CHAPTER VI

MINIMAL MATERIALISM - OVERCOMING ANTI-REDUCTIONISM'S FAILURES

Materialistic account aims at the reduction of the mind to the brain. The different versions of the identity theory - 'type-type' and 'token-token' correlation theories, attempt to show that the 'mental' can be reduced to the 'physical'. However, one type of materialistic theory (Donald Davidson's 'Anomalous Monism') accepts the irreducible nature of mental states. Therefore, this particular type of materialism may be perceived as a non-reductionist approach with regard to mental-physical relation.

Thomas Nagel was the first to raise doubts about the success of materialism in his discussion of "Armstrong on the Mind" when he questioned the type of materialism defended by Armstrong. He also criticises Armstrong's causal analysis of mental concepts. Nagel questions, "why should a materialist theory of the operation of human beings correspond closely enough to any mentalist picture to permit identification of items from the two theories?" He maintains that, "even if some form of materialism is true, it will not automatically be expressible in the framework of common sense psychology. Currently available data about the central nervous system do not seem to me to encourage such a hope; and some of them positively discourage it".

Nagel in his paper, "What is it like to be a bat?" argues for "subjective character of experience". Nagel says that, without 'consciousness' the mind-body problem becomes
uninteresting and with 'consciousness' it (mind-body problem) becomes intractable. He comments that the reductionist theories are not even trying to explain the most important and characteristic feature of our conscious mental experience. Nagel explains 'subjective character of experience' saying that, "fundamentally an organism has conscious mental states if and only if there is something that it is like to be that organism - something it is like for the organism".

Nagel holds that this 'subjective character of experience' cannot be analysed in terms of any explanatory system of functional states, as it can be ascribed to a robot, an automata where 'experiencing' aspect is lacking. Again, he says that, 'subjective character of experience' cannot be analysed in terms of causal roles that our experiences play to bring about human behaviour, for 'experience' is present in animals though they lack language and thought and do not have any beliefs about their experiences. Nagel is not denying, the conscious mental states and events, as causes of behaviour or their being given functional characterizations. Nagel denies the reduction of 'subjective character of experience' as he maintains that it will exhaust their analysis. In the reductionist program, we find an analysis of the thing to be reduced. If the reductionist leaves something out that is to be reduced, then the reductionist programme is a failure. Nagel points out that, "any reductionist programme has to be based on an analysis of what is to be reduced. If the analysis leaves something out, the problem will be falsely posed. It is useless to base the defense of materialism on any analysis of mental phenomena that fails to
deal explicitly with their subjective character. For there is no reason to suppose that a reduction which seems plausible when no attempt is made to account for consciousness can be extended to include consciousness.

Nagel takes a realist position as far as the 'subjective' aspect of our experience is concerned. He states: "My realism about the subjective domain in all its forms implies a belief in the existence of facts beyond the reach of human concepts. Certainly it is possible for a human being to believe that there are facts which humans never will possess the requisite concepts to represent or comprehend. ... there are facts which could not ever be represented or comprehended by human beings, even if the species lasted forever - simply because our structure does not permit us to operate with concepts of the requisite type". Thus, dissatisfaction about the reductionist programme was expressed by Nagel, before Davidson developed his theory based on the same line, accepting the irreducible nature of the mental or psychological phenomena.

While Howard Robinson names Davidson's theory a 'Dual Aspect Theory' and not a genuine form of materialism for certain reasons, Armstrong considers Davidson's theory as 'functionalistic' in many respects although Davidson does not stress functional character of mental states. Davidson himself names his position as 'Anomalous Monism' saying: "I have resisted calling my position either materialism or physicalism because, unlike most materialists or physicalists, I do not think mental properties (or predicates) are reducible to physical properties.
(or predicates), nor that we could conceptually or otherwise, get along without mental concepts. Monistic my view is, since it holds that mental events are physical events, but a form of materialist chauvinism it is not, since it holds that being mental is not an eliminable or derivative property. In brief, Davidson's position may be viewed as a reaction to J.J.C. Smart's and D.M. Armstrong's reductionism.

