

# The Mind-Brain Identity Theory and Behaviourism of Ullin Thomas Place: An Expository and Evaluative Study

REV. FR. JOSEPH T. EKONG O.P

**Abstract**— This work is expository, critical and evaluative in its methodology. The “Mind-brain Identity Theory,”(also called physicalism or central state materialism) is a philosophical position which claims that the mind and the brain are the same. In other words, the state of mind is the same as brain processes; that mental state is the same as the physical state of the brain. Place formulated the thesis that mental processes were not to be defined in terms of behavior; rather, one must identify them with neural states. With this bold thesis, Place became one of the fathers of the current materialistic mainstream of the philosophy of mind. British philosopher and psychologist U.T. Place, one of the developers of the identity theory of mind, argued in his 1954 paper: "Is Consciousness a Brain Process?,"that the prevalent view that there exists a separate class of events, mental events, that cannot be described in terms of the concepts employed by the physical sciences, no longer commands the universal and unquestioning acceptance among philosophers and psychologists that it once did. In the most simplistic terms, mind-brain identity theory purports that the mind is simply a part of the physical body. Like all ideas and theories on the state of being, this philosophy of mind seeks to explain the nature of human consciousness and to address the mind-body problem, a philosophical conundrum over the relationship between the mind (with its thoughts, beliefs and emotions) and the physical body. The objective of this work is to revisit the claims of U.T. Place, in his central state materialism, and evaluate their plausibility or implausibility, in the light of the contemporary advancements in neuroscience and the Philosophy of Mind.

**Index Terms**— Brain, Exposition, Evaluation, Identity, Mind, Materialism, Theory.

## I. INTRODUCTION

Without doubt, René Descartes argued for the real distinctness of mind (soul) and body as two substances that have entirely different natures (their essences consist in different fundamental attributes, thought and extension) and can, in principle, exist separately. This doctrine is well-known as “substance dualism.” However, Descartes acknowledged the actual close causal relationship of mind and body, that certain physical states of the body (brain) cause certain states of the soul (sensations) and that certain (volitional) states of the soul cause certain physical processes in the body (some processes in the brain and, with their mediation, behavior, movements of parts of the body).<sup>1</sup>The

REV. FR. JOSEPH T. EKONG, O.P, Ph. D, Associate Professor of Philosophy, Dominican University, Ibadan, Nigeria.

<sup>1</sup>ShanjenduNath (2012) “The Problem of Identity in the Identity Theory of Mind.” *Pratidhwani the Echo* (I):115-118.

philosophy of mind covers all philosophical topics pertaining to the mind and mental states. Its subtopics can be divided in two main ways. First, by the traditional divisions drawn between kinds of mental states: consciousness, intentionality, perception, and other states and processes. Second, by the types of philosophical questions asked about these activities: especially metaphysical questions that have to do with their nature (especially the relation between the mental and the physical) and epistemological questions that have to do with our knowledge of them.<sup>2</sup> The philosophy of mind also overlaps with the philosophy of cognitive science and the philosophy of action. Obviously, many people in our human society have a general belief or assumption that the human person is made up of the material and the non-material aspects/elements. Throughout the history of science, efforts and discussions aimed at comprehending emotions in relation to the body have focused on the manifestation of emotions through physiological responses. The intangible nature of emotion has been a subject of interest since the beginning of recorded history.<sup>3</sup> Although scholars from diverse fields such as medicine, neuroscience, and anthropology have taken many different approaches to address this issue, the relationship between emotion (psychological processes) and the body (somatic system) has been a primary focus. The thoughts and language of modern Western scholars are strongly influenced by the dichotomy of the psyche and the soma, which implies the superiority of the intentional mind over the body. U. T. Place is rightly called the forerunner of Physicalism or Identity Theory of Mind. But he also claims himself to be a behaviourist. Like the behaviourists, he believed that mental events can be elucidated purely in terms of hypothetical propositions about behaviour. These can also be elucidated by the reports of the first person’s experiences. He has many arguments in favour of behaviourism for which reason he is called a behaviourist.<sup>4</sup>

In the history of philosophy, the theory of behaviourism occupies an important place in narrating the nature of mind. This theory is called by Armstrong a sophisticated form of the theory of mind. According to this theory, there is nothing called mind which is occult or private. This theory does not believe in the existence of mind apart from the behaviour of the body. It claims that it is in terms of physical behaviour or

<sup>2</sup> Clive Vernon Borst (1970) *The Mind-Brain Identity Theory: A Collection of Papers*, (New York: St Martin’s Press), p. 100.

<sup>3</sup>Ray Jackendoff (1987) *Consciousness and the Computational Mind*, (New York: MIT Press), p. 115.

<sup>4</sup>Tim Crane (2001) *Elements of Mind: An Introduction to the Philosophy of Mind*, (Oxford: Oxford University Press), p. 68.

tendencies to behave in human body, that all mental states and processes can be accounted. All the mental processes are represented through behaviour and therefore the only means for investigation of mental processes or psychological processes of a person is through his or her behaviour. It maintains that physical conditions of the body and its interaction with the environment, determine the behaviour of a person. Thus in unfolding the nature of mental concepts, this theory emphasizes the importance of personal disposition.<sup>5</sup> Moreover, this theory does not accept any unobservable stimuli, rather it focuses solely on observable stimuli, responses and its consequences. It argues that the behaviour of a person can be observed and at the same time verified by other persons and it is for this reason they define consciousness in terms of bodily behaviour.<sup>6</sup> This behaviouristic explanation is of different types, such as Methodological, Psychological and Logical. Methodological behaviourism claims that human behaviour should be studied independently, without any appeal to mental states; Psychological behaviourism opines that human and animal behavior are explicable based on external, physical stimuli; Analytical/Logical behaviourism argues that certain behaviors do arise from particular mental states and beliefs.<sup>7</sup>

