from the expert-manager class locations. While these gender differences are considerably more exaggerated in Japan than in the other countries, the basic pattern is the same across all countries. In terms of the probabilities of a person being in a given class location, one's gender matters more than one's country.

Methodological appendix

The samples

The precise definitions of the samples and the specific procedures for interviewing respondents vary somewhat from country to country. All of the samples include employed people in the labor force, but some countries also include the unemployed and some include housewives as well. In some countries the sample excludes people over 65 years of age; in others there is no age restriction. The surveys in some countries were administered through face-to-face interviews, in others exclusively through telephone interviews, and in still others through combinations of mailed questionnaires and personal interviews. The surveys in all countries except Japan were national random samples; in Japan the sample was drawn from Tokyo and the surrounding hinterland. In order to insure as much comparability as possible, in the data analysis of this chapter we have restricted the samples in all countries to adults in the labor force who are currently employed. The attributes of the different national surveys are presented in Appendix Table 2.1.

Operationalization of class structure variable

The operationalization of the class structure variable used in this and most other chapters in this book is presented in Appendix Table 2.2. Two comments on these operationalizations are necessary. First, we have combined "unpaid workers in a family business or farm" with the petty bourgeoisie, small employers and capitalists depending upon how many people are employed in the family business. Many different kinds of social relations are packaged under the rubric "unpaid family worker." Sometimes this simply reflects cultural conventions about which family member is the "real" owner. In other cases it reflects age and gender-based hierarchies within family units. However, in general this expression does not designate a distinctive class location, and thus we are treating unpaid family workers as self-employed.

Appendix Table 2.1. *Properties of the sample*

Country	Interview method	Sample size	Date
United States	Telephone	1,498	1980
Australia	Personal	1,195	1986
United Kingdom	Personal	1,770	1984
Canada	Personal	2,577	1982
Sweden	Telephone/mail	1,145	1980
Norway	Personal	2,532	1982
Japan[a]	Personal	823	1987

a. The Japanese sample is for Tokyo and environs and covers approximately 40% of the Japanese population.

Second, the intermediary categories on each of the three dimensions of the class structure – supervisors on the authority dimension, skilled employees on the skill/expertise dimension, and small employers on the ownership dimension – represent a combination of two sorts of cases: people whose objective situation is *marginal* with respect to the theoretical logic of the dimension, and people for whom our measures of their objective situation are *ambiguous*. The category "supervisor," for example, combines people who really are in an intermediary location on the manager/nonmanager distinction, and people who are probably really managers or really workers, but for whom our measures do not give us unambiguous information. The effect of including the intermediary categories in the matrix, therefore, is to improve our confidence that the people in the corners of the table – expert managers, nonskilled managers, nonmanagerial experts and workers – are properly classified. This is especially important for analyses later in the book when we are interested in such things as the ideological differences between workers and managers. In such analyses we are more concerned that people we classify as workers are really workers and the people we classify as managers are really managers than with the possibility that some workers and managers have been incorrectly placed in the adjacent intermediary categories.

Reliability of estimates of distributions compared to official statistics

It is difficult to compare our estimates of class distributions with other statistics in order to evaluate the reliability of our estimates, since few

Appendix Table 2.2. *Operationalization of class structure*

	Self-employed or unpaid family worker	Number of employees	Position in authority structure[a]	Position in labor market (occupation)
1 Capitalists	yes	10 or more		
2 Small employers	yes	2-9		
3 Petty bourgeoisie	yes	0-1		
4 Expert managers	no		Manager	Professional and managerial occupations[b]
5 Expert supervisors	no		Supervisor	Professional and managerial occupations
6 Expert nonmanagers	no		Nonmanagement	Professional and managerial occupations
7 Skilled managers	no		Manager	Technical, semi-professional, crafts
8 Skilled supervisors	no		Supervisor	Technical, semi-professional, crafts
9 Skilled workers	no		Nonmanagement	Technical, semi-professional, crafts
10 Nonskilled managers	no		Manager	All other occupations
11 Nonskilled supervisors	no		Supervisor	All other occupations
12 Nonskilled workers	no		Nonmanagement	All other occupations

a. The threefold distinction in position in authority hierarchy is constructed on the basis of three groups of items from the surveys: 1. direct participation in a wide range of policy decisions in the workplace (*decisionmaking authority*); 2. ability to impose rewards and punishments on subordinates (*sanctioning authority*); and 3. position in the formal hierarchical structure of the organization (nonmanagement, supervisor, lower manager, middle manager, upper manager, top manager). These items are combined as indicated for the intermediate operationalization (Auth-2) in Appendix Figure 2.1. For a detailed discussion of how these clusters of items are aggregated into the authority dimension of the class structure, see Wright (1985, Appendix II, pp. 303-317).

b. Managerial occupations should not be confused with managerial positions within the authority structure. Many people are in jobs that are designated managerial occupations without having real managerial authority, and many people have significant levels of managerial authority without being in managerial occupations.

