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## How Mind, Logic and Language, Have Evolved From Medieval Philosophy to Early Modern Philosophy? A Critical Study

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### Abstract

This paper determines the state of mind, logic and language in medieval philosophy. It also exhibits the journey from medieval to early modern philosophy. In medieval philosophy, concept of mind was intimately connected soul or spirit with its harmony with religious tradition. Logic and language as well were corresponding with religion and faith. However in early modern philosophy the schema of mind, logic and language were different. These concepts were bailed from the clutches of religious dogmatism and faith towards the mechanical correspondence. Mind was treated as non-modular. Logical truth which includes mostly inductive and deductive in medieval and modern period has been explained clearly. This paper shows the evolution of these concepts in the tradition of Rationalists, Empiricists and Critical Philosophers. In this paper I would as well show the interrelation between mind along with language and logic. This write up further shows the development of language in medieval period to early modern philosophy. it also demonstrates the footprints for the analytical study and international study in contemporary philosophy.

**Keywords:** mind, logic, language, medieval, modern, rationalism, empiricism, criticism.

### Introduction

This topic “Mind, Logic and Language” was closely described in medieval and early modern philosophy, because of their interconnectivity and relation with each other. Although before the emergence of analytical tradition, philosophers were engaged with this problem but they were studying it separately; what is Mind, its role and relation to perception, sensation, reasoning and reflection. What is logic/thought, what is its role in the world, its types, validity and invalidity, its relation to propositions, terms and arguments? What is language, its role, structure, grammar, speaker-listener relation and its interpretation? We have noticed in the beginning of modern philosophy especially in the era of Continental rationalists, British Empiricists and critical philosophers; there is an indication of the problem, which has motivated me to study Mind, Logic and Language under one clock, that Clock is their interconnectivity. So, we can say that continental rationalist, British Empiricists and Critical philosophers are known as custodians of this interconnectivity. In this sense we can say that the problem of inner (mind) and the outer (language/experience) with its relation to logic evolved from medieval to early modern towards the contemporary era. Descartes was one of the great modern philosophers of sixteenth century who attributed the property of thought to mind. Chomsky assumed that seventeenth and eighteenth century philosophers have brought a first cognitive revolution.<sup>1</sup> Not only this, these philosophers have also brought analytical revolution in logic and language. Medieval philosophers as well as Seventeenth and eighteenth philosophers who contributed in the field of mind, logic and language include the philosophers; Augustine, Aquinas, Scotus, William of Ockham, Boethius, Avicena, Averroes, Al-Ghazali, Peter of Spain and early modern philosophers: Spinoza, Leibnitz,

<sup>1</sup> Cognitive revolution is the revolution not only in the field of mind but also with its contents and its relation as well as connection with other allied system like logical domains and linguistic structures.

Locke, Hume, Kant, Humboldt and so on (Chomsky, *New Horizons in the study of Language and Mind*, 2000, p. 6). Since this topic shows the relationship between (mind and language), (mind and logic) and the concepts like Mind; metaphor of software, logic; metaphor of laws of reasoning amid language: metaphor of symbolic representation that are deeply asserted and described. Leibniz's view in his *Discourse on Metaphysics* that "the mind at every moment expresses all its future thoughts and already thinks confusedly of all that of which it will ever think distinctly" might be regarded as suggesting the fundamental insight regarding language and mind/thought (Chomsky, *Cartesian Linguistics*, 2002). There are almost lots of researches in the areas of Mind, in the areas of logic and in the fields of language, from medieval Philosophy to early modern philosophy. However this problem has its foundation in medieval philosophy along with Continental rationalism, accompanied with British idealism and Kant's critical philosophy. So, it is necessary to study the theories of rationalism, empiricism and critical philosophy of Kant in order to ascertain the development of mind, logic and language. Further, Many researchers have been carried out on this topic and many articles, books, thesis; workshops, seminars has been written and conducted.