### II. DISCUSSING U.T. PLACE'S WORK: "IS CONSCIOUSNESS A BRAIN PROCESS?"

Having a clear understanding the place of thought and feeling in the natural world is central to that general comprehension of nature, as well as that special self-understanding, which are the primary goals of science and philosophy. The general form of the project, which has exercised scientists and philosophers since the ancient world, is given by the question, 'What is the relation, in general, between mental and physical phenomena?' There is no settled agreement on the correct answer. This is the single most important gap in our understanding of the natural world. The trouble is that the question presents us with a problem: each possible answer to it has consequences that appear unacceptable. A striking feature of our conscious mental states is that we have non-inferential knowledge of them. When we are conscious, we know that we are, and we know how we are conscious, that is, our modes of consciousness, but we do not infer, when we are conscious, that we are, or how we are, from anything of which we are more directly aware, or know independently.<sup>8</sup> It is notoriously difficult to say what this kind of non-inferential knowledge comes to. It is difficult to see how to separate it from what we think of as the qualitative character of conscious mental states. Arguably this "first-person" knowledge is sui generis. There is a related asymmetry in our relation to our own and others' conscious mental states. We do not have to infer that we are conscious,

but others must do so, typically from our behavior, and cannot know non-inferentially.<sup>9</sup> Others have, at best, "third-person" knowledge of our mental states. These special features of conscious states are connected with some of the puzzles that arise from the attempt to answer our opening question. Consciousness has often been seen as the central mystery in the mind-body problem, and the primary obstacle to an adequate physicalist understanding of the mental.<sup>10</sup> The thesis that consciousness is a brain process has been put forward by U.T. Place as a scientific discovery, a reasonable scientific hypothesis which is not to be dismissed on logical grounds alone. He suggested that "we can identify consciousness with a given pattern of brain activity, if we can explain the subject's introspective observations by reference to the brain processes with which they are correlated."<sup>11</sup> Consequently, he enumerated the conditions under which two sets of observations are treated as observations of the same process, rather than as observations of two independent correlated processes. In this thesis "it is argued that the problem of providing a physiological explanation of introspective observation is made to seem more difficult than it really is by the 'phenomenological fallacy.'<sup>12</sup> The identity theory is an offshoot from behaviourism. It is a physicalist or materialist theory which claims that we call mental and physical events are law-governed and, in reality, only matter exists. Hence, what are conceived to be mental activities are reducible to brain activities, which are hinged on the body.

#### A. The 'Is' of Definition and the 'Is' of Composition

U.T. Place, in defending this thesis did not wish to argue that whenever we describe our dreams, fantasies, and sensations, we are talking about processes in the brain. In other words, "statements about sensations and mental images are not reducible to or analyzable into statements about brain processes, in the way in which cognition statements" are analyzable into statements about behavior.<sup>13</sup> To say this, he said, is manifestly false based on the following grounds. The fact that it is possible for one to describe his sensations and mental imagery without knowing anything about his brain processes or even that such things exist: (a) The fact that statements about one's consciousness and statements about one's brain processes are verified in entirely different ways. (b) By the very fact that there is nothing self-contradictory about the statement 'X' has a pain but there is nothing going on in his brain. What he rather sets out to assert is that consciousness as a process in the brain, may not necessarily be true nor necessarily false, and it is neither self-contradictory nor self-evident. But "it is a reasonable scientific hypothesis in the way that the statement: "lightning is a motion of electric

<sup>9</sup>C. B. Martin (2000) "A Remembrance of an Event – Foreword to 'the Two Factor Theory of the Mind-Brain Relation' by Ullin T. Place," *Brain and Mind* 1 (1): 27-28.

<sup>10</sup>Christopher J. S. Clarke (1995) "The Non-locality of Mind," *Journal of Consciousness Studies* 2 (3): 231-234.

<sup>11</sup>According to U.T. Place, the phenomenological fallacy consists in the mistaken idea that the descriptions of the appearances of things are descriptions of the actual state of affairs in a mysterious internal environment.

<sup>12</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) *The Mind-Body Identity Theory*, (London: Macmillan, 1970) p. 42.

<sup>13</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) *The Mind-Body Identity Theory*, p. 44.

<sup>5</sup>Brian McLaughlin, Ansgar Beckermann & Sven Walter (eds.) *The Oxford Handbook of Philosophy of Mind*, (Oxford: Oxford University Press, 2007), pp. 77-78.

<sup>6</sup>Anthony O' Hear (ed.) *Mind, Self and Person*, (Cambridge: Cambridge University Press, 2015), pp. 84-45

<sup>7</sup>Richard Brown (2006) "What is a Brain State?" *Philosophical Psychology* 19 (6):729-733.

<sup>8</sup>Brandon N. Towl (2012) "Mind-Brain Correlations, Identity, and Neuroscience," *Philosophical Psychology* 25 (2):187-190.

charges,” is a reasonable scientific hypothesis.<sup>14</sup> According to U. T. Place, the claim that an assertion of identity between consciousness and brain processes can be ruled out on logical grounds, also derives from the failure to distinguish between what may be called the 'Is' of definition and the 'Is' of composition. The distinction involved here is that of a distinction between the function of the word 'Is' in statements like 'A square is an equilateral rectangle,' 'Red is a colour'. All these, he said, are examples of the 'Is' of definition. But statements like: 'His table is an old packing-case', 'Her hand is a bundle of straw tied together with string' are all examples of the 'Is' of composition.<sup>15</sup> He went further to argue that statements like: 'A square is an equilateral rectangle,' are necessary statements and are true by definition. On the other hand, statements like 'His table is an old packing-case' are contingent statements which have to be verified empirically. One of the very important characteristics of the statement of the 'Is' of definition is that, “there is a relationship between the meaning of the expression forming the grammatical predicate, and the meaning of the expression forming the grammatical subject, such that whenever the subject expression is applicable, the predicate must also be applicable.” Hence, if something can be described as red, we must necessarily describe it as coloured. But, the statement of the 'Is' of composition, on the other hand, has no such relationship. That is, there is no such relationship between the meanings of the expressions 'his table' and 'old packing-case.' It merely so happens that in this case, both expressions are applicable to and at the same time provide an adequate characterization of the same object.<sup>16</sup> Following from this, U.T. Place opines that those who make untenable the statement 'consciousness is a brain process' base their claim on the mistaken assumption that if the meaning of two statements or expressions are quite unconnected, they cannot both provide an adequate characterization of the same object or of the same state of affairs.<sup>17</sup> Based on this analogy, U.T. Place believes and contends that the relationship between consciousness and brain processes is not to be understood as an 'is of definition' but as an 'is of composition.'

