

Identification of Main Concepts used in Sociology and their Categorization

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Reports on the findings of a study conducted to identify the main concepts used in sociology according to their relative significance. A sample of 87 introductory textbooks of sociology was considered, chapter headings used in them were classified and 100 main concepts were identified. A scheme for their arrangement was suggested using 10 major categories. In order to compare the relative significance of each concept for use in the retrieval tools as headings, a proportion of a book used for a concept by all the authors in these books was added. This cumulative proportion has been termed the 'relative weight of a concept', which made it possible to arrange all the 100 concepts into three 'levels of significance categories'. Thus, 44 concepts have been identified as most significant concepts, 26 in the second level of significance, and 30 in the last category of relative significance, only for use as headings in the bibliographical information retrieval tools pertaining to sociology. The study concludes in that no bibliographic information storage and retrieval tool in the field of sociology can justify non-inclusion as main headings, the most significant concepts identified, that appear in the first category of relative significance, as these seem to represent the core of the discipline. (Authors)

0. Introduction

Information and retrieval tools are required to represent the concepts of a field of knowledge to the best extent possible. It may not be difficult to identify most of the concepts used and their synonyms, but the real problem is to adopt a methodology through which at least the main concepts pertaining to a field of study are well represented in the retrieval tools and no significant concept is left out.

1. The Problem

The schedule for sociology was examined in some of the classification schemes and it was observed that some of the main concepts do not find its proper placing in them, and also that the arrangement was not based on the proper categorization of concepts, as displayed in the literature of the subject. Such a situation was seen resulting in scattering of the literature and creating problems in retrieval, due to lack of correspondence between the terms used in the literature of the subject by sociologists, and their representation in retrieval tools.

The stable structure of a subject does not change much after going through certain developmental stages. It is in



the initial stages only that publications bearing new concepts appear and these are immediately adopted as one of the fields or branches in a subject like sociology (1). Further, when a sociologist with some specialization or a specific orientation to a school of thought, or with a specific cultural background, applies his sociological point of view in a specific field of human knowledge, a new branch of sociology will take shape. The vocabulary of an information retrieval system cannot cope with such new fields easily. But no major concept of a subject can be left unrepresented. While deciding about the main concepts of a discipline like sociology some aspects need to be kept in view, and these are: a) the well established fields of studies from which it took its main concepts in its evolutionary stages; b) the concepts borrowed, coloured with a sociological point-of-view, retained and adopted fully, and thus deemed as the mainstream of the subject. These points need to be considered, while looking at a discipline from the stable structure point-of-view.

2. Some Related Studies

F.N. House suggested a list of 16 "sociological specialties recognized in the United States" in 1936. He based this list on the areas of interest of the members of the American Sociological Society, as well as teaching and research positions in American universities during that period (2). Alex Inkeles reports on a study by Hornell Hart in which 24 introductory text books of sociology were analyzed and 12 themes identified (3). Inkeles suggests "a general outline of the subject matter of sociology" and he claims "on which almost everyone would agree" (4). In the same way did this N.J. Smelser, under the heading "developing areas of sociology" (5); Graham Sergeant under the heading "aspects of sociology which have yielded to empirical investigation" (6); Gerald Leslie under the heading "among the areas of human society and behaviour that sociologists study" (7), James Baughman under the heading "most strongly related sociology subject headings" (8), and Paul Horton under the heading "sociology is divided into many specialized fields" (9). The fields of 44 Research Committees of the International Sociological Association give us an idea of the significant areas of sociology, however, it is yet to be seen how these 'fields' represent the basic structure of the discipline and its concepts.

3. Alternatives Found Unsuitable to Identify Main Concepts

3.1 Trial with Terms used in the Dictionaries of Sociology

All the terms used in 8 dictionaries of sociology published between 1955 and 1989 were arranged in one alphabetical sequence to find out the number of dictionaries using a term. The arrangement provided a list of about 5000 terms. These terms represent the discipline of sociology to a great extent, and they also represent some of the main concepts of allied disciplines used in sociology. This term bank was, however, not found of much use to decide the relative significance of the terms in sociology, merely on the basis of the number of dictionaries using a term. Secondly, various synonyms were used by different dictionaries for a single concept, which got scattered in the alphabetical sequence. Thus, inspite of the list available of the terms used by sociologists, it was not possible to find the relative significance of each term. It was also not possible to decide on the scope and the hierarchical position of a term. Moreover, the common terms used by all the 8 dictionaries were not more than 20. The effort proved that mere identification of the terms used in a discipline can hardly help regarding their use as main concepts in a scheme of classification or other information retrieval tools.