### **Concept of Mind, Logic, and Language in Medieval Philosophy**

Medieval philosophy is the philosophy which flourished and developed between 500 and 1500 (A.D.). Philosophers have started the debate on the ontological primacy of language i.e. consciousness which was reflected in the discussion on the nature of universals and particular. Medieval philosophy had its influence on Christianity, scholasticism, theology and religion. The Philosophers of this era assumed to resolve every scholastic problem by logic. They tried to harmonize faith with reason. Mind is the spiritual thing which is defined as the decree of God in man. They argued that the first cause of the all creation must be rational; reason must always have been potential in him as a part of inner nature, and to the presence of reason or Logos in God, are due to order and purpose in the universe. In other words, reason and Goodness lie at the root of the world. Mind and logos are identified as one. The logos proceed from God as the light proceeds from the sun. The Logos is the pattern or archetype, prototype as well as universal of all created beings, which means that everything is created in the image of reason and by the power of reason or with divine intelligence. Everything is determined in God's mind. The theological synthesis was achieved by defining God as the most real being (that is, pure form) in the Platonic Aristotelian sense and by treating the Greek forms as ideas in the mind of God. Realists like Thomas Aquinas and Duns Scotus argued with Aristotelians that Forms are real, but only in particular things. Nominalists like William of Ockham agreed with early atomists that forms are only names to which no abstract entity corresponds in reality.<sup>2</sup> Human mind is subsidiary to God's will. Scholastics unified science and faith. And like the Greek Philosophers they approached to the rational explanation of the things. The assumption of the medieval thinkers was based on the fact that the truths

<sup>2</sup> D. Stewart & H. G. Blocker, *Fundamentals of Philosophy*, p. 28-29.

of religion are rational or there is coherence between reason and faith. There is no conflict between revelation and human thinking. Most of the medieval philosophers accept deductive account of propositions as these propositions are by virtue true. The truth is the world about which the schoolmen are chiefly concerned is not perceivable by the senses; he is dependent on his thinking for the knowledge of which he is in search. Logic, therefore is the most important study for him, particularly deductive or syllogistic logic; the logic of method which he employs in his pursuit of truth. In this field the schoolmen emphasis great subtlety, not only in analyzing logical processes, but especially, in developing conceptions which have become a part of our intellectual heritage.<sup>3</sup> Augustine had a strong interest in the problems connected with knowledge. That the human mind can attain certainty was for him a fact beyond any reasonable doubt. Reflection will convince any man, he said, that he cannot doubt his own existence, and he can't be deceived in thinking that he exists. By his famous phrase *if I am deceived, I exist* Augustine anticipated Descartes, one cannot, he thought, deny or doubt one's existence without talking non-sense. Augustine was interested in our apprehension of necessary and immutable truths, take the example of mathematical proposition like  $7+3=10$ , a proposition which would generally be called analytic<sup>4</sup>. Logical principal is used in medieval philosophy in a sense of 'law of being'.<sup>5</sup> Logic is the art of reasoning, but reasoning takes place by means of language.<sup>6</sup> Medieval philosophers held that there is a close connection between language and logic. While the ontology of logic creates the problem and language interprets it. Every linguistic proposition can be represented in the form of logical symbols.

Augustine said that the words give us the particular picture of the essence of human language. It is this: the individual words in language name objects. Sentences are combinations of such names. In this picture of language we find the roots of the following idea: every word has a meaning. This meaning is correlated with the word. It is the object for which the word stands. Augustine does not speak of there being any difference between kinds of word. If you describe the learning of language in this way you are, he believed that thinking primarily of nouns like 'tables', 'chair', 'bread', and of people's names, and only secondarily of the names of certain actions and properties; and of the remaining kinds of word as something that will take care of itself. One thinks that learning language consists in giving names to objects, viz. to human beings, to shapes, to colors, to pains, to moods, to numbers, etc. to repeat naming is something like attaching a label to a thing. One can say that this is elementary to the use of a word.<sup>7</sup>

### **Concept of Mind, Language and Logic in early Modern Philosophy**

Modern philosophers explained and clarified the issues associated with mind and the body i.e. between mental and physical. They further elucidated many philosophical

<sup>3</sup> F. Thilly, a *History of Philosophy*, (New Delhi: SBW Publications, 2005, pp. 133-162.

<sup>4</sup> Copleston, *A History of philosophy: Medieval Philosophy*, (1993), p.18.

<sup>5</sup> *Ibid.*, p. 92.

<sup>6</sup> *Ibid.*, 122.