### **B. The Physiological Explanation of Introspection and the Phenomenological Fallacy**

On the basis of the preceding argument, U.T. Place opined that in order to establish the identity of consciousness and certain processes in the brain, it would be necessary to show that the introspective observations reported by the subject can be accounted for in terms of processes which are known to have occurred in his or her brain. He maintained that the contention of a physiologist in trying to agree that consciousness is a brain process, is quite different from that of a philosopher. Unlike the philosopher, what worries the physiologist, according to Place, is not any supposed

self-contradiction in such an assumption,<sup>18</sup> “but the apparent impossibility of accounting for the reports given by the subject of his or her conscious processes, in terms of the known properties of the central nervous system.”<sup>19</sup> U.T. Place contended that what is to be avoided in the physiological explanation of introspection is a logical mistake which he refers to as the ‘phenomenological fallacy.’<sup>20</sup> He says:

If we assume for instance, that when a subject reports a green after-image he is asserting the occurrence inside himself of an object which is literally green, it is clear that we have on our hands an entity for which there is no place in the world of physics. In the case of the green after-image, there is no green object in the subject's environment corresponding to the description that he gives. Nor is there anything green in his brain; certainly there is nothing which could have emerged when he reported the appearance of the green after-image. Brain processes are not the sort of things to which colour concepts can be applied.<sup>21</sup>

Furthermore, he argued that the phenomenological fallacy, on which this argument is based, depends on the general assumption that in order to describe things in our environment, we resort to our consciousness of them. And our descriptions of things are primarily descriptions of our conscious experience, and that secondarily, it is based on the indirect and inferential descriptions of the objects and events in environments.<sup>22</sup> This, he said, is a mistaken assumption. He went on to say that since our recognition of things in our environment is obtained for us by their looks, sound, smell, taste and feel, then we begin by describing the phenomenal properties of the looks, sounds, smells, etc. which they produce in us, and infer their real properties from their phenomenal properties. But, the reverse is the case in his opinion. According to him, we begin by learning to recognize the real properties of things in our environment. He asserts that we learn by perception and become conscious after perception, and our description of conscious experience is not based on what he calls the “mythological phenomenal properties,” which he said are supposed to be vested in the mythological objects, in the mythological phenomenal field, but with reference to the “actual physical properties of the concrete physical objects, events, and processes which normally, though not perhaps in the present instance, give rise to the sort of conscious experience we are trying to describe.”<sup>23</sup> What he means here is that when we describe the after-image, we are not saying that there is something, we are

<sup>14</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) The Mind-Body Identity Theory, p. 45

<sup>15</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) The Mind-Body Identity Theory, p. 46.

<sup>16</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) The Mind-Body Identity Theory, p. 55

<sup>17</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) The Mind-Body Identity Theory, p. 45.

<sup>18</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) The Mind-Body Identity Theory, p. 48.

<sup>19</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) The Mind-Body Identity Theory, pp. 48-49.

<sup>20</sup>Phenomenological fallacy is the mistaken assumption that when the subject describes his experience, when he describes how things look, sound, smell, taste, or feel to him, he is describing the literal properties of objects and events on a peculiar sort of internal cinema or television screen, usually referred to in the modern psychological literature as the 'phenomenal field'

<sup>21</sup>Ullin T. Place, "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) The Mind-Body Identity Theory, pp. 51-52.

<sup>22</sup>Herbert Feigl, *The Mental and the Physical* (Minneapolis: Univ. of Minnesota, 1967), p. 14.

<sup>23</sup>John Hospers, *An Introduction to Philosophical Analysis* (Englewood Cliffs: Prentice-Hall, 1967), pp. 391-396.



saying that we have an experience, after having described what we have learned.<sup>24</sup> U.T. Place thus concludes that, "once we rid ourselves of the phenomenological fallacy, we realize that the problem of explaining introspective observations in terms of brain processes is far from being insuperable."<sup>25</sup> From the analysis thus far, one can summarize the arguments of U.T. Place, and in fact, the position of the central state materialists as follows:

1. The concept of a mental state is analyzable as the concept of inner causal state.
2. Hence, each mental state is an inner causal state.
3. Neurophysiological states have the causal roles ascribed to these inner causal states.
4. Hence, mental states are identical to, and indeed are nothing over and above neurophysiological states.<sup>26</sup>

### III. A CRITICAL EVALUATION OF U.T. PLACE'S THESIS

Many objections have been raised against the thesis of U.T. Place like other thesis of its sort. But for the purpose of this essay we shall be taking a look at the implication of his thesis, and this will serve as our critique. Here, the implication will presuppose that one has already taken for granted as 'true' the crucial claim of U.T. Place that mental activities are nothing over and above certain physical entities such as the brain.<sup>27</sup> The most fundamental implication of this thesis is that man is not different from machines since there is nothing metaphysical about him. This position has been popularly referred to as 'the mechanist conception of man' by various philosophers. The questions that arises here is: since humans are conceived as machines, could machines be made to think like man?<sup>28</sup> Of course, it has been argued by some scholars that those who attribute thought to machine are mistaken, because they do not seem to consider seriously the intentional aspect of rationality, which makes man superior to other creatures and objects, like computers and machines.<sup>29</sup>

#### A. Man

Since Socrates mandated man to know himself, there has been various attempts to understand the being called man. Plato, in his own understanding of man, placed more emphasis on the spiritual aspect. For him, the soul pre-existed the body and only found the body as a vessel for the exercise of its activity. If we therefore define man in the thought of Plato, we would say that man is the composite of body and

soul, the soul being the real man.<sup>30</sup> The view that the soul is the form of the body, on Aristotle's part, suggests that man is an organic unity and thus defines man as a 'rational animal'. For him man is the only animal that possesses a soul which is the form of the body. Aquinas had a distinctive conception of man. Man, he said, is a physical substance. What made this a unique conception was that Aquinas insisted upon the unity of humannature.<sup>31</sup>

Put simply, in the thought of Aquinas, man is a composite of body and soul in his capacity as a physical substance. This is to say that mind and matter make up a single substance. Man has also been described by methods of academic discipline. For example, the Atomists claim that man is made of atoms. Man is a cultural being, the cultural anthropologists would hold. Man is a religious being, the religious minded thinkers among us would agree. *Man as Man*, as Higgins formulates the title of his book, means nothing other than the fact that man is a moral being. According to Higgins, the clearest picture of man can be understood in the light of Aristotle's four ultimate causes: material, formal, efficient, and formal. In his view, Higgins also mentioned that there are in man a variety of appetites deriving from the complexity of his nature, but for the sake of the unity of being, all of the appetites must be naturally subordinate to one supreme appetite, the will.<sup>32</sup> In social science, human beings are considered as both behaviourally rational and attitudinally rational. So, to assume that an agent is behaviourally rational, implies that his or her behaviour can be understood in terms of his or her intentions, desires, believes, etc. On the other hand, to assume that an agent possesses attitudinal rationality is to construe him or her as a being who is disposed to ensuring that his or her beliefs are true. That is, a being that is responsive to counter examples and inconsistencies and respectful of the demands appropriate to a theoretical and practical decision making.<sup>33</sup> The salient point being made here is that the human person, being an individual substance of a rational nature, marks himself or herself out from all other creatures. The quality of rationality in humans, places them in the class of moral beings, with the capacity for a conscious freedom of choice.<sup>34</sup>

#### B. Machines

Artificial Intelligence (AI) has been in crude form, since the beginning of industrial revolution. But the concept came into limelight in the 20<sup>th</sup> century with the development of sophisticated machines such as computer, robots, etc. With the advancement in the enviable production of machines, we nowadays hear concepts like 'artificial minds'. This has given rise to the slogan that 'there are sophisticated computers that function almost like the human mind.' It is important to

<sup>24</sup>Aron Gurwitsch, *The Field of Consciousness* (Pittsburgh: Duquesne University Press, 1964), pp. 56-58.