3.2 Literature Appearing in Sociological Abstracts

Sociological Abstracts decides about a journal for inclusion in its abstracts service on the basis of some articles on sociology appearing in a given journal. In this process, articles on other social sciences appearing in these journals are also included. The source could have provided the basic structure of sociology, if the journals included were only core journals. However, this does not happen. If journals are included from related disciplines, it follows that many concepts enter the area of Sociological Abstracts peripheral in nature to its topic. Moreover, since this abstracting service represents the literature appearing during a certain period of time, a wave of literature on a specific topic like 'War', 'Famine', 'Poverty', or recently, 'AIDS' will enter the service, although such concepts cannot be given the status of main concepts in sociology. Even if the literature that has appeared in Sociological Abstracts since the very beginning would be taken into account, it will provide a long list of concepts but will not give any evidence on their significance. Thus a decision on the significance of each concept may not be derived from the main headings and their terms used in this abstracting service.

3.3 Syllabi Prescribed in Academic Institutions

One method of finding out the main sociological concepts could be by comparing the syllabi of all academic institutions. It must, however, be considered that there are also country-specific, ideology-specific and school of

thought-specific sociologies included in syllabi which may not represent the main concepts.

3.4 "What the Founding Fathers said"

This is a criterion considered among some other alternatives, by Inkeles (3, p.3). Even if some decision could be taken as to whom to treat as "founding fathers", other problems crop up, and these are: a) founding fathers were not always sociologists in the fullest sense, b) not many founding fathers have written such books in sociology which can claim to be representative of the whole discipline. Many "masters of social thought" wrote on the specific aspects of social life, which were included later on by the discipline as a part of sociology (1, p.293-5), thus these works cannot cover the full scope and the main structure of the subject.

4. The Present Study

The present paper represents the results of an investigation to find out the basic structure of sociology, having been more or less stable during the past 50 years. The choice of a methodology to identify main concepts proved a crucial decision in this study. As none of the alternatives enumerated above was found suitable, the method of analysis of textbooks and the chapter headings used in them was considered a better approach. The main concepts identified with the help of this method were further analyzed with respect to their definition, explanation and usage. They were arranged in a helpful sequence and categorized into 10 main sections/divisions and into three 'relative significance' groups.

4.1 Identification of the Main Concepts from Textbooks

One hundred introductory textbooks bearing the title 'sociology', 'textbook of...', 'principles of...', 'fundamentals of...', 'handbook of ...', 'aspects of ...', 'introductory sociology', 'basic sociology', 'society', and 'human society' were selected. Out of these, 13 titles were not considered relevant for finding the concepts required. The chapter headings used in the remaining 87 books were classified and arranged under the main concept dealt with in them.

4.2 Why Textbooks as a Source?

Textbooks generally try to represent the literature appearing in the discipline in the following way:

- a) they include the concepts that are generally prescribed in the syllabi of sociology courses in various institutions;
- b) Textbooks assimilate, and disseminate the ideas appearing in the form of articles in periodicals, and also in the form of books published in the field of study, on very specific topics;
- c) Textbooks present a cumulative and consensual view of the field of study, and generally represent the major concepts;

d) Textbooks are supposed to represent the field of study and majority of the sociologists, thus, the personal views of the author are subsidiary.

4.3 Arrangement of Data and Results

All the chapter headings bearing a concept on which at least 3 authors had devoted some part of their books were classified. The chapter headings used by any one of the 87 authors on a specific concept were arranged chronologically along with the name of the author, the chapter number used for that heading and the total number of chapters in an author's book. A sample page of the data collected and arranged under the concept 'social organization' is shown in the appendix. This classification of all the chapter headings under the concepts used in them was not a cakewalk, as all the possible synonymous terms were used by the authors for a concept. However, most of the chapter headings could be accommodated under the term used by most of the authors. The exercise helped in identifying 100 concepts, of which some were used by up to 60 authors and some of them only by 3. The arrangement of the chapter headings used in these 87 books in a classified order enabled us to acquire the following information:

- a) The number of textbooks having a chapter on a particular sociological concept,
- b) Various terms and their synonyms used by these authors for a concept in their chapter headings,
- c) Consensus, uniformity, diversity and changes visible in the use of terms for a concept over a period of time by different authors,
- d) The year when the textbooks started including a chapter on a particular concept, the period during which maximum chapters were included on the concept, and the year after which no author included a chapter on that concept.

