

quents" for each word (antecedents: "If you have . . . then you have FREEDOM"; consequents: "If you have FREEDOM then you have . . ."). Thus, 6000 antecedents and 6000 consequents were collected and double-translated into English. The total material was then used to select 30 antecedents and 30 consequents for each of the 20 words, which formed the basis for a series of predetermined choice questionnaires suitable for use in all four countries.

The ethnocentrism still present in this case is in the decision that such research is worthwhile doing—in the project design and its coordination and funding. The very idea of cross-cultural research probably reflects a western universalist value position. This, I am afraid, we have to live with (it applies to anthropology as well).

Ethnocentrism is found not only in research design, data collection, and data analysis; it is also present in the divulging of research results. Articles published in foreign languages are completely out of most researchers' conceptual worlds; in this respect multilingual Asians and Europeans are better off than most Americans. In the English language, professional journals usually publish articles following their own implicit research paradigm and style of communication. I have noticed that the comments of American journal reviewers on innocently submitted European manuscripts show a similar embarrassment as the comments of French management students on translated American textbooks.

The primitive ethnocentrism of many cross-cultural studies of organizational behavior has been, I believe, one of the main reasons for the lack of advance of the art. We cannot avoid ethnocentrism completely, but we can do a lot better than we do now. Data-collection methods can be culturally decentered; even ethnocentrically collected older data can be analyzed anew without ethnocentric or reverse ecological fallacies. Research teams can be expanded with bi- or multicultural researchers—that is, people who were brought up, lived, and/or worked in more than one cultural environment. I believe the latter is more fruitful than composing teams of monocultural researchers from different cultures who get stuck in misunderstandings or passively submit to the chief researcher and his or her paradigms.

The Need for a Multidisciplinary Approach

Cross-cultural studies presuppose a systems approach, by which I mean that any element of the total system called "culture" should be eligible for analysis, regardless of the discipline that usually deals with such elements. At the level of (national) cultures, these are phenomena on all levels: Individuals, groups, organizations, or society as a whole may be relevant. There is no excuse for overlooking any vital factor because it is usually treated in someone else's department at the university.

In this book I shall refer to cross-cultural or cross-national studies from the disciplines of psychology (and, in particular, cross-cultural psychology), sociology (particularly organization sociology), anthropology, political science, economics, geography, history, comparative law, comparative medicine, and international market research. I also refer to many studies which can be classified under the label "comparative management"; this is an object-oriented field of research and teaching, rather than a discipline, borrowing from comparative organization psychology, comparative organization sociology, and microeconomics.

Language and Translation

Language is both the vehicle of most of cross-cultural research and part of its object. Culture, as I use the word in this book, includes language. Language is the most clearly recognizable part of culture and the part that has lent itself most readily to systematic study and theory-building. Language is very evidently a learned characteristic (not an inherited one), and people are able to learn additional languages beyond their first. It seems that the second language is most difficult to master; once people have learned to switch their minds between two languages they absorb more easily additional ones. Some people demonstrate that the human mind can master up to 10 or more languages more or less fluently.

Language is not a neutral vehicle. Our thinking is affected by the categories and words available in our language. This has been recognized at least since Von Humboldt (mid-nineteenth-century Germany); Sapir and Whorf in the United States in the 1920s and 1930s stated in various ways what has become known as the "Whorfian hypothesis." One of its formulations is that "observers are not led by the same picture of the universe, unless their linguistic backgrounds are similar or can in some way be calibrated" (Fishman, 1974: 65). Differences in categories for thinking about the universe can be found in many fields and are larger for languages that are structurally further apart. Some examples are the way in which the color spectrum is divided (several languages have no separate words for "blue" and "green"); the way various aspects of "time" are distinguished (with consequences for behavior); and the way relatives are classified. Translators of American literature have noticed that French and other modern languages have no adequate equivalent for the English "achievement"; Japanese has no equivalent for "decision-making." Modern linguists struggle with the issue of what, if any, are common basic categories of thought across all languages.

If equivalents of a concept in another language are missing, often we can still transfer the desired meaning by circumlocution. People whose language does not distinguish "blue" and "green" are able to discern the two shades, but need additional words to describe this difference (Hojjer, 1962: 263-264). "Languages differ not so much as to what *can* be said in them, but rather as to what is *relatively easily* said in them" (C. F. Hockett, quoted in Fishman, 1974: 81). Modern languages borrow extensively from each other to avoid the need for circumlocution for useful terms for which the own language has no equivalent. Words are borrowed for concrete objects ("sauna" from Finnish, "computer" from English) but also for concepts with a flavor related to the cultural context of their country of origin: "laissez-faire" and "savoir-vivre" from French; "verboden" and "Weltanschauung" from German; "business" and "manager" from English.

The problems with the use of language in research about culture start before the actual translation of questions. The researchers and their informants may hold different normative expectations about the use of language. In some cultures and subcultures, being polite to the other person is more important than supplying objectively correct information; in some, respondents will never use "no." In a comparative experiment in Iran and England, it was shown that in Iran, 20 percent of people in the street pointed a foreigner the way to a place even if that place did not exist; in England this never happened (Collett and O'Shea, 1976: 453).

