

tries studied by both Lynn and Millendorfer, their country rankings correlate with .69; and Millendorfer's stress ranking rank-correlates .71 with the HERMES UAI.¹⁰ Interesting are Millendorfer's stress scores for the Eastern European countries Hungary, Czechoslovakia, and Poland, for which I have no data. The three countries do not cluster: Hungary scores high, Czechoslovakia medium, and Poland low in stress.

Another cross-national study of anxiety which, however, covered only the four Nordic countries (Sweden, Norway, Denmark, and Finland) was published by Kata (1975). He used questionnaires administered by public opinion research to about 1000 respondents in each country. In spite of the difference in data collection methods, Kata and Lynn rank the four countries in the same order of anxiety—Sweden lowest, then Norway, then Denmark, and Finland highest (except that for Lynn, Sweden and Norway break even). The HERMES stress and UAI data also put Finland highest of the four countries, but in this case Denmark scores lower than Sweden and Norway. The number of countries is too small to make the comparison conclusive.

UAI and Achievement Motivation: McClelland's Data

A now classic source of data about social norms—although its author would not call them that—is David McClelland's *The Achieving Society* (1961). McClelland argues that differences in social action among societies can be explained by different dominant motive patterns in the populations of those societies. He distinguishes three types of motives: achievement motives, affiliation motives, and power motives. In order to measure the strength of these motives for a number of modern nations, McClelland content-analyzed stories appearing in school books to be read by second- to fourth-grade elementary schoolchildren. These were for modern nations what comes closest to folk tales for primitive nations; and folk tales have been widely used by anthropologists to infer motive patterns of primitive tribes.

McClelland's research team content-analyzed 21 children's stories dating from 1925 from each of 25 countries and 21 children's stories from 1950 from each of 41 countries and determined scores for each country on Need for Achievement, Need for Affiliation, and Need for Power. In his book *The Achieving Society*, McClelland focuses on Need for Achievement (n_{Ach}). He shows a relationship of a country's n_{Ach} scores for 1925 with that country's growth in per capita electric power production from 1929 to 1950, and of n_{Ach} scores for 1950 with growth of absolute electric power production from 1952 to 1958. On the basis of his theories, McClelland has developed methods for achievement motivation training for developing countries. Recently, McClelland's attention has turned more to the Need for Power as a motive (McClelland, 1975; McClelland and Burnham, 1976).¹¹

McClelland's work has had considerable influence, both in the development of the psychology of motivation and on certain areas of policy-making in development aid. However, his original findings about a relationship between achievement motives in children's readers and some measures of economic growth afterward have raised questions. An unfortunately unpublished study by Barrett and Franke (1971) comparing McClelland's scores with various measures of economic growth over various periods has shown that the relationship on which McClelland built his economic

growth theory is fortuitous; it is an artifact of the particular measures and measuring periods that were chosen. The period 1929-1950, which includes a world war, is also not an ideal one in which to isolate the effects of inner motives on economic performance: Outside influences during these years have played a considerable role in what happened to nations. Another puzzling fact about McClelland's motive scores is that from 1925 to 1950 there is no consistency among country scores (the Spearman rank correlations between 1925 and 1950 scores across the 25 countries studied twice are .16 for n_{Ach} , .21 for n_{Aff} , and even negative, -.14, for n_{Pow}). Is it likely that something as fundamental as a basic motive pattern can change completely in one generation? Or has the measurement been unreliable?

The statistical analysis shows that across 22 countries there is a strong negative correlation ($\rho = -.64$) between HERMES UAI scores and 1925 n_{Ach} scores, but none (across 31 countries) between any HERMES dimension and any of McClelland's 1950 scores. The multiple correlation of McClelland's 1925 n_{Ach} with HERMES UAI plus MAS (Masculinity Index, see Chapter 6) is even higher ($R^2 = .54$, $R = .74$). A high score for Need for Achievement in 1925 children's stories tends to be found in countries in which HERMES respondents show low uncertainty avoidance and high masculinity.