The concepts identified with this method can be deemed to have been collected through a questionnaire sent to 87 sociologists, as to what they considered as the main concepts of sociology. The method adopted is better than the questionnaire method, as it eliminates the bias which might be displayed by the respondents, since they get the opportunity to reconsider their priorities, in case of a questionnaire. Secondly, the non-response possibility is also eliminated.

5. Arrangement of Identified Concepts in a Filiatory and Helpful Sequence

Definitions, explanation, and usage were ascertained from the following sources for arranging the concepts identified:

5.1 Dictionaries of the Subject

Those definitions from 8 dictionaries of sociology were considered, which provided a scope of the term, subdivisions of the term, relation of a term with other terms, use

of other terms in explaining a term, and the views expressed by some sociologists while defining or using a term.

5.2 Analysis of Chapter Headings

Most of the text-book authors divide their books into major sections and the latter into chapters. How such subdivisions of a major section were done provided very valuable information about their views on broader and narrower concepts to a particular concept.

5.3 Provision in the LCSH

Broader and narrower terms used in the Library of Congress List of Subject Headings (LCSH) were also collected for these concepts to evaluate them with regard to their use in the literature of sociology.

5.4 Related Terms Used by Sociologists

After the given definition of a term, dictionaries of sociology provide 'see also' references. These references were collected from 8 dictionaries of sociology for all the concepts identified and were treated as the list of the terms suggested by sociologists. It may be noted that the contributions to most of the sociological dictionaries were from well known sociologists or that the compilers themselves were sociologists.

6. Arrangement of Concepts within Major Categories and Justification for Adoption of the Sequence

It may be possible to trace some consensus among sociologists about the main concepts of sociology, and the scope of the individual concepts, but there seems to be hardly any agreement among them regarding the use of a term among many synonyms to represent a concept. The same is the case with the arrangement of concepts in some agreed order, even for presenting them in textbooks. But professionals in the field of bibliographic information work have to present such concepts and related literature in some order, helpful for easy retrieval of documents related to these concepts. For easy retrieval, major categories need to be arranged after due consideration, and individual concepts need also a filiatory arrangement within these major categories. The categories have significant mnemonic value for bibliographic organization and retrieval. A classifier cannot be expected to remember the relative location of each and every concept in a scheme of arrangement, but the major categories and their relative location is helpful even for users.

In this way the arrangement of 100 concepts of sociology, according to 10 major sections/categories was suggested. Individual concepts within a category were arranged according to their filiatory relation, identified by various methods mentioned in the previous section. The aspects under which the 10 major sections/categories were arranged are as follows:

0. HISTORY, THEORIES, METHODS	IV. SOCIAL STRUCTURE
1. Sociology	51. Social Structure
2. Scope	52. Social Differentiation
3. History	53. Social Stratification
4. Theories	54. Social classes
5. Research Methods, Techniques	55. Caste
6. Scientific Method	56. Social Inequality
1. SOCIAL ORGANIZATION	57. Social Mobility
7. Social Organization	58. Social Status
8. Social System	59. Role
9. Society/Social life/ Social Order	60. Sociology of Gender
10. Social Processes	61. Racial Groups
11. Social Relations	62. Race Relations
12. Social Interaction	63. Ethnic Groups
13. Individual	64. Minorities
14. Personality	V. SOCIAL CONTROL : DEVIANC
15. Attitudes	65. Social control
16. Biological Determinism	66. Customs
17. Sexuality	67. Values
18. Socialization	68. Norms
19. Communication/ Symbolism	69. Morality
20. Groups	70. Public Opinion
21. Primary Groups	71. Sociology of Law
22. Small Groups	72. Conformity
23. Associations	73. Deviance
II. SOCIAL INSTITUTIONS	74. Crime
24. Social Institutions	75. Delinquency
25. Kinship	VI. SOCIAL DISORGANIZATION: CONFLICT
26. Family	76. Social Disorganization
27. Marriage	77. Social Conflict
28. Political Institutions	78. Crowd
29. Government	79. Collective Behaviour
30. Formal Organizations	80. Social Movements
31. Bureaucracy	VII. SOCIAL CHANGE
32. Authority	81. Social Change
33. Power	82. Evolution
34. Leadership	83. Progress
35. War	84. Revolution
36. Economic Institutions	85. Scientific, Technol. Change
37. Work	86. Industrialization
38. Division of Labour	VIII. HUMAN ECOLOGY : POPULATION
39. Sociology of Occupations	87. Urban Ecology
40. Industrial Sociology	88. Environment
41. Capitalism	89. Geographic Environment
42. Poverty	90. Community
43. Leisure	91. Rural Sociology
III. SOCIOLOGY OF EDUCATION : CULTURE: RELIGION	92. Urbanization
44. Sociology of Education	93. Urban Sociology
45. Culture	94. Medical Sociology
46. Sociology of Art	95. Population
47. Sociology of Knowledge	96. Migration
48. Ideology	IX. SOCIAL PROBLEMS
49. Magic	97. Social Problems
50. Sociology of Religion	98. Social Gerontology
	99. Applied Sociology
	100. Social Planning

