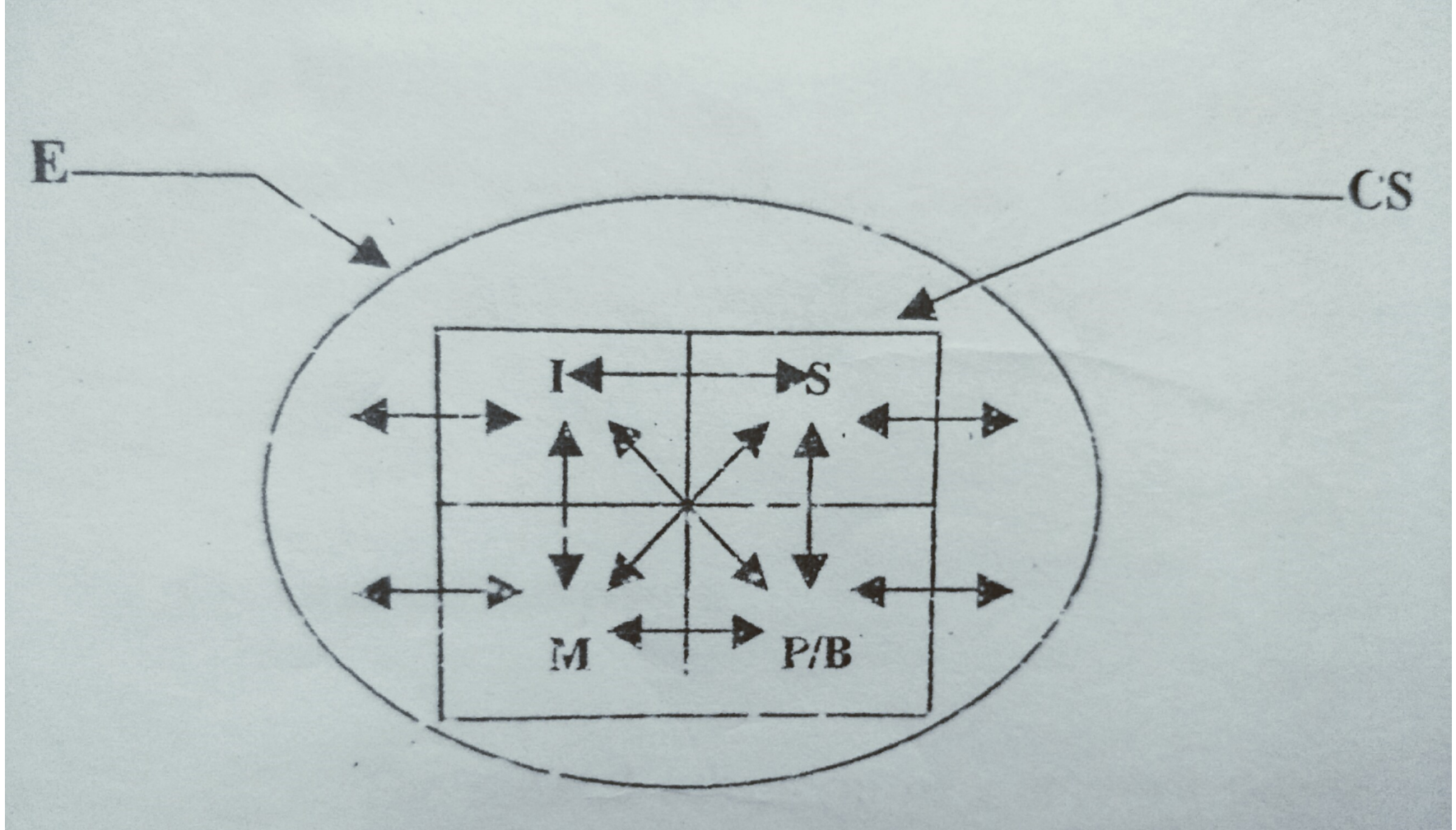


3. The Cultural-Environmental System and Sub-system

- As presented by Robert E. Ginn in his book, Science, technology and Society, combining the cultural system and environmental system contexts will result or represent the society's total cultural-environmental system (CES)
- The cultural system comprises of four major subsystem
 - Ideational (I)
 - Societal (S)
 - Material (M)
 - Personality and Behavior (P/B)(Kaplan, D. and R.A. Manners, 1972)