Appendix Table 2.3. *Comparison of selfemployment estimates from the Comparative Project and from published data*

	Estimate from the Comparative Project	Estimate from from OECD published figures	Ratio of Project estimates to OECD estimates
United States (1980)	14.7	9.4	1.56
Sweden (1980)	10.7	8.0	1.34
Norway (1983)	14.0	13.2	1.06
Canada (1983)	17.7	10.4	1.70
UK (1982)	14.0	9.2	1.52
Japan (1986)[a]	31.0	19.2	1.61

Source: *Labor Force Statistics, 1970–1990* (OECD, Paris: 1992)

a. The figures for Japan are for the nonagricultural sector, since the Japanese sample contains almost no one from agriculture. The official estimate for Japan comes from the Japanese Ministry of Labor, *Yearbook of Labor Statistics* (1986). The OECD figures for self-employment in the total Japanese labor force is 24.9% for 1986.

other data sources contain the specific questions about authority or the number of employees of self-employed people. Official government labor force statistics, however, do contain information about self-employment and thus we can compare our estimates on this dimension with other sources. Appendix Table 2.3 presents government statistics assembled by the OECD on self-employment rates among the employed civilian labor force in the six countries we are examining. As this table indicates, in every country in our sample except for Norway, our estimates of self-employment are 30–70% higher than these official government statistics. In the United States, for example, our estimate is that 14.7% of the employed labor force is self-employed, whereas the data in the OECD report (derived from US Current Population Surveys) indicates that only 9.4% were self-employed.

The question, then, is this: should we believe the government estimates or the estimates from the Comparative Project? I do not have a firm explanation for these divergences in estimates of self-employment. One possibility, of course, is that there is a sample bias in favor of self-employment in the Comparative Project surveys. However, given that we have weighted the US data to match the 1980

occupation-by-education distributions in the US Census, the discrepancy of these two estimates is unlikely to be the result of some kind of peculiar sample bias. It is hard to imagine how we could oversample the self-employed without also oversampling the high self-employment occupational groups. It is also striking that the order of magnitude of the divergence between the sample estimates and the official statistics is fairly similar in most of the countries, in spite of the substantial differences in sample design and interview procedures. This again suggests that the difference in estimates between the surveys and government statistics is probably not the result of oversampling of self-employed people.

A second possible source of divergence of estimates between our surveys and government statistics may be differences in the wording of the questions asked. For example, the Japanese figures in the official statistics in Table 2.3 refer exclusively to self-employed people in *unincorporated* businesses, whereas the Comparative Project's definition of self-employment includes self-employed people who incorporate their business. In the United States, roughly 22% of all self-employed people were incorporated in 1980, and, if there are similar proportions in other countries, this would certainly generate a divergence between our estimates of self-employment and government statistics.[17]

A third possible explanation of the divergence in estimates is simply that a higher proportion of people *claim* to be self-employed in the Comparative Project's interviews in most countries than in the interviews conducted by official government agencies. This could occur because some respondents are worried about such things as tax liabilities when they are interviewed by government agencies. It is also possible that higher responses of self-employment in the Comparative Project may be because the interviewers in the Comparative Project were told to probe respondents to be sure to get accurate information on this issue. Census surveys are often self-administered and this can lead to systematic response errors. In the US case, for example, the census figures are based on a self-administered questionnaire in which the response categories in the relevant question are listed as follows: "(1) employee of a private company, business, or of an individual, for

[17] There was no documentation in the OECD report to indicate how incorporated self-employed are treated in each country. In the case of Japan, the Japanese Ministry of Labor figures (which exclude incorporated) are identical to the OECD figures, thus indicating that the OECD figures also exclude incorporated self-employed for Japan. This may not, however, be consistent across countries.

wages, salary or commissions; (2) federal government employee; (3) state government employee; (4) local government employee; (5) self-employed in own business, professional practice or farm; (6) own business not incorporated; (7) own business incorporated; (8) working w/o pay in family business or farm." It is possible that a certain proportion of self-employed people who work for individual clients of one sort or another might give the first response in a self-administered questionnaire. If this interpretation is correct, then it may well be the case that our estimates are more accurate than those published in official sources. In any case, the discrepancy in estimates exists and should be kept in mind as we examine the results.