<sup>25</sup> Alfred C. Ewing, "The Causal Argument for Physical Objects," *Proceedings of the Aristotelian Society*, Supplementary Vol. XIX (1945), p. 35.

<sup>26</sup> Morris Schlick, "Psycho-Physical Identity," trans. from, *Allgemeine Erkenntnislehre in Perspectives in Philosophy*, 2nd edition, (New York: Holt, Rinehart and Winston, 1968), pp. 316-318.

<sup>27</sup>U. T. Place, "Is Consciousness a Brain Process?" Reprinted in *The Philosophy of Mind*, ed. V. C. Chappell (Englewood Cliffs: Prentice-Hall, 1962), pp. 105-06.

<sup>28</sup>Alfred North Whitehead, *Process and Reality* (New York: Macmillan, 1929), p. 105

<sup>29</sup>Durant Drake, *Mind and its Place in Nature* (New York: Macmillan, 1925), p. 84.

<sup>30</sup>Charles Hartshorne, *Beyond Humanism: Essays in the Philosophy of Nature* (Chicago: Willett, Clark, 1937), p. 122.

<sup>31</sup>David Malet Armstrong, (1968) *A Materialist Theory of the Mind*, (London: Routledge and Kegan Paul, Humanities Press), pp. 55-56

<sup>32</sup> Brian Beakley and Peter Ludlow, (eds.) (1992) *The Philosophy of Mind: Classical Problems/Contemporary Issues* (Cambridge, MA: MIT Press), p. 85

<sup>33</sup> Paul Churchland, (1981) "Eliminative Materialism and the Propositional Attitudes," *The Journal of Philosophy*, 78: 67-70.

<sup>34</sup>Walter de Gruyter, Mark A. Bedau, (1986) "Cartesian Interaction," *Midwest Studies in Philosophy*, 10: 483-486.

mention here that much of the discussion on AI is done alongside with natural intelligence. The skills of a machine, made possible by ingenious researchers, are both intellectually impressive and practically useful. Computers today can do so many things such as assisting people in industries, schools, research institutes and homes. They help in furnishing required information and they make the best use of time by working at a faster rate than men. Today, "computers play draughts, solve difficult problems in logic, compose dull but passable music, and satisfactorily perform many other exacting tasks, of a non-numerical nature."<sup>35</sup> In fact, they now successfully compete with human beings for jobs, and since they work faster than human beings and it is cheaper to use them than to employ human beings; many industrialists prefer them to human beings in their factories. Computer robots, haverendered many human beings jobless in industrialized nations. It is like an invasion of the human world by computer robots, using artificial minds.<sup>36</sup> Computers have in effect revolutionized man's knowledge and man's work in the 20<sup>th</sup> century and have extended the scope of human knowledge as well as its preservation by taking care of the weaknesses of the human memory. Owing to all these developments, there have been several embarrassing questions, such as: is there any essential difference between the human minds and 'artificial minds', such as the computer? Can machines be made to think? How could machines be made to think like man? John Pollock, for example, advances and defends the thesis that men are machines. In his article, "My Brother the Machine," Pollock advances the thesis that "mental events are just physical events that can be described in purely physical terms (and that there is no obstacle to building consciousness into an intelligent machine".<sup>37</sup> He further argued that human beings "are physical objects that supervene on their bodies". Philosophers like A.M. Turing, F.H. George support the opinion that men are not different from machines. At the level of philosophical analysis, the distinctive factor between humans and machines consists in the presence of intentions and spontaneity in humans, and their absence in machines.<sup>38</sup>

### C. Intention

An important question that the identity theorists and their adherents and those who especially equate men with machines, need to answer, is: in what part of the human brain is intention located? The *New Catholic Encyclopedia* describes intention as "a term modern in coinage but medieval in inspiration, used by Franz Brentano to designate what he took to be the distinctive feature of

mental, as contrasted with physical, phenomena." <sup>39</sup> Furthermore, it was described in the *Encyclopedia of Philosophy* under four chief headings:

(1) Expressions of intentions - I shall (am going to) do A in circumstances C'; (2) ascriptions of intention - "Jones has the intention of doing A in C'; (3) descriptions of the intention with which some action is done - "His intention of saying that was to embarrass her," and (4) classification of actions as intentional or as done with intention - "she shot him intentionally."<sup>40</sup>

All these headings have in them some place of thought before the action is carried out, and thought as we know is a mental event. Hence, we can ask a second question, 'can a machine be said to intend things on its own?' Frantz Brentano, a phenomenologist, asserts:

Every mental phenomenon is characterized by what the scholastics of the Middle Ages called intentional (and also mental) inexistence of an object, and what we would call, although not in entirely ambiguous terms, the reference to content, a direction upon an object (by which we are not to understand a reality ...) or an immanent objectivity. Each one includes something as an object within itself, although not always in the same way. In presentation something is presented, in judgment something is affirmed or denied, in love (something is) loved, in hate (something) is hated, in desire something is desired etc.<sup>41</sup>

This intentional inexistence <sup>42</sup> according to him is exclusively characteristic of mental phenomena. No physical phenomena manifest anything similar. Consequently, we can define mental phenomena by saying that they are such phenomena that include an object intentionally with themselves.<sup>43</sup> Now, if we subscribe to the view that man is purely physical, how then are we to explain the intentional inexistence when we know that it is quite possible to conceive of an object which in reality does not exist, but exists only in the mind (i.e. mentally). It is probably this that informed many philosophers to declare that the mind transcends the body. Whenever it is said of a person that his intention is to do a particular thing, it portends some kind of thinking, and

<sup>39</sup>Henry B. Veatch, "Intentionality" in *New Catholic Encyclopedia*, Vol. 7, (Washington DC: The Catholic University Press, 1996), p. 564.

<sup>40</sup>Bruce A. Aune, "Intention" in *Encyclopedia of Philosophy*, Vol. 4, Paul Edwards ed., (New York: Macmillan Publishing Co., Inc. and Free Press, 1967), p. 198.

<sup>41</sup>Bruce A. Aune, "Intention" in *Encyclopedia of Philosophy*, p. 201.

