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**Primary Basic Subject by Fusion.**

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[The formation of Primary Basic Subjects by the Fusion mode is discussed. The arrangement of the Fused Primary Basic Subjects in a helpful sequence in the schedule of Basic Subjects in the Colon Classification is explained.]

**1 Scope of the Paper**

This paper discusses the formation of Primary Basic Subjects through the Fusion mode. The arrangement of the Fused Primary Basic Subjects in a helpful sequence in the schedule of Basic Subjects in the Colon Classification is also discussed.

**2 Fusion**

One result of inter-disciplinary research, which is characteristic of present-day organisation and conduct of research programmes, is the emergence of new ideas and new subjects of an inter-disciplinary character. Often, an inter-disciplinary subject may be deemed to go with more than one of the existing Primary Basic Subjects. In the initial stage of its emergence, the classificationist may place an inter-disciplinary subject among subjects going with one of the Primary Basic Subjects. The subjects going with this Primary Basic Subject will usually contain the core entity whose attributes are examined by the inter-disciplinary research team. The concept of "core entity" is explained in another paper (3). Let us call this Host Primary Basic Subject 1. The subjects going with another Primary Basic Subject — that is, Host Primary Basic Subject 2 — may be related to the subjects going with the Host Primary Basic Subject 1 in a variety of ways: For example, as a Phase Relation (*Application of Statistics to Biology*), or as a Facet Relation (*Sociological basis of Religion*). In due course, as the field develops, there may be a number of new ideas arising out of the inter-disciplinary research, such that

1 The classificationist may find that they cannot be conveniently and helpfully deemed to go with the Host Primary

Basic Subject 1 selected earlier — that is, in the initial stages of the development of the interdisciplinary subject;

2 These new ideas attract for themselves a group of specialists; and

3 A new field of specialisation concretises with normative principles/theory of its own in addition to using the normative principles/theory of the subjects going with the Host Primary Basic Subjects 1 and 2.

At this stage, the classificationist may find it helpful to deem the new field of specialisation to go with a new Primary Basic Subject — that is, not already enumerated in the schedule of Primary Basic Subjects in the scheme for classification concerned. Subjects going with this new Primary Basic Subject may contain isolate ideas drawn from the schedules for the subjects going with the Host Primary Basic Subjects 1 and 2 as well as ideas special to the new discipline.

The new Primary Basic Subject may be considered, for convenience, as a combination of the Host Primary Basic Subjects.

This combination — that is, the mode of formation — is called fusion. The primary Basic Subject arising out of such a combination is called a Fused Primary Basic Subject. The Host Primary Basic Subjects are said to be in a state of fusion.

Fused Primary Basic Subjects have gained literary warrant during the past few decades particularly as a result of interdisciplinary research. Examples of Fused Primary Basic Subjects included in CC, ed 7 are mentioned below:

Astrophysics	Biolinguistics
Astrochemistry	Psycholinguistics
Astrobiology	Sociolinguistics
Biomechanics	Educametry
Biophysics	Educational cybernetics
Biochemistry	Politimetrics
Geophysics	Econometrics
Geochemistry	Economic-cybernetics
Medical jurisprudence	Socio-cybernetics
Medical cybernetics	

A study of the formation, identification, and arrangement of new Fused Primary Basic Subjects has recently been reported (3).

### 3 Arrangement In CC

#### 31 FACTORS FOR CONSIDERATION

In determining the position of a new Fused Primary Basic Subject in the schedule of Basic Subjects such that their sequence will remain helpful to a majority of users, a consideration of the

following factors will be helpful:

- 1 The nature and scope of the subjects deemed to go with the new Fused Primary Basic Subject; and
- 2 The filiation of these subjects with those going with other Primary Basic Subjects in the schedule.

#### 4 Core Component

A typical subject — that is, a systematised body of ideas-going with a Primary Basic Subject, is essentially a study of the properties of a typical entity, concrete or conceptual. The properties may be studied with the entity placed in a normal environment or in an abnormal environment and subjected to various kinds of action in different space-time contexts. Every subject going with the Primary Basic Subject concerned will deal with one or other variety of that entity, whether its name is explicitly mentioned or not, in a particular document on that subject. For example, every subject deemed to go with the Primary Basic Subject "Medicine" will be a study of the "Human body and its organs"; and similarly, every subject deemed to go with the Primary Subject "History" will be a study of one or other variety of "Human community in a locality and its organs." For convenience, let us call this entity which forms the focus of study in all subjects going with a Primary Basic Subject as the "Core Component."