For Davidson, sensation is a brain process, but he denies that there are strict laws governing this process and also holds that reliable psycho-physical generalisations are incapable of being refined into strict laws. He agrees with functionalists as far as one-many correlations between the physical and the mental but denies strict causal laws linking these two. He also denies a causal relation between one mental event and the other. Davidson in his anomalous monistic theory holds that, all events are physical, though some posses an irreducible psychical aspect. Davidson argues that, that "what lies behind our inability to discover deterministic psycho-physical laws is this. When we attribute a belief, a desire, a goal, an intention, or a meaning to an agent, we necessarily operate within a system of concepts in part determined by the structure of beliefs and desires of the agent himself. Short of changing the subject, we cannot escape this feature of the psychological; but this feature has no counterpart in the world of physics".

Davidson accepts three principles:

1. he holds a causal interaction between the mental and the physical,
(2) he holds the principle of nomological character of causality, and

(3) the non-existence of precise and strict psycho-physical laws.

The three principles may be taken as constituting premisses of an argument. First premiss may be taken as that, psychological or mental events like perceiving and remembering something, "the acquisition and loss of knowledge, and intentional actions are directly or indirectly caused by, and the causes of, physical events".

Second premiss will be, when events are taken as causally related, they can be made to fit into "a closed and deterministic system of laws" by giving an appropriate description of them. The third premiss may be constituted as, that there are no strict and precise causal laws correlating the psychological with the physiological.

Premisses constituted as above, according to Davidson, imply monism. Monism, because Davidson maintains that a psychological event is a physiological event. Davidson says that it is not possible for psychological events to constitute a closed system. Many events affect the psychological, but the events themselves may not be psychological in nature. In other words they will be physical events. If so, then physical events and psychological events are causally related and by premiss two, there must be laws that govern them. In premiss three, it may be stated that laws are not psychophysical and therefore, they must be purely physical laws, in other words it means that psychological events can be described, taking one by one, in physical terms. This
shows that they are physical events. Davidson maintains that this position deserves to be called anomalous monism. He calls it monism because, psychological events are physiological events. He maintains that it is anomalous because of his insistence that events do not come under strict laws when couched in psychological terms.

Principles one and two mentioned earlier appear to conflict with the third principle. That is, Davidson wishes to hold a causal interaction between mental and physical events, and vice-versa. But simultaneously also holds that any event that is causally related to the other, fall under strict laws what he calls the principle of nomological character of causality. These two principles, which Davidson thinks are of great importance and the third principle of anomalism of the mental, appear to conflict. The problem may be posed thus: 'how can one hold the causal interaction view on one hand and yet maintain that there are no strict laws governing this two?'

Davidson seeks the solution of the problem by holding that a "particular cause and its effect are governed by a strict law only relative to certain descriptions of these events". Davidson illustrates through the example of collision of Titanic. Titanic's collision with an iceberg caused the ship to sink. This cause cannot be generalised in all instances of sinking of ships. Rather there is some true general description of the Titanic's collision and it is only under this description that the particular event takes place and that becomes a strict law.

In the same fashion, whenever there arises a certain desire
(desiring something is a psychological event) in an individual, in addition to that there are beliefs and perceptions and all this leads to movement of limbs which we can say is a causal sequence and so governed by a strict law. But it cannot be said a strict law under these or any other mental descriptions. It is possible to explain one's actions in mental terms by pointing out at one's beliefs and purposes. In order to understand the meaning of what a person says a good deal of knowledge about his beliefs is necessary. While interpreting verbal behaviour, that is, the statement made by the speaker, we should be able to tell, when he (speaker) holds the statement to be true. Because the truth of the statement, depends, partly on what he believes and partly on what he means by his words. Therefore, the interpretation of verbal behaviour involves the abstraction of roles of belief and meaning, based on the type of statements made by the speaker. This abstraction of belief helps in deciding the meaning of what the speaker says. But in this task, in order to get the meaning of what the speaker says, it is not profitable to take the constituents (words) one by one. Because, words get meaning only in a larger system of language as a whole, where the roles to be played by the words are specified. 'Believing' in something is a psychological phenomena. 'Believing' as a psychological state cannot be described fully in terms of physical concepts. That is, there is no precise law-like connection between a belief state and the corresponding physical states. This shows that the psychological system is not a closed system. In Davidson's words: "psychological phenomena are not, even in theory, amenable to precise prediction or subsumption under deterministic laws. The
limit thus placed on the social sciences is set not by nature, but by us when we decide to view men as rational agents with goals and purposes, and as subject to moral evaluation.