Table 1: Classification of 100 major concepts identified from 87 introductory textbooks of Sociology

(Note: The arrangement within 10 major categories in filiatory sequence does not indicate the strict hierarchical order of the concepts)

6.0 History, Theories, Methods

History, theories, and methods constitute the basic background for understanding a discipline and its concepts. That is why most of the sociologists and some of the authors of classification schemes agree on its placement at the beginning of any arrangement.

6.1 Social Organization

While defining Sociology on the basis of the 32 definitions examined, 11 mention Social organization, 15 include Society, 7 include Social life, 14 include Social relations, 178 include Social interaction, and 9 include Groups. Social organization encompasses all these and is at the base of society. Some of the immediate factors which affect Social organization, like the individual personality, biological and sexual factors were also included here. Other basic forms of organization are Social processes, like Social relations, Interaction, Socialization, Communication, Groups, and Associations. In this way, Social organization is the most significant dimension of the

discipline and can claim to encompass almost all concepts enumerated above.

6.2 Social Institutions

Social institutions are a form of Social organization. Many sociologists define Sociology as the study of Social institutions. It may be very difficult to differentiate between Social organization and Institutions. The study of Institutions is the core of Sociology and it encompasses many main concepts of Sociology.

6.3 Sociology of Education, Culture, and Religion

Education and Religion are included among a few major institutions. Among 26 authors who write on Social institutions, 22 include Religion and 21 include Education as Social institutions. However, it is helpful to make a separate category for these as both of them are closely related also to Culture. Thus this category follows immediately the major category on social institutions.

6.4 Social Structure

Social structure is also a form of organization. It is called the organization of the constituents of society into hierarchical patterns. Sociologists are least unanimous about the scope of Social structure and its usage. Some of them include Organization, Institutions, Stratification, Social control and even Conflict within it, but generally it has emerged as the study of various types of differentiation in society. Education, Culture, and Religion contribute in creating hierarchical structures in society and Social control is the vehicle of maintaining the status quo. Thus, Social structure has been placed in between these two major categories.

6.5 Social Control and Deviance

Social control includes Customs, Values, Norms, and the Law. Social control has a direct relation to Deviance, Disorganization, and Social conflict. Control is generally treated and deemed as an institution, but out of 26 authors writing on Social institutions, only one has included Social control as a Social institution.

6.6 Social Disorganization and Conflict

Social disorganization and conflict are explained as the failure or inability of the control systems. The mechanism of Social control is created and enlarged to contain Disorganization, Deviance, and Conflict. Disorganization and Conflict also lead to Social change.

6.7 Social Change

Social change may involve change in any aspect of the social systems, like change in the Social institutions, in Social structure, or in Social control. Cultural change is sometimes mentioned separately, from other changes and if both are to be mentioned together, the term 'socio-

cultural change' is used. For these reasons it is appropriate to place Cultural change within culture instead of Social change. The category Social change has been placed after all the categories, where change is involved.

6.8 Human Ecology and Population

Human ecology and the growth of population are generally not treated as one of the main categories of sociology; as they influence all other aspects of social organization, they are placed immediately after social change. Human ecology and Population are neither Organization, nor Institutions, Structure, Social control or even Disorganization. But they are to some extent related to Social problems, as such they are followed by the major category Social problems.

