

# New Perspective for the Philosophy of Science: Re-Construction and Definition of New Branches & Hierarchy of Sciences

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In this work, author evaluated past theories and perspectives behind the definitions of science and/or branches of science. Also some of the philosophers of science and their specific philosophical interests were expressed. Author considered some type of interactions between some disciplines to determine, to solve the philosophical/scientific problems and to define the possible solutions. The purposes of this article are: (i) to define new synthesis method, (ii) to define new perspective for the philosophy of science, (iii) to define relation between new philosophy perspective and philosophy of science, (iv) to define and organize name, number, relations, and correct structure between special science branches and philosophy of science, (v) to define necessary and sufficient number of branches for philosophy of science, (vi) to define and express the importance and place of new philosophy of science perspective in the new system, (vii) to extend the definition/limits of philosophy of science, (viii) to re-define meanings of some philosophical/scientific theories, (ix) to define systematic solution for the conflicts, problems, confusions about philosophy of science, sciences and branches of science, (x) to define new branches of science, (xi) to re-construct branches and hierarchy of science, (xii) to define new theories about science and branches of science. Author considered R-Synthesis as a method for the evaluation of the philosophy, philosophy of science, sciences and branches of science. This R-Synthesis includes evaluation of eight categories of general/specific perspective, 21-dimensions, and 12 general subjects (with related scope and contents) for the past 12,000 years. It is a kind of synthesis of science and non-science, physical science and non-physical science, religious science and non-religious science, and others. In this article, author defined 27 possible definitive/certain result cases for this new synthesis. Author defined the possible formation stages shortly to express new disciplines, new constructional and/or complementary theories. These theories are considered to define 21 major effective disciplines. New philosophy perspective is defined (R-Philosophy) shortly. New perspective and sub branches are defined for the philosophy of science. Major sciences are defined due to new basic philosophies. 42-basic components are defined for each science branch. New and/or re-constructed sciences, branches of science, basic sciences, and new hierarchy of science are defined with figure. Electromagnetic sciences, information sciences, and system sciences are defined specifically. Hybrid Sciences, New Era Science, and Ideal Scientific System are defined with general/specific figure. Relation between the some old branches and new branches of science was expressed generally due to new perspective of philosophy of science.

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## 1. Introduction

Author evaluated generally/specifically meanings of the scientific words, political words, religious words, philosophical words and almost all past perspectives about philosophy and branches of philosophy due to historical period, due to religious perspective, due to its organized categories, branches, or areas.

Philosophy of science\* is defined by some experts as a branch of philosophy concerned with the foundations, methods, and implications of science. The central questions concerned about the study of philosophy of science\* are: (a) what qualifies as science? (b) the reliability of scientific theories, and (c) the ultimate purpose of science. Due to some experts, this discipline overlaps with metaphysics, ontology, and epistemology, for example, when it explores the relationship between science and truth.

It is stated that, until today, there is no consensus among philosophers about many of the central problems concerned with the philosophy of science, including: (a) whether science can reveal the truth about unobservable things, and (b) whether scientific reasoning can be justified at all. In addition to these general questions about science as a whole, some philosophers of science considered problems that apply to particular sciences (such as biology\* or physics\*). Some philosophers of science also used contemporary results in science to reach conclusions about philosophy itself.

While philosophical thought pertaining to science dates back at least to the time of Aristotle due to some experts, philosophy of science\* emerged as a distinct discipline only in the middle of the 20th century in the wake of the logical positivism movement, which aimed to formulate criteria for ensuring all philosophical statements' meaningfulness and objectively assessing them. The book of Thomas Kuhn named *The Structure of Scientific Revolutions* (1962) was also formative, challenging the view of scientific progress as steady, cumulative acquisition of knowledge based on a fixed method of systematic experimentation and instead arguing that any progress is relative to a "paradigm," the set of questions, concepts, and practices that define a scientific discipline in a particular historical period.

Due to some experts, Philosophy of Science is the study of the assumptions, foundations, and implications of natural science which is usually taken to mean biology\* (Biology, 2015), chemistry\*, physics\*, earth science\* and astronomy, as opposed to social science\* (Social Science, 2016) which deals with human behavior and society.

Due to some experts, one of the central questions in the Philosophy of Science is distinguishing science from non-science, although many regard the problem as unsolvable or moot. Historically, the main point of contention was between science and religion and, even today, many opponents of intelligent design claim that it does not meet the criteria of science and should thus not be treated on equal footing as evolution.

Due to some experts, philosophers of science actively study some questions as follows: (a) What is a law of nature? Are there any in non-physical sciences like biology and psychology? (b) What kind of data can be used to distinguish between real causes and accidental regularities? (c) How much evidence and what kinds of evidence do we need before we accept hypotheses? (d) Why do scientists continue to rely on models and theories, which they know are at least partially inaccurate? Opinions on these issues vary widely within the field according to some experts (and occasionally part ways with the views of scientists themselves—who

mainly spend their time doing science, not analyzing it abstractly). Despite this diversity of opinion, it is stated that some philosophers of science largely agreed on one thing; there is/was no single, simple way to define science until today.

Some philosophers of science considered biology\* (Biology, 2015), psychology\* as non-physical; some scientists considered physical science\* as basics/one of the hierarchy of science/constructional element to/of reach biology, psychology; and some people, who separated religion and science, considered religion as non-science.

Subsequently, the coherent approach to science, in which a theory is validated if it makes sense of observations as part of a coherent whole, became prominent due to W. V. Quine (Quine 2016) and others. Some thinkers such as Stephen Jay Gould (Gould 2016) seek to ground science in axiomatic assumptions, such as the uniformity of nature. A vocal minority of philosophers, and Paul Feyerabend (Feyerabend 2016) in particular, argued that there is no such thing as the “scientific method,” so all approaches to science should be allowed, including explicitly supernatural ones. Another approach to thinking about science involved studying how knowledge is created from a sociological perspective, an approach represented by scholars like David Bloor (Bloor 2016) and Barry Barnes (Barnes 2016). Due to some experts, a tradition in continental philosophy approaches science from the perspective of a rigorous analysis of human experience.

Philosophy of the particular sciences ranges from questions about the nature of time raised by Mr. Einstein’s general relativity, to the implications of economics for public policy due to some experts until now. A central theme is/was whether one scientific discipline can be reduced to the terms of another. That is: can chemistry\* be reduced to physics\* (Physics, 2015), or can sociology\* be reduced to individual psychology\*? With this respect, some people considered some/most/all subjects and put them under one science discipline, like some people considered all subjects and put them under ideology discipline, or under biology\* discipline, or under physics\* discipline. The general questions of philosophy of science\* also arised with greater specificity in some particular sciences due to some experts. For instance, the question of the validity of scientific reasoning is seen in a different type in the foundations of statistics. The question of what counts as science and what should be excluded are evaluated as matter in the philosophy of medicine\*. Additionally, it is proposed by some experts that the philosophy of biology\*, philosophy of psychology\*, and philosophy of the social sciences\* explore whether the scientific studies of human nature can achieve objectivity or are inevitably shaped by values and by social relations.

Author noticed that one of the problems is about the definition and content of the word “social” and “social sciences.” The term social (Social, 2016), which is considered together with social sciences\* by some experts, referred to a characteristic of living organisms (Living Organisms, 2015) as applied to populations of humans and other animals. Due to these experts, it always refers to the interaction of organisms with other organisms, and to their collective co-existence, irrespective of whether they are aware of it or not, and irrespective of whether the interaction is voluntary or involuntary.

Author evaluated the definitions and contents of the other scientific words, philosophical words in this article generally/specifically with the R-Synthesis.

The purpose of this article is: (i) to define systematic solution for the conflicts, problems, confusions related with philosophy of science and its branches, (ii) to define systematic solution for the conflicts, problems, confusions related with sciences, and branches of sciences, (iii) to define new perspective for the philosophy of science, (iv) to define and express the importance and place of new philosophy of science perspective in the

new system, (v) to define the relations between the branches of philosophy of science, (vi) to define good and/or correct structure of philosophy of science and its branches, (vii) to extend the definition/limits of philosophy of science, (viii) to make correction about the meanings of some philosophical definitions, (ix) to define necessary and sufficient number of branches of philosophy of science, (x) to define new branches of science, (xi) to re-construct branches of science, (xii) to re-construct hierarchy of science, (xiii) to define the new synthesis method, (xiv) to define new theories about science, branches of science, (xv) to organize name, number, and relation between special science subject and philosophy of science, (xvi) to define and organize name, number, relations, and correct structure between special science branches and philosophy of science, (xvii) to define relation between new philosophy perspective and philosophy of science, (xviii) to re-define meanings of some philosophical/scientific theories.

Information must be used for good and/or correct purposes. A person who is a side to “one” science discipline can do good founding parallel to another person related with another one discipline. In this case, there may be several questions that can be asked: (i) is the science for your personal needs, personal education, personal development, (ii) is the science for community needs, etc., or (iii) a scientist is going to use the science and community for his/her personal needs because of his/her person nature (Ramiz 2015; Ramiz January 2016). Author made a new synthesis, and defined 27 (+) result cases, and applied these cases: (a) to new design and for definition, re-construction, etc., of the administration systems for the world countries, (b) to new design and for definition, re-construction of all related scientific/non-scientific disciplines, (c) others. With this respect, the purpose of science, or in other manner the philosophy of science, is re-evaluated by the author, and new perspective for philosophy of science is defined. Purpose of science is explained generally/specifically in the following sections. There are 5-structural groups defined by the author for each world country: (1) New Era Group, (2) Progression of the Country Group, (3) Unity of the Country Group, (4) Values of the Country Group, (5) Social Progression Group (Ramiz 2015; Ramiz 2016). With this respect, one of the purposes of science can be considered as to satisfy the needs of these 5-groups by considering the related subjects of services.

Author defined 37 (+) subjects of services in other article (Ramiz 2015; Ramiz 2016). These 37 subjects of services are “mandatory for progression of any sides,” also “needs” of the 5-structural group people, “limitations” of people, possible “targets” of people, possible “benefits” of people, “guides” for people, also “judgment” of people simultaneously, separately and/or together.

Author considered R-Synthesis as a method for the evaluation of the philosophy, all related branches of philosophy, and for philosophy of science defined in the past. This synthesis is different from the one which is defined in the past literature (Synthesis, 2015). It is a kind of synthesis of supernaturalism (someone is responsible for all that people see) or naturalism (all that people see is responsible for itself), a kind of synthesis of physical science and non-physical science, a kind of synthesis of physics and metaphysics, science and non-science, physical science and non-physical science, politics and non-politics. General and specific contents of the new synthesis were expressed in the following sections.

This article includes and expresses the specific scientific/philosophical perspective of the synthesis of the author. Author defined ideological, political, religious, lawful, etc., perspective of the synthesis in other work generally/specifically (Ramiz 2015; Ramiz 2016).

R-Synthesis includes general/specific perspective with eight categories, 21-dimensions, 12 general subjects (with related scope and contents), and theoretical and experienced information for the past 12,000

years (Bucaille, 1973; Gülaltay, 2005; History of Philosophy, 2016; History of Religions, 2010; History of Science, 2015; Yücel, 1985; others). With this respect, the method considered for this new synthesis includes all subjects and it is not necessary to apply the following evaluation process triple of "... going past, then come to present, propose something for future, then go to past, and come to present, and propose something for future..."

Here "R-abcde... xyz" are used to express that they are considered by the author and they are new defined and/or re-constructed from the past/present one, or modified, or used as it is same with the past/present one, or arranged due to all 21 dimensions of the R-Synthesis (Ramiz March 2016), and due to 27(+) definitive/certain result cases of the synthesis in general manner. Author used (\*) signs together with some words to denote that these words, sciences, branches of sciences, branches of philosophy are defined in the "past" and due to past philosophical/scientific perspectives.

As result of the synthesis, author defined R-Administration, R-Ideology, R-Information, R-Justice, R-Philosophy, R-Religion, R-Science, R-System, as complementary disciplines to each other. With this respect, author defined or put new meanings and/or new values to these disciplines. These are definitive/certain because of the 27 (+) definitive result cases of synthesis.

In this article, new synthesis is defined in the second section. This R-Synthesis includes evaluation of eight categories of general/specific perspective, 21-dimensions, and 12 general subjects (with related scope and contents) for the past 12,000 years. 27 possible definitive/certain result cases are defined for this new synthesis. Past theories about science and branches of science are defined in the third section. Then, extended definitions about branches of sciences, past perspectives behind the definition of some sciences and/or branches of sciences, some of the philosophers of science and their interests, and some types of interactions which are considered between the disciplines explained in the third section. Good and/or correct perspective that must be behind the definition of science and branches of science is defined in the fourth section. Constructional and/or complementary theories are defined in the fifth section. Formation stages, theory of interaction, theory of relation and theory of hybrid are expressed respectively. Major effective disciplines are defined in the sixth section for a country, for the world, and other systems. Then New Perspective of Philosophy, New Era Philosophy, Ideal Philosophical System, and new and/or re-constructed branches of philosophy are explained generally/specifically in the seventh section. New perspective for the philosophy of science is defined in the eighth section. Major sciences due to new basic philosophy branches are expressed in the ninth section. Then branches of sciences are defined in the tenth section due to new perspective of philosophy of science. Basic components for each science branch, new and/or re-constructed definition of science and branches of science are defined respectively. New Era Science, Ideal Scientific System, and Hybrid Sciences are defined in the 11th section. Relation between the some old branches and new branches of science are defined in the 12th section. Conclusion part is given shortly in the last section.

Each of the letters, words, sentences, tables, figures, definitions, comparisons, and others within this article are considered by the author generally/specifically, and some/most of them indicate some real life experienced subjects.

## **2. The New Synthesis**

In this section, the author explained the new synthesis generally/specifically. With this respect, general perspectives considered for the synthesis, scope/content of the subjects, dimension of the new synthesis, and

definitive/certain result cases of the new synthesis generally/specifically explained respectively.

### *2.1. General Perspectives Considered for the New Synthesis*

Author defined that, a subject and/or an event can be evaluated by considering the following eight category of perspectives (8C-P) in general (in alphabetic order).

