work itself as well as others produced about it are clustered automatically. Ihadjadene and others (p. 327-332) describe an experiment in which the categories of the Dewey Decimal Classification (DDC) are used to assist the users in filtering their search results. Hudon and others (p. 333-338) report on a study of the vocabularies used to organize moving images collections, with a view to designing a uniform vocabulary which could increase the efficiency of resource sharing.

VI. "Information Policies and Management of Knowledge Structures."

Three papers speculate on what lies behind knowledge organization choices. Craig (p. 213-218) analyses the British Treasury's Registry procedures between the two world wars. Huber and Gillaspy (p. 219-223), through an examination of medical vocabularies, classificatory structures and specialized information resources, try to define, analyze and document the relationship between the delivery of health care for homosexuals and knowledge organization in this area. Cardoso and others (p. 224-230) examine the applicability of contemporary theories of knowledge to study information in organizations.

VII. "Global Users and Uses of Knowledge and Knowledge Organization."

Ohly (p. 231-236) describes a bibliometric analysis of a knowledge field. Hildreth (p. 237-246) reports on his study of the retrieval performance of OPACs. Sigel (p. 247-253) argues for a user-based indexing procedure, in which user groups and their activities must be considered.

VIII. "Knowledge Organization of Universal and Special Systems."

The common characteristic shared by all papers in this stream is their focus on the adaptation of traditional knowledge organization tools to the new requirements of a digital environment. Williamson (p. 268-274) points out changes in databases in terms of information growth as well as technological innovations and the consequent implications of those for thesaurus design and development. Rademaker (p. 275-281) provides a description of the classification of ornamental designs in the US Patent Classification System. Mitchell and Vizine-Goetz (p. 282-287) describe the development of a Web-accessible server based on the DDC. Pollitt and Tinker (p. 288-294) introduce a methodology to deconstruct DDC class numbers so that they can be used in view-based OPAC searching. Kwasnik and Xiaoyong (p. 372-377), using the example of E-Bay.com, demonstrate the usefulness of a classification scheme in commercial Web-sites. Devadason and Wongjariya (p. 378-384) describe a prototype of faceted alphabetico-hierarchical object system having as its goal to provide organized access to networked resources. Ardö and others (p. 385-390) compare a universal with a special classification system as tools for browsing on the Web. Howarth (p. 391-397) reports on the development of an ontology for enhancing resource discovery in knowledge bases.

After a careful reading of all the papers, this reviewer, who unfortunately could not participate in the conference, feels that all the authors addressed the issues surrounding dynamism and stability in knowledge organization in a very interesting fashion, proposing creative and intelligent solutions as well as wealthy theoretical discussions. This book of proceedings is indeed worth reading to learn what has already been done, what we can expect to be done, and what should be done, in the field of knowledge organization.

Salet Novellino

Dr. Maria Salet F. Novellino, National School of Statistics, Brazilian Institute of Geography and Statistics, Andre Cavalcanti Street 106, 20231-050 Rio de Janeiro, RJ - Brazil. E-mail: salet@openlink.com.br

WALLERSTEIN, Immanuel, et al. **Open the Social Sciences : Report of the Gulbenkian Commission on the Restructuring of the Social Sciences**. Stanford, CA : Stanford University Press, 1996. 105 p. ISBN 0-8047-2727-9.

The book contains a foreword by the Calouste Gulbenkian Foundation, a list of the Members of the Commission, and four chapters.

Chapter I. "The Historical Construction of the Social Sciences, from the Eighteenth Century to 1945."

According to the authors, the existing disciplines of the social sciences appeared between 1850-1914, when the structure received formal recognition in universities. There were five main locales for social science activity during the 19th century: Great Britain, France, the Germanies, Italy, and the United States. Before that period, the great authors in the social sciences were not either economists, sociologists, political scientists, geographers, historians, etc., but many or all of those simultaneously. There existed a certain amount of specialization, but not the established division into different disciplines as we know it today.

The need for a real social science emerged when universities expanded and became centres for the production of knowledge, during the 19th century (p. 12).

Around 1850, a very broad range of social scientific "subjects" or "disciplines", as many as 250, co-existed. These were reduced to the limited number that we know today before the First World War, each discipline defining its object of study and refining its own research methods. According to Wallerstein, the following subjects were established as modern disciplines during that time, and in this order:

History studied the past in an idiographical way, whereas economy, sociology and political science sought general laws within the modern society (nomothetical science). Because of its idiographical and antitheoretical attitude, history is now, however, often seen as belonging to the humanities rather than to the social sciences.

Economics was studied with politics as "political economy", prior to becoming a "pure" field of knowledge and research. By removing the qualifier, the economists could claim that economic behaviour reflected a universal, individualistic psychology, rather than socially constructed institutions (p. 56). The separation between economics and politics, would allow for the development of a new discipline, political science.

