosocial value types had done. It yielded a clearer partitioning of values into two regions, with 30% fewer errors in the placement of single values.

exhibit greater universality and can suggest shared organizing principles at a more abstract level.

C. MODIFICATIONS OF THE THEORY: DYNAMIC STRUCTURE OF VALUE RELATIONS

The additions and revisions to the motivational types of values require a new set of hypotheses that specify the theorized dynamic relations among all the types. The first principle used to generate these hypotheses is the interests facet in the theoretical definition of values (Schwartz & Bilsky, 1987). If values are viewed as goals, then their attainment must serve the interests of the individual and/or of some collectivity. Values that serve individual interests are postulated to be opposed to those that serve collective interests.

The interests facet organized relations among the values types in all seven countries studied (Schwartz & Bilsky, 1990). The three value types postulated to serve individual interests (enjoyment, achievement, self-direction) formed a contiguous region in the two-dimensional projection of the values space in each country. This region was opposed to another contiguous region formed by the three value types postulated to serve collective interests (prosocial, restrictive conformity, security). Maturity values, postulated to serve both types of interests, were located on the boundary between these regions.

Using the same reasoning, we hypothesize that the five value types that serve primarily individual interests (power, achievement, hedonism, stimulation, self-direction) form a contiguous region opposed to another contiguous region formed by the three value types that serve primarily collective interests (benevolence, tradition, conformity). Universalism and security, as now defined, serve both types of interests and are therefore hypothesized to be located on the boundaries between these regions. The specific location of spirituality may vary depending on the particular values, if any, that constitute it, but almost all its potential values point to a general location in the collective region.⁶

⁶The interests facet should not be confused with the individualism-collectivism contrast in culture-level research (Hofstede, 1980; Schwartz, in press; Triandis, 1990). Many values that serve individual interests may indeed tend to receive greater priority in the way institutions function in individualist cultures, and many values that serve collective interests receive greater institutional priority in collectivist cultures. However, when we move from the level of individual values, on which the theory of this article focuses, to the level of cultural (institutionally organized) values, exceptions abound (Schwartz, in press). For example, the values wealth, social power, and authority, which primarily serve the interests of the individual person in our current analysis, tend to receive greater cultural priority in collectivist cultures in a culture-level analysis. Moreover, the values loyal, equality, and responsible, which primarily serve the interests of the collectivity in the current analysis, receive greater cultural priority in individualist cultures in a culture-level analysis.

More fine-tuned hypotheses are based on analyses of the underlying similarity of the goals defining each value type and of the psychological, social, and practical consequences of the simultaneous pursuit of each pair of value types. Each of the value compatibilities and conflicts predicted in past research includes types whose content has been modified in the revised theory. Our hypotheses are therefore new (though often related), and they are more detailed.

The overall dynamic structure of relations among value types resulting from the specific, partly redundant hypotheses is presented in Fig. 1. Adjacent value types are postulated to be most compatible. Increasing distance around the circular order indicates decreasing compatibility and greater conflict. Value types that emerge in opposing directions from the origin are postulated to be in greatest conflict.

1. Compatibilities

We reason that simultaneous pursuit of values from the following nine sets of types is compatible: (1) power and achievement—both emphasize social superiority and esteem; (2) achievement and hedonism—both are concerned with self-indulgence; (3) hedonism and stimulation—both entail a desire for affectively pleasant arousal; (4) stimulation and self-direction—both involve intrinsic motivation for mastery and openness to change; (5) self-direction and universalism—

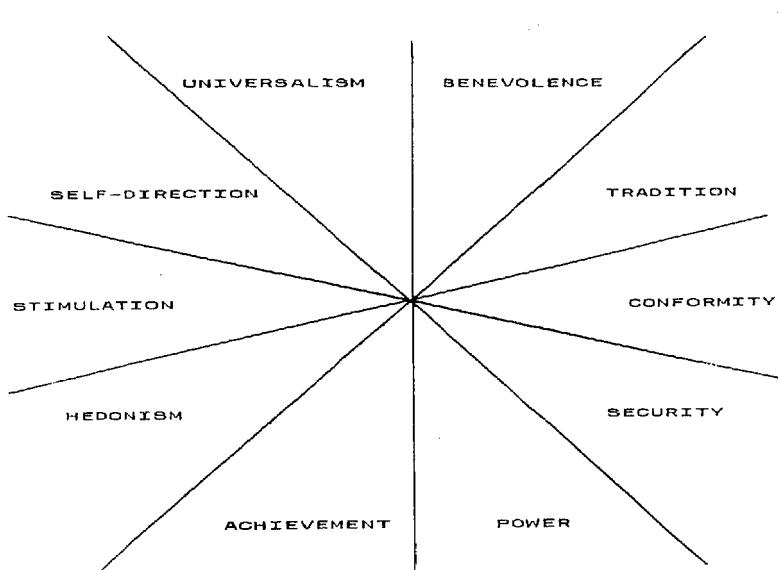


Fig. 1. Theoretical structure of relations among motivational types of values.

both express reliance on one's own judgment and comfort with the diversity of existence; (6) universalism and benevolence—both are concerned with enhancement of others and transcendence of selfish interests (most spirituality values also share this concern); (7) tradition and conformity—both stress self-restraint and submission (some spirituality values also share this stress); (8) conformity and security—both emphasize protection of order and harmony in relations; (9) security and power—both stress avoiding or overcoming the threat of uncertainties by controlling relationships and resources.

2. Conflicts

We further reason that simultaneous pursuit of values from the following sets of types gives rise to strong psychological and/or social conflict: (1) self-direction and stimulation versus conformity, tradition, and security—emphasizing own independent thought and action and favoring change conflict with submissive self-restriction, preservation of traditional practices, and protection of stability; (2) universalism and benevolence versus achievement and power—acceptance of others as equals and concern for their welfare interferes with the pursuit of one's own relative success and dominance over others; (3) hedonism versus conformity and tradition—indulgence of one's own desires contradicts restraint of one's own impulses and acceptance of externally imposed limits; (4) spirituality versus hedonism, power, and achievement—the search for meaning through the transcendence of everyday reality contradicts the pursuit of sensual and material rewards.

The full set of structural hypotheses overdetermines the order of value types shown in Fig. 1. The hypotheses place benevolence and tradition in adjacent positions, although no rationale was developed for their compatibility. Spirituality does not appear in Fig. 1 because of our doubts about the universality of a single spirituality type. The most likely location for a spirituality type is between benevolence and tradition, but a location between benevolence and universalism is also possible. This is based on considering the probable conflicts and compatibilities of the potential spirituality values. It also follows from the fact that the single values included to operationalize different conceptions of spirituality are closest to the definitions of one of these three value types.

D. TERMINAL VERSUS INSTRUMENTAL VALUES

The first facet in Schwartz and Bilsky's (1987) definition of values classified values as representing either *terminal goals* (end states, phrased as nouns, e.g., obedience) or *instrumental goals* (modes of behavior, phrased as adjectives, e.g., obedient). This distinction has been proposed both by philosophers (e.g.,

Lovejoy, 1950; Rescher, 1969) and by psychologists (e.g., Braithwaite & La 1985; Feather, 1975; Rokeach, 1973), although some have doubted its validity (e.g., Dewey, 1957). Schwartz and Bilsky (1990) found distinct regions occupied almost exclusively by terminal or by instrumental values in the multidimensional value space in all seven samples they studied. This provided support for the meaningfulness of the instrumental-terminal facet for the organization of people's values.

There were, however, puzzling elements in the relevant past findings. Distinct regions emerged for the values usually phrased as terminal and instrumental even where all the values were phrased in terminal form (Finland) and where the language (Chinese) precluded discrimination between terminal and instrumental values (Hong Kong). This suggested that something other than the terminal instrumental distinction was producing the empirical discrimination observed.

As an alternative interpretation, Schwartz and Bilsky (1990) proposed that the empirical discrimination might be an artifact of the serial order in which the values were rated. They did not explain how an order effect might produce distinct regions. One process, however, seems clear: As respondents go through the questionnaire, they may shift their subjective scale of importance as they encounter values of greater or lesser importance than those encountered previously. Consequently, shifts in scale use would reduce correlations among values located at a distance from each other because they would be likely to be rated on different subjective scales.

If the empirical distinction between terminal and instrumental values is due to shifting scale use, it should be reduced or disappear when respondents first anchor their ratings for the whole scale before rating the values. In the new survey form, as in previous research, a list of terminal values preceded a list of instrumental values. Here, however, an anchoring technique was introduced prior to rating each list in order to minimize shifts in scale use. If distinct terminal and instrumental regions emerge in the multidimensional value space, despite the probable reduction in scale use shifts, the conceptual significance of this facet will be reinforced. If, however, distinct regions do not emerge, further doubt will be shed on the significance of this facet for the organization of people's values.

III. Empirical Studies

A. THE THEORY-BASED VALUE SURVEY

In order to test the hypotheses derived from the revised theory, it was necessary to generate a new, theory-based survey to measure people's value priorities. A brief overview of the rationale for and construction of the new value survey is provided here.

Based on the motivational goal that defines each of the eleven potential universal value types, we selected specific values to represent each type from among all values that express that goal. Values from the Rokeach (1973) survey and from instruments developed in other cultures (e.g., Braithwaite & Law, 1985; Chinese Culture Connection, 1987; Hofstede, 1980; Levy & Guttman, 1974; Munro, 1985) were considered. Additional values were obtained from examination of texts on comparative religion and from consultations with Muslim and Druze scholars.

To represent the 11 types, 56 values were selected. We adopted Rokeach's (1973) procedure for further specifying the meaning of each value by providing an additional explanatory phrase in parentheses. The 56 values are listed in Section VII, ordered as they appeared in the questionnaire. Of the values, 21 are identical to those in the Rokeach lists. Both instrumental and terminal values were selected for each value type. In selecting values, preference was given to those judged to have a clear motivational goal. However, values judged to be related to multiple goals were also included if they were presumed to be very important in many cultures (e.g., intelligent, self-respect). A few values were included even though they were not expected to have universally shared meanings (e.g., detachment), in order to assess our ability to detect in the empirical data when values are culture specific or are not well understood.

As a direct expression of the definition of values as guiding principles in the individual's life, the new survey asks respondents to rate each value "AS A GUIDING PRINCIPLE IN MY LIFE," using the following nine-point scale: *of supreme importance* (7), *very important* (6), (unlabeled; 5,4), *important* (3), (unlabeled; 2,1), *not important* (0), *opposed to my values* (-1). Rating is employed rather than ranking to overcome some of the disadvantages of the latter for cross-cultural work (cf. critiques by Ng et al., 1982, and Rankin & Grube, 1980). In particular, the large number of values that respondents would be required to rank in order to cover the universal value types and to permit local researchers to add values from their own country would swamp reasonable information-processing capacities. Also, rating enables us to measure "negative" values—values people seek to avoid expressing or promoting through their choices and behavior. This phenomenon is especially likely in cross-cultural studies, wherein people may reject values from other cultures.

B. METHODS

1. Samples

In order to test the universality of the hypothesized value types and the dynamic relations among them, a set of samples maximally diverse in culture, language, and geographical region was desirable. The samples, briefly

characterized in Table II, were drawn from 20 countries. They are from cultures on every inhabited continent, representing 13 different languages, and include adherents of eight major religions as well as atheists. Most samples are from two occupational groups (school teachers and university students), but four samples of adults with widely varied occupations are also included.⁷

For 13 countries, at least two samples with very similar cultural backgrounds (education, residential area, religious identity, etc.) were included. We anticipated that differences in age, gender, and occupation would lead to differences between the samples from the same culture in the importance of particular values and value types. We assumed, however, that, for the most part, the meanings of values should be quite similar for samples from the same culture. For these countries, comparing within-culture to between-culture variations in the empirical content of value types and their structure of relations can help separate culture-specific from universal aspects of value meanings and structure.⁸

In each country, researchers were asked to collect data from a sample of approximately 200 teachers in grades 4 to 10 in the type of school system that teaches the largest proportion of children. No single occupational group can represent a culture, but grade school teachers may be the best single group: They play an explicit role in value socialization, they are presumably key carriers of culture, and they are probably close to the broad value consensus in societies rather than at the leading edge of change. Teachers are also more numerous, literate, accessible, and receptive to research than most other groups in virtually all societies, qualities that render them especially suitable for cross-cultural research. University undergraduate students were chosen most often as a second sample due to their accessibility and to the availability of student data from other studies of values with which comparisons might be made. In most cases, the samples included teachers of the whole range of grade school subjects or students with widely varying majors.

Respondents were dropped before the analyses if they used response 7 (of supreme importance) more than 21 times, or used any other response more than

⁷We focused on two occupational groups due to the other goals of the wider project, of which the research reported here is a first step—to investigate cultural differences in value priorities as well as antecedents and consequences of individual differences in value priorities both within and across cultures. This is best done with samples from the same occupational groups, in order to minimize confounding of socioeconomic influences with cultural influences.

⁸For example, if *self-respect* emerges with achievement values in all samples from one country, but with self-direction values in samples from most other countries, one could conclude that self-respect has a unique, culture-specific meaning in the particular country. If the location of a value is unique in one sample from a country but not in the other(s), one might attribute this uniqueness either to sample characteristics or to chance variation. Similarly, if two value types (e.g., benevolence and achievement) are in empirical proximity in all samples from one culture but opposed in samples from other cultures, one could conclude that they are uniquely related (compatible rather than in conflict) in that culture.

TABLE II
CHARACTERISTICS OF SAMPLES

Country and group	N	Language	Religions ^a > 20%	Percentage female	Age M (SD)
Australia					
Students (Adelaide)	387	English	PR, RC, N	61	22 (7.2)
General (Adelaide)	199	English	PR, RC	49	33 (11.9)
Brazil					
Teachers (Brasilia)	154	Portuguese	RC	59	23 (3.2)
Students (Brasilia)	244	Portuguese	RC	49	32 (8.3)
People's Republic of China					
Teachers (Guangzhou)	194	Chinese	BU, CF, N	37	26 (4.2)
Teachers (Hebei)	199	Chinese	BU, CF, N	38	28 (9.4)
Teachers (Shanghai)	211	Chinese	BU, CF, N	39	34 (10.8)
Students (Shanghai)	205	Chinese	BU, CF, N	61	20 (1.3)
Factory workers (Shanghai)	208	Chinese	BU, CF, N	11	26 (8.9)
Estonia					
Teachers (small town)	231	Estonian	PR, EO, N	82	40 (12.5)
General (rural)	210	Estonian	PR, EO, N	54	37 (12.6)
Finland					
Teachers (Helsinki)	205	Finnish	PR	76	44 (9.0)
Students (Helsinki)	295	Finnish	PR	80	24 (4.9)
Germany					
Students (Trier)	377	German	PR, RC	58	22 (3.4)
Greece					
Teachers (Athens)	195	Greek	GO, N	55	34 (5.6)
Students (Athens)	234	Greek	GO	72	20 (1.5)
Holland					
Teachers (Amsterdam)	187	Dutch	PR, RC, N	22	43 (7.4)
Students (Amsterdam)	277	Dutch	PR, RC, N	54	23 (3.5)
General (Countrywide)	240	Dutch	PR, RC, N	0	49 (7.6)
Hong Kong					
Teachers (Hong Kong)	201	Chinese	CF, PR, N	55	28 (4.2)
Students (Hong Kong)	211	Chinese	CF, PR, N	63	22 (1.8)
Israel					
Students (Jerusalem)	199	Hebrew	JE, N	50	24 (3.1)
General (Jerusalem)	207	Hebrew	JE, N	52	32 (12.2)
Italy					
Teachers (Rome)	200	Italian	RC	70	41 (9.3)
Japan					
Teachers (Hyogo)	229	Japanese	SH, BU	17	34 (6.1)
Students (Osaka)	542	Japanese	SH, BU	39	22 (1.4)
General (Osaka)	207	Japanese	SH, BU	54	45 (11.2)
New Zealand					
Teachers (South Island)	199	English	PR, N	60	39 (9.0)
Students (Christchurch)	202	English	PR, N	62	23 (6.5)

(continued)

TABLE II (*Continued*)

Country and group	N	Language	Religions ^a > 20%	Percentage female	Age M (SD)
Poland					
Teachers (Warsaw)	195	Polish	RC	75	39 (9.7)
Students (Warsaw)	195	Polish	RC	76	24 (4.4)
Portugal					
Teachers (Porto)	192	Portuguese	RC	63	36 (7.5)
Students (Porto)	198	Portuguese	RC	73	24 (5.9)
Spain					
Teachers (Madrid)	186	Spanish	RC	78	31 (8.3)
Graduate students (Madrid)	308	Spanish	RC, N	77	26 (3.7)
Taiwan					
Teachers (Taipei)	202	Chinese	BU, Folk	69	48 (5.9)
United States					
Students (Illinois)	240	English	PR, RC	50	20 (1.3)
Venezuela					
Students (Caracas)	185	Spanish	RC	74	22 (4.5)
Zimbabwe					
Teachers (Harare)	185	English	Tribal	28	28 (5.8)
Students (Harare)	205	English	Tribal	48	19 (.9)

^aBU, Buddhism; CF, Confucianism; EO, Eastern Orthodoxy; GO, Greek Orthodoxy; JE, Judaism; N, None; PR, Protestantism; RC, Roman Catholicism; SH, Shintoism.