<sup>7</sup> Anthony Kenny, *The Wittgenstein Reader*, (1994), pp. 53-54

theories. The fundamental question before modern philosophers is 'which is prior; language or thought' as well as question; how can mental phenomena's interact with physical processes. The main problems related to mind, logic and language are the questions of their proportionality and function i.e. how the physical neural properties give rise to mental faculties? How body and mind interact to each other? How do thoughts cause actions or how do unconscious fantasies cause psychometric illness? How do thoughts impact on particles of matter and how do material force cause thoughts? Why do we have any experience at all, especially the perception of other minds? How inductive logic and deductive logic explain the theories of mental events and philosophical grammar. What is the connection between mind and logic and between mind and language? How logical propositions maintain the syntax and schema of the cognitive states? All the three concepts of thought processes, logical statements, and linguistic theories are inter-connected (Tantray, 2016, pp. 340-41) How these entities influence each other is matter of dialectical argumentation and a question of analysis. 'Sixteenth, seventeenth and eighteenth century philosophers had developed rich and illuminating ideas about perception, mind, thought, language and logic (Chomsky, On Nature and Language, 2002, p. 69). Descartes defined mind having acts of consciousness by the illumination of self-awareness and other awareness, non-location in space, and body having extension (occupancy of space), location, mass, persistence in time, resistance to touch etc.<sup>8</sup> Consciousness characterizes mind, Human beings are conscious of what they hear, see, taste, touch, of what they remember, and of their own thoughts and feelings. People have also the same concept about tables and stones that they are not conscious. People think that when they sit in a chair, they are aware of sitting in it, but it is not aware of being sat on it.<sup>9</sup> Mind and matter are two opposite and independent substances. Mind and body are ontologically distinct but they correspond in a region known as *Pineal gland* which is the sole seat of interaction between mind and body (matter). Descartes was a great logician and the exponent of continental rationalism. He assumed that man is the only animal endowed with mind; the others are automata. It is further explained with the addition that man is endowed with language.<sup>10</sup> He argued that there is an inert relation of causal thought or process which is deductive reasoning. Deductive reasoning is a type of reasoning which is used in mental mechanism volitionally without the control of the impulse of experience. This type of reasoning studies rules, axioms, syntax, and universal law. According to Wittgenstein there is logical relation between psychological processes like introspection and philosophical facts like interpretation along with inner process and outer processes. DNA<sup>11</sup> is the combination of the gene which is the transmittable character through Progeny to store information which is based on causation. The arrangement in DNA molecules is the causal or logical link between the phenomenon which is effect and the ideal

<sup>8</sup> Wilson Edgar, *The Mental and the Physical*, p. 27.

<sup>9</sup> C. V. Borst, *The Mind-Body Identity Theory*, (1970), pp. 1-29

<sup>10</sup> W. V. Quine, *Mind and Verbal Dispositions*, *Mind and Language*, Samuel Guttenplan, ed., 1975, p. 83.

<sup>11</sup> DNA is a scientific term which implies Deoxyribonucleic Acid

(norms) which is deductive.<sup>12</sup>

### Rationalists view

Rationalism is a modified form of idealism. Rationalism holds that the intellect contains important truths that were not placed there by sensory experience. "Something never comes out of nothing" might count as one of these truths. Rationalists in addition believe in the theory of innate ideas which means that there are some innate truths or concepts that result in the formation of certain knowledge. These truths are innate to mind. They are part of the original dispositions of the intellect. The philosophers Descartes, Spinoza and Leibnitz are known as continental rationalists while the philosophers; Pythagoras, Parmenides and Plato are called Greek rationalists.<sup>13</sup> Using clear and distinct criterion, Descartes found to his own satisfaction that he could regard as certain much of what he had initially had cause to doubt. This doubting methodology was like geometry, in which a theorem whose truth initially only seems true is demonstrated as absolutely certain by deducing it from basic axioms by means of rules of logic was "whatever I perceived clearly and distinctly is certain"<sup>14</sup>. Leibnitz argued that 'languages reflect human mind'.<sup>15</sup>