Elsewhere (2) I have suggested that a subject going with a Primary Basic Subject can be conveniently deemed to be a system. It is an asymmetric, non-commutative, centralised system. In a centralised system one element or subsystem plays a dominant or major role in the system. This element is called the 'leading part.' A change of the leading part or of any of its attributes may produce changes in the attributes of the other components of the system or of the system as a whole.

It has also been pointed out that the core component in subjects going with a particular Primary Basic Subject is identical with the Personality Isolate Idea for those subjects as conceived of in the General Theory of Library Classification. It has been further indicated that the Personality Isolate Idea is the leading part in the system consisting of subjects going with a particular Primary Basic Subject. For, the Personality Isolate (Round 1) determines the Primary Basic Subject and other categories for Isolate Ideas — such as, Matter Material, Matter Property, Matter Method, and Action (Energy) — that may be associated with it. Also, the extent of affinity between subjects going with different Primary Basic Subjects depends on the similarity or affinity among their core components — that is, Personality Isolate Ideas (Round 1) — in the sets of subjects going with the

different Primary Basic Subjects concerned. Therefore, in determining the filiation of the subjects going with a new Fused Primary Basic Subject with the subjects going with other Primary Basic Subjects, it is helpful to consider in particular the similarity and affinity among the core components (Personality Isolate Ideas) in subjects going with the respective Primary Basic Subjects. In the succeeding sub-sections, illustrative examples of the determination of the core component of subjects going with some Fused Primary Basic Subjects are given.

#### 41 SOCIO-LINGUISTICS

Consider the subjects going with the Fused Primary Basic Subject "Sociolinguistics." Essentially, Sociolinguistics is the study of the sociological basis of the property of language. A person specialising in Sociolinguistics is primarily a specialist in Linguistics with an understanding or orientation to the relevant sociological and anthropological factors that cause or prevent the occurrence of various properties of language. Ideas may be drawn from the field of Linguistics as well as Sociology. But the focus of study—that is, the core component—in subjects in the field of Sociolinguistics is Language. In the existing schedule of Primary Basic Subjects of CC, language is the focus of study—that is, core component—in subjects going with the Primary Basic Subject "P Linguistics." A variety of languages forms the schedule of (1P1) in the CC scheme for the classification of Linguistics. On the other hand, the core component of the Subjects going with the Primary Basic Subject "Y Sociology" is Social Group. Therefore, the subjects going with the Primary Basic Subject Sociolinguistics have greater affinity to the subjects going with the Primary Basic Subject "P Linguistics," rather than to those going with the Primary Basic Subject "Y Sociology." This affinity will determine the helpful position of the Fused Primary Basic Subject Sociolinguistics in the schedule of Primary Basic Subjects in CC.

#### 42 POLITIMETRICS

Consider the subjects going with the Fused Primary Basic Subject "Politimetrics." Essentially, Politimetrics is "the quantitative study of political groups, institutions, nations and international systems. It is a way of doing research on politics, or more precisely a number of related ways of doing research whose common object is to identify, measure and explain, regularities in the properties and dynamics of political entities" (1). Thus, a person specialising in Politimetrics is primarily a specialist in political science with an understanding of or orientation to, the methods of applying quantitative research methodology,

such as statistical analysis to the study of political entities. Thus the focus of study — that is, the core component — of the subjects in the field of Politimetrics is “political entities.” In the existing schedule of Primary Basic Subjects of CC, “political entities” is the focus of study — that is, core component — in subjects going with the Primary Basic Subject “W Political Science.” A variety of political entities and ideologies forms the schedule of (IP1) in the CC scheme for the classification of Political Science. On the other hand, the core component of the subjects going with the Primary Basic Subject Politimetrics have greater affinity to the subjects going with the Primary Basic Subject “W Political Science” rather than to those going with the Primary Basic Subject “BT Statistical calculus.” This affinity will determine the helpful position of Politimetrics in the schedule of Primary Basic Subjects in CC.