35 times. Those who concentrated their responses to that degree were assumed to have failed to make a serious effort to differentiate among their values. Those who responded to fewer than 41 values were also excluded. The proportions of respondents dropped from the samples on these bases ranged from 0 to 10%, with a mean of 2%.

2. Procedures

The value survey was prepared in decentered Hebrew and English versions. The English version, together with versions in relevant cognate languages, if available, was provided to researchers in each country. In most non-English-speaking countries, the local researchers prepared a native language version, using backtranslation procedures, and sent that version to the author. He then obtained backtranslations into English, and sometimes into Hebrew as well, from native speakers of the relevant language in Israel. Discrepancies from the original versions were noted, and recommended revisions were sent with explanations to the local researchers. The latter made the final decisions regarding modifications. In two instances (Greece and Estonia), local researchers prepared their final versions without consulting the author.

Two principles guided the ordering of values in the survey. First, values

assumed a priori to represent the same value type were separated from each other by at least two other values. Second, values were separated by at least three other values from those in the same quintile on importance, based on pretest measures of importance from Finland and Israel. The order of the values was the same in all language versions.

In Brazil, China, Finland, New Zealand, Poland, Spain, and Venezuela, local researchers added up to 6 values to the core 56. When values were added, they were dispersed at equal intervals through the survey, with one restriction: Values that appeared to fit a given value type were separated by at least two other values from other values of that type. If only one instrumental or one terminal value was added, it was placed at the end of the respective list.

Values were presented in two lists. The first list contained terminal values (1 to 30) and the second list contained instrumental values (31 to 56; see Section VII). Prior to rating the values on each list, respondents read the whole list, chose and rated the value most important to them, and then chose and rated the value they most opposed or the one least important to them. This anchored the response scale for them.

In about half the samples, the survey questionnaire was administered in groups of 5–100 respondents. In most others, it was administered to individuals, and the Japanese and Dutch adult samples were obtained in a mail survey. In every case, responses were anonymous. Demographic, attitude, and other supplementary questions were placed at the end of the questionnaire. Raw data were forwarded to Jerusalem, where all analyses reported in this article were performed.

3. Smallest Space Analysis

In each sample, the intercorrelation matrix of Pearson correlations between the importance ratings of the values was analyzed with the Guttman–Lingoes Smallest Space Analysis (SSA) (Guttman, 1968; cf. Canter, 1985). This is one of a variety of nonmetric multidimensional scaling (MDS) techniques for structural analysis of similarity data (Davison, 1983; Dillon & Goldstein, 1984). This technique represented the values as points in multidimensional space such that the distances between the points reflected the empirical relations among values as measured by the correlations between their importance ratings. The greater the conceptual similarity between two values, the more related they should be empirically, and hence the closer their locations should be in the multidimensional space.

We interpret the SSA by using a *configurational verification* approach (Davison, 1983).⁹ That is, we interpret the configurations of substantively related

⁹For comparisons of SSA with other multidimensional scaling techniques and with factor and cluster analysis, see Canter (1985), Davison (1983), Dillon and Goldstein (1984), Guttman (1982), Shye (1988), and Zeidner and Feitelson (1989). For a discussion of its relative usefulness for testing hypotheses of the type proposed here, see Schwartz and Bilsky (1990, p. 890).

points that emerge to form regions and the arrangement of these regions in space relative to one another. The MDS axes are not assumed to have substantive meaning because they are arbitrary. The content universe is conceived as a geometrical space in which the specific values are but a sample of all conceivable values comprising the total space with points everywhere. This means that some values at the edge of one region may correlate less with other values of the same region than they do with certain values on the edge of neighboring regions. Partition lines may be straight or curved, as long as they yield regions having continuous boundaries that do not intersect with the boundaries of other regions (Lingoes, 1977, 1981).

We have postulated that the motivational content of values is the most powerful principle in the organization of people's value preferences. If this is so, the organizing effects of motivational content may be evident even in the projection of value points obtained with a two-dimensional solution. The value *content* hypotheses were tested by examining whether it was possible to partition the points that filled the two-dimensional space into distinct regions that reflected the 10-11 *a priori* value types. Because we had specified, in advance, which set of values was expected to constitute the contents of the region for each value type, we were able to seek a region for each set and then to draw boundaries between the regions. The value *structure* hypotheses were tested by examining whether the regions obtained formed a pattern similar to the theoretical structure of Fig. 1 that represents these hypotheses.

Wedgelike regions emerging from a common origin are predicted when two or more of the several elements in a qualitative facet (i.e., the value types in the motivational concern facet here) are in conceptual opposition to one another (Levy, 1985; Shye, 1985). To determine where to place the partition lines between regions, we first drew boundary lines that connected the values that were at the outer edges of each region, avoiding any overlap of region boundaries (Lingoes, 1977, 1981). We then placed the partition lines between these boundaries.

Three criteria were used to decide whether a set of value points formed a bounded region confirming the existence of a given value type: The region must include (1) at least 60% of the values postulated *a priori* to constitute that type and (2) no more than 33% of the values postulated to constitute any other single type. Further, (3) at least 70% of all values in the region had to have been judged *a priori* as potentially reflecting the goals of the appropriate value type as one of their meanings. If the above criteria were not met, a region combining two value types was formed using the following criteria: The region (1) contained at least 50% of the values postulated to constitute each type, and (2) at least 70% of the values in the region potentially reflected the goals of these two value types. If neither set of criteria were met, the existence of the value type was taken as disconfirmed.

We also examined the configuration of value points to assess whether people

respond differently to terminal versus instrumental values. If the terminal-instrumental distinction affects people's responses, the value points should be partitionable into two distinct regions, one containing the 30 terminal values and one containing the 26 instrumental values. Evidence for distinct terminal and instrumental value regions was sought not only in the two-dimensional solution of the SSA but also in the two-dimensional projections of higher dimensional solutions (up to four dimensions). The latter projections were also examined for evidence of the motivational concern facet.

C. RESULTS

In Fig. 2, we present an example of SSA results for 56 values. The bases and justification for computing this SSA, which averages the results of analyses within each of 36 samples, will be discussed below. For now, we use it as a convenient prototype to aid in elucidating and assessing the value content hypotheses and the structure hypotheses.

1. Distinctiveness of Value Types

Are all 11 types of values present across cultures, forming distinct regions in the SSA? Applying the criteria listed above for identifying a region as confirming the existence of a value type, we sought regions indicative of each value type in the two-dimensional SSA of each sample.¹⁰

Results of the 40 within-sample SSAs are summarized in Table III. For the vast majority of samples, it was possible to locate regions arrayed much like the prototype. Column one lists the number of distinct regions identified in each sample. The numbers of samples out of 40 in which a distinct region was identified for each value type were as follows: Universalism (34), Benevolence (28), Tradition (36), Conformity (29), Security (32), Power (37), Achievement (40), Hedonism (32), Stimulation (31), and Self-Direction (36).

Spirituality is not included in the above list because the criteria for confirming

¹⁰There are no decisive criteria for selecting the number of dimensions to be analyzed in an SSA (Coxon, 1982). Suggested conventions include adding dimensions until a stress measure (coefficient of alienation) of <.15 is attained or until the goodness of fit (measured by the stress) is not substantially improved by adding another dimension ("elbow test"). More important than such conventions is the interpretability of the solution (Borg & Lingoes, 1987). In the current analyses, two-dimensional solutions were easily interpretable by applying the theory of motivational types of values. We therefore used the two-dimensional solution even though the coefficients of alienation were >.15 in all samples (range .21 to .32). The emergence of a clear motivational structure of values on the first two dimensions suggests that motivational goal is the most powerful principle organizing value preferences. For the general Japanese sample, the two-dimensional projection did not yield clear evidence of the motivational types. We therefore examined the three-dimensional analysis. The data reported for this sample are based on the projection of dimensions 1 × 3 in the latter analysis.

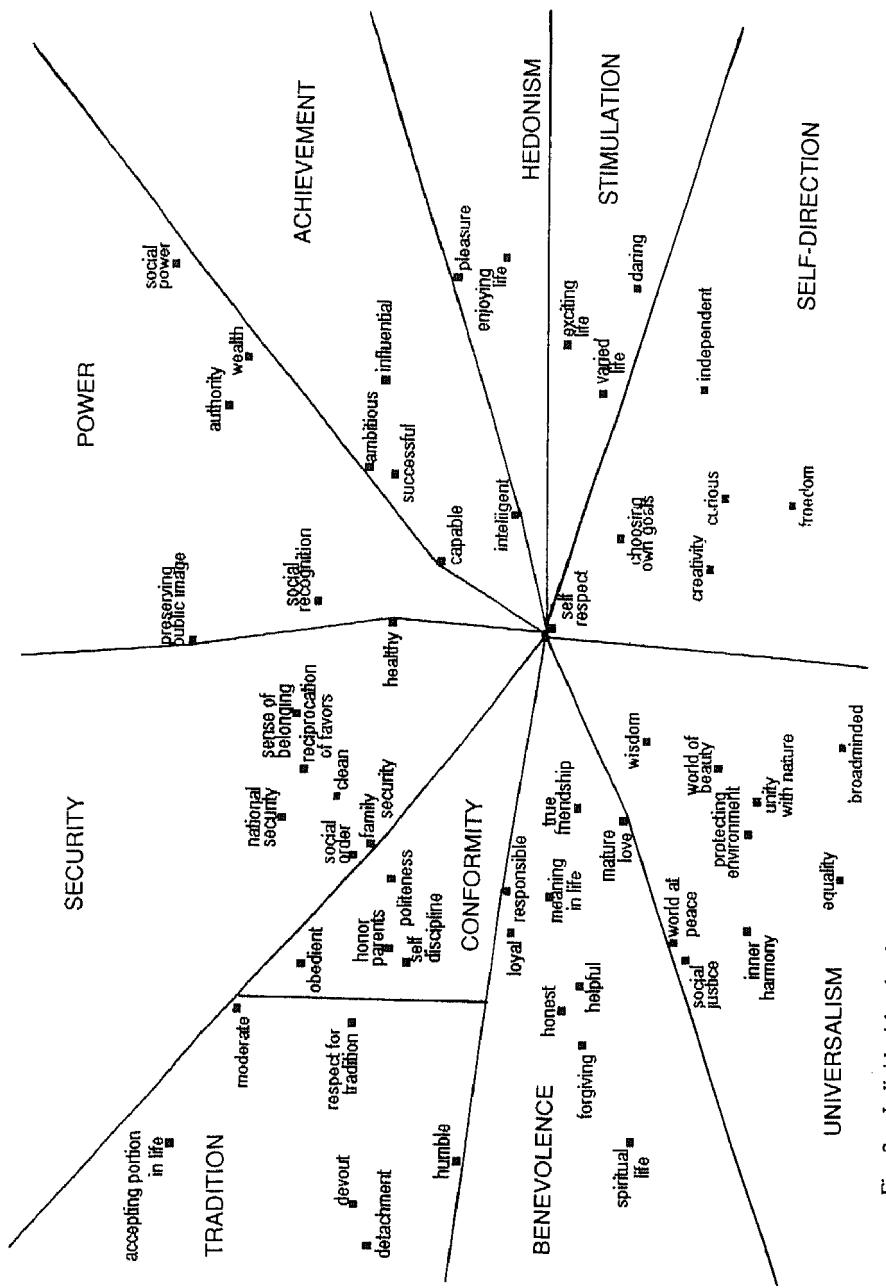


Fig. 2. Individual-level value structure averaged across 20 countries (36 samples): Two-dimensional smallest space analysis.

TABLE III
VALUE TYPES AND STRUCTURE OBSERVED IN 40 SAMPLES

Country and groups	Distinct types	Distinct + joint types ^a	Number of correct locations in 52 values	Number of moves to fit ideal structure	Number of moves to fit revised ideal structure
Australia					
Students	8	8	50	1.5	1.5
General	10	10	46	1	0.5
Brazil					
Teachers	8	10	42	3	2.5
Students	8	10	47	1	0
People's Republic of China					
Teachers (Guangzhou)	8	10	41	2.5	1.5
Teachers (Hebei)	8	8	39	7	6
Teachers (Shanghai)	6	8	38	6	5
Students (Shanghai)	7	7	38	5.5	4
Factory workers (Shanghai)	6	6	39	4.5	3.5
Estonia					
Teachers	8	8	42	6.5	6
General	6	8	44	3.5	2.5
Finland					
Teachers	10	10	48	2.5	1.5
Students	10	10	46	0	0
Germany					
Students	10	10	50	0.5	0.5
Greece					
Teachers	8	10	46	1.5	0.5
Students	10	10	51	1.5	0.5
Holland					
Teachers	10	10	48	0.5	0.5
Students	10	10	51	0.5	0
General	8	10	46	1	0.5
Hong Kong					
Teachers	8	8	46	2.5	2
Students	8	8	48	3	2
Israel					
Students	10	10	47	0.5	0.5
General	10	10	50	0.5	0
Italy					
Teachers	8	10	46	0.5	0
Japan					
Teachers	8	10	45	1	1
Students	8	8	48	1.5	0.5
General	10	10	44	1.5	0.5

(continued)

TABLE III (*Continued*)

Country and groups	Distinct types	Distinct + joint types ^a	Number of correct locations in 52 values	Number of moves to fit ideal structure	Number of moves to fit revised ideal structure
New Zealand					
Teachers	10	10	48	1.5	1
Students	8	10	51	2	2
Poland					
Teachers	8	10	46	2	2
Students	8	10	49	3	2
Portugal					
Teachers	6	10	50	2.5	2
Students	10	10	48	0.5	0.5
Spain					
Teachers	10	10	46	0.5	0.5
Students	10	10	49	0.5	0
Taiwan					
Teachers	8	8	45	7.5	7
United States					
Students	8	10	48	1	0.5
Venezuela					
Students	8	10	46	1.5	1.5
Zimbabwe					
Teachers	4	6	43	6	5
Students	8	8	43	4.5	4

^aDistinct types plus instances of joint types hypothesized to be adjacent.

a distinct region were met for this type in only 8 samples. In an attempt to investigate whether different spirituality types emerged in different cultures, we relaxed our criteria: We sought the joint emergence of at least three of the six a priori spirituality values in a distinct bounded region. In meeting the 70% criterion for the whole region, we treated the a priori tradition values as potentially fitting the spirituality definition. Using these criteria, a distinct spirituality region was found in 17 additional samples. The most frequently found combination of three spirituality values (10 samples) included a spiritual life, accepting my portion in life, and detachment. The second most common combination was a spiritual life, inner harmony, and detachment (8 samples). No other combination was found in more than 6 samples.