Rationalists gave priority to thought over language. Language is instrumental in expressing the thought. Humboldt's aphorism that language involves "the infinite use of finite means" here finite means 'being which that constitutes (I- language).<sup>16</sup> Applying a rationalist view to the special case of language learning, Humboldt concludes that one cannot really teach language but can only present the conditions under which it will develop spontaneously in the mind in its own way. Thus the form of a language, the schema for its grammar, is to larger extent given, though it will not be available for use without appropriate experience to set the language forming process into operation. Like Leibnitz, he reiterates the Platonistic view that, for the individual, leaning is largely a matter of *reminisce*, that is, "of drawing out what is innate in the mind". This view is sharply contrasts with the empiricists notion that language is essentially an adventitious construct, taught by conditioning as could have maintained by Skinner and Quine or by *drill* and explicit explanation as claimed by Wittgenstein, or built up by elementary data-processing procedures (as modern linguists typically maintains), but, in any event, relatively independent in its structure of any innate mental faculties. In short, empiricist speculation has characteristically assumed that only the procedures and mechanisms for the acquisition of knowledge constitute an innate property of the mind. Thus for Hume, the method of 'experimental reasoning' is a basic instinct in animals and humans, on a par with the instinct 'which teaches a bird, with such exactness, the art of incubation, and the whole economy and order of its nursery; it is derived from the original hand of nature as Hume assumed. The form of knowledge, however, is otherwise quite free. On the other hand, rationalist speculation has assumed that the general

<sup>12</sup> E. Wilson, *The Mental and Physical*, 1979, pp. 14-16.

<sup>13</sup> B. N. Moore & K. Bruder, *Philosophy The Power of Ideas*, p.120

<sup>14</sup> *Ibid.*, 106.

<sup>15</sup> See Noam Chomsky's work, *Knowledge of Language: its Nature, Origin, and Use*, 1986, p.1.

<sup>16</sup> *Ibid.*, 30.

form of a system of knowledge is fixed in advance as a disposition of the mind, and the function of experience is to cause this general schematic structure to be realized and more fully differentiated. Both the empiricists and rationalists view holds that language acquisition can be made either through innate mechanism or through perception. In fact, would not be inaccurate to describe the taxonomic, data processing approach of modern linguistics as an empiricist view that contrasts with the essentially rationalist alternative proposed in recent theories of transformational grammar. Taxonomic linguistics is empiricist in its assumption that general linguistic theory consists only of a body of procedures for determining the grammar of a language from a corpus of data, the form of language being unspecified except in so far as restrictions on possible grammars are determined by this set of procedures. If we interpret taxonomic linguistics as making an empirical claim this claim must be that the grammars that result from application of the postulated procedures to a sufficiently rich selection of data will be descriptively adequate in other words, that the set of procedures can be regarded as constituting a hypothesis about the innate language acquisition system in contrast, the discussion of language acquisition in proceeding sections was rationalistic in its assumption that various formal and substantive universals are intrinsic properties of the language-acquisition system, these providing a schema that is applied to data and that determines in a highly restricted way the general form and, in part, even the substantive features of the grammar that may emerge up on presentation of appropriate data.<sup>17</sup>

Rationalists claim that some or all of our ideas are innate in us, at least in the sense that we are born with a propensity for forming them, for which sensory experience merely provides the occasion, but not the cause. Descartes claimed that certain ideas are innate in this sense. Leibnitz held that the senses provide only the occasion for obtaining ideas which are innate in us, and more strongly, that we learn nothing from experience of which we have not already had an idea prior to experience. Rationalist further claimed that we have innate dispositions prior to experience in order to relate ideas into others in certain ways. Descartes claimed that we can infer certain ideas from others, not by virtue of learning to do so, but by a kind of natural (i.e. innate) calculus. Leibnitz held that certain innate principles lead us to relate some ideas to others prior to any experience of their connection, and despite their logical independence. He argued that the mind is active in forming such relations prior to experience.<sup>18</sup> Leibnitz supposed that if we entered an enlarged mechanical mind we would find nothing to explain its consciousness (Stephen Burwood, 1999). Descartes maintained that mind is indivisible and one and there is no modularity in mind. "There is within us but one soul, and this soul has no parts" (Chomsky, Modular approaches to the study of the Mind., 1984). Many modern philosophers inspired by the idea that thought is just use of an inner language or that the mind is just a computer; begin by assuming that mental activity must be construed as the manipulation of inner signs. Intentional aspects of the

mental are seen as interpretations or meanings of the manipulations of these signs (Burge, 2007). Mental activity does not occur in a vacuum, isolated from the surrounding world. Much of our thinking is directly connected to sensory inputs and motor outputs (Silverman, 2006). Descartes further argued that mental events necessarily having the property of being conscious and there can be nothing in the mind, in so far as it is a thinking thing, of which it is not aware, this seems to me to be self-evident.<sup>19</sup> Descartes took problems within geometric and mathematical reasoning (such as the meaning of the term triangle) as model problems for the study of mind and language