This type of explanation will include only rough and ready generalisations and these generalisations for Davidson are incapable of being refined into strict laws. In Armstrong's interpretation of Davidson's theory he (Armstrong) says, even if one attempts that, it will be "at the cost of completely deserting the mental vocabulary". Because in this task, Davidson believes, one has to look for vocabulary of theoretical physics and there are no strict correlations between that vocabulary and a mental one. For Davidson, therefore, "if we consider the way in which beliefs and desires issue in behaviour, then it can be rather easily seen that belief X and desire Y will issue in behaviour Z only against some mental background". If someone who wants to go for a drink perceives the public house before him and then thinking that his desire will be satisfied, has to step inside. But suppose that he believes, that his enemy is inside, and meeting his enemy is something more than his going for refreshment, his behaviour will be different. And similarly there may be many mental factors which can change the situation again and again and this is what makes it difficult to link the mental and the physical by virtue of strict laws.

Davidson tries to put the holistic realm of the mental apart from the physical as he accepts the view with causal theorists and functionalists, that mental plays a peculiar role in the explanation of behaviour and that one should attribute inevitably "a certain amount of coherence, rationality and consistency to
the person who has the states". Armstrong comments that, one may do so, by using the 'principle of charity'. This 'principle of charity' has no physical counter-part, and is not accepted in physical theory as it is considered as vague to some extent. Further, there may be various charitable interpretations, allowing only a partial interpretation of facts. This may be the reason why Davidson thinks that psycho-physical generalisations can never become precise laws to whatever extent psychology develops.

Howard Robison believes that Davidson's anomalous monism is not a genuine form of materialism. Davidson adopts a non-reductionist approach claiming that a human being is equal to physical plus mental. Therefore, a human being is not a material body only. Robinson says that Davidson's 'dual aspect theory' makes man a mental object as much as a material one. Robinson says that an attempt is made by modern materialist theorists to give a total world description in terms of physical science. Davidson allowing some non-physical, irreducible events in his 'anomalous monism' makes this idea difficult.

Robinson further says that, Davidson's theory, may create problems for the unity of scientific theory. If mental events are taken as causally influencing the physical, then new type of psycho-physical and psychological law will emerge which will be different from laws of the physical sciences. Related to this, objections can be raised against this dual aspect theory, as are raised against dualism (for example, regarding the interaction between mental and physical). This endangers the unity of
Robinson not only names Davidson's theory, as a 'dual aspect theory' but also calls it epiphenomenalistic. Davidson espouses mechanism and holds it to be necessarily true, consistent with his second principle, namely, nomological character of causality. And therefore Davidson cannot hold that the mental can cause physical and upholding mechanism, he can say that the physical can cause mental but not vice-versa. Robinson points out that Davidson also accepts this but interprets it in an unnatural way. In his theory, every mental event has to be a physical event, "although mental states and properties are not identical with any physical states or properties. Hence mental events can cause physical events, because they themselves are physical events. Thus, if my feeling a pain in the leg is identical with brain event B, and brain event B causes my hand to reach for my leg, then (the event of) my feeling a pain caused me to reach my leg". Here the necessary and sufficient conditions for the action are physical and therefore mental becomes only an idle by-product of the physical system. But Davidson and others who bring this theory of event-identity and apply it to mental and physical events deny epiphenomenalism.

Davidson in turn accepts causal interactionsism as one of the important principles. But the type of interaction supposed in the theory is entirely 'empty', says Robinson. There cannot be any interaction at all as the mental part does not bring about any effect. It means then, even if the mental had been absent, the effect would not have been different. Robinson points out that, if we call this an interaction, then by another argument one may
show that inert gases interact with other gases. In fact, an inert gas does not contribute anything in an ignition process. Therefore, it cannot be said to interact with other gases. The same thing is applicable to mental events in this theory. The fact that mental events and states are present is not sufficient to say that it interacts with physical.