- The Cultural System (CS) of a society is represented by the area inside the rectangle CS.
- The various elements of the cultural system are represented by points inside the rectangle.
- The natural environment (E) of a society is represented by the interior of the curvilinear figure E encircling the rectangle. (Enclosing CS in E is meant to suggest that the entire cultural system of a society has a natural environmental envelope or context with which it interacts)
- Each subsystem is represented by one of the four smaller rectangles making up the larger one. The arrows pointing from one realm to another represent possible influence relations between phenomena in the respective subsystems.

The Ideational Subsystem

- The characteristics and mental phenomena of the ideational realm of a society's cultural system are the following:
 - Core Ideas, world views, recognized body of knowledge, core beliefs, central values, and behavioral norms and its characteristics, tastes, styles, attitudes, expectations and aspirations.

For a specific ideational element to be part of a society's culture at a given point in time must be held and transmitted by at least a significant number of people in that society. Thus, individual eccentric beliefs and attitudes do not automatically count as part of a society's ideational culture.

- In Modern Western Society, the ideational realm includes phenomena such as ideas of success and democracy, the body of currently accepted scientific knowledge, the values of freedom and justice, prevailing attitudes toward work and nature, world views such as Christian fundamentalists and Secular Humanists.
- Science itself belongs to the ideational realm.
- The currently accepted body of scientific knowledge, the idea of bonafide scientific activity, and the reigning norms of scientific practices are all parts of a society's ideational realm at a given point in time.

The Societal Subsystem

- Consists of the characteristics non-mental forms and structures that it has evolved to regulate or facilitate social interaction, survival, and evolution, such as its institutions, groups, organizations, classes, social structure (differentiation and stratification systems), roles, statuses, rituals, processes (of evolution, control, socialization and change) and type of economy.
- The social-cultural realm of contemporary society include;
 - **Institutions**
 - **Groups**
 - **Roles**
 - **Organizations**
 - **Classes**

(Mc Ginn R.E. 1991).
- The Societal realm significantly influences and is influenced by scientific and technological developments.

The Material Subsystem

- A society's material-cultural subsystem consists of the ensemble or how it's look or judge as a whole of its: material artifacts (technics), technologies, ways of making things, and human made or built environments.

The Personality and Behavior Subsystem

- This subsystem consist mostly of personality traits and behavior patterns.
- Personality traits and behavior are related to each other considering that the former are dispositions to behave in certain ways under certain kinds of circumstances and often reliably inferred from observed behavior patterns.
- Even the personality-and-behavior realm is related to scientific and technological activity. Modern science and technology have altered a number of important cultural behavior patterns, including those of courtship, child rearing, dieting, and interaction with nature.
- They may also be linked to some personality traits; such as those not attracted to study mathematics, natural sciences and engineering tend to have distinctive personality traits. On the other hand, involvement in these specialized studies may foster or reinforce the development of personality traits and behavioral patterns such as introversions, diligence, and a 'problem-solving mentality'

- In addition to the above stated subsystem, there is a third important dimension of this cultural subsystem related to but distinguishable from the society's material-cultural realm. Let us call this the behavior of setting everyday life in the society in question. In general, the behavior setting of an environment refers to the constellation of physical objects and material artifacts deployed in that environment that serve as a backdrop for, and sometimes affect the behavior that unfolds against it.

The Environmental Subsystem

- This subsystem includes the physical features of the area in which the society in question is located; such features include its topographical and geographical properties; characteristics weather patterns, air, land, plant, mineral, and water resources.
- Also within the environmental system are its human and nonhuman (animal) population, with respect to their respective demographic features and general organismic health and well-being. (Mc Ginn R.E. 1991).
- If we combine the immediate social system (ISS) and the cultural-environmental system (CES) into one comprehensive, overarching system, it will result to an appropriate context in which to view and analyze the causes and consequences of the scientific and technological developments the total social-cultural-environmental system (SCES) of the society in the question. This context embraces both ISS and CES factors.