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Ranganathan and Dewey in hierarchical subject classification: Some similarities

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S R Ranganathan and Melvil Dewey devised two types of classification schemes viz., faceted and enumerative. Ranganathan's faceted classification scheme is based on postulates, principles and canons. It has a strong theory. While working with the two schemes, similarities are observed. This paper tries to identify and present some relationships.

Keywords: Library classification; Ranganathan; Dewey; Colon Classification; Decimal Classification

Introduction

Organisation of knowledge/information is important as it helps to access information and knowledge. Classification has been used in libraries to organise documents and their surrogates to provide easy and timely access to information. Library classification helps to organise information according to the subject. In fact, library classification is always purpose specific depending on the need. Different purposes lead classification in different ways of presenting knowledge thereto. For example, groupings in subject terms / descriptors / keywords lead to preparation of index which helps in information retrieval; its other form of representation may lead to construction of thesaurus, classaurus, etc[1]. In recent years researchers are investigating to explore the possibilities of its usage in building ontologies. In this paper, contributions of two doyens in classification – Melvil Dewey and S R Ranganathan have been compared.

Though there are philosophical differences in enumerative (DDC) and faceted classification (CC), there are some similarities between the two. By the time Ranganathan joined the library training program in London, there were a number of classification schemes – Dewey Decimal Classification (1876) by Melvil Dewey, Expansive Classification (1893) by C A Cutter, Universal Classification (1899), Library of Congress Classification (1901), Subject Classification (1906) by J D Brown[2]. Of these, as DDC was more popular and widely used scheme, Ranganathan was more interested in DDC and came up with his own faceted scheme.

Basic Facet

After about fifty years of conceptualization of Decimal Classification (1873) by Melvil Dewey, Ranganathan conceptualized faceted classification supported by postulates and guiding principles. Dewey thought to use 'relative location' method for arranging books to help new arrivals to find their places among existing books. For the purpose he used Arabic numbers (0-9) and decimal properties in presenting divisions and subdivision of subjects[3]. On the other hand, in 1924 when Ranganathan conceived the new idea of faceted classification and discussed with Sayers, the discipline Agriculture was the subject of their discussion. The term 'personality facet' was adopted to represent plant and/or corps. They decided that *there must be a basic facet for each subject*, and other facets like space, time etc. can be added with the class numbers as and when needed. Thus at least one of the subjects enumerated in the third summary (of DDC) would essentially be used as basic subject which has also been suggested in similar line of thinking about the compulsorily presence of at least one Basic Facet as suggested by Ranganathan. This has been postulated by Ranganathan as '*Every compound subject has a Basic Facet*'. He has also postulated the position of the Basic facet '….. *the Basic Facet should be the first facet*'[4]. These postulates are fitted for DDC too.

Use of Decimal Numbers

Primarily being a mathematician, Ranganathan was impressed with the technique of using the properties of decimal number system and also astonished about the technique used by Melvil Dewey to represent

universe of subjects using numbers. Ranganathan was thrilled. Thus he used the same property for his colon classification. He mentioned about his classification[5] thus, '*The notation of the scheme is a mixed one and has taken full advantage of the flexibility of the decimal use of digits. It has also many mnemonic features. The conscious use of multiple characteristics as basis classification, without leading to cross classification has made its classes greatly elastic. The next volume of the series will give an account of this classification. The development of colon classification …….. has led to three techniques viz. Phase, Facet and Zone analysis and to the concept of analytic-synthetic classification. Those satisfy the fifth law in a greater measure. Such a scheme is now called an analytic-synthetic scheme'*. Thus it is clear that Ranganathan have borrowed the idea of '…decimal use of digits..' from Dewey. Hence this mixed notational system could divide *B* to *B1*, *B2*, *B3*….then *B1* into *B11*, *B12*… Or if needed **a** is divided into **aa** and so on. But he has assigned them ordinal values to fix their positions. In CC7, the ordinal values (ascending order) of notations give the following sequence[6]. *** " ←) & ' . : ; - = + → a b c d e f g h j k m n p q r s t u v w x y z 0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M Δ N O P Q R S T U V W X Y Z (**

This notational system as adopted by Ranganathan for Colon Classification follows the decimal properties. This proves the distinct symbiotic relation among the thoughts of Ranganathan and Dewey in hierarchical classification with regard to the properties of notation.