Generally, when no distinct region emerged for a value type, its values were intermixed with those of a type postulated to be adjacent. Column two of Table III lists the number of types identifiable in each sample when we also included those instances wherein two types postulated to be adjacent in the ideal structure (Fig. 1) formed a joint region. In 67.5% of the samples, all 10 value types were

found, and in 92.5% at least 8 or more types were identifiable. The numbers of samples out of 40 in which a value type emerged in a distinct region or in a joint region with one of its two postulated neighbors were as follows: Universalism (38), Benevolence (33), Tradition (37), Conformity (33), Security (36), Power (37), Achievement (40), Hedonism (37), Stimulation (40), and Self-Direction (40).

In many samples, the distinct regions of tradition and of power values that emerged did not extend into the common origin. Rather, these tradition and power regions were located toward the periphery of the two-dimensional space. In 29 of the 36 samples that revealed a distinct region of tradition values, this region was outside the conformity values region, as in the prototype, rather than between the benevolence and conformity regions, as in Fig. 1. This suggests a need for a possible modification in the theory.

In 28 of the 37 samples in which a distinct power values region appeared, this region could be connected with the common origin as postulated. However, in 26 samples the boundaries of the power values region could also be drawn so as to place it outside the achievement values region. The more straightforward location of the power region was as connected to the origin in 21 samples and outside achievement in 16 samples. The prototype reflects this juxtaposition of the power and achievement values regions: A boundary drawn horizontally above *ambitious* in Fig. 2 would form a single broad wedge including both achievement and power values, with the latter located outside.

Benevolence and conformity showed a relatively high number (seven) of non-distinct regions. In every case, this was due to the joining of benevolence with conformity into a joint region. These two value types were originally postulated to be separated by tradition. However, as just noted, the tradition region was frequently located outside of conformity, making benevolence and conformity values adjacent.

2. Contents of Value Types

For each sample, the number of single values that emerged in regions corresponding to their postulated value type(s) is listed in column three of Table III. Excluded from this analysis were the spirituality value type and the four values originally included primarily to represent it (spiritual life, meaning in life, inner harmony, detachment). Values were counted as misplaced if they emerged empirically in a region that represented a value type(s) other than those with which they were associated *a priori* on the basis of the motivational goal(s) they express.

The number of correct locations for the 52 values ranged from 51 (Greece, students; Holland, students; New Zealand, students) to 38 (Shanghai, teachers and students). The median number of correct locations per sample was 46 (88%).

For four of the Chinese mainland samples (Hebei and all three Shanghai), individual interest value types emerged as predicted, but the values from collective and mixed interest value types could not be separated into regions : the postulated types without violating our criteria. Interestingly, these values form a consistent set of three meaningful regions, but these regions differed from our theory. Rather than forcibly imposing our structure on these samples, seems more reasonable to treat them as fitting an alternative theory, which deserves special study (Zhi-gang, 1990, see below).

In order to reveal the values that constitute the contents of each value type, counted the number of times that each value emerged empirically in each region across samples. This indicates both the most common meaning of each value and any common alternative meanings the value may have in different cultures. Table IV presents the relevant results. In this assessment, we excluded the Shanghai and Hebei samples for the reasons noted above. Each value is listed under the value type in which it emerged most frequently. All other empirical locations for each value are given in parentheses.

For 87% (45 of 52) of the values, a single region associated with one motivational type of value accounted for their empirical location in at least 70% of t

TABLE IV
NUMBER OF TIMES VALUES WERE EMPIRICALLY LOCATED IN A REGION OF EACH MOTIVATION
TYPE: BASED ON SSA TWO-DIMENSIONAL PROJECTIONS FOR 36 SAMPLES^a

Value	Number of locations ^b
Power (PO)	
Social power	36
Authority	35 (AC-1)
Wealth	35 (AC-1)
Preserving my public image	27 (SE-8)(TR-1)
Social recognition	23 (AC-8)(SE-5)
Achievement (AC)	
Successful	34 (UN-1)(HE-1)
Capable	33 (PO-1)(UN-1)(SE-1)
Ambitious	32 (PO-1)(SD-1)(ST-1)(UN-1)
Influential	28 (PO-6)(SD-1)(ST-1)
Intelligent	23 (SD-7)(UN-4)(CO-2)
Hedonism (HE)	
Pleasure	36
Enjoying life	36
Stimulation (ST)	
Daring	36
A varied life	34 (SD-1)(UN-1)
An exciting life	33 (AC-2)(HE-1)
Self-direction (SD)	
Curious	35 (PO-1)

(continued)

TABLE IV (*Continued*)

Value	Number of locations ^b
Creativity	34 (UN-1)(BE-1)
Freedom	32 (UN-3)(AC-1)
Choosing own goals	29 (UN-3)(AC-3)(PO-1)
Independent	29 (ST-3)(HE-2)(UN-1)(PO-1)
Self-respect	15 (AC-13)(UN-4)(BE-3)(SE-1)
Universalism (UN)	
Protecting the environment	35 (SE-1)
Unity with nature	35 (SE-1)
A world of beauty	34 (SD-1)(TR-1)
Broad-minded	33 (BE-1)(SD-1)(ST-1)
Social justice	32 (BE-2)(SE-1)(CO-1)
Wisdom	32 (BE-3)(SD-1)
Equality	29 (SD-4)(SE-2)(BE-1)
A world at peace	29 (BE-3)(SE-3)(CO-1)
Inner harmony	20 (BE-8)(SE-4)(TR-2)(SD-1)(ST-1)
Benevolence (BE)	
Helpful	36
Honest	35 (CO-1)
Forgiving	31 (UN-4)(CO-1)
Loyal	29 (CO-6)(UN-1)
Responsible	27 (CO-7)(UN-2)
A spiritual life	24 (UN-5)(TR-4)(SE-2)(SD-1)
True friendship	23 (UN-7)(SE-3)(TR-1)(SD-1)(AC-1)
Mature love	22 (UN-9)(SE-3)(CO-1)(TR-1)
Meaning in life	15 (UN-9)(SE-5)(TR-4)(CO-3)
Tradition (TR)	
Accepting my portion in life	34 (CO-1)(SE-1)
Devout	31 (CO-2)(UN-2)(BE-1)
Humble	30 (BE-3)(CO-2)(UN-1)
Respect for tradition	29 (CO-5)(SE-1)(UN-1)
Moderate	27 (SE-6)(BE-2)(CO-1)
Detachment	18 (UN-7)(BE-4)(SE-3)(SD-2)(PO-2)
Conformity (CO)	
Obedient	34 (SE-2)
Honoring of parents and elders	34 (TR-2)
Politeness	32 (SE-3)(BE-1)
Self-discipline	32 (SE-2)(BE-1)(UN-1)
Security (SE)	
Clean	33 (CO-3)
National security	32 (UN-2)(TR-1)(BE-1)
Reciprocation of favors	29 (CO-4)(SD-2)(UN-1)
Social order	29 (CO-5)(UN-1)(SD-1)
Family security	28 (CO-4)(BE-2)(AC-2)
Sense of belonging	20 (BE-6)(AC-4)(TR-2)(UN-2)(SD-1)(CO-1)
Healthy	20 (HE-6)(AC-5)(UN-2)(BE-2)(SD-1)

^aIn the Japan adult sample, the 1 × 3 projection of the three-dimensional solution was used.^bLocations other than those postulated are indicated in parentheses.

samples. Counting the four values originally included primarily to measure spirituality, this level of consistency was reached by 80% of the total 56 values. Presumed spirituality values emerged most often in the regions representing benevolence, universalism, and tradition types.

For every one of the 56 values, its predominant empirical location fit quite well with the goal of the value type with which it was most often associated. Confidence in the meaningfulness of the findings was strengthened by the fact that the most frequent alternative locations of values also made sense (e.g., intelligent in self-direction, self-respect in achievement, moderate in security). Variations in the value type with which a value was associated may reflect random error, differences due to translation, or real cultural differences in meaning. Detailed examination of these alternatives for each value is feasible and revealing, but it is beyond the scope of this article.¹¹

3. Structure of Dynamic Relations among Values

The total set of hypotheses regarding the dynamic relations of conflict and compatibility among the value types was captured in the circular arrangement of the types presented in Fig. 1. Therefore, for each sample, comparing the arrangement of value types observed in the SSA with this ideal arrangement can provide an overall assessment of the fit between data and theory. As a measure of the difference between the observed structure of value relations and the hypothesized structure, we counted the number of single inversions of the order of adjacent value types (= moves) required to rearrange the observed order to match the ideal order.

In cases in which value types formed a joint region, types were split into separate regions to the sides of the joint region where the values that constituted them were predominantly concentrated. Splitting joint regions this way was counted as half a move. If the values constituting the types were not concentrated on one or the other side of the joint region, a full move was counted to split a pair of types into separate regions in the hypothesized order.

For example, compare the observed structure of Fig. 2 with the hypothesized structure of Fig. 1. The structures are identical with the exception of the wedge containing the conformity and tradition types of values. Although these two

¹¹Forgiving, for example, emerged in the universalism region, near broad-minded, in all three Japanese samples reported on here and in two recently analyzed Japanese student samples from Hokkaido and Tokyo. It emerged in the benevolence region in practically all the samples from other cultures (see Table IV). Furthermore, no translation problem was evident in backtranslations of the value by four independent translators. Hence, forgiving almost certainly has a unique meaning in Japanese culture. Its consistent location suggests that, in Japan, forgiving primarily has the meaning of tolerance, acceptance, and understanding of actions that are disturbing. This contrasts with the more common meaning of actively forgoing feelings of anger, resentment, and/or a desire to punish which are initially experienced in response to the disturbing act. Sumiko Iwao (personal communication, April 1991) has confirmed this interpretation.

types are not intermixed in Fig. 2, they are, from the viewpoint of the hypothesized circular arrangement, in a joint region requiring separation. Neither the conformity nor the tradition values are concentrated on one or the other side of the joint region. Hence, it would count one move to separate the two types and place them in the hypothesized order of conformity between security and tradition. No further moves would be required to match the ideal structure.

The number of moves required in each sample to match the observed structure to the hypothesized structure of value types is reported in column four of Table III. The empirical fit was quite impressive. The modal number of moves needed was 0.5 and the median was 1.5. Only 8 of the 40 samples required more than four moves to match the hypothesized structure and only 3 samples required more than six moves.¹² The more poorly matched samples included four from China and one from Taiwan. Only one sample matched the ideal perfectly (students from Finland), but in 14 other samples no more than a single move was required to attain a match, indicating that only one pair of adjacent value types was mixed or reversed.

The substantial match in most samples between the observed and the hypothesized contents and structure of the value types enabled us to undertake a further examination of universal aspects of value content and structure. This match suggested that a single analysis that combines the samples may provide a picture of the relationships among values across cultures that can serve as a reasonable overall heuristic. Excluded from this analysis, for the reasons noted above, were the one Hebei and three Shanghai samples. The analysis included 36 samples, each with its unique structure of value relations, from 20 countries (Guangzhou remained as a Chinese sample).

In combining samples, equal weight was given to each of the countries. For countries providing more than one sample, the correlations among the 56 values within each sample were averaged across samples to generate a single intercorrelation matrix for the country. The resulting 20 country matrixes were, in turn, averaged to generate one overall intercorrelation matrix. Figure 2 presents the two-dimensional projection of the SSA on the overall matrix. Distinct regions emerged for each of the 10 value types. Moreover, every one of the 56 single values emerged in a region appropriate to its primary motivational goal. The overall value structure differed from the hypothesized structure only in the positioning of the distinct tradition and conformity regions in a way that formed a joint wedgelike region emerging from the common origin. These findings strongly supported all the hypotheses regarding compatibilities and conflicts between value types.

¹²For the 10 value types, 181,440 different arrangements were possible. Any arrangement requiring fewer than seven moves differed significantly ($p < .05$) from a random arrangement in the direction of the postulated structure (fewer than five moves, $p < .01$). I thank Gennady Levin for calculating these probabilities.

Next, we performed separate SSA analyses on the set of teacher samples on the set of student samples in order to examine the robustness of this representation of a universal content and structure of values. The separate SSAs on the sets of samples tested whether the content and structure of value types were similar despite differences in the importance attributed to values by teachers and students found in previous research. In a comparison of teachers with student samples from each of 14 countries, for example, we had found that teachers attributed more importance than students to conformity, security, tradition, and benevolence values in almost all countries, whereas students attributed more importance to teachers to hedonism, stimulation, and self-direction values (Schwartz, 1990).

As the basis for the teachers' SSA, an intercorrelation matrix was formed averaging the intercorrelation matrixes for the 15 teacher samples from 15 countries. A parallel matrix was formed in the same way for the 16 student samples from 16 countries.

Figure 3 presents the two-dimensional projection of the SSA on the value ratings of the averaged student samples. This projection was easily partitioned into regions representing all 10 value types. Moreover, the structure of relations among the types was virtually identical to the overall structure. All single values emerged in the same appropriate regions in this analysis as in the overall analysis, with the exception of healthy. Here, too, the tradition and conformity regions formed a single wedgelike region emerging from the common origin.

Figure 4 presents the two-dimensional projection of the SSA on the value ratings of the averaged teacher samples. This projection was also easily partitioned into regions representing all 10 value types. All single values emerged in the same appropriate regions in this analysis as in the overall analysis, with the exception of healthy¹³ and self-respect.¹⁴ The structure of relations among the

¹³The location of healthy was apparently a compromise, reflecting its relatively high positive correlations with security, hedonism, and achievement values. This suggests that healthy has multiple meanings. For students, correlations with security values were highest, closely followed by correlations with values of both other types. To them, healthy apparently expressed not only a goal of personal safety (security) but also of enjoyment of one's body (hedonism) and of health maintenance (e.g., through exercise—an achievement task). For teachers, correlations were considerably weaker with hedonism and achievement values than with security values. To them, perhaps because they are older, the security connotation may have predominated. Healthy was virtually uncorrelated with power values. A similar variation in the meaning of health was found in separate MDS analyses run by Kristiansen (1990) on the values of British men and women. Health was related to security among men and to hedonism among women.

¹⁴The location of self-respect in the SSAs is revealing. It was near the center in many samples, suggesting that self-respect is associated with and based on the attainment of different types of values. The SSAs for the teacher samples suggested that for them self-respect was more related to their socially recognized achievements. Self-respect emerged in the achievement region in 8 of 15 teacher samples and in the self-direction region only twice (cf. Fig. 4). For students, in contrast, the SSAs suggested that self-respect was more related to the assertion of uniqueness and independence. To them, self-respect emerged in the self-direction region in 11 of 16 samples and in the achievement region only three times (cf. Fig. 3).