Cross-national comparability of measurements

Comparative survey research is always bedeviled with problems of comparability of measurements. Even with careful translations of items and back-translations to the original language to identify potential slippages, it is very difficult to insure that the questionnaire items have the same substantive meanings across different cultural contexts.[18] The problem of comparability of meaning of questions, therefore, is a point of vulnerability to virtually everything discussed in this book.

In the present chapter the skill/expertise dimension of the class-structure matrix is particularly vulnerable to problems of noncomparability across countries. This dimension relies on the coding of occupational titles and descriptions, and since the national conventions for occupational classifications vary, it is difficult to be completely certain that the criteria are being specified in exactly the same way across countries. It would, of course, have been desirable for all countries to use a common set of international occupation codes, but this was not done.[19] While the directors of the projects in all of the countries agreed

[18] This problem of shifting cultural meanings to formally equivalent items, of course, is not unique to cross-national survey research. Within a given country people in different classes, with different levels of education and with different personal histories, may understand a given question in quite different ways. Even with the most rigorous pretesting it is impossible to eliminate such potential divergence of interpretation within even a modestly heterogeneous set of respondents.

[19] A number of the countries (including the United States in a 1991 replication of the survey) did use the International Labor Organization's international occupational coding scheme (ISCO codes), but even when identical coding categories are used it is still difficult to insure strictly comparable practices in going from nationally specific occupational titles and descriptions in the questionnaires to these common categories. For example, it appears to be the case that in Great Britain when a job

to aggregate their detailed occupational codes into a common set of twenty-seven occupational categories, the national differences in the disaggregated codes may undermine the strict comparability of the resulting aggregations.

At various times I have experimented with strategies for increasing the reliability of the comparative measures of the skill/expertise dimension by explicitly including educational credentials and job autonomy as additional criteria for specifying the distinctions between experts, skilled employees and nonskilled employees. In some of the analyses in Part III and IV of the book, in which only the United States and Sweden are being compared, these more refined criteria will be used. In the end, however, these refinements were unworkable when more countries were included in the analysis because of the difficulty in treating educational credentials in a comparable way across different education systems and because of the absence of the autonomy questions from some of the national datasets. As a result, in this chapter we use a simple occupational criterion for the skill/expertise dimension, recognizing that this does not provide us with strict cross-national comparability.

The problem of operational arbitrariness

All social research faces the problem of the relationship between abstract concepts and concrete measures, and inevitably there is a certain arbitrariness in the relationship between the two. Measures are always underdetermined by concepts. In the present instance we have an abstract class-structure concept built around three dimensions – property relations, authority relations and skills. Two kinds of measurement problems intervene between this abstract conceptual map and concrete research:

1 What indicators are to be used to measure each of these dimensions? To measure the authority dimension, for example, there are many possibilities: formal positions within authority hierarchies as indicated by organizational charts; the nature of the decisions which the individual makes in the workplace; the kinds of powers the individual has over subordinates; the kinds of powers other people have over the individual. And, each of these possible indicators of "authority" could themselves be measured in many different ways.

2 How should these indicators be combined to generate operational variables? Even after a set of specific observations are made relevant to each dimension of the class-structure typology, there is the problem of aggregating these data into usable variables. In the Comparative Class Analysis Project we have dozens of questions tapping various aspects of authority. Respondents were asked about their participation in eight different kinds of decisions, and for each of these they have four options for describing the form of their participation. They were asked about their responsibilities with respect to several different kinds of tasks performed by their subordinates, as well as a series of questions over the kinds of rewards and punishments they could impose on their subordinates. And for each of these rewards and punishments, they were asked detailed questions about the relationship between their control of these sanctions and higher ups in the organization. The problem, then, is to take this mass of data and deploy it in a way that operationalizes the class map we have been using in this chapter.