In few cross-cultural studies can we escape the need for translating research instruments, like questionnaires, and back-translating non-precoded responses and analytic conclusions. This translation is rarely simple, and the less so, the wider apart the structures of the two languages. Where exact equivalents do not exist a "contextual transposition" (Gasse, 1973) must be found; apparent equivalents sometimes do not express the meaning intended by the researcher. From an extensive experiment with translations from English into 10 Pacific and Asian languages and back, Brislin (1970) draws the not surprising conclusion that the crucial factor is the quality of the translators, who should be familiar not only with both languages but with the context of the material to be translated as well.

Translators are obviously bilinguals, if not multilinguals. Most bilinguals still have one dominant or preferred language, in which they express themselves more easily; this depends, among other things, on the order in which the languages were learned (Anderson, 1967: 135-136). If at all possible, translators should be chosen such that they translate *into* their preferred language, as it takes greater familiarity with a language to *express* nuances of meaning than to *understand* them. As soon as we have a preferred language, however, we are culturally not neutral: the translator is the first exponent of the foreign culture we meet in the research process, and the impact of culture on our findings starts in his or her mind. In the translation of questions about values for the project this book is about, I have noticed, for the languages which I can read, at least two cases in which translators left out some words of the English original in their translation because they considered them redundant. Subsequent research results showed in both cases through the answers to other questions that the values associated with the omitted words were particularly opposed in the translators' countries. In other words, translators filtered meanings according to their countries' dominant value systems.

The recommended remedy against nonequivalence in translation is back-translation by a second bilingual, comparing the back-translated text with the original and resolving differences by discussion. This is certainly a wise safeguard against translation errors, but it is costly and time-consuming and does not detract from the fact that the quality of the translation still depends on the insight and skill of the translators. I prefer a one-shot translation by a gifted translator familiar with the content matter of the document over the result of a back-translation exercise using two or more mediocre bilinguals. A translation may have passed a back-translation filter and still look clumsy in the other language (as questionnaire designers are not necessarily selected on their stylistic abilities, even untranslated questionnaires look clumsy at times).

For the practice of cross-cultural research, the previous paragraphs imply that translation is a source of error. The error can be reduced by a careful selection of translators and by the use of a back-translation procedure, although the latter is no guarantee of a perfect translation. I might add that it helps considerably if the researcher is multilingual. For a deeper understanding of a foreign culture and for the avoidance of ethnocentric blunders, some familiarity with the language is indispensable. Anthropologists would hardly dare to study a tribe without some mastery of its language. Something can also be done in the composition of the questionnaire. Questions destined for translation should be plain, free from home-country local color—

almost unimaginative. The questionnaire should contain a certain amount of redundancy, so that key issues are approached from several angles and a weak translation of one question does not spoil all information on the issue.

Questionnaire translations can be tested in ways other than back-translations. A careful check by a panel of bilingual readers familiar with the content matter is less time-consuming and may be as effective. More time-consuming but revealing is a separate correlation and/or factor analysis of pretest (or even of final) data for each language version and a comparison of the patterns of correlations found. Convergencies and divergencies between factor structures not only show where meanings have been similar or different but often suggest what other meanings were attributed. However, samples of respondents in the different languages should be matched on other criteria (occupation, age, sex) because these, too, affect the meanings of answers (Hofstede et al., 1976: 21ff).

Finally, translation errors are randomized if we are able to increase the number of languages used. One bad translation may invalidate a two-country study but it is unlikely that systematic translation errors affect the conclusions of a 40-country, 18-language study like the one described in this book. Language, in this case, becomes a variable in the analysis and not just a source of bias.

Matching Samples: Functional Equivalence

Anthropologists have studied nonliterate cultures on the basis of small samples of informants studied in great depth. In this case,

the validity of the sample depends not so much on the number of cases as upon the proper specification of the informant, so that he or she can be accurately placed, in terms of a very large number of variables: age, sex, order of birth, family background, life-experience, temperamental tendencies (such as optimism, habit of exaggeration, etc.), political and religious position, exact situation relationship to the investigator, configurational relationship to every other informant, and so forth. Within this very extensive degree of specification, each informant is studied as a perfect example, an organic representation of his complete cultural experience [Mead, 1962b: 408-409].

From such in-depth sample studies, anthropologists draw conclusions on the culture as a whole, including its "modal personality" or "national character." Comparisons between cultures by anthropologists are based on comparisons of aspects of these inferred wholes.

Modern nations are too complex and subculturally heterogeneous for their national characters or modal personalities to be determined in this way. The study of the "national characters" of modern nations therefore has not developed very much beyond the speculative, impressionistic stage; we could even wonder whether modern nations possess national characters. The present book shows that modern nations do have dominant national character traits which can be revealed by survey studies and by the comparison of measurable data on the society level. The mental programs of members of the same nation tend to contain a common component.

Other components of the mental programs of people are subcultural; that is, shared only by others of the same educational level, socioeconomic status, occupation, sex, or age group. Of course, some countries are more culturally homo-

geneous than others: Students of culture should be aware of linguistic, regional, tribal, ethnic, religious, or caste cleavages within nations which can make data non-representative for the whole of the nation. But apart from such specific cleavages, when we compare cultural aspects of modern nations, we should try to match for subculture. It is obviously not very meaningful to compare Spanish nurses with Swedish policemen.