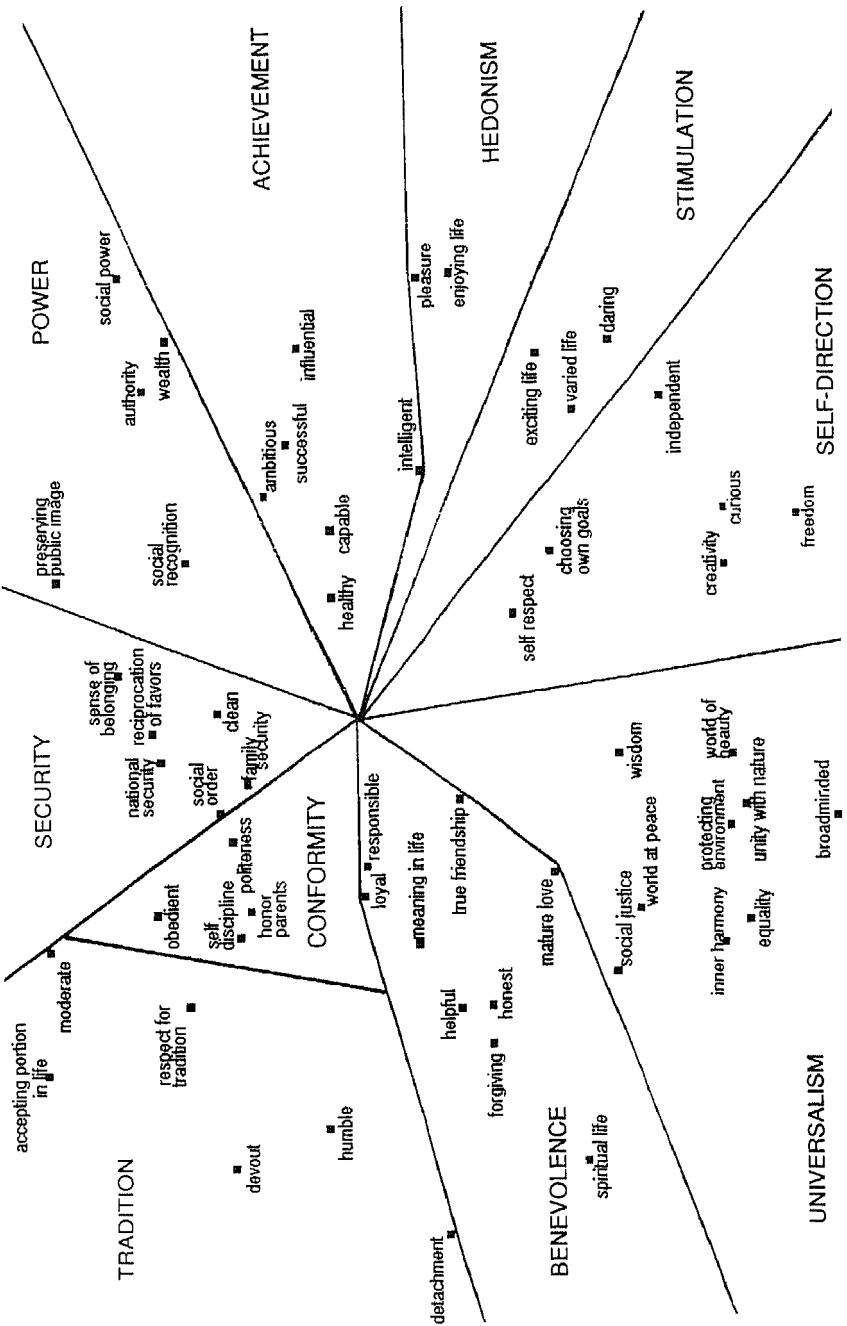
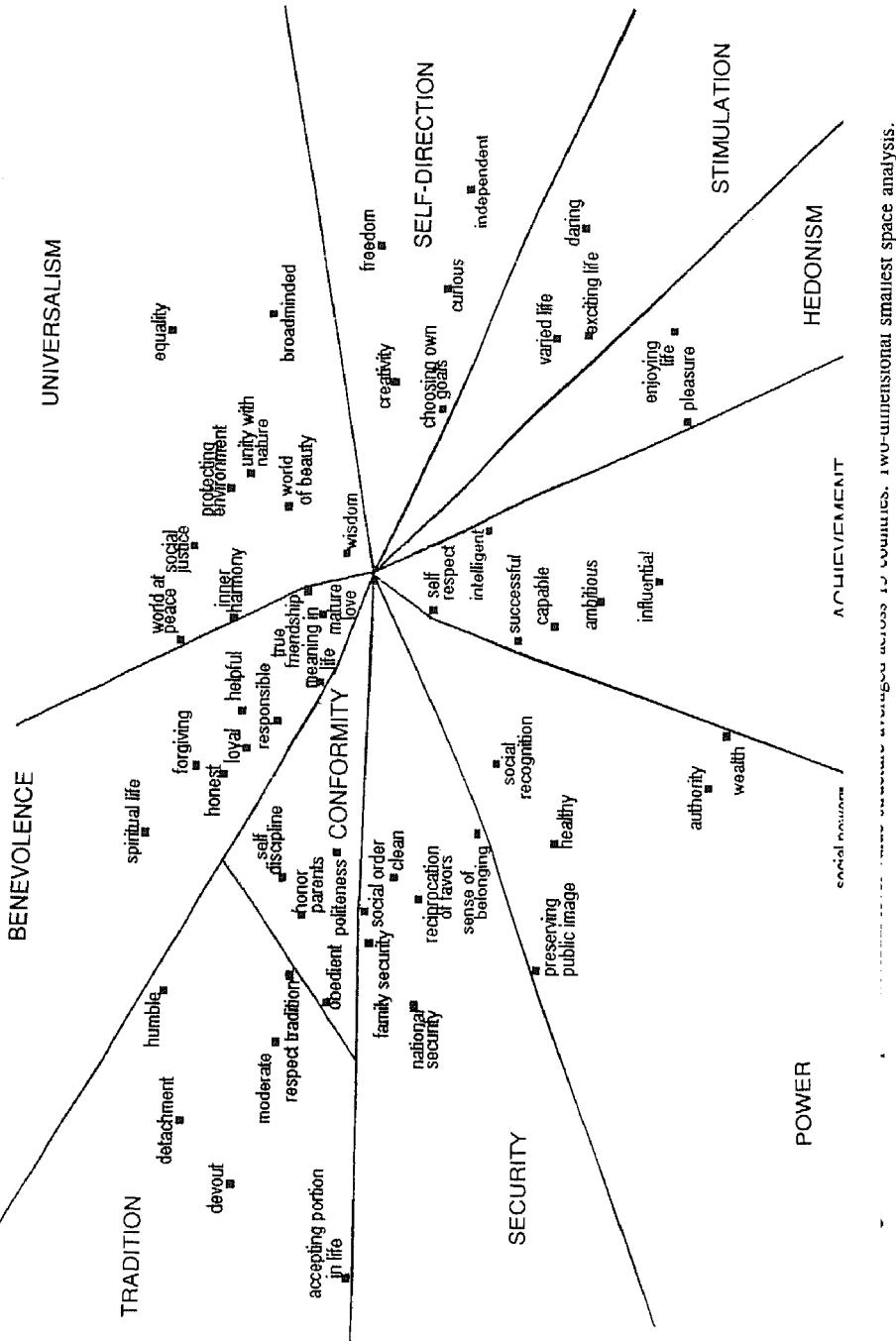


Fig. 3. Student samples. Individual-level value structure averaged across 16 countries: Two-dimensional smallest space analysis.



WU-WU-dimensional smallest space analysis.

value types was identical to the overall structure in Fig. 2. The apparent rotation of regions for the types is a technical matter that carries no conceptual significance. In this structure, too, the tradition and conformity regions formed a single wedgelike region emerging from the common origin.

The recurrent location of the tradition region outside the conformity region in the combined analyses, as well as in 29 of the single samples, strongly suggests that reality is better represented by this structural arrangement. This arrangement also confirms all the hypotheses regarding compatibilities and conflicts among value types proposed in the introduction. We therefore took this order as our corrected ideal and counted the number of moves required to rearrange the observed order of value types in each sample to match this corrected ideal. The structure in 6 of the samples was identical to the revised ideal order, and in 12 other samples only 0.5 of a move was required to match it. In 29 of the samples, the number of moves required to match this order was less than the number required to match the original ideal order, and in the other samples there was no difference. (See Table III, column five.)

a. Compatibilities within Cultures. All the hypothesized compatibilities appeared in the SSAs for the combined samples, but this does not indicate how frequently each compatibility emerged across samples. For this purpose, we examined whether each pair of value types was found in adjacent regions in the SSAs for each sample. We also inferred that a pair of types was compatible if the values from the pair were intermixed. The number of samples in which each compatibility hypothesis was confirmed is shown in Table V. None of the com-

TABLE V
NUMBER OF SAMPLES OUT OF 40 IN WHICH HYPOTHEZIZED
COMPATIBILITIES AND CONFLICTS AMONG VALUE
TYPES WERE CONFIRMED

Compatibilities	
Power—achievement	35
Achievement—hedonism	33
Hedonism—stimulation	30
Stimulation—self-direction	37
Self-direction—universalism	38
Universalism—benevolence	38
Tradition—conformity	37
Conformity—security	36
Security—power	28
Conflicts	
Self-direction/stimulation vs. conformity/tradition/security	35
Universalism/benevolence vs. power/achievement	37
Hedonism vs. conformity/tradition	33
Spiritual vs. hedonism/power/achievement	32

patibilities emerged in every one of the 40 samples. However, six compatibilities were found in at least 35 samples (88%). Given the likelihood of some error, this suggests near universality. The other three compatibilities appeared with substantial frequency (in at least 70% of samples). Although no consistent spirituality type was found, all four single values selected to represent one or another form of spirituality emerged in a region compatible with spirituality (benevolence, tradition, universalism) in at least 78% of samples.

b. *Conflicts within Cultures.* Results of examining the SSAs for all samples for the occurrence of the hypothesized conflicts between sets of values are presented in Table V. A conflict was counted as present when the regions representing the two opposing sets of value types were separated in both directions around the circle by at least two other value types. In the absence of evidence for a cross-culturally consistent spirituality type of values, we presented this type with the single value *a spiritual life*, because this value was found in all the combinations of spirituality values that had emerged empirically with some frequency. Table V shows that each of the conflict hypotheses was confirmed in at least 80% of the samples. Moreover, in no sample was the central region for a value type surrounded by regions for value types with which it was hypothesized to be in conflict. All conflict hypotheses were confirmed in the SSAs for combined samples (Figs. 2, 3, and 4).

4. Terminal versus Instrumental Values

In past research (Schwartz & Bilsky, 1987, 1990), the 18 terminal values from the Rokeach Value Survey were clearly separated from the 18 instrumental values into two distinct regions in the SSA for each of seven countries. Most frequently, the instrumental values formed a central region surrounded by the terminal values. The maximum number of errors of placement observed was four (in the United States). In light of these findings, we set a criterion for rejecting the hypothesis that two distinct regions were present here of at least eight errors (14.3% of the 56 values studied). This is a generous criterion intended to minimize the chance of mistakenly accepting our suspicion that the separation was due to an artifact that had sought to overcome by having respondents anchor their scale use.

Only if the regions that represent a conceptual distinction show a consistent shape across samples is it possible to give them a clear interpretation (Inglehart, 1985). We therefore sought to partition the space into central (instrumental values) and peripheral (terminal value) regions as previously found and, if that was not possible, into distinct regions of any other shape.

In each of the 40 samples, we first examined the projection on which the motivational types of values had appeared. This yielded not even one instance of a clear separation between terminal and instrumental values. We then examined three two-dimensional projections produced by the three-dimensional SSAs.

each sample. Of these 120 projections, 2 met the criterion of fewer than eight errors. Finally, we examined the six two-dimensional projections produced by the four-dimensional SSA. Of these 240 projections, 3 met the criterion. The few separations that were found took no consistent shape.

We would expect some successful separations of terminal from instrumental values by chance alone, given that 10 projections were searched for each sample and given some flexibility in drawing partitions when up to seven errors are permitted. The five separations observed in 400 projections therefore provide little support for the idea that the terminal-instrumental distinction is a meaningful basis on which people organize their values.

IV. Theory Assessment

A. THE NATURE OF THE VALUE TYPES

How many different motivational types of values is it possible and worthwhile to distinguish? The data confirmed that people in a large number of cultures implicitly distinguish 10 types of values when assessing the importance of specific values as guiding principles in their lives. The stimulation, power, and tradition types, added to the theory and first studied in this research, emerged in distinct regions in more than 75% of samples. The value types studied earlier, some redefined here, were also consistently found in the analyses. Only the spirituality value type failed to evidence universality to a substantial degree.

The data give no support to the idea that there are additional, universal, motivational types of values still missing from the theory. Specific additional values that collaborators from different countries suggested as necessary to cover concepts important in their cultures pointed to no new, potentially universal types. Moreover, when these values were included in the SSAs for the samples in which they were added, regions suggesting new value types did not emerge. Rather, the added values typically emerged in regions appropriate to their meanings (e.g., chastity in conformity or tradition; national identity in security or tradition). Hence, pending evidence to the contrary, the 10 value types here may be taken as tentatively exhausting the distinctive, near universal, motivational types of values. Of course, future theorizing might suggest additional types, just as we have added types here.

How near to universality are these value types? This question cannot be answered definitively. Logistics prevent anyone from studying all cultures, as required for a decisive conclusion of universality. Moreover, various sources of error (measurement, sampling, etc.) doubtless produce mixing of adjacent types in some analyses. The proportion of countries in which each value type appeared

in a distinct region in at least one sample is probably the best estimate derive of the universality of that type from this research.

Viewed this way, the power, achievement, and tradition types were uni as they emerged in all countries. The hedonism, self-direction, universalis security types were found in 95% of countries, and the stimulation, benev and conformity types were found in 90% of countries. There were o instances in which a value type failed to appear in a distinct region in at le sample for a country. Six of these instances occurred in countries in whic one sample was studied. Given the diversity of countries studied, these fi suggest that all 10 motivational types of values may be quite close to univ

Next, we consider the implications of the findings for understanding par value types.

1. Spirituality

Spirituality, at least as operationalized here, does not appear to be a uni motivational type of value. Firm evidence for a distinct spirituality region obtained in only 8 samples and weaker evidence was detected in another samples. It may be that answering the question of ultimate meaning in life basic human need that finds expression in a set of values. However, the suggest two alternative ways in which this need may be expressed other through a universal spirituality type.

First, people may find meaning through the pursuit of other types of values spiritual life, meaning in life, unity with nature, and inner harmony emerged frequently in the regions of benevolence and universalism values. This supports the idea that self-transcendence through concern for others, broadly define one common way to pursue meaning. Detachment and acceptance of my portion in life appeared frequently in tradition regions, suggesting that tradition provides an alternative source of meaning. The empirical evidence that these two contrasting answers to questions of meaning appear across cultures fits well with assertions by sociologists of religion (e.g., Yinger, 1957).