In the Comparative Project, the basic strategy for dealing with the first of these measurement problems was to include a wide variety of indicators in the survey instrument. The hope was that by building in lots of redundancy and alternatives we would be able to improve the accuracy with which we could construct maps of the class structure.

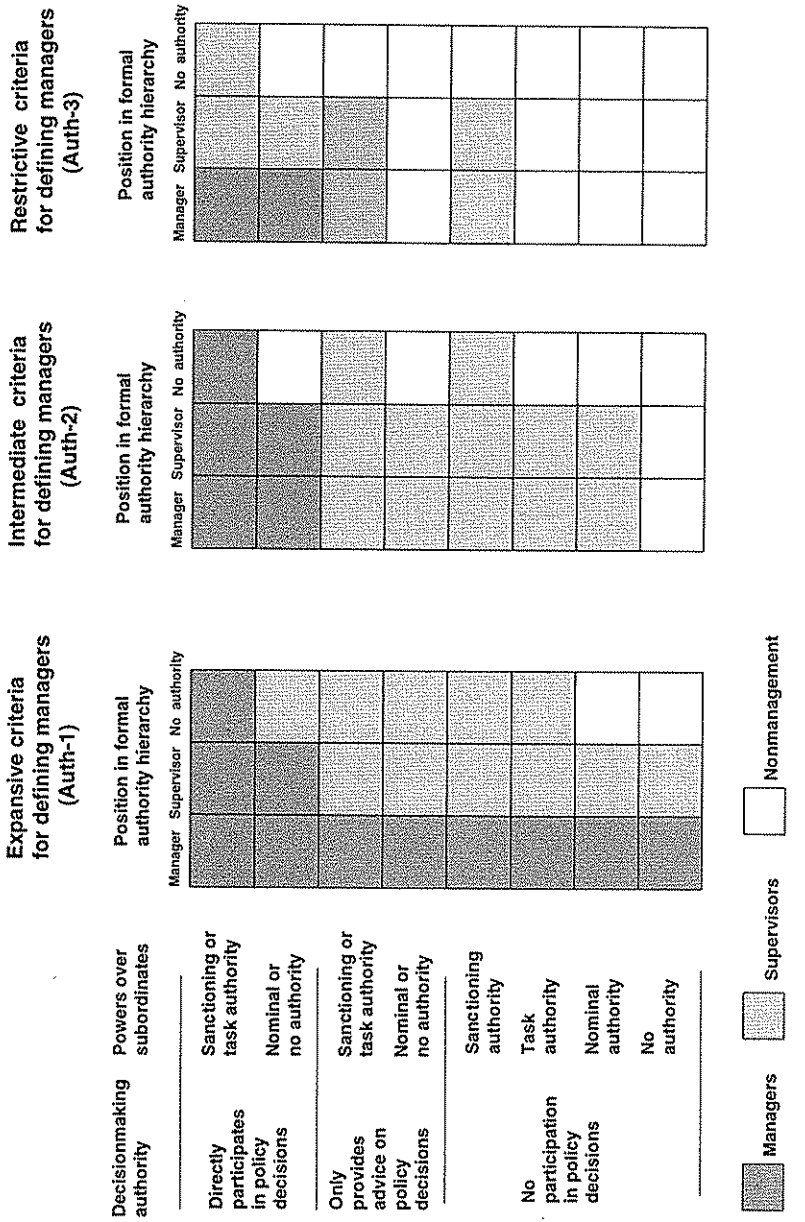
Unfortunately, increasing the number of indicators only intensifies the second problem – how to aggregate these many observations into usable variables. Appendix Table 2.4 indicates three different ways of aggregating occupations into categories on the skill dimension, and Appendix Figure 2.1 indicates three alternative operationalizations of the authority dimension. These alternatives differ in how restrictive or expansive are the criteria used to define the thresholds for the lines of demarcation on the skill and authority dimensions of the class structure; all of them are logically compatible with the abstract concept. In skill-1 and auth-1, the thresholds are set in such a way as to produce the smallest working-class and the largest expert-manager category. That is, on the skill dimension the criteria for being an expert or being skilled are

description includes a professional designation (e.g. engineer) and a managerial designation (e.g. manager in charge of an engineering department), the convention is to use the professional occupational code, whereas in the United States the convention seems to be to use the appropriate managerial code.