<sup>42</sup>The problem that gave rise to the ontological thesis of intentional inexistence may be suggested by asking what is involved in having thoughts, beliefs, desires, purposes, or other intentional attitudes, which are directed upon objects that do not exist. There is a distinction between a man who is thinking about a unicorn and a man who is thinking about nothing. In the former case, the man is intentionally related to an object, but in the latter case he is not. What, then, is the status of this object? It cannot be an actual unicorn, since there are no unicorns. According to the doctrine of intentional inexistence, the object of the thought about a unicorn is a unicorn, but a unicorn with a mode of being (intentional inexistence, immanent objectivity, or existence in the understanding) that is short of actuality, but more than nothingness, and that according to most versions of the doctrine, lasts for just the length of time that the unicorn is thought about.

<sup>43</sup>Bruce A. Aune, "Intention" in *Encyclopedia of Philosophy*, p. 202.

<sup>35</sup>Ned Block, Owen Niamh Flanagan, et al. (eds.) (1997) *The Nature of Consciousness: Philosophical Debates*, (Cambridge, MA: MIT Press), p. 77.

<sup>36</sup>Joseph I. Omoregbe, *Philosophy of Mind: An Introduction to Philosophical Psychology*, (Lagos: Joja Educational Research and Publishers Limited, 2001), p. 47.

<sup>37</sup>John L. Pollock, "My Brother the Machine" *Nous*, Vol. 22, No. 2, June 1988: 185-186.

<sup>38</sup>Donald Davidson, (1980) 'Mental Events,' In *Essays on Actions and Events*, (New York: Clarendon Press) pp. 207-210.

thinking lies in the range of mental activities. Accordingly, Mays<sup>44</sup> would argue in his article, "Can Machines Think that we usually reserve the term 'thinking' for human beings; who have a peculiar complex of mental characteristics, who show certain patterns of behaviour and who are not only able to think, but sense, feel and will, and think and will because they sense and feel. He says when we hear it said that wireless valves think, we may despair of language. And this is precisely because, in his opinion, by a machine we mean something which does not possess intelligence or consciousness that we boggle at the assertion 'machines can think'. Common sense tells us that we cannot define machines as precisely having those characteristics of thought, feeling, empathy and conation which we assign to a human beings.<sup>45</sup> This goes a long way to show that we may never be able to reduce man to a physical entity. More so, we have expressly ruled out any internal private life for a machine. Though it may duplicate our overt or external behavior, it cannot duplicate our internal activities. For the purpose of illustration, one may use the mental theory of action which separates men from machines, especially Wittgenstein's classic formulation: "And the question arises: what is left over, if I subtract the fact that my arm goes up from the fact that I raise my arm? What is the difference between a physical movement of my arm and my intentional action of moving my arm? Addressing this formulation, the mental theory states that what is left over if I subtract the fact that my arm goes up from the fact that I raise my arm is occurrence of a mental event which is prior to my arm's going up and which causes it. This mental cause could be the intention, decision, choice, resolve, or determination to raise my arm or having certain reasons for raising my arm.<sup>46</sup> Jerome Shaffer gives an example:

The teacher asks a question of the class and I, after deliberating, decide to raise my arm, and then do in fact raise it. On this theory, the deliberating produced an effect, the decision to raise my arm.<sup>47</sup>

The question is: where did the deliberation take place? Is the deliberation locatable in space? Even if it were possible to construct a machine whose behaviour was indistinguishable from that of a human being, and even if one accepts the behaviourist criterion, it might still be useful to distinguish between the activities of men and that of a machine. It can only be said of a machine that its artificial hand went up, for it will be absurd to say of a machine that it raised up its hand. As John Locke and, for that matter, Descartes pointed out, if we found a parrot who talked and argued like a man, we would be reluctant to admit that it exercised thoughts (or even that it was capable of indulging in linguistic skills), whereas we would still be inclined to attribute some sort of mental life

even to a moron.<sup>48</sup> It is pertinent to note that the focus of this discussion is not on whether or not humans are machines. The main interest is to examine the major by-product and the controversy generated by the thesis of U.T. Place in particular and the mind-brain identity theory in general.<sup>49</sup>

#### D. Implications of U.T. Place's Mechanistic Thesis

Undoubtedly, there are several implications that are associated with the mind-brain identity theory proposed by U.T. Place and others. But, for the purpose of this work, the major area of emphasis shall be its ethical implications in relation to the concept of freedom. It is assumed that to regard man as purely physical (like a machine) is to regard him as a robot, lacking the ability to make freely willed decisions or to determine his own actions by a conscious rational choice.<sup>50</sup> The question here is: how can this sort of robot behave ethically? Ethical concepts will definitely not apply to him. The consideration here is that ethical concepts are held alongside with the implication of choice or free decision on the part of the agent in question.<sup>51</sup> One cannot, for example, be blamed for something one could not avoid doing. One can only have duties or obligations to do things that lie within one's power. If we accept the postulation that human thinking is dependent on a set of neurons or bank of relays, then there is no room for responsibility for actions, since the neurons will control all human activities as we have in the machines. If humans were machines, it will be senseless to tell anyone what he or she ought to do, since he or she can in no way deviate from the rails of physical necessities. But, based on what is evident, on a daily basis, humans do have some duties and obligations.<sup>52</sup> Thus, any supposition that disengages humans from their responsibilities, is nonsensical. In other words, it does not make any sense to call a man a machine and yet apply ethical concepts to him. The ethical objection raised against the mechanist conception of man serves as a corrective to the supposition that man is, if not an unconscious robot, a robot nonetheless.<sup>53</sup> Furthermore, that man is made "ultimately of physical parts (the neutrons, protons, electrons and other elementary particles, as studied in physics), whose law-governed interaction determines the behaviour of the system as a whole. If this conception is anything to go by, it then means that what is done by man must be considered not by his own rational freewill, but by a causal sequence that stretches indefinitely, into the past.<sup>54</sup> Consequently, the motivation for human actions is

<sup>48</sup> Marleen Rozemond (1999) "Descartes on Mind-Body Interaction: What's the Problem?" *Journal of the History of Philosophy* 37 (3):435-438.

<sup>49</sup> Tim Crane & Sarah Patterson (eds.) (2000) *History of the Mind-Body Problem*. (New York: Routledge), p. 48.

<sup>50</sup> Jaegwon Kim, (1990) "Can the Mind Change the World?" In G. Boolos (ed.), *Meaning and Method: Essays in Honor of Hilary Putnam*, (New York: Cambridge University Press), pp. 29-32.

<sup>51</sup> Charles Hartshorne, "The Compound Individual," in *Philosophical Essays for Alfred North Whitehead* (London: Longmans, 1937), p. 44.

<sup>52</sup> George Bealer (1994) "Mental Properties," *The Journal of Philosophy*, 91: 185-189.