### Empiricists view

Empiricists assert that the sensation facilitates in acquiring legitimate knowledge. Empiricists are the critiques of rationalists they grounded their philosophy purely on inductive logic. According to John Locke believed that mind is a *tabula rasa* (blank slate). He further considered like Aristotle that the mind is initially only a "white paper void of all characters, without any ideas" (Borchert, 2006). There is nothing deductive in the mind; no ideas are innate to mind. Locke however claimed that Ideas are acquired in the processing of mind. Locke like Galileo believed that primary qualities such as shape, size, number, position, and "quantity of motion", are objective properties of bodies, and that secondary qualities such as colors, tastes, odors, and sounds, exist only in the mind of the perceiving subject (Losee, 2001). 'Locke allowed the possibility that matter might think and he also termed that the view about mind, matter and language cannot be taken as superior to those of Descartes and the Cartesians without a solid explicative defense' (Bracken, 1994).

John Locke believed that knowledge comes from the sensation or ideas furnished to the mind by experience. George Berkeley was a monist who believes in the existence of the mind alone and argues that sensible properties are the property of mind and not of objects. Thus, he claimed, there can't be anything independent of mind. Berkeley like Descartes brings in the concept of God as the cause of our ideas, the only possible source of all ideas. The collection of sensible things is always there in God's mind. According to Berkeley only mind as well its ideas exists, and for Berkeley ideas are concrete things. Berkeley said that we cannot know anything except our sensations or ideas Berkeley essentially accepted this view and maintained that tables, plants must be clusters of sensations or ideas. David Hume accepted two different kinds of events, mental and physical and for Hume mind is a collection of perceptions which he named as bundle theory of mind by comparing it to a theatre where perceptions appear and reappear. He also takes to the view that our thoughts and perceptions have material causes. Davidson asserts that thought is defined by a system of beliefs, but is itself autonomous with respect to belief.<sup>20</sup> For the British Empiricists, the faculty of imagination is another major source of acquisition. David Hume, for example, says in *A Treatise on Human Nature*, "wherever

<sup>17</sup> Chomsky: Selected Readings, Edited by J. P. B. Allen & P. V. Buren, London: Oxford University Press, 1971, pp. 134-36.

<sup>18</sup> F. D'Agostino, Chomsky's System of Ideas, Oxford, 1986, p.98.

<sup>19</sup> See Masao Ito, et al., Cognition, Computation and Consciousness. p. 4.

<sup>20</sup> D. Davidson, Thought and Talk, Mind and Language, ed., Samuel Gutterplan, 1975, p. 9.

the imagination perceives a difference among ideas, it can easily produce a separation”, and these simple ideas “may be united again by the imagination in what form it pleases”. This is how we can get ideas of “winged horses, fiery dragons and horrible giants”. These concepts are not learned at all, but neither are they innate, and that’s a good part of what really matters to empiricists.<sup>21</sup>

Hume considers mind to be no more than a collection of perceptions, and body, a collection of sensible qualities. Hume rejected both the materialism and immaterialism as rival forms of substance theory. But he equally rejects the alternative proposal by Spinoza, who thought that there was a substance that is neither material nor immaterial but something to which both thought and extension belongs which seems that the inner and the outer belong or is the property of one substance which Spinoza named God.<sup>22</sup> Hume’s idea that the mind is a collection of perceptions emerges clearly in the treatise, where he elaborates on the bundle theory of mind by comparing it to a theatre where perceptions appear and disappear. He also had the view that our thoughts and perceptions have material cause. All mental events have physical causes, and this idea is reflected in his treatment of both impressions and sensations. Ideas have a bodily foundation as they are associated in a way that corresponding traces in the brain. Hume insistently argued that some mental events give rise to physiological or physical changes. As per Hume; Desire is a mental process and action is a physical process. Now the question is ‘does desire of an agent causes action or action intends to cause desires. Hume related to logical causation or about inductive process psychological process in which two events occur, that are associated in one after the other.<sup>23</sup> Hume practiced analysis which is psychological or phenomenological, rather than logical. Hume contended that the logical or inferential relation between cause and the effect depends on the association of the two ideas, which is itself produced by the constant conjunction of the two impressions to which they correspond. Empiricism is a modified form of realism. The philosophers Locke, Berkeley, Hume are known as British empiricists.<sup>24</sup> In *Phenomenology of mind*; Hegel discussed three distinct types of mind: subjective mind (the mind of an individual), objective mind (the mind of society and of state), and absolute mind (a unity of all concepts). Empiricists gave preference to experience over language. First, Empiricists claim that the senses (including the inner sense of reflection on the mind’s own activities) supply the mind with all of the materials of which it constructs knowledge about the world. Locke held that the mind is *tabula rasa* (i.e. devoid of ideas) at birth, and that the senses supply it with all of the simple ideas which are the atomic components of our complex ideas about the world. Hume claimed that all of our ideas are either copied directly from sensory impressions or compounded solely from ideas which were they so copied. And J. S. Mill held that all general terms are compounds of attributes which denote sensations.