Second, rather than a single, universal spirituality type, there may be a number of distinct types of spirituality, each consisting of a different subset of specific values. Each type might be expected to appear in a set of cultures that is similar in religion, history, development, or some other variable likely to influence the way people pursue meaning. Surprisingly, no particular subset of spirituality values appeared together in more than 10 samples. Moreover, we discerned no obvious similarities that united the sets of samples in which the various subsets of spirituality values appeared. For example, the most frequent combination—spiritual life, detachment, accepting my portion in life—was found in samples from Brazil, Holland, People's Republic of China, Poland, Spain, Taiwan, Zimbabwe. The sets of samples exhibiting the other combinations of spirituality values were no less heterogeneous.

To make progress on this second approach to understanding spirituality values cross-culturally, it is necessary to generate clearer conceptual definitions of possible subtypes of spirituality. These definitions would suggest the sets of values that should be sampled in future research to measure each subtype of spirituality. They might also suggest different subsets of values in the current survey that could be used as indexes of spirituality subtypes in a reexamination of the available SSA projections for the 40 samples.

2. Benevolence and Universalism

The current version of the theory narrowed the definition of benevolence to a focus on the welfare of people with whom one is in close contact. Values that referred primarily to the welfare of entities outside the ingroup (world at peace, equality, social justice) were grouped with the former "maturity" values to form the new universalism value type. The data strongly supported this new division. Benevolence and universalism values were located in different, separable regions in 34 of 40 samples. Moreover, the values referring primarily to the welfare of ingroup entities (helpful, forgiving, honest, loyal, responsible) were rarely intermixed with those referring to wider social entities (cf. Table IV).

The benevolence and universalism regions were almost always adjacent, pointing to the compatibility of their motivations. Nevertheless, the fact that people distinguished implicitly between these two types makes it possible to investigate the extent to which their correlates are different. We hypothesize, for example, that secularism, individualism, and education are correlated with giving priority to universalism but not necessarily to benevolence, whereas conventional religiosity and collectivism are correlated with giving priority to benevolence but not necessarily to universalism (for related ideas and data, see Huismans, 1990; Schwartz, 1990a; Triandis, 1990).

The three values related to nature (unity with nature, protecting the environment, a world of beauty) emerged together in the universalism region (cf. Fig. 2) with great consistency. This confirms the idea that concern for nature is closely linked to concern for the welfare of *all* humankind. The joint emergence of nature, universal welfare, and understanding (broad-minded, wisdom) values in a single region supports the derivation of the motivational goal of universalism that was suggested in the introduction. This goal is presumed to arise with the realization that failure to protect the natural environment or to understand people who are different, and to treat them justly, will lead to strife and to destruction of the resources on which life depends.

3. Tradition and Conformity

These two motivational types of values appeared in distinct regions, but tradition was usually found toward the periphery of the circle, outside conformity,

rather than between conformity and benevolence. The order of regions around the circle represents variation in the motivational goals of the value types. Hence, the location of tradition and conformity in the same wedge of the circle suggests that these two value types share the same motivational goal. The motivational goal of conformity values proposed in the theory was "restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms." The goal of tradition values was "respect, commitment, and acceptance of the customs and ideas that one's culture or religion impose on the self." The broader shared goal might be stated as "subordinating self in favor of socially imposed expectations."

Despite their probable common motivational goal, tradition and conformity value types were empirically distinguishable. A difference in the objects to which one subordinates the self may account for their distinctness. Conformity values entail subordination to persons with whom one is in frequent interaction—parents, teachers, and bosses. Tradition values entail subordination to more abstract objects—religious and cultural customs and ideas. As a corollary, conformity values exhort responsiveness to current, possibly changing expectations, whereas tradition values demand responsiveness to immutable expectations set down in the past. Whether it is worthwhile to retain conformity and tradition as distinct value types in the theory will depend upon whether they relate differently to other variables due to their different objects. This is a question for future research.

4. Power and Achievement

The analyses supported the distinction between power and achievement as motivational types of values because both usually connected with the origin of the circle. However, power values tended to be located more toward the outside of the circle (cf. Fig. 2), and it was possible to draw the boundary of the power region outside of the achievement region in 26 samples. This too may reflect a difference in the objects to which one relates when expressing or pursuing the two types of values. As noted in the introduction, both types focus on social esteem. However, achievement values refer more to striving to demonstrate competence in everyday interaction (e.g., ambitious), whereas power values refer more to the abstract outcomes of action in the form of status in the social structure (e.g., wealth). Moreover, achievement values refer to the striving of the individual alone, whereas power values also refer to the hierarchical organization of relations in society.

The location of the tradition and power regions toward the periphery of the SSA map reflects a pattern of correlations with substantive significance. A peripheral location indicates that the correlations of a value type range from quite positive, with the types nearby, to negative or much less positive, with the type opposite to it on the map. Central locations signify a narrower range of correlations.

tions with the other value types, all fairly positive. Hence we can infer that tradition values generally conflict more strongly with hedonism, stimulation, and self-direction values than do conformity values. Similarly, power values conflict more strongly with universalism and benevolence values than do achievement values.

5. Security

The inclusion of both individual and group security values in the new survey was intended to address the question of whether there is a single security type or two separate types, individual and group. The analyses within each sample as well as the overall analyses supported the existence of a single security type. This type was consistently located in a region on the boundary between the value types that serve individual interests and those that serve collective interests.

The distribution of the single security values within their region (see Figs. 2, 3, and 4), however, suggests that people may distinguish somewhat between the security of self and that of the collectivities of which they are members. Those values most directly concerned with collective interests (social order, family security, national security) were typically located on the side of the region adjacent to conformity and tradition values. The two values most directly concerned with individual interests (healthy, sense of belonging) were located on the side of the region adjacent to the power types. The latter two values sometimes intermixed with preserving my public image and social recognition, two other values whose attainment promotes individual security. However, healthy and sense of belonging were inconsistent in their locations across samples (see Table IV), providing only a weak basis for inferring an individual security subtype.

The findings imply that, if there are two subtypes of security values, they are closely related. Indeed, their closeness may indicate that even values that refer to collectivities (e.g., national security) may express the goal of security for self to a significant degree—the collectivity is viewed as an extension of self. Research into possible differences between the correlates of the individual and collective subtypes will determine whether it is worthwhile to distinguish them in theory.

B. DYNAMIC STRUCTURE OF VALUE TYPES

Comparisons of the structural arrangement of value types in each sample with the ideal arrangement based on the theorized compatibilities and conflicts among value types indicated that the ideal was a good, though far from perfect, approximation to a universal structure. In more than half the samples, 1.5 or fewer moves were needed to rearrange the observed structure to match the ideal, but only one sample showed a perfect match. Joining the tradition and conformity

types into one region improved the fit between the observed and ideal structure in 29 samples. This is apparently the best approximation to a universal hierarchical structure of value types based on our data. No other alternative structure arrangement appeared empirically more than a few times.

A perfect match with the ideal structure required that every one of the hypothesized conflicts and compatibilities from which it was constructed be confirmed simultaneously. Therefore, conclusions about the universality of each specific, hypothesized value conflicts and compatibilities must be drawn from separate assessments.

1. Individual, Collective, and Mixed Interests

The first principle used to generate hypotheses about dynamic relations among pairs of value types was the interests presumably served by their attainment. It was postulated that the set of value types whose attainment serves individual interests (power, achievement, hedonism, stimulation, self-direction) would emerge in one set of adjacent regions, those that serve collective interests (benevolence, tradition, conformity) would emerge as a second set of adjacent regions opposite to the first set, and those that serve mixed interests (universalism, security) would emerge in regions on the boundary between the individual and collective interests regions.

The overall SSA analysis (Fig. 2) showed exactly this arrangement. Examination of the analyses in all 40 samples also revealed that, in each and every sample, the value types that serve individual interests and those that serve collective interests formed separate bounded regions that were not intermixed. Thus, the interests that values serve are apparently one universal principle that influences people's experiences of value conflict and compatibility.

2. Compatibilities

We had reasoned that if the simultaneous pursuit of pairs of value types was compatible, then these pairs of types would emerge in adjacent regions in most cultures. We specified nine emphases, assumed to be shared by pairs of value types, that were likely to enable people to pursue these types of values simultaneously. Examination of the adjacency of regions for the pairs of value types we postulated to be compatible supported the idea that these shared emphases organized value priorities in most cultures.

Emphases that appeared to organize priorities in at least 88% of samples were (1) concern with enhancement of others and transcendence of selfish interests (uniting benevolence and universalism), (2) reliance upon one's own judgment and comfort with diversity (uniting self-direction and universalism), (3) intrinsic motivation for mastery and novelty (uniting self-direction and stimulation),

self-restraint and submission (uniting tradition and conformity), (5) protecting order and harmony in relations (uniting conformity and security), and (6) desire for social superiority and esteem (uniting power and achievement). Not universal but still quite common organizing emphases (supported in at least 70% of samples) were (7) egoistic self-indulgence (uniting hedonism and achievement), (8) desire for affectively pleasant arousal (uniting hedonism and stimulation), and (9) control of uncertainty (uniting security and power).

3. Conflicts: Basic Conceptual Dimensions

Examination of the conflicts observed suggests a simpler way to view value structures. The relationships among the motivational types of values and among the single values can be summarized in terms of a two-dimensional structure. The total value structure can be viewed as composed of four higher order value types that form two basic, bipolar, conceptual dimensions.

The first basic dimension places a higher order type combining stimulation and self-direction values in opposition to one combining security, conformity, and tradition values. We call this dimension *openness to change versus conservation*. It arrays values in terms of the extent to which they motivate people to follow their own intellectual and emotional interests in unpredictable and uncertain directions versus to preserve the status quo and the certainty it provides in relationships with close others, institutions, and traditions.

Examination of the SSAs for all 40 samples revealed the presence of this basic dimension in the opposition between the two higher order value types in all samples. Values were counted as representing a higher order type if they were present in its constitutive lower order types in at least 75% of samples (see Table IV). Higher order types were considered in conflict if the regions representing them were separated from each other in both directions around the circle by the regions for the other higher order types.

The strength of the opposition can be gauged by counting the frequency with which values representing one higher order type appeared in the region representing the opposing type. The eight specific values that represent the openness to change type (combining self-direction and stimulation) were found empirically in less than 1% of instances in regions of the opposing conservation type (security, conformity, or tradition) across all samples. Similarly, the 14 specific values that represent the higher order conservation type emerged in the opposing higher order openness to change type in less than 1% of instances.

The second basic dimension places a higher order type combining power, achievement, and hedonism values in opposition to one combining universalism and benevolence values (including a spiritual life). We call this dimension *self-enhancement versus self-transcendence*. It arrays values in terms of the extent to which they motivate people to enhance their own personal interests (even at the

expense of others) versus the extent to which they motivate people to transcend selfish concerns and promote the welfare of others, close and distant, and nature.

This dimension was also revealed in the opposition between the two high order value types in all 40 samples. The 11 specific values that represent higher order self-enhancement type were found empirically in regions of opposing higher order self-transcendence type in less than 1% of the instances across all samples. Similarly, the 17 specific values that represent the high order self-transcendence type emerged in the opposing higher order self-enhancement type in less than 1% of instances.

These two basic dimensions encompass three of the four hypothesized empirically supported conflicts between sets of value types (cf. Table V). The fourth conflict, hedonism versus conformity and tradition, adds no further dimension, but it does point to a duality of meaning in hedonism. This conflict which was observed in 81% of samples, suggests a difference between hedonism and the two other self-enhancement value types (achievement and power). Although similar to them in its focus on self, hedonism is not characterized by the same competitive motivation that achievement and power values express. Moreover, hedonism is virtually free of the motivation to master uncertainty that is apparently present to some degree in achievement and power, as implied by the latter's frequent proximity to the security-conformity-tradition combination. Instead, hedonism values probably express some degree of the motivation for arousal and challenge that characterizes the higher order openness to change type to which they are most often adjacent.

Figure 5 represents the theoretical model of relations among motivation types of values revised to reflect what has been learned from the empirical research. It locates tradition outside conformity and conformity adjacent to benevolence. It also indicates the grouping of the original value types into four broader, higher order types and the two bipolar dimensions that organize relations among these higher order types. Finally, it links hedonism to both the openness to change and the self-enhancement higher order types with which it shares some elements but not others.

4. A Motivational Continuum

Thus far, we have treated the motivational types of values as discrete categories. This is necessary in order to examine differences in value priorities and to relate specific priorities to other variables. It is also justified both by a prior theory and by the results obtained here. However, the consistent adjacencies and occasional intermixing among pairs of compatible value types, and the emergence of higher order types and basic dimensions, suggest an additional way of thinking about the motivational facet of values.

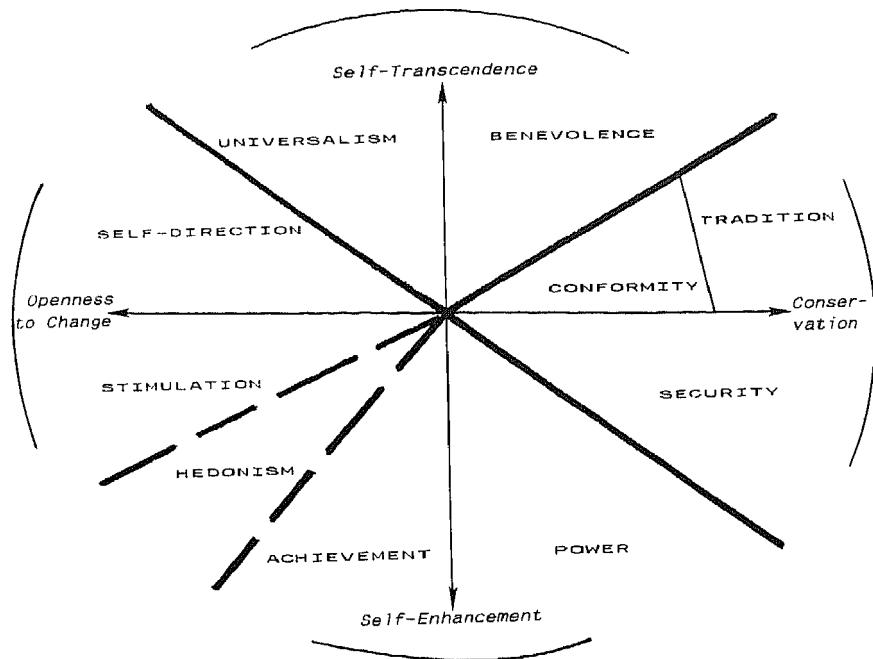


Fig 5. Revised theoretical model of relations among motivational types of values, higher order value types, and bipolar value dimensions.

Single values can also be conceived as arrayed on a continuum of related motivations. This follows directly from Guttman's (1968) view that, if a sample of items adequately represents all aspects of a content domain, then those items will fill quite evenly the geometrical space formed to represent the intercorrelations among them. Because we have tried to sample all aspects of the values domain, we expect the two-dimensional values space to be filled, with no major gaps. This precludes the appearance of discrete clusters of values that are discernible by empty space around them. Consequently, there should be no clustering that can "reveal" the value types. Rather, it is necessary to partition the space into meaningful regions based on an *a priori* theory of the conceptual relations among the values.

What this means is that the partition lines in the SSAs represent conceptually convenient decisions about where one type of motivation ends and another begins. Because the array of values represents a continuum of motivations, the precise locations of the partition lines are arbitrary. Values found near a partition line express a combination of the related motivational goals associated with the value types on both sides of that partition line.