<sup>53</sup> Alan Ross Anderson, (ed.) (1964) *Minds and Machines*, (Englewood Cliffs: Prentice Hall), pp. 61-62.

<sup>54</sup> Jaegwon Kim, (1990) "Can the Mind Change the World?" In G. Boolos (ed.), *Meaning and Method: Essays in Honor of Hilary Putnam*, (New York: Cambridge University Press), pp. 33-35.

<sup>44</sup> Willie Mays, "Can Machines Think?" In *Philosophy*, Vol. XXXVII, No. 27, 1953, The Journal, of the Royal Institute of Philosophy, Sydney E. Hooper, (ed.) (London: Macmillan), p. 149.

<sup>45</sup> David Lewis (1966) "An Argument for the Identity Theory," *The Journal of Philosophy*, 63: 17-20.

<sup>46</sup> Jerome A. Shaffer (1965) "Recent Work on the Mind-Body Problem," *American Philosophical Quarterly* 2 (2): 81-85.

<sup>47</sup> Jerome A. Shaffer (1965) "Recent Work on the Mind-Body Problem," *American Philosophical Quarterly* 2 (2): 86.



reduced to causes instead of reason. The mechanist, on this present conception, is accused of implying that to think in this way is to be deluded. The thesis of U.T. Place would seem to counter the general idea of freewill or freedom as the case may be, because as pointed out by C.A. Campbell, freewill pertains not to overt, but to inner acts. He says:

The nature of things has decreed that, save in the case of one's self, it is only overt acts which one can directly observe. But a very little reflection serves to show that in our moral judgments upon others, their overt acts are regarded as significant only in so far as they are the expression of inner acts. We do not consider the acts of a man to be so save insofar as they are distinguishable from those of a robot by reflecting an inner life of choice. Similarly, from the other side, if we are satisfied (as we may on occasion be, at least in the case of ourselves) that a person has definitely elected to follow a course which he believes to be wrong, but has been prevented by external circumstances from translating his inner choice into an overt act, we still regard him as morally blameworthy. Moral freedom, then, pertains to inner acts.<sup>55</sup>

With the mechanistic thesis of U.T. Place, the whole question of moral responsibility and freedom collapses, because of its implications. In the light of this, what is the place of man in the universe? J.R. Searle asserts that if one examines the way the computer programme works, one will see that the claim that men are not different from machines is nonsensical. He argued that although computers may be programmed to do as well as humans on certain tasks, the way they achieve these results do not require the mental properties that humans would typically use if they performed them.<sup>56</sup> Searle's argument is based on his famous "Chinese room example." In this example, Searle imagines himself locked in a room and following mechanical rules, which unknown to him, result in his writing suitable Chinese answers to Chinese questions, even though he does not know a word of Chinese. "I simply behave like a computer, I perform computational operations on formally specified elements, I am simply the instantiation of a computer programme."<sup>57</sup> Searle's argument here is that, this ability on his part does not mean that he understands Chinese. He asks the question: why should a computer's doing something similar, lead us to say that the computer understands Chinese or had any of the numerous mental abilities that a computer can be programmed to imitate? The ethical implications of this thesis as well as its implication on human freewill or freedom, make the theory untenable. Although it can be argued, and indeed it has been argued by some philosophers that the practical consequences of a theory does not invalidate that theory. However, for prudential reasons and operational relevance, when a commonsense-belief conflicts with a given philosophical analysis, on a given issue, commonsense or personal ingenuity

should ordinarily prevail.<sup>58</sup>

#### IV. CONCLUSION

From the foregoing discussion, U.T. Place's physicalist theory of consciousness keeps begging further questions.<sup>59</sup> It is not clear if every representational content, of this theory, is fully propositional. Our perceptual experiences, e.g., our visual, auditory, and tactile experiences, represent our environments in a certain way. They can be veridical (correctly represent) or non-veridical (incorrectly represent), as beliefs can be true or false. They have mind-to-world direction of fit, hence, representational contents, and intentionality.<sup>60</sup> But it is not clear that all that they represent can be captured propositionally. Attitudes and perceptual experiences might be said to be different currencies for which there is no precise standard of exchange.<sup>61</sup> Can there be states directed at or about something which do not have full contents? Someone may have a fear of spiders without having any desires directed at particular spiders, though the fear is in a sense directed at or about spiders. Yet, a fear of spiders does entail a desire to avoid contact with, or proximity to, spiders: and it is this together with a particular emotional aura, which thinking of or perceiving spiders evokes, which we think of as the fear of spiders. In any case, one may call this class of states 'intentional states,' as well, though their intentionality seems to be grounded in the intentionality of representational, or pro or con attitudes, which underlie them, or, as one may say, on which they depend.<sup>62</sup> One may, then, say that an intentional state is a state with a content (in the sense just characterized) or which depends (in the sense just indicated) on such a state.<sup>63</sup> A state then is a mental state (or event) if and only if (iff) it is either a conscious or an intentional state (or event). An object is a thinking thing iff it has mental states. What is the relation between conscious states and intentional states? If the two sorts are independent, then our initial question breaks down into two sub-questions: one about the relation of consciousness, and the other about that of intentionality, to the physical. If the two sorts are not independent of one another, any answer to the general question must tackle both sub-questions at once. Some intentional states are clearly not conscious states.

Believing, for instance, that Australia lies in the Antipodes is not a conscious belief (or an occurrent belief) formed just a moment ago. It is a dispositional, as opposed to an occurrent, belief. A desire can be occurrent, my present desire for a cup of coffee, for example, or dispositional, my desire to buy a

<sup>58</sup> Common sense is a basic or fundamental precept of human belief.

<sup>59</sup> Clarence Irving Lewis (1941) "Some Logical Considerations Concerning the Mental," *The Journal of Philosophy*, 38: 225-228.

<sup>60</sup> Charlie Dunbar Broad, (1925) *The Mind and Its Place in Nature*, (New York: Harcourt, Brace and company), p. 46.

<sup>61</sup> David Chalmers, (1996) *The Conscious Mind: In Search of a Fundamental Theory*, (New York: Oxford University Press), pp. 85-86.

<sup>62</sup> John C. Eccles (1953) *The Neurophysiological Basis of Mind: The Principles of Neurophysiology*, (Oxford: Clarendon Press), pp. 33-35.

<sup>63</sup> John C. Eccles (ed.) (1982) *Mind and brain: The Many-faceted Problems: Selected readings from the Proceedings of the International Conferences on the Unity of the Sciences*, (Washington, Paragon House), p. 88.

<sup>55</sup> Charles Arthur Campbell, (2013) "Has the Self Free Will," In *Defense of Free Will: With Other Philosophical. Essays* (London: Allen & Unwin), p. 436.