Two questions must now be resolved: Why are HERMES scores correlated with McClelland's 1925, not his 1950, data? Why are low UAI and high MAS associated with high n_{Ach} ? As for the first question, the average HERMES respondent learned to read between 1945 and 1947; and if people's values reflect what they learned at school, we should rather expect the HERMES data to be correlated with 1950 than with 1925 children's stories content. However, it is likely that around 1925 children's stories were more traditional; they were more like the anthropologist's folk tales which McClelland tried to match, and more likely to express basic themes of a country's subconscious norm pattern. In 1950, education in many countries had been modernized, so more frequently stories were produced that deliberately stressed the values of innovative educators rather than the traditional ones. This means that as measures of a country's underlying culture pattern, the 1925 stories were more reliable than the 1950 stories. This also explains the lack of correlation between 1925 and 1950 scores. In fact, the underlying patterns, found in the 1925 stories, were still present in people's mental programs around 1970 when the HERMES surveys took place.

A low UAI means by definition a greater willingness to take risks. High MAS, as we shall see in Chapter 6, means assertiveness or ambitiousness. The two together match the picture of McClelland's achievement-motivated individual. The countries that show both low UAI and high MAS are primarily the Anglo countries, in particular Great Britain, Ireland, and the United States. Indeed, these did relatively well economically in the 1929-1950 period because they suffered less from the war than did countries that were occupied. However, they definitely did *not* do as well economically as some other countries after 1950 (we shall go deeper into this later in this chapter). It is therefore doubtful whether McClelland's achievement motive should be offered as a *universal* model for economic success in countries, as it has been. McClelland, an American, has been describing a typical Anglo-American value complex—the one present in his own environment—and offered it as a model to the

world. A Frenchman, Swede, or Japanese would have been unlikely to discover a worldwide achievement motive (even the word "achievement" is difficult to translate in most languages other than English).

UAI and the Generation Gap

Earlier in this chapter it was demonstrated that UAI correlates with the average age of the HERMES respondent population. In a more uncertainty-avoiding society, older people will wait longer before leaving responsibility in the hands of younger people, and in such a society its members will more often disapprove of the behavior of young people.

Reader's Digest (1970) conducted an interview study of representative samples of a total of over 17,500 persons in 16 European countries which dealt with consumption patterns but which also covered attitudes toward younger and older generations. The statistical analysis shows that across 15 countries, favorable attitudes toward younger people are strongly negatively correlated with UAI ($r = -.77$). This suggests a greater generation gap in high UAI countries. That it also means a greater defacto age difference between leaders and led is shown by data collected by de Bettignies and Evans (1977). They published the average ages of top leaders in the business community in 11 European countries around 1970; these are strongly positively correlated ($r = .75$) with UAI. This complements the *Reader's Digest* data on attitudes toward younger people. It is likely that older leaders understand the young less; but the lower level of approval of the young is found in the entire population of high UAI countries; and these countries have the older leaders who fit with their value pattern. In higher UAI countries there is more of a "gerontocracy" (old people's rule).

UAI Scores and Other Survey Studies Outside HERMES

(1) *Managers on course at IMEDE, answering Gordon's Value Surveys*, (see Chapters 2 and 3). Across 14 countries, UAI is significantly negatively correlated ($\rho = -.50$) with a factor "recognition versus independence." This factor includes on the plus side a score for "achievement." We thus find for the IMEDE participants an indication of a negative association between high UAI and need for achievement, which supports the relationship we found with McClelland's Need for Achievement scores earlier in this chapter.

(2) *Samples of managers in 19 countries, answering to Haire et. al.'s (1966) management attitudes and assumptions questions*. The statistical analysis shows that these indicate for countries higher in UAI

- (a) a stronger preference for group decisions and consultative management, which can be interpreted as a way of avoiding risk for the individual decision maker; and
- (b) a tendency to agreement, at the same time, with statements taken from McGregor's "Theory X": less optimism about people's ambition and leadership capacities.

(3) *Managers from 16 countries on course at IMEDE, answering Fiedler's Least Preferred Co-worker questionnaire*. Fiedler's (1967) LPC can be seen as an original test of values: The values of a respondent are inferred from the way in which he or she describes a third person; that is, the one other person with whom he or she could

work least well. High LPC scorers describe their least preferred co-worker in relatively favorable terms, and Fiedler interprets this as interpersonal orientation: Low LPC scorers describe their least preferred co-worker in very unfavorable terms, and this is interpreted as task orientation. We can also, however, interpret high LPC scores as a high tolerance for ambiguity and low LPC scores as the reverse. This would mean that in high UAI countries LPC score levels should be lower. As the statistical analysis shows, in spite of the small samples of respondents used, we find a significant negative correlation ($r = -.44$) between UAI and LPC.