Depending on the nature of the characteristics we want to compare, we can compare matched samples of individuals, situations, institutions (like families), or organizations. One strategy of matching is to make the samples very broad, so that sub-cultural differences are randomized out. We find this in comparisons of the results of public opinion polls using representative samples of national populations. The opposite strategy is to make the samples very narrow, so that we draw from similar subcultures but in different countries. We can compare Spanish nurses with Swedish nurses, or Spanish policemen with Swedish policemen. In the case of such narrow samples, we have to be careful about generalizing to the nation as a whole: Are police departments and hospitals functionally equivalent in both nations? That is, do they fulfill the same function in society? A more solid research strategy, if we have to use narrow samples, is to take several from different parts of society. With a fourfold sample of Spanish and Swedish nurses and Spanish and Swedish policemen we can test not only the nationality effect but also the occupation effect (nurses versus policemen) and the possible interaction between the two which can give clues as to functional equivalence. The quality of the matching of narrow samples often can only be proved *ex post facto*: If the differences we find between cultures in one sample set, are confirmed by those found by others in other matched samples, our matching was adequate.

The practical problems involved in getting access to matched samples in different cultures can be enormous, and researchers have to accept compromises in order to obtain data at all. However, the problems of both matching and access are reduced when we can use as a setting for the research organizations which are by their very nature multisocietal; the number of such organizations is increasing in the modern world. Possibilities are available in international schools and training centers (Hofstede, 1976a), national organizations employing personnel from different nationalities (Hofstede and Kranenburg, 1974) or, as in the present book, multinational business corporations. Some people welcome and some deplore the growth of multinational business; but this growth is a fact, and for the student of differences in national cultures these new organizations represent a unique and until now insufficiently exploited setting for research. The fact that these organizations have similarly structured subsidiaries in many countries provided matched settings in which many factors are equal except the nationality of the actors. A common objection against studying subsidiaries of multinational corporations is that these are atypical for their country. This is true; they are just as atypical as samples of policemen or samples of nurses. Studying subsidiaries of multinational corporations represents a *narrow-sample strategy*, but with the advantage that the functional equivalence of the samples is clear. That these samples are atypical does not matter as long as they are atypical the same way from one country to another. Multinational corporations have subcul-

tures of their own; to the extent that these subcultures reduce the variability in the data from one country to another, the remaining variability will be a conservative estimate of the true variability among countries, which only speaks in favor of this setting for cross-cultural research.

Modal and Marginal Phenomena

In order to learn about differences among societies we need not necessarily study what is modal in each society; we can also learn from a comparison of marginal phenomena. Focusing on what is modal has been the concern of social psychologists and sociologists. Anthropologists are more naturally attracted to what is marginal or unique. In recent years, anthropologists have reduced their predilection for nonliterary societies and increasingly included modern industrial society in their field of research. Bovenkerk and Brunt (1976) claim that the special vocation of the anthropologist in modern society is to highlight society's marginal phenomena. Some of these can characterize a society more clearly than modal phenomena. Ever since Durkheim (1937 [1895]), suicide percentages have been used to draw conclusions about societies as a whole, even though only a marginal fraction of people actually took their own lives.

There is a good statistical reason why extreme phenomena differentiate more between cultures than modal ones; this is pictured schematically in Figure 1.5. Let us

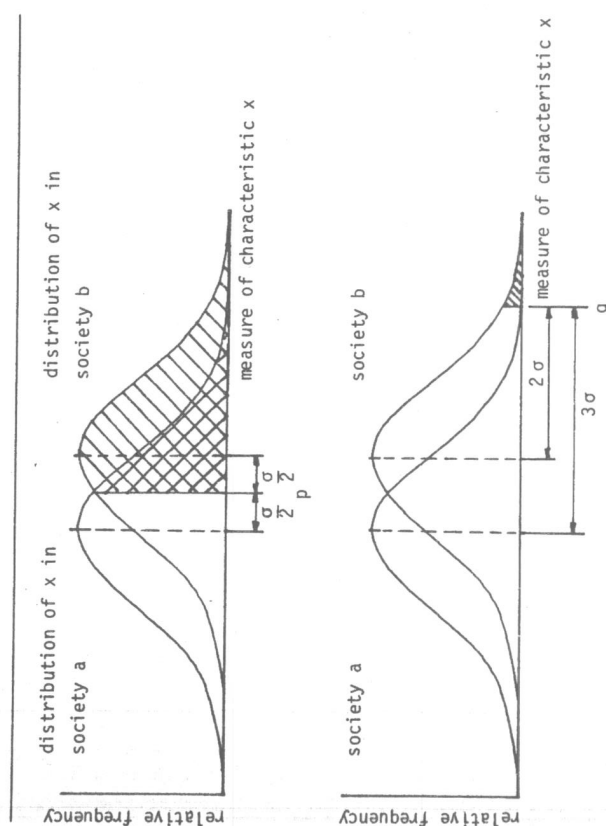


FIGURE 1.5 Ratios Between the Frequencies in Two Societies of Those Exceeding an Average and an Extreme Value of a Normally Distributed, Culturally Influenced Characteristic

assume a characteristic x (of individuals, institutions, or organizations) which is normally distributed across the nation, but with a cultural difference between society A and society B, so that the two normal distributions do not quite overlap. The shift in Figure 1.5 is chosen of the size σ or equal to the within-country standard deviations. Such a characteristic at the individual level could be "aggressiveness." The percentage of individuals with an aggressiveness level beyond the common average p in this case would be 30.9 in society A and 69.1 in society B, a ratio between the two societies of 2.2. However, an aggressiveness level beyond an extreme value q , representing a distance 2σ from the mode of B and 3σ from the mode of A, would occur in .14 percent of individuals in society A but in 2.27 percent in society B, a ratio between the two societies of 16.8, or eight times as large as the ratio of those beyond level p . Now if an aggressiveness level beyond q is likely to lead to individually committed criminal offenses, such offenses are 16.8 times as likely to occur in society B. For collective phenomena, the difference becomes even larger. Suppose that a criminal gang is likely to be created where two persons with an aggressiveness level beyond q meet. This is $16.8^2 = 282$ times as likely to occur in society B as in society A.