Common subdivisions in decimal classification and colon classification

Since its inception, Dewey had given due importance to the external form of the documents. On experimental implementation of his Decimal Classification, Dewey realized that the form of publication like dictionary, encyclopedia, periodical etc. should be reflected in classification number. Thus, he added a table for Form Divisions in its first edition (1876). In its second edition (1885), another three tables viz. (i) Geographical Division, (ii) Language Division and (iii) Different Examples of Classification numbers were added. The numbers from these tables are added with the subject numbers to build a complete classification number as far as practicable. Thus this scheme is considered as a kind of almost enumerative one. The terminology 'Form Division' continued up to its 12th edition published in 1922. Ranganthan felt that any classification that attempts to enumerate a finite number of subjects without full capabilities for expansion to allow for new subjects would never meet the needs of the future. Thus, he introduced the concept, 'facet' for classification and suggested the process of synthesis for building class numbers. Ranganathan had sent a copy of it to Dewey for comments[7]. They communicated, discussed and shared ideas of faceted classification in which the concepts of 'common isolates' were introduced. In his 'The Five Laws of Library Science' book, he himself has mentioned *'I have constructed a new scheme known as the colon classification. It is adopted in the Madras University Library and in a few other Indian Libraries which are beginning to classify their book'*[8]. Thus it is found that since the inception of CC, Ranganathan was concerned about providing a separate schedule of isolates representing the forms of the publication in conformity with the other isolates. This was reflected in his discussion in the Five Laws of Library Science and successfully implemented under the heading 'Common Subdivisions' in the first edition (1933) of Colon Classification. Dewey could edit the 13th edition (1932) of DDC before his death (1931) in which Dewey renamed 'Form Division' as 'Common Subdivision'. Thus it can be believed that they had consensus in this respect. 'Common Subdivisions' became common for both the schemes.

Tables of DC and Common Isolates of CC

Since the 15th edition of DDC, publisher decided to revert back and ultimately used 'Common Form Division' instead of common subdivisions and the same was continued to next two successive editions (15th revised edition in 1953, 16th edition in 1958). But in the 17th edition (1965) it is again renamed as 'Standard Subdivisions' and it is continuing till today. Dewey introduced a Table of subdivisions for literature to support Literature Class (800). A kind of facet formula is adopted towards synthesizing the classification numbers by both – Dewey and Ranganathan. It is also seen that after this, DDC has been more inclined towards adopting a kind of faceted concepts within its limited scope day by day. In its 18th edition (1971), DDC adopted a total of seven tables. However, in its latest edition (23rd edition, 2011) has included six Tables[9]-

Table 1: Standard Subdivision
Table 2: Areas, Periods, Biography
Table 3: Subdivision for Arts, for Individual Literatures for Specific Literary form
Table 3A: Subdivision for works by or about individual authors
Table 3B: Subdivision for works by or about more than one author
Table 3C: Additional nations for arts and literature
Table 4: Subdivision of Individual Language and language families
Table 5: Ethnic and nation groups
Table 6: Languages

Again the standard subdivisions are –

Table 1: Standard Subdivision
– 01: Philosophy and theory
– 02: Miscellany
– 03: Cordonances, Encyclopaedia, Dictionary
– 04: Special Topic
– 05: Serial Publications
– 06: Organisation and management
– 07: Education, research, related topics
– 08: Group of people
– 09: biography, geographic treatment, History

On the other hand, Ranganathan's Colon Classification since its first edition (1933) introduced common subdivisions, time isolates and space isolates. The status quo was maintained in the 2nd (1939) and 3rd (1950) editions. But Ranganathan brought some changes in the concepts of common subdivisions presenting them as the common isolates—Anteriorising Common Isolates (ACI) and Posterorising Common Isolates (PCI). Time, Space, Energy, Matter-property, Personality isolates are placed under Posterorising Common Isolates whereas standard subdivisions of DDC are presented under Anteriorising Common Isolates in CC. This has been categorized into three – 'before space', 'after space' and 'after time' facets depending on their use. Encyclopedia/cyclopedia 'k', concordance 'c', periodicals/serials 'm' and many such forms of publication are included in ACI by Ranganathan[10,11]. Table 2 (Areas, Periods, Biography) is presenting as those are presented in the schedule of Space Isolates and Time Isolates. Biography is a kind of ACI. There is a schedule of common language isolates in a very concise manner which are scattered in two tables (Table 4 and Table 6) in DDC. Table 5 (Ethnic and Nation groups) and '.are fluenced by Common Personality Isolates 'Organisation and management' 06 -' Again07 Education, research, related topics' are covered in Thus it. Common Energy Isolates. is observed that both the classification schemes have influenced each other.

Conclusion

Of all contributions, Raganathan's Colon Classification and its theory have got maximum importance. DDC is more popular among libraries but CC is developed on the strong theory. The theory governing the design and the use of scheme for Library Classification is given in his *Prolegomena to Library Classification*. Colon Classification follows this theory. A list of the normative principles is explained in that book for ready reference. The present discussion is intended to identify the symbiotic relationship among these two classification schemes. In this short paper, a few relations were identified. With proper investigation, many more such relationships can be identified. This relationship is underlying with the thoughts of two library scientists who has primary contributions in the field of classification. Their relationship may be useful for developing a new system or a new tool for organizing information or in developing domain specific ontology.

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