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Toward A Universal Psychological Structure of Human Values

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We constructed a theory of the universal types of values as criteria by viewing values as cognitive representations of three universal requirements: (a) biological needs, (b) interactional requirements for interpersonal coordination, and (c) societal demands for group welfare and survival. From these requirements, we have derived and presented conceptual and operational definitions for eight motivational domains of values: enjoyment, security, social power, achievement, self-direction, prosocial, restrictive conformity, and maturity. In addition, we have mapped values according to the interests they serve (individualistic vs. collectivist) and the type of goal to which they refer (terminal vs. instrumental). We postulated that the structural organization of value systems reflects the degree to which giving high priority simultaneously to different values is motivationally and practically feasible or contradictory. To test our theory, we performed smallest space analyses on ratings given by subjects from Israel ($N = 455$) and Germany ($N = 331$) of the importance of 36 Rokeach values as guiding principles in their lives. Partitioning of the obtained multidimensional space into regions revealed that people do indeed discriminate among values according to our a priori specifications of goal types, interests served, and motivational domains in both societies. Moreover, the motivational domains of values are organized dynamically in relation to one another in both societies, as predicted by the patterns of compatible or contradictory motivation and practical consequences. We have noted additional values and domains possibly needed for a universal scheme as well as potential applications of this approach for comparing the meanings, structure, and importance of values across cultures, for analyzing relations between social structure and values, and for predicting and interpreting relations of values to attitudes and behavior.

Virtually all people refer at one time or another to their own values or to values that characterize other people or groups. In using the term *values*, they mean something similar to conceptions of the desirable that influence the ways people select action and evaluate events (cf. Kluckhohn, 1951). Our interest in this study focuses on this view of human values as criteria, rather than the alternative view of values as qualities inherent in objects.

This article attempts to specify theoretically (a) the conceptual facets or dimensions necessary to define human values, (b) the different content domains of values people from all cultures are likely to distinguish (e.g., achievement, security), (c) exemplary marker values for each domain (e.g., ambitious and social recognition as markers for achievement), and (d) some of the structural relations among the different domains of values.

The structure of human values refers to the conceptual organization of values on the basis of their similarities and differences. For example, pleasure and a comfortable life are both part of the *enjoyment domain*, and equality and helpful are part of the *prosocial domain*. The structure of values also refers to the relations among value domains on the basis of their compatibilities and contradictions. Two different domains are conceptually distant if it is practically or logically contradictory to give high priority to values in both domains simultaneously (e.g., enjoyment and prosocial). Two domains are conceptually close if placing high priority on values in both domains is compatible (e.g., security and conformity domains).

This theory is constructed in a manner that allows us to test empirically how well the facets, content domains, exemplary values, and structural relations represent peoples' use of values. We do this by examining spatial representations of the relations among values. In this article, we present smallest space analyses (Brown, 1985; Guttman, 1968) of data from Israeli and West German samples that reveal the extent to which the theorized distinctions correspond to the actual distinctions that people from two societies make when evaluating the relative importance of their many values.

The structure of human values is inherently interesting to some researchers (Braithwaite & Law, 1985; Feather & Peay, 1975; Jones, Sensenig, & Ashmore, 1978; Levy, 1986). Yet others may question what benefits can be gained by applying knowledge of this structure. We foresee several benefits:

1. The impacts of values as independent variables on both attitudes and behavior can be predicted, identified, and interpreted more effectively and reliably by using indexes of the importance of value domains as opposed to single values.

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2. The effects of different social structural variables (economic, political, religious, ethnic, familial) on values as dependent variables can be predicted, identified, and interpreted more effectively by using value domains as opposed to single values.

3. Cross-cultural comparisons of values can be refined in three ways: (a) Similarities and differences in the meaning of specific values will be revealed by their location in the same or different value domains in different cultures; (b) comparisons of value importance will be more comprehensive if value domains are used because the domains will ideally cover all the significant types of value content whose meanings are shared, whereas research not guided by a concept of value structure must rely on single values chosen arbitrarily by the researcher and grounded in particular cultures; and (c) structural relations among value domains in different cultures can be compared, revealing differences in which domains are considered compatible or contradictory (e.g., are achievement and security domains compatible in some cultures but contradictory in others?).

Defining Values

Although even a cursory review of the literature on human values yields a large number of definitions, there are five features that are common to most of these definitions of values (e.g., Allport, 1961; Levy & Guttman, 1974; Maslow, 1959; Morris, 1956; Pepper, 1958; Rokeach, 1973; Scott, 1965; Smith, 1963; Williams, 1968). According to the literature, values are (a) concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance.

These five features describe the formal characteristics of human values that we incorporate in our definition. The second feature, end states or behaviors, is equivalent to *terminal* versus *instrumental goals*. Because this feature requires classifying values into one of two categories, it constitutes a first facet in our definition.

The aforementioned formal characteristics convey little about the meaningful contents of values. Therefore, we generated a comprehensive yet parsimonious typology of the content domains of values. For this purpose, we made the following theoretical assumption about the nature and sources of values. Values are cognitive representations of three types of universal human requirements: biologically based needs of the organism, social interactional requirements for interpersonal coordination, and social institutional demands for group welfare and survival (cf., Becker, 1950; Kluckhohn, 1951; Parsons, 1957; Rokeach, 1973; Williams, 1968).

These three universal requirements preexist any individual; to cope with reality, individuals must recognize, think about, and plan responses to all three requirements. To be effective members of social groups, individuals must communicate about them. Through cognitive development, individuals become able to represent the requirements consciously as goals or values; through socialization, individuals are taught the culturally shared terms that enable them to communicate about these goals or values. For example, sexual needs may be transformed into values for intimacy or love, requirements for coordinating resource exchange into values for equality or honesty, and demands for group survival into values for national security or world peace. Therefore, in building a typology of the content domains of values, we theorized that values could be derived from the universal human requirements reflected in needs (organism), social motives (interaction), and social institutional demands. Of course, particular value contents may be grounded in more than one type of universal requirement.

A first distinction between different value contents is suggested by the idea that, because values are goals, they must represent the interests of some person or group. Comparative analyses of values at the societal level (Hofstede, 1980; Hofstede & Bond, 1984) have indicated that the major dimension of value differentiation between national groups is in their relative emphasis on values that serve individualistic interests (e.g., ambition, pleasure) versus collectivist interests (e.g., responsibility, helpfulness). A similar distinction has also appeared repeatedly in cross-cultural studies of values at the individual level (Triandis, 1985). Some values may serve both individualistic and collectivist interests (e.g., mature love, wisdom). This *interests served* distinction is the second facet in our definition of values. Another distinction between kinds of value contents refers to the different *motivational domains* in which universal human requirements are expressed, the third facet in our definition of values.

Specifying Motivational Domains of Values

From the literature on needs, social motives, institutional demands, and functional requirements of social groups, we initially derived seven universal and distinctive motivational domains of values. In presenting each motivational domain, we note specific values found in the Rokeach (1973) lists that can serve as markers. In the Rokeach questionnaire, terms in parentheses follow each value to clarify or elaborate its meaning. In this article, we note only those parenthetical additions that are important in determining the placement of a marker value. We used the Rokeach values because they are widely used in the literature and can thus provide pools of data for reanalysis. Note that the definitions of the motivational domains also permit researchers to generate alternative marker values and to code values from lists developed for other purposes into our theoretical scheme.