The example is, of course, grossly oversimplified, but it shows how small modal differences between societies can become manifest in large differences in marginal phenomena. The study of the marginal and unique in society is justified by more than curiosity alone.

The Specific and the General

The comparison of cultures presupposes that there is something to be compared; that each culture is not so unique that any parallel with another culture is meaningless. Throughout the history of the study of culture there has been a dispute between those stressing the unique aspects and those stressing the comparable aspects. The first hold that "you cannot compare apples and oranges," while the second argue that apples and oranges are both fruits and can be compared on a multitude of aspects, such as weight, color, nutritive value, or durability. The selection of these aspects obviously necessitates an a priori theory about what is important in fruits.

The distinction between the unique and the comparable, the specific and the general, was made by Windelband in late-nineteenth-century Germany when he defined "idiographic" versus "nomothetic" styles of scientific inquiry. The idiographic style was mainly found in "historical" disciplines looking for wholes or "*Gestalten*," unique configurations of events, conditions, or developments; the nomothetic style mainly in natural sciences looking for general laws or "*Gesetze*" (Lammers, 1976: 31). In their subsequent development, the social sciences have moved between both styles. In the 1960s, anthropologist Goldschmidt labeled the choice between the two styles the "Malinovskian dilemma" (Berry, 1969: 120; Lammers, 1976: 28) after Bronislaw Malinowski, who introduced functionalism in anthropology in the 1920s. Functionalism stresses the purposive nature of institutions in society; but the purpose is derived from the particular culture of that society, which is a unique whole. Therefore, institutions can only be understood in terms of their own culture; functional equivalence with institutions in other societies cannot be proven; and, according to Malinowski, "cross-cultural comparison of institutions is essentially a false enterprise, for we are comparing incomparables." Similar points of view, stress-

ing the need for understanding of social systems from the inside and through the definitions of their members, have been labeled by others "ethnoscience" and "ethnomethodology." While few scholars take the extreme position attributed to Malinowski, there is a wide range of points of view as to the importance of understanding-from-within versus measuring-from-without.

While the terms "idiographic" and "nomothetic" are probably better known among sociologists, cross-cultural psychologists have adopted another set of terms from anthropology which, however, covers more or less the same distinction: "emic" versus "etic." These terms were introduced into anthropology in the 1960s by the linguist K. L. Pike. In linguistics, a distinction is made between phonemic and phonetic classification. The phonetic classification is universal and allows characterizing any sound in any language. In a particular language, only certain sound units are actually used; these are called phonemes, and in combination with other phonemes they are the carriers of meaning (Bright, 1968: 19). Thus, the phonemic is the specific; the phonetic, the general. The suffixes -emic and -etic have been promoted to independent terms in anthropology for distinguishing the study of unique and specific wholes from the application of general, polycultural classification schemes.

The fact of engaging in a comparative study of culture at all presupposes at least an etic point of departure. Berry (1969: 125) suggests an approach which tries to combine a concern for the general with a concern for the specific, and which can be applied where functional equivalence of behaviors in two cultures can be demonstrated (or, I would add, reasonably assumed): (a) Existing descriptive categories and concepts are applied tentatively, as an imposed etic; (b) These are then modified so that they represent an adequate emic description from within each system; (c) Shared categories can then be used to build up new categories valid for both systems as a derived etic, and can be expanded if desired until they constitute a universal. This derived etic or universal is then used as the basis for new measurement instruments and techniques.

Lammers (1977: 10) makes another distinction related to the idiographic-emic versus nomothetic-etic dilemma. In the (nomothetic-etic) search for general classification schemes, some search for "lawlike theories" whereas others search for "configurations." The first approach aims at determining variables which relate to other variables in a certain lawlike way; the second approach aims at establishing ideal types which are wholes in themselves and which the cases studied can be shown to resemble. "Pure" nomothetes will follow the variables approach, whereas those with an inclination toward the idiographic side will find the type approach more useful.

One's position or flexibility in the specific versus general spectrum will strongly affect one's choice of data treatment. The pure idiographer will probably shy away from quantitative data and the use of statistics. Those collecting comparative data that lend themselves to statistical analysis will be attracted to different statistical methods according to their degree of nomotheticity. A greater idiographic concern will express itself in a focus on relation between variables *within* cultures, followed by a comparison of the patterns found from one culture to another; this can be used for a type approach. Looking at the variances and covariances of variables *between* cultures is a step more toward the nomothetic side: It presupposes data on a greater number of cultures and means a study of ecological correlations as described earlier

in this chapter.⁷ Matrices of ecological correlations between variables can be used again for a type approach through some form a Q-factor or cluster analysis which shows which cultures have similar ecological correlations. Probably the most nomothetic data treatment is using matrices of ecological correlations for a factor analysis or similar multivariate technique subsuming the original variables into dimensions which can enter laws of the greatest generality, but which are at the same time least sensitive to the uniqueness of each culture. This is the approach this book will be using.

