

in determining the level of power distance at which the tendency of the powerful to maintain or increase power distances and the tendency of the less powerful to reduce them will find their equilibrium. My definition of power distance (which does not differ substantially from Mulder's) is as follows:

The power distance between a boss B and a subordinate S in a hierarchy is the difference between the extent to which B can determine the behavior of S and the extent to which S can determine the behavior of B.

What I shall try to show in this chapter is that the *power distance, thus defined, which is accepted by both B and S and supported by their social environment is to a considerable extent determined by their national culture.*

Power Distance and Human Inequality

If different cultures can be shown to maintain consistently different power distances in hierarchies, the Power Distance norm can be used as a criterion for characterizing cultures (without excluding other criteria). In fact, various authors have referred to such a criterion. For example, Gasse (1976: 6) argues that "each culture justifies authority using its major values" and then proceeds to picture a continuum of which the two poles are "monolithism" and "pluralism." At the monolithic pole, cultures are characterized by power held by few people; at the pluralistic pole, competition between groups and leaders is encouraged, control by leaders is limited since members can join several organizations, democratic politics are fostered and information sources are independent of a single organization.

In Chapter 1, ways of dealing with hierarchy and authority as a proposed criterion for ordering cultures were mentioned in reference to the work of Inkeles and Levinson (1969). A summary is given by Albert (1968: 289):

[I]n a number of societies as remote from each other as imperial China and the Central African Kingdom of Burundi, the model of filial piety, associated with a rigidly hierarchical ordering of all social relations, draws together in a single formula masses of verbal and behavioral data. In parent-child relations, husband-wife relations, politics, religion, and economics, the same superordinate-subordinate pattern applies.

This latter quote suggests that a Power Distance norm spills over from one sphere of life—work organizations—into others; in fact, it helps us to find the origin of a Power Distance norm in the early socialization by the family, the school, and the other institutions of society. However, it is then likely that larger inequalities in *power* are also reflected in larger inequalities in the other areas referred to earlier in this chapter: in particular, social status and prestige, wealth, and rights. There is empirical evidence for this: For example, Tannenbaum et al. (1974) have shown in their study of hierarchy in industrial organizations in five countries that greater differences in power are associated with greater differences ("gradients") of rewards, privileges, and opportunities between bosses and subordinates. Such differences in other areas in their turn feed back into the power distance and reinforce it. We can therefore expect to find differences in the Power Distance norm between societies associated with degrees of inequality in other areas.

So far we have applied the term "power distance" rather indiscriminately regardless of the level of aggregation of phenomena: to the small group (Mulder's experi-

ments) and to society as a whole. We may, however, have to become more precise as to the level at which our hypotheses apply. In particular, we may find different norms as to power distances *within groups* and *between groups* in society. It is possible that within certain groups small power distances between "bosses" and "subordinates" are maintained, while from one group to another the power and other inequalities are very large (Béteille, 1977: 44). Moreover, power in the relationships between groups and organizations is not just a replication of power between people within groups and organizations (Crozier, 1973: 225). Whether norms of power distance between groups co-vary with norms for power distance within groups is a matter for empirical research.

MEASURING NATIONAL DIFFERENCES IN POWER DISTANCE IN HERMES

Organization of Chapters 3 Through 6

The remainder of this chapter will be devoted to the analysis of research evidence: first, of data collected within the HERMES Corporation, and second, of the relationship between the HERMES data and data from a wide range of other sources. This analysis uses a fair amount of statistical argumentation. The detailed statistical proof can be found in the integral version of this book (Hofstede, 1980b). The same procedure will be followed in Chapters 4 through 6, which deal with the other dimensions of national culture.

A Power Distance Index for HERMES Countries

As the central questionnaire item for exploring power distance differences between countries, I chose, "How frequently, in your experience, does the following problem occur: employees being afraid to express disagreement with their managers?" with a five-point answer scale from "very frequently" to "very seldom." Of all the questions in the questionnaire, this one seems most clearly to express power distance. It is a projective question: respondents are not asked how frequently they *themselves* are afraid to disagree, but their answers can be expected to reflect a projection of their own feelings. The answers by *managers* to this question have been excluded.

Fear of disagreement has been used as a measure by others. In a series of surveys in the United States Patchen (1965: 48-54) used an index of "willingness to disagree with supervisors." Across individual respondents, it correlated with employee control over work goals, interest in work innovation, and (in most cases) the supervisor's ranking of employees in order of readiness to disagree. A reference to fear of disagreement as part of a country's culture is found in Whyte (1969: 37), who deals with an example from Venezuela:

In a highly stratified society where all powers are concentrated in the hands of the superior, the subordinate learns that it can be dangerous to question a decision of the superior. In this type of situation, people learn to behave submissively—at least in the presence of the boss. They do not learn to thrash things out with him, face-to-face. Then, when there is no reason to fear, they still do not feel that it is natural to speak up.

This attitude occurs not only among lower-level employees. Negandhi and Prasad (1971: 128) quote a senior Indian executive with a Ph.D. from a prestigious American university:

What is most important for me and my department is not what I do or achieve for the company, but whether the Master's (i.e., an owner of the firm) favor is bestowed on me . . . This I have achieved by saying "yes" to everything the Master says or does . . . [T]o contradict him is to look for another job . . . I left my freedom of thought in Boston.

In the HERMES data on the "employees afraid" question, Venezuela and India (the two countries from which the quotes above originate) are among the top five most "afraid" countries.