Robinson critically comments that, "the Davidsonian claim that mental event make a contribution, when combined with admission that the mental state does not is fundamentally misleading".

According to Armstrong, the first two principles accepted by Davidson can be used to support 'Ontological physicalism'. The two principles are - the principle of causal interaction and the principle of nomological character of causality. Armstrong quotes Davidson to put forth Davidson's argument:

"Suppose m, a mental event, caused p, a physical event, then under some description m and p instantiate a strict law. This law can only be physical, ... But if m falls under a physical law, it has a physical description, which is to say it is a physical event. An analogous argument works when a physical event causes a mental event".

Armstrong points out that if one accepts the premisses of the argument and holds that the mental and the physical are identical, then it is obvious to assume the extra properties of the physical events in question, which go to constitute 'mental' and are of a non-physical nature. But he says that these extra properties should give causal power to the mental and in case if
this does not happen then this goes against the principle of causal interaction on the one hand and on the other if they do bestow the causal power, then those properties bestow a law governed power, leading to the conclusion that there must be precise psycho-physical laws which is contrary to one of the principles accepted by Davidson.

Davidson in his non-reductive materialism holds that mental supervenes upon the physical. Howard Robinson calls Davidson's theory 'epiphenomenal' and says that Davidson's claim about supervenience of the mental on the physical is useless to his non-reductive materialism. He says that one of the criterion to find out whether an event is epiphenomenal and is not interacting with other things, is to observe that in its (event's) absence, what causal consequences we would have, other things remaining the same. Robinson maintains that, "22 only if a causally explains c, ...". He points out that Davidson's theory upholding mechanism, the occurrence of mental states causally explains nothing. In other words it may be said that, in the absence of mental states, other things remaining the same, the world would remain physically the same. That is, there would have been no changes in the physical events. Thus he says that in Davidson's theory mental remains only a by product of the physical.

However, Robinson considers it important to examine the difference between the fashionable concept of supervenience and reduction. He says that, Davidson and Peacocke call themselves non-reductionists. For Davidson, it is the psychical nature of our experiences that is irreducible, while Peacocke maintains
that, "not merely are mental predicates irreducible, but that they are a sui generis non-physical phenomenon".

Robinson mentions two types of reductions. The translation reduction and the nothing but reduction. The 'nothing but' reduction is illustrated by the relation between the atoms and macroscopic objects. Some philosophers consider this 'nothing but' reduction as 'reduction' whereas some regard it as materialism without reduction. Davidson's and Peacocke's approach may be seen as 'nothing-but' reduction approach. Davidson attempts to avoid the form of strong reductionism whereas Peacocke attempts to espouse it and yet both regard themselves as non-reductionists.

The philosophers who say that mental supervenes on the physical maintain that "there cannot be a mental difference without a physical one". According to Davidson every psychological event is a physiological event. But he says that mental language (description of a mental act) cannot be translated into terms referring to physiological. One may be puzzled about this condition, because it raises doubts about the 'necessity' generated by the word 'cannot' in the above quoted statement. This 'necessity' cannot be a form of aposteriori type, given by Kripke while arguing against the identity theory. In Peacock's theory, aposteriori necessity cannot be applied in order "to make the occurrence of the appropriate P-states without M-states impossible". Robinson says that we are forced here to look for a form of a priori necessity which would be compatible with the contention that mental language is not translatable into
terms referring to physiological conditions. And Robinson says that the only alternative is to go for topic-neutral analysis, where mental states and physical states are considered as necessarily equal.

Those philosophers who uphold the supervenience of the mental deny that mental descriptions can be translated into physical ones. Therefore they prefer 'nothing but' reduction to 'translation reduction'. But, Robinson says that, because of the incompatibility between the concept of the supervenience and the non-reductionist condition about the mental, they are forced to adopt a topic-neutral analysis. In topic neutral analysis there is no emphasis on the strict translation of mental description into a physical one and this (topic neutral) form of analysis is favoured by contemporary analytical reductionist. According to Robinson there is no great difference between the two forms of reductions. If this is true then Robinson says that, "supervenience relation does not give us a new way to an intuitively acceptable non-reductive form of materialism, but rather entails the modern sort of reductive or 'translation' materialism associated with such philosophers as J.J.C. Smart and D.M. Armstrong".