Fiedler explains leadership effectiveness by a combination of the leader's LPC score and the difficulty of the situation (Fiedler, 1967; Fiedler and Chemers, 1974). Differences in LPC levels among countries would mean that a person can be an effective leader in one country and not in another, which of course is an entirely reasonable proposition.¹²

(4) *Samples of managers on management courses from 10 countries, surveyed by Laurent (1978)*. We find a high correlation between UAI and the scores on five items all expressing a low tolerance for ambiguity in hierarchical structures. Laurent draws consequences from this about the acceptability of a "matrix organization" philosophy in a country: A successful application of matrix organization presupposes a tolerance for ambiguity in the hierarchy, as one subordinate will have two (or three) bosses. Therefore, matrix organization-type structures should be less acceptable in high UAI countries. I shall come back to this issue in Chapter 9. A later analysis I performed on more extensive data from Laurent has shown UAI to be highly correlated ($\rho = .77$) with an ecological factor which at its positive pole stands for a highly formalized conception of management.

(5) *More or less representative samples of the population in nine countries, surveyed about their "Images of the World in the Year 2000" (Ornauer et al., 1976)*. I selected the Ornauer study in the context of UAI because if there is such a thing as a national norm for uncertainty avoidance, this would very likely be reflected in issues related to the future. Out of 20 items conceptually related to uncertainty avoidance, four are significantly correlated across countries with UAI. These four items express that in countries lower in UAI more people believe they themselves can do something to contribute to peace; more people believe that compromising with opponents is not dangerous¹³; more people are prepared to live by the day; and a somewhat larger fraction of the respondents are prepared to live abroad. These items express for the countries lower in UAI a lower level of alienation of the citizens from what happens in the world, greater tolerance of other opinions, less fear for tomorrow, and less fear of the unknown.

(6) *Representative samples of the population in five countries, surveyed by Almond and Verba (1963)*. Based on their survey questions, these authors developed an index of "subjective competence" in dealing with local government: the extent to which respondents believe they can participate in political decisions at the local level. The concept of subjective competence is somewhat similar to the issue in Ornauer et al.'s survey whether respondents believe they can contribute to peace in the world. We find a strong ($r = -.96$) correlation between UAI and subjective competence. This shows that in higher UAI countries, citizens tend to feel less able to participate in political decisions at the local level.¹⁴ Taken with the correlations with pessimism about the interest of companies in employees' welfare (HERMES data,

question C10) and with pessimism about people's capacity for leadership and initiative (Haire et al. data) these data suggest a higher level of individual alienation in organizational participation, in the sense of powerlessness of the individual against the system. It is likely that these feelings are in turn fed by the organizational systems found in the higher UAI countries, which in effect respond less to members' attempts to influence the system because such attempts are not expected. One should see the embarrassed reaction of a (good and progressive) Belgian teacher when the parents of her English and Dutch pupils want to raise an issue not on her agenda (Belgium is a high UAI country, Britain and Holland are much lower). More in general, the data suggest that a country's UAI level is negatively correlated with the amount of control people believe they have over the world, including their own lives.

(7) *A survey of samples of engineers in the United States and Germany by Preiss (1971).* He found that the U.S. engineers were more oriented toward the company, administrative careers, and their private lives. The German engineers were more oriented toward anxiety avoidance and toward a professional career, earnings, cooperation, and security. The anxiety avoidance and the preferences for a professional (specialist) career and for employment security in Germany versus a manager career in the United States fit the Uncertainty Avoidance Index difference between the two countries.

(8) *Before Preiss, Fridrich (1965) surveyed 80 U.S. and 94 German middle managers, using, among other questions, several of those used by Haire et al. (1966).* Fridrich concluded that the Germans more than the Americans stressed high economic performance and expertise; they were more concerned with security and showed greater status anxiety. Finally, Germans stressed more than Americans the value of stability in their society and its institutions. This confirms, of course, the picture found by Preiss and the UAI difference between the two countries.