Sociology developed as a discipline in the second half of the 19th century, out of the institutionalization and transformation within the universities of the work of social reform organizations, whose agenda had been to deal with the discontents and disorders of the much-enlarged urban working-class populations. Sociology has always retained its concern with ordinary people, and with the social consequences of modernity. Partly in order to consummate the break with its origin in social reform organizations, sociologists began to cultivate a positivist thrust which, when combined with their interest in the present, pushed them as well into the nomothetic camp.

Political science as a discipline emerged later, not because its subject matter, the contemporary state and its politics, was less amenable to nomothetic analysis, but primarily because of the resistance of law faculties having to yield their monopoly in this area. This resistance may explain the importance given by political scientists to the study of political philosophy, sometimes referred to as political theory, at least until the so-called behaviorist revolution of the post-1945 period. Political philosophy allowed the new discipline of political science to claim a heritage that went back to the Greeks and to read authors that had long had a place in university curricula.

Anthropology (and Oriental Studies) became the only non eurocentric discipline. It studied foreign, non modern cultures ("tribes"). To do so, it developed methods like field studies and participant observations.

The following disciplines were not considered social sciences:

Law was considered as primarily normative in its interpretation of the meaning of texts, and as more of a professional than a scientific field.

Geography (cultural) was not institutionalized as a social science; this may be regarded as a symptom of the neglect of the spatial aspect of the social sciences.

Psychology remained connected to medicine. The field of social psychology was, however, established as a sub-discipline within sociology.

The first chapter concludes:

Thus, between 1850 and 1945, a series of disciplines came to be defined as constituting an area of knowledge to which the name "social science" was given. This was done by establishing in the principal universities first chairs, then departments offering courses leading to degrees in the discipline. The institutionalization of training was accompanied by the institutionalization of research [through] the creation of journals specialized in each of the disciplines; the construction of associations of scholars along disciplinary lines (first national, then international), the creation of library collections catalogued by disciplines. (p. 30)

This chapter provides a fine rationale that explains much of how and why the social sciences emerged and were structured the way they are. Unfortunately, there is almost no documentation in this chapter, or in the book as a whole for that matter. The reader may want to know, for example, what the 250 disciplines in existence around 1850 were (and the source of this information). The description of the structure in universities is very general without any documentation or references. This makes it impossible to validate the information and to base the development of a classification of the social sciences on empirical data.

Chapter II. "Debates Within the Social Sciences, 1945 to the Present."

After the Second World War, however, at the very moment when the institutional structures of the social sciences seemed for the first time fully in place and

clearly delineated, the practices of social scientists began to change. This was to create a gap, one that would grow, between practices and intellectual positions of social scientists on the one side and the formal organization of the social sciences on the other. (p. 32)

There seems to be three main causes behind this change:

1. The validity of the distinctions among the social sciences.

According to Wallerstein, there existed three clear lines of cleavage in the system of disciplines erected to structure the social sciences in the late 19th century:

1. The line between the study of the modern or civilized world (history, plus the three nomothetic social sciences), and the study of the non modern world (anthropology, plus oriental studies).
2. Within the modern world, the line between the past (history) and the present (the nomothetic social sciences).
3. Within the nomothetic social sciences, the sharp lines between the study of the market (economics), of the state (political science), and of the society at large (sociology).

Each of these lines of cleavage came to be challenged in the post-1945 world.

Disciplines which had concentrated until then on the western world began to show an interest in non-western societies. This undermined the logic justifying the existence of separate disciplines like ethnography and oriental studies. It also led to doubts among the nomothetic social sciences about whether the generalizations (laws) they had found were also valid for the non western areas. This caused a questioning of the distinction between nomothetic and idiographical disciplines, and with it the incorporation of historical methods in economics, political science, and sociology, as well as a change in the discipline of history from collecting facts towards the mapping of underlying institutions, ideas, etc. Economics, political science, and sociology remained three separate disciplines, but a greater overlap in both subject matter and methodology developed.

One way to deal with this new situation was to invent "interdisciplinary" designations such as communication studies, management, and behavioural science. Thus, one of the most significant innovations after 1945 was the creation of multidisciplinary "area studies" as a new institutional category. Whereas the range of field denominations in the social sciences had declined in the period 1850-1945, the tendency since 1945 has been an increasing number of fields. Many new denominations come to existence in research programs, institutions, journals, and in new categories in the libraries.

2. The degree to which the heritage is parochial.

This part of the chapter discusses the question of whether the claim of the nomothetical social sciences on universal validity is justified or whether this is a kind of eurocentrism. Is the one-sided social recruitment of teachers and students to the universities influencing their opinions? And do the arguments from feminist researchers as well as from other groups constitute an attack on universalism?

Wallerstein finds that the social sciences have been deaf to the justified criticisms raised against their narrow-mindedness. Towards the end of the 1960's, these arguments began to be more influential.

3. *The reality and validity of the distinction between the "Two Cultures".*

The social sciences had earlier been split between two cultures: that of the humanities and that of natural sciences. Many dividing lines are beginning to be demolished, and the view of science, for example, has changed dramatically.