Two other questions in the HERMES questionnaire provide unique information about power distances in boss-subordinate relationships. They use a description of four types of decision-making behavior by managers and ask subordinates to indicate (a) their preferred type and (b) their perception of their boss' actual type. The descriptions of the four types were originally taken from Tannenbaum and Schmidt (1958). In the version of the questionnaire used from 1967 to 1969, the four decision-making styles are (1) autocratic ("tells"), (2) persuasive/paternalistic ("sells"), (3) consultative ("consults"), and (4) democratic (majority vote, "joins"). Since 1970 the description of the fourth type was changed to a participative (consensus) style, more or less conforming to Likert (1967)'s "System 4." This was done because the actual occurrence of the old type 4 was perceived as very rare, and offering a possibility to choose the "participative" style was seen as desirable for organization development purposes. This change obviously affects the response distribution; it can be expected to affect especially the distribution of responses between managers 3 and 4, less the choices for 1 and 2.

Whereas the "employees afraid" question asked for a perception of the behavior of fellow employees, the "perceived manager" question asks for a perception of the behavior of the boss. It is a subjective description of the boss' decision-making behavior; but in order to understand the boss' impact on subordinate behavior, a subjective description by the subordinate is probably more relevant than would be any objective description (assuming we would be able to obtain such a description). There is a significant correlation across the 40 countries of the mean "employees afraid" scores and the mean percentage of employees perceiving a manager 1 or 2 (autocratic or persuasive/paternalistic): If managers are more often seen as autocratic, employees are more often seen as afraid to disagree with them, and vice versa.

As opposed to the "employees afraid" and "perceived manager" questions, which deal with perceptions rather than values, the "preferred manager" question directly expresses a value; in the terminology of Chapter 1, I call this a "value as the desired." The statistical analysis shows that across the 40 HERMES countries, the percentages of employees preferring a certain type of manager are correlated with the perceptions both of employees being afraid and of managers being autocratic or persuasive/paternalistic. The correlations, however, are much higher for the 1967-1969 data (using a manager 4 = democratic, majority vote) than for the 1971-1973 data (manager 4 = participative, consensus). This is why for the HERMES Power Distance Index I have used only the 1967-1969 data for the "preferred manager" question. Interestingly, the pattern of correlations opposes the preference for manager 3 (con-

sultative) to all others (1, 2, or 4: autocratic, persuasive, or democratic). In countries in which few employees are perceived as afraid, many employees prefer a "consultative" manager. In countries in which many employees are perceived as afraid, employees tend *not* to prefer the consultative manager but to vote for the autocratic, the persuasive, or the democratic, majority vote manager.

The correlation between a preference for a consultative manager and "employees not afraid" shows that a particular power relationship is established through the values of both partners, the superiors as well as the subordinates. In systems in which superiors maintain large power distances, subordinates *prefer* such superiors (*dependent reaction*) or go to the other extreme—that is, they prefer a superior who does not decide at all but who governs by a majority vote of his subordinates. This latter type of decision-making is unlikely to be effective in work organizations: it would be feasible only if departments were completely autonomous and independent of other departments, while in fact modern work organizations are complex interdependent systems. Therefore, the preference for a majority vote decision type is unrealistic; I interpret it as a *counterdependent reaction* to a situation of large power distance. So we see that where superiors maintain a large power distance, subordinates tend to polarize into dependence and counterdependence. On the other hand, where superiors maintain a smaller power distance, subordinates tend to prefer the consultative decision style; this can be interpreted as an *interdependence* between superior and subordinate. This interdependent relationship is more in line with the requirements of modern work organizations as complex systems.

The participative manager (number 4, 1971-1973) does not collect "counterdependence" votes. The preference for this type is unrelated to the country's Power Distance level. In an unpublished study of HERMES' manufacturing employees, it has been shown that a preference for a participative manager related partly to the respondents' age: across countries, 37 percent of those between 25 and 30 chose a participative manager, but only 25 percent of those between 40 and 50 chose such a manager.

A Power Distance Index for each of the 40 countries has now been computed on the basis of the country mean scores for the three questions:

- (a) Nonmanagerial employees' perception that employees are afraid to disagree with their managers (B46).
- (b) Subordinates' perception that their boss tends to take decisions in an autocratic (1) or persuasive/paternalistic (2) way (A55).
- (c) Subordinates' preference for anything but a consultative (3) style of decision-making in their boss: that is, for an autocratic (1), a persuasive/paternalistic (2), or a democratic (4) style (A54).

The actual computation of the country Power Distance Index (PDI) uses mean percent values for question b and c: in the case of b, for 1967-1969 plus 1971-1973 data; in the case of c, for 1967-1969 data only. It uses mean scores on a five-point scale (1 = very frequently, 5 = very seldom) for question a; these mean scores have been multiplied by 25 to make their range, and therefore their contribution to the PDI, roughly equal to the range in percentage values of questions b and c. The actual formula used is:

$PDI = 135 - 25$ (mean score empl. afraid)

+ (% perceived mgr. 1 + 2)

- (% preferred mgr. 3 - 1967-1969).

The constant 135 has been added to give the country index values a range between zero (small Power Distance) and 100 (large Power Distance). The theoretical range of the index is from -90 (no one afraid, no manager 1 + 2, everyone prefers 3) to +210 (everyone afraid, all managers 1 + 2, no one prefers 3).

The PDI values are listed in Figure 3.1 (first column).

Country Index values range from 11 for Austria (small Power Distance) to 94 for Philippines (large Power Distance), with an overall mean for 39 HERMES countries of 51 (52 across all 40 countries, including Yugoslavia). The ranking of the countries suggests immediately certain clusters of similar countries, to which I shall come back later in this chapter and in Chapter 7.