DIMENSIONS OF CULTURE

The Search for Dimensions of Culture as One Research Strategy

In the process of comparing phenomena, similarity and differences are two sides of the same coin; one presupposes the other. Nevertheless, research designs usually favor either the search for similarities or the search for differences. Lammers and Hickson (1979) signal a bias either way in comparative studies of organizations. Some studies want to show that different organizations are in reality "brothers under the skin"; other studies want to show that superficially similar organizations are really "birds of a different feather." The predilection for one or the other is ideologically related to the previously described choice between the general and the specific: who looks for brothers under the skin looks for the general; who is convinced of specificity finds birds of a different feather.

The distinction between a focus on similarities and a focus on differences can be fruitfully combined with the distinction between levels of analysis as we met it earlier in this chapter into a fourfold classification of research strategies. Although this classification can be extended to other types of comparative studies as well, I will apply it only to the comparison of phenomena in different societies. These phenomena can be behaviors of individuals or situations, institutions, or organizations. The classification is drawn in Figure 1.6.

In Cells 1 and 2 of Figure 1.6 we find those studies which focus on either similarities or differences among societies but which are concerned with micro-level variables and their relationships measured *within* societies. In Cell 1 we find studies with a nomothetic-etic orientation, which try to prove the universality of micro-level laws. Examples are the study of managerial thinking in 14 countries by Haire et al. (1966) and extension to other countries of the "Aston" studies about the relationship between organization structure and context which try to confirm the "culture-free thesis" (Hickson et al., 1974). In Cell 2 we find studies with a more idiographic-emic orientation which, through showing differences among societies, illustrate the uniqueness of each. This includes field studies by anthropologists which are only implicitly comparative but also explicitly comparative studies, such as the extensive work of Osgood et al. (1975) in showing the different affective meanings of words for individuals in different cultures, and studies of organizations in the "Aston" tradition aiming at refuting the "culture-free" thesis (Child and Kieser, 1979).

FIGURE 1.6 Four Available Research Strategies for Comparative Multisociety Studies

concerned with micro-level variables within societies	1)	prove universality of micro-level laws	2)	illustrate uniqueness of each society
culture as black box				
concerned with ecological variables between societies	3)	determine types or subsets of societies	4)	determine dimensions of societies and macro-level laws
culture specified				
	focus on similarities between societies		focus on differences between societies	

Studies in Cells 1 and 2 go across cultures, but without necessarily specifying what "culture" stands for. Culture is often treated in these studies as a "black box" which we know is there but not what it contains. In Cell 1, we hope it can be proven to make no difference, and then it does not matter what is in the black box; in Cell 2, we hope it does matter, but we argue that our black box is a Pandora's box containing so much that it is impossible to be more specific. In Cells 1 and 2 we deal with societies as names, not as variables; and as "names" they are "residua of variables that influence the phenomenon being explained but have not yet been considered" (Przeworski and Teune, 1970: 29)—or, I would add, are too complex to be considered.

In Cells 3 and 4 we find studies which focus on either similarities or differences among societies on the basis of ecological variables and their relationships—that is, variables measured at the level of societies. In Cell 3 we find studies that use ecological variables to determine types or subsets of cultures that are similar among themselves but differ from other types or subsets. For example, Adelman and Morris (1967) used factor analysis of a matrix of 41 ecological variables for 74 developing nations, but they created subsets of nations of lowest, intermediate, and high development level. Russett (1968) used data from the World Handbook of Political and Social Indicators, the first edition of which he edited, to cluster countries through a Q-analysis. He arrived at an Afro-Asian, Western, Latin American, and Eastern European cluster. In Cell 4, finally, we find studies concerned with determining dimensions of societies and laws at the level of societal variables, identifying the variables that can replace the names of societies in our analysis.

Przeworski and Teune (1970: 31ff), writing from a political science background, are mainly concerned with the distinction between Cell 1 and Cell 4 studies. They normatively suggest for Cell 1 studies a "most different systems design": If we want to prove universality of micro-level laws, it is more meaningful to test them in Sweden, Japan, and Zambia than in Sweden, Denmark, and Norway. For Cell 4 studies they suggest a "most similar systems design": taking societies that are similar in many respects except a few, which enables us to see more clearly what differences those few societal aspects are related to. If we are interested in which societal influences

affect suicide rates, it is meaningful to study Denmark, Sweden, and Norway, which are similar in many respects but of which the latter has a strikingly lower suicide rate (Rotterstøl, 1975).

Cell 1 studies are most vulnerable to ethnocentricity. This is less the case for other cells; Cells 2 and 3 studies are by their nature "polycentric," and Cell 4 studies "geocentric."⁸ In order to avoid the inherent danger of ethnocentricity in Cell 1 studies we have to expand our strategy with Cell 2 and Cell 4 methods; focus on differences even if what we want to prove is similarities—that is, be the devil's advocate. Lammers (1976: 37) recommends "loading the dice" as much as possible against the thesis that our relevant propositions are culture-free. Przeworski and Teune's "most different systems design" for Cell 1 is also a way of being the devil's advocate.

The present book deals with dimensions of national culture and therefore represents clearly a Cell 4 approach. The number of societies covered—40—is large enough to include similar as well as different ones and to make a "geocentric" approach possible.

Dimensions of Culture in the Literature

In an article first published in 1952, anthropologist Clyde Kluckhohn argued that there should be universal categories of culture:

In principle . . . there is a generalized framework that underlies the more apparent and striking facts of cultural relativity. All cultures constitute so many somewhat distinct answers to essentially the same questions posed by human biology and by the generalities of the human situation. . . . Every society's patterns for living must provide approved and sanctioned ways for dealing with such universal circumstances as the existence of two sexes; the helplessness of infants; the need for satisfaction of the elementary biological requirements such as food, warmth, and sex; the presence of individuals of different ages and of differing physical and other capacities [Kluckhohn, 1962: 317-318].