<sup>56</sup> John R. Searle, (1980) "Minds, Brains, and Programmes," in *The Behavioural and Brain Sciences* Vol. 3: 417-422.

<sup>57</sup> John R. Searle, (1980) "Minds, Brains, and Programmes", in *The Behavioural and Brain Sciences* Vol. 3: 422-423.

certain book, when I am not thinking about it.<sup>64</sup>This does not, however, settle the question whether intentional and conscious mental states are independent. It may be a necessary condition on our conceiving of dispositional mental states as intentional attitudes that among their manifestation properties are occurrent attitudes with the same mode and content. In this case, the strategy of divide and conquer will be unavailable: one will not be able to separate the projects of understanding the intentional and the conscious, and proceed to tackle each independently.<sup>65</sup>The debate on the mind-body problem, has been in existence from the time of Descartes to the contemporary period. Therefore, with all the implications associated with the mind-body identity theory, the arguments advanced by its advocates do not seem to compel a strong conviction. ‘Supervenience’ is a term of art used in much current philosophical literature on the mind–body problem. It may be doubted that it is needed in order to discuss the mind–body problem, but given its current widespread use, no contemporary survey of the mind–body problem should omit its mention. A variety of related notions has been expressed using it. Though varying in strength among themselves, they are generally intended to express theses weaker than reductionism, invoking only sufficiency conditions, rather than conditions that are both necessary and sufficient.<sup>66</sup> Supervenience claims are not supposed to provide explanations, but rather to place constraints on the form of an explanation of one sort of properties in terms of another. With U.T. Place at the fore-front, one might say that it amounts to faith for their thesis to be accepted or adopted, or perhaps a reformulation of their concept of mind, in closer accord with observable data, which remains to be seen. This is a convoluted philosophical problem. A philosophical problem is a knot in our thinking about some fundamental matter that we have difficulty unraveling. Usually, this involves conceptual issues that are particularly difficult to sort through.<sup>67</sup> Because philosophical problems involve foundational issues, how we resolve them has significant import for our understanding of an entire field of inquiry. Often, a philosophical problem can be presented as a set of propositions all of which seem true on an initial survey, or for all of which there are powerful reasons, but which are jointly inconsistent.<sup>68</sup>

Brain process is essentially psychic, while the field of consciousness is accidentally brain process. One might say that materialism is a contingent truth, while idealism is an essential truth. There does not seem to be any logical contradiction in the supposition of only one substantial entity, and in a monistic universe such as this there would be no interaction, and thus no matter.<sup>69</sup> But this substance would

still, according to the view being outlined, consist in a field of consciousness. A substance is material only insofar as it causally conditions or limits another substance. It is material for another; in itself it is psychological. There is no reason to hide the problems which any full defense of the present view would entail.<sup>70</sup> Chief among these problems is that of reconciling the view, derived from physics, that the ultimate units of reality are subatomic, with the phenomenologically based view that the field of consciousness is an indivisible unit and the view, based on physiological psychology that the physiological correlate of the field of consciousness consists in an enormous mass of elementary physical particles.<sup>71</sup> The problem is obvious once we say that the relation between the field of consciousness and its physiological correlate is one of identity. The physiological correlate may not be merely a mass of particles; it is the most highly organized such mass which we know. There may be a certain threshold degree of organization, at which a collection of externally related elements fuses into an indivisible unit of inseparable moments, a “high-level substance.”<sup>72</sup>

#### REFERENCES

- [1] Anderson, Alan Ross (ed.) (1964) *Minds and Machines*. Englewood Cliffs: Prentice Hall.
- [2] Armstrong, David Malet. (1968) *A Materialist Theory of the Mind*. London: Routledge and Kegan Paul, Humanities Press.
- [3] Aune, Bruce A. "Intention" in *Encyclopedia of Philosophy*, Vol. 4, Paul Edwards (ed). New York:
- [4] Macmillan Publishing Co., Inc. and Free Press, 1967.
- [5] Beakley, Brian and Ludlow, Peter (eds.) (1992) *The Philosophy of Mind: Classical Problems/Contemporary Issues*. Cambridge, MA: MIT Press.
- [6] Bealer, George (1994) "Mental Properties," *The Journal of Philosophy*, 91: 185–189.
- [7] Block, Ned, Flanagan, Owen Niamh et al. (eds.) (1997) *The Nature of Consciousness: Philosophical Debates*. Cambridge, MA: MIT Press.
- [8] Borst, Clive Vernon. (1970) *The Mind-Brain Identity Theory: A Collection of Papers*. New York: St Martin's Press.
- [9] Brown, Richard.(2006) "What is a Brain State?" *Philosophical Psychology* 19 (6):729-733.
- [10] Broad, Charlie Dunbar. (1925) *The Mind and Its Place in Nature*. New York: Harcourt, Brace and Company.
- [11] Campbell, Charles Arthur. (2013) "Has the Self Free Will," *In Defense of Free Will: With Other Philosophical Essays*. London: Allen & Unwin.
- [12] Chalmers, [David John](#),(ed.) *Philosophy of Mind: Classical and Contemporary Readings*. Oxford: Oxford University Press, 2002.
- [13] Chalmers, David. (1996) *The Conscious Mind: In Search of a Fundamental Theory*. New York: Oxford University Press.

<sup>70</sup>William James (1904) "Does Consciousness Exist?" *The Journal of Philosophy, Psychology and Scientific Methods*, 1: 477–91

<sup>71</sup> Jaegwon Kim, (1993) "Mechanism, Purpose, and Explanatory Exclusion," In Jaegwon Kim, *Supervenience and Mind*, (New York: Cambridge University Press), pp. 237–240.

<sup>72</sup>George Henry Lewes (1877) *The Physical Basis of Mind*, (London: Trubner and Co. Lewis), pp. 58-62

<sup>64</sup>Herbert Feigl, (1958) "The Mental and the Physical," In Herbert Feigl et al., *Concepts, Theories and the Mind–Body Problem*,(Minneapolis: University of Minnesota Press), 370–374.

<sup>65</sup>Jerry Alan Fodor (1991) "A Modal Argument for Narrow Content," *The Journal of Philosophy*, 88 (1): 5–8.

<sup>66</sup>Foster, John (1996). *The Immaterial Self: A Defense of the Cartesian Dualist Conception of the Mind*, (London: Routledge), p. 71.

<sup>67</sup>Frank Jackson, (1982) "Epiphenomenal Qualia," *The Philosophical Quarterly*, 32: 127–131.

<sup>68</sup> Clarence Irving Lewis (1929) *Mind and the World-order: Outline of a Theory of Knowledge*, (New York: Scribner), pp. 40-42.