The Power Distance Index is a measure of *values* found in the HERMES subsidiaries, but it differs from classical values tests in several respects. First, it applies to entire subsidiaries, not to individuals: It is an *ecological* index (for the difference between individual and ecological measures, see Chapter 1). Second, all three questions are asked of the subordinates rather than the superiors—that is, asked of the least powerful partners in the relationship who can be supposed to be better judges of power distance than their more powerful superiors. Third, only question c asks for a value in the strict sense: a preference for one state of affairs over others. Question b deals with a characteristic of the organizational "regime" (the superior's style of decision-making) and question a with an aspect of the organizational "climate" (the extent to which employees are afraid to disagree). Obviously, the scores on questions a and b represent perceptions which are in the beholder as well as in the objective situation, but this is true for any measure of regime or climate. People are more accurate in describing others than in describing themselves. The statistical analysis shows that the correlations among the country scores on the three questions across the 40 countries are well over .50, so that in this case value, regime, and climate go together, forming a coherent pattern which differentiates between one country and another. Across 38 occupations, the mean scores on the three questions are also highly correlated (see below). However, the correlations among the three questions across *individuals* are virtually zero. It is not necessarily the individual who sees his boss as autocratic, who will also describe his colleagues as afraid, and who will prefer an autocratic boss. The lack of individual correlations should remind us that Power Distance as measured here can be used only as a characteristic of *social systems*, not of *individuals*. It cannot be used to measure, for example, the authoritarianism of individuals; however, it can be used to measure the "authoritarianism" of whole societies and their dominant supervision styles.

Power Distance Index Scores by Occupation

There are high correlations among the *occupation* scores for the three PDI questions which mean that a Power Distance Index also can be meaningfully computed by occupation. This has been done elsewhere (Hofstede, 1977); a summary of the scores found (using the same formula as for countries) is listed in Figure 3.2. In the same way as country scores had to be computed for a stratified sample of occupations, occupation scores had to be computed for a stratified sample of coun-

FIGURE 3.1 Power Distance Index (PDI) Values by Country Based on the Scores on Three Attitude Survey Questions for a Stratified Sample of Seven Occupations at Two Points in Time

Country	PDI		Country	PDI	
	Actual	Predicted		Actual	Predicted
Philippines	94	73	South Africa	49	62
Mexico	81	70	Argentina	49	56
Venezuela	81	66	U.S.A.	40	42
India	77	78	Canada	39	36
Singapore	74	64	Netherlands	38	38
Brazil	69	72	Australia	36	44
Hong Kong	68	56	Germany (F.R.)	35	42
France	68	42	Great Britain	35	45
Colombia	67	75	Switzerland	34	32
Turkey	66	60	Finland	33	30
Belgium	65	36	Norway	31	27
Peru	64	69	Sweden	31	23
Thailand	64	74	Ireland	28	37
Chile	63	56	New Zealand	22	35
Portugal	63	53	Denmark	18	28
Greece	60	51	Israel	13	44
Iran	58	61	Austria	11	40
Taiwan	58	63			
Spain	57	56	Mean of 39 countries	51	52
Pakistan	55	74	(HERMES)		
Japan	54	57			
Italy	50	53	Yugoslavia (same industry)	76	53

Actual values and values predicted on the basis of multiple regression on latitude, population size, and wealth.

tries. The data in Figure 3.2 are based on responses from the three large countries, France, Germany, and Great Britain, giving equal weight to each.

We see that the lower-education, lower-status occupations tend to produce high PDI values and the higher-education, higher-status occupations tend to produce low PDI values. Education is by far the dominant factor: The correlation of the occupation's PDI with the average years of formal education is an amazing $r = -.90$. Every additional year of formal school education needed for an occupation reduces the occupation's PDI score by about 18 points.⁵

There is also a tendency for managers to produce lower PDI values than non-managers. The multiple correlation of PDI with education and hierarchical level is $R = .94$, showing that the occupation's PDI is highly predictable from these two factors (88% of the variance in occupational PDI is explained).

The conclusions of the occupational data analysis so far are as follows:

- (1) Power distances between less educated and nonmanagerial employees and their superiors tend to be larger than between more educated and managerial employees and their superiors.

FIGURE 3.2 Power Distance Index Values for Six Categories of Occupations

Categories of occupations	Number of occupations in this category	PDI	
		From	to
Unskilled and semiskilled workers	3	85	97
Clerical workers and nonprofessional salesmen	8	57	84
Skilled workers and technicians	6	33	90
Managers of the previous categories	8	22	62
Professional workers	8	-22	36
Managers of professional workers	5	-19	21
Total	38	-22	97

Stratified sample of data from France, Germany, and Great Britain. This is a summary of Table 2 in Hofstede (1977c).

(2) The range of PDI scores among different countries (Figure 3.1), holding occupation and thereby education constant, is still nearly as large as among different occupations (Figure 3.2). The differences in hierarchical power distance found between equally educated employees in different countries are therefore of the same magnitude as those between unskilled workers and college-trained professionals within one country.

We have now studied the country and the occupation effect on Power Distance, but not yet their interaction. Some insight into country-occupation interactions can be obtained from Figure 3.3.

In Figure 3.3, PDI scores are shown for 44 one-country, one-occupation sub-populations. Four nonmanagerial occupations are covered:

- (1) branch office technical experts, average educational level 15.8 years;
- (2) head office clerks, average educational level 12.9 years;
- (3) branch office service technicians B, average educational level 12.2 years; and
- (4) unskilled plant workers B, average educational level 10.5 years.

Occupation 1 is college level and can be rated upper middle class; 2 and 3 are high school level and lower middle class; 4 is less than high school and working class. Data on occupation 4 are only available for 11 countries from the 13 in which HERMES has manufacturing plants. The PDI scores for the other three occupations are shown only for these same 11 countries. These three are included in the seven occupational categories (five for the "employees afraid" question) that were used to compute country PDI-scores; occupation 4, evidently, was not.