The kind of framework meant by Kluckhohn must consist of empirically verifiable, more or less independent dimensions on which cultures can be meaningfully ordered.

Several U.S. social scientists have tried to define such dimensions. One multidimensional classification is offered by Parsons and Shils (1951: 77) in their "General Theory of Action." They claim that all human action is determined by five "pattern variables," which they see as choices between pairs of alternatives (the explanations between parentheses are mine):

- (1) Affectivity (need gratification) versus Affective neutrality (restraint of impulses);
- (2) Self-orientation versus Collectivity-orientation;
- (3) Universalism (applying general standards) versus Particularism (taking particular relationships into account);
- (4) Ascription (judging others by who they are) versus Achievement (judging them by what they do);
- (5) Specificity (limiting relations to others to specific spheres) versus Diffuseness (no prior limitations to nature of relations).

Parsons and Shils claim these choices are present at the individual (personality) level, at the social system (group or organization) level, and at the cultural (normative) level. They do not take into account that different variables could operate at different levels.

In an extensive review article about national character and modal personality, Inkeles and Levinson (1969) have summarized a number of studies. What I have labeled "dimensions" they call "standard analytic issues" (1969: 447). They propose

to concentrate, for purposes of comparative analysis, on a limited number of psychological issues . . . that meet at least the following criteria. First, they should be found in adults universally, as a function both of maturational potentials common to man and of sociocultural characteristics common to human societies. Second, the manner in which they are handled should have functional significance for the individual personality as well as for the social system.

Then Inkeles and Levinson distill from the literature three standard analytic issues that meet these criteria:

- (1) relation to authority;
- (2) conception of self, including the individual's concepts of masculinity and femininity; and
- (3) primary dilemmas or conflicts, and ways of dealing with them, including the control of aggression and the expression versus inhibition of affect.

Inkeles and Levinson's three standard analytic issues will be shown to be amazingly similar to the dimensions empirically found in the study this book is about, described in Chapters 3 through 6. "Power Distance" relates to the first, "Individualism" and "Masculinity" to the second, and "Uncertainty Avoidance" to the third standard analytic issue.

NOTES

1. Those with vested interest in societal inequality are fond of theories trying to prove that collective differences in behavior are due to heredity. The German Nazis had their race theories. In the United States many people continue to believe that Negroes are genetically less intelligent than whites. Not so long ago this became the issue of a hot ideological debate among U.S. academicians; one professor defended the genetic inferiority of Negroes' intelligence (Jensen, 1969), against which the American Anthropologist Association took a public stand (for critiques of Jensen see the articles following Jensen, 1969, and also Brace and Livingstone, 1974). In Great Britain the heredity-versus-environment issue led to the disgrace of a once glorified psychologist suspected of having manipulated his data in favor of heredity (Sir Cyril Burt: see Wilmott, 1977). The opposite extreme has been found in the Soviet Union, where the dominant ideology involves the playing down of heredity in favor of environmental factors, which led to the now refuted biological theories of Lysenko.

2. It is likely that the development of values and culture in children goes along with the development of intelligence and personality traits. Intelligence-versus-age curves usually show a very rapid development of intelligence in the early years from two to about seven, with a slowing down after age nine (Bloom, 1964: 64). For personality development, adequate measures are harder to get at, but such characteristics as intellectual interest, dependency and aggression seem to a considerable extent to be developed before age five (1964: 177).
3. This term derives from nuclear physics and refers to Heisenberg's "principle of indeterminacy": One cannot observe a particle without disturbing it.
4. The terminology in Figure 1.4 is partly taken from Berry (1975). The diagram contains elements from the cybernetic hierarchy of Parsons (1977: 10); the system of societal norms in the center is Parsons's "cultural system." The idea of a central value system which feeds into different types of institutions is also found in Shils (1970); he argues that it is shared by at least the majority of the *elites*, not necessarily of the rest of the population.
5. For a clear exposé of the theory of analysis at different levels see Przeworski and Teune (1970: Chap. 3).
6. A paradigm is a set of concepts used to build a theory. It is not a theory itself, but a basic way of ordering reality which inevitably has to precede any theory formation. The inadequate paradigm signaled is part of a "person-centered preoccupation and causal attribution bias" in U.S. psychological research (Caplan and Nelson, 1973).
7. The study of such correlations for primitive ethnic units was already undertaken in the late nineteenth century by Edward B. Tylor in Britain. His publication evoked a reaction by Sir Francis Galton, which became famous as "Galton's problem": How should such correlations be explained? Are they based on functional association of variables rooted in general laws of human society, or more simply on diffusion of patterns from one culture to another (Naroll, 1970: 1229; Driver, 1973: 338ff)?
8. These terms were used to describe the structures of multinational enterprises by Perlmutter (1965). See Chapter 9.