Enjoyment Domain

Every organism must satisfy its physical needs and derives pleasure from doing so. Not surprisingly, then, virtually every analysis of innate concerns has mentioned pleasure or sensuous enjoyment. For example, Williams (1968), a sociologist, spoke of pleasure and gratification; Morris (1956), a philosopher, pointed to self-indulgence and sensuous enjoyment; and Freud (1930), a psychoanalyst, emphasized the pleasure principle. The relevant individual needs are tied initially to physiological gratification, but they are transformed into socially recognized

values such as pleasure, a comfortable life, happiness, and cheerful.

Security Domain

The second basic need of the organism is to survive physically and to avoid threats to its integrity. Among the diverse sources that have emphasized the centrality of safety and security are Kluckhohn (1951), Maslow (1959), and Williams (1968). The values into which this need is transformed extend beyond the physical safety of the individual. Psychological or mental health and integrity may become as important for individual survival as is physical health. Moreover, the demands of social interaction and institutional functioning require that groups (families, nations) remain secure. Hence, concern with group security must be embodied in values. It is probable that individual and group security constitute separate, though related, motivational domains (cf., Braithwaite & Law, 1985). However, in the research presented here, we treated both individual and group security as a single domain because the lists of Rokeach values that we used lack sufficient potential marker values to distinguish the domains empirically. Security values in the lists include inner harmony, family security, national security, and a world at peace.

Achievement Domain

A third basic need is to develop and use skills to obtain from the physical and social environment those resources required to thrive. Although the need for competent performance may or may not be innate to the organism, it is doubtless a vital requirement for successful social interaction and for institutional functioning. Thus, achievement may derive from all three universal requirements. The expression of these requirements in values such as achievement, competence, and success appeared in almost every source consulted (e.g., Maslow, 1959; McClelland, 1951; Rokeach, 1973; Scott, 1965; Williams, 1968). What constitutes achievement may vary across cultures, but whatever is so defined will be the basis for social recognition and admiration. Marker values for achievement in the Rokeach lists are capable, ambitious, and social recognition.

Self-Direction Domain

Many psychological theories have suggested that humans have an intrinsic desire to explore and understand reality and to experience themselves as effectively controlling events, over and above any external rewards they may obtain through such activity (e.g., Allport, 1961; Bandura, 1977; Deci, 1975; White, 1959). Sociological and anthropological analyses of the main motives operative in social interaction have emphasized such related values as autonomy, self-sufficiency, independence, and intellectualism (e.g., Kluckhohn, 1951; Kohn & Schooler, 1983; Morris, 1956; Scott, 1965). Values in the self-direction domain refer to reliance on and gratification from one's independent capacities for decision-making, creativity, and action. Markers in the Rokeach lists are imaginative (daring, creative), independent, intellectual, and logical.

Restrictive-Conformity Domain

The smooth functioning of social interaction and groups requires that individuals restrain unruly impulses and inhibit actions that might hurt others' interests. These demands for self-restriction are built into the moral systems all societies develop and are internalized by individuals as conscience or superego (Freud, 1933; Parsons, 1957). They are expressed in values emphasizing conformity to social expectations (Gordon, 1960; Kohn & Schooler, 1983; Morris, 1956; Scott, 1965). Markers in the Rokeach lists are obedient, polite, clean, and self-controlled.

Prosocial Domain

Whereas restriction of impulse prevents the breakdown of social interaction, a positive, active concern for the welfare of others is also necessary for collectivities to thrive. This positive social requirement is also built into moral systems. It is expressed in such values as altruism, benevolence, kindness, or love, which were mentioned in virtually every source we consulted (e.g., Allport, 1961; Gordon, 1960; Kluckhohn, 1951; Morris, 1956; Perloe, 1967; Scott, 1965; Williams, 1968). Some sources suggested that the needs of the organism for affiliation and belongingness may also be transformed into such prosocial values (Korman, 1974; Maslow, 1959; McClelland, 1951). Markers in the Rokeach lists are helpful, forgiving, loving, and equality.

Social Power Domain

Status differentiation seems to be a universal fact of social life, important for the functioning of social institutions (Durkheim, 1893/1964; Parsons, 1957). Many analyses of social motives have discussed needs for dominance, status, influence, social control, or power (Korman, 1974; McClelland, 1951; Schutz, 1958; Winter, 1973); a few value analysts have also mentioned power, leadership, and authority (Allport, 1961; Gordon, 1960). Social power values may be transformations of basic needs; but, more likely they are goals acquired because power is associated with control over many rewarding resources. Rokeach included no direct markers relevant to social power in his lists because he thought people would not want to admit to being motivated by power. Recently, he considered social recognition as an indirect marker for social power (M. Rokeach, personal communication, October 7, 1986). However, one marker does not suffice to assess the existence of a domain, hence we did not examine social power in this study. Social power is closest in meaning to achievement, sharing a concern with social esteem. We are currently testing the viability of distinguishing social power from achievement, by using a list of values generated from our theory.

In data analyses from the two societies reported in this article, we found evidence for another motivational domain of values. We mention this domain, but note that it was not derived a priori in our theoretical analyses. The domain has been replicated, however, in four additional societies with data gathered subsequent to its initial identification (Schwartz & Bilsky, 1987).

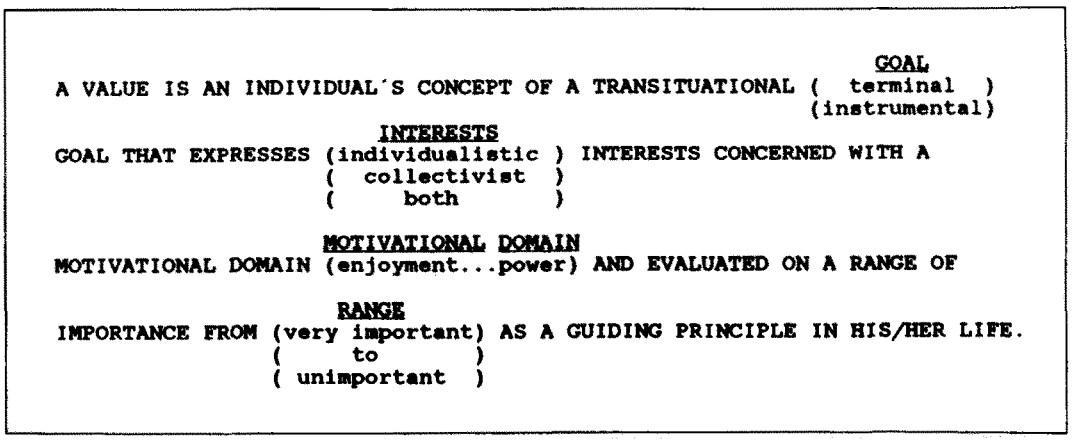

Figure 1. Mapping sentence to define values formally.