We see in Figure 3.3 that the ranking of the four occupations in order of Power Distance is largely retained for each country and that the ranking of the 11 countries is similar across the first three occupations (which contributed to the country scores) but less between these and the unskilled workers. The most striking conclusion from the table is an interaction effect between country and occupation: The country differences are much larger for the more-educated than for the less-educated occupations, and the occupation differences are much larger in the small power distance countries

FIGURE 3.3 Power Distance Index Values for 4 Occupations in Each of 11 Countries

Country	PDI	Occupation				Δ Spearman correlations (highest-lowest) Occupation PDI
		All occupations	B.O. technical experts	H.O. clerks	Unskilled plant workers B	
Mexico	81	83	97	99	99	16
India	77	80	81	87	88	8
Brazil	69	64	90	96	115	51
France	68	58	84	86	108	50
Colombia	67	48	94	95	106	58
Japan	54	58	57	84	92	35
Argentina	49	57	96	77	106	49
Canada	39	24	42	55	80	56
Netherlands	38	17	59	41	83	66
Germany (F.R.)	35	14	53	62	90	76
Great Britain	35	15	50	42	102	87
Δ countries (highest-lowest)	46	69	55	58	35	
Spearman rank correlation with country PDI		.96***	.70**	.90***	.35	-.82***

Each cell (one country, one occupation) counts at least 20 respondents.

than in the large power distance countries. The theoretical maximum PDI score is 210, but it looks as if there is a practical maximum of around 100 and all respondents in high power distance countries (regardless of educational level) and all respondents in unskilled jobs (regardless of country) are pushed against this ceiling. Low PDI values occur only for highly educated occupations in low power distance countries. Class differences in Power Distance scores are particularly high in Great Britain and Germany. Such differences are low in India and Mexico because in these countries power distances are large for everyone, regardless of class. Japan takes a middle position with middle-range Power Distance scores for all four occupations.

The fact that less-educated, lower-status employees hold more "authoritarian" values has been signaled before—for example, for employees in banking, insurance, and government administration in France by Crozier (1964b); for automobile workers in Detroit by Kornhauser (1965: 267); and for parents of 10-11-year-old children in the United States and Italy by Kohn (1969: passim). The latter two studies started from an interest in mental health and show that among less-educated, lower-status people there is also a greater frequency of mental health problems (compare Chapter 4). Kohn (1969) goes deeply into the relationship between these phenomena. For his U.S. data, he combines educational and occupational level into a social class index (Hollingshead's Index of Social Position); his study relates this social class index to the respondents' values and behavior. The main conclusion of his book is that parents higher on the social class scale "are more likely to emphasize children's self-direct-

tion, and working-class parents to emphasize their conformity to external authority" (1969: 34).

The essence of higher class position is the expectation that one's decisions and actions can be consequential, the essence of lower class position is the belief that one is at the mercy of forces and people beyond one's control, often beyond one's understanding [1969: 189].

The class relationships are built on the cumulative effects of educational training and occupational experience. The former is present insofar as it provides or fails to provide the capacity for self-direction, the latter insofar as it provides or fails to provide the experience of exercising self-direction in so consequential a realm of life as work [1969: 188].

Kohn also shows, however, that social class and national environment interact in the maintenance of authoritarian values. Working-class fathers put high value on their children's obedience in both Italy and the United States, but middle-class fathers stress this point much more in Italy than in America (p. 42). As Italy is a higher PDI country than the United States, this is in line with the trend of Figure 3.3. Interestingly, Kohn's data for *mothers* also show a class effect and a country effect but not an interaction between the two, as for the fathers.

What we have seen in the PDI data so far is that class differences in values about power distance are more clearly present in some countries than in others; especially in less economically developed countries such as Mexico and India, even the middle classes seem to feel at the mercy of forces beyond their control. I shall continue to identify countries as "low PDI" or "high PDI," but the reader should remember that this distinction refers to my middle-class sample and applies much less to working-class respondents.

Sex Differences in Power Distance

Besides country and occupation, the two other universal criteria by which the HERMES survey data can be differentiated are the sex and the age group of the respondents. As age group differences can also reveal shifts over time, they will be discussed in Chapter 8. Sex and occupation are highly interdependent, so the analysis by sex makes sense only for occupations which are filled by sizable numbers of both men and women doing the same work.

In Figure 3.4 the computation of PDI by sex is shown for one professional and one clerical occupation which more or less fulfil these criteria. As the relative numbers of men and women in these occupations vary only modestly among the larger country subsidiaries, I have, for simplicity, taken total world data in Figure 3.4 (all respondents together, regardless of country); I also took the mean of the two survey rounds, at least for questions a and b. We should first check whether comparing the sexes on a Power Distance *Index* makes sense. That is, do the three questions that make up the PDI differentiate in the same direction between the sexes? The table shows that questions a and c differentiate and that b does not differentiate at all. Only one difference is statistically significant: Female clerks have less preference for a consultative manager than their male colleagues. We saw earlier in the analysis of variance of the manufacturing data (Figure 2.3) that in this case, too, only the preference for a consultative manager shows a significant sex effect; and inspection of the

FIGURE 3.4 Power Distance Index Computation for Men and Women in the Same Occupations

Occupations (2 surveys, total world data)	(a) Not perceiving employees afraid mean score	(b) % Perceiving superior as autocratic or pater- nalistic	(c) % Preferring consult- ative manager (1967-1969)	Power Distance Index = 135-25 a + b - c
Branch office				
technical experts				
men (n = 9917)	3.32	43	67	28
women (n = 591)	3.26	43	64	33
Head office				
clerks				
men (n = 7665)	2.98	48	52	57
women (n = 5496)	2.96	48	41***	68

The differences between men and women on question a, tested by the t-test for differences of means, do not reach statistical significance.