(9) *A final study I want to quote is actually not a comparative survey but a comparative laboratory experiment with Belgians and Americans by McClintock and McNeel (1966).* The study used a two-player "Maximizing Difference Game" in which players could get a maximum payoff by cooperating but a competitive advantage over the other by not cooperating. It appeared that American students cooperated more frequently than did Belgian students, which led to the author's conclusion of greater competitiveness on the Belgian side. However, in a comment, Faucheux (1976: 286) dwells on another finding by the experimenters: that Belgians prefer the competitive strategy especially when they are behind their adversary (and know it), whereas Americans prefer it more when they are ahead. Belgians want to avoid losing, while Americans want to win; therefore, Faucheux calls the Americans more competitive. Faucheux interprets the Belgian behavior as "legalistic," valuing equity more than efficiency, and the Americans as more "realistic." Belgium has a considerably higher UAI score (94) than the United States (46), and the "legalistic" versus "realistic" distinction fits well with this UAI difference. We saw in the HERMES questionnaire data that in higher UAI countries, competition between employees is disliked. The McClintock and McNeel experiment shows how this attitude can go together with a behavior which is actually less cooperative. It also suggests that the source of achievement motivation in the high UAI countries is more "fear of failure," while in the low UAI countries it is more "hope of success."

A Summary of Connotations of the Uncertainty Avoidance Index Found in Surveys and Related Material

In the same way as was done for the PDI in Figure 3.6, in Figure 4.2 I have interpreted the connotations of UAI found in the various survey data. As in the case of PDI, it should be remembered that (1) the "low UAI" and "high UAI" sides of Figure 4.2 are extreme ideal-types between which country cultures are somewhere placed on a continuum; (2) not all connotations apply with equal strength to a given country; and (3) individuals in countries vary widely around a country's norms.

The data on which Figure 4.2 is based derive from surveys of narrow samples in countries (HERMES employees, students, managers), but also from representative sample surveys of entire populations (*Reader's Digest*, Ornauer et al., Almond and Verba) and from systematically collected nonsurvey data (McClelland, Lynn). They are from a much broader set of sources than the HERMES data bank alone. As such they represent a "triangulation" (Chapter 1) which suggests that we are not just dealing with an idiosyncrasy of HERMES people but, indeed, with nations' modal personalities.

THE UNCERTAINTY AVOIDANCE NORM, ITS ORIGINS AND CONSEQUENCES

Economic Growth and Political Systems

Before trying to describe the general societal norm which is behind the "high UAI" and "low UAI" syndromes, I shall explore the relationship between uncertainty avoidance and a number of characteristics of societies. I have correlated UAI with seven economic, geographic, and demographic indicators which were identified in Chapter 2 and correlated with the Power Distance Index in Chapter 3. The resulting pattern of correlations for UAI is less clear than in the case of PDI and differs considerably for wealthy and for poor countries. For wealthy countries, the strongest relationship found is between UAI and economic growth in the 1960-1970 period (the higher the UAI, the faster the economic growth). A reverse relationship is found, however, if we take the same countries' economic growth figures over the 1925-1950 period (the higher the 1970 UAI, the slower the 1925-1950 economic growth). This is because this earlier period included World War II, and the high UAI countries tend to have lost more because of war damages. The positive relationship between uncertainty avoidance and economic growth therefore only applies within specific historical conditions.

For the Power Distance Index, it appeared to make sense to divide countries into those with a political system with "balanced power" (since 1950) and "unbalanced power": the "balanced power" countries tend to show much lower PDI values. For uncertainty avoidance, the statistical analysis shows that it makes sense to divide the 20 "balanced power" countries into "old" and "young" democracies. The young democracies (which developed their present form of government after World War I or later)—Austria, Finland, France, Germany, Ireland, Israel, Italy, Japan, and Turkey—tend to show higher UAI scores than the old democracies—Australia, Bel-

FIGURE 4.2 A Summary of Connotations of Uncertainty Avoidance Index Differences Found in Survey Research