Maturity Domain

The values in the motivational domains distinguished thus far may be viewed as goals that people work actively to attain or protect. In contrast, there are some goals that people reach only through experiencing and coming to terms with life, by learning to understand, to make peace with, and to appreciate the social and physical reality as it is—that is, by becoming mature. Although the specific content of what is called maturity may vary across cultures, it is likely to include wisdom, tolerance, faith in one's convictions, deep emotional relationships, and appreciation for the beauty of creation. These values call to mind Maslow's (1959) definition of the self-actualized person. Possible markers in the Rokeach lists are wisdom, broadminded, mature love, a world of beauty, and courageous (standing up for your beliefs).

The Mapping Sentence

We have specified the motivational domains of values on theoretical bases and indicated marker values for each. The definition of values we have developed can best be formalized in a mapping sentence (Shye, 1985) that specifies three facets of values (goal type, interests served, motivational domain) and also the common range on which values are assessed. Figure 1 presents our mapping sentence for defining a value.

This definition contains all five of the formal features of values identified earlier. The motivational domains are enjoyment, achievement, self-direction, maturity, security, prosocial, restrictive conformity, (and social power). Note that the definition applies to values persons hold for themselves, as it refers to "his/her own life." By changing this phrase, the definition could be modified to apply to the values of one's group, nation, and so forth.

If this sentence adequately maps our definition of values, then any specific value can be represented by combining one element from each facet in the definition (Brown, 1985; Levy, 1986). For example, equality is represented by the combination terminal, collectivist, prosocial, and ambitious is represented by the combination instrumental, individualistic, achievement.

Structural Hypotheses

To formulate the hypotheses about the structure of values in a testable manner, we adopted the smallest space analysis method (Canter, 1985; Guttman, 1968). This method allowed us to represent values as points in multidimensional space such that the distances between the points reflect the empirical relations among the 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 in the multidimensional space. Structural hypotheses were tested by examining whether the space could be readily partitioned into regions that reflected the a priori facets and their elements. The theoretical relations among the facets and their elements determined the form the partitioning into regions was expected to take (Levy, 1985).

Hypothesis 1: Goal Type

We hypothesized that the goal type facet would appear as an *axial facet,* that is, it would divide one two-dimensional projection of value relations in space into two separate regions, one region containing all values from Rokeach's terminal list and the other containing all values from his instrumental list. This hypothesis would test whether people do, in fact, distinguish values according to the theorized end state–behavior dichotomy.

Hypothesis 2: Distinctions Between Motivational Domains

We further hypothesized that the motivational domains facet would appear as a division of another two-dimensional projection of value relations into a circular arrangement of seven wedgelike regions emanating from a common origin, each region containing values from only one motivational domain. Figures 2A and 2B present alternative graphic representations of this hypothesis. Such a circular ordering of regions in space, called a *polar facet,* is predicted when two or more of the several elements in a qualitative facet are in conceptual opposition to

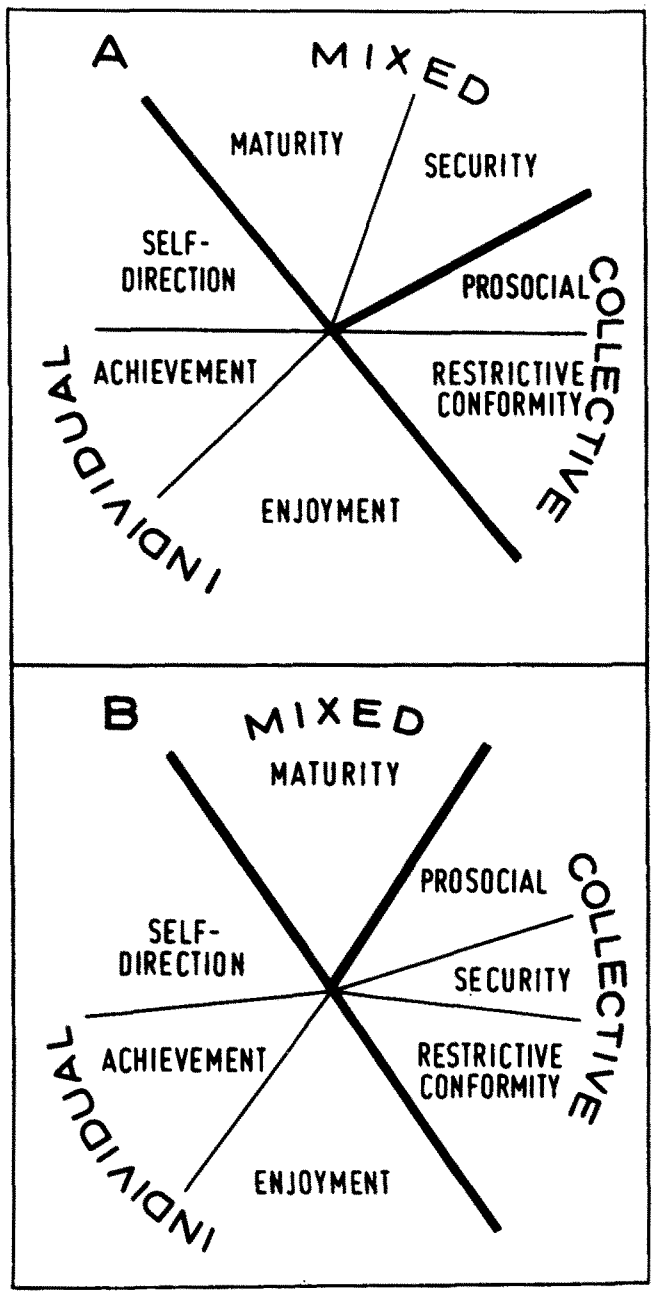

Figure 2. Alternative representations of the hypothesized structural relations among value domains.

one another (Shye, 1985). (Hypothesis 4 specifies a number of conceptual oppositions between motivational domains that account for the predicted ordering of regions.)

Hypothesis 3: Interests Served

We postulated that the interests facet would appear as a division of a two-dimensional space into three wedgelike regions emanating from a common origin (polar facet), each region containing only values that serve one type of interest. This would be a broader partition of the same two-dimensional space that represents motivational domains, as motivational domains are subsumed within interests. Because, by definition, enjoyment, achievement, and self-direction values largely serve interests of the individual, we expected those values to constitute the individualistic region. Because restrictive conformity and prosocial values serve collectivist interests, we expected them to constitute the collectivist region. Maturity values and security values may serve both types of interests; thus, they were expected to constitute the third region. This hypothesis is represented graphically in Figure 2A.

Hypothesis 4: Structural Organization Among Motivational Domains

We generated specific hypotheses regarding structural relations among motivational domains by considering the conceptual definitions of the domains. We determined these relations by the logical and practical compatability or contradiction inherent in giving high priority simultaneously to the values in each pair of motivational domains. Because the interests and motivational domains facets overlap, these hypotheses are partly redundant with Hypothesis 3; they too are represented graphically in Figures 2A and 2B. Each of the hypotheses that follow takes the empirical form of predicting that conceptually opposed regions emanate in opposing directions from a common origin.