The idea of a continuum of related motivations can be illustrated by examining

the locations of a number of values in the SSA of Fig. 2. For example, within the universalism region, social justice and world at peace are located on the boundary with the benevolence region, whereas wisdom and broad-minded are located nearer the boundary with the self-direction region. This probably signifies that social justice and world at peace express concern for the welfare not only of humankind but also of ingroup members (benevolence). In contrast, the location of wisdom and broad-minded probably signify that these two values express those aspects of the motivation shared by self-direction and universalism—reliance on one's own judgment and understanding of diversity.

Loyal and responsible are located near the boundary of the benevolence and conformity regions. This probably reflects the fact that these two values express two related motives that might induce people to maintain solidarity with close others—the wish to enhance their welfare (benevolence) and the desire to avoid violating others' expectations (conformity). The borderline location of an exciting life probably reflects the desire for arousal expressed by attributing importance to this value, an element common to hedonism and to stimulation. If moving the partition line, preserving my public image and social recognition could both have been placed in the security rather than in the power region. The borderline location may reflect the goal common to the security and power value types that may underlie both these values—controlling uncertainty in relationships.

In sum, the locations of many values support the view that motivation differences between value types can be seen as continuous rather than as discrete. The fuzziness of their boundaries notwithstanding, however, the differences between value types are meaningful. We therefore continue to treat them as discrete when beneficial for research. We recognize, nonetheless, that our theory-based partitioning of the space is arbitrary. It may eventually be superseded by partitioning, based on a revised theory, that points to discrete value types with greater universal heuristic and predictive power. Such a revised theory must, however, partition the same continuous array of values into types, so it is likely to have much in common with the current theory.

5. Context of Measurement

We have operationalized values at the broadest possible contextual level ("guiding principles in MY life"). This followed logically from our definition of values as transsituational, and it permitted the study of all the types of value together. However, because values are expressed in specific contexts, much will be gained from alternative methods that embed values in concrete and varied everyday situations (e.g., school, family, work). Such operations are less likely to reveal basic universals. They are important, however, for clarifying the individual and cultural differences that arise when values are expressed in specific

judgments and behavior. Studies combining our abstract level of measurement with contextually specific measures would increase our understanding of how values enter into concrete decision-making.

C. GENERALITY OF THE "UNIVERSAL" VALUE STRUCTURE

The consistent patterns of compatibility and conflict among value types across cultures support the basic assumption underlying the hypotheses of dynamic relations among values: When people pursue the various types of values, the universal aspects of the human social condition lead to cross-culturally consistent psychological, practical, and social consequences. These consequences, in turn, give rise to the experience of nearly universal conflicts and compatibilities in value priorities. Note that this is a statement about universality in the structure of values, not about the universality of their relative importance. Importance differences are ubiquitous (see below).

The generality of the common structure observed so far is supported by the fact that it was quite accurate as a prototype for samples from very diverse cultural, linguistic, geographic, religious, and racial groups. Essentially the same structure was found for samples of university students and of school teachers, and the five occupationally heterogeneous samples of adults also yielded structures of values similar to the ideal structure. Nonetheless, we do not believe that any single value structure is likely to be truly universal, so one must not generalize indiscriminately to new samples.

Value structures probably evolve over time as social conditions are transformed. Value structures may even change rapidly in response to major technological, economic, political, and security upheavals. There is a hint in our data, for example, that the usual opposition between universalism values and two security values (national security and social order) is not found in nations undergoing popular revolutions in which totalitarian or colonial regimes have crumbled. Insofar as the basic human condition in which values are grounded remains fairly constant, however, we anticipate that major variations in value structure will be rare. Moreover, changes brought on by sudden social upheavals may only be temporary. For example, the usual opposition between security and universalism values may reemerge after several years, once sociopolitical stability has been restored.

Most likely, even when value structures vary due to sample characteristics, they still retain the basic structure anchored in the two dimensions identified here. Consider, for example, how education might effect value structures: The value systems of people with less education may be less well-defined, and value types may therefore not be as distinct in less educated samples. Because most

respondents in all our samples had at least a high school education, we could not study this possible effect. Our samples did differ widely, however, on numerous potential moderators of value structure such as age, gender, and religiosity. Hence, the observed consistency of value structures diminishes the probability that these sample characteristics dramatically alter value structures.

Future systematic comparisons of samples may, nonetheless, reveal differences in how people construe the relations among values. In current analyses in Israel, for example, we find that secular people view tradition values as more opposed to self-direction and universalism values and as closer to power values than the religious do. Here again, exceptions uncovered in the search for universality in value structures could be very enlightening.

Why did some specific compatibilities and conflicts fail to appear in some of the samples studied here? Before trying to explain anomalous findings, it is critical to discover whether they replicate in multiple samples from the same culture. We plan to address this question by adding samples from new cultures as well as from those studied thus far, with the goal of identifying systematic characteristics of the samples that may explain these exceptions. Certain hints in the data (e.g., in China) suggest intriguing possibilities.

As noted above, the three Shanghai samples and the (Chinese) Hebei teacher sample deviated substantially from the ideal structure. The power, achievement, hedonism, stimulation, and self-direction value types emerged clearly in all four samples, and their order relative to each other and in opposition to the remaining values conformed with our theory. However, the values that constitute the other five types could not be partitioned into regions representing each type. Instead, we were able to partition them into three interpretable regions that were clear in the three Shanghai samples and somewhat less clear in Hebei.

We tentatively propose that these regions represent three uniquely Chinese value types. The labels we have given to these three types highlight the central motivational goal shared by the values that appeared in each region in at least three of the four samples: *societal harmony* (social order, national security, social justice, world peace, protecting the environment, world of beauty); *virtuous interpersonal behavior* (honest, obedient, responsible, loyal, politeness, humble, self-discipline, forgiving, helpful); *personal and interpersonal harmony* (family security, honoring parents and elders, accepting my portion in life, inner harmony, healthy, devout).

Zhi-gang (1990) linked each of these types to one of the major religious influences in Chinese culture: Societal harmony was linked to Taoism, virtuous interpersonal behavior to Confucianism, and personal and interpersonal harmony to Buddhism. The SSA results from other Oriental samples (Hong Kong, Japan, Taiwan, and Guangzhou) were closer to the ideal structure and did not show this alternative pattern. Data from other cultures with related religious traditions (e.g., Korea and Thailand) should help to clarify the incidence of this alternative value structure.

Our current sampling of cultures was very broad. Still, data from an even wider range of cultures might suggest the existence of one or more variants of the alternative value structure. The samples that deviated most from the ideal structure (requiring 3 or more moves to fit the ideal, see Table III) were from China, Estonia, Hong Kong, Poland, Taiwan, and Zimbabwe. One might suggest that these samples are from countries that are somewhat less exposed to Western influence than most of the rest. If so, analyses of additional non-Western samples may reveal other alternative structures. We have not detected any alternative structure that is common to several samples, other than the Chinese alternative. However, one may yet emerge. We would be surprised should an alternative materialize in which the two basic oppositions present in the ideal structure are absent.

D. TERMINAL VERSUS INSTRUMENTAL VALUES

Separate regions of terminal and of instrumental values failed to appear in the SSA projections in the vast majority of samples. This outcome casts strong doubt on the significance of the terminal-instrumental facet in organizing people's values. Above, we have described the relevant procedure that differentiated the current research from earlier studies in which the terminal-instrumental facet emerged consistently in the SSA projections (Schwartz & Bilsky, 1987, 1990). By having respondents anchor their use of the response scale prior to rating the values, we sought to eliminate or reduce shifts of scale use that could have produced the distinct regions that were previously observed.

Results of our structural analyses imply that the terminal-instrumental distinction does not affect the way people relate to values. However, Rokeach (1973) and Feather (1975) have asserted that these two forms of values have different impacts on judgment and behavior. This argument can only be settled by studying whether the correlates of the two forms differ. Weishut (1989) undertook such a study, exploiting the fact that many instrumental values can be transformed into terminal phrasing (into nouns: e.g., independent to independence) and terminal values can be transformed into instrumental phrasing (into adjectives: e.g., politeness to polite). He found that, for most values, both phrasings showed quite similar correlations with background and attitudinal variables and that both phrasings received similar importance ratings.

Weishut's findings combine with ours to suggest that only a single form, either terminal or instrumental, is needed to measure values. Use of one form has the advantage of permitting random ordering of all values in a single list. The terminal phrasing seems preferable to the instrumental for two reasons—people usually think of values in noun form (wisdom rather than wise), and the instrumental phrasing is sometimes misunderstood as though it were asking for personality descriptions rather than for value priorities. Moreover, virtually all values

can be phrased as terminal, but some terminal values (e.g., world at pleasure, authority) cannot easily be phrased as instrumental. We view this of complete interchangeability as a basis for caution, however. Some values undergo subtle changes of meaning when transformed from instrumental to terminal phrasing—changes that might even move them from one motivation to another.

E. NORMATIVE IDEALS OR PERSONAL PRIORITIES?

When individuals respond to the values survey, do they report their personal value priorities, or do they report the normatively approved idea of their group or culture? Respondents are instructed to ask themselves: "Values are important to ME as guiding principles in MY life?" Nonetheless because values represent cultural ideals, people may be inclined to provide value priorities they perceive as desirable. Even if they intend to report personal priorities, people's responses will largely reflect normative hierarchy if these priorities are determined by cultural norms. If that were so, then value contents and structure we have identified might better be understood reflective of cultural conventions rather than as expressive of the psychological characteristics of individuals.

We propose two empirical arguments for concluding that the responses to values survey primarily reflect personal value priorities. First, if responses were determined by cultural ideals, then we would expect high group consensus with regard to the importance of each value. However, in every sample studied, there was substantial individual variance in response to every single value. Indeed most values elicited ratings over the full scale from -1 to 7 in most samples, no value elicited responses over fewer than four scale points in any sample.

Second, if responses were fully determined by perceived cultural ideals, then individual variance might best be interpreted as reflective of error in measurement or error in respondents' perception of the cultural ideals. In either case individual variance in value priorities would not be associated systematically with individual differences in background characteristics, in attitudes, or in behavior. However, virtually every association we have examined within samples between individual value priorities and other variables (e.g., age, occupation, gender, education, voting behavior, religiosity, attitudes toward ecology, national pride) has yielded numerous reliable and meaningful findings.¹⁵

¹⁵ Consider a few examples of findings, relevant to different value types, that replicated across several samples. Age correlated positively with giving priority to security values and negatively with giving priority to hedonism values. Education correlated positively with emphasizing self-direct values and negatively with emphasizing tradition values. Religiosity correlated positively with giv

We therefore conclude that responses to the survey primarily reflect personal value priorities. This means that one cannot derive the normative ideals of a culture from the average of individual responses. Perceived normative ideals could be measured with the survey if the referent use to anchor the question were modified. For example, respondents could be asked: "How important is value X as a guiding principle in people's lives, in the eyes of (culture group Y)?" In some societies, this type of question might cause difficulty and provoke annoyance. This would probably signify a low consensus regarding value priorities and could possibly be overcome by more narrowly specifying the cultural group in question. In other societies, people find it easy to report on consensual, cultural ideals (e.g., India; Jai B. P. Sinha, personal communication, July 20, 1990).

In order to characterize actual rather than ideal cultural value priorities, other approaches are required. The average individual priorities of a sample of culture members reflect the value pressures to which they are all exposed through the shared socialization, laws, media, etc., of the culture. Hence the average individual value profile is one way to characterize cultural value priorities. Alternative approaches include content analyses of cultural products (newspapers, child-rearing manuals, popular novels, television shows, films, etc.) and indirect inferences from societal-level functions or statistics (form of legal systems; educational systems; allocations of resources and power among health, political, and economic institutions; demographic distributions; etc.). The measurement of both individual and cultural value priorities would permit the study of interesting questions concerning the fit between personal and cultural priorities (cf. Feather, 1975).

V. Studying the Antecedents and Consequences of Value Priorities

Research on values in the social sciences is primarily concerned with relating the value priorities of individuals or groups to their antecedents in socially structured experience and cultural background on the one hand, and to general attitudes and patterns of behavior on the other. For these purposes, it is necessary to construct indexes of the importance of the values to be studied. Our data strongly support the assumption that members of almost all cultures, when they relate to values as guiding principles, implicitly distinguish 10 basic types of

priority to conformity values and negatively with giving priority to stimulation values. Voting for parties on the economic left was associated with emphasizing benevolence values and deemphasizing self-power values. Voting for parties favorable to classical liberalism was associated with preferring self-direction values over conformity values. These and other findings will be reported in future papers.

values that express different motivational goals. It is therefore desirable to propose empirical indexes to measure the importance of each of these types for use in future research.

A. INDEXES OF VALUE TYPES

Ideally, a structural analysis such as those reported here should be undertaken with the data from any new sample before constructing indexes for each value type. This would reveal the actual value types implicitly distinguished in the sample and the specific values that constitute them. However, the consistency of our results permits us to propose core cross-cultural indexes for use when new structural analyses are not feasible. These core indexes are built from the data in Table IV.

We recommend including in the cross-cultural index for each value type those values that emerged empirically in a region representing that value type in at least 75% of the samples. That is, the 45 values that emerged in one single region in at least 27 of 36 samples should be used (see Table IV). The meanings of these 45 values did not vary much even when they did not emerge in their usual region; They appeared in one of the postulated adjacent regions or in the region of their a priori type in at least 88% of the samples (83% for loyal and 81% for responsible). Because values whose meanings showed less consistency across cultures are excluded, these core indexes can be employed for cross-cultural comparisons.

To examine the internal consistency of the core cross-cultural indexes, we computed a coefficient α for the index of each value type in the heterogeneous adult samples from Australia, Holland, Israel, and Japan (Schwartz, Sagiv, & Antonovsky, 1991). The stimulation index showed the highest reliability across samples (mean .75, range .70 to .79), and the tradition index showed the lowest reliability (mean .55, range .49 to .69). All reliabilities in all samples were greater than .45, averaging .67 in Australia, .68 in Holland, .71 in Israel, and .60 in Japan. Considering the small number of items in each index, these reliabilities are quite reasonable. The availability of multiple indicators for each value type also makes it possible to perform latent variable analyses for causal modeling.

For comparisons between groups within a culture, the results of SSAs for that culture may suggest additional values that could be added to the index of a value type. In Hong Kong, for example, intelligent could be added to the index of achievement values because it appeared in that region in both samples. Conversely, SSA results within a culture may suggest that greater accuracy will be attained if some values included in the cross-cultural indexes are excluded. For

example, forgiving might be dropped from the benevolence index in Japan because, as noted, it appeared in the universalism region in all three Japanese samples.

The simplest index of the importance of each value type for an individual is the mean importance the individual attributed to the set of values that constitutes that type. Individuals differ, however, in the ways in which they distribute their importance ratings across the rating scale, and groups may also display such scale use differences. It is therefore desirable to control statistically for differences in scale use when comparing value priorities of various cultural and other groups or when correlating value priorities with other variables within groups.

The most common practice is to standardize individuals' ratings of each value around their own mean or to standardize groups' ratings around the means for all the groups compared (e.g., Hofstede, 1980; Leung & Bond, 1989). However, standardizing changes the pattern of intercorrelations among values within groups. As a result, SSAs based on standardized ratings rarely yield the same clear regions for each value type that are obtained with analyses of the raw scores. This blurring of the consistent, distinct regions for each motivational type of values, in turn, undermines the rationale for constructing the indexes of value types. To avoid this problem and still control for scale use differences, we recommend a procedure that has little effect on the structure of value relations observed within samples.

