

CHAPTER VI

MAJOR FINDINGS AND CONCLUSION

6.1 Identification of Main Concepts

Identification of the main aspects, concepts or categories of a discipline is very essential for designing any bibliographic information storage and retrieval vocabulary. It is also essential that the categories so identified should be able to represent the concepts within them to include whole field of knowledge in that area. The terminology used in the bibliographic information retrieval tools like classification schemes and indexing systems should represent the concepts of specific disciplines in its scheme of classification. It is not possible for any bibliographical information retrieval tool, even if it pertains to specific disciplines, to include the terminology that can represent all the concepts used in it.

The first main objective of this study, has been to develop a methodology for finding out the main concepts pertaining to a discipline, specifically in social sciences. Textbooks pertaining to a subject were adjudged the best source of the main concepts of a discipline, as these present a cumulative and consensual view of a field of study and generally try to include most of the concepts of the area of study. Textbooks also assimilate the literature appearing in a subject in the form of micro-documents. Textbook writers try to present a field of knowledge, as best as possible, and chapter headings are termed in such a way that they represent the contents of textbooks to the best extent possible. As such, if we take a large sample of textbooks of a subject in social sciences, and classify their chapter headings, we get most of the significant concepts, that generally form part of a subject. The terms identified in this way, are the main

concepts, and can be used as main headings in the bibliographical information retrieval tools, as these terms represent the literature of a subject and satisfy the criteria of currency and literary consensus.

Identification of the Main Concepts and form of the Terms used

The second objective of the study was to identify the main concepts of sociology with the help of the methodology stated above. A sample of 100 textbooks of sociology was taken, out of which 87 were selected, that were found to contain the chapters generally given in average sociology textbooks. The chapter headings were classified according to the main concept dealt in them. All the substantive terms or their synonyms used in the chapter headings by atleast 3 authors out of 87 seen, were taken, and the exercise enabled to identify 100 main concepts used in sociology. The classification of chapter headings also enabled to bring together, all the synonymous terms generally used for a concept in the sociological literature. The terms identified in this way, out of classification of chapter headings, can be taken to represent the views of 87 sociology textbook authors, as to what they suggest as the main concepts of sociology.

A number of other sources like classification schemes, classification scheme used in indexing/abstracting services, and some significant concepts suggested by some sociologists were also seen, and it was found that majority of the concepts identified in this study are included by many sources, but no comprehensive study based on actual literature survey or a systematic methodology, has been able to list all the main concepts of sociology.

6.2 Relative Significance of the Concepts used in Sociology

The third main objective of this study was to identify some significant concepts out of all the concepts used by

sociologists, so that the terms representing these concepts could be used as main headings in the information retrieval tools. The proportion of the textbook devoted by each author to a concept, in the form of chapter heading was added together, that enabled to quantify the relative significance given to that concept, by all the authors having a chapter on it. Thus, the cumulative proportion of ^abook devoted to a concept, made it possible to arrange all the identified concepts in descending order of significance for use as headings in the information retrieval tools. This list in descending order of significance was divided into three categories : 44 concepts that were used as chapter headings by the highest number of authors or highest proportion of textbook was devoted to these concepts; 26 concepts, that were dealt by lesser number of authors or lesser proportion of textbooks devoted to these concepts; and 30 concepts on which few authors had chapter headings in their textbooks and the proportion of books devoted to these concepts was lowest.

The objective of this categorization is, to suggest that bibliographic information retrieval tools must include the terms representing these concepts in their vocabulary, and if all the terms can not be included, the terms must be included as headings according to their relative significance. That is to say that, highly significant concepts should be adopted as main headings in the information retrieval tools and also that, none of the significant concepts should remain unrepresented in a scheme that includes sociology as a subject.

6.3 Arrangement in a Filiatory and Helpful sequence

An information retrieval tool is designed in such a manner that, all related concepts are either placed in a filia-tory sequence, or if it is not possible, related concepts are connected by cross references. It is also essential that, some broad categorization of individual concepts is adopted in

an arrangement, and these broad categories are termed in such a manner that all the individual concepts can be accommodated within them. Broad categorization is quite helpful for the processor of information as well as, for the users of the system, for the relative position of major categories can be remembered easily by both. Placement of new concepts or headings for them is also easier, if broad categorization has been adopted, otherwise, the classifier has the freedom to place the documents wherever he thinks it fit, or wherever unassigned class numbers are available.