4A: Self-direction versus restrictive conformity. To value self-direction highly means to prefer relying on one's independent capacities when analyzing situations and reaching decisions. This directly contradicts the self-abnegation and dependence on social expectations inherent in action guided by valuing restrictive conformity. Kluckhohn (1951) suggested a similar contradiction between autonomy and dependency values, and Kohn and Schooler (1983) presented both theoretical arguments and empirical data that support a bipolar value dimension they called *self-direction versus conformity,* a dimension that closely parallels this hypothesis.

4B: Achievement versus security. To strive for success by using one's skills usually entails both causing some change in the social or physical environment and taking some risks that may be personally or socially unsettling. This contradicts the concern for preserving the status quo and for remaining psychologically and physically secure that is inherent in placing high priority on security values. Kluckhohn (1951) proposed a hypothesis similar to this one in suggesting that safety (Appolonian) and adventure (Dionysian) values were opposed.

4C: Achievement versus prosocial. When people seek personal success or focus on task achievement, it is difficult for them not to overlook negative interpersonal consequences of their actions. Conversely, attending primarily to promoting the welfare of others is likely to interfere with concentration on task achievement. This idea is at the root of previous theorizing about the opposition between task and socioemotional leadership in groups (Slater, 1955).

4D: Enjoyment versus prosocial. To pursue one's own pleasure necessarily contradicts sacrificing oneself to foster the wel-

fare of others. This hypothesis most sharply expresses the opposition between individualistic and collectivist interests. Kluckhohn (1951) labeled this the dichotomy between egoism and altruism; it clearly resembles Freud's (1933) conflict between the id and the ego-ideal aspect of the superego.

Hypotheses 3 and 4A–4D partly overdetermine the arrangement of motivational domains relative to each other. However, security might also fall between the prosocial and restrictive conformity domains, if the fact that all but one of its marker values (inner harmony) concerns group security causes it to function as a pure collectivist domain in this research. This would leave maturity as the only mixed region on the interests served facet (see Figure 2B). The predicted proximity of motivational domains to each other is also too largely overdetermined to offer redundant hypotheses and explanations. We note only that it makes sense for several sets of domains to be contiguous: (a) those that support smooth social relations (security, restrictive conformity, and prosocial); (b) those most concerned with self-enhancement (achievement and enjoyment); and (c) those that express being comfortable with and relying on one's unique experience and capacities (maturity and self-direction).

Method

Samples

In Study 1, 455 Israeli sixth through ninth grade teachers from 22 urban public schools participated during staff meetings in their schools during 1983–1984. Among those participating, 276 teachers completed the full 36-item value survey and the remainder completed only the 18-item terminal values survey. Correlations are based on all those teachers who ranked a given pair of values. Of those in the sample, 84% were female, 25% were under 30 years of age, 45% were from 30 to 39 years of age, and 30% were 40 years old and over; the median age was 35.

In Study 2, 331 German students from five colleges and teachers' seminaries completed a German version of the Rokeach Value Survey in group sessions during 1984. Of the respondents, 176 were students of administration and 155 were preparing to become teachers. Sixty-six percent of the sample were female; all were from 18 to 33 years of age, with a median age of 22.

Procedure and Analysis

Using repeated-back translation, we prepared a Hebrew form of the Rokeach Values Survey for Study 1. Teachers completed the gummed label version of the survey as the first questionnaire in an applied study of values and behavior (Schwartz, 1985). The German values questionnaire for Study 2 was modified from a translation by Schneider (1983). Students responded during class sessions as part of a study of values.

After respondents ranked the values in a list for importance as guiding principles in their life, they were instructed to compare each adjacent pair of values and to indicate how much more important the higher ranked value was than the value ranked below it, by using a 7-point scale (7 = *much more important*, 1 = *virtually identical importance*). By enabling respondents to express more precisely the relative importance of their values, these comparisons compensated for the limitation built into the ranking system of treating all intervals between values as equal.

For each person, we computed value importance ratings by scoring the value ranked least important as 1 and assigning to each higher ranked value a score consisting of the sum of all the value comparison scores for the values ranked below it plus 1. The potential range of value importance ratings was from 1 to 120, or $1 + (17 \times 7)$; the actual range of value importance was from 1 to 104. This rating system reduces the ipsative quality of scores based on ranking because the value importance ratings are largely based on the independent intervals each individual selects when comparing adjacent values. The rating system effectively treats the least important value as equally unimportant to all respondents, as it assigns a score of 1 to this value for everyone.

Pearson correlation coefficients that were based on the value importance ratings served as the data matrix analyzed with the Guttman–Lingoes Smallest Space Analysis (SSA). This is one of various nonmetric multidimensional scaling analysis techniques for structural analysis of similarity data (Guttman, 1968; see Canter, 1985, for an introduction to SSA and for applications). Three- and four-dimensional solutions were specified in advance because Hypothesis 1 implies a projection on one set of two axes and Hypotheses 2–4 imply a second projection on other axes. When the SSA dimensionality is higher than two, the program generates a series of two-dimensional projections of the multidimensional space. It is the regional configurations of items on these two-dimensional projections that must be interpreted. Note that this interpretation of SSA differs from that of other multidimensional scaling procedures, in that the SSA dimensions are arbitrary and lacking in substantive meaning; it is the regions that have meaning (Guttman, 1977).

The division into meaningful regions was accomplished by drawing partition lines according to the facet definition of the values. According to our hypotheses, partition lines should divide the space into regions representing terminal versus instrumental values and into regions representing the various motivational domains. Regions are in general not clusters that are discernible by empty space around them. The content universe is conceived as a geometrical space where the specific values are but a sample of all conceivable values composing 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. Partitions must yield regions having continuous boundaries of whatever shape that do not intersect with the boundaries of other regions (Lingoes, 1977).[1]

Results

We selected the four-dimensional solution of the SSA in both studies for the same two reasons (Shye, 1985). First, visual examination revealed that this solution was clearly interpretable by using our substantive theory. Second, the coefficients of alienation for this solution (.12 in Study 1 and .13 in Study 2)

[1] It should be evident that it is the a priori specification of the expected contents of the regions that makes it possible to draw boundaries. If the two-dimensional space is filled with many points, no obvious boundaries pointing to the structure of relations among the points would suggest themselves post hoc. Partitioning an SSA projection is analogous to the task of examining a map that locates hundreds of North American cities in an effort to determine whether the cities form meaningful categories on some facet. If we know a priori which cities are in Canada and which are in the United States, we would have little trouble in locating and drawing a meaningful boundary separating the cities into two regions on a nation–state facet. The boundary would be clear even though Detroit would appear closer to Windsor and Seattle closer to Vancouver than each is to other cities in its own country. For a fuller discussion of the interpretation of SSA and how it differs from cluster analysis, see Guttman (1977) and Canter (1985).