6.9 Social Problems

Out of 87 textbooks analyzed only 11 have a chapter on social problems, which makes one think that social problems are not treated as one of the main categories of sociology. Some sociologists include Deviance, Crime, Disorganization, and Conflict also within Social problems. Some others treat all social problems as signs of Disorganization and Conflict. How could Social problems be designated? Under which of the social conditions would Social problems arise, and how will Social systems deal with them - that is the concern of sociologists and not the problems and their solution. It appears, for want of some agreement in the interest of sociologists about the status of social problems in sociology, the category is always relegated to the position of the last section in sociology textbooks and in addition to that receives the least space.

7. Categorization According to Significance

As shown in Table 1, one hundred concepts were identified on the basis of their use as chapter headings in textbooks, the criterion being that at least three authors must have included a chapter or part of a chapter heading of a concept. It was observed that there was a significant difference between concepts with respect to their use as headings by various authors. On some concept 50 to 60 authors out of 87 analyzed, have a chapter, while only 3 have given the importance by selecting them as chapter headings or part of it, in case of some other concepts. A preliminary most crude method could have been to decide the relative significance of each concept identified, according to the number of authors, writing a chapter or part of a chapter on it, but it was refined a little further as follows.

7.1 Method Adopted for Finding out the Relative Significance of each Concept

As mere counting the number of authors having a chapter on a concept was deemed too crude, it was decided to take into account the proportion of each book used for

a heading and this proportion for all the books was added having a chapter heading on that concept. Without considering this aspect, an author devoting one fifth of this book to a concept, and another author devoting one thirtieth of his book to a concept would have been counted equal. To explain it with the help of the data collected, it will be appropriate to take a sample page from the classified chapter headings:

49 MAGIC

1. 1961. Religion* and Magic	(Parsons 21/24)
2. 1967. Magic, Religion* and Society	(Goldthorpe 9/9)
3. 1990. Religion*, Morality*, Magic	(S.Rao 19/30)

The table can be explained and interpreted as follows:

- The chapter heading number 1 above is the 21st chapter out of 24 chapters in the book by Parsons, published in 1961. The chapter heading "Religion and Magic" occupies 1/24th part of the book, and if we want the proportion of Magic only, it will be half of 1/24. The other half of 1/24 will be counted for Religion and the entire heading is also repeated under the heading 'Religion'. The star (*) indicates that the heading is also included in the section on 'Religion' and the proportion of the chapter has been counted there also.
- In the same way Goldthorpe devotes 1/2 of 1/9th of his book to Magic and S.Rao 1/3 of 1/30th of his textbook.
- Only 3 out of 87 books consulted have a chapter on Magic and that is even combined with other concepts.
- The three authors make a combined chapter heading for Religion and Magic, thus suggesting that both of these can be placed in a filiatory sequence.
- No author has made a chapter heading in his book on the concept of magic between 1967 and 1990.
- The total proportion of books devoted to Magic out of 87 textbooks analyzed is thus $(0.5/24+0.5/9+0.33/30) = 0.0875$.

This calculation is based only on the proportion of chapter headings devoted to a concept. Inclusion of a concept by an author, not as a heading but as a part of some other chapter need not worry us, as we are not concerned with the exact value of a concept but only trying to calculate the relative significance of a concept among other concepts as provided by these textbook authors, for which the proportion of headings devoted to a concept is the required value.

In the absence of any reliable alternative, this semi-crude method is applied to all the chapter headings of 87 textbooks and the proportion of headings for each concept is obtained. The results of this method seems to be far more justifiable than the results obtained when just noting the total number of authors writing a chapter on a concept, although that method was the one tried at first. The results obtained out of this analysis indicate the relative weightage of a concept among other concepts of Sociology.