Some of the main concepts of sociology, generally used as major categories in the textbooks and other literature of the subject, also appear as the headings suitable for major categories in the present study, on the basis of the highest significance given to them, by the textbook authors. The terms suggested as major categories are capable of including a number of other concepts within them. In a relative significance range obtained for various concepts used in sociology between 8.0708 as highest and 0.0875 as lowest, the major categories adopted and their relative significance is as follows:

<u>Category</u>	<u>Significance</u>	<u>Category</u>	<u>Significance</u>
1. History of sociology	0.8310	11. Race relations	1.0559
2. Theories of sociology	1.5087	12. Social Control	2.3428
3. Research methods	2.6350	13. Deviance	2.1384
5. Social organization	4.7906	14. Social	
6. Social institutions	5.5380	disorganization	0.6262
7. Sociology of education	2.8657	15. Social conflict	0.7417
8. Culture	4.9952	16. Social change	8.0708
9. Sociology of religion	2.7768	17. Human ecology	1.6740
10. Social structure	2.1703	18. Population	3.0431
		19. Social problems	0.8299

Most of the literature, that is generally published in sociology, can be accommodated within these major categories. Various information retrieval tools can not be evaluated with regard to the representation of sociological concepts in them, unless the identified main concepts are arranged in some

filiatory sequence. The fourth main objective of this study has been, to arrange these major concepts in a filiatory and helpful sequence. Although no arrangement of multi-dimensional concepts into a linear sequence can satisfy all the viewpoints, and there is always scope for some improvement over the ones already in existence, still some decision has to be taken, and some criteria have to be fixed to arrive at an arrangement. For this purpose, following criteria were used to obtain filiatory and helpful arrangement of main concepts of sociology, in this study:

- a. how a concept has been defined in the dictionaries of sociology/ social sciences;
- b. how a concept is explained with the help of other terms, that shows relation of a concept with other concepts;
- c. usage of a term in the literature of the subject;
- d. how the chapter on a concept is subdivided in the textbooks that shows the concepts, that can be included within it, or what is the major section as chapter heading within which this concept has been placed by various authors;
- e. related terms used by sociologists for a concept, in the form of 'see' or 'see also' references at the end of a definition in the dictionaries;
- f. terms used or shown as BT, NT, UF, RT or USE in the Library of Congress Subject Headings; and
- g. hierarchical position of a concept adopted in some classification schemes.

The arrangement obtained on the basis of these considerations can be used/ adopted in classifying sociological literature, with some minor changes, some combination of synonymous concepts and some provision for newer and developing/ emerging fields of sociology.

6.4 Representation in Information Retrieval Tools

6.41 Representation in Dewey Decimal Classification Scheme

Adoption of major categories in the Dewey Decimal

Classification is not according to their significance. Some of the main concepts of sociology have not been provided at all in the schedule. Some of these are research methods, social organization, society, individual and personality, educational institutions, social structure, social differentiation, minorities, and collective behaviour. A large number of concepts are not adopted as direct terms against the class number, but only mentioned in the scope note of some heading. Sociology of education, is to be classed in education at 370, crime in 364 and social problems at 362. In most of the cases, headings in the form of phrases, instead of single or double term headings have been used e.g. '306.7 Institutions pertaining to the relations of the sexes'. Closely related concepts are scattered at different class numbers e.g. conformity at 303.32 and deviance at 302.542. The scheme has to use scope notes quite often, which could have been avoided if all concepts were arranged within some major categories, thus placement of individual concepts itself would have explained the subheadings to be included within them. The hospitality provided through gap device, can be of not much use, unless the major concepts of sociology, that are generally being dealt in the literature of the subject, are provided as main heading, against the class number directly.