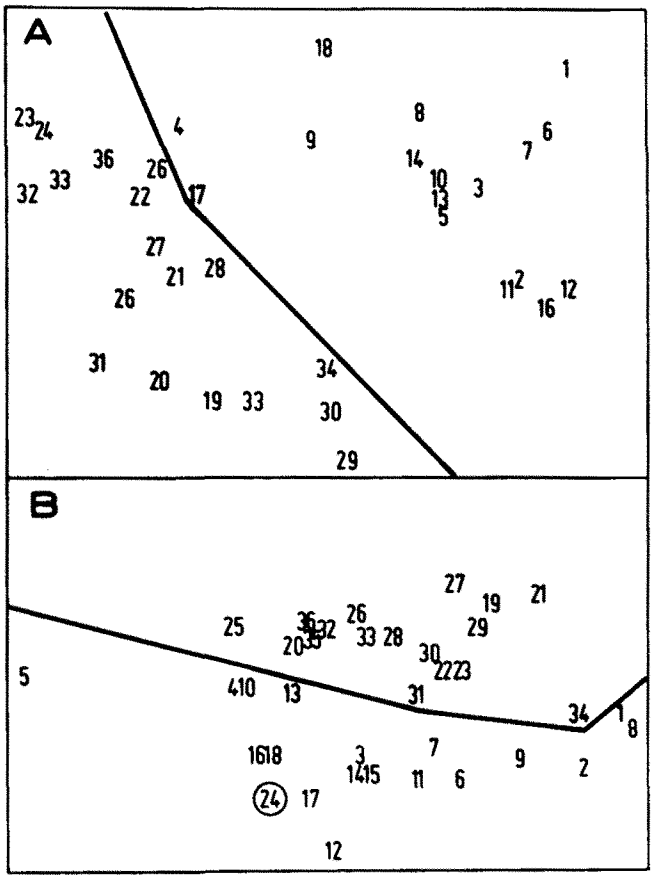

Figure 3. Projections of the goal types facet of values from smallest space analyses for (A) Israeli and (B) German samples. (Values 1–18 are terminal values and 19–36 are instrumental values.)

indicated a reasonable fit that was little improved (.10 in both studies) in the five-dimensional solution.

Goal Type

Maps of the projections relevant to the goal type facet are presented in Figure 3. Each numbered point represents one value. Values 1–18 are from Rokeach's terminal values list and values 19–36 are from the instrumental list. As shown, both maps are easily partitioned into terminal and instrumental regions with virtually no overlap. Only Value 24 (obedient) in the German map (Figure 3B) is out of place. These replicated results clearly support Hypothesis 1: People appear to distinguish values according to the theorized end state–behavior dichotomy.

Motivational Domains Distinction

Figures 4 (Israel) and 5 (Germany) present the maps of the value projections relevant to the motivational domains facet. Partition lines have been drawn according to the a priori designations of the motivational domains by their marker values. All seven predicted motivational domains form distinctive regions that emerge from an origin in both maps. Overall, 27 of the 28 marker values (96%) fall into regions corresponding with the predicted motivational domains in the Israeli map, and 24 of 28 (86%) do so in the German map. These replicated results, showing a high hit rate, provide substantial support for Hypothesis 2: People appear to distinguish the seven theoretically derived motivational domains that can be measured with the Rokeach values.

Are the empirical locations in motivational domain regions of the eight values that are not designated as a priori markers also conceptually meaningful? Three of these values appear in the same motivational domain in both samples: Responsible (dependable, reliable) appears in the security domain, honest and salvation/belief in god appear in the prosocial domain. These locations are appropriate to the meanings of both the values and the motivational domains. The remaining five values (true friendship, a sense of accomplishment, an exciting life, self-respect, and freedom) are located in different motivational domains in the two samples. Whereas their locations make conceptual sense, these values apparently have somewhat different meanings for the two groups. Especially interesting are the meanings of freedom implied by its locations (security, Israel; self-direction, Germany).

In the *Meanings of Motivational Domains and Single Values* section, we present interpretations for the locations of the misplaced marker values. Note, however, that the maps for both samples suggest that two of these values may belong in different motivational domains than originally specified. Contrary to their a priori designations as security values, inner harmony may be a maturity value and a world at peace may be a prosocial value.

Interests Served

Figures 4 and 5 present results that are also relevant for testing the hypothesis that motivational domains are arrayed in three broad regions representing the interests facet. For the Israeli sample (Figure 4), the motivational domains were partitioned into the predicted individualistic (enjoyment, achievement, and self-direction), collectivist (restrictive conformity, and prosocial), and mixed interests (maturity and security) sets. For the German sample (Figure 5), there is one variation from the hypothesis: Security appears as part of the collectivist rather than the mixed interests set. This outcome was not unanticipated (it is a reflection of Figure 2B), because only a single individualistic marker value (inner harmony) led to the prediction that security values serve mixed interests. As this value does not appear in the security domain in the German sample, it is appropriate that security appear in the collectivist region. Overall, the results support the assumption that, in responding to values, people appear to distinguish the entity whose interests the values serve.

Structural Organization Among Motivational Domains

Figures 4 and 5 also present results relevant to the hypothesized relationships among motivational domains. Each subhypothesis can be considered in turn as follows:

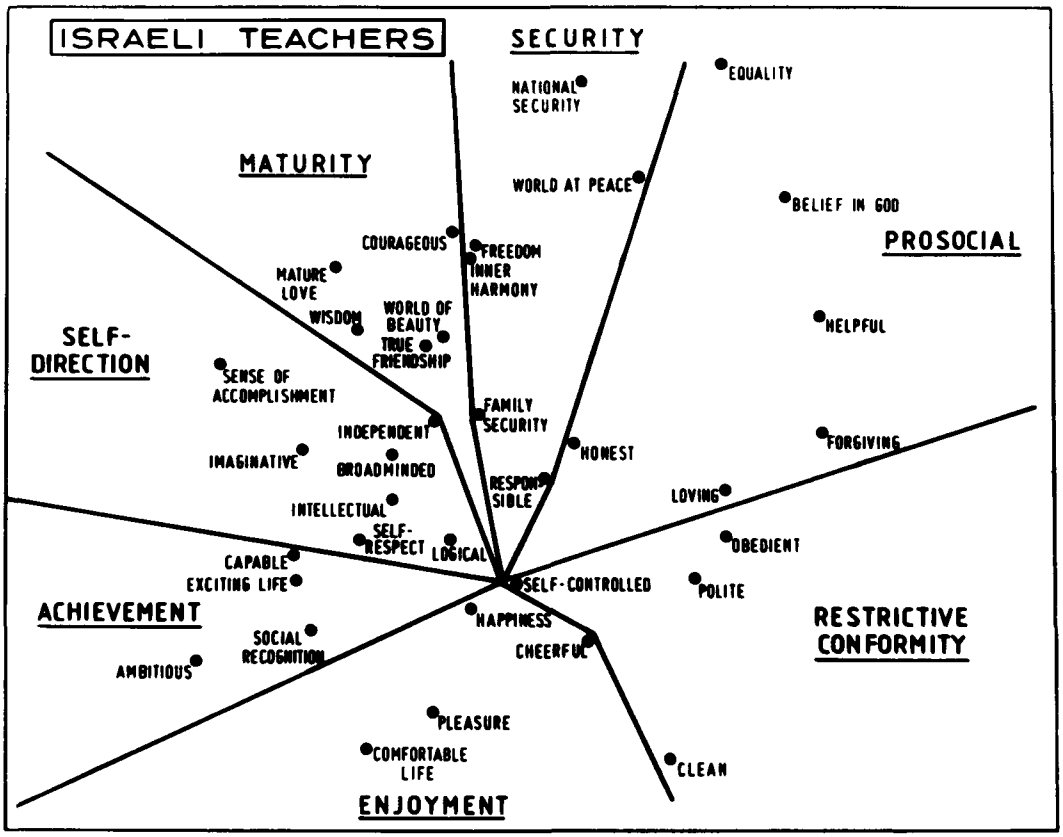

Figure 4. Projection of interests served and motivational domains facets from smallest space analysis for an Israeli sample (N = 455).