See page	Low UAI Countries	High UAI Countries
125	• Lower anxiety level in population.	• Higher anxiety level in population.
129	• Greater readiness to live by the day.	• More worry about the future.
121	• Lower job stress.	• Higher job stress.
123	• Less emotional resistance to change.	• More emotional resistance to change.
121	• Less hesitation to change employers.	• Tendency to stay with the same employer.
123	• Loyalty to employer is not seen as a virtue.	• Loyalty to employer is seen as a virtue.
123	• Preference for smaller organizations as employers.	• Preference for larger organizations as employers.
128	• Smaller generation gap.	• Greater generation gap.
123	• Lower average age in higher level jobs.	• Higher average age in higher level jobs: gerontocracy.
123	• Managers should be selected on other criteria than seniority.	• Managers should be selected on the basis of seniority.
127	• Stronger achievement motivation.	• Less achievement motivation.
128	• Hope of success.	• Fear of failure.
127	• More risk-taking.	• Less risk-taking.
123	• Stronger ambition for individual advancement.	• Lower ambition for individual advancement.
123	• Prefers manager career over specialist career.	• Prefers specialist career over manager career.
*	• A manager need not be an expert in the field he manages.	• A manager must be an expert in the field he manages.
129	• Hierarchical structures of organizations can be by-passed for pragmatic reasons.	• Hierarchical structures of organizations should be clear and respected.
*	• Preference for broad guidelines.	• Preference for clear requirements and instructions.
121	• Rules may be broken for pragmatic reasons.	• Company rules should not be broken.

FIGURE 4.2 (Continued)

*	• Conflict in organizations is natural.	• Conflict in organizations is undesirable.
123	• Competition between employees can be fair and right.	• Competition between employees is emotionally disapproved of.
123	• More sympathy for individual and authoritative decisions.	• Ideological appeal of consensus and of consultative leadership.
*	• Delegation to subordinates can be complete.	• However, initiative of subordinates should be kept under control.
129	• Higher tolerance for ambiguity in perceiving others (higher LPC).	• Lower tolerance for ambiguity in perceiving others (lower LPC).
129	• More prepared to compromise with opponents.	• Lower readiness to compromise with opponents.
123	• Acceptance of foreigners as managers.	• Suspicion toward foreigners as managers.
129	• Larger fraction prepared to live abroad.	• Fewer people prepared to live abroad.
123	• Higher tolerance for ambiguity in looking at own job (lower satisfaction scores).	• Lower tolerance for ambiguity in looking at own job (higher satisfaction scores).
129	• Citizen optimism about ability to control politicians' decisions.	• Citizen pessimism about ability to control politicians' decisions.
123	• Employee optimism about the motives behind company activities.	• Employee pessimism about the motives behind company activities.
128	• Optimism about people's amount of initiative, ambition, and leadership skills.	• Pessimism about people's amount of initiative, ambition, and leadership skills.

*Based on studies by Laurent (1978). See Hofstede (1980b: 199-200).

gium, Canada, Denmark, Great Britain, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United States. All the young democracies acquired their present form of government after losing or winning a war in which they played a more or less aggressive role. Lynn and Hampson have proved the continuity of their anxiety factor from 1935 to 1978 (see Chapter 8). This means that the stress levels were not caused by the war, but rather a force contributing to countries taking part in it. We also just saw that the correlation of UAI with economic growth in the 1960-1970 period was reversed for economic growth in the 1925-1950 period, which includes World War II. In other words, the uncertainty avoidance syndrome is associ-

ated with aggressive belligerence and economic disaster during the first half of the twentieth century, and economic success during its second half.

Political systems cannot survive for long if they are not in harmony with the mental programming of the citizens. Almond and Verba (1963), through their public opinion study in five countries (Germany, Great Britain, Italy, Mexico, the United States) have made a major contribution toward showing how different "political cultures" are rooted in different mentalities. We saw earlier that their measure of "citizen competence" is highly correlated with UAI. This was the extent to which respondents believe they can participate in local political decisions. Almond and Verba also show how these mentalities are fostered in the family, school, and job relationships. For example, for a question "remembered freedom to protest decisions" on the percent "free to protest" the five countries are ranked in an order which is identical to the rank order of their UAI-scores; the same is true for the percent who claim they have actually ever protested about decisions on the job (p. 343). It is a reasonable assumption, supported by history, that (1) political systems in countries in which citizens feel they cannot participate will be less stable, and (2) younger balanced-power political systems following periods in which citizens were deliberately kept incompetent will not show the same level of subjective citizen competence as old and established political systems.