6.42. Representation of Sociological Concepts in UDC

Universal Decimal Classification uses only 5 major categories, and these are psychological aspects, social relations, social processes, social structures, and sociological theories, and these hardly represent the 100 main concepts identified from the sociology textbooks. UDC uses the heading 'Sources and motives of social phenomena' and includes many psychological aspects within it. The heading 'social structure' does not include differentiation, stratification, social classes etc. generally included by sociologists within it. All types of possible groups have been placed together at 301.18 that accommodates crowd, racial

groups, communities, and economic and political groupings.

Out of 100 main concepts of sociology only 23 are enumerated in sociology, a large number of main concepts are provided in psychology, political science, and social welfare etc., and 21 terms not provided in the whole schedule. Some of the main concepts not enumerated in sociology schedule are family (at 392.3), social institutions, social structure, social strata (342.54), social status, ethnic minorities (342.724), deviance, criminal sociology(343.99), collective behaviour, human ecology, and applied sociology, A number of related concepts are scattered e.g. groups is 301.18 but group consciousness is 301.152. In most of the cases, even upto 9 to 10 terms are enumerated within one class e.g. at 301.153 which includes 9 terms. Gap device is available for inclusion of new concepts but not within 6 digit class numbers. In the present scheme a classifier has to use whole schedule of UDC for 75 per cent of the main concepts of sociology. Even taking the help of index only does not help, as the index does not provide full context. The scheme has provision to represent various facets of a subject through colon device, but only at the cost of brevity of notation, as even the single facet enumerated in the sociology schedule needs 8 to 9 digits of notation e.g. 301.185.1 Racial, ethnic groupings.

6.43. Representation of Sociological Concepts in Colon Classification

Out of 100 main concepts of sociology, only 29 are provided in the sociology schedule of CC, 19 can be used through subject device and remaining 51 are not enumerated in the whole schedule. As far as arrangement of main categories is concerned, only Y:1 Culture, and Y:5 Demography are used in CC out of 15 main concepts used as category headings in the present study. All other schemes provide some concepts as main headings, but CC tries to provide categories, e.g. 'by residence', 'by birth or status', and 'by association' etc. but has succeeded to devise

such categories in a few cases only. The effort to categorise the concepts is the most desired quality of a classification scheme, but if we adopt categories as suggested in CC, they do not tally with the terminology used in the literature. This is the reason, only 9 headings used in CC tally with the 100 concepts identified from the textbooks, as shown in section 5.421. One case is, of 'capitalism'. This term is used by some sociologists as heading. If we want to use a category for it, it can be placed either within economic systems or political ideologies, etc. but these headings are not used in textbooks. On account of the use of categories as main headings CC adopts the policy of headings/ terms in the singular form only.

6.44 Representation of Main Sociological Concepts in the Sociological Abstracts Classification Scheme

To arrange sociological concepts, SA does not use any major categories and 33 main headings are all coordinate headings printed in bold. The comparative study shows that, out of the 100 main concepts identified from textbooks, 48 are not included as headings in the Sociological Abstracts. The terms, not used as headings in it, were further checked in SA index, to see if these headings are obsolete, and no literature is appearing on them. It was found that except a few headings, most of the terms have 50 to 286 references during a period of three years, 1990 to 1992. The study proved that, all these are not obsolete headings and on account of their currency in the literature, they need to be included as headings. However, some concepts have less than 50 references during a period of 3 years, some of which are, social processes, social institutions, and social disorganization etc. Some other concepts, as social life, government, authority, industrial sociology, magic, caste system, customs, morality, conformity, crowds, and development are losing sociologist's interest, if the periodical literature included in the Sociological Abstracts is adopted as a criterion.

Most of the headings used in the Sociological Abstracts

are unnecessarily lengthy like 'sociology of sexual behaviour' for sexuality, 'Social division of labour' for division of labour, and 'sociology of communities and regions' for communities, etc. and in most of the cases, phrased headings have been preferred. Most of the headings used in the Sociological Abstracts, match well with the terms being used in the textbooks and the terminology represents the literature of sociology better than any other information retrieval tool. In SA, there is no effort to categorize the concepts, and literature on related concepts, is scattered and even with the help of subject index it is not possible to locate all documents on some related concepts together. An example of scattering of related concepts can be cited as 'division of labour' at 0686 and 'sociology of occupations' at 1020.