<sup>21</sup> Op. cit. S. Laurence, E. Margolis, *Radical Concept Nativism*, Cognition: Elsevier, 86, (2002), 34

<sup>22</sup> The God of Spinoza is only a substance (nature) not the God who is worshiped by Jews, Muslims and others.

<sup>23</sup> D. Pears, *Questions in the philosophy of Mind*, 1975, pp. 98-109.

<sup>24</sup> B. N. Moore & K. Bruder, *Philosophy: The Power of Ideas*, p. 120.

Second, empiricists claim that human beings have certain innate mental faculties which provide the basis for the manipulation of the data supplied by the senses. In particular, these are the faculties by means of which we are able to perceive the identity, similarity, co-existence or succession of the ideas made available in sensation. Locke referred to our faculties or natural powers for perceiving ideas to be the same or different, similar, and co-existent. Hume mentioned the principles which govern the imaginative faculty’s operations, and numbered among these the associative relations of resemblance and contiguity. Mill claimed that perceptions of resemblance and of the succession of sensations are irreducible effects of the nature of our mental faculties. Third, empiricists claim that there are no relations between ideas or sensations prior to experience in perception of their connection; that one idea or sensation has no power to suggest any other idea prior to experience of their relation. Locke held that no simple idea has any necessary relation to or inconsistency with any other. Berkeley insisted that there are no associative relations between ideas prior to experience. Hume claimed that we can discover a-priori no relation between ideas, and that we have no a-priori grounds for anticipating one such relation rather than any other. And Mill noted that the various properties of real kinds of things do not imply one another. Fourth, empiricists claim, on the other hand, that ideas or sensations become associated entirely as a result of experience of their constant conjunction in sensation. Locke claimed that our complex ideas of substances are constructed by combining those simple ideas which have been observed constantly to coexist. Berkeley held that one idea comes to suggest another by constantly accompanying it and varying as it does. And Hume claimed that ideas become related in virtue of their constant conjunction in experience.<sup>25</sup> It is clear that both empiricists and rationalists did attribute certain innate mental faculties to the learner. Locke attributed to human beings a ‘faculty’ or ‘natural power’ for distinguishing ideas, and held that this faculty is so absolutely necessary, that without it there could be no knowledge, no reasoning, no imagination, no distinct thoughts at all. Hume described the principles which govern the workings of the imaginative faculties as certain ‘original (i.e. innate) qualities of human nature’. And Mill argued that faculties for perceiving similarities and differences between sensations are parts of our nature. This is the standard empiricist’s account of innate mental faculties. The rationalist account is in some respects similar. Descartes referred to the inborn dispositions of the faculty of the understanding; Leibnitz to the soul’s ‘active power’, and to a readiness to receive ideas which is innate in our souls. Descartes and Leibnitz attributed to human beings a kind of innate natural geometry, in virtue of which certain sensations are associated with certain ideas of distance. Chomsky espoused linguistic intellectualism when he claimed that a

‘Grammar is a system of rules and principles that determine the formal and semantic properties of sentences. Chomsky characterized a grammar as ‘the underlying system of rules that has been mastered by the speaker-hearer and that he

<sup>25</sup> See F. D’Agostino, *Chomsky’s System of Ideas*, Oxford: Clarendon Press, 1986, pp. 96-98.

puts to use in actual performance.<sup>26</sup> Chomsky, for instance, refers to the mind as a 'biological structure' and to the 'properties of the mind that underlie the acquisition of language' as 'biological properties of the organism'. Chomsky intimately argued that a language, which is used in an intentional way, is, however, 'created anew in each individual by operations, which lie beyond the reach of will or consciousness, i.e. by operations which are carried out involuntarily during the process of language acquisition.'<sup>27</sup> Aarsleff writes; reflection is a power of thinking, but Locke did not explain how that power of thinking gains control over the vast variety of material on which it works. He did, however, suggest that this control steadily grows.<sup>28</sup>