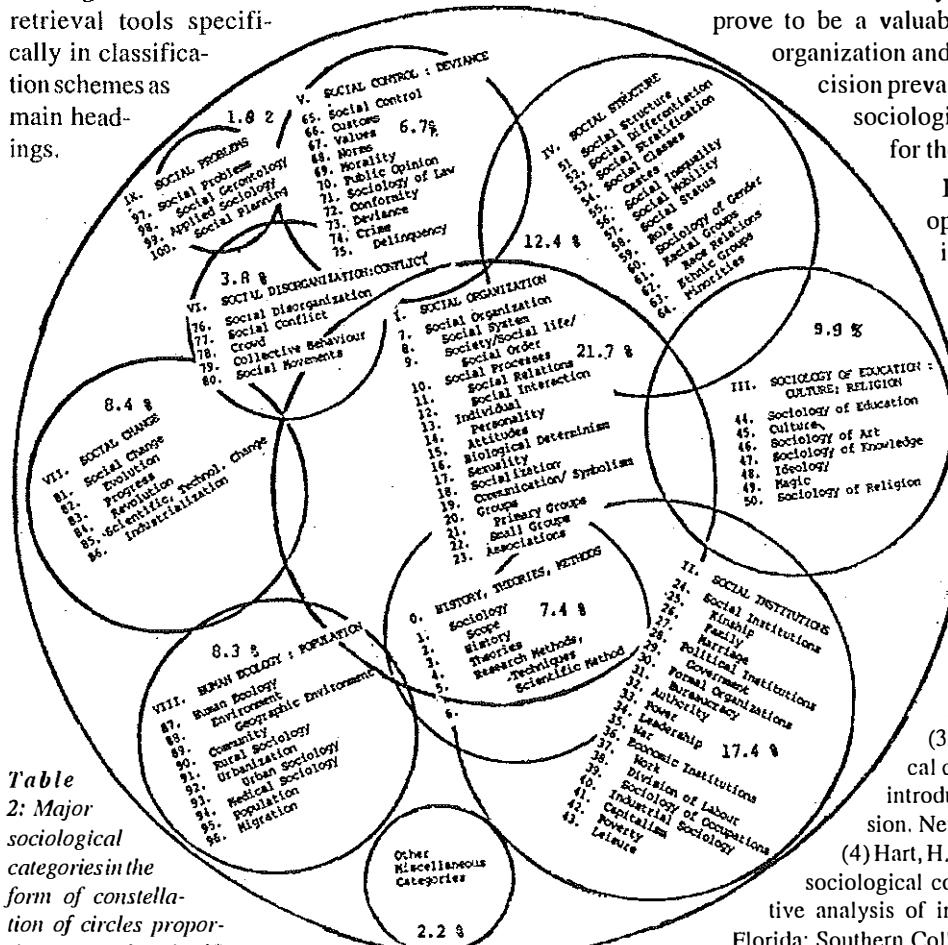
7.2 Categorization according to Significance Weightage

In Table 2 the 100 concepts of Sociology are categorized according to their significance weightage while retaining them in the filiatory classified order. The table

represents the efforts of a number of stages of selection and deletion of concepts to identify some of the most significant concepts. The stages adopted were like this:

- Identification of 5000 terms used in the field of Sociology, by 8 dictionaries of Sociology,
- Identification of 100 main concepts on which textbook authors include a chapter in their books, and
- further categorization of the concepts into three categories according to their relative significance weightage as headings for use in information

retrieval tools specifically in classification schemes as main headings.



8. Findings and Implications

The whole exercise identifies the following three categories of concepts:

- 44 most significant sociological concepts (with relative significance weightage varying between 0.7 to 8.0708),
- 26 medium level sociological concepts (with relative significance weightage ranging between 0.3 to 0.7),
- 30 less significant sociological concepts (with relative significance weightage below 0.3).

The 44 most significant sociological concepts identified with the methodology developed in this study demands their inclusion as main headings in any classification scheme. In addition to this, the existing classification schemes can be evaluated with the help of these main concepts, as regards the provision in them, as far as Sociology is concerned.

The textbook authors who wish to write a new text, may take into consideration the concepts identified, and may try to include all the concepts as chapter or as part of a chapter. Syllabi in the academic institutions may be reconsidered also as to include all the main concepts in it. The indexing and abstracting services may like to adopt the scheme with some provision for the concepts which are new and beyond the scope of the main concepts. If a dictionary is compiled by some sociologist in classified order based on the filiatory arrangement of concepts it will prove to be a valuable contribution to knowledge organization and will certainly reduce the indecision prevailing about the interpretation of sociological concepts and the terms used for them.

Finally, the methodology developed in this study can be used to identify the concepts specific to other social sciences, which could be treated as major headings in bibliographic information storage and retrieval tools.

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