6.45 Terminology used for Sociological Concepts in the Library of Congress Subject Headings (LCSH)

LCSH being a general list of subject headings does not provide adequately, for a number of sociological concepts. In a number of cases, the term may be available, but there is no effort to specify its subject-specific context, that may allow the general term as heading in sociology also. Some of the discipline specific terms used as headings in sociology, but not provided in LCSH are scientific method, society, social order, social relations, primary groups, social differentiation, social disorganization and applied sociology. A number of concepts, are not represented in the form of terms, but 'see' reference is provided for them, some of these are, research methods, social organization, government, organizations, social stratification, sociology of gender, sociology of law, environment, and social planning. Thus, out of 100 most commonly used concepts in sociology, only 55 were represented in LCSH, for 20 terms, synonyms were used, in 11 cases, instruction to use other terms is available, and 10 terms were not provided at all.

Scope note is provided in LCSH for 18 terms out of 100 checked, which facilitates and specifies the allocation of that

Table 6.1

Some Main concepts used in Sociology and Provision for them,
in some of the Bibliographic Information Retrieval Tools:
Summary

Sl. no.	Concept	Provision in			
		LCSH	DC	UDC	CC
1.	Scope of Sociology	-	301.03	-	-
2.	History of Sociology	Sociology-History	301.09	301.01	Yv
3.	Theories of Sociology	Social theory	301.01	301.19	-
4.	Research Methods	Science-Methodology	-	303	Y:f
5.	Social Organization	(Social structure)	-	-	-
6.	Society	-	301	301.18	-
7.	Social Processes	Social processes	303	301.17	-
8.	Social Relations	-	302	301.16	-
9.	Social Interaction	Social interaction	302	301.16	-
10.	Individual	-	-	-	-
11.	Personality	Personality	-	301.151	Y:7
12.	Socialization	Socialization	303.32	301.173	-
13.	Communication	Communication	302.2	-	-
14.	Groups	Social groups	305	301.18	-
15.	Social Institutions	Social institutions	306	-	-
16.	Family	Family	306.85	-	Y2
17.	Political Institutions	-	306.2	301.188.2	Y9(W)
18.	Power	-	306.3	301.172	-
19.	Economic Institutions	-	306.3	301.188.2	Y9(X)
20.	Sociology of Education	-	370.19	37.015.4	Y9(T)
21.	Culture	Culture	306	17.023.36	Y:1
22.	Sociology of Religion	Religion and Sociology	306.6	-	Y9(B)
23.	Social Structure	Social structure	-	301.18	-
24.	Social Differentiation	-	-	301.172	-
25.	Social Stratification	-	305.512	-	-
26.	Social Classes	Social classes	305.5	-	-
27.	Social Inequality	Equality	305	177.5	-
28.	Social Status	Social status	305	-	Y5
29.	Racial Groups	Race	305.8	301.185.1	Y7
30.	Race Relations	Race relations	305.8	-	-
31.	Minorities	Minorities	305.56	342.724	Y5B
32.	Social Control	Social control	303.33	-	Y:4:5
33.	Deviance	Deviant behavior	302.542	-	-
34.	Social Conflict	Social conflict	303.6	-	Y:4
35.	Collective Behaviour	Collective behavior	-	301.152	-
36.	Social Movements	Social movements	303.484	-	-
37.	Social Change	Social change	303.4	-	Y:1:6
38.	Scientific and Technological Change	Science- Social aspects	306.45	-	-
39.	Human Ecology	Human ecology	304.2	-	-
40.	Community	Community	307	301.185	-
41.	Urbanization	Urbanization	307.76	364.122.5	Y33
42.	Population	Population	304.6	312	Y:5
43.	Social Problems	Social problems	362	304	Y:4

heading to a document. The policy of inversion of headings in a number of cases e.g. sociology, rural; sociology, urban; heredity, human; and knowledge, sociology of, etc. are not very helpful from the users point of view.