### Kant's view

According to Kant an idea like "man, earth, and heat" is not knowledge. In order to constitute them in knowledge, the idea of man, earth, and heat must be combined with other ideas, which consist of subject and a predicate e.g. man is a responsible being, the earth is a planet, heat expands bodies. Hence, all knowledge is formulated into propositions; all knowledge is a judgment, but not every judgment is knowledge (Tantray, A Study of Proposition and Sentence in English Grammar, 2016). Kant criticizes empiricism and rationalism and demonstrated that both are one-sided and true only in a limited sense and that we can explain the process of knowledge by the synthesis of the two. Kant described that both empiricism and rationalism were dogmatic, the one because it assumed the validity of sensation, the other because it assumed the existence of innate ideas. Our knowledge is confined to phenomenon. The phenomenal world is the object of our knowledge, we do not know reality other than it i.e. only phenomenon is possible, and *Noumenon* is not possible. Kant had distinguished between two fundamental aspects of experience; perceptual and conceptual, the former based on experience and the latter on intellect. With empiricism Kant accepts that no knowledge is possible without sensations. We do not perceive sensations but objects. Without the mechanism of perception sensations are meaningless. Mind is active in the process of sensation. It selects among the present sensations, rejects some and attends to others. Therefore, it was wrong on the part of Empiricists to believe that mind is passive in the process of knowledge. The sensations do come from outside but it is the time and space which provides meaning to them. The ideas are formed out of sense perceptions. There can be no concepts without percepts. In the words of Kant, "Conception without perception is empty; perception without sensation is blind." Kant also starts his realm of knowledge by his saying that "knowledge begins with experience but not originate from experience.

Kant defines genuine knowledge as universal and necessary knowledge. The senses furnish the material of our knowledge, and the mind arranges them in ways made necessary by its own nature. Hence we have universal and necessary knowledge (rationalism) of the order of ideas, not of things-in-themselves (Skepticism). The contents of our knowledge are derived from experience (empiricism), but the mind thinks its experience, conceives them

according to its a-priori nature, that is rational ways (rationalism). According to Kant, the outer world causes only the matter of sensation, but our own mental apparatus orders this matter in space and time, and supplies the concepts by means of which we understand experience. Things in themselves, which are the causes of our sensations, are unknowable, they are not in space or time, they are not substances, nor can they be described by any of those other general concepts which Kant calls categories. Space and time are subjective. Space and time says Kant are not concepts, they are forms of intuitions. Whenever we perceive any object we perceive it in a particular space and time. In the absence of this space-time nothing can be perceived. Two forms of space and time are present in every perception. It should be remembered here that like Hume; Kant also admits that space and time are not subject to experience. We don't have any sensation of space-time. Whereas Hume absolutely denies the existence of space and time because they are not perceived, Kant considers them due to mind's faculty of sensibility. According to this view, the mind is active in the process of knowledge. Before Kant, the understanding has different forms of conceiving or relating or connecting percepts, they are called pure concepts or categories of the understanding, because they are a-priori itself. Understanding is a faculty of judgment: to think is to judge. Categories are also called pure concepts of the mind. The part of logic which deals with this subject is called transcendental Analytic. Whenever we think about an object we accept the principle of causality about it. This cause effect principle is a natural principle while thinking about objects. If we fail to find the basis of causality in senses we must try to search it in mind. In mind, there are some universal necessary characteristics of experience which are found in all mental experience. Kant calls them categories. There are twelve categories of understanding. The important among twelve categories are Quantity, Quality, relation, existence, probability and causality. In the absence of these categories of knowledge, no thinking about any object is possible. Now because these categories do not come from outside but are found to be present before experience, it can be said that while the material of knowledge comes from outside, the mind gives form to it. Kant advanced his remarkable idea that concepts of space and time as well as causality are necessarily conditions for the existence of experience of an external world. They pre-exist in the mind. It seems that Kant moreover postulated a primacy for the "faculties of mind". Causality is the dual principle of universal uniform causation. The universality of causality is expressed in the maxim 'every event has a cause', which implies that all events are effects. The uniformity of causality is expressed in the maxim 'similar cause', 'similar effect', which implies that cause can be categorized on the basis of their similarity in relevant respects. Causality, the principle of universal and uniform causal connexity, has been characterized variously as a universal principle of nature, an inductive generalization, and a-priori principle of human understanding, a prescription for science, a pragmatic maxim, a presupposition, and a pious hope, among other things. Causation is the principle of determinate connectivity between contiguous events.<sup>29</sup> Categories have

<sup>26</sup> Ibid., pp. 106-15

<sup>27</sup> Ibid., pp. 136-44.