(1) Perspective due to its applied person/founder: (a) due to his basic senses, (b) due to his ethics, (c) due to his experiences, (d) due to his functional position level, (e) due to his ideal political construction, (f) due to his R-Ideology, (g) due to his information level, (h) due to his theory, (i) due to his R-Philosophy, (j) due to his principles, (k) due to his R-Religion, (l) due to his R-Sciences, (m) due to his sense of justice, (n) due to his synthesis, (o) due to his R-Values, and (p) R-Hybrid;

(2) Perspective due to dimension considered;

(3) Perspective due to the disciplines/sub disciplines considered: (a) academic perspective, (b) administration perspective, (c) alternative medicine perspective, (d) central perspective, (e) commercial perspective, (f) community perspective, (g) company perspective, (h) continuity perspective, (i) democratic perspective, (j) diplomatic perspective, (k) doctor perspective, (l) economic perspective, (m) educational perspective, (n) ethnic perspective, (o) financial perspective, (p) health perspective, (q) ideological perspective, (r) industrial perspective, (s) judgment perspective, (t) justice perspective, (u) lawful perspective, (v) medical perspective, (w) military perspective, (x) monetarist perspective, (y) mythological perspective, (z) national perspective, (aa) over politic perspective, (ab) personal perspective, (ac) philosophical perspective, (ad) political perspective, (ae) producer/manufacturer perspective, (af) public perspective, (ag) religious perspective, (ah) scientific perspective, (ai) security perspective, (aj) separative perspective, (ak) social perspective, (al) stability perspective, (am) standardization perspective, (an) system perspective, (ao) transformation perspective, (ap) unionize perspective, (aq) R-Hybrid perspective;

(4) Perspective due to formality considered: (a) non-official perspective, (b) official perspective, (c) R-Hybrid;

(5) Perspective due to geographical structure considered: (a) territory based, (b) local, (c) country based, (d) regional, (e) transcontinental, (f) worldwide, and (g) R-universal/cosmos;

(6) Perspective due to number and/or size considered;

(7) Perspective due to number of subjects considered: 37 subjects of services;

(8) Perspective due to size, content, and sensitivity of subject(s) considered: (a) micro, (b) functional, (c) macro, and (d) R-Hybrid.

Author considered all of these eight category perspectives (8C-P), and all of their sub cases together and separately, generally and specifically, for the new synthesis, where this perspective is named as Theory of Perspective (R-Hybrid-8C-P).

### *2.2. Scope, Period, and Content of the Subjects Considered for the New Synthesis*

Author made the synthesis by considering the following subjects, related contents, and the related interactions together and separately, and generally/specifically (in alphabetic order). (1) Ethnic origins: nearly 1600 ethnic origins around the world; (2) Federations: 27 federations; (3) Ideology; (4) Mythologies: (a) more than 130 regional mythologies, (b) more than 301 kinds of deities, (c) more than 44 subjects of deities, (d) more than 44 cultural deities; (5) Organizations; (6) Philosophy: (a) 680 philosophies (by country, by main branches,

by sub branches, by sub fields, by religious, by period, by subjects) (List of Philosophies, March 2016; List of Philosophers, 2016; Philosophy, 2015 & 2016), (b) philosophy of religion: more than 36 theories of religion, 87 philosophers of religion and their professional interests (List of Philosophers of Religion, August 2015; Philosophy of Religion, October 2015), (c) philosophy of politics: 48 political philosophers and their works/professional interests (Influential Political Philosophers, August 2015; Philosophy of Politics, October 2015; Political Philosophers, August 2015), (d) philosophy of science: 55 philosophers of science and their works/professional interests (Branch of Philosophy of Science, March 2016; List of Philosophers of Science, August 2015; Philosophers of Science, August 2015; Philosophy of Science, 2015 & 2016), (e) philosophy of history: 42 thinkers/philosophers of History and their works/professional interests (Philosophers of History, August 2015; Philosophy of History, June 2015), (f) philosophy of law: 20 philosophers of law and their works/professional interests (Notable Philosophers of Law, August 2015; Philosophy of Law, August 2015), (g) philosophy of mind: 132 thinkers/philosophers of mind and their works/professional interests (List of Philosophers of Mind, August 2015; Philosophers of Mind, August 2015; Philosophy of Mind, August 2015), (h) ethics (Resnik, 2004; List of Ethicists, 2016), (i) aesthetics, (j) epistemology, (k) logic, (l) meta-philosophy, (m) metaphysics, (n) ontology, (o) 33 lists of philosophers by language, nationality, religion, or region, (p) philosophy of information; (7) politics: (a) political ideology spectrums, (b) political/non-political administration systems, (c) Politic power sources, (d) politic power structures, (e) public administrations, (f) all political ideologies (Political History, June 2015), (g) all party systems, (h) organs of government; (8) Religions: 168 religions, sects, denominations (Bucaille, 1973; History of Religions, May 2010; List of Religions, August 2015; Political Religion, February 2016; Religion, October 2015; Religion and Politics, 2015 & 2016; Religion and Science, 2015 & 2016; Science and Religion, March 2016); (9) Religious books and texts, classics, teaching books, doctrines, etc.; (10) Sciences: (a) 627 branches of science (Branches of Chemistry, 2016; Branches of Science, 2016; Feldman & Ford, 1979; History of Science, May 2015; Hornung, 2004; List of Engineering Branches, 2016; Mathematics, 2015; Physics, 2015; Religious Science, March 2016; Science, 2015 & 2016), (b) some pioneer scientists in the history and their works, professional interests (Lawrence & McCartney 2015), (c) some scientists and their works (Catedra & Perez 1999; Churchill & Brown 1990; Davis 1963; Edminister 1995; Feldman & Ford 1979; Gibson 1999; Glisic & Leppanen 1997; Godara 2002; Griffiths 1991; Halliday & Resnick 1981; Harrington 1961 & 1968; Hayes 1996; Jordan & Balmain 1968; Kim & Rappaport 2000; Kraus 1991; Lawrence & McCartney 2015; Lee 1998; Libby, Krieger & Robert 1979; Liberti & Rappaport 1999; Lorrain, Carson 1969 & 1978; Marcuvitz 1951; Neri 1991; Rainville 1963; Resnik 2004; Staelin, Morgenthaler & Kong 1994; Steele, Lee & Gould 2001; Vakin, Shustov & Dunwell 2001; Westfall 2000); (11) Interaction: (a) Religion and science (Bucaille, 1973; Religion and Science, 2015 & 2016; Science and Religion, March 2016), (b) Religion and Politics (Religion and Politics, 2015 & 2016), and (c) other types of interactions between the all disciplines and related subjects, (d) other types of interactions in the same discipline; (12) Evaluation period: for the last 12,000 years (Bucaille, 1973; Gülaltay, 2005; History of Philosophy, 2016; History of Religions, 2010; History of Science, 2015; Yücel, 1985; others); (13) personal and other different experiences and/or references (Ramiz March 2016).

Author gave some of the cited works about these subjects in other article (Ramiz July/August 2016).

### 2.3. *Dimension of the New Synthesis*

There are 21 dimensions of the R-Synthesis considered by the author, and they are given here as follows

(in alphabetic order): (1) R-Administration, (2) R-Basic senses (Ramiz 2016), (3) R-Continuity, (4) R-Energy, (5) R-Geography (space), (6) R-Hybrid, (7) R-Ideology, (8) R-Integration, (9) R-Living forms, (10) R-Organization, (11) R-Philosophy, (12) R-Priority, (13) R-Progression, (14) R-Religion, (15) R-Science, (16) R-Sense of justice, (17) R-Subjects of services, (18) R-Systems, (19) R-time, (20) R-Transformation, (21) R-Values.

Some of these dimensions are expressed here shortly through their relations with the philosophical perspective, some others are described in other works generally/specifically (Ramiz 2015; Ramiz 2016), and some others will be explained in the future works.

#### *2.4. Definitive/Certain Result Cases of the New Synthesis*

Author considered 21 dimensions of the R-Synthesis to evaluate the subjects gave in previous section, and made R-Synthesis based on both “theoretical and experienced” information. As result of the new synthesis, author defined following 27 (+) possible definitive/certain result cases of the synthesis (in alphabetic order): (1) to add some subjects, (2) to balance some subjects, (3) to change the priority of some subjects, (4) to consider common subjects, (5) to consider transition for some subjects, (6) to converge to some subjects, (7) to define all subjects under one framework, (8) to define new subjects, (9) to educate, (10) to eliminate some subjects, (11) to fix some subjects, (12) to have some waving about some subjects, (13) to improve values of some subjects, (14) to integrate all subjects, (15) judgment, (16) to keep (protect) some subjects, (17) to modify some subjects, (18) to propose progression for all subjects, (19) to put rules, (20) to re-construct some subjects, (21) to re-define some subjects, (22) to remove some subjects but put new subjects instead immediately, (23) revolution, (24) to separate some subjects, (25) to train, (26) to unify some subjects, (27) to unite some subjects in upper phase, (28) to hybrid, (29) others.

With this respect, here all the past/present definition of the philosophy\*, philosophy branches\*, philosophy of science\*, related sciences, branches of sciences are evaluated by the author generally/specifically. Author considered these 27 (+) result cases for the new synthesis and applied them for the design and/or re-construction of the new local, regional, worldwide systems, for the definition of the R-Philosophy, for the definition and re-construction of philosophy of science and its branches, for the related science disciplines, and for all new theories he defined. The past/present philosophy branches and related sciences are integrated into the new philosophy framework (Ideal Philosophical System) by applying 27 (+) result cases of the synthesis for each philosophy discipline and science branches through the new philosophy perspective of the author. The new defined philosophy framework is a unique structure, which collects past, present, and all other types of possible future arrangements under one framework through new defined R-Values and other subjects expressed (Ramiz 2015; Ramiz 2016).

### **3. Past Theories about Science and Branches of Science**

There are various theories about the science and about branches of science (Branches of Science, 2016).

Some people defined “biology;” for “study of life and living organisms (Living Organisms, 2015), including their structure, function, growth, evolution, distribution, identification and taxonomy,” “chemistry;” for “study of composition, structure, properties and change of objects (matters),” “electromagnetism\*,” for “study of the electromagnetic force, a type of “physical interaction” that occurs between electrically charged particles,” “mathematics;” for “study of quantity, numbers, structure, space, and change,” “physics;” for “study of object (matter) and its motion through space and time, along with related energy and force.”

Here the matter is defined by some experts as composed of atoms, and excluded other energy phenomena such as light or sound. This concept of matter proposed to be generalized from atoms to include any objects having mass even when at rest, but this is ill-defined because an object’s mass can arise from its (possibly mass-less) constituents’ motion and “interaction energies.” Thus, matter does not have a universal\* definition, nor is it a fundamental concept in physics until today. Matter is also used loosely as a general term for the substance that makes up all observable physical objects.

Electromagnetism\* (Electromagnetism, 2016) is considered as a branch of physics\* by some experts until now, biology\* as a natural science, chemistry\* as branch of physical science\*, and physics\* is considered as a natural science.

There are/were “good” scientists from same/different countries, and/or from same/different ethnic origins, and/or different religious/non-religious beliefs. There are similar/different scientific theories defined by these scientists. The one theory of science, which is generally considered by some/most of the scientists/non-scientist people until now, is defined by R. P. Feynman in Figure 1 below (Branches of Science, 2016; Feynman 1950; Feynman & others 1964; Feynman 2016).

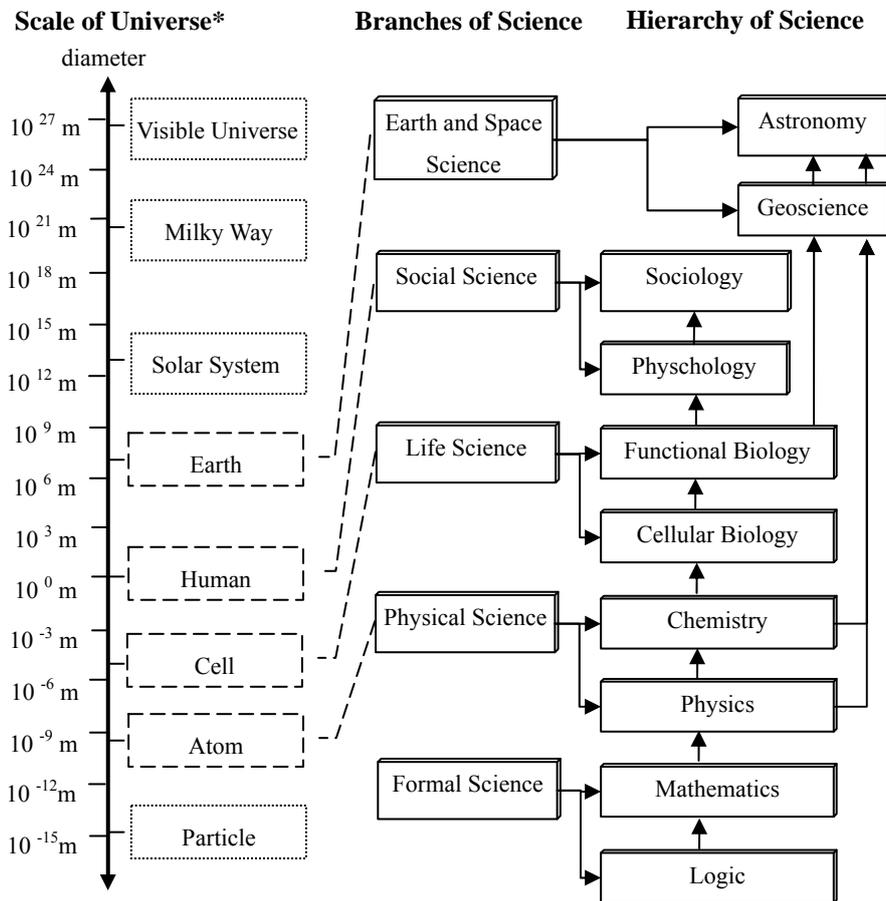


Fig. 1. The scale of the universe\* mapped to the branches of science and the hierarchy of science.

R. P. Feynman defined the scale of the universe\* and mapped the branches of science and hierarchy of science accordingly in Figure 1. In this figure, some of the blocs of the hierarchy of science which are proposed

by Feynman, include the followings. (a) logic: reasoning, philosophy\*, (b) mathematics\*: computer science, statistics, (c) physics\*: particle physics, thermodynamics, (d) chemistry\*: materials, chemical reactions, (e) cellular biology: biochemistry, evolutionary biology, (f) functional biology: physiology, medicine, ecology, (g) psychology\*: developmental, cognitive, (h) sociology\*: law, ethics, economics, (i) geosciences: climate, geology, oceanography, (j) astronomy: planetary science, cosmology.

### 3.1. *Extended Definitions about Branches of Sciences*

Some other scientists or experts made some additional definitions to/about the branches of sciences, which are defined by Mr. Feynman. Mr. Feynman considered only the disciplines of psychology (developmental, cognitive), sociology\* (law, ethics, economics) under social sciences\* in Figure 1, and he did not consider other disciplines. But some other scientists and/or experts made some additions to the disciplines or the content of the branches of science as follows (Outline of academic disciplines, 2016; Branches of Science, 2016). However, most of these scientists kept these branches and hierarchy of sciences as it is indicated by Mr. Feynman.

(A) *Formal Science\**: Some people considered the following disciplines under the “formal science;” logic, mathematics, mathematical logic, mathematical statistics, theoretical computer science.

(B) *Physical Science\**: Some people considered the following disciplines under the “physical sciences;” physics, chemistry, earth science\*, space science\*. Here these four disciplines/branches of science are given below respectively with extended content.