We propose to use each individual's mean importance rating for the 56 core values as a covariate in comparisons of group means, or as a third variable whose effect on the correlations between value priorities and other variables is controlled through partial correlation. SSA analyses based on matrixes of intercorrelations among value ratings, partialled for mean importance ratings, yield regional partitionings of value types that are very similar to those based on the raw scores. Hence, this approach does not undermine the rationale for using mean importance scores for the values located in the regions as indexes of the importance of value types.

Indexes of the importance of the four higher order value types can be constructed in a similar manner—computing the mean importance of all values that constitute the higher order type. We recommend including in these indexes the values that emerged empirically in the region of the higher order type in at least 75% of samples. Using this criterion, several values that were excluded from the indexes of the specific value types could be included (social recognition in the self-enhancement index; inner harmony, a spiritual life, true friendship, and mature love in the self-transcendence index). Analyses using these indexes should also be controlled for scale use differences by partialing out each individual's mean importance rating for the 56 single values.

B. GENERATING HYPOTHESES BASED ON THE VALUE STRUCTURE

When generating hypotheses about the relations of value priorities with other variables, it is advantageous to conceive people's value systems as integrated structures of motivational types. Every hypothesis that specifies the association of one value type with an outside variable has clear implications for the associations of the other value types as well. Say, for example, that our theory predicts that the importance attributed to conformity values increases with age. It follows from the opposition in the motivational structure of values between the conformity and stimulation value types (see Figs. 1-4) that the importance of stimulation values would decrease with age. It also follows that the importance of tradition and security values is likely to increase with age, and the importance of hedonism and self-direction values is likely to decrease.

Two statements summarize the implications of the interrelatedness of value priorities for generating hypotheses: (1) Any outside variable tends to be similarly associated with value types that are adjacent in the value structure. (2) Associations with any outside variable decrease monotonically as one goes around the circular structure of value types in both directions from the most positively associated value type to the least positively associated value type.

Once theory specifies the value type with which an outside variable has its most positive (or least negative) association and its least positive (or most negative) association, the order of the value structure enables us to fill in the expected pattern of associations with all value types. When the whole pattern of associations has been predicted, even nonsignificant associations provide meaningful information. The statistical significance of single correlations or mean differences is no longer the critical test of theory; rather, the whole pattern of associations—both significant and nonsignificant—reflects on the viability of the theory.

1. The Sinusoid Curve of Value Associations

The logic of the organization of the value structure means that predicted associations between value priorities and any outside variable can be represented graphically with a sinusoid curve.¹⁶ To draw such a curve, the value types are arrayed on the horizontal axis according to their order around the circular value structure. The strength of association with the outside variable is then plotted on the vertical axis. Figure 6 displays various sinusoid curves that reflect possible patterns of association. Curve A, for example, depicts the hypothetical correlations of value priorities with age as described above. From this curve we can

¹⁶Sipke Huismans suggested this mode of presentation.

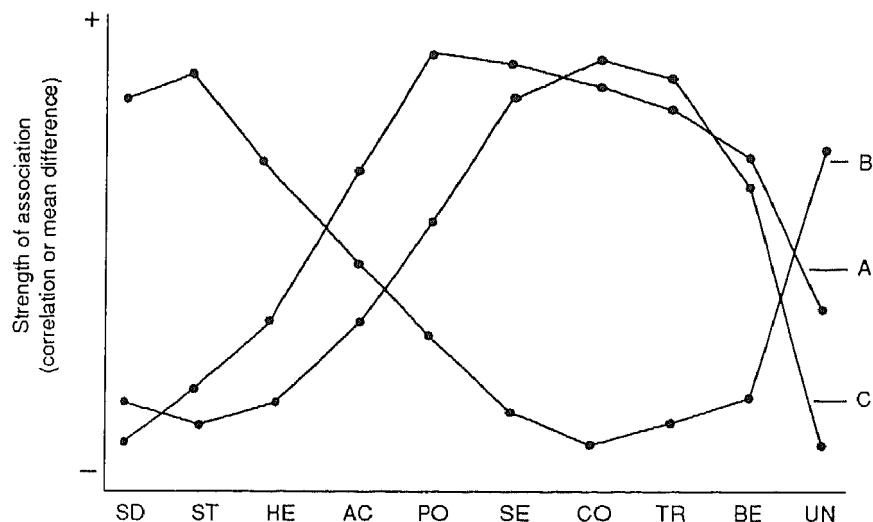


Fig. 6. Hypothetical curves representing associations between value priorities and outside variables. SD, self-direction; ST, stimulation; HE, hedonism; AC, achievement; PO, power; SE, security; CO, conformity; TR, tradition; BE, benevolence; UN, universalism. Curves: (A) age; (B) contractual minus communal societies; (C) nationalistic political orientation.

derive predictions that were not generated originally from theory. For example, the curve implies that age is correlated more positively with giving priority to benevolence and power values than to universalism and achievement values, and that these correlations are intermediate in relation to the correlations with the other value types.

As this example demonstrates, conceiving value systems as integrated structures of motivational types suggests ways to enrich and expand theory. The sinusoid curve does not replace theory building, of course. Rather, the curve should stimulate thought about why one might expect the particular empirical associations it implies. Theoretical analyses of the processes that might link outside variables with the priority given each specific value type must provide the rationales for these expectations.

Theoretical analyses may also suggest deviations from the sinusoid pattern of associations. Deviations, whether grounded in *a priori* theory or discovered in empirical data, are especially interesting because they focus attention on special circumstances. Consider, for example, a sample in which attributing importance to tradition values decreases with age, although the remaining associations are as predicted. This would suggest that, in this sample, a cohort effect related particularly to tradition is at work (e.g., a return to religion among youth).

The hypothesized associations of continuous variables with value priorities are best represented as correlations. Thus, curve A depicts the hypothesized correla-

tions between age and the priority attributed to each value type. The curves depict the correlations for each value type relative to the other types. Neither the absolute levels nor the directions of the correlations are evident from the curves. Theory should specify whether correlations are expected to be positive or negative. However, when the outside variable is correlated with scale use in the value ratings, the signs of zero-order correlations will be negative. For example, age may well be correlated with a tendency to give greater importance to values, that is, older people may use the response scale differently from younger people. This problem is eliminated by partialing out the rating each individual gives to all 56 values. The resulting partial correlations should then exhibit the signs predicted by theory.

Many antecedents of value priorities are not continuous variables. Categorical background or unique experiences, for example, are usually nominal variables. To test hypotheses about the effects of such antecedents on value priorities, differences in the importance attributed to each value type are ordinarily examined. Hypotheses about the pattern of mean differences for the whole set of value types can also be summarized graphically, with the value types arrayed along a horizontal axis according to their theorized structural order. In this case, the vertical axis represents the mean importance of a value type in group X minus the mean importance in group Y.

The theory postulates, for example, that, if one cultural group gives greater importance to power values than a second group, the second will tend to give greater importance to benevolence values than the first. A plot of the mean differences between groups for each value type should take a sinusoidal shape according to our structural theory. The mean rating each individual gives to a value type should be used as a covariate to eliminate scale use differences between groups. The plot then yields an accurate comparison of the relative priorities of each value type in the two groups.

2. Exemplary Applications

We now provide two illustrations of how consideration of the whole value structure can inform the study of the relations between value priorities and their antecedents or consequences. Because our aim is only to clarify the approach that can be used and how they operate, the theories underlying the examples chosen will only be developed partially.

The mean differences approach is exemplified with hypotheses regarding differences in value priorities between persons from communal societies versus contractual societies (Schwartz, 1990a).¹⁷ Communal societies are characterized

¹⁷This ideal type distinction is related to the common distinction between collectivist and individualist cultures (Hofstede, 1980; Triandis, 1990). However, this common distinction confounds ideological (value) and social structural elements, making value predictions partly tautological. The current ideal type distinction was made on purely social structural grounds.

by extended primary groups in which people have diffuse mutual obligations and expectations based largely on their enduring ascribed statuses. Contractual societies are characterized by narrow primary groups and by secondary social relations in which people develop specific obligations and expectations largely through negotiation in the process of achieving and modifying statuses. We hypothesized that tradition, conformity, and benevolence values are more important in communal societies, whereas self-direction, stimulation, and universalism values are more important in contractual societies. Reasons for differences in the importance of security, power, achievement, and hedonism values were considered, but no clear hypotheses could be derived.

Curve B in Fig. 6 portrays the predicted differences between the mean importance of each value type in contractual versus communal societies (e.g., the United States or New Zealand versus Korea or Taiwan). We assumed that the largest differences occur for conformity and stimulation. The complete sinusoid curve suggests hypotheses for the four types of values whose relations to societal structure were viewed as equivocal in earlier theorizing. Hedonism should be more important in contractual societies and security should be more important in communal societies. The differences regarding achievement and power should be small, although communal societies may attribute more importance to the former and contractual societies may attribute more importance to the latter. The emergence of these additional hypotheses, for which rationales can easily be generated, testifies to the usefulness of the structural approach.

Data exemplifying a test of these hypotheses by comparing our teachers samples from New Zealand (more contractual) and Taiwan (more communal) are presented in Fig. 7. The average importance of each motivational type of value in the Taiwan sample has been subtracted from the average importance of that type in the New Zealand sample, after correcting for scale use. The curve based on these data approximates a sinusoid shape except for the more positive than expected difference for the benevolence value type. It differs from curve B in Fig. 6 in one minor and one major respect. The minor deviation is that the largest difference in favor of the more communal sample was in the importance of the security rather than the adjacent conformity values. The major deviation is that the contractual sample attributed considerably more rather than less importance to benevolence values than the communal sample did. Thus, although the overall pattern of mean differences is supportive of the underlying theory, one deviation raises a problem requiring further investigation.¹⁸

¹⁸This problem is probably due to the use of value types appropriate for discriminating among individuals rather than among cultures. We now argue (Schwartz, in press) that comparisons of the value priorities of cultures should be made on value types derived from analyses at the culture level. We have recently derived seven such culture-level value types. They have much in common with the 10 individual-level types, but their structure reveals that the priorities of cultures and of individuals are organized somewhat differently. In particular, benevolence values are part of a broader culture-level type (labeled *social concern*) that is more strongly emphasized in samples we classify as from

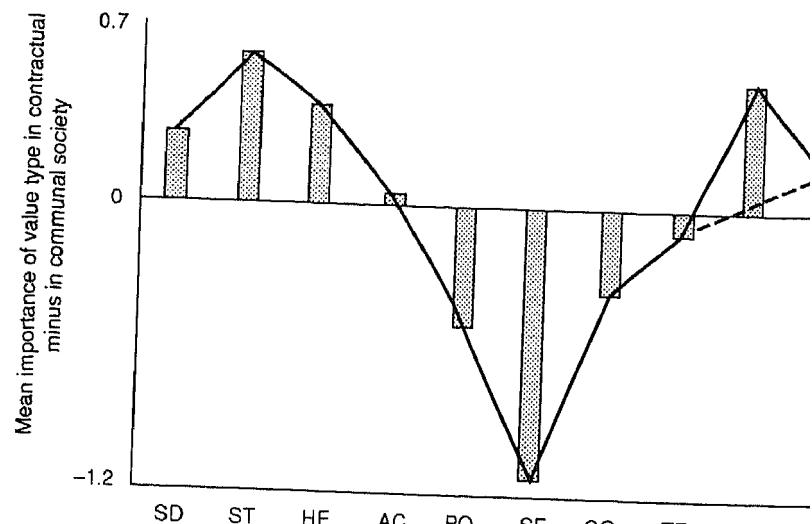


Fig. 7. Differences in the mean importance attributed to motivational types of values by teachers in a sample from a more contractual society (New Zealand) minus a sample from a more communal society (Taiwan). Abbreviations as in Fig. 6.

Finally, consider an example of applying the structural approach to predict the possible consequence of value priorities—nationalistic political views. On theoretical grounds, we would assume that nationalistic political views are primarily anchored in concerns for personal and collective safety. Nationalist policies emphasize the protection of one's own group against dangers from without and within. Groups with ideas and aims different from one's own are seen as threatening; they are to be controlled or suppressed rather than understood and appreciated. An authoritative organization of social relations is desirable in order to mobilize and control the human and material resources needed to overcome threats.

Individuals with particular value priorities will be attracted to nationalism or repelled by it, depending upon their needs and goals. Those who give high priority to security and power values are likely to find nationalism a compatible political expression of their guiding principles. In contrast, individuals who give high priority to universalism and self-direction values are likely to view nationalism as the antithesis of their guiding principles. Nationalistic policies also seem compatible with emphases on conformity and tradition but contrary to those

contractual societies than in those we classify as from communal societies. Reasons for this, relate mainly to differences in the conception of the person prevalent in these societies, are discussed by Schwartz (in press).

openness to change implied by stimulation values. Curve C in Fig. 6, representing correlations between value priorities and nationalist political views, summarizes this hypothetical set of associations.

Note that curve C is not symmetrical: The hypothesized drop in correlations from power to stimulation values is much steeper than the drop from power to tradition values. This illustrates the fact that the value structure implies only the order of associations for the value types. It does not specify a metric measure of their strength relative to one another. To specify relative strength of associations, theoretical analyses of the links between the goal that a value type expresses and the nature of the outside variable are required. The asymmetry of curve C, for example, would reflect an analysis that finds nationalistic political views quite expressive of tradition values but not especially expressive of stimulation values.

These examples have illustrated some of the advantages of conceiving value systems as integrated motivational structures for the generation of hypotheses about the relations of value priorities with other variables. We have begun to test the types of hypotheses we have suggested with data from the samples reported here as well as from other samples. Substantial support is emerging for the idea that associations between value priorities and variables such as age, education, political orientations, religiosity (Schwartz & Huismans, 1991), and social desirability (Schwartz et al., 1991) reflect the integrated motivational structure: These associations are depicted quite accurately by the sinusoid curve.

VI. Concluding Remarks

At the outset, we posed four basic issues that the present research has addressed: What are the substantive contents of human values? Can we identify a comprehensive set of values? To what extent is the meaning of particular values equivalent for different groups of people? How are the relations among different values structured? These issues required resolution before the antecedents and consequences of value priorities, or cross-cultural differences in such priorities, could be studied effectively. Substantial progress has been made toward resolving each of these issues.

First, we identified 10 motivationally distinct value types that are likely to be recognized within and across cultures and used to form value priorities. Second, we demonstrated that this set of value types is relatively comprehensive, encompassing virtually all the types of values to which individuals attribute at least moderate importance as criteria of evaluation. Third, we assembled evidence from 20 countries showing that the meaning of the value types and of most of the single values that constitute them is reasonably equivalent across most groups. Finally, we discovered two basic dimensions that organize value systems into an

integrated motivational structure with consistent value conflicts and compatibilities.

We have pointed to directions for possible refinement in the ways we resolved each issue. Nonetheless, the main conclusions regarding the content, measurement, and structure of values seem sufficiently well established to their adoption as the basis for future research into questions of the type we posed. By identifying universal aspects of value content and structure, this has laid the foundations for investigating culture-specific aspects in the future.

Against the background of common meanings and structure, it is now possible to compare the value priorities of cultures and groups and to detect general variation.¹⁹ Observed differences between groups with regard to the prioritized attribute to values will be interpretable in light of equivalences or differences in the meanings of the values revealed here. Unique, culture-specific understandings and applications of values will stand out against the universal patterns we have elucidated. The instrument developed to measure all the value types can be used to test hypotheses that relate value priorities to their antecedents and consequences. The theory of value structures can stimulate the generation of hypotheses about how the whole integrated system of value priorities relates to background, attitude, and behavior variables.