Chapter II thus offers strong arguments for a discussion of why the existing social science classification structure is problematic. Wallerstein's treatment is very general both in the discussion of single disciplines and in selection of disciplines. Sources such as *Social Sciences Citation Index* and *International Encyclopedia of the Social Sciences* list many disciplines that are not covered by Wallerstein. A more comprehensive listing of social scientific disciplines should in my opinion include the following: anthropology; economics; educational research; futurology; geography & area studies; history; law studies; library and information science; linguistics; media- and communication studies; organization, management & business studies; philosophy & science studies; political science; psychology; sociology; statistics; women's studies (and sex studies); other social sciences, including interdisciplinary studies of religion, criminology, youth and gerontology. The internal relations between these fields are not entirely defined, and one may ask whether as a group they really belong to "the Social Sciences". The fact that they are sometimes considered social sciences must, however, be considered in any serious discussion of the organization of the social sciences.

Chapter III. "What Kind of Social Science Shall We Now Build?"

The third chapter discusses four major issues: 1. Humans and Nature; 2. The State as an Analytic Building Block; 3. The Universal and the Particular; and 4. Objectivity. Because of space limitations, these issues cannot be presented or discussed in this review. It can only be said that any universalism must reflect historical circumstances and power relations, but that some kind of objective ideals should guide social scientists.

Chapter IV. "Restructuring the Social Sciences."

The authors admit that there is no simple, clear cut formula for reorganizing the social sciences, and their proposals are in my view unsatisfactory for those who work in the field of classification research and knowledge organization. Although the idea of an internal division of labour in the social sciences remains, the recommendations go more in the direction of strengthening the interdisciplinary work than in discussing the principles on which the disciplines can be identified and separated.

My own view is that classificatory principles always reflect (consciously or unconsciously) the theoretical and philosophical approach of the field being classified. A positivist view of the social sciences thus tends to favour a nomothetical approach which again – as Wallerstein has so brilliantly demonstrated – has a strong impact on which these sciences structure themselves. A given structure is thus a reflection of the relative influence of different philosophies. To the degree that my view is correct, the first job for us in KO is to identify the most important underlying theoretical influences, for example: Empiricism/Positivism; Rationalism; Historicism/Hermeneutics/Phenomenology; Pragmaticism/Functionalism/Marxism/Feminism**;** Eklecticism, Postmodernism, Poststructuralism. Each of these approaches implies its own consequences and principles for the classification of the social sciences. If we want to contribute to the classification of the social sciences, we must engage in these questions (see also Hjørland, 1998). This may not be an easy job. But what are the alternatives? Are there any other proposals?

Reference

Hjørland, B. (1998). The Classification of Psychology: A Case Study in the Classification of a Knowledge Field. *Knowledge Organization*, 24(4), 162-201.

Birger Hjørland

Prof. Birger Hjørland, Swedish School of Library and Information Science (SSLIS), University College of Borås, SE-501 90 Borås, Sweden. E-mail: bhj@hb.se

Sears List of Subject Headings. 17th ed. Edited by Joseph Miller. New York : H.W. Wilson, 2000. xlvi, 770 p. ISBN 0-8242-0989-3.

The *Sears List of Subject Headings,* with close to eight decades of progressive history behind it, is by now a very familiar tool in the small libraries where it is used for subject cataloguing. Its regular editions and its will to keep itself up to date, supported by a well-oiled revision machinery, have kept the *Sears List* efficient and popular.

This is the third consecutive edition under the editorship of Dr. Joseph Miller who succeeded Martha Mooney in 1992. Under Dr. Miller's stewardship, the *Sears List* has gone through spectacular changes. These are namely the reformulation of headings in direct rather than inverted order, the introduction of a thesaurus format, and now the merger of the lists of commonly used subdivisions. In the current edition, the policy changes and technical improvements initiated in the previous two editions have come full circle.

The new edition brings in additions, deletions, modifications and replacements on account of: a) Advances in information science; b) Change in library users' behaviour; c) Emergence of new subjects; d) Linguistic and terminological changes in names of subjects as reflected in current literature. The revision of this list, as usual, was based on users' suggestions from libraries, commercial/cooperative bibliographic services, and from staff indexers at the H.W. Wilson Company. In accordance with an age old policy, the *Library of Congress Subject Headings (LCSH)* were also consulted.

In the 17th edition, some basic changes have been introduced. The Editor's Introduction, in reality a concise users' manual, has been recast. For the first time, the Introduction is divided into numbered sections, and illustrated with examples; it is clear and simple to read, and easy to refer to. We feel, however, that a brief index to the preface and to the Editor's Introduction would have been useful.

As a major and striking change in structure, the mixed list of commonly used subdivisions appended in the front matter of *Sears 16* (published in 1997) has been dropped and integrated to the main list. Historically speaking, this list was first made available in the 3rd edition (1933). The separate list had already been made redundant in the 16th edition, when each of the "commonly used" subdivisions was shown as an access point in the alphabetical list of headings. The main list provided ample room for copious scope notes and instructions on the application of each of such subdivisions. Every subdivision now has a general reference with