Physics\*: Some people considered the following disciplines under the “physics” (Halliday & Resnik 1981); applied, atomic, classical, computational, condensed matter, electromagnetic\* (Electromagnetism, 2016), experimental, general relativity, kinetics, mechanics-classical, mechanics-continuum, mechanics-fluid, mechanics-solid, modern, molecular, nuclear, particle, plasma, quantum field theory, quantum mechanics (introduction), rheology, special relativity, string theory, theoretical, thermodynamics.

Chemistry\*: Some people considered some/all of the following disciplines under the “chemistry” (Branches of Chemistry, 2016); acid-base, analytical, astrochemistry, biochemistry, crystallography, electrochemistry, environmental, food chemistry, geochemistry, inorganic, materials science, molecular physics, nuclear, organic, physical, photochemistry, radiochemistry, solid-state, stereochemistry, supramolecular, surface science, sustainable (green), theoretical.

Earth Sciences\*: Some people considered the following disciplines under the earth sciences; climatology, ecology, edaphology, environmental science, geodesy, geography (physical), geology, geomorphology, geophysics, glaciology, hydrology, limnology, meteorology, oceanography, paleoclimatology, paleoecology, palynology, pedology, volcanology.

Space Sciences\*: Some people considered the following disciplines under the space sciences; astronomy, astrophysics, cosmology, galactic astronomy, planetary geology, planetary science, stellar astronomy.

(C) *Life Sciences\**: Some people considered the biology under the “life science” discipline, and so the following disciplines of the biology are considered under the “life science” in that manner; anatomy, anthropology, astrobiology, biochemistry, biogeography, biological engineering, biophysics, behavioral neuroscience, biotechnology, botany, cell biology, conservation biology, cryobiology, developmental biology, ecology, ethnobiology, ethology, evolutionary biology (introduction), genetics (introduction), gerontology, immunology, limnology, marine biology, microbiology, molecular biology, neuroscience, paleontology, parasitology, physiology, radiobiology, soil biology, sociobiology, systematics, toxicology, zoology.

(D) *Social Science*\*: Some people considered the following disciplines under the “social sciences” (Branches of Social Science, 2016); anthropology, archaeology, criminology, demography, economics, geography (human), history, international relations, law, linguistics, pedagogy, political science, psychology, science education, sociology.

(E) *Interdisciplinary*\*: Some people considered the following disciplines under interdisciplinary; applied physics, artificial intelligence, bioethics, bioinformatics, biomedical engineering, biostatistics, cognitive science, complex systems, computational linguistics, cultural studies, cybernetics, environmental science, environmental social science, environmental studies, ethnic studies, evolutionary psychology, forestry, library science, mathematical/theoretical biology\*, *mathematical physics*\*, military science, network science, neural engineering, neuroscience, science studies, scientific modelling, semiotics, sociobiology, statistics, systems science\*\*, urban planning, web science.

(F) *Applied Sciences*\*: Some people considered the following disciplines under “applied sciences.” (1) engineering science: (a) chemical; biomolecular, materials, molecular, process, corrosion, (b) civil; environmental, geotechnical, structural, mining, transport, water resources, (c) electrical; computer (software, hardware, network), electronic (control, telecommunications\*), optical, power, (d) fire protection, (e) genetic, (f) mechanical; manufacturing, acoustical, thermal, power plant, energy, sports, vehicle, (g) software; computer-aided, cryptographic, teletraffic, web, (h) systems; aerospace, agricultural, applied, biomedical, biological, building services, energy, railway, industrial, mechatronics, management, military, nanoengineering, nuclear, petroleum, robotics, textile, (2) health care science; medicine, veterinary, dentistry, midwifery, epidemiology, pharmacy, nursing, others (List of Engineering Branches, 2016).

### 3.2. Past Perspectives behind the Definition of Some Sciences and/or Branches of Sciences

There are religious scientists/inventors, and non-religious scientists who defined some sciences and/or branches of sciences in the past.

Mr. Feynman was one of the non-religious scientists who defined the scale and the branches of sciences given above due to his non-religious perspective in some manner. Feynman was not only a non-religious, but declined to be labeled with the one ethnic origin. Although R. P. Feynman (1950) considered mathematical formulation of the quantum theory of “*electromagnetic interaction*” in one of his articles, he did not include the electromagnetic effect in the science branches.

Some experts can think that one science discipline is defined first, so it is the basic of all, and all of the others are/can be derived from this one science discipline. Author noticed that biology\*, chemistry\*, electromagnetic\*, information\*, mathematics\*, physics\* were there, before they were invented/discovered/defined by some human beings, and probably their names were different. Author considered that the name of these disciplines are “science/law of living forms,” “science/law of plasma, condensate, solid, liquid, gas object,” “science/law of seen and/or unseen energy forms,” “science/law of knowledge,” “science/law of numbers, size, shape, volume, distance/length, direction, etc.,” and “science/law of motion and mass” respectively. Here “R-Law” is considered by the author as “*macro law*,” “*functional law*,” and “*micro law*” simultaneously in some manner.

Author gave the name and interests of the some of the past founder scientists below (due to date of birth). According to the references, these scientists were from different religious beliefs (List of Catholic Scientists, 2016; List of Christian Scientists, 2016; List of Jewish Scientists, 2016; List of Muslim Scientists, 2016; others):

*Nicolaus Copernicus (1473-1543): Astronomy, canon law, economics, mathematics, medicine, politics, founder of the sun-centered solar system (Heliocentrism), Copernicus's theory, Copernican revolution, Scientific revolution (Nicolas Copernicus 2016).*

*Johannes Kepler (1571-1630): Astronomy, astrology, mathematics and natural philosophy. Prominent astronomer of the Scientific Revolution, discovered Kepler's laws of planetary motion.*

*Blaise Pascal (1623-1662): Theology, mathematics, philosophy, physics. Well known for Pascal's law (physics), Pascal's theorem (mathematics), and Pascal's Wager (theology).*

*Robert Boyle (1627-1691): Prominent scientist and theologian who argued that the study of science could improve glorification of God. A strong apologist, he is considered one of the most important figures in the history of chemistry.*

*Isaac Newton (1643-1727): Prominent scientist during the scientific revolution. Physicist, discoverer of gravity, physics, natural philosophy, mathematics, astronomy, alchemy, apologist, economics, Newtonian mechanics, universal gravitation\*, calculus, Newton's laws of motion, optics, Binomial series, Principia, Newton's method.*

*Leonhard Euler (1707-1783): A significant mathematician and physicist, see List of topics named after Leonhard Euler. mathematician, physicist, astronomer, logician and engineer, Euler's equations, Euler's formulas, Euler's functions, Euler's identities, Euler's numbers, Euler's theorems, Euler's laws.*

*William Herschel (1738-1822): Infrared radiation, temperature, light, colors, astronomer, composer, music, discovery of Uranus, founder of modern stellar astronomy.*

*Alessandro Volta (1745-1827): physicist who invented the first electric battery. The unit Volt named after him. chemistry, invention of the electric cell, discovery of methane, Volt, voltage, voltmeter.*

*Andre Marie Ampere (1775-1836): One of the founders of classical electromagnetism. The unit for electric current is named after him as "Ampere."*

*Johann Carl Friedrich Gauss (1777-1855): Mathematician who contributed significantly to many fields, including number theory, algebra, statistics, analysis, differential geometry, geodesy, geophysics, mechanics, electrostatics, astronomy, matrix theory, and optics. Gauss's law for magnetism. A unit of magnetic field (B).*

*Michael Faraday (1791-1867): He discussed the relationship of science to religion in a lecture opposing Spiritualism. He is known for his contributions in establishing electromagnetic theory and his work in chemistry such as establishing electrolysis. Faraday's law of induction and other 13 discoveries. One of the greatest scientific discoverers of all time.*

*George Stokes (1819-1903): A minister's son, he wrote a book on Natural Theology. He was also one of the presidents of the Royal Society and made contributions to fluid dynamics.*

*Bernhard Riemann (1826-1866): Mathematics, physics. Riemann integral, Riemann surfaces, breaking new ground in a natural, geometric treatment of complex analysis. Through his pioneering contributions to differential geometry, Riemann laid the foundations of the mathematics of general relativity. He entered the University to study philology and theology in order to become a pastor and help with his family's finances but changed to mathematics upon the suggestion of Gauss. He made lasting contributions to mathematical analysis, number theory, and differential geometry, some of them enabling the later development of general relativity.*

*James Clerk Maxwell (1831-1879): Scientist in the field of mathematical physics\*, Electromagnetism, Color vision, Kinetic theory and thermodynamics, Control theory. Formulation of the classical theory of electromagnetic radiation, bringing together for the first time electricity, magnetism, and light as*

manifestations of the same phenomenon. Maxwell's equations (Maxwell Equations, 2016) for electromagnetism have been called the "second great unification in physics" after the first one realized by Isaac Newton. The unification of light and electrical phenomena led to the prediction of the existence of radio waves. His discoveries helped usher in the era of modern physics, laying the foundation for such fields as special relativity and quantum mechanics. Many physicists regard Maxwell as the 19th-century scientist having the greatest influence on 20th century physics. His contributions to the science are considered by many to be of the same magnitude as those of Isaac Newton and Albert Einstein (Maxwell Equations, 2016; Maxwell Relations, 2016).

*Oliver Heaviside (1850-1925): A self-taught electrical engineer, mathematician, and physicist who adapted complex numbers to the study of electrical circuits, invented mathematical techniques for the solution of differential equations, reformulated Maxwell's field equations in terms of electric and magnetic forces and energy flux, and independently co-formulated vector analysis. Heaviside changed the face of telecommunications\*, mathematics\*, and science for years to come (Heaviside 2016).*

*Heinrich Rudolf Hertz (1857-1894): Physics, electromagnetic, mathematical physics, electromagnetic wave, electromagnetic radiation, light, electronic engineering, radio, wireless phenomena, frequency, Photoelectric effect, radio telegraphy. He first conclusively proved the existence of electromagnetic waves theorized by James Clerk Maxwell's electromagnetic theory of light. The unit of frequency (cycle per second) was named the "hertz-Hz" in his honor.*

*Guglielmo Marconi (1874-1937): Electrical engineering, radio transmission, radio telegraph, radio, entrepreneur, businessman, founder of wireless telegraphy.*

Name and interests of some of the religious inventors in the "past" are given below (due to date of birth) (List of Atheist Scientists, 2016):

*Alexander Graham Bell (1847-1922): Photophone, science, inventor, engineer, invention of telephone, optical telecommunications, hydrofoils, aeronautics.*

*Thomas Alva Edison (1847-1931): Inventor, businessman, phonograph, motion picture camera, long-lasting, practical electric light bulb, mass production, first industrial research laboratory, telegraph operator, telegraphic devices.*

*Nikola Tesla (1856-1943): He had own religious philosophy. Inventor, electrical engineer, mechanical engineer, physicist, futurist, design of modern alternating current (AC) electricity.*

*George H. Sweigert (1920-1999): Inventor, invention of the radio telephone, the first inventor to hold a patent for the invention of the cordless telephone. citing experimentation with various antennas, signal frequencies, and types of radios.*

Author gave the name and interests of the some of the non-religious founder scientists in the past/present time below (due to date of birth). These scientists are/were from different non-religious beliefs:

*Jean le R.d'Alembert (1717-1783): Mathematician, mechanic, physicist, philosopher, and music theorist. He was also co-editor with Denis Diderot of the Encyclopédie. D'Alembert's formula for obtaining solutions to the wave equation is named after him. The wave equation is sometimes referred to as d'Alembert's equation.*

*Hans Christian Ørsted (1777-1851): Physicist and chemist who discovered that electric currents create magnetic fields, which was the first connection found between electricity and magnetism. He is still known today for Oersted's Law. He shaped post-Kantian philosophy and advances in science throughout the late 19th century (Ørsted 2016).*

*Sigmund Freud (1856-1939): Neurologist and known as pioneer of psychoanalysis.*

*Niels Bohr (1885-1962): Physicist. Best known for his foundational contributions to understanding atomic structure and quantum mechanics.*

*Erwin Schrödinger (1887-1961): Physicist and theoretical biologist. A pioneer of quantum mechanics.*

*Paul Dirac (1902-1984): Theoretical physicist, one of the founders of quantum mechanics, predicted the existence of antimatter.*

*Laurent Schwartz (1915-2002): Mathematician. He pioneered the theory of distributions, which gives a well-defined meaning to objects such as the Dirac delta function.*

*Claude Shannon (1916-2001): Electrical engineer, mathematician, electronic engineer, and cryptographer. Shannon is famous for having founded information theory. He is equally well known for founding both digital computer and digital circuit design theory. He wrote his thesis demonstrating that electrical applications of Boolean algebra could construct any logical, numerical relationship.*

*Richard Feynman (1918-1988): Theoretical physicist, best known for his work in renormalizing Quantum electrodynamics (QED) and his path integral formulation of quantum mechanics.*

*Peter Higgs (1929-...): Theoretical physicist, known for his prediction of the existence of a new particle, the Higgs boson, nicknamed the "God particle". Today?*

*Stephen Hawking (1942-...): Theoretical physicist, cosmologist, author. Hawking has stated that he is "not religious in the normal sense" and he believes that "the universe is governed by the laws of science. The laws may have been decreed by God, but God does not intervene to break the laws." In September 2014, he joined a festival as keynote speaker and declared himself as a non-religious. Today?*

### 3.3. Some of the Philosophers of Science and Their Interests

Author evaluated generally/specifically some of the following philosophers of science, and their works/interests below (due to date of birth): (1) Empedocles (490BC-430BC), (2) Plato (428BC-348BC), (3) Aristotle (384BC-322BC), (4) Alhazen (965-1040), (5) Robert Grosseteste (1175-1253), (6) Roger Bacon (1214-1292), (7) Francis Bacon (1561-1626), (8) Galileo Galilei (1564-1642), (9) René Descartes\*\* (1596-1650), (10) Sir Isaac Newton\*\* (1642-1726), (11) George Berkeley\*\* (1685-1753), (12) David Hume (1711-1776), (13) Immanuel Kant (1724-1804), (14) William Whewell (1794-1866), (15) Auguste Comte (1798-1857), (16) John Stuart Mill (1806-1873), (17) George Henry Lewes (1817-1878), (18) Friedrich Engels (1820-1895), (19) Ernst Mach (1838-1916), (20) Charles Sanders Peirce (1839-1914), (21) John Dewey (1859-1952), (22) Alfred North Whitehead (1861-1947), (23) Pierre Maurice Marie Duhem (1861-1916), (24) Bertrand Arthur William Russell (1872-1970), (25) Albert Einstein (1879-1955), (26) Friedrich Albert Moritz Schlick (1882-1936), (27) Otto Neurath (1882-1945), (28) Gaston Bachelard (1884-1962), (29) Niels Henrik David Bohr (1885-1962), (30) Paul Oppenheim (1885-1977), (31) Hans Reichenbach (1891-1953), (32) Rudolf Carnap (1891-1970), (33) Michael Polanyi (1891-1976), (34) Alexandre Koyré (1892-1964), (35) Richard Bevan Braithwaite (1900-1990), (36) Ernest Nagel (1901-1985), (37) Werner Karl Heisenberg (1901-1976), (38) Sir Karl Raimund Popper (1902-1994), (39) Frank Plumpton Ramsey (1903-1930), (40) Georges Canguilhem (1904-1995), (41) Carl Gustav Hempel (1905-1997), (42) Willard Van Orman Quine (1908-2000), (43) A. J. Ayer (1910-1989), (44) Taketani Mitsuo (1911-2000), (45) Carl Friedrich Freiherr von Weizsäcker (1912-2007), (46) Kenneth James William Craik (1914-1945), (47) Mario Augusto Bunge (1919-...), (48) Stephen Edelston Toulmin (1922-2009), (49) Thomas Samuel Kuhn (1922-1996), (50) Imre Lakatos (1922-1974), (51) Paul Karl

Feyerabend (1924-1994), (52) Mary Brenda Hesse (1924-...), (53) Hilary Whitehall Putnam (1926-2016), (54) Michael Ruse (1940-...), (55) David Bloor (1942-...), (56) others (1980-present).