Appendix Table 2.4. *Alternative operationalizations of skill dimension*

	Occupation	Different skill dimension variables: Skill-1 Restrictive nonskilled & expansive expert criteria	Skill-2 Intermediate criteria	Skill-3 Expansive nonskilled & restrictive expert criteria
1	Physicians and dentists	expert	expert	expert
2	Other medical & paramedical	expert	skilled	skilled
3	Accountants, auditors	expert	expert	expert
4	Techers, elementary & secondary	expert	skilled	skilled
5	Teachers: university	expert	expert	expert
6	Engineers, scientists	expert	expert	expert
7	Technicians	expert	skilled	skilled
8	Public advisors	expert	skilled	skilled
9	Judges and lawyers	expert	expert	expert
10	Creative, entertainment	expert	skilled	skilled
11	Managers in public sector	expert	expert	skilled
12	Managers in corporattions	expert	expert	skilled
13	Managers, other	expert	skilled	skilled
14	Secretaries	nonskilled	nonskilled	nonskilled
15	Other clerical	nonskilled	nonskilled	nonskilled
16a	Sales: retail	nonskilled	nonskilled	nonskilled
16b	Sales: wholesale	skilled	nonskilled	nonskilled
17	Foremen	skilled	skilled	nonskilled
18	Crafts	skilled	skilled	nonskilled
19	Government protective workers	skilled	skilled	nonskilled
20	Transportation workers	nonskilled	nonskilled	nonskilled
21	Operatives except transport	nonskilled	nonskilled	nonskilled
22	Laborers except farm	nonskilled	nonskilled	nonskilled
23	Farm laborers and foremen	nonskilled	nonskilled	nonskilled
24	White collar services	skilled	nonskilled	nonskilled
25	Skilled manual services	skilled	skilled	nonskilled
26	Unskilled services	nonskilled	nonskilled	nonskilled
27	Farmers	skilled	skilled	nonskilled

set fairly expansively so that skilled employees are placed in the expert category, and certain skilled service workers are placed in the skilled category. Similarly, on the authority dimension, anyone with virtually any indicator showing that they might be a manager is placed in the manager category, and anyone with even nominal supervisory responsibilities is considered a supervisor. In skill-3 and auth-3, the opposite strategy is adopted: very restrictive criteria are deployed for defining experts, skilled employees, managers and supervisors. The result is a very small expert-manager category and a large working class. Skill-2 and auth-2 constitute a compromise between the two extremes.



Appendix Figure 2.1 *Alternative operationalizations of managerial authority*

Appendix Table 2.5. *Distributions of respondents according to different criteria*

I. % of employees in different categories using different criteria for skill[a]

	United States			Sweden		
	skill-1	skill-2	skill-3	skill-1	skill-2	skill-3
Experts	25.4	13.5	6.5	26.4	8.2	4.9
Skilled	19.2	27.2	18.8	19.8	29.7	21.5
Nonskilled	55.3	59.3	74.6	53.8	62.3	73.6

II. % of employees in different categories using different criteria for authority[b]

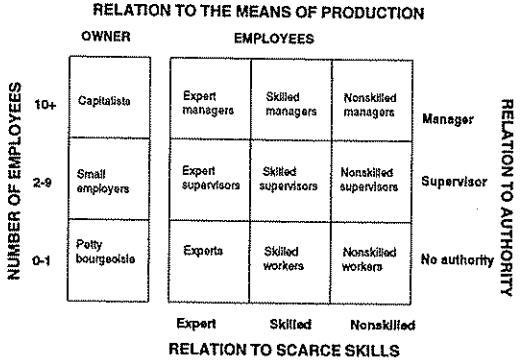
	United States			Sweden		
	auth-1	auth-2	auth-3	auth-1	auth-2	auth-3
Managers	23.3	17.3	9.0	14.3	10.0	5.2
Supervisors	30.1	20.7	19.8	20.2	11.0	10.0
No authority	46.6	62.0	71.2	65.0	72.1	84.4