J.J.C. Smart comments that, Davidson does not seem to be interested in putting forth a wide sweeping meta-physical theory or to be concerned with the unity of science. He says that, Davidson's concern about mental is as narrow as his concern about 'propositional attitudes, such as beliefs, desires, hopes, and fears. Occurrent experiences such as the having of an itch, of a memory image, or of a visual sense datum are not obviously
propositional in nature. If Davidson's argument does not touch these occurrent experiences, then if it is taken to be an argument for materialism in general there is a serious lacuna in it. It is these occurrent experiences that have often been supposed to provide the greatest difficulty for the materialist.27

Smart points out that Davidson's talk about 'psychology' is not about the 'Scientific Psychology' - which avoids reference to intentional states. Smart maintains that, there is something about our language of beliefs and desires such that, it will forever prevent the language to have "the character of determinate factuality that would be needed for there to be a nomological theory of these mental states". Smart is of the opinion that scientific psychology alone can make reliable predictions of human behaviour, avoiding reference to intentional states. It attempts to explain human action as not flowing from intentional states but will analyse human behaviour in various ways different from those of common sense. Smart's contention that this type of scientific psychology is different from 'psychology' as defined by Davidson is further upheld and supported by Kathleen V. Wilkes.

Wilkes says that, it has become a fashion in philosophy to talk in terms of 'common sense psychology' or 'folk psychology'. But philosophers, along with common sense psychology are interested also in scientific psychology. Some philosophers also talk about common sense psychology as a, would be scientific theory, for example, she mentions - P.M. Churchland 1981; P.S.
Churchland 1986; Stitch 1983. Other philosophers and she mentions Davidson in this group, "think that we are struck with common sense psychology, but that it can never be tightened into a genuine science and that, therefore, psychology is not a science". A third group, she says consists of philosophers like J.A. Fodor, H. Field, Lycan W., who say that, "we have no reason to doubt that it is possible to have a scientific psychology that vindicates common sense belief/desire explanation". In other words it may be understood that, these philosophers expect that common-sense psychological concepts would provide a conceptual framework such that within that framework their 'theories' of action, perception and thought can be derived.

The first task Wilkes takes up is to distinguish between common sense psychology and scientific psychology. Wilkes points out that common sense psychology and scientific psychology are not in competition for certain reasons. She maintains that "common sense psychology is a quasi-scientific theory, and that an elaboration of it is both needed and would make it a genuine theory, CSP is not a 'theory' in any substantial sense of those terms and, hence, neither is it interested in the same phenomena as is SP, nor is it subject to the same criteria for assessment as is SP". (SP = Scientific psychology and CSP = Common-sense psychology). Wilkes says that, scientific activity is distinct from the conversation that goes on in the street, does not matter how 'continuous' it may be. For she says that two entities far apart may be continuous: as bumps in her lawn and Himalayas. The fact that two elements are continuous, that is 'mere' continuity between two elements one should not take as implying that there
is no substantial difference between them. Wilkes mentions, that the continuum holds between common sense psychology and scientific psychology as far as both are concerned to explain and predict human and animal behaviour. But after this, 'anodyne point' she says the similarities end. She distinguishes between the two above by saying that, "SP attempts to 'explain and predict generally. CSP however is interested in explaining the particular." George wants to know why his daughter Georgina has become a skin head, a mathematics professor, or a born-again christain, rather than why teenagers are tempted to become skin heads, to take up mathematics, or to get way laid by fundamentalism. And, he would have a much better chance of finding a satisfactory explanation if he looked to the specificities of Georgina's individual history - which as her father he probably knows rather well - rather than if he resorted to his local university collection in psychology (which is not to say that he would not find indirect help there for his researches: more of that anon). CSP wants to know, roughly, why this X did exactly that action 0 at exactly that time and in this manner ...SP wants to know how it is that people do the sorts of things that people characteristically do do.