Self-direction versus restrictive conformity. The locations of these two motivational domains in opposing positions on both maps clearly support this predicted opposition in the samples from both countries.

Achievement versus security. This hypothesized opposition is supported in the Israeli sample, but receives less support in the German sample. In the latter, the angle between the achievement and security regions is not wide, and only one other motivational domain separates them.

Achievement versus prosocial. This opposition is strongly confirmed in both samples.

Enjoyment versus prosocial. This opposition is strongly confirmed in the German sample and less so in the Israeli sample. In the latter, the angle between the enjoyment and prosocial regions is wide, supporting the hypothesis of incompatibility, although only one other motivational domain separates them.

As noted earlier, it makes sense conceptually for several sets of motivational domains to be contiguous. Results in both samples fit the expected patterns of contiguity: domains that support smooth social relations (prosocial, restrictive conformity, and security), those most concerned with self-enhancement (achievement and enjoyment), and those that express being comfortable with and relying on one's unique experience and capacities (maturity and self-direction).

Discussion

In assessing how much confidence one can have in the inferences drawn from the results, it is helpful to recall the differences between the two studies that tested the hypotheses. The value surveys were administered in two different languages, in countries with at least somewhat different cultures, and to samples differing substantially in their distributions of age, life stage, sex, and occupation. These differences serve to increase our confidence in results that were replicated and provide grounds for interpreting those that were not. Further replications are needed, of course, both within and across cultures, to conclude confidently what is universal in the structure of values and what is culture-specific.

We have assumed that the mappings of relations among values revealed in this research represent the conceptual structure of human values as criteria of importance people use to evaluate and select behavior and events. An alternative view also deserves consideration: Perhaps the maps simply represent the semantic similarities and differences among the value words.

We believe this alternative can be rejected for two reasons. First, if we had been dealing merely with semantic similarities, we would not have expected people's importance scores for values to predict their overt behavior. However, the importance ratings or rankings of values we analyzed have in fact predicted a

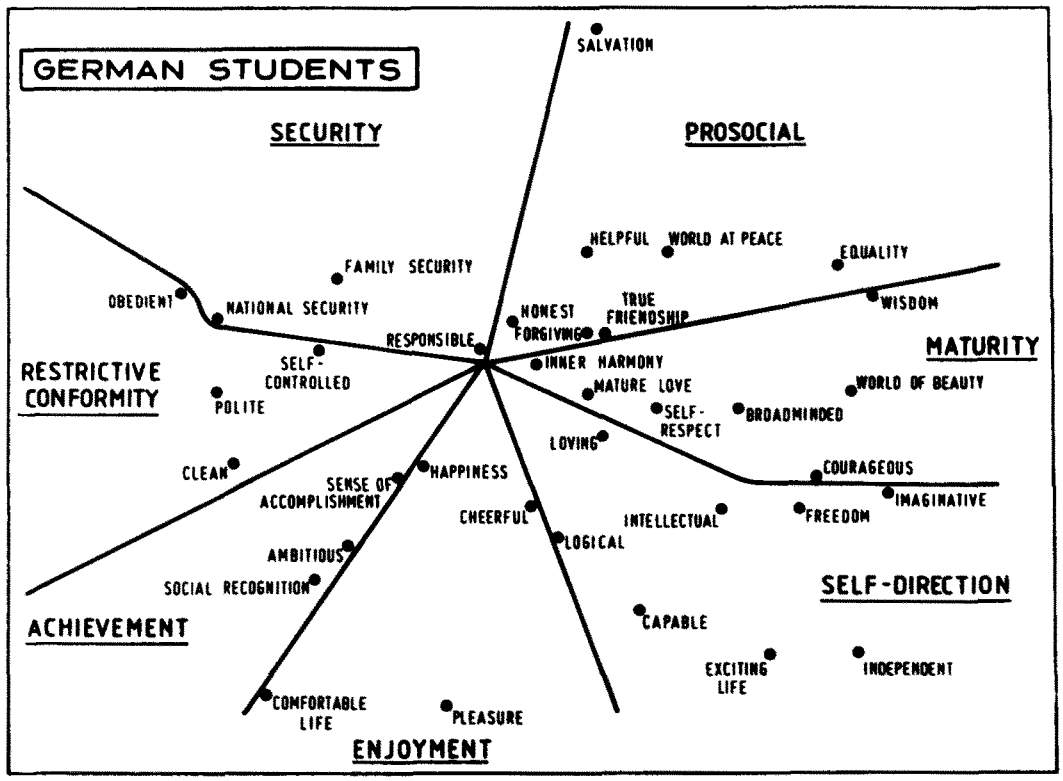

Figure 5. Projection of interests served and motivational domains facets from smallest space analysis for a German sample ($N = 331$).

large number of behaviors, such as voting, civil rights activities, support for environmental causes, smoking, race relations, weight loss, and respect for children in the classroom (Ball-Rokeach, Rokeach, & Grube, 1984; Rokeach, 1973; Schwartz, 1985). Second, the values we located within each motivational domain are frequently not similar to each other in importance. For example, mature love is consistently rated as very important, whereas world of beauty, also located in the maturity domain, is consistently low in importance; happiness is rated as important, but a comfortable life, also in the enjoyment domain, is rated as unimportant.

Goal Type and Interests Served

The empirical distinction between the terminal and instrumental values is so clear that it is best to attribute the single exception to chance. We reexamine the conceptual status of this distinction between goals in the Conclusions and Future Directions section. The empirical distinction between interests served is also clear. Of interest, the religious values (belief in God/salvation) are located in the collectivist interests regions in both samples (Figures 4 and 5). Although these might be seen as individual expressions of faith, the collectivist grounding of specific religious beliefs apparently prevails in determining their placement.

Meanings of Motivational Domains and Single Values

What light do our findings shed on the meanings of the motivational domains and of the single values? The seven motivational domains seem adequate to capture the distinctions among the values studied, and their general meanings seem consistent across the two samples. Two motivational domains, enjoyment and restrictive conformity, contain exclusively those four values expected to define each of them in both samples. However, the other five motivational domains differ slightly for the Israeli and German samples.