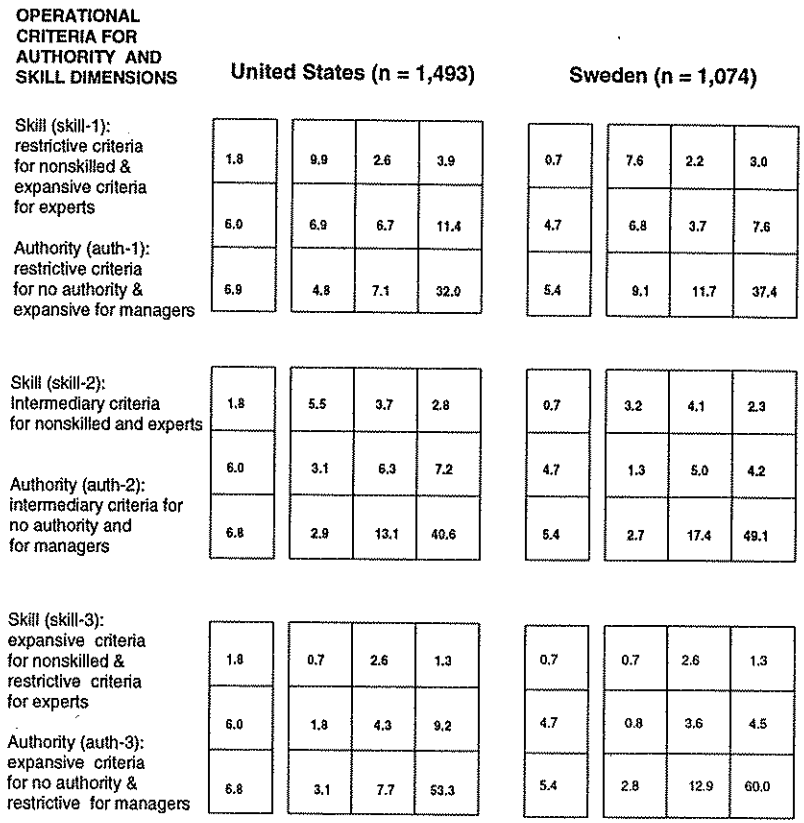
a. These different skill variables are operationalized in Appendix Table 2.4.

b. These different authority variables are operationalized in Appendix Figure 2.1.

Appendix Table 2.5 indicates the distribution of respondents into the different skill and authority categories using these different constructs for the United States and Sweden, and Appendix Figure 2.2 indicates what the resulting overall class distributions would look like in the two countries. These results clearly demonstrate that these choices make a substantial difference in the overall picture of class distributions in the two countries. Using skill-1 and auth-1, the expert manager category is nearly 10% of the labor force in the US and 7.6% in Sweden, while using skill-3 and auth-3 this category shrinks to less than 1% in each country. The working class, on the other hand, is 53.3% of the labor force in the United States and 60% in Sweden using skill-3 and auth-3, but only 32% and 37.4% using skill-1 and auth-1.

The basic conclusion from this exercise is that *estimates of the distribution of the labor force into class locations are quite sensitive to relatively arbitrary operational choices* even within a single conceptual framework. There are several general implications of this conclusion:





Appendix Figure 2.2 *Class distributions in the United States and Sweden using different operationalizations*

1 All of the results we explore throughout the book must be viewed with a certain caution, since it is always possible that with alternative specifications of the variables different conclusions would be drawn.

2 Operational arbitrariness is a particularly important threat to attempts at drawing *inductive* generalizations from data analysis. Tests of deductively driven hypotheses are generally less vulnerable since there is no particular reason to believe that the arbitrariness of the operational choices would increase the likelihood of specific substantive hypotheses being supported by the data (unless, of course, one tries many different operationalizations and then selects the one which is most consistent with one's hypotheses!).