6.46 Terms used for Sociological Concepts in the Dictionaries

Evaluation of 5 dictionaries of sociology and 3, of social sciences, from the point of view of provision for the main concepts identified in this study, and the form of term used in them, shows that no dictionary has been able to include all the main concepts or their synonyms, and the terms used by them for a concept are diverse. Keeping aside other aspects, a dictionary that includes maximum number of main concepts of sociology, can be termed comparatively better for analyzing sociological concepts and their proper categorization. The analysis shows that the dictionary that has included 90 out of 100 concepts is better from any angle. Although, it would be improper to decide the relative significance of the terms used by maximum number of dictionaries, but if we take only those terms that have been provided at least in 3 dictionaries out of 5 dictionaries of sociology seen, we get a list of about 76 main concepts of sociology, identified in this study. On the whole, the study indicates that main concepts of sociology for use as headings in the information retrieval tools can not be identified with the help of the terms used for them, in the dictionaries of sociology or social sciences.

6.5 Sociologist's views about 'Main Fields of Sociology'

Main concepts of sociology suggested/ enumerated/ guessed or identified by 7 sociologists, 1 librarian, and areas of the 39 research committees of the International Sociological Association (upto 1988) were classified according to the arrangement of concepts proposed in this study. The main concepts

suggested by these sources, during the period 1937 to 1988, shows, the lists are not based on any actual survey of literature. All these nine sources combined together, provide us 112 concepts of sociology, but have not been able to point out 29 main concepts identified from textbooks and used as chapter headings by them. Out of the concepts not listed by these sources are, 7 those concepts also, which are among the 44 most significant concepts of sociology.

Evaluation of the various information retrieval tools shows that neither any information retrieval tool has tried to identify the main concepts of sociology, nor the arrangement is based on proper categorization and filiatory sequence of main concepts.

6.6 Summary of Findings and Implications

1. The study has been able to identify some concepts of sociology with the help of the terms used for chapter headings in a large sample of introductory textbooks of sociology. As these terms are based on their use as headings by a large number of authors, these can be treated as main concepts of sociology. Thus, the study proves that it is possible to identify the main concepts pertaining to a discipline.
2. The identified main concepts were compared with the terms used for them in some of the information retrieval tools, and the comparison proves that terminology used in these tools, does not represent adequately all the main sociological concepts.
3. The study also proves that concepts used in a field can be ranked according to their relative significance for use as main headings in the information retrieval tools, on the basis of the number of authors using a term for it as heading, and the total proportion of books devoted to a concept in a large sample of introductory textbooks of a discipline.

6.61 Implications

Main concepts of sociology identified in this study need to be provided in the information retrieval tools as class heading terms and subject heading terms. The study also stresses the need for proper categorization and filiation arrangement of concepts pertaining to a discipline, while representing the terms for them in the bibliographical retrieval tools. None of ^{the} identified concepts is new, and most of them are used in some retrieval tool or other, and literature is appearing on them currently also, that has been observed by scrutinizing the issues of Sociological Abstracts for a few recent years. The terms represent the consensual view of a large number of sociologists and are in current use in the literature, as such if these are included as headings in the information retrieval tools, it will be fulfilling the requirement of 'educational and scientific consensus' as well as 'currency' of the terms, the bases which are most preferred, while selecting terms for a scheme of arrangement.

The study also shows that, these are the most preferred terms among the users of the information systems, as sociologists are the users of the information retrieval systems pertaining to sociology. It is desirable that a classification scheme for sociology is finalized on the basis of the findings of this study, which could be used for arrangement of macro-documents in libraries as well as for classifying and arranging the micro-documents for indexing and abstracting systems. The study also presents the concepts and their definitions in classified form and it will be great help to the organizers of the information retrieval systems, if this could be extended to include more concepts, and classified dictionaries in all the fields were available, to facilitate better organization and efficient retrieval of bibliographic information in specific disciplines.

The study is based on a survey of the textbooks of sociology, but no book could be identified that includes all the main concepts of sociology, as such a standard textbook can be prepared by some sociologist, that includes all the main concepts of sociology.

Finally the methodology for identification of the main concepts of sociology adopted in this study, needs to be applied to other social sciences, to show how far the methodology fits other social sciences for identification of their main concepts, that can be used as main headings in the information retrieval tools.