More recently, another comparative study about political attitudes of citizens was one by Kaase and Marsh (1976), who used representative samples of the populations of Austria, Germany, Great Britain, the Netherlands, and the United States. They measured "protest potential" (the acceptability of unorthodox political behavior such as boycotts and occupations) and "repression potential" (the desirability of repression of such behavior by the authorities). On both dimensions, the higher UAI countries Austria and Germany oppose the lower UAI countries, Great Britain, the Netherlands, and the United States. In Austria and Germany, fewer respondents declare themselves prepared to go beyond the more classical forms of protest such as petitions, demonstrations, and boycotts; and more respondents favor repression of political demonstrations by the government. This fits with the lower citizen competence in higher UAI countries found by Almond and Verba; citizens are not only more dependent on government but *want it that way*; citizen attitudes and behavior of officials in both high and low UAI countries reinforce and confirm the societal norm.

Putnam (1973) has published results of a survey of political attitudes not among the public at large but among high civil servants in Germany, Great Britain, and Italy who were interviewed in 1970-1971. The main conclusion is that civil servants can be distinguished into "classical bureaucrats" who are negative toward politics and "political bureaucrats" who are positive. On an "Index for Tolerance of Politics" (ITP) 94 percent of the Italian civil servants ranked below the mean, 38 percent of the Germans, and 7 percent of the British. This follows, of course, the three countries' UAI rank and shows that alienation about the political process exists not only among citizens, but also among those who are supposed to represent the system.¹⁵ In a later publication using some of the same material, Aberbach and Putnam (1977) compared the backgrounds of civil servants in five countries: the three previous ones plus the Netherlands and the United States. Of special interest to us are the percentages of higher civil servants with a law education: choosing law graduates for the civil ser-

vice can be seen as a form of uncertainty avoidance. These percentages are: Great Britain, three percent; the United States, 18 percent; the Netherlands, 39 percent; Italy, 53 percent; and Germany, 65 percent. This sequence is almost identical to the sequence of UAI scores.¹⁶

There is a certain resemblance between the uncertainty avoidance dimension of societies and the distinction made by anthropologists between "tight" and "loose" societies. Definitions of these concepts are rather vague and vary from one author to another. According to Pelto (1968), in loose societies:

- norms are expressed with a wide range of alternative channels;
- deviant behavior is easily tolerated; and
- values of group organization formality, permanence, durability, and solidarity are undeveloped.

In tight societies, the opposite is the case. These discrepancies fit well with some of the connotations of "low UAI countries" in Figure 4.3. Pelto measures the tightness of a number of traditional societies with a (Guttman) scale which uses characteristics of the society's political system, in which "theocracy" (government by priests claiming to rule with divine authority) is at the "tight" end and political control without legitimate use of power is at the "loose" end. This scale is not applicable to modern nations; however, Pelto also describes Japan and Israeli kibbutzim as "tight" and Thailand as "loose." In the HERMES data the Thai UAI score is not low (64), but it is considerably lower than the UAI scores for Japan (92) and Israel (81); (where) the kibbutz will be "tighter" than Israeli society as a whole, I assume they reflect partly the same norms). UAI can thus be seen as an operationalization of "tightness" for modern societies. Many modern societies are even "looser" than those Pelto considered.

Uncertainty Avoidance, History, and Legislation

In the analysis of power distance differences, the cultural inheritance of the Roman Empire was shown to coincide with high PDI scores. It also coincides with high UAI scores (Latin Europe, Latin America). The Roman Empire, by establishing an effective system of formal control of its territories and a unified legal system, set an uncertainty-avoiding pattern which seems to have survived as a societal norm in the countries most affected by the empire's inheritance.

Laws and by-laws are the form par excellence in which societal norms are expressed. We find "legislation" as one of the consequences of societal norms in the diagram of Figure 1.4; it serves, in its turn, to reinforce the norm. Uncertainty-avoiding countries will have a greater need for legislation than will less uncertainty-avoiding countries. We can, for example, oppose Germany (UAI 65) to Great Britain (UAI 35). Germany has an extensive set of laws even for emergencies that *might* occur ("Notstandsgesetz"); Great Britain does not even have a written constitution. Attempts to codify labor-management relations in Britain (the Industrial Relations Act) failed because they are too much against societal norms. One of the ways in which the inheritance of the Roman Empire perpetuates itself is through its legal systems.