CHAPTER I

THE SIGNIFICANCE
OF CARRUTHERS’ PROJECT

1.1 Naturalization of Phenomenal Consciousness: Hard Versus Harder Problem

‘Consciousness is a mystery’. At one extreme, it is claimed that we can close the supposed ‘explanatory gap’ (Levine) through *a priori* conceptual analysis (consciousness = pyramidal cell activity; water = the unique watery stuff; pain = phenomenal qualia). This is a genus of ‘deflationist’ approach and which is actually a form of philosophical reductionism in which consciousness is conceptually analyzed in non-philosophical terms. At other extreme is the claim that consciousness is nothing more than neural correlates of the brain (pain = cerebral cortex fibers firing; water = H$_2$O; cramp = 40 Hz oscillation). This must be contrasted from ‘deflationist’ view and known as ‘inflationist’ approach. This is nothing but *a posteriori* reductionism or simple phenomenal realism. Sometimes, it is also identified with physicalism. The former belabour the point of putative identity in order to keep the identity question on the shadow of suspicion. While the latter takes advantage of identity so much as to supply explanatory power to it. The apparent truth is that to make fresh start to attack the problem, we must go out of this orbit of identity syndrome.

Block comments: ‘identity does not have any explanation, though of course, there are explanations of how the two terms can denote the same entity’. In a sense, the term identity is separable from its equivalents namely, ‘correlation’ and ‘heuristics’. For Carruthers, identity involves constitutive relation because numerical identity does not imply qualitative identity. The latter may be non-identical (water = ice = lattice structure of molecules). Leibniz’s Law is paradoxical when it says about two things having same
properties but it disappears when we say they are two, the one and the other. The criterion of identity is to be captured by X at time of t. This is the step ahead. In the wake of the challenges against the above mentioned distinction between the *a priori* and *a posteriori* categories, naturalism is looked upon as the second best. Between these two extremes lies large amount of conceptual tools for analyzing consciousness. Block gives a useful classification of consciousness, which is captured as follows:

**Figure: 1.1. Block’s Different Notions of Consciousness**

![Diagram of Consciousness Types]

Calling the concept of consciousness as a mongrel notion, Block carry on his clarification of physicalist position by distinguishing between two important notions namely, phenomenal and access consciousnesses. As Block argues, the phenomenal consciousness is experience (it is what Nagel calls as what-it-is-like-to-be aspect of experience). P-conscious states are experiential states, that is, a state is P-conscious if it has experiential properties (say sensations, feelings, perceptions, thoughts, wants and emotions). The mark of access-consciousness, by contrast, is availability for use in reasoning and rationally guiding speech and action. Carruthers has no reason to accept both phenomenal consciousness as well as access consciousness but uses access-consciousness to develop two stages of his theory. He uses the ‘phenomenal feel’ and the availability of it (first) to develop a reflexive thinking theory and (then) again a higher-order theory. What is called ‘phenomenal feel’ is the way we turn our attention to read our inner form of speech and not qualia or the inner phenomenal experience. This may be an indirect support to private language argument of the sort defended by Wittgenstein which is not very far from nativism.
speech. So as a qualia-irrealist, Carruthers wishes to find a sure passage from folk (commonsense conception of belief, desire etc.) psychology to scientific psychology. To what extent the fundamental notion of representation can be used here is not so much clear.

In a sense, Block provides a convenient point of departure. His review of the harder problem is a most important step beyond the hard problem of consciousness thus granting a significant background. Block refuses to accept almost all existing options except physicalism. Carruthers follows a similar line but differs from Block in certain other respects some of which will be discussed below.

Many contemporary philosophers of mind claim to put forward a satisfactory naturalistic theory of phenomenal consciousness. Naturalism claims that mind is located in the natural world. Biological Naturalism (Searle) and Naturalistic Logical Dualism (Chalmers) are the two foremost movements in this arena. The former takes advantage of supervenience without any strong commitment to dualism while the latter takes the quantum realism (to arrive at a proto-panpsychism) which implies logical dualism. Neither of this can be sure bet according to Carruthers.

The objective of the thesis is to examine the credentials of one of the best approaches to a naturalistic theory of consciousness and more narrowly to the naturalistic account of phenomenalistic consciousness developed by Peter Carruthers. The idea of phenomenal consciousness is more attractive to non-reductionist camp who wants to make use of what is called the ‘left-over hypothesis’ (there is something left over without being reducible). It is claimed that unless phenomenal consciousness is explainable as such by current science, no success is guaranteed. This is the reason why Carruthers joined the qualia irrealist camp through changing the phenomenal consciousness into one about ‘phenomenal feel’ without embracing the non-reductionism. Earlier, he prefers to characterise it as folk-psychological realism. Folk-psychological states are real states, but they are real in the
sense in which we have access to them through purely recognitional concepts for these properties of feels. Thus he transits through the three theses that are stated as:

1. Qualia irrealism implies folk-psychological realism;
2. Folk-psychological realism requires naturalism;
3. Naturalism implies minimal rationalism.