Author defined the effective disciplines and new perspective of the philosophy first, then evaluated the specific perspective of past/present philosophers of science mentioned above. Due to this evaluation, author noticed that only some of the philosophers of science considered more than one philosophy branch at the same time. The philosophers, who considered philosophy of science\* and other philosophy branches, are given below specifically (Table 1).

Table 1

*Some of the Philosophers of Science and Their Interests (due to Date of Birth)*

| Founder People            | Philosophical Interests of Philosophers (in alphabetic order) |                         |                         |                        |         |                   | Life Period |
|---------------------------|---|-------------------------|-------------------------|------------------------|---------|-------------------|-------------|
|                           | Philosophy of History*  | Philosophy of Politics* | Philosophy of Religion* | Philosophy of Science* | Ethics* | Others            |             |
| <i>Plato</i>              | X   | X                       | X                       | X                      | X       | E*, X             | 428BC-348BC |
| <i>Aristotle</i>          |   | X                       | X                       | X                      | X       | M, L, PoL, PoM, X | 384BC-322BC |
| <i>Alhazen</i>            |   |                         |                         | X                      |         | X                 | 965-1040    |
| <i>Galileo Galilei</i>    |   |                         |                         | X                      |         | X                 | 1564-1642   |
| <i>René Descartes</i>     |   |                         |                         | X                      |         | E*, M*, PoM*, X   | 1596-1650   |
| <i>Isaac Newton</i>       |   |                         |                         | X                      |         | X                 | 1642-1726   |
| <i>David Hume</i>         |   | X                       | X                       | X                      | X       | E, M, PoL, PoM, X | 1711-1776   |
| <i>Immanuel Kant</i>      | X   | X                       | X                       | X                      | X       | E*, M*, PoL*, X   | 1724-1804   |
| <i>Auguste Comte</i>      | X   |                         |                         | X                      |         | X                 | 1798-1857   |
| <i>John Stuart Mill</i>   |   | X                       |                         | X                      | X       | PoL*, X           | 1806-1873   |
| <i>Albert Einstein</i>    |   |                         |                         | X                      |         | X                 | 1879-1955   |
| <i>Ernest Nagel</i>       |   |                         |                         | X                      |         | PoM*, X           | 1901-1985   |
| <i>Sir Karl R. Popper</i> |   | X                       |                         | X                      |         | E*, M*, PoM*, X   | 1902-1994   |
| <i>Hilary W. Putnam</i>   |   |                         |                         | X                      |         | E*, PoM*, X       | 1926-2016   |

*Note:* Italic words indicate that these philosophers interested in more than one philosophy branch\* at the same time; (\*) denotes that these branches are defined due to past philosophical branch perspectives; Here A\*: Aesthetics, E\*: Epistemology, L\*: Logic, M\*: Metaphysics, MP\*: Meta-Philosophy, O\*: Ontology, PoL\*: Philosophy of Law, PoLi\*: Philosophy of Literature, PoM\*: Philosophy of Mind, PoT\*: Philosophy of Technology, X: some other sciences.

When the philosophers of science generally/specially evaluated, author noticed that some of the philosophers of science\* (13 of 55+) considered more than one philosophy discipline at the same time as shown in (Table 1) above. Some others interested in physics; some others considered mathematics also, while some of them being pioneer of some scientific revolution about some disciplines. Some of them related with astronomy; one of them was bishop; some of them defined their new scientific theories; some others did not interest with philosophy of religion\* and philosophy of politics\*; some of them interested with metaphysics\*; some of them were inventors; and so on.

Author expressed general/specific evaluations of the works, interests of the other philosophers in other article.

### 3.4. Some Types of Interactions Considered between Some Disciplines

As result of the synthesis, the author noticed that, interaction is one of the subject, and also a way of evaluation of some problems to determine, to solve, and to define the possible solutions for these problems in good and/or correct way. The author considered necessary and sufficient types of interactions about the subjects included within the R-Synthesis and defined the solutions accordingly.

With this respect, some subjects, which are mentioned/defined by some scholars or experts by considering interaction, are given in this article as examples. In general manner, these interactions are categorized as ideological interactions, philosophical interactions, political interactions, religious interactions, scientific interactions, social interactions, and others (in alphabetic order) to guide some people to understand some past/present problems related with these interactions. Good and/or correct definition of the “interaction perspective” and the “solution perspective” are given in the following section.

It is possible to consider following scientific subjects defined by some people to understand the possible scientific interactions (in alphabetic order): biology\*; for “study of life and living organisms, including their structure, function, growth, evolution, distribution, identification and taxonomy,” chemistry\*; for “study of composition, structure, properties and change of objects (matters),” electromagnetism\*; for “study of the electromagnetic force, an as a type of *physical interaction* that occurs between electrically charged particles,” mathematics\*; for “study of quantity, numbers, structure, space, and change,” physics\*; for “study of object (matter) and its motion through space and time, along with related energy and force.”

On the other hand, some people defined the matter (due to their scientific perspective) as composed of atoms, and excluded other energy phenomena such as light or sound. This concept of matter is generalized by some people from atoms to include any objects having mass even when at rest, but due to some experts, this is ill-defined because an object’s mass can arise from its (possibly mass less) constituents’ motion and *interaction energies*.

Beside this, it is expressed that, the electromagnetic force “usually” shows electromagnetic fields, such as electric fields, magnetic fields, and light. Here the electromagnetic force is defined by some experts as one of the four *fundamental interactions* in nature. The other three *fundamental interactions* are proposed as *strong interaction*, the *weak interaction*, and *gravitational interaction*.

However, it is important to note the difference among electromagnetism, electromagnetic force, electromagnetic fields, electromagnetic induction, electromagnetic waves, electromagnetic energy, and electromagnetic interaction. Hans Christian Ørsted (Hans Ørsted 2016) discovered the “*interaction*” between electricity and magnetism, and then “*relation*” that electric currents create magnetic fields. Ampere discovered the “*interaction*” and “*relation*” about the magnetic forces between current-carrying conductors, also discovered “*interaction*” between electric charges and currents (interaction between electricity and magnetism). Faraday made research on the magnetic field around a conductor carrying a direct current, also “established” that magnetism could “affect” rays of light and that there was an underlying “relationship” between the two phenomena. He similarly discovered the “principles,” of “electromagnetic induction” and diamagnetism, and the laws of electrolysis (interaction between electricity and magnetism). James Clerk Maxwell, brings together electricity, magnetism and light (relation between electricity, magnetism, and light). Due to some experts, Maxwell equations (Maxwell Equations, 2016; Maxwell Relations, 2016) for electromagnetic called the second great “unification” in physics\* branch after the first one realized by Mr. Isaac Newton. It is “incorrect” to make unification of “mathematics” and “physics,” and then define “mathematical physics,” and consider it “inside” the physics discipline again. One can evaluate that this unification is of unification of electricity and magnetism, or unification of mathematics and physics for the solution. Or in more general manner, it can be evaluated as unification of mathematics and physics in upper phase (named as mathematical physics), and then unification of electricity and magnetism all together simultaneously. Author re-defined this mathematical physics\* discipline as one of the hybrid sciences in the following section.

Due to some experts, Isaac Newton showed in 1687 that “relationships” like Kepler’s would apply in the solar system\* to a good approximation, as consequences of his own laws of motion and law of universal gravitation\*. Newton’s laws of motion are three physical laws that, together, laid the foundation for classical mechanics. Due to experts, they described the “relationship” between a body and the forces acting upon it, and its motion in response to those forces. Newton showed that these laws of motion, combined with his law of universal gravitation\*, explained Kepler’s laws of planetary motion. Kepler’s work (published between 1609 and 1619) improved the heliocentric theory of Nicolaus Copernicus (Copernicus 2016), explaining how the planets’ speeds varied and using elliptical orbits rather than circular orbits with epicycles. Although some additions, modifications, reformulations made by some other scientists to these kind of theories and laws later, and Newton’s law has been superseded by Einstein’s theory of general relativity accordingly, they are continued to be used as an excellent approximation of the effects of gravity in most applications, theories at the border of good/correct transition. Relativity is required due to some experts only when there is a need for extreme precision, or when dealing with very strong gravitational fields, such as those found near extremely massive and dense objects, or at very close distances. Some scientists have informed later that, Mr. Newton, Mr. Maxwell were the most influential scientists with their revolutionary contributions to science, and as influential guides for their studies in some manner.

These examples are given to express the sense of “micro interaction” and “macro interaction” in some manner.

#### **4. Good and/or Correct Perspective that Must Be behind the Definition of Science and Branches of Science**

The good and/or correct perspective that must be behind the definitions is related with the major effective disciplines, interactions between the disciplines and sub disciplines, and others. These disciplines are defined in other article (Ramiz June 2016) and also in the following sections, generally/specifically.

Author explained generally/specifically some of the past perspectives behind the definition of science and/or branches of science due to some scientists or philosophers of science above. As it is given above, some of these scientists or philosophers are/were religious or non-religious, and also have/had different interests about other branches of science, and/or other branches of philosophy.

Author noticed that some/most of the problems, confusion, conflicts are/were because of these perspectives of the scientists or philosophers.

Author also noticed that some/most of the these confusion, conflicts are/were (i) because of the definition/content/purpose of the past/present ideologies, religions, sciences, philosophies, administrations, systems, etc., or (ii) because of the experts who adopted them, or (iii) because of they who do/did not include and/or accept one, or some, or all the other disciplines, or sub-inner disciplines of them, or (v) because of the interaction/relationship considered between these disciplines, (vi) others, in general and specific manner.

The “relationship” between “religion and science” (Religion and Science, 2016) has been a subject of study since classical era (8th-7th Century BC), addressed by philosophers, theologians, scientists, and others. The kinds of “interactions” that might arise between science and religion categorized, according to a theologian as: (a) conflict between the disciplines, (b) independence of the disciplines, (c) dialogue between the disciplines where they overlap, and (d) integration of both religion and science into one field. Due to the interaction of religion and science; public acceptance of scientific facts may be influenced by religion; due to the information

stated, many in the United States rejected the idea of evolution by natural selection, especially regarding human beings in the past. Nevertheless, the American National Academy of Sciences has written that “the evidence for evolution can be fully compatible with religious faith,” a view officially endorsed by many religious denominations globally in that time.

In this article, the author proposed that for some subjects, case-(c) above is important, and for some/most/all subjects case-(d) above is important. Case-(b) above is also considered as meaningful for some research studies. Author proposed that some situations that can be observed through case-(a) will be a guide for experts to understand the meanings of each discipline separately.

Some experts believed that, disputes between religion and science arise(d) because science and religion are considered as two very different disciplines, and they are based on different foundations according to them: (1) Science is assumed as ultimately based on observation of nature. This is something related with what some people called as science in some manner. Some scientists assume that things happen because of natural causes. Some scientists do not believe(d) in the existence of one or more Gods\* or Goddesses\*. Others personally believe(d) that one or more deities exist, but assume that he/she/it/they do not interfere with nature. Some arguments among scientists are/were exist at the frontiers (limit, border) of each area of science, where new discoveries are being interpreted and discussed because of these scientists have/had absence of general/specific information about all other disciplines. (2) Due to some scholars religion is/was largely based on faith, and the past/present religious groups have/had diverse and often conflicting/differences in beliefs concerning deity, humanity, universe\*, and other subjects.

There are some meaningful statements made by some experts until now, which considered the following two quotations to indicate the range of beliefs about the conflict and harmony between science and religion; “Science is almost totally incompatible with religion” (Atkins 2016), “There can never be a conflict between true science and true religion, because they both describe reality” (Anon-Religion and Science, 2016). Author expressed some perspective in other works (Ramiz 2015; Ramiz 2016) to guide some people to evaluate religion by using scientific methods, and to evaluate science by using religious methods to understand what is good, bad, incorrect, correct in that perspective.

There are some other definitions about the relation between “living forms,” “science,” and “religion.” Some of the considerations, which are used in the past/present time, about these relations given below as different cases: (a) If there are living creatures from other planet (somebody named it as aliens), there is/are no god(s); (b) aliens are gods; (c) there are many living creatures in the universe, and there is one god for all world human beings; (d) there are humans as living creatures only in earth; (e) world religions are for human beings, and do not include other living creatures; (f) there is/are god(s) and they are not aliens; (g) for different human groups there are different gods; (h) if there is science, there is/are no god(s); (i) everything in human life is miracle; (j) nothing is miracle in human life; (k) science is there because of aliens; (l) if there is science, there is/are no religion(s); (m) there are aliens and they are not god(s); and (n) others. With this respect, if one considers the word “world religion” as some religious people proposed, one may understand that, that religion is limited with “earth” region. If one considers “god” for “one group,” one may understand that it is limited with that group. If one considers the availability of possible living forms as reference (bacteria, plants, animals, human being, other living creatures, aliens, God(s), other living energy forms, other highest living form(s)), one may understand that the living forms are functionalized with their constructional forms.

Author defined ideal political construction (5 to 5 groups), R-Philosophy, R-Religion, R-Science, and other definitions/disciplines, and proposed that all living forms are “related” with R-Philosophy, R-Religion, R-Science, and others. This relation is defined with ideal political construction for all the world countries (Ramiz 2015; Ramiz April 2016), New Philosophy perspective, New Era Philosophy, with Ideal Philosophical System, new administration system(s), new disciplines, new values, theories, methods, concepts and others, which are related with the 21 dimensions of the R-Synthesis. Some of these values are partly explained here; some others like R-Religion are defined by the author more generally and specifically in other article (Ramiz 2016; other). Author also defined good and/or correct perspective that must be behind administration(s) in other work (Ramiz March 2016).