<sup>69</sup> Frank Jackson (1996), "Mental Causation," *Mind*, 105 (419): 377–381



- [14] Churchland, Paul.(1981) "Eliminative Materialism and the Propositional Attitudes," *The Journal of Philosophy*, 78: 67–70.
- [15] Clarke, Christopher J. S. (1995) "The Non-locality of Mind," *Journal of Consciousness Studies* 2 (3): 231-234.
- [16] Crane, Tim. (2001) *Elements of Mind: An Introduction to the Philosophy of Mind*. Oxford: Oxford University Press.
- [17] Crane, Tim &Patterson, Sarah Patterson (eds.) (2000) *History of the Mind-Body Problem*. New York: Routledge.
- [18] Davidson, Donald. (1980) 'Mental Events,' In *Essays on Actions and Events*. New York: Clarendon Press.
- [19] Drake, Durant, *Mind and its Place in Nature*. New York: Macmillan, 1925.
- [20] Eccles, John C. (1953) *The Neurophysiological Basis of Mind: The Principles of Neurophysiology*,Oxford: Clarendon Press.
- [21] Ewing, Alfred C. "The Causal Argument for Physical Objects," *Proceedings of the Aristotelian Society*, Supplementary Vol. XIX (1945): 35.
- [22] Feigl, Herbert.*The Mental and the Physical*. Minneapolis: University of Minnesota, 1967.
- [23] Feigl, Herbert.(1958) "The Mental and the Physical," In HerbertFeigl et al., *Concepts, Theories and the Mind-Body Problem*. Minneapolis: University of Minnesota Press.
- [24] Fodor, Jerry Alan. (1991) "A Modal Argument for Narrow Content," *The Journal of Philosophy*, 88 (1): 5–8.
- [25] Foster, John (1996). *The Immaterial Self: A Defense of the Cartesian Dualist Conception of the Mind*. London: Routledge.
- [26] Gruyter, Walter de andBedau, Mark A. (1986) "Cartesian Interaction," *Midwest Studies in Philosophy*, 10: 483–486.
- [27] Gurwitsch, Aron. *The Field of Consciousness*. Pittsburgh: Duquesne University Press, 1964.
- [28] Hartshorne, Charles. *Beyond Humanism: Essays in the Philosophy of Nature*. Chicago: Willett, Clark, 1937.
- [29] Hartshorne, Charles. "The Compound Individual," in *Philosophical Essays for Alfred North Whitehead*. London: Longmans, 1937.
- [30] Hospers, John. *An Introduction to Philosophical Analysis*. Englewood Cliffs: Prentice-Hall, 1967
- [31] James, William. (1904) "Does Consciousness Exist?" *The Journal of Philosophy, Psychology and Scientific Methods*, 1: 477–480
- [32] Jackendoff, Ray. (1987) *Consciousness and the Computational Mind*. New York: MIT Press.
- [33] Jackson, Frank. (1982) "Epiphenomenal Qualia," *The Philosophical Quarterly*, 32: 127–131.
- [34] Jackson, Frank. (1996), "Mental Causation," *Mind*, 105 (419): 377–381
- [35] Kim, Jaegwon. (1990) "Can the Mind Change the World?" In G. Boolos (ed.), *Meaning and Method: Essays in Honor of Hilary Putnam*. New York: Cambridge University Press.
- [36] Kim, Jaegwon. (1993) "Mechanism, Purpose, and Explanatory Exclusion," In Jaegwon Kim, *Supervenience and Mind*. New York: Cambridge University Press.
- [37] Lewes, George Henry. (1877) *The Physical Basis of Mind*. London: Trubner and Co. Lewis.
- [38] Lewis, David. (1966) "An Argument for the Identity Theory," *The Journal of Philosophy*, 63: 17–20.
- [39] Lewis, Clarence Irving. (1941) "Some Logical Considerations Concerning the Mental," *The Journal of Philosophy*, 38: 225–228.
- [40] Lewis, Clarence Irving. (1929) *Mind and the World-order: Outline of a Theory of Knowledge*, New York: Scribner.
- [41] Mays, Willie. "Can Machines Think?" In *Philosophy*, Vol. XXXVII, No. 27, 1953,*The Journal, of the Royal Institute of Philosophy*, Sydney E. Hooper, (ed.) London: Macmillan.
- [42] McLaughlin, Brian;Beckermann, Ansgar&Walter, Sven (eds.) *The Oxford Handbook of Philosophy of Mind*. Oxford: Oxford University Press, 2007.
- [43] Martin, Charles Burton. (2000) "A Remembrance of an Event – Foreword to 'the Two Factor Theory of the Mind-Brain Relation,' by Ullin T. Place," *Brain and Mind* 1 (1): 27-28.
- [44] Morris Schlick, "Psycho-Physical Identity," trans. from, AllgemeineKenntnislehre in *Perspectives in Philosophy*, 2nd edition. New York: Holt, Rinehart and Winston, 1968.
- [45] Nath, [Shanjudu](#)(2012) "[The Problem of Identity in the Identity Theory of Mind.](#)" *Pratidhwani the Echo* (I):115-118.
- [46] O'Hear, Anthony (ed.) *Mind, Self and Person*. Cambridge: Cambridge University Press, 2015.
- [47] Omoregbe, Joseph I. *Philosophy of Mind: An Introduction to Philosophical Psychology*.Lagos:
- [48] Joja Educational Research and Publishers Limited, 2001.
- [49] Place, Ullin T. "Is Consciousness a Brain Process?," in C.V. Borst, (ed.) *The Mind-Body Identity Theory*. London: Macmillan, 1970.
- [50] Pollock, John L. "My Brother the Machine" *Nous*, Vol. 22, No. 2, June 1988: 185-186.
- [51] Rozemond, Marleen (1999) "Descartes on Mind-Body Interaction: What's the Problem?" *Journal of the History of Philosophy* 37 (3):435-438.
- [52] Shaffer, Jerome A. (1965) "Recent Work on the Mind-Body Problem," *American Philosophical Quarterly* 2 (2): 81-85.
- [53] Searle, John R. (1980) "Minds, Brains, and Programmes," in *TheBehavioural and Brain Sciences* Vol. 3: 417-422.
- [54] Towl, Brandon N. (2012) "Mind-Brain Correlations, Identity, and Neuroscience," *Philosophical Psychology* 25 (2):187-190.
- [55] Veatch, Henry B. "Intentionality" In *New Catholic Encyclopedia*, Vol. 7. Washington DC: The Catholic University Press, 1996.
- [56] Whitehead, Alfred North, *Process and Reality*. New York: Macmillan, 1929.