Chapter 2

DATA COLLECTION AND TREATMENT

SUMMARY OF THIS CHAPTER

A profile is drawn of the large multinational corporation HERMES. The story is told how HERMES got an international attitude survey program which between 1967 and 1973 produced a data bank with answers to about 117,000 survey questionnaires from 66 countries. Additional data were obtained from a Yugoslav worker-self-managed company which markets and services HERMES products in its country. The questionnaire translation process (in 20 languages) and the problems of administering so large a survey program are described. Part of the standardized questions in the HERMES data bank deal with values rather than with satisfactions and perceptions. In the history of the research project an important role is played by additional data collected by the author at IMEDE Business School in Lausanne between 1971 and 1973, which showed that country differences in values found within HERMES could be reproduced on a completely different international population, and with the English version of the questionnaire only. The chapter describes the statistical treatment of the HERMES data: frequency distributions, correlations, and factor analyses of data across individuals; analysis of variance using country, occupation, sex, and age as criteria; and, finally, ecological correlations and factor analyses. For reasons of stability of data, the latter were limited to 40 countries. The ecological dimensions of Power Distance and Uncertainty Avoidance were found through an eclectic analysis of data, based on theoretical reasoning and correlation analysis. In these two dimensions, work goal importance data had not been used. The processing of these needed an extra step: first, scores had to be standardized across goals in order to eliminate acquiescence. Then they were subject to ecological factor analyses of

occupation scores and of country scores; the country analysis led to the identification of the ecological dimensions of Individualism and Masculinity. Finally, an ecological factor analysis of all data combined was used to fit the picture of the four dimensions together.

Subsequently, the country scores on the four dimensions found in HERMES were compared with country scores published by other authors based on data unrelated to HERMES but which showed some conceptual similarity to the HERMES dimensions. These included mean country scores of survey results as well as a variety of data measured at the country level. Seven geographic, demographic, and economic indicators of countries were selected as particularly meaningful in this respect: wealth, economic growth, geographical latitude, population size, population growth, population density, and HERMES organization size.

THE RESEARCH SETTINGS

The HERMES Corporation

The large multinational corporation which I shall call HERMES¹ is based in the United States with subsidiaries in all countries around the world which admit such subsidiaries. It manufactures and sells a range of high-technology products. In the period in which the data were collected, 1967 through 1973, the HERMES Corporation developed its products in seven countries, manufactured in 13 countries, and marketed and serviced in about a hundred countries.

The smaller marketing-plus-service subsidiaries of HERMES and the marketing-plus-service divisions of the larger subsidiaries which also had product development and/or manufacturing were organized along similar lines except for size. If the size of the operations justified it, there were branch offices in a country's main cities and a country head office in (usually) the capital. Branch offices employed managers and supervisors, salespersons, technical experts to advise customers on applications, service technicians to provide maintenance of the products after sales, and administrative staff. Head offices employed managers and supervisors and a professional and administrative headquarters staff.

Country organizations in HERMES employed almost exclusively nationals of the country, except in the first years of the creation of new subsidiaries. This applied all the way through the level of country general managers with few exceptions. Coordination of the subsidiaries of HERMES was not obtained through delegating nationals of the corporation's home country within the subsidiaries, but through a tight system of rules and controls and frequent personal contacts between higher managers in the country subsidiaries and personnel of international headquarters.

International headquarters operations were concentrated regionally at a few points on the globe, and their managerial and professional personnel were recruited from different countries. These persons usually served in headquarters for a restricted number of years, after which they returned to their country of origin. The top management of the corporation was located in the United States and almost entirely American.

Promotion in HERMES was usually from within; managers came from the ranks, rarely from outside. The company hired young people with good qualifications and

encouraged them to continue developing themselves. The technical nature of the product made frequent retraining and updating of personnel necessary. Labor turnover varied strongly from country to country and from job to job; it was higher among young college-trained professionals than among most other groups.

The people employed in the company's marketing, service, and product development were essentially from the middle class rather than the working class. A sizable working-class population was found only in the manufacturing plants which represented a different sub-subculture within the company subculture, with more traditional industrial values than the marketing and product development divisions. The latter could be classified as service industries as much as manufacturing industries. The degree of union membership among employees varied according to the industrial relations patterns of the countries but was in general not high. In countries in which a sizable share of employees was represented by unions, the relationship between the company and the unions was usually good.

HERMES had a distinct corporate identity—a company subculture—and it encouraged successfully in its employees a sense of pride. In two cases, a subsidiary of HERMES participated in a countrywide attitude survey together with other companies in that country which made it possible to compare their employees' satisfaction pattern with that within other, mostly local national, companies. In both cases, HERMES people appeared above average in their satisfaction with their job content and earnings, but below average in their satisfaction with their managers. The latter can be attributed to a combination of three factors: (1) relatively young and inexperienced managers due to fast company growth in the 1960s; (2) a generally highly qualified work force which was handling difficult technical problems with a lot of de facto autonomy; and (3) the company's tight system of controls and rules. The relatively inexperienced managers acted as the friction point between employee autonomy and company controls.

All in all, the corporation employed more people in marketing and customer service than in manufacturing. A consequence of this was that about one out of every two HERMES employees had direct face-to-face or voice-to-voice contact with customers. This contributed to employees' identification with the corporation which they represented. A curious difference in employee attitudes was shown in a special study (Hofstede, 1976c) among employees and managers in the branch offices who regularly faced the customers, and among employees and managers in the country and international head offices who did not. Branch office personnel of all levels were more satisfied with the content of their jobs and with their own personal contribution to the company's success. Country head office personnel were less satisfied in these respects, and international head office personnel least of all. However, a question on the image of the company as such, independent of the employee's contribution to it, showed the opposite result: in this case, people in international headquarters were most positive and those in the branch offices least. It is unlikely that this should be a specific HERMES phenomenon; it may well exist in many large decentralized organizations. It was interpreted as stronger intrinsic job motivation at the periphery of the organization and signs of alienation in the center.