The differences between men and women on question c, tested by the Kolmogorov-Smirnov test, are not significant for Branch Office technical experts but significant at the .001 level for Head Office clerks.

data (not visible in the table) shows that this effect is in the same direction: Female manufacturing employees prefer less a consultative manager. In Figure 3.4 I have computed PDI values, which are higher for women than for men (especially in the case of the less educated group, the clerks). It is, however, questionable whether one statistically significant difference out of six justifies the use of PDI for comparing between the sexes. PDI is not the proper index for this: Using it would mean a reverse ecological fallacy (see Chapter 1).

Country Power Distance Index Scores and Other HERMES Survey Questions

The three questions making up the PDI are only a small fraction of the questions in the HERMES questionnaire conceptually related to values. As can be read from the correlations across countries between PDI and the other questions (see Hofstede, 1980b), respondents in high PDI countries, compared with those in low PDI countries, endorse significantly more frequently the following items:⁶

- (1) Employees lose respect for a consultative manager (B55); and a good manager gives detailed instructions (C9).
- (2) My manager is not concerned with helping me get ahead (A52); and an employee should not ask for a salary increase (C18).
- (3) However, employees in industry should participate more in the decisions taken by management (B56).
- (4) The average human being has an inherent dislike of work and will avoid it if he can (C13).
- (5) There are few qualities in a man more admirable than dedication and loyalty to his

company (C12), and most employees want to make a real contribution to the success of it (C14).

- (6) By and large, companies change their policies and practices much too often (C16).
- (7) Finally, for the same occupations, respondents in higher PDI countries tend to have more years of education (A56).

It may strike the reader that these statements are partly contradictory (for example, 1 and 3, 4 and the second question in 5). However, eco-logic differs from personal logic.

Points 1 and 2 in the list (questions B55, C9, A52, and C18) are consistent. The manager in a high PDI environment is more of an initiator. Factor analytic studies of leadership behavior, such as the classic Ohio State studies (Stogdill and Coons, 1957), typically show two dimensions: a "people" and a "task" dimension (in the Ohio State studies these are labeled "consideration" and "initiating structure"). In HERMES, the question "manager helps ahead" has been shown to be the most central "consideration" question (Hofstede et al., 1976: 25). A high PDI environment stands for more initiating structure and less consideration.

Point 3, the agreement that "employees should participate more" in higher PDI countries (B56, correlation with PDI: $r = -.65$) shows that the images of the ideal manager and of the ideal control structure (participation/nonparticipation in the decisions taken by management) are not complementary. We can interpret this as a conflict between values as the desirable (employee participation as an ideology) and values as the desired (my own interaction with my boss in day-to-day matters). The ideological statement acts to some extent as a compensation for what happens on the pragmatic level. In low PDI countries where there is not only a more delegating manager ideal but more de facto delegation, people are less emphatic about a need for more employee participation. In high PDI countries there will be a stronger ideological push toward models of formal participation (for example, through works councils, boardroom representation, or even nationalization), but also more resistance against de facto participation. The paradox is that it is more difficult to realize ideological ideals of participation if people at the same time desire and expect powerful persons to maintain large power distances toward them. Practice has shown that not only informal consultation but also formal participation has advanced more easily in some low PDI countries, such as Sweden and Norway, than in high PDI countries, such as Yugoslavia, Peru, or Chile.

Point 4, "the average human dislikes work" (C13; correlation with PDI: $r = .75$) is directly taken from McGregor's Theory X (McGregor, 1960: 33). The strong ecological correlation between high PDI and more agreement with Theory X throws additional light on the nature of McGregor's distinction. In his book, *The Human Side of Enterprise* (1960), McGregor called his Theories X and Y "theoretical assumptions of management." An entire management development business has interpreted this in such a way that if managers could only learn the new theory (Y) they would adopt different leadership strategies and become more effective. McGregor, in the meantime, seems to have become more and more aware of the cultural nature of the distinction. In his posthumous book, *The Professional Manager* (1967), he calls theories X and Y "managerial cosmologies" (theories about the nature of the world) and continues:

Theory X and Theory Y are *not* managerial strategies. They are underlying beliefs about the nature of men that *influence* managers to adopt one strategy rather than another [1967: 79].

Earlier in the same book (p. 17) he has related cosmology to selective perceptions of reality. He also uses the word "values":

The values that I have stated are part of my identity. I perceive my role as a human being and as a behavioral scientist to include the promotion of them. I share them with some of my colleagues, and not with others. They certainly affect my interpretation of objective scientific evidence. I do not believe it is possible for me to eliminate their influence on my views concerning appropriate managerial strategies [1967: 78].

The PDI-Theory X correlation across a number of countries (in this case, 30) provides empirical proof that we are dealing with a values complex, a true cosmology which is embedded in the social system as much as in the minds of the people. It also shows that Theory X, like PDI, is in the minds of respondents in every category in a country, *not only of managers* (the HERMES scores are mainly based on answers by nonmanagers). A psychological interpretation of Theory X-Y as a set of assumptions of individuals which can be changed by training neglects the profound sociocultural roots of the phenomenon.

What remains to be seen is whether all that is covered by McGregor's Theory X is part of a single cosmology on which country cultures differ. A second statement which also belongs to Theory X was used in the HERMES questionnaire as well. This is B61: "Most employees in industry prefer to avoid responsibility, have little ambition, and want security above all." This is *not* correlated with PDI ($r = -.07$) and only weakly with the first statement ($\rho = .34$ across 30 countries). It seems that at least on the level of country cultures, liking work for its own sake (the perceived work ethic) and ambition are two different things. The two may be associated within the American middle-class culture from which McGregor writes, but they do not extend from one culture to another. There are cultures which are characterized by a lower perceived work ethic but not by a lower perceived level of ambition and in which people will try to meet their ambition in other ways than by working hard. The perceived work ethic is negatively correlated with PDI. The perceived level of ambition is not; in fact, it is weakly negatively correlated with the Uncertainty Avoidance Index ($r = -.31$).