The five values included in maturity for both samples indicate that this domain also has similar meanings that are close to our a priori definition. In addition, true friendship is a borderline maturity value in both samples, reinforcing the idea that valuing deep relationships is part of maturity. The location of *broadminded* in the self-direction domain rather than in the maturity domain on the Israeli map may reflect a problem in translation. The primary meaning of the Hebrew term is "having broad knowledge and interests," a meaning best-suited to its empirical location. In contrast, the German term *tolerant* is appropriate to the conception of maturity values developed above. The different locations of the marker *self-respect* may reflect different sources for self-respect in the two samples. For the Germans, self-respect apparently comes from developing a mature understanding life. For the Israelis, self-respect is more

likely to be associated with actively expressing one's capacities for self-direction and achievement.

All four marker values are included in the self-direction region in both samples, suggesting that the expected core of meaning is shared. The additional values in this motivational domain indicate a difference in nuances, however. In the Israeli sample, the values sense of accomplishment, broadminded, and self-respect convey a greater sense of reflectiveness and long-term goals. In the German sample, capable, exciting life, and freedom suggest greater activity and immediacy. Because loving is the only value that is blatantly misplaced on the German map, we refrain from interpreting its location. We suspect it reflects random error or an association with mature love.

All three marker values appear in the achievement region on the Israeli map and two of the three are included on the German map. The presence in this region on the Israeli map of the marker an exciting life (a stimulating, active life) strengthens a conception of this as a motivational domain concerned with active competence. For the German sample, this region includes sense of accomplishment, but the marker value capable is missing. This German variant suggests a conception of achievement that is more focused on final outcomes and less concerned with the processes that produce them. The empirical separation of the achievement region from the self-direction region in the German map supports the decision to treat these as distinctive motivational domains despite their common concern with competence.

The prosocial region on the Israeli map includes all four marker values, in addition to the value honest and the religious value. These same values also appear in the prosocial region on the German map (except for loving, as noted previously). Such findings support the existence of a distinctive value domain emphasizing positive concern for the welfare of others. The location of the religious values (belief in God/Salvation) in the prosocial region may imply that the central religious imperative for both samples is concern for others. For the German sample, the value world at peace appears in this region rather than in the security region. Perhaps this reflects a stress on responsibility to strive for peace actively, in response to what German students perceive as the major threat to world peace—war between the superpowers. The link with prosocial values may come from feelings of moral obligation to try to protect the collective welfare through actions such as antiwar and antinuclear protests.

All four marker values, plus responsible and freedom, define a security region on the Israeli map, thus strongly supporting our a priori conception of the domain. Three of these values define the region on the German map, suggesting a similar core meaning. Without the value inner harmony, however, the security region becomes a completely collectivist domain for the German sample. The different locations of the value freedom in the two samples merits comment. For Israelis, freedom is viewed as a security value, probably because their individual freedom depends first and foremost on the survival of their nation. For Germans, freedom is a self-direction value, perhaps because for them freedom is to be won by constructing a unique self in a highly regulated society.

Structural Organization Among Motivational Domains

The predicted organization of relations among motivational domains was based on the conceptual definitions of each domain. These conceptual definitions were largely supported by the observed locations of single values in the various motivational domains in both samples. As a result, we were able to legitimately test the organizational hypotheses with our data. Recall that the predicted contiguities and oppositions were derived from theorized logical and practical compatibilities or contradictions inherent in giving high priority simultaneously to the values in each motivational domain.

As noted in the Results section, we found all of the expected patterns of contiguity. This supports the idea that value systems are organized dynamically such that people tend to give high or low priority to identifiable sets of mutually compatible motivational domains rather than assigning priorities to motivational domains in a random pattern. These sets are (a) prosocial, restrictive conformity, and security, which support smooth social relations; (b) achievement and enjoyment, which are concerned with self-enhancement; and (c) maturity and self-direction, which express comfort with or reliance on one's unique experience and capacities.

The hypothesized conceptual oppositions between pairs of motivational domains are also important bases for the organization of value systems according to the results. Of the four pairs of conceptually opposed domains derived theoretically, three appear in clearly opposed regions in both samples. These findings provide empirical support for the following ideas regarding the dynamic organization of value systems: (a) valuing reliance on one's independent capacities for analyzing situations and reaching decisions (self-direction) contradicts a value preference for conformity to social expectations and self-abnegation (restrictive conformity); (b) valuing task achievement and personal success (achievement) contradicts a value preference for promoting the welfare of others (prosocial); and (c) valuing one's own pleasure and comfort (enjoyment) contradicts a value preference for promoting other's welfare (prosocial).

A fourth opposition, which appears clearly in the Israeli sample and more weakly in the German sample, indicates that (d) valuing task achievement and personal success (achievement) contradicts a value preference for protecting social, psychological, and physical security (security). The weakness of this opposition in the German sample is probably due to the fact that, as noted previously, these two motivational domains have meanings in the German sample that are somewhat different from our original conception. Achievement is less active and less concerned with processes that might unsettle the status quo; security is entirely collectivist, missing any values whose attainment is likely to be threatened by the change inherent in individual accomplishments. It is noteworthy that in the German sample, self-direction, a domain with connotations of greater activism in this sample, is appropriately opposed to security.

Conclusions and Future Directions

Assessment of the Facets of Values

Goal type. Although this study, like Levy (1986), supports the distinction between terminal and instrumental values, the

conceptual importance of this distinction is still open to question. Rokeach (1973) noted that terminal values sometimes serve as means to promote other terminal values (e.g., social recognition serves to promote happiness), thereby functioning as instrumental values. Heath and Fogel (1978) found that respondents asked to sort values into terminal and instrumental categories did not distinguish sharply between the two categories. How then can we explain the clear empirical discrimination in our data?

The observed distinction could reflect the use of separate lists for ranking terminal and instrumental values. Although conceptually uninteresting, this methodological factor is not a statistical artifact. Ranking in separate lists creates a slight negative interdependence among the values in each list. This negative interdependence reduces the probability that the terminal and instrumental values will cluster each in their own homogeneous region.

The empirical distinction might also be caused by differential responses to values phrased as nouns (terminal) versus adjectives (instrumental). Whether this is a conceptually meaningful or merely a formal distinction is unclear. In many instances it is possible to convert one type of value to the other merely by changing the part of speech (e.g., independence vs. independent, cleanliness vs. clean). We are currently studying whether phrasing the same ostensive values as nouns or adjectives changes their importance and, more significantly, their meaning (i.e., structural location). Such effects would argue for the conceptual significance of this facet.

Interests. The results of this research strongly confirm the meaningfulness of the interests facet. All but two values fall in the predicted collectivist or individualistic regions in both samples. In other cultures, some of these values may conceivably be seen as serving different interests. In a highly collectivist culture such as China, for instance, achievement values may be seen as serving collective rather than individual interests. The distinction itself seems well established, however, especially as it corresponds to a factor that has emerged in cross-cultural studies both at the cultural level and the individual level (Bond, 1985; Hofstede, 1980; Triandis, 1985).

Motivational domains. The evidence clearly supports the existence of the seven basic motivational domains we tested: enjoyment, achievement, restrictive conformity, security, prosocial, maturity, and self-direction. There may be additional basic motivational domains of values; however, our theoretical analysis suggests these are probably few. One candidate, which we previously derived theoretically, is social power.