Wherever in this book a comparison *among countries* has to be made, data will be used from HERMES' marketing-plus-service organization only, as this is the sole part of the company that operates in all countries where the company exists. Where-

ever the purpose is comparison *among occupations*, data will be used from product development, manufacturing plants, and marketing-plus-service organizations, but limited to a few large countries in which all three divisions of the corporation were represented.

The Use of Attitude Surveys in HERMES

A concern of managers with employee morale was a characteristic feature of the HERMES subculture. This could be justified partly by the intensity of HERMES employees' contacts with customers: How could the company maintain good relationships with customers if its people facing these customers were disgruntled? This argument is sound, but yet other organizations that depend as much on customer contact have not shown the same concern with employee morale as HERMES has. The deeper roots of HERMES' concern with employee morale were historical: it grew out of the convictions of HERMES' founder many decades ago and was made one of the pillars of the "HERMES" way of life in which newcomers were automatically socialized.

In this concern with employee morale, employee attitude surveys fitted as something natural. In 1966-1967 I headed up an international team of six researchers which prepared the first internationally standardized questionnaire for a simultaneous survey of the corporation's product development personnel in six countries. This first international questionnaire consisted of 180 standardized items which were chosen on the basis of open-ended pilot interviews in the six product development laboratories and of a selection from the questionnaires used in earlier incidental surveys. The questionnaire was issued in five languages and administered in June 1967. In November 1967 a second international survey was organized by a colleague; it covered the company's total personnel in 26 Asian, Latin-American, and Pacific countries, most of which had not been surveyed before and did not have their own researchers. Its questionnaire counted 183 standardized items including many from the previous laboratories survey; it was a condensation of a longer pilot version which was pretested on both a U.S. and a Latin American test population. The November 1967 questionnaire was issued in four language versions: English, Japanese, Portuguese, and Spanish, with small differences between the Spanish versions used in the Caribbean and southern Latin America.

These two pioneer international survey projects were followed by surveys of all European and Middle East marketing and administrative operations in 1968 and 1969 and of all manufacturing plants in 1970. By the end of that year most parts of the organization had been covered once by an international survey: a total of about 60,000 respondents from 53 countries around the world. The number of common question items was gradually reduced to 160, but in some cases supplements for certain countries and certain categories of personnel were added to this. The number of language versions had been increased to 18.

HERMES' home country, the United States, was formally not included in the surveys. The different divisions of HERMES in the United States had survey histories of their own and their own independent survey staffs. Through personal negotiations among researchers, the standardized international questions were administered to samples of personnel from HERMES-U.S.A., so that comparisons with the United States could be made.

In 1970 a task force of personnel researchers worked out a new approach to international survey projects which would mean a compromise between standardization (in the interest of comparison of results) and flexibility (in the interest of adaptation to locally felt needs). It was agreed that on the basis of the results obtained in the first survey round a core set of 60 question items would be selected which would remain compulsory for all surveys. The figure 60 was estimated as the minimum acceptable based on the number of factors found in factor analyses and on the desire for reliability of measurement by covering key factors by more than one question.

The section of the 60 core items has been described in detail elsewhere (Hofstede et al., 1976). It was made on the basis of an extensive study of the available literature and a number of factor analyses of the results obtained with the first survey rounds. Factor analyses were done separately on three sets of questions: 54 "satisfaction" questions, 50 "management" questions, and 42 "culture" questions; the latter dealing with preferences, values, and beliefs. For each set of questions, a separate within-subculture factor analysis was carried out for each of five very diverse subpopulations: technical experts in France, technical experts in Great Britain, clerks in Great Britain, unskilled manufacturing operators in Great Britain, and unskilled manufacturing operators in Japan.

Based on these factor analyses, a selection was made of the 60 "core" questions which were to be universally used in 1971-1974 (numbered A1-A60) and of 66 other questions used previously and recommended for further use on an optional basis (numbered B1-B66).

It should be stressed that the 1970 selection of core and recommended questions was based on a factor analysis *within subcultures* only. A *between-cultures* (ecological) analysis had not been done at that time; first, because the main purpose of the survey operation was organization development—that is, use *within* parts of the organization—which made the within-analysis obvious, and second, I must confess that the difference between within- and between-culture analysis had not occurred to us at that time. If it had, we might have come to a different selection of, in particular, the "culture" survey items.

As it was, a resurvey of the product development laboratories of HERMES took place in 1971 with a transition questionnaire (partly old, partly new), and a resurvey of the marketing and administrative departments using the new questionnaire was spread over 1971, 1972, and 1973. In 1974, HERMES took a new approach to its surveys and considerably shortened the questionnaires used, eliminating at least temporarily the "culture" questions on which this book is based. For the analysis in this book I shall not look at data later than 1973.

The second survey round—which did not include the manufacturing plants—numbered, again, about 60,000 respondents, of whom about 30,000 who had earlier participated in the first survey round; 20,000 had joined the company since the first survey, and 10,000 were in groups and countries which had not been included the first time. The number of countries covered in either or both survey rounds had grown to 66; the number of languages stayed at 18. Figure 2.1 lists the countries and the languages.

In 1971 an opportunity arose to include data from Yugoslavia, a country in which HERMES has no subsidiary. I was asked to act as a consultant to a Yugoslav worker-self-managed import-export organization, which among other things marketed and