It is possible to evaluate the subjects due to the perspective behind the related action(s), for example, as scientific, or non-scientific, or corrupted. With this respect, author considered some of the following perspectives to define the sciences, and/or to express the content or purpose of science (in alphabetic order): (1) centralized science, (2) commercialized science, (3) central science, (4); ideological science, (5) militarized science, (6) nationalized science, (7) philosophical science, (8) political science, (9) politicized science, (10) scientific agriculture, (11) scientific commerce, (12) scientific community, (13) scientific education, (14) scientific justice, (15) scientific health, (16) scientific integration, (17) scientific progression, (18) scientified military, (19) scientified politics, (20) religious science, (21) science that is made religious, (22) scientific ideology, (23) scientific politics, (24) scientific religion, (25) scientific support, (26) scientified religion, (27) scientified social values, (28) scientified subjects of services, (29) scientified ethnic origin, (30) scientified integration, (31) scientified politics, (32) scientified sport, (33) scientified social values, (34) scientific tourism, (35) scientific security, (36) scientific administration, (37) socialized science, (38) scientific system, (39) others.

With this respect, purpose of science can be considered as positive or negative in one point of view. Author defined that some possible positive purposes can be defined as, to discover, use, apply, control, inspect, observe, progress, quality, performance, protect, hybrid, identification, problem solution, production, transportation, security, health, service, energy, standardisation, communication, recording/storage, design, prove, values, reproduce, productivity, understanding, calculating, balancing, others. Some possible negative purposes of science can be considered as to destroy, or to make corruption. Each of these possible purposes of science can be evaluated due to 8-basic senses generally/specifically for different subjects.

Author defined that good scientist must be judicious, being objective, have good and/or correct ethics, principles, sense of justice, and consider all subjects in some manner.

Author defined the following theories, discipline, new perspective, and philosophies in the next sections to express the good and/or correct perspective for the definition of sciences, and branches of sciences: (i) constructional and/or complementary theories, (ii) R-Science as one of the major effective discipline for a country and for the world, (iii) the new perspective for the philosophy, (iv) New Era Philosophy, (v) Ideal Philosophical System, (vi) new and re-constructed philosophy of science, (vii) new perspective for the philosophy of science, (viii) basic theories of science, (ix) major sciences due to new basic philosophy branches, (x) basic components of each science branch, (xi) new or re-constructed definition of science and branches of science.

## 5. Constructional and/or Complementary Theories

As result of the R-Synthesis, the author considered more than one theory, which are directly/indirectly related with philosophy and branches of philosophy, to define new philosophy perspective and other subjects. Here some important three of these theories are considered as constructional and/or complementary references for the definition of the new philosophy perspective and other disciplines. These are: theory of interaction, theory of relation, and theory of hybrid.

### 5.1. Formation Stages

Author defined the possible formation stages with a general/specific figure in other article (Ramiz June 2016). This figure defines the possible new theories, new disciplines, new constructions, and in general/specific manner R-Ideology, R-Information, R-Justice/Law, R-Perspectives, R-Philosophy, R-Relations, R-Religion, R-Science, R-Systems, and other disciplines.

Author defined theory of interaction, theory of relation, theory of hybrid below to express the possible interactions and possible relations.

### 5.2. Theory of Interaction

Author defined Theory of Interaction with the following 21 categories to express the related dimension and possible effects of interaction. (1) Interactions due to basic senses: 8-types of interactions; (2) Interaction due to type of effects: (a) constant/static—(i) identified, (ii) unidentified, (b) variable/dynamic—(i) identified, (ii) unidentified, (c) continuous—(i) identified, (ii) unidentified, (d) discontinuous—(i) identified, (ii) unidentified, (e) R-hybrid; (3) Interactions due to disciplines: (a) effective/major/general disciplines, (b) basic disciplines, (c) sub disciplines; (4) Interaction due to effective period: (a) for short period, (b) for mid period, and (c) for long period; (5) Interaction due to energy forms; (6) Interaction due to formality: (a) official, (b) non-official, and (c) R-hybrid; (7) Interaction due to geographical structure considered: (a) territory based, (b) local, (c) country based, (d) regional, (e) transcontinental, (f) worldwide, and (g) universal/cosmos; (8) Interaction due to levels; (9) Interaction due to living forms: (a) bacteria, (b) plants, (c) animals, (d) human being, (e) other living creatures, (f) aliens, (g) God(s), (h) other living energy forms, (i) other highest living form(s) (GodForm-highest, GodLoyal-2nd, GodCommander-3rd highest, GodJudge-3rd highest, GodPresident-3rd highest, GodProtector-3rd, GodPunisher-3rd highest, in alphabetic order); (10) Interaction due to motion; (11) Interaction due to number of sides considered: (a) one, (b) two, (c) three or more, (d) some, (e) most, and (f) all; (12) Interaction due to objects/matter; (13) Interaction due to sensitivity; (14) Interaction due to size and/or content: (a) micro interaction, (b) functional interaction, (c) macro interaction; (15) Interactions due to structural categories: (a) basic interactions, (b) hybrid interactions; (16) Interaction due to subjects: (a) for each 37 subjects of services, (b) R-hybrid; (17) Interaction due to system; (18) Interaction due to time; (19) Interaction due to characteristic types: (a) internal, (b) common, (c) mutual, (d) R-hybrid; (20) Interaction due to values; (21) R-Hybrid interaction (yD interactions for previous 20 categories; y; 1 to 20).

Some of the general/specific interactions due to disciplines are given as follows (in alphabetic order): (a) cultural interaction, (b) disciplinary interaction, (c) ideological interaction, (d) personal interaction, (e) philosophical interaction, (f) political interaction, (g) religious interaction, (h) scientific interaction; biological interaction, chemical interaction, electromagnetic interaction, mathematical interaction, physical interaction, hybrid interaction, (i) social interaction, (j) hybrid interaction, (k) others.

### 5.3. *Theory of Relation*

Author defined Theory of Relation with the following 21 categories to express the related dimension and possible effects/results of the relations: (1) Relation due to basic senses, (2) Relation due to type of effects, (3) Relation due to disciplines, (4) Relation due to effective period, (5) Relation due to energy forms, (6) Relation due to formality, (7) Relation due to geographical structure considered, (8) Relation due to levels, (9) Relation due to living forms, (10) Relation due to motion, (11) Relation due to number of sides considered, (12) Relation due to objects/matter, (13) Relation due to sensitivity, (14) Relation due to size and/or content, (15) Relation due to structural categories, (16) Relation due to subjects, (17) Relation due to system, (18) Relation due to time, (19) Relation due to characteristic types, (20) Relation due to values, (21) R-Hybrid relation.

These categories of “relations” are defined as way of solutions to the problems caused by 21 categories of interactions given in previous section in some manner.

Some of the general/specific relations due to disciplines are given as follows (in alphabetic order): (1) ideological relation, (2) disciplinary relation, (3) personal relation, (4) philosophical relation, (5) political relation, (6) religious relation, (7) scientific relation.

### 5.4. *Theory of Hybrid*

Author defined Theory of Hybrid with the following 12 categories to express possible effects of hybrid perspective (in alphabetic order): (1) hybrid due to characteristic types (hybrid characteristics); (2) hybrid due to disciplines (hybrid disciplines)—(a) effective/major/general disciplines, (b) basic disciplines, (c) sub disciplines; (3) hybrid due to energy forms (hybrid energy forms); (4) hybrid due to formality; (5) hybrid due to interaction (hybrid interactions); (6) hybrid due to perspective; (7) hybrid due to relation (hybrid relations); (8) hybrid due to system (hybrid systems); (9) hybrid due to structural categories; (10) hybrid due to subjects—for 37 subjects of services; (11) hybrid due to type of effects; (12) hybrid due to values (hybrid values).

Author defined hybrid philosophy (Ramiz June 2016) and hybrid sciences in this article generally/specifically.

## 6. Major Effective Disciplines for a Country and for the World

Author defined that all of the subjects in the universe can be defined in terms of 10 general dimensions of the universe in general (in alphabetic order): (1) energy forms, (2) interaction types, (3) kinds of interaction, (4) living forms, (5) non-living matters, (6) subjects of interactions, (7) system(s), (8) time, (9) vector space, (10) way of interaction. Some of these are partly explained in some other works (Ramiz 2015; Ramiz 2016).

By considering the theory of interaction (as part of R-Interaction), theory of relation (as part of R-Relation), author defined that; all possible “interaction types,” “kinds of interaction,” “subjects of interaction,” “way of interaction” can be used to form “new relations.” These relations are fixed, continuable, stable, progressive comparing with the variable, discontinues, instable, corruptible effects of the some/most possible interactions. With this respect, author defined that the following disciplines are major effective disciplines (relations; degree-1) for the living forms in the World (in alphabetic order): (1) R-Administration, (2) R-Basic Senses, (3) R-Continuity, (4) R-Energy forms, (5) R-Ideology, (6) R-Information, (7) R-Justice, (8) R-Living forms, (9) R-Motion/action, (10) R-Non-living matter, (11) R-Philosophy, (12) R-Possibility, (13) R-Religion, (14) R-Science, (15) R-Sensitivity, (16) R-System, (17) R-Time, (18) R-Transformation, (19) R-Uniqueness, (20) R-Values, (21) R-Vector space.

As result of the synthesis, the author categorized these 21 disciplines (relations) into two groups. Category-A: (1) R-Administration, (2) R-Ideology, (3) R-Information, (4) R-Justice, (5) R-Philosophy, (6) R-Religion, (7) R-Science, (8) R-System, and Category-B: (1) R-Basic Senses, (2) R-Continuity, (3) R-Energy forms, (4) R-Living forms, (5) R-Motion/action, (6) R-Non-living matter, (7) R-Possibility, (8) R-Sensitivity, (9) R-Time, (10) R-Transformation, (11) R-Uniqueness, (12) R-Values, (13) R-Vector space.

These disciplines are important for persons, groups, countries, and for the world. Here the R-Continuity is defined generally/specifically in other work (Ramiz April 2016), which includes ideological, philosophical, scientific, religious, and hybrid perspective simultaneously in some manner. R-Ideology is defined generally/specifically in other work (Ramiz September 2015; Ramiz April 2016; others). And R-Information (Ramiz January 2016; here), R-Justice (Ramiz January 2016; Ramiz April 2016), R-System (Ramiz March 2016; Ramiz April 2016), R-Administration (Ramiz 2015; Ramiz 2016; other), R-Religion (Ramiz March 2016) are defined generally/specifically. Here R-Science will be explained with more specifically.

The author defined the “new system” so that R-Administration, R-Ideology, R-Information, R-Justice, R-Philosophy, R-Religion, R-Science, R-System and others (in alphabetic order) are complementary to each other. Also, each of these dimensions/disciplines/concepts/theories includes and/or reflects others. These disciplines include all the subjects/words about administration, about ideology, about information, about justice, about philosophy, about religion, about science, and about system respectively. These disciplines are all integrated into one field. However, this one field is not any of the disciplines of religion, science, ideology, philosophy due to the past known perspective. This field is defined by the author as “to separate and integrate and unify them under one framework.” This can better understand with the R-Hybrid perspectives defined by the author, and also by the “good” example of Maxwell equations perspective, and with some other “good” perspectives. With this respect, the said disciplines are R-independent in some manner, and they overlap in some other manner. The author defined the new system and one framework so that it doesn’t include conflicts between these defined disciplines.

## 7. New Perspective of Philosophy

Author considered his R-Synthesis, and as result of the synthesis he noticed that there are more than one way of defining new perspective of philosophy he proposed, where each way can be use to start from different point to reach the same result(s), together and separately, as unique side of the R-Synthesis. In general manner, it is possible to categorize the perspectives as local, regional, worldwide, universal due to size and content. The word “Philosophy” is defined by the author as R-Philosophy so that it founded its meaning with the complementary basic branches, constructional philosophies, and other branches defined below. As result of the R-Synthesis, the author noticed that there are *definitive, structural, categorical, characteristic* (DSCC) problems about the past/present perspective of the philosophy and its branches, where these problems are related and stated with the theory of interaction mentioned above generally/specifically.

With this respect, it is good and/or correct to consider the followings to understand R-Philosophy; philosophy of person, philosophy of group, philosophy of religion, philosophy of country, philosophy of earth, or philosophy of universe, philosophy of God, and philosophy of highest living form.

As result of the synthesis, author defined new perspective for the philosophy. There are more than one way to express this new perspective for philosophy, as partly mentioned above. Author expressed some of them below. With this respect, author defined an ideal/standard set of questioning for the philosophy (Q-for-P), and applied it to the philosophy and all related branches of philosophy (Q-for-BP).

These two questioning are proposed so that philosophy and branches of philosophy are complementary with each other. However, this complementary relation is formed together with the “philosophy of X,” where “X” is the special subject of the branch philosophy, and also this subject is proposed as good and/or correct discipline. It is noticed that, upon to this discipline, same ideal/standard set of questioning can be consider, but there are some changes/addition within the questioning subjects. Here author defined, new or re-constructed special subjects “X,” so that “X” and “philosophy of X” are complementary to each other. Also “philosophy of X” is related or complementary with “philosophy of Y,” and so on. Author believes that, word “philosophy” found its meaning together with these definitions, and the ideal philosophical system, and other subjects defined and expressed below as part of the R-Philosophy. “One word” can consider as the questioning of the all subjects with different dimension in some manner. With this perspective and re-constructions, the number of the “philosophy of X” is limited with “necessary and sufficient” branches of philosophy, where these branches of philosophy are defined to include all subjects.

Aims/purpose of R-Philosophy is defined as follows due to number of categories “42” and subject of disciplines “Y” which are given in the other article (Ramiz June 2016); 42 “Methods of Y,” 42 “Ways of Y,” 42 “Theories of Y,” 42 “Sense of Y,” 42 “Dimensions of Y,” 42 “Process of Y,” in general/specific manner.

To express the DSCC definition and content of R-Philosophy, author considered the above mentioned methods, theories. With this respect, for example, R-Interaction, R-Relation and R-Hybrid theories are considered. By considering the different “interaction (int.)” between the Category-A disciplines, between Category-B disciplines, or between Category-A and Category-B disciplines, it is possible to define some important effects, rules, relations (rel.), studies, perspectives, doctrines, sciences, fields, branches, laws, etc., about these disciplines.

Upon to the number of disciplines “n” considered together due to Category A and/or Category B, author defined “nD” dimension of interactions between these disciplines. As result of these interactions following relations are defined: (1) “nD” Hybrid Disciplines, (2) “aD” Hybrid Ideologies, (3) “bD” Hybrid Information, (4) “cD” Hybrid Justice/Law, (5) “dD” Hybrid Perspectives, (6) “eD” Hybrid Philosophies, (7) “fD” Hybrid Relations, (8) “gD” Hybrid Religion, (9) “hD” Hybrid Sciences, (10) “jD” Hybrid Systems, (11) “kD” Hybrid Theories. Here “D” denotes the dimension, “a, b... k” denotes the number of the sub disciplines/subjects/categories.