<sup>28</sup> C. P. Otero, Noam Chomsky Critical Assessments, pp. 901-2.

<sup>29</sup> W. Edgar, The Mental and Physical, (London: Routledge & Kegan Paul, 1979, p.162).

mental origin and yet they are employed in experience, there could be no knowledge, no connected world of experience, without such a-priori acts of thought, without a unified and unifying consciousness or self-consciousness, or the synthetic unity of apperception, as Kant calls it, which operates with these categories. Understanding is judgment, the act of bringing together in one self-consciousness (unity of apperception) the many perceived objects. Judge means to think. Categories serve to make experience possible which is their sole justification. So, simple an act as the perception of the freezing of water for e.g. would be impossible unless the mind apprehended two states (liquid and solid) as related in time and connected them in a single act of thought. But how can categories which are intellectual are applied to percepts, to sensible phenomena? Pure concepts and sense percepts are absolutely dissimilar, or heterogeneous, according to Kant, how can we get them together? There must a third something, a mediating idea between the pure concepts and the sense-perception, Kant calls that transcendental schema, which is used to connect or relate our experience. The employment of such a schema is the schematization of the understanding. Kant thought that knowledge is possible if we limit our inquiries in case of things when they are experienceable, because the mind imposes categories on experienceable objects. The absolute idealist, Hegel being the prime example, then expanded Kant's categories of thought to the "categories of being"<sup>30</sup>. Kant makes distinction between analytical and synthetic and also between a-priori and a-posteriori.

1. Analytical judgment: it is a judgment/proposition in which subject term is contained in predicate term and also in which predicate adds nothing new to subject. These judgments are by definition true. For example
  - All bodies are extended (take up space)
  - All bachelors are Unmarried
2. Synthetic judgment: it is a judgment/proposition in which predicate term is not contained in subject term and also in which predicate term adds something new to subject. For example
  - All bodies are heavy.
  - All bachelors are happy (Tantray, Proposition: The Foundation of Logic, 2016, p. 1842).
3. A-priori truths: A-priori truths are those truths or statements which are not justified by experience.
4. A-posteriori truths: A-posteriori truths or statements are those truths or statements which are justified by experience.

### Conclusion

The status of mind and logic was developed in harmony with religious dogmas. Medieval philosophers took these concepts to solve religious issues. It a matter of fact that in medieval philosophy the concept of mind (soul/spirit) and logic (reasoning) was influenced with Christianity and Islam. Both the philosophers from Christian side and Islamic side requisite logic to solve the fundamental problems which they found in their religious argumentation and they assumed that the problem of free will, Soul, abstract entities, justice, connotation and denotation, universals and particular could be resolved and clarified

only when we could harmonize logic of Greek philosophy along with their mental attitudes amid religious doctrines (faith). Though many discrepancies got raised due to involvement of logic in the canons of religion but many problems become the debatable issues which were been neglected by the theologians of that time. Thomas Aquinas stated that "nothing is in the intellect that was not first in the senses" which implies what we have in mind; we are collecting it through senses. So, in this connection there is deep relation between mind and senses. Medieval philosophers do not pay much attention on the linguistic theory though they communicated their philosophical wisdom in their mother tongue. However in early modern philosophy the condition of mind, logic and language were different. The philosophers in this period resolved all the three fields equally. In early modern philosophy the concept of mind has originated many other problems like mind-body problem, problem of dualism, monism, epiphenomenalism, and so on. Logic on the other hand becomes very crucial in case of induction and deduction; rationalists accepted deductive logic whereas empiricists accepted inductive logic. They analyzed propositions of logic into statements, judgments and terms. According to early modern philosophers; the concept of language is either innately deposited in mind as rationalists believed or it is acquired from our sensory mechanism as empiricists recognized. Thus we can say that medieval philosophy and early modern philosophy have developed these concepts towards analytics. The up gradation which we are seeing today in the analytic field of mind, logic and language is nothing but the blessings of medieval and early modern philosophers.

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<sup>30</sup>B. N. Moore & K. Bruder, *Philosophy: the Power of Ideas*, p. 215.

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