Point 5 (items C12 and C14) seems to express that anything that stresses the relationship between employee and company is endorsed more strongly in higher PDI countries (see also Chapter 5). Point 6 (item C16) shows a resistance to change in higher PDI countries which will be shown to be related also to uncertainty avoidance (Chapter 4). Point 7, finally, shows that the correlation between PDI and educational level can be positive across countries ($r = .44$), whereas we saw earlier that it was strongly negative across occupations ($r = -.90$). In higher PDI countries, HERMES employees in the particular set of occupations (managerial, professional, technical, and clerical) tend to have *more* years of formal education than in lower PDI countries. This is a consequence of both the labor market situation and the educational system in many less-developed countries: a large offer of candidates with long but impractical formal schooling. Within the schools and universities, the communication is one-

- Greater Decisiveness: To have strong and firm convictions, to make decisions quickly, to always come directly to the point, to make one's position on matters very clear, to come to a decision and stick to it.
- Greater Benevolence: Doing things for other people, sharing with others, helping the unfortunate, being generous.
- Less Practical-Mindedness: *Not* to always get one's money's worth, to take good care of one's property, to get full use out of one's possessions, to do things that will pay off, to be very careful with one's money.
- Less Support: *Not* being treated with understanding, receiving encouragement from other people, being treated with kindness and consideration.
- Less Orderliness: *Not* to have well-organized work habits, to keep things in their proper place, to be a very orderly person, to follow a systematic approach in doing things, to do things according to a schedule.

We should remember that these are self-descriptions of values. The self-image of the IMEDE manager from a high PDI country is that of a benevolent decisionmaker. The self-image of the IMEDE manager from a low PDI country is rather that of the practical, orderly person who likes to be treated with understanding. It is doubtful whether others would also see them like this; but this is at least how they would *like* to be seen (self-descriptions always contain a lot of wishful thinking; see Sadler and Hofstede, 1972; Table 5 and its analysis).

(3) *Samples of students, answering L. V. Gordon's Survey of Interpersonal Values.* Mean country scores for the six scales of this values test have been published by Gordon (1976); for 17 countries in the HERMES set, samples are available that meet my minimum criteria of 50 respondents per country. We find high ecological correlations across these 17 countries between PDI in HERMES and the following answers by students:

- Greater Conformity ($r = .80$): Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist.
- Less Independence ($r = -.79$): *Not* having the right to do whatever one wants to do, being free to make one's own decisions, being able to do things in one's own way.

In addition, for the students as well, we find in higher PDI countries less endorsement of Support and more of Benevolence, the same as for the IMEDE managers (see the previous section). The self-images of the male students in high versus low PDI countries are nowhere opposed to those of the IMEDE managers, but they place different accents: Managers did not differentiate significantly on Conformity and Independence, whereas students do. It is likely that managers attending courses at IMEDE form a selected population with regard to values about conformity and independence so that the cultural variance is suppressed.

(4) *Samples of managers in 19 countries, answering to Haire et al.'s "management attitudes and assumptions."* In this case, the comparison with the HERMES indices is seriously hampered by the fact that Haire et al. do not report the country scores on their individual items, only the combined scores of two items at the time whose combination on the country level may be irrelevant (a "reverse ecological fallacy"). As it is, we find one significant ($r = .54$) positive correlation across the 19 countries between PDI and the Haire et al. subscale on "Capacity for leadership and initiative":

way from the teachers to the students, with a considerable amount of rote learning. This reinforces the high PDI value system.

COMPARING THE HERMES POWER DISTANCE INDEX VALUES WITH OTHER DATA

Survey Studies Outside HERMES: Significant Correlations with PDI

Four studies of matched samples of respondents, completely unrelated to the HERMES Corporation, show significant and meaningful correlations with the Power Distance Index. These studies cover between 14 and 19 countries from the HERMES set.

(1) *Managers at IMEDE answering HERMES questions (see Chapter 2).* In order not to lose all information from the IMEDE participants, I had to accept very small samples in this case. Normally, I would only consider as reliable data from 50 or more participants per country (Hofstede, 1975b). In the IMEDE case, this would have left me with data from only one country, so I accepted a minimum sample size of seven participants per country: The effect of this is a strong reduction in the level of correlations expected, as the IMEDE data contain a high level of random variation.

From the two HERMES PDI questions used at IMEDE, the "preferred manager" shows, nevertheless, a rank correlation across 15 countries of $\rho = .71$ between IMEDE managers and HERMES employees. This is amazingly high, if we also take into account the fact that IMEDE managers answered the question in English and HERMES employees in a multitude of local languages.

The question on "employees afraid to disagree" shows a positive but nonsignificant rank correlation ($\rho = .27$) between IMEDE managers and HERMES employees. In fact, this is not a good question with which to test the values of managers; in answering it, they refer to their subordinates, which nonmanagers, in answering the same question, refer to their colleagues. It is known that perceptions of the feelings of subordinates are often distorted. The HERMES country scores for the "employees afraid to disagree" were exceptionally calculated *without* the answers by managers. The lack of a significant correlation between IMEDE managers and HERMES employees in this case, therefore, is not surprising.