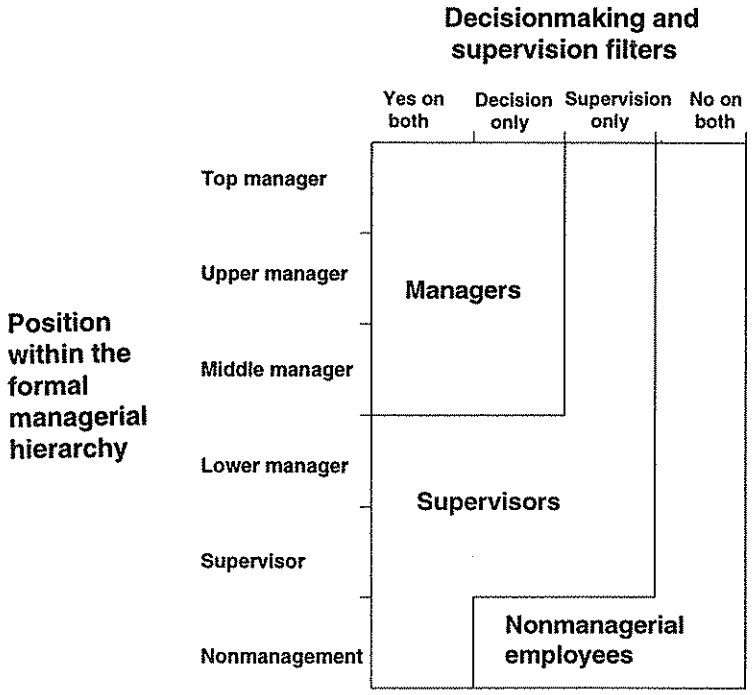
3 The operational arbitrariness also has bigger effects in noncomparative descriptions than in comparative ones. In Figure 2.2, there is much more instability in the estimates for particular class locations within countries than in the estimates of the differences between countries. Thus, for example, the size of the working class in the US is 21.3 percentage points higher in using skill-3 and auth-3 than in using skill-1 and auth-1, and in Sweden the difference is 22.6 percentage points. The difference between the two countries, however, is 5.4 percentage points in the first constructs and 6.7 in the third. Generally speaking, therefore, we will have more confidence in the descriptions of differences between countries than in the absolute values of the results for any country.

4 Finally, this kind of operational arbitrariness seriously undermines one of the favorite sports of class analysts – comparing alternative class concepts. The problem is that if one demonstrates that class concept X is "better" by some criterion than class concept Y (e.g. it has a higher R^2 in a regression equation or generates fewer anomalous classifications), it is difficult to prove that this is because it is a better concept rather than because the operationalization of concept X is better than the operationalization of Y. Precisely because concepts underdetermine operationalizations, the empirical comparison of operationalizations of different concepts bears a problematic relation to a comparison of the underlying concepts.

A good example of this difficulty in drawing inferences about the relative coherence of contending concepts directly from empirical observations derived from operationalizations of those concepts is found in the book *Classes in Modern Britain* by Marshall, Newby, Rose and Vogler (1988). This book, written by members of the British research group in the Comparative Class Analysis Project, partially revolves around a series of careful comparisons of my class structural concept with that developed by John Goldthorpe. While there is a great deal that is of interest in this book, it suffers from inattention to the difference between problems in the relative merits of alternative operational choices and problems in the underlying concepts themselves. Thus, for example, they criticize my conceptual map of classes on the grounds that I have allocated certain people – such as a skilled machinist with a subordinate apprentice – into "managerial" class locations who should properly be classified as workers (as such people were in Goldthorpe's framework). This may be a valid criticism, but it is simply a criticism of an operational criterion adopted in my research, not of the conceptual issues differentiating the two approaches. In terms of managerial authority, Goldthorpe and I share virtually the same conceptual criterion: in both cases the issue is real (not merely nominal) participation in making significant organizational policy decisions and having significant power over subordinates. A skilled machinist with one subordinate apprentice, therefore, is probably misclassified if placed into a managerial class location by my operational criteria. However, in my empirical work, because of my specific analytical objectives, I am especially concerned with avoiding incorrectly describing a manager as a worker (i.e. I want to create a relatively "pure" working-class category) and thus I deliberately adopt a "generous" set of operational criteria for defining managerial locations. This may well be an unsatisfactory operational decision for the analytical objectives of other scholars, or even for my own work. But the anomalies in the classification of certain people which result from these operational criteria should not be attributed to conceptual differences between my approach and Goldthorpe's.

How to measure class structure with relatively few questionnaire items

The strategy for measuring class structure adopted in this book involved asking dozens of time consuming questions on many diverse aspects of work and authority. For many people interested in including



Appendix Figure 2.3 *Operationalization of authority dimension using only three items*

class concepts in their research, it is impossible to include such a broad battery of items. The question, then, is how good a job will a smaller subset of questionnaire items do in approximating the class map generated by the full inventory. In practice, this is mainly an issue of simplifying the measurement of the authority dimension of the class typology, since the skill dimension is based primarily on occupation and secondarily, in some analyses, on education, both of which are routinely gathered in most surveys anyway.