Author defined the new branches of philosophy, and/or some reconstructed branches of philosophy in the following sections to express the new perspective of philosophy and related “xD” hybrid philosophies due to Category A in more specific manner (Ramiz June 2016).

Here R-Philosophy is defined as: New Era Philosophy, Ideal Philosophical System, Hybrid Philosophy, constructional philosophy, basic philosophy, branches of philosophy and all of the subjects related with philosophy. R-Philosophy is including the starting, process, and obtaining product in some manner.

### *7.1. New Era Philosophy and Ideal Philosophical System*

Author defined New Era Philosophy as result of the R-Synthesis by considering the major effective disciplines, new philosophy perspective and “xD” interactions given above due to Category A. With this respect, New Era Philosophy is considered as 8D Hybrid Philosophy, and as a Major Philosophy, for the design, definition, etc., of all the subjects. New Era Philosophy includes “constructional hybrid branches,” “sub branches,” and “constructional philosophies,” which are considered “simultaneously” and given below.

*Sub Branches of New Era Philosophy* (in alphabetic order): (1) Philosophy of Centrism®®, (2) Philosophy of Construction®®, (3) Philosophy of Creation/Formation®®, (4) Philosophy of Definition®®, (5) Philosophy of Design®®, (6) Philosophy of Dimension®®, (7) Philosophy of effective weight®®, (8) Philosophy of GodForm®®, (9) Philosophy of Integration®®, (10) Philosophy of Priority®®, (11) Philosophy of Process®®, (12) Philosophy of Progression®®, (13) Philosophy of Relation®®, (14) Philosophy of Ruling®®, (15) Philosophy of Selection®®, (16) Philosophy of Separation®®, (17) Philosophy of Unification®®.

*Constructional Philosophies of New Era Philosophy*: (1) Philosophy of Basic Senses®®, (2) Philosophy of Continuity®®, (3) Philosophy of Energy®®, (4) Philosophy of Interaction®®, (5) Philosophy of Living Forms®®, (6) Philosophy of Matter, (7) Philosophy of Motion/Action®©, (8) Philosophy of Possibility®®, (9) Philosophy of Sensitivity®®, (10) Philosophy of Space, (11) Philosophy of Time, (12) Philosophy of Transformation®®, (13) Philosophy of Uniqueness®®, (14) Philosophy of Values®®.

*8D Hybrid Philosophy Perspective of New Era Philosophy*: Philosophy of Administration®®, Philosophy of Information®©, Philosophy of Justice®®, Philosophy of Politics®©, Philosophy of Religion®©, Philosophy of Science®©, Philosophy of Social Science®©, and Philosophy of System®©.

Author defined ideal philosophical system by considering New Era Philosophy and the following branches of R-Philosophy. (1) Branches of R-Philosophy due to structural categories: (a) constructional philosophies, (b) basic branches of philosophy (Basic Philosophies, 1D), (c) hybrid branches of basic philosophies (2D-8D: Hybrid Philosophies), (d) complementary philosophies; (2) Branches of R-Philosophy due to characteristics (subjects): (a) basic branches of philosophy (Basic Philosophies, 1D), (b) sub branches of basic philosophies, (c) sub branches of “xD” hybrid philosophies, (d) Major branch of philosophy (8D-Hybrid Philosophy).

### 7.2. New and/or Re-Constructed Branches of Philosophy (Basic Philosophies)

Author defined the following basic branches of philosophy (Basic Philosophies) as result of the synthesis: (1) Philosophy of Administration®®, (2) Philosophy of Information®©; (3) Philosophy of Justice®®, (4) Philosophy of Politics®©, (5) Philosophy of Religion®©, (6) Philosophy of Science®©, (7) Philosophy of Social Science®©, (8) Philosophy of System®©, (9) Hybrid Philosophy®®.

Here “®©” denotes that it is re-constructed by the author, and “®®” denotes that it is new defined by the author.

## 8. New Perspective for the Philosophy of Science

To indicate the new perspective of “philosophy of science,” and the relation among “sciences,” “philosophy of science,” and branches of philosophy, author defined the followings: (i) New Philosophy perspective, (ii) New Era Philosophy, (iii) Ideal Philosophical System, (iv) Hybrid Philosophy, (v) Constructional Philosophies, (vi) Basic Philosophies, (vii) re-constructed philosophy of science, (viii) major sciences, (ix) new or re-constructed sciences, (x) new or re-constructed branches of science.

### (A) Philosophy of Science®©

Theories of Science are considered under this philosophy. These theories are proposed basically to have information about: (a) existence of science, (b) knowledge of science, (c) nature of science, (d) purpose of science.

*Sub Branches (in alphabetic order):* (1) Philosophy of biology\*, (2) Philosophy of chemistry\*, (3) Philosophy of Electromagnetic<sup>®</sup>, (4) Philosophy of mathematics\*, (5) Philosophy of physics\*, (6) Hybrid Sub Branches—(a) Philosophy of Medicine, (b) Others (defined due to hybrid sciences generally).

*Complementary Branches:* (1) Philosophy of Administration<sup>®</sup>, (2) Philosophy of Information<sup>®</sup>, (3) Philosophy of Justice<sup>®</sup>, (4) Philosophy of Politics<sup>®</sup>, (5) Philosophy of Religion<sup>®</sup>, (6) Philosophy of Social Sciences<sup>®</sup>, (7) Philosophy of System<sup>®</sup>.

*Constructional Philosophies:* (1) Philosophy of Basic Senses<sup>®</sup>, (2) Philosophy of Continuity<sup>®</sup>, (3) Philosophy of Energy<sup>®</sup>, (4) Philosophy of Interaction<sup>®</sup>, (5) Philosophy of Living Forms<sup>®</sup>, (6) Philosophy of Matter, (7) Philosophy of Motion/Action<sup>®</sup>, (8) Philosophy of Possibility<sup>®</sup>, (9) Philosophy of Sensitivity<sup>®</sup>, (10) Philosophy of Space, (11) Philosophy of Time, (12) Philosophy of Transformation<sup>®</sup>, (13) Philosophy of Uniqueness<sup>®</sup>, (14) Philosophy of Values<sup>®</sup>.

The relation between this philosophy branch and sciences (branches of sciences) is explained generally below.

*(B) Philosophy of System<sup>®</sup>*

*Sub Branches:* (1) philosophies due to administration systems, (2) philosophies due to information systems, (3) philosophies due to justice systems, (4) philosophies due to political systems, (5) philosophies due to religious systems, (6) philosophies due to scientific systems, (7) philosophies due to hybrid systems.

The relation between this philosophy branch and sciences (branches of sciences) is explained generally below. The content, effectiveness, value, levels, significance, meaning, and/or weight of the followings are re-constructed/re-defined due to 27 (+) definitive/certain result cases of the R-Synthesis: (i) philosophy of science\*, (ii) branches\* of philosophy of science, (iii) branches of sciences. Some new branches of philosophy of science and some new branches of sciences are defined. Some of the functional measures of some philosophy branches and science branches are increased and strengthened together with the new defined basic philosophies, sub branches, and constructional philosophies. Major sciences are defined due to new basic philosophy branches below. Also branches of sciences are defined below due to new perspective of philosophy of science.

## 9. Major Sciences due to New Basic Branches of Philosophy

Author defined major sciences and related basic principles for the basic philosophy branches below.

*(A) Science of Administration<sup>®</sup> (Administration Science<sup>®</sup>)*

Basic principles of this science are defined as: (i) formation of administration, (ii) protection of administration, (iii) sense of administration due to 8-basic senses, (iv) administration of information, (v) administration of justice services, (vi) administration of political services, (vii) administration of religious services, (viii) administration of scientific services, (ix) administration of systems, (x) others.

*(B) Science of Information<sup>®</sup> (Information Science<sup>®</sup>)*

Basic principles of this science are defined as: (i) Information forming, (ii) Information protection, (iii) Information acquiring, (iv) Information presenting, (v) administration/directing of information, (vi) Information inspection, (vii) 8-basic senses for information, (viii) transformation of information.

General/specific definition about this science is given below.

*(C) Science of Justice®®*

Basic principles of this science are defined as: (i) formation of justice/law, (ii) protection of justice/law, (iii) to acquire/to have justice/law, (iv) to serve/to distribute justice/law, (v) administration of justice/law, (vi) inspection of justice/law, (vii) Sense of Justice due to 8-basic senses, (viii) transformation in justice.

*(D) Science of Politics®®*

Basic principles of this science are defined as: (i) formation of political services, (ii) protection of political services, (iii) to acquire/to have political service, (iv) supplying political services, (v) administration of political services, (vi) inspection of political services, (vii) 8-basic senses for political services, (viii) transformation in political services.

*(E) Science of Religion®®*

Basic principles of this science are defined as: (i) formation of community values, (ii) protection of community values, (iii) to acquire/to have community values, (iv) to supply/to serve community values, (v) administration of community values, (vi) inspection of community values, (vii) 8-basic senses for community values, (viii) transformation in community values.

*(F) Basic Sciences®®*

Basic principles of these sciences are defined as: (i) formation of sciences, (ii) protection of sciences, (iii) to acquire/to have science, (iv) to supply/to serve sciences, (v) administration of sciences, (vi) inspection of sciences, (vii) 8-basic senses for sciences, (viii) transformation in sciences.

General/specific definition about these basic sciences and the related names of sciences is given below.

*(G) Science of Systems®® (Systems Science)*

Basic principles of this science are defined as: (i) formation of system, (ii) protection of system, (iii) to acquire/to have system, (iv) serving/supplying system, (v) administration of system, (vi) inspection of system, (vii) 8-basic senses for systems, (viii) transformation in systems.

General/specific definition about this science is given below.

*(H) Hybrid Sciences®®*

Hybrid sciences are defined with the following categories. Category-I: between the disciplines related with Category-A (administration, information, justice, politics, religion, science, and system); Category-II: (a) between the basic science disciplines (defined below), (b) between the disciplines related with Category-B.

General/specific definitions about these sciences are given below.

## 10. Branches of Sciences due to New Perspective of Philosophy of Science

In this section, author defined basic components for each science branch, also made new and/or re-constructed definition of science and branches of science, and defined the relation between branches of science and related hierarchy of science with figure.

### 10.1. Basic Components of Each Science Branch

As result of the synthesis, author defined that following components are basic components for each of the science branch, hybrid sciences, and for major sciences generally/specifically (in alphabetic order): (1) amount (quantity), (2) application, realization, practice, manufacturing, (3) *basic senses*, (4) *chart, graphic*, print, plot, (5) *construction, structure*, (6) *creation, formation*, (7) compatibility, (8) comparison, istatistics, (9) *continuity*, (10) *definition*, (11) *dependence* (frequency dependence, other dependencies), *interaction, bond, relation*, (12)

*design*, (13) detection, visibility, measure, (14) *dimension*, (15) divide, separate, (16) *effective weight*, *effective factor*, *effective parameter*, *effective value*, (17) *energy forms*, (18) evidence, proof, basis, (19) formulation, equation, function, (20) *hybrid*, unification, alloy, mix, composite, (21) *information*, (22) *living forms*, (23) method, analysis, *synthesis*, (24) *motion*, (25) objects (matters), (26) observe, watch, (27) *possibility*, (28) *process*, (29) recording, storage, register, write, paint, draw, (30) *sensitivity*, (31) solution, result, decision, calculation, (32) *spectrum*, *classification*, (33) standardisation, optimization, approximation, (34) *system*, (35) testing, examining, (36) *theory (law)*, (37) *time*, duration, period, (38) to name and/or to symbolize, (39) to value, (40) *transformation*, (41) *unit*, (42) *unit structure*, (42) *vector space*.

Some/most of these basic components are re-defined, or re-constructed, or new defined by the author due to each discipline.

### 10.2. New and/or Re-Constructed Definition of Science and Branches of Science

As result of the synthesis, author applied the 27 (+) definitive/certain result cases of the R-Synthesis to the science discipline and to the old branches of science, and defined the new and/or re-constructed branches of sciences, hierarchy of science, branches of R-Science generally. With this respect, sciences are categorized as follows.

- (a) sciences due to structural categories: basic sciences, hybrid sciences;
- (b) sciences due to size, content, and sensitivity: micro sciences, functional sciences, macro sciences;
- (c) sciences due to characteristics methods: theoretical, experimental, applied, computational, analytical, comparative;
- (d) sciences due to subjects of services: due to 37 subjects of services.

Author defined branches of sciences due to methods and size in Table 2 below.

Table 2  
*Branches of Science due to Methods and Size*

|                      | <b>Micro science</b> | <b>Functional science</b> | <b>Macro science</b> |
|----------------------|----------------------|---------------------------|----------------------|
| <b>Theoretical</b>   | Micro/theoretical    | Functional/theoretical    | Macro/theoretical    |
| <b>Experimental</b>  | Micro/experimental   | Functional/experimental   | Macro/experimental   |
| <b>Applied</b>       | Micro/applied        | Functional/applied        | Macro/applied        |
| <b>Computational</b> | Micro/computational  | Functional/computational  | Macro/computational  |
| <b>Analytical</b>    | Micro/analytical     | Functional/analytical     | Macro/analytical     |
| <b>Comparative</b>   | Micro/comparative    | Functional/comparative    | Macro/comparative    |

Branches of science and hierarchy of science are re-defined in Figure 2 below. Here author considered that R-Biology discipline is related with “science/law of living forms;” chemistry© discipline is related with “science/law of plasma, condensate, solid, liquid, gas object;” R-Electromagnetic discipline is related with “science/law of seen and/or unseen energy forms;” R-Information discipline is related with “science/law of knowledge;” mathematics© discipline is related with “science/law of numbers, size, shape, volume, distance/length, direction, etc.,” and physics© discipline is related with “science/law of motion and mass.”