Wilkes further mentions a methodological difference between common-sense psychology and scientific psychology.

The former is not 'methodological' whereas the latter traditionally has tried to be methodologically rigorous as natural sciences and Wilkes says that this methodological rigor is partly because of the German founding fathers of it like woundt...
and Freud who were physiologists.

She says further, that common sense psychology framework is a 'multi-purpose tool' and that it "is not threatened or heartened by any advances in neuro-psychology or neuro-science because it is cheerfully independent of them. This means that in its eclectic manner - it can pick up whatever it wants from scientific theories, and generally of course (because it is the psychology of the laymen) prefers to pick up terms and ideas that are trendy enough to get discussed in glossy magazines".

Wilkes says that the theories of action and perception discussed by philosophers, with reference to common sense psychology are 'arm chair' theories of action and perception and therefore they "are and will be going nowhere".

Granting that Davidson argues successfully for the anomalousness of the mental, J.J.C. Smart says that it may be argued that Davidson's argument is circular by pointing out to the principle that he accepts. The principle may be stated as that, "when events are related as cause and effect, they have descriptions that instantiate a law". Smart says that, Davidson's theory being a dual aspect theory, it is not clear how Davidson accepts the second principle and to what use it can be put. Smart says that, he (Smart) being a materialist can accept the principle. But Davidson being a 'anomalous dualist' (as Smart calls him), it is possible that some philosophers might feel, that his argument is circular. Though Davidson's argument has a true conclusion (and Smart thinks that it has), those philosophers who actually use causal language, Smart says that, they may not accept it to be true. Smart expresses the
possibility of the development of causal language in an aniministic context and says that, people believe in something that it happening, because they feel that some God or Spirit wants it to happen. Smart compares man with an analogue computer maintaining the view that human beings are mechanisms which can be explained by natural laws, along with the plans of our construction. But, he says that this is the very thing of which, those philosophers who need to be convinced by Davidson's argument, possibly might reject it.

Smart maintains that,"a truely scientific psychology cannot use the language of the propositional attitudes" . He says that, from the above corollary, Davidson, most ingeniously argues for, irreducible psychical aspect of our experiences and yet upholds materialism. He says that, this type of materialism, what Davidson argues for, may be called minimal materialism, as David Lewis calls it.

NOTES :

1. 'Type-type' and 'token-token' reduction: In the 'type-type' reduction the correlation may be 'one-one' or 'one-many'. 'One-one' correlation is tight and exceptionless, for example 'all women are daughters'. 'One-many' correlation is a rough correlation, for example, 'all soldiers are brave individuals'.

In a 'token-token' reduction the correlation is between the description of the object under which it falls. The theories discussing mind-brain correlation based on 'type' or 'token' form of reduction widely differ. To illustrate, all thoughts that, 'the chance of having a nuclear war is less now', in the 'type-type' way, the correlation, will be with the brain-processes of 'type-P' only. And in case of 'token-token' correlation, for the same thought there will be 'some' brain-processes correlating it, to the extent that, the same thought in different people and in the same person at different times will have different brain-states correlating it.
7. Nagel holds that we are not incorrigible about our experience. He maintains that phenomenal facts are objective. That is, one person can know or say of another person, whatever the qualities of his experience are. But they (phenomenal facts) are subjective, "in the sense that even this objective ascription of experience is possible only for someone sufficiently similar to the object of ascription to be able to adopt his point of view -to understand the ascription in the first person as well as in the third,... The more different from oneself the other experiences is, the less success one can expect with this enterprise". - Thomas Nagel, "what Is It Like To Be a Bat?" Philosophical Review, Vol.83, No.4, 1974, p.442.

18. Mechanism : the view that, if a physical event has a causal
explanation, then that explanation will be in terms of necessary and sufficient physical conditions.


20. Ibid., p. 11.


24. Ibid., p. 21.

25. Ibid., pp. 28-29.

26. Ibid., p. 29.


28. Ibid., p. 178.


30. Ibid.

31. Ibid., pp. 18-19.

32. Ibid., pp. 19-20.

33. Ibid., p. 27.

34. Ibid., p. 16.