Researchers interested in adding values to the Rokeach list or in eliminating values to make room for others would do well to consider how these values fit into the mapping sentence we have developed. The mapping of values clarifies their meanings and their probable relations to other values. New information can be gained by adding values whose mapping profiles are different from those in the list. The value *healthy,* for example, has a unique profile (instrumental/individualistic/security) and its addition is worthwhile, as Rokeach recognized in the revised Form G of his value survey. Redundancy can be reduced by dropping values with identical profiles. The value *successful,* for example, has the same profile as ambitious and capable (instrumental/individualistic/achievement); consequently, its addition would be less informative.

If values with the same mapping profile nonetheless were to have significantly different meanings, this would suggest that we have overlooked a facet on which otherwise similar values are different. Yet our examination of the sets of values with identical profiles has revealed no blatant divergences of meaning. Nor have we discovered additional facets in our empirical data. Therefore, it may be suggested tentatively that the facets we have identified are sufficient to capture the major distinctions among values that our respondents made.

Future Research

The most crucial step for future research is to assess the generalizability of the value structures found in our Israeli and German samples. To reveal the extent to which the meanings of specific values and domains are consistent within societies requires replications with other subsamples within these two countries. To clarify what is universal in value systems and what is culture-specific requires replications in other countries. Especially important are replications of the analysis in non-Western societies.

The motivational domains were derived theoretically from universal sources: biological needs of the organism, social interactional requirements for interpersonal coordination, and social institutional demands for group welfare and survival. If these derivations are valid, there is reason to expect the same motivational domains to appear in all cultures, although their content may differ somewhat. If our reasoning about the motivational and pragmatic compatibility of pursuing different values simultaneously is valid, the contiguities and oppositions among motivational domains should also recur.

A second important task for future research is to consider new motivational domains and to refine the measurement of those identified thus far. As noted, social power may be a missing domain. It could be represented empirically by such values as authority and influential. Moreover, the security domain needs refinement. The security region that has emerged with the 36 Rokeach values is essentially concerned with collective security, but the biological imperative of individual survival suggests the existence of individualistic security values as well. To test whether two types of security, one individualistic and one collectivist, should be distinguished, individual security values (e.g., mental and physical health) must be added.

One entirely new motivational domain also merits consideration. Tentatively labeled *tradition maintenance,* this domain refers to honoring and preserving cultural traditions and customs. This domain may also be grounded in the universal survival needs of groups. Its potential significance has come to our attention as we have begun to study traditional societies.

Several of the steps we have suggested require expanding the value lists with which researchers work. The practical limitations of ranking large numbers of values preclude substantial expansion. The use of rating rather than ranking to measure value importance would allow almost unlimited additions to the list; Ng (1982) has made a convincing case in support of

rating in cross-cultural research. However, switching to rating entails problems that require further research.

There is consistent evidence that the overall importance hierarchy of values is not affected by using rating rather than ranking when data are aggregated within groups (Feather, 1973; Moore, 1975; Rankin & Grube, 1980). However, individual level hierarchies and the structure of value systems may be affected by the measurement technique. For example, Alwin and Krosnick (1985) report that the factor structure of 13 parental values is different when rating is used, as opposed to ranking, and that correlations of factors from the two methods with socioeconomic indicators imply different substantive conclusions. Thus, it is necessary to examine whether rating replicates the value structure obtained with ranking before adopting the rating method.

Finally, our basic confirmation of the theorized value structure in two countries justifies building on the assumptions this structure supports in future research on values. Three relevant applications of these assumptions were mentioned earlier in this article. First, research on the relations of values to attitudes and behavior should use indexes of the importance of value domains rather than of single values. This is because indexes of domain importance are based on several related values; they are likely to be more reliable and to reflect a more comprehensive yet clear meaning that permits better placement in a theoretical net. Equally important, it is probably the relative importance that people attribute to different sets of values that influences attitudes and behavior (Rokeach, 1973). Knowledge of the structure of value domains facilitates prediction and analysis of influences due to opposing and compatible domains.

Second, the effects of social structure on values should be studied using the value domains we have proposed. Moreover, the relative importance of opposing value domains rather than the importance of single value domains alone should be used in prediction and interpretation. We have found, for example, that the respect teachers extend to pupils is more strongly correlated with the relative importance they attribute to self-direction versus restrictive conformity values than with the importance of either domain alone or of particular single values (Schwartz, 1985).

Finally, cross-cultural studies should assess similarities and differences in the meanings of specific values by adopting our structural approach and comparing the locations of these values in motivational domains. The relative importance of values discovered to have similar meanings in different cultures can then be compared and interpreted.[2] It is reasonable, for example, to compare the relative importance of most values for our Israeli and German samples, though not all (e.g., not loving or freedom). Equally interesting will be comparisons between cultures to discover similarities and differences in the motivational domains seen as compatible (contiguous) or contradictory (opposing). Observed differences would imply that the cultures differ in the individual motivational patterns and the social arrangements that shape value systems. Whereas the Israeli and German samples were quite similar, it is conceivable that more culturally distant groups will reveal a different organization of value domains.

Summary

Most past studies of the structure of values have used factor analytic and multidimensional scaling approaches (Braithwaite & Law, 1985; Feather, 1975; Feather & Peay, 1975; Heath & Fogel, 1978; Hofstede & Bond, 1984; Jones et al. 1978; Munro, 1985; Rokeach, 1973). These studies have yielded numerous factors or dimensions for which ad hoc interpretations have been given. No convincing theoretical rationale has been offered for the emergence of these factors or dimensions. Moreover, with few exceptions, they do not replicate across samples. The dimensions that do show some consistency resemble either our interests facet (individualistic/collectivist) or one of the motivational domains identified in this article. Reanalyses of data from some of these studies, by using the smallest space analysis technique (Schwartz & Bilsky, 1987), reveal that the structure of values we have postulated may be present there as well.

The primary contribution of the current research is the a priori theoretical definition and conceptual mapping of human values. This approach has proven its worth in this study by enabling us to generate hypotheses about different values and their structural organization. The approach has allowed us to test these hypotheses by examining the correspondence between predicted and observed spatial representations of the relations among values. The results largely support our theorizing about the ways in which human values are organized and dynamically related to one another. Researchers in different cultures can compare the values they generate with our universal motivational domains to identify those aspects of their own cultural values that are universal or unique.

The current research thus affirms a conception of value systems as sets of priorities among compatible or incompatible goals. In predicting the presumed compatibility of particular values and motivational domains, we considered both motivational factors (individual personality) and pragmatic considerations (the organization of reinforcements in the social environment). As a result, this approach begins to overcome the major criticism of survey research on values (Inkeles & Levinson, 1969; Zavalloni, 1980). Unlike that research, our approach is neither atomistic nor merely descriptive, nor does it ignore the dynamically organized structure of values that forms through motivational and social processes.

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[2] If ranking is used, problems caused by nonequivalent sampling of relevant values in different societies remain. The use of rating rather than ranking would eliminate these problems (Ng, 1982), as would comprehensive sampling of important values that were based on a refined theory of universal and culture-specific value structures.

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