#### 43 OTHER EXAMPLES

In an earlier paper (3) examples of the determination of the core component in subjects going respectively, with Bilingualistics, Psycholinguistics, Astrophysics, Astrochemistry, and Astrobiology have been discussed. It has also been shown how the determination of the core component helps in finding a helpful position for each of these Fused Primary Basic Subjects in the schedule of Primary Basic Subjects in CC.

#### 5 Position of New Fused Primary Basic Subject

The sequence between a new Fused Primary Subject and an existing Primary Basic Subject with which it may be found to have the greatest affinity, may generally be determined with the aid of the Principle of Later-in-Time (6). Thus, the Primary Basic Subject Astronomy and the new Fused Primary Basic Subject Astrophysics will fall in the sequence : Astronomy, Astrophysics. Astrophysics is called an Adjunct Primary Basic Subject to the Primary Basic Subject Astronomy. Similarly, Bilingualistics, Psycholinguistics, and Sociolinguistics are Adjunct Primary Basic Subjects to the Primary Basic Subject Linguistics.

In an earlier study (3) of the Fused Primary Basic Subject already recognised in CC, two guiding principles were formulated for determining as to which of the existing Primary Basic Subjects the new Fused Primary Basic Subject should be an adjunct — that is, has the greatest filiation. The guiding principles are as follows :

1 If the subjects going with a new Fused Primary Basic Subject have been represented, earlier to the fusion, as a Complex Subject involving either a Bias, or Application, or Influencing Phase relation, between the two fusing Primary Basic Subjects,

then the new Fused Primary Basic Subject can be deemed to be an Adjunct Primary Basic Subject to the Primary Basic Subject in Phase 1 of the Complex Subject; and

2 If the subjects going with a new Fused Primary Basic Subject have been represented, earlier to the fusion, as a Compound Subject, then the new Fused Primary Basic Subject can be deemed to be an Adjunct Primary Basic Subject to the Primary Basic Subject with which the compound subjects were deemed to go.

In the discussion presented in this paper, we have arrived at the same results without referring to what has been done in CC in regard to the placing of the new Fused Primary Basic Subject in the schedule of Primary Basic Subjects.

#### 6 Sequence Among Fused Primary Basic Subjects Coming Adjunct to a Primary Basic Subject

A helpful sequence among two or more Fused Primary Basic Subjects occurring as Adjunct Primary Basic Subjects can generally be determined with reference to the Secondary Host Primary Basic Subject-in-fused-state using the Canon of Mnemon- (7). Here are two examples.

1 Consider the sequence of the Fused Primary Basic Subjects

Astrophysics  
Astrochemistry  
Astrobiology

placed as adjuncts to the Primary Basic Subject Astronomy. The sequence is said to conform to the Canon of Systematic Mnemonics. It was mentioned in Sec 631 of Paper G that in CC the Primary Basic Subjects covering the pure disciplines in the Natural Science group are arranged according to the Principle of Increasing Concreteness; Physics being the least concrete and Biology being the most concrete among the three Physics, Chemistry, and Biology. In Astrophysics, Astrochemistry, and Astrobiology the Primary Basic Subjects Physics, Chemistry and Biology are respectively considered to be in a state of fusion. Hence, the sequence of the adjunct Fused Primary Basic Subjects mentioned above also get arranged in the sequence of their increasing concreteness when the Canon of Systematic Mnemonics is conformed to. The Canon of Relevant Sequence (5) is also, incidentally, conformed to.

2 Consider the sequence of the Fused Primary Basic Subjects

Biolinguistics  
Psycholinguistics  
Sociolinguistics

placed as adjuncts to the Primary Basic Subject Linguistics.

The sequence is said to conform to the Canon of Scheduled Mnemonics. In CC, the Primary Basic Subjects Biology, Psychology, and Sociology, which are said to be in a state of fusion respectively in the three Primary Basic Subjects mentioned above, are arranged in the sequence Biology, Psychology, and Sociology. Therefore, conforming to the Canon of Schedule Mnemonics gives a parallel sequence to the new adjunct Fused Primary Basic Subjects placed adjunct to Linguistics. The Canon of Relevant Sequence (5) is also, incidentally, conformed to.

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