VII. Appendix: Values Included in the Survey Instrument

- 1 EQUALITY (equal opportunity for all)
- 2 INNER HARMONY (at peace with myself)
- 3 SOCIAL POWER (control over others, dominance)
- 4 PLEASURE (gratification of desires)
- 5 FREEDOM (freedom of action and thought)
- 6 A SPIRITUAL LIFE (emphasis on spiritual not material matters)
- 7 SENSE OF BELONGING (feeling that others care about me)
- 8 SOCIAL ORDER (stability of society)
- 9 AN EXCITING LIFE (stimulating experiences)
- 10 MEANING IN LIFE (a purpose in life)

¹⁹Schwartz (in press) reports value priority profiles of 60 samples from 28 cultures on cultural level value types that were based on the research reported here. For example, students and teachers from the United States are conspicuous for the high importance they attribute to values expressing desire to get ahead personally in the social hierarchy (e.g., wealth, authority, ambitious, success) and the low importance they attribute to values expressing social concern (e.g., social justice, equality, loyal, responsible). Spanish and Italian students and teachers show the opposite pattern.

- 11 ____ POLITENESS (courtesy, good manners)
- 12 ____ WEALTH (material possessions, money)
- 13 ____ NATIONAL SECURITY (protection of my nation from enemies)
- 14 ____ SELF-RESPECT (belief in one's own worth)
- 15 ____ RECIPROCATION OF FAVORS (avoidance of indebtedness)
- 16 ____ CREATIVITY (uniqueness, imagination)
- 17 ____ A WORLD AT PEACE (free of war and conflict)
- 18 ____ RESPECT FOR TRADITION (preservation of time-honored customs)
- 19 ____ MATURE LOVE (deep emotional and spiritual intimacy)
- 20 ____ SELF-DISCIPLINE (self-restraint, resistance to temptation)
- 21 ____ DETACHMENT (from worldly concerns)
- 22 ____ FAMILY SECURITY (safety for loved ones)
- 23 ____ SOCIAL RECOGNITION (respect, approval by others)
- 24 ____ UNITY WITH NATURE (fitting into nature)
- 25 ____ A VARIED LIFE (filled with challenge, novelty, and change)
- 26 ____ WISDOM (a mature understanding of life)
- 27 ____ AUTHORITY (the right to lead or command)
- 28 ____ TRUE FRIENDSHIP (close, supportive friends)
- 29 ____ A WORLD OF BEAUTY (beauty of nature and the arts)
- 30 ____ SOCIAL JUSTICE (correcting injustice, care for the weak)
- 31 ____ INDEPENDENT (self-reliant, self-sufficient)
- 32 ____ MODERATE (avoiding extremes of feeling and action)
- 33 ____ LOYAL (faithful to my friends, group)
- 34 ____ AMBITIOUS (hardworking, aspiring)
- 35 ____ BROAD-MINDED (tolerant of different ideas and beliefs)
- 36 ____ HUMBLE (modest, self-effacing)
- 37 ____ DARING (seeking adventure, risk)
- 38 ____ PROTECTING THE ENVIRONMENT (preserving nature)
- 39 ____ INFLUENTIAL (having an impact on people and events)
- 40 ____ HONORING OF PARENTS AND ELDERS (showing respect)
- 41 ____ CHOOSING OWN GOALS (selecting own purposes)
- 42 ____ HEALTHY (not being sick physically or mentally)
- 43 ____ CAPABLE (competent, effective, efficient)
- 44 ____ ACCEPTING MY PORTION IN LIFE (submitting to life's circumstances)
- 45 ____ HONEST (genuine, sincere)
- 46 ____ PRESERVING MY PUBLIC IMAGE (protecting my "face")
- 47 ____ OBEDIENT (dutiful, meeting obligations)
- 48 ____ INTELLIGENT (logical, thinking)
- 49 ____ HELPFUL (working for the welfare of others)
- 50 ____ ENJOYING LIFE (enjoying food, sex, leisure, etc.)
- 51 ____ DEVOUT (holding to religious faith and belief)

- 52 ____ RESPONSIBLE (dependable, reliable)
- 53 ____ CURIOUS (interested in everything, exploring)
- 54 ____ FORGIVING (willing to pardon others)
- 55 ____ SUCCESSFUL (achieving goals)
- 56 ____ CLEAN (neat, tidy)

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References

- Allport, G. W. (1961). *Pattern and growth in personality*. New York: Holt, Rinehart, & Winston.
- Bandura, A. (1977). Self efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, **84**, 191-215.
- Bem, D. J. (1970). *Beliefs, attitudes and human affairs*. Belmont, CA: Brooks/Cole.
- Bentham, J. (1948). *An introduction to the principles of morals and legislation*. New York: Harper. (Original work published 1838)
- Berlyne, D. E. (1960). *Conflict, arousal and curiosity*. New York: McGraw-Hill.
- Berry, J. W. (1975). An ecological approach to cross-cultural psychology. *Nederlands Tijdschrift voor de Psychologie*, **30**, 51-84.
- Berry, J. W. (1986). The comparative study of cognitive abilities: A summary. In S. E. Newstead, S. H. Irvine, & P. L. Dann (Eds.), *Human assessment: Cognition and motivation* (pp. 57-74). Dordrecht, Netherlands: Martinus Nijhoff.
- Borg, I., & Lingoes, J. C. (1987). *Multidimensional similarity structure analysis*. New York: Springer-Verlag.
- Braithwaite, V. A., & Law, H. G. (1985). Structure of human values: Testing the adequacy of the Rokeach Value Survey. *Journal of Personality and Social Psychology*, **49**, 250-263.
- Buber, M. (1958). *I and thou*. New York: Charles Scribner's Sons.
- Buss, D. M. (1986). Can a social science be anchored in evolutionary biology? Four problems and a strategic solution. *Revue Europeenne des Sciences Sociales*, **24**, 41-50.
- Canter, D. (Ed.). (1985). *Facet theory: Approaches to social research*. New York: Springer-Verlag.

- Chinese Culture Connection. (1987). Chinese values and the search for culture-free dimensions of culture. *Journal of Cross-Cultural Psychology*, **18**, 143–164.
- Coles, R. (1990). *The spiritual life of children*. Boston: Houghton Mifflin.
- Coxon, A. P. M. (1982). *The users guide to multidimensional scaling with special reference to the MDS (x) library of computer programs*. London: Heinemann Educational.
- Davison, M. (1983). *Multidimensional scaling*. New York: Wiley.
- Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum.
- Dewey, J. (1957). *Human nature and conduct*. New York: Modern Library.
- Dillon, W. R., & Goldstein, M. (1984). *Multivariate analysis*. New York: Wiley.
- Durkheim, E. (1954). *The elementary forms of religious life* (J. W. Swain, Trans.). Glencoe, IL: Free Press. (Original work published 1912)
- Durkheim, E. (1964). *The division of labor in society* (G. Simpson, Trans.). Glencoe, IL: Free Press. (Original work published 1893)
- Farley, F. (1986). The big T in personality. *Psychology Today*, **20**, 44–52.
- Feather, N. T. (1975). *Values in education and society*. New York: Free Press.
- Freud, S. (1930). *Civilization and its discontents*. London: Hogarth Press.
- Freud, S. (1933). *New introductory lectures in psychoanalysis*. New York: Norton.
- Georgas, J. (1988). An ecological and social cross-cultural model: The case of Greece. In J. W. Berry, S. H. Irvine, & E. B. Hunt (Eds.), *Indigenous cognition: Functioning in cultural context* (pp. 105–123). Dordrecht, Netherlands: Martinus Nijhoff.
- Glock, G. Y., & Stark, R. (1965). *Religion and society in tension*. Chicago: Rand McNally.
- Gordon, L. (1960). *Survey of interpersonal values*. Chicago: Science Research Associates.
- Guttman, L. (1968). A general nonmetric technique for finding the smallest coordinate space for a configuration of points. *Psychometrika*, **33**, 469–506.
- Guttman, L. (1982). Facet theory, smallest space analysis and factor analysis. *Perceptual and Motor Skills*, **54**, 491–493.
- Heschel, A. J. (1955). *God in search of man*. New York: World.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Homer, P. M., & Kahle, L. R. (1988). A structural equation test of the value–attitude–behavior hierarchy. *Journal of Personality and Social Psychology*, **54**, 638–646.
- Houston, J. P., & Mednick, S. A. (1963). Creativity and the need for novelty. *Journal of Abnormal and Social Psychology*, **66**, 137–141.
- Huismans, S. (1990, July). *Value priorities and religiosity among Catholics, Protestants and Jews*. Paper presented at the 10th International Association of Cross-Cultural Psychology Congress, Nara, Japan.
- Kaplan, A. (1961). *The new world of philosophy*. New York: Random House.
- King, W. L. (1954). *Introduction to religion*. New York: Harper.
- Kluckhohn, C. (1951). Values and value-orientations in the theory of action: An exploration in definition and classification. In T. Parsons & E. Shils (Eds.), *Toward a general theory of action* (pp. 388–433). Cambridge, MA: Harvard University Press.
- Kohn, M. L., & Schoeler, C. (1983). *Work and personality*. Norwood, NJ: Ablex.
- Korman, A. (1974). *The psychology of motivation*. Englewood Cliffs, NJ: Prentice-Hall.
- Kristiansen, C. M. (1990). The role of values in the relation between gender and health behaviour. *Social Behaviour*, **5**, 127–134.
- Leung, K., & Bond, M. H. (1989). On the empirical identification of dimensions for cross-cultural comparison. *Journal of Cross-Cultural Psychology*, **20**, 133–151.
- Levy, S. (1985). Lawful roles of facets in social theories. In D. Canter (Ed.), *The facet approach to social research* (pp. 59–96). New York: Springer-Verlag.
- Levy, S. (1990). Values and deeds. *Applied Psychology: An International Review*, **39**, 379–400.

- Shye, S. (1985). Nonmetric multivariate models for behavioral action systems. In D. Canter (Ed.), *The facet approach to social research* (pp. 97-148). New York: Springer-Verlag.
- Shye, S. (1988). Inductive and deductive reasoning: A structural analysis of ability tests. *Journal of Applied Psychology*, 73, 308-311.
- Sumner, W. G. (1906). *Folkways*. Boston: Ginn.
- Tillich, P. (1956). *Systematic theology*. Chicago: University of Chicago Press.
- Triandis, H. C. (1990). Cross-cultural studies of individualism and collectivism. In J. Berman (Ed.), *Nebraska Symposium on Motivation, 1989* (pp. 41-133). Lincoln: University of Nebraska Press.
- Triandis, H. C., McCusker, C., & Hui, C. H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology*, 59, 1006-1020.
- Weishut, D. J. N. (1989). *The meaningfulness of the distinction between instrument and terminal values*. Unpublished master's thesis, Hebrew University of Jerusalem, Israel.
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 297-333.
- Williams, R. M., Jr. (1968). Values. In E. Sills (Ed.), *International encyclopedia of the social sciences*. New York: Macmillan.
- Yinger, J. M. (1957). *Religion, society and the individual*. New York: Macmillan.
- Zeidner, M., & Feitelson, D. (1989). Probing the validity of intelligence tests for preschool children: A smallest space analysis. *Journal of Psychoeducational Assessment*, 7, 175-193.
- Zhi-gang, W. (1990, August). *Value structures in China: Within- and cross-cultural comparisons*. Paper presented at the 10th International Association of Cross-Cultural Psychology Congress, Nara, Japan.

- Levy, S., & Guttman, L. (1974). *Values and attitudes of Israeli high school youth*. Jerusalem: Israel Institute of Applied Social Research.
- Lingoes, J. C. (1977). *Geometric representations of relational data*. Ann Arbor, MI: Mathesis.
- Lingoes, J. C. (1981). Testing regional hypotheses in multidimensional scaling. In I. Borg (Ed.), *Multidimensional data representations: When and why* (pp. 280-310). Ann Arbor, MI: Mathesis.
- Lonner, W. J. (1980). The search for psychological universals. In H. C. Triandis & W. W. Lambert (Eds.), *Handbook of cross-cultural psychology: Vol. 1. Perspectives*. Boston: Allyn & Bacon.
- Lovejoy, A. O. (1950). Terminal and adjectival values. *Journal of Philosophy*, *47*, 593-608.
- Maddi, S. R. (1961). Exploratory behavior and variation-seeking in man. In D. W. Fiske & S. R. Maddi (Eds.), *Functions of varied experience* (pp. 253-277). Homewood, IL: Dorsey.
- Maslow, A. H. (Ed.). (1959). *New knowledge in human values*. New York: Harper.
- McClelland, D. C., Atkinson, J. W., Clark, R. A., & Lowell, E. L. (1953). *The achievement motive*. New York: Appleton-Century-Crofts.
- Morris, C. W. (1956). *Varieties of human value*. Chicago: University of Chicago Press.
- Munro, D. (1985). A free-format values inventory: Explorations with Zimbabwean student teachers. *South African Journal of Psychology*, *15*, 33-41.
- Ng, S. H., Akhtar-Hossain, A. B. M., Ball, P., Bond, M. H., Hayashi, K., Lim, S. P., O'Driscoll, M. P., Sinha, D., & Yang, K. S. (1982). Values in nine countries. In R. Rath, H. S. Asthana, & J. B. H. Sinha (Eds.), *Diversity and unity in cross-cultural psychology* (pp. 196-205). Lisse, The Netherlands: Swets & Zeitlinger.
- Niebuhr, R. (1935). *An interpretation of Christian ethics*. New York: Harper.
- Parsons, T. (1957). *The social system*. New York: Free Press.
- Radcliffe-Brown, A. R. (1952). *Structure and function in primitive society*. Glencoe, IL: Free Press.
- Rankin, W. L., & Grube, J. W. (1980). A comparison of ranking and rating procedures for value system measurement. *European Journal of Social Psychology*, *10*, 233-246.
- Rescher, N. (1969). *Introduction to value theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Schutz, W. C. (1958). *FIRO: A three-dimensional theory of interpersonal behavior*. New York: Rinehart.
- Schwartz, S. H. (1990a). Individualism-collectivism: Critique and proposed refinements. *Journal of Cross-Cultural Psychology*, *21*, 139-157.
- Schwartz, S. H. (1990b, July). *Thoughts in response to cross-cultural applications and critiques*. Paper presented at the 10th International Association of Cross-Cultural Psychology Congress, Nara, Japan.
- Schwartz, S. H. (in press). Cultural dimensions of values: Toward an understanding of national differences. In U. Kim, H. C. Triandis, & G. Yoon (Eds.), *Individualism and collectivism*. London: Sage.
- Schwartz, S. H., & Bilsky, W. (1987). Toward a psychological structure of human values. *Journal of Personality and Social Psychology*, *53*, 550-562.
- Schwartz, S. H., & Bilsky, W. (1990). Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology*, *58*, 878-891.
- Schwartz, S. H., & Huijsmans, S. (1991). *Religiosity and value priorities: A study of Protestants, Catholics and Jews*. Israel: Hebrew University of Jerusalem. Submitted for publication.
- Schwartz, S. H., Sagiv, L., & Antonovsky, A. (1991). *The stability and social desirability of value priorities*. Israel: Hebrew University of Jerusalem. Submitted for publication.
- Scott, W. A. (1965). *Values and organizations*. Chicago: Rand McNally.
- Segall, M. H., Dasen, P. R., Berry, J. W., & Poortinga, Y. H. (1990). *Human behavior in global perspective: An introduction to cross-cultural psychology*. New York: Pergamon.