(2) *Managers at IMEDE, answering L. V. Gordon's Value Surveys (see also Chapter 2).* The same restriction to very small samples as we found in the previous section exists in this case as well. I used an ecological factor analysis to summarize the results of 12 value scales (six from Gordon's Survey of Personal Values, six from Gordon's Survey of Interpersonal Values) into three factors. We find, across 14 countries, a highly significant rank correlation ($\rho = .79$) between PDI and a factor "Decisiveness versus Practical-Mindedness." This means that IMEDE managers from high PDI countries, compared with those from low PDI countries, tend to score their own values on the Gordon tests as follows:

- (a) The average human being prefers to be directed, wishes to avoid responsibility, and has relatively little ambition (disagree).
- (b) Leadership skills can be acquired by most people regardless of their particular inborn traits and abilities (agree).

This looks paradoxical: In countries which are high in PDI how can respondents be more optimistic about people's capacity for leadership and initiative?

The paradox was recognized in Southeast Asian data (which Haire et al. did not have) by Martyn-Johns (1977). The latter discusses the case of Indonesia in depth (a country not in my sample) and attributes a high belief in "capacity for leadership and initiative" simultaneously with low internal control and absolute management authority to the Asian way of obtaining consensus before deciding. This looks rather a far-fetched explanation, and the paradoxical finding also is not confined to Asian countries. In fact, Haire et al. already signaled a paradox in the country mean scores for their subscales (without looking at ecological correlations): on "capacity for leadership and initiative" the majority in nearly all countries scored "traditional"; on sharing information and objectives, participation, and internal control the majority scored "modern." Haire et al. note that

it would seem illogical to install a set of procedures for sharing information, allowing self-control, and practising participation, unless subordinates were capable of handling these types of situations. Yet, this is what the managers in our sample seem to be advocating [1966: 24].

They find that the paradox is strongest for the European countries; it would be the European rather than the Asian data which need explanation. My general explanation of the apparent paradox is that we should again distinguish between "values as the desirable" and "values as the desired" (Chapter 1). An essential difference between the two items dealing with "capacity for leadership and initiative" and the six other items is that the former are about "the average human being" and "most people." They are ideological statements, "values as the desirable." The latter are formulated in terms of interaction between superiors and subordinates and more pragmatic, closer to "values as the desired." The two levels of values may be in line, may be independent, or may be negatively correlated across countries. An example of the latter we found on the issue of employee participation in decisionmaking (ideological) versus being consulted by one's boss (pragmatic). In the present case the negative correlation can be explained as follows: when answering about "the average human being" and "most people," respondents are unconsciously selecting a reference group. In societies more affected by caste and class differences, the managers who answered the question are more likely to have taken as a reference group their own class; the others are completely out of their picture. The more this is the case, the more an optimistic picture of man's capacities will result, and vice versa. However, the opposite applies to pragmatic rules about the interaction between superiors and subordinates.

PDI Scores and Survey Studies of a Smaller Numbers of Countries

Comparison of PDI scores with comparative studies of smaller numbers of countries—less than 10, for example—will not easily show statistically significant corre-

lations of ecological data but may supply more depth and additional insight into the power distance phenomenon. In this section I will refer to a selected set of such studies which are meaningful to our theme.

Kohn's (1969) study, "Class and Conformity," supplies insight about the roots of PDI differences in the family. I referred to his study earlier in this chapter for the relationship between working-class status and conformity to external authority. Kohn's work is partly based on interview data collected from the parents of 10-11-year-old children in Turin, Italy and in Washington, D.C. The data show that for both middle class and working class, fathers and mothers in Italy (higher PDI) put higher value on children obeying them than in the United States (lower PDI; see Kohn, 1969: 42; compare also page 79). We need look not just at the official sociological literature, of course, to learn that parents in different countries hold different values for their children. For example, Ledda's (1977) autobiography *Padre Padrone* (from Sardinia) is one of the clearest illustrations of the transfer of a high PDI syndrome across generations.

Meade and Whittaker (1967) give information about the incidence of authoritarian values among students. They performed a comparative study with the F-scale (authoritarianism scale) developed in the United States by Adorno et al. (1950). They administered the F-scale to students in Brazil, Hong Kong, India, Lebanon, Rhodesia, and the United States. Across the four countries for which comparison with HERMES data is possible, their F-scale scores rank-correlate (Spearman) .80 with PDI (which is not significant but encouraging; the correlations with the other HERMES indices are lower). However, the use of a ready-made U.S. scale like this means a reverse ecological fallacy, as Kagitcibasi (1970) has shown. She administered the F-scale to male and female high school students in the United States (lower PDI) and Turkey (higher PDI). She shows that higher intercorrelations of the various components of authoritarianism were found among Americans than among Turks: The relatively coherent "authoritarian personality" syndrome exists in the United States but not in Turkey, although Turks tend to score higher on most authoritarian values. She concludes that in international comparisons, *norm* authoritarianism should be distinguished from *personal* authoritarianism. Norm authoritarianism applies to the culture level and cannot be explained in terms of personality dynamics. It is evident that PDI is a measure of norm authoritarianism. The F-scale is not the best measure for determining norm authoritarianism cross-culturally, as it lumps it together with other attitudes not ecologically correlated with it.

About management in industry we have a descriptive study by Harbison and Burgess (1954), who compared U.S. with "European" management, but their European sample consisted of France, Belgium, and Italy—three countries from the high PDI group. Their conclusions are predictable:

Workers in European plants seldom talk back to their bosses. Upward communication is neither expected nor encouraged. . . . In these countries, the paternalistic employer appears to develop in the working forces a feeling of gratitude and dependence mingled with resentment. Socially irresponsible management creates active opposition and outright hatred [1954: 19-20].