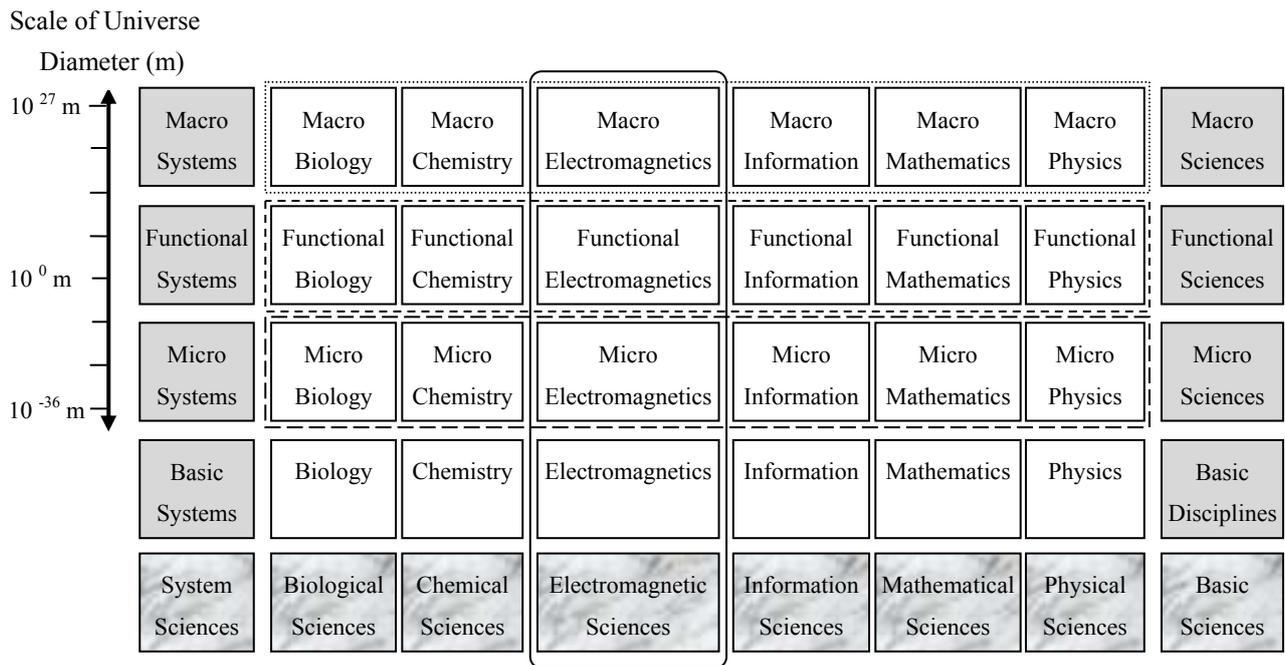


Fig. 2. New branches of science and related hierarchy of science due to scale of universe (in alphabetic order).

Basic branches of science (Basic Sciences) in Figure 2 are defined below generally/specifically (in alphabetic order).

(1) Biological Science®®

*Biological Sciences®®*: sciences related with the biological science are new defined, or re-organized and/or re-constructed due to basics given here.

(2) Chemical Science®®

*Chemical Sciences®®*: sciences related with the chemical science are new defined, or re-organized, and/or re-constructed due to basics given here.

(3) Electromagnetic Science®®

*Electromagnetic Sciences®®* (branches of electromagnetic science) are defined as follows. (1) Electromagnetism: (a) electricity, (b) magnetic, (c) electromagnetic, (d) electrodynamics, (e) electric field, (f) magnetic field, (g) electrostatic fields, (h) magneto-statics, (i) electromagnetic induction, (j) magnetic levitation, (j) alternating currents (AC); (2) Electromagnetic Analysis: (a) Vector analysis, (b) others; (3) Electromagnetic Compatibility; (4) Electromagnetic Energy Forms; (5) Electromagnetic Measurement/Detection; (6) Electromagnetic mediums/materials: (a) interaction of fields and matters, (b) interaction of waves and matters, (c) electromagnetic absorption, (d) others; (7) Electromagnetic Waves: (a) Maxwell's Equations, (b) electromagnetic fields and waves, (c) electromagnetic spectrum waves, (d) others; (8) Electromagnetic Spectrum; (9) Microwave Circuits: (a) filters, (b) transformers, (c) directional couplers, (d) dividers, (e) others; (10) Antennas; (11) Propagation; (12) Transmission lines: (a) wave guides, (b) fiber optics, (c) coaxial lines, (d) others; (13) Radiation; electromagnetic radiation; (14) Wireless Communications and Systems: (a) Analogue Mobile Communications, (b) Digital Mobile Communications, (c) Wi-Fi, (d) Satellite Communication, (e) GPS, (f) Personal Communication, (g) others; (15) Wireless Defense Systems: (a) Electronic Defense System, (b) others; (16) Radar; (17) Other Hybrid electromagnetic sciences (due to Category I & II, partly defined in the following section).

Author gave some subjects related with the electromagnetic sciences in Table 3 below. This table gives some information about the history of the realization and/or improvement related with the theory and/or practice of some electromagnetic sciences.

Table 3

*Realization and Continual Improvement in the History about Some Subjects of Electromagnetic Sciences*

| Subject                              | Theory by                  | Practice by              | Theory and practice by       | Spectrum by (theory)    | Spectrum by (practice) |
|--------------------------------------|----------------------------|--------------------------|------------------------------|-------------------------|------------------------|
| Electromagnetic wave                 | James Clerk Maxwell (1873) |                          | -                            | James C. Maxwell (1873) | Time division**        |
| Telephony                            | -                          | -                        | Alexander Graham Bell (1876) |                         | Time division**        |
| Wireless analogue telephony          | -                          | -                        | Alexander Graham Bell (1880) |                         | Time division**        |
| Electromagnetic wave                 | Oliver Heaviside (1881)    | -                        | -                            | -                       |                        |
| Wireless Induction                   | -                          | -                        | Thomas Edison (1885)         |                         | Time division**        |
| Electromagnetic wave                 | -                          | Heinrich R. Hertz (1888) |                              |                         |                        |
| Wireless telegraphy (radio)          | -                          | -                        | Guglielmo Marconi (1894)     |                         | -                      |
| Digital telephony                    |                            |                          | Bell laboratory (1960s)      |                         | Time division**        |
| Wireless digital telephony           |                            |                          | George Sweigert (1969)       |                         | Time division**        |
| Handheld Mobile phone                |                            |                          | Martin Cooper (1973)         |                         | Time division**        |
| Wireless mobile communication system |                            |                          | Östen Mäkitalo (1981)        | Östen Mäkitalo          | Time division**        |

*Note: (\*\*)* here the words “Time division” is indicating that, data/knowledge and related theorems defined respectively due to time-period. The realization and continual improvement related with theory and practice of these subjects are performing through different times and one after the others. However, some data/knowledge and related theorems defined by different persons and parallel to each other.

General specifications and interests of some of the founder scientists in Table 3 are given below (due to date of birth):

*Martin Cooper (1928-cont.)* is described by some experts as an engineer, pioneer, and visionary in the wireless communications industry, inventor of first handheld mobile phone, entrepreneur, and an executive.

*Östen Mäkitalo (1938-2011)* is described as an electrical engineer, founder of the mobile telephone system, and founder of cellular phone, GSM.

Branches of electromagnetic sciences are defined due to “methods” and “size” as follows. Category-B1: (i) theoretical electromagnetic, (ii) experimental electromagnetic, (iii) applied electromagnetic, (iv) computational electromagnetic, (v) analytical electromagnetic; Category-B2: (i) micro electromagnetic, (ii) functional electromagnetic, (iii) macro electromagnetic.

There are Electromagnetics Academy (Electromagnetics Academy, 2016) and International Union of Radio Science (URSI) organizations (URSI, 2016) which considered the electromagnetics, some of its sciences and applications generally/specifically. There are also Institute of Electrical and Electronics Engineering (IEEE) organization (IEEE, 2016), and International Telecommunication\* Union (ITU) organization (ITU, 2016), which are partly related with the electromagnetic sciences. These organizations will be reconstructed by the author.

(4) Information Science®©

The relation between the “branches of philosophy” (Ramiz June 2016) and information science is defined below generally/specifically by the author with new or re-constructed branches of sciences.

With this respect, information sciences® are defined by the author with the following categories. (1) Administration: (a) Administration and Ideology, (b) Administration and politics, (c) Administration and Religion, (d) Administration and Science, (e) business administration, (f) Continuable/sustainable administration, (g) public administration, (h) system administration, (i) others; (2) Archaeology; (3) Banking; (4) Communication: (a) personal communication, (b) social communication, (c) business communications, (d) public communication, (e) languages, (f) internet communication, (g) media communications, (h) mobile communication; (5) Continuable/Sustainable Development; (6) Criminology; (7) Finance/Monetary Values; (8) Education: (a) Science education, (b) others; (9) Ethics: (a) business ethics, (b) medical ethics, (c) political ethics, (d) scientific ethics, (e) philosophical ethics, (f) others; (10) History; (11) Social Sciences®: (a) anthropology, (b) area studies, (c) beauty and art, (d) culture and art, (e) dance, (f) demography, (g) ethnic and cultural studies, (h) film, (i) gender and sexuality studies, (j) geography (human), (k) linguistics, (l) love and relations, (m) music, (n) pedagogy, (o) psychology, (p) sociology\*, (q) social works, (r) sports, (s) theatre, (t) hybrid sub sciences; (12) Law and Justice: (a) administration and justice, (b) information and justice, (c) politics and justice, (d) religion and justice, (e) science and justice, (f) system and justice, (g) ideology and justice, (h) others; (13) Library Science; (14) Political Science®: (a) political organizing, (b) politics and ideology, (c) politics and religion, (d) administration of political services, (e) political services, others; (15) Philosophy: (a) Philosophy of Science, (b) Basic Philosophies, (c) New Era Philosophy, (d) Hybrid Philosophy, (e) Constructional Philosophy, (f) others; (16) Relations: (a) international relations\*, (b) industrial relations, (c) public relations, (d) social relations, (e) others (Ramiz 2015); (17) Religion and Ideology; (18) Religion and Science: (a) Theology, (b) others; (19) Justice and Religion; (20) Ideology and Science; (21) Ideology and Politics; (22) Philosophy, Ideology, Religion, Science & others: (a) Ideal political construction, (b) others; (23) Other hybrid information sciences (defined in the following section).

Each of these categories is defined as an academic discipline. Author defined the relations between each of these categories and the new systems, organizations, administrations, councils, country presidency, and authorities he defined.

Here social sciences\* are re-constructed based on the concept given with the words “social” and “sciences.” Here, archaeology\*, economics\*, history\* are took out of social sciences\*, and considered related with the Philosophy of Social Sciences®, and inside the information sciences® as more significant disciplines. Criminology\* is considered as out of social sciences\*. Law\* (Law, 2015) is considered as out of social sciences\*, and related with the Philosophy of Justice®. Political science\* (Political Science, 2015) is considered as out of social sciences\*, and considered related with the Philosophy of Politics®. International relations\* is considered as out of social sciences\*. Some of these are explained in other works.

#### (5) Mathematical Science®

*Mathematical Sciences®*; sciences related with the mathematical science are new defined, or re-organized and/or re-constructed due to basics given here.

#### (6) Physical Science®

*Physical Sciences®*: sciences related with the physical science are new defined, or re-organized, and/or re-constructed due to basics given here.

#### (7) System Science®

System Sciences® and type of systems are defined due to categories as follows (in alphabetic order). (1) biological systems\*; (2) chemical systems\*; (3) electromagnetic systems; (4) information systems: (a) social systems, (b) political administration systems (Ramiz 2016; others), (c) international systems (Ramiz 2016; others), (d) Financial/monetary systems, (e) law/legal systems, (f) scientific systems, (g) public administration systems, (h) continuable/sustainable administration system, (i) ideological systems, (j) philosophical system, (k) religious systems®, (l) educational systems, (n) communication systems, (o) library systems, (p) academic systems, (q) administration systems, (r) others (due to each of 37 subjects of services); (5) mathematical systems\*; (6) physical systems\*; (7) Hybrid Systems: (a) for living forms, (b) for non-living matters—country system, world system, solar system, galaxy system, universal system, others (for 37 subjects of services), (c) for living forms and non-living matters together (for 37 subjects of services).

Author defined some of the basic components for the basic sciences in Table 4 & 5 below.

Table 4

*Some Basic Components due to Basic Sciences (in Alphabetic Order)*

| Basic Components | Biological Sciences       | Chemical sciences       | Electromagnetic sciences       |
|------------------|---------------------------|-------------------------|--------------------------------|
| Bond             | Biological bond           | Chemical bond           | Electromagnetic bond           |
| Continuity       | Biological continuity     | Chemical continuity     | Electromagnetic continuity     |
| Space            | Biological space          | Chemical space          | Electromagnetic space          |
| Time             | Biological time           | Chemical time           | Electromagnetic time           |
| Transformation   | Biological transformation | Chemical transformation | Electromagnetic transformation |

Table 5

*Some Basic Components due to Basic Sciences (in Alphabetic Order)*

| Basic Components | Information Sciences         | Mathematical sciences       | Physical sciences       |
|------------------|------------------------------|-----------------------------|-------------------------|
| Bond             | Informational bond           | Mathematical bond           | Physical bond           |
| Continuity       | Informational continuity     | Mathematical continuity     | Physical continuity     |
| Space            | Informational space          | Mathematical space          | Physical space          |
| Time             | Informational time           | Mathematical time           | Physical time           |
| Transformation   | Informational transformation | Mathematical transformation | Physical transformation |

As result of the R-Synthesis, author defined the branches of hybrid science (named as Hybrid Sciences), New Era Science, and Ideal Scientific System generally/specifically. This system is given in Figure 3 below by considering Category A & B, and Constructional Philosophies. Basic components of each science branch, new branches of science and related hierarchy of science in Figure 2 are defined as complementary part to Ideal Scientific System.

### 11. New Era Science and Ideal Scientific System

Author defined New Era Science as result of the R-synthesis by considering the Basic disciplines of science (Basic Disciplines) (1D), new philosophy of science perspective, and “hD” interactions/relations between basic sciences. With this respect, New Era Science is considered as 6D Hybrid Science, and considered for the design, definition, etc., of all the scientific subjects. New Era Science includes following sciences generally/specifically (in alphabetic order): “Biological Sciences,” “Chemical Sciences,” “Electromagnetic Sciences,” “Information Sciences,” “Mathematical Sciences,” “Physical Sciences,” and others.

### 11.1. *Ideal Scientific System*

As result of the synthesis, author applied the 27 (+) definitive/certain result cases of the R-Synthesis to the science discipline, and defined Ideal Scientific System in Figure 3 by considering New Era Science and following branches of R-Science. (1) hierarchy of science due to scale of universe; (2) basic components of each science branch; (3) Basic disciplines of science (Basic Disciplines) (1D); (4) sciences due to structural categories: (a) Basic Sciences (system sciences, other), (b) hybrid sciences (2D-6D Hybrid sciences); (5) sciences due to size, content and sensitivity; (6) sciences due to characteristics methods; (7) branches of science due to characteristic “methods” and “size;” (8) sciences due to subjects of services.