Suppose you could only ask three questions: (1) the formal hierarchical position variable; (2) the filter question used for a battery of supervision items; and (3) the filter question used for the set of decisionmaking items. Appendix Figure 2.3 indicates one way of aggregating these three items to generate a variable measuring the authority dimension of the class typology. Appendix Table 2.6 presents a cross-tabulation of this fairly simple construction and the trichotomy used in this chapter. It also presents the even simpler cross-tabulation

Appendix Table 2.6. *Comparison of simple and complex operationalizations of authority*

		Relation to authority using formal position in hierarchy as only criterion[a]		
		Manager	Supervisor	Nonmanagerial employees
Relation to authority using complex operationalization	Manager	67.1 (7.3)[b]	0.0 (0.0)	0.0 (0.0)
	Supervisor	25.3 (2.8)	85.7 (17.5)	10.8 (7.4)
	Nonmanagerial employee	7.6 (0.8)	14.3 (2.9)	89.2 (61.2)
Total %		100.0	100.0	100.0
N		137	254	855

		Relation to authority using formal hierarchical position, supervision filter and decisionmaking filter[c]		
		Manager	Supervisor	Nonmanagerial employee
Relation to authority using complex operationalization	Manager	81.2 (7.3)	0.0 (0.0)	0.0 (0.0)
	Supervisor	17.8 (1.6)	95.0 (22.5)	5.4 (3.6)
	Nonmanagerial employee	1.0 (0.1)	5.0 (1.2)	94.6 (63.6)
Total %		100.0	100.0	100.0
N		113	294	836

a. Top managers, upper managers and middle managers on the formal hierarchical position question are classified as "managers"; lower managers and supervisors are classified as "supervisors."

b. Figures in parentheses are the percentages of the total table that fall into a given cell.

c. See Appendix Figure 2.2 for construction of this variable.

of a three-category version of the formal hierarchy variable by itself and the complex authority variable.

The punchline of this exercise is that you can do pretty well with very few questions. With the simple three-level version of the formal hierarchy variable, 86% of the respondents are classified in the same three categories of authority as they were with the complex operationalization in Appendix Table 2.2 and Appendix Figure 2.1. The biggest classification problem when simply using the formal hierarchy variable occurs for managers: a third of the managers according to the more complex operationalization are classified as supervisors or nonmanagerial employees according to the formal hierarchy variable. When we add the two simple filter questions in the manner indicated in Appendix Figure 2.2, however, the classification improves considerably. Now almost 94% of the cases are "correctly" classified, and 81% of the people classified as managers by the simpler criteria were also classified as managers by the more complex operationalization.

Given the time and expense of asking so many detailed questions about supervision and decisionmaking, in retrospect I wish that in the Comparative Class Analysis Project we had adopted this much simpler set of measures. This would have introduced some additional error in our measurements, at least if one is willing to assume that the greater information in our current operationalization reduces error. But it would have opened more space in the survey for other questions which we were unable to ask because of time constraints. In any case, for people interested in pursuing this line of research in the future, there is relatively little loss in using the more limited set of questions in Appendix Figure 2.2.

3 The transformation of the American class structure, 1960–1990

Two opposed images have dominated discussions of the transformation of class structures in developed capitalist societies.[1] The first of these is associated with the idea that contemporary technological changes are producing a massive transformation of social and economic structures that are moving us toward what is variously called a "post-industrial society" (Bell 1973), a "programmed society" (Touraine 1971), a "service society" (Singelmann 1978; Fuchs 1968) or some similar designation. The second image, rooted in classical Marxist visions of social change, argues that in spite of these transformations of the "forces of production," we remain a capitalist society and the changes in that class structure thus continue to be driven by the fundamental "laws of motion" of capitalism.

The post-industrial scenario of social change generally envisions the class structure becoming increasingly less proletarianized, requiring higher and higher proportions of workers with technical expertise and demanding less mindless routine and more responsibility and knowledge. For some of these theorists, the central process underwriting this tendency is the shift from an economy centered on industrial production to one based on services. Thus, Fuchs (1968: 189), in a relatively early statement of the service society perspective, contrasted industrialization with the service society by arguing that

> industrialization has alienated the worker from his work, that the individual has no final contact with the fruit of his labor and that the transfer from a craft society to one of mass production has

[1] Not all of these discussions explicitly talk about "class structure." I am thus translating into the terms of class analysis certain discussions which talk about the occupational structure or related categories.