Harbison and Burgess gave an insightful description of the large power distance syndrome, but their extrapolation to "Europe" was not justified. In a later study by Harbi-

son and Myers (1959) which collected qualitative evidence on management processes in 12 countries, European countries were no longer placed in one category. In fact, Harbison and Myers (1959: 65) introduce a dimension from paternalism to pluralism which closely resembles an inverted PDI: They put Japan, Italy, and France on the paternalist side; Sweden, England, and the United States on the pluralist side.

That more autocratic management styles are not only more common among managers but also more appreciated by subordinates in high PDI countries is shown by Williams et al. (1966), who compared workers in two large electrical utility companies, one in Peru (high PDI) and one in the United States (lower PDI). Among both white- and blue-collar employees, the correlations between perceived closeness of supervision and general satisfaction with the boss were small but significantly positive in Peru and negative in America. The same differences were found for correlations between perceived pressure for production and satisfaction with the boss. On the issue of worker consultation, Williams et al. conclude that "although Peruvians are just as concerned as U.S. workers about having some power and influence over their work, they are not nearly so inclined to see this power and influence as being related to the participative communication practices of the supervisor" (1966: 108). In an attempt to probe beneath the reaction patterns observed, Williams et al. showed that these were related to differences in *faith in people*, or interpersonal trust. Whyte had earlier found that in comparison to U.S. students, Peruvian high school boys in a survey scored a very low level of interpersonal trust. Williams et al. administered the "faith in people" questions to 202 Peruvian white-collar workers and found the same low level of interpersonal trust. When the Peruvian respondents were divided into high, medium, and low trust groups, it appeared that for the high trust group, satisfaction with the supervisor was associated more with the supervisor's social leadership (as in America), but for the low trust group, satisfaction with the supervisor was associated more with his technical leadership.

Williams et al. have thus established an important conceptual link between superior-subordinate relationship patterns (levels of power distance) on the one side and relationships between people in general (and between subordinates in particular) on the other. They also show evidence that the Peruvians less than the U.S. respondents perceive themselves as members of a (cohesive) work group, and that, again, in this case the high trust Peruvians are more like the U.S. respondents. Williams et al. conclude that for the Peruvian, "his organizational relations tend to be polarized in relation to a more authoritarian management, which seems to result in isolation of the individual worker from his fellows" (1966: 117).

Low interpersonal trust and low cooperativeness among subordinates were also found by Negandhi and Prasad (1971: 105ff) in Argentina, Brazil, Uruguay, and the Philippines; only in India was the level of cooperativeness among employees slightly better.

The issue of interpersonal trust and group cohesiveness will be taken up again in Chapter 5. For the time being, we have seen that for a variety of high PDI countries, studies have shown lower interpersonal trust than for the United States, which is lower in PDI. Unfortunately, the HERMES questionnaire lacks questions dealing with interpersonal trust, so I am unable to find confirmation of the negative relationship between PDI and interpersonal trust there.

With regard to the issue of subordinates' appreciation of leadership styles, Cascio (1974) has published data obtained with the exercise "Supervise," designed by B. M. Bass and distributed by IRGOM (the International Research Group on Management). In role-playing exercises, managers had to play the role of subordinates with three different superiors: among these superiors one was instructed to act in a directive, one in a persuasive, and one in a participative way. The percentage of subordinates who afterwards declared themselves to have been most satisfied in their decision-making meeting with the participative superior varied from 29 in India to 65 in Western Europe. Unfortunately, Cascio's results are not published by country, but by country cluster. Across six clusters, his percent most satisfied with a participative superior and the cluster's mean PDI rank correlate with $\rho = -.78$ (which for this small number of cases stays below the .05 significance level).

With regard to the societal implications of differences in power and wealth, we can use the study about the cognitive structures of male students in Greece, India, Japan, and the United States by Triandis et al. (1972) described in Chapter 1. From the 20 concepts used in this research project, "freedom," "power," "respect" and "wealth" are conceptually related to the issue of power distance.⁷ From the frequency scores of the 30 "antecedents" and 30 "consequents" per concept I have isolated those which show a rank correlation of 1.00 with the PDI (the PDI ranking of the four countries is U.S.A. — Japan — Greece — India). Such a perfect rank agreement (if it would have been predicted) has less than a five percent probability of occurring by chance. The antecedents and consequents which appear in this order of frequency (and with a minimum frequency of 40 in at least one culture) are listed in Figure 3.5.

Figure 3.5 shows a convincing picture of two types of society—a welfare society on the low PDI side (no negative antecedents or consequents scored at all), and a class society on the high PDI side, where money leads to freedom and freedom to a disorderly society, where power is acquired by wrestling and leads to cruelty, where wealth is inherited and threatened and leads to arrogance, and where old age leads to respect. On the low PDI side, all associations with "Power" and "Wealth" are favorable; on the high PDI side, nearly all are unfavorable. To students on the high PDI side (which in this case means especially India), wealth and power are conflict-ridden issues; to U.S. students they are not.

Finally, Tannenbaum et al. conducted a study which highlights the differences in practice between formal employee participation structures and informal consultation (*Hierarchy in Organizations*, 1974). It covered five very small manufacturing plants (30-130 employees) in Austria, Italy, the United States, and Yugoslavia, 10 in Israeli kibbutzim, and five medium-sized plants (200-1500 employees) in the first four countries, all in matched industries. The study produced a large number of indices of hierarchy and of gradients of decision-making, opportunities and advantages, and reaction and adjustment across the hierarchy. As we have only five cases to compare, significant correlations with PDI are unlikely. It appears, however, that where Tannenbaum et al. measure *formal* elements of hierarchy, there is no correlation between their data and PDI at all (such as for a summary measure of "emphasis placed on hierarchy": 1974: 118). Where they measure *informal* elements of hierarchy, the correlations with PDI are generally strong (such as in their questions 33, "What do