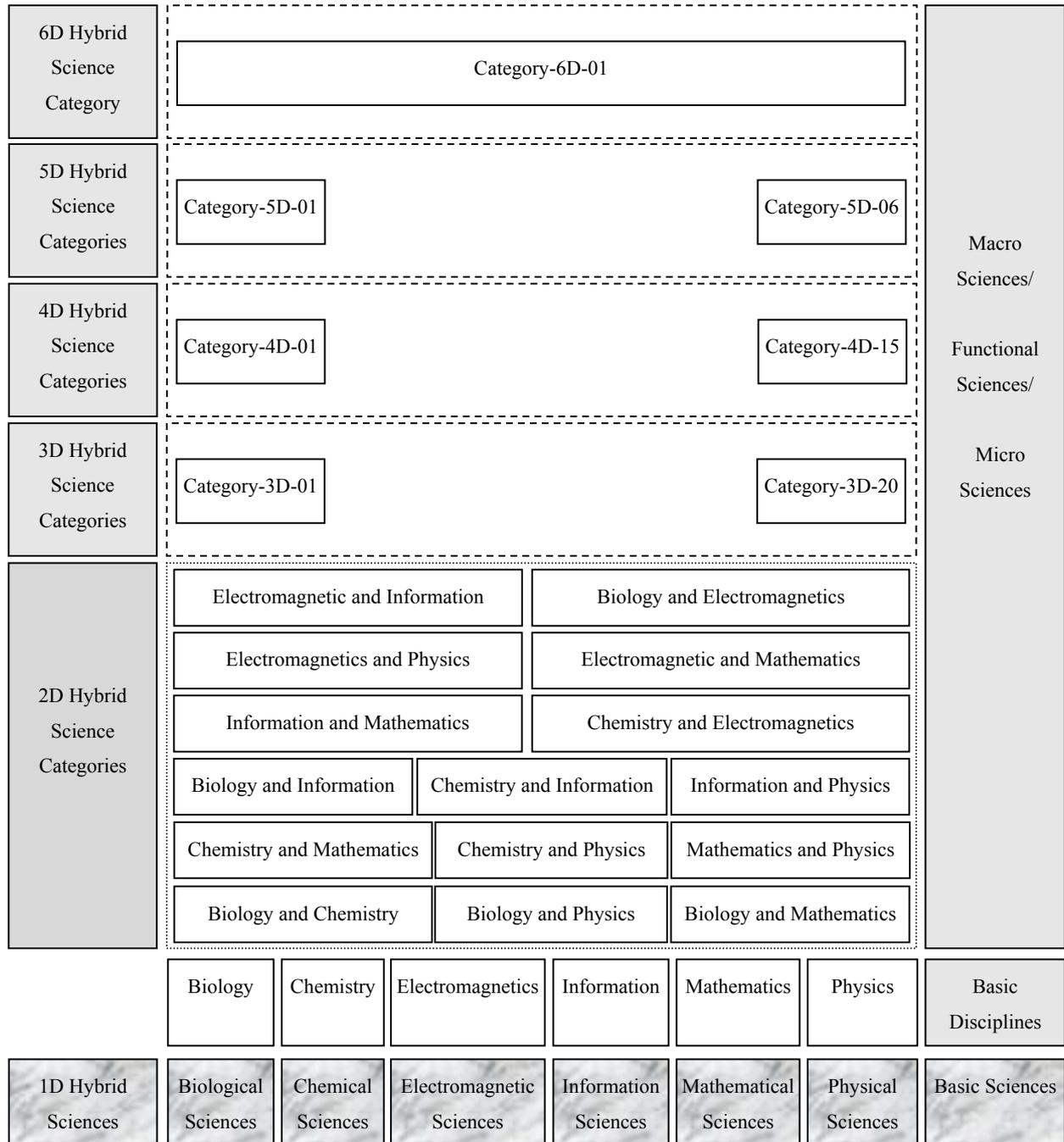
These branches of science are used to form the Ideal Scientific System as it is given in the Figure 3 below. It is important to note that, following definitive/certain result cases of the R-Synthesis are applied to each branches of science: (1) some subjects added to some branches of science; (2) the priority of some branches changed; (3) some common branches considered; (4) some branches converged to some subjects; (5) all branches defined under one framework; (6) new branches defined; (7) some branches eliminated; (8) all new and re-constructed branches are fixed within the framework; (9) values/importance of some branches improved; (10) all branches integrated into the framework; (11) philosophical/scientific judgment considered; (12) some branches kept (protected); (13) some branches modified; (14) progression proposed for all science branches; (15) some rules put about the branches; (16) some branches re-constructed; (17) some branches re-defined; (18) some branches removed but new branches put instead immediately; (19) philosophical/scientific revolution considered; (20) some branches separated; (21) training/academic education proposed for all branches; (22) some branches of science unified; (23) some branches of science united in upper phase; (24) some branches of science are hybridized; (25) other.

### 11.2. *Hybrid Sciences*®®

Here, the dimension of hybrid sciences (hD) is defined with the number of the basic sciences considered (Category-II) together among the 6 basic sciences (Figure 3). Here, each of the “hD” Hybrid Science defines and includes a new science perspective as follows: (1) 6D Hybrid sciences, (2) 5D Hybrid sciences, (3) 4D Hybrid sciences, (4) 3D Hybrid sciences, (5) 2D Hybrid sciences. These new “hD” hybrid science perspectives are categorized as follows (Figure 3). Category 2D-yy: denotes 15 Categories for 2D Hybrid Sciences, for example; Category 2D-01: It is a hybrid science that considers two of basic science disciplines of “Biology” and “Chemistry,” so on; Category 3D-yy: denotes 20 Categories for 3D Hybrid Science; Category 4D-yy: denotes 15 Categories for 4D Hybrid Sciences; Category 5D-yy: denotes 6 Categories for 5D Hybrid Sciences; Category 6D-01: denotes only 1 Category for 6D Hybrid Science. Author gave some examples about the 2D Hybrid sciences below. Other 2D-6D Hybrid Sciences are defined in other work.

*2D Hybrid Electromagnetic Sciences.* Category 2D-01: Electromagnetics and Biology; Category 2D-02: Electromagnetics and Chemistry; Category 2D-03: Electromagnetics and Information; Category 2D-04: Electromagnetics and Mathematics; Category 2D-05: Electromagnetics and Physics.

*2D Hybrid Information Sciences.* Category 2D-06: Information and Biology; Category 2D-07: Information and Chemistry; Category 2D-08: Information and Mathematics; Category 2D-09: Information and Physics.



**Fig. 3. Ideal Scientific System, Main Categories of Hybrid Sciences (C-xD-yy) and Related Hierarchy of Science (in alphabetic order).**

The content, effectiveness, value, levels, significance, meaning, and/or weight of the past, present science branches are re-constructed/re-defined, or new defined due to 27 (+) definitive/certain result cases of the R-Synthesis. Some of the functional measures of the branches of science are increased and strengthened together with the new defined basic sciences, hybrid sciences, characteristic methods, basic components, and others.

## 12. Relations between the Some Old Branches and New Branches of Science

Some old branches of science are defined as re-constructed sciences by the author below:

- (1) Physical science\* is re-constructed;
- (2) Chemistry\* is re-constructed;
- (3) Earth and Space sciences\* is considered as part of the macro sciences<sup>®®</sup>, also as hybrid sciences<sup>®®</sup>, and it is classified as follows with more specifically; earth science\*, planetary science\*, solar science<sup>®®</sup>, galaxy science<sup>®®</sup>, universal science<sup>®®</sup>;

(4) Social sciences\* are re-defined, re-constructed;

(5) Interdisciplinary\* sciences are re-defined, re-constructed as hybrid sciences;

(6) Applied sciences\* are re-constructed as methods and applied for all basic science branches. (Table 2)

Relations between some old branches of science and hybrid sciences are defined by the author below:

- (1) Physical Chemistry→Physics and Chemistry (2D hybrid science);
- (2) Biochemistry, Organic Chemistry→Biology and Chemistry (2D hybrid science);
- (3) Mathematical physics→Mathematics and Physics (2D hybrid science);
- (4) Mathematical/theoretical biology→Mathematics and Biology (2D hybrid science).

Relations between some old branches and new branches of science are defined by the author below as a function of new defined basic sciences:

Astronomy=Function<sub>A</sub> [planetary science, cosmology]

=Function<sub>01</sub> {biological science; chemical science; electromagnetic science; informational science; mathematical science; physical science}

Geoscience=Function<sub>B</sub> [geology, oceanography, climate]

=Function<sub>02</sub> {biological science; chemical science; electromagnetic science; informational science; mathematical science; physical science}

RR Science=Function<sub>RR</sub> {biological science; chemical science; electromagnetic science; informational science; mathematical science; physical science}

## 13. Conclusion

In this article, new synthesis is defined by the author. Author considered R-Synthesis as a method for the evaluation of the philosophy, branches of philosophy, philosophy of science, sciences and for the evaluation of branches of science. This R-Synthesis includes evaluation of eight categories of general/specific perspective, 21-dimensions, and 12 general subjects (with related scope and contents) for the past 12,000 years.

It is important to note that, the author made a synthesis based on both “theoretical and experienced” information.

As result of this synthesis, 27 (+) definitive/certain result cases defined. These cases are considered: (i) for the definition of the New philosophy perspective, (ii) for the defition of New Era Philosophy, branches of philosophy, philosophy of science, (iii) for the definition of the branches of sciences, hierarchy of sciences, and (iv) for the definition of the other related scientific/non-scientific subjects or systems.

Past theories and extended definitions about science and branches of science are expressed generally. Then, some past perspectives behind the definition of some sciences and/or branches of sciences are explained. Some of the philosophers of science and their interests are given generally. Some types of interactions which are

considered between the disciplines are explained as examples. Good and/or correct perspective that must be behind the definition of science and branches of science expressed generally/specifically.

Constructional and/or complementary theories are defined. Formation stages, theory of interaction, theory of relation and theory of hybrid are expressed respectively.

Major effective disciplines defined for a country, for the world and for the universe. Some of these values/disciplines are partly explained here, some others like R-Religion, R-Ideology are defined by the author in other work more generally and specifically.

As result of the synthesis author noticed that there are more than one way to define new design, new system, and new perspective of philosophy. Here, each way can be used to start from different point to reach the same result(s), together and separately, as unique side of the synthesis. In general manner, it is possible to categorize the perspectives as local, regional, worldwide, universal due to size and content.

In this article, New Perspective of Philosophy, New Era Philosophy, Ideal Philosophical System and new and/or re-constructed branches of philosophy are defined generally/specifically. New perspective for the philosophy of science is defined specifically.

Major sciences are defined due to new basic branches of philosophy. Then branches of sciences are defined due to new perspective of philosophy of science. Basic components are defined for each science branch. New or re-constructed definition of science and branches of science is expressed.

New Era Science, Ideal Scientific System, and Hybrid sciences are defined generally/specifically. Relation between the old branches and new branches of science are expressed.

Author defined new designs, new methods, new synthesis, new spectrum, new transformations, new charts, new graphics, new senses, new dimensions, new processes, new polynomials (R-Bernstein, other), new theories, new systems, new disciplines, new applications, new solutions and others about basic components of science, electromagnetic sciences, basic sciences, hybrid sciences, hybrid electromagnetic sciences, branches of science, and about other disciplines (Ramiz 1996; Ramiz 1998; Ramiz 1999; Ramiz & Şengör 1999; Ramiz & Şengör 2000; Ramiz 2001; Ramiz 2002; Ramiz 2016; others). Author also made national and/or international, official/non-official practical works and realization about the above sciences and about most/all of the 37 (+) subjects of services generally/specifically. Some of these practical works and realizations of the author are: electromagnetic measurements, new agreements, new collaborations, new consultancies, new co-ordinations, execution, new directorship, new projects, new protocols, new law-court expertise, new law drafts, founder of first GSM System Test and Measurement Laboratory of Turkey (2002-2005), standardization works, and others.

Author considered the contents and results of the R-Synthesis, and applied the new philosophy perspective, related philosophy branches and sciences to the past/present systems. With this respect, author defined the following theories, administration system(s), sense of justice, and others for the world countries and for the world to express the effective use of the new philosophy perspective for some applications and practical realizations: (a) 37-subjects of services mandatory for a world country, (b) effective weight function of a world country (EW), (c) continuable political administration system for world countries (Ramiz 2015; Ramiz January 2016), (d) countries' union and political/non-political administration systems for the world countries (Ramiz March 2016), (e) good and/or correct perspective that must be behind the administration(s) (Ramiz March 2016), (f) new administration systems for the world countries and sense of justice & continuity in the system administration (Ramiz April 2016), (g) others. With this respect, following councils, administrations are defined as part of the new administration systems. (i) Progression Council: it is proposed directly and 1st degree related

with scientific/philosophical perspective, studies, searches, and (ii) Institutional Administrations: it is proposed as 2nd degree related with scientific studies, and so on.

Author defined the effective weight (EW) function for a world country below (Ramiz April 2016).

Effective Weight of a Country (EW)=[R<sub>1</sub> x (Sense of Justice)]+[R<sub>2</sub> x (8-basic senses)]+[R<sub>3</sub> x (*Information Science*)]+[R<sub>4</sub> x (Ideal Political Construction of Country)]+[R<sub>5</sub> x (*Information*)]+[R<sub>6</sub> x (*Systems' Administrations*)]+[R<sub>7</sub> x (Political Administration System of Country)]+[R<sub>8</sub> x (*Effective Subjects of services in Country*)]+[R<sub>9</sub> x (Country Presidency)]+[R<sub>10</sub> x (Administrator Persons)]+[R<sub>11</sub> x (*Infrastructure of Country*)]+[R<sub>12</sub> x (Effective run of institutions in country)]+[R<sub>13</sub> x (Continuity/Sustainability in Country)]+[R<sub>14</sub> x (Natural sources and energy in country)]+[R<sub>15</sub> x (Population in country)]+[R<sub>16</sub> x (Military Power of country)]+[R<sub>17</sub> x (Value of Country)]+[R<sub>18</sub> x (number and level of educated people in Country)]+[R<sub>19</sub> x (Financial/Monetary Power of Country)]+[R<sub>20</sub> x (Surface area of country)]+[R<sub>21</sub> x (Geographical Position of Country)].

This effective weight function expresses the relations, connections between the values of a world country and R-Philosophy, R-Ideology, R-Science, R-Religion disciplines generally/specifically. This function also indicates the dimension of the new perspective of philosophy, purposes of science, the philosophy of science, and science branches, the theories and applications together.

Here, R-Science is defined with the following disciplines/components/theories, and they express the new perspective for the philosophy of science: (1) philosophy of science, complementary philosophies, New Era Philosophy, constructional philosophies, Hybrid Philosophy, (2) branches of science, Hybrid sciences, Information Sciences, 6 basic sciences, major sciences, basic components, (3) Constructional and/or Complementary Theories, (4) R-Transformation, (5) R-Continuity, (6) R-Synchronization, (7) R-Simultaneity, (8) all other subjects related with science.

Author defined Ideal Philosophical System, Ideal Political Construction (Ramiz September 2015; Ramiz April 2016), Ideal Scientific System, and others as unique sub constructions. These sub constructions are defined so that they collect and include past, present, and all other types of possible future arrangements/subjects under “one framework” through new defined and/or re-constructed ideal values, new defined and/or re-constructed disciplines. With this respect, this one framework includes ideological, philosophical, religious, scientific, and hybrid perspective simultaneously.

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