As we take it, the former maintains that phenomenal feel is real states which imply naturalism and the latter supports a minimal rationalism as an extended form of naturalism. The sharp contrast does not cause any difficulty to his thesis since the former supports what is to have inner feelings and the latter illustrates how to read one’s own mind, in the light of minimalist program of grammar articulated by Chomsky. The former thesis is established quite independent of language while the latter transforms the very question about consciousness into one about what it is to have inner speech in one’s own thinking. Both mutually support each other.

Carruthers was soon to make it as the centerpiece of his naturalistic theory which is supported by recently developed dual architecture of the brain. An important characteristic of his method has been to explore the cognitive function of language to evaluate the correct interface between language and consciousness. This is proposed as an after effect of the earlier approach which took mind as a sort of language dependent mechanism (mentalese) advanced by Jerry Fodor (who advanced the classical modular approach in philosophy of mind). Fodor’s thesis depends on two key concepts of representation and computation whereas Carruthers will have less of them. One major difference between them is while for Fodor, the language of thought implies mentalese, for Carruthers, it is natural language out of natural necessity.

On the whole, Carruthers develops a Cartesian conception in his outlook and he unites the metaphysical viewpoint on a variant of token physicalism together with the epistemology of other minds. Rejuvenating the
Cartesian traditions coming through Chomsky and then revitalized by Fodor, Carruthers presented a variant of thesis of language, thought, and consciousness as the only philosophy of psychology. The Cartesian conception is extended into the Cartesian conception of the meanings of terms referring to mental states. This connects directly to the underlying semantics of such a conception. This semantics is to be connected with the inner speech. What is called theory-theory can be defended as a form of inner speech. There is a distinct way this inner speech contributes towards the understanding of other minds. Both are theoretical entities and this makes possible the move from the asymmetry of one’s own and other minds towards an understanding of other minds both of which get explained in terms of an inference to the best explanation. There is more evidence than self-others parallelism suggested by Gopnik and Melzoff (1994). Carruthers reports that the hundreds of experiments performed on human subjects show that there is ‘no over-all evidence of any self/other asymmetry’. What is called the folk (belief-desire) psychological realism was to be taken over by a stronger standpoint of naturalism presented as the dispositional higher-order thought theory of consciousness supported by argument from introspection. ‘Disposition’ here means ‘disposition to behave’. It calls for a dual content theory, where the contents are viewed differently both from the experienced (experienced red) and the worldly (red) angles. The two contents are: content of concept red and the concept of experience of red (seeming red). Soon it was passed over into a dispositionalist theory of higher-order theory of awareness that marked the completion of a neurally-supported theory-of-mind module within the area of what he calls as Cartesian epistemology. Carruthers' own perspective is defended with the help of a lot of evidences collected from many streams of experiments such as from developmental psychology, evolutionary theory, autism, and experiments conducted on Schizophrenia patients.

As a ‘consistent theory-theorist’, Carruthers uses these evidences to provide credibility to the idea of theory-theory as the final court of appeal
where it is shown that the argument from introspection comes for a fresh appraisal and that self-transparency is demonstrated to be radically false. Introspection is divided and self-reading is said to be 'computationally expensive'. This is where he transforms the dual content into the dual architecture of the brain where innate structures are explainable in terms of the dual architecture of the brain.

The dual system hypothesis is originally derived from the understanding of visual awareness as divided into two neural paths (ventral path for object-recognition and the dorsal path for action-guiding) and this united account (of perception and motor actions) brings it into the way of embodied or enactive or dynamic cognitive model. The dual system is shown to undermine the self-transparency thesis. It appears as though Carruthers prefers to endorse this as weak dualism (mental states are non-physical states of a physical thing, where the physical thing is identifiable with the self) as opposed to strong dualism (mental states are non-physical states) but it is not genuine Cartesian. His arguments are so nuanced as to give support for a dualism in that it is balanced not to deny strong dualism and thus the issue is decided as swinging back and forth between strong and weak dualism. Both are not rejected leaving a stronger room for a variant of token physicalism. Physicalism remains a better option and but at the same time supports dualism. Strong dualism commits a fallacy. But it can be overcome in the final run.

In contrast to Block, token physicalism remains a live option for the very reason that it is capable of reconciling metaphysics with the epistemology of other minds. We have a scientific theory-theory that will explain the knowledge of other minds. The immediate consequence is that the identity question can be completely discarded in the pretension that it is resolved as it is in the case of Block. That is to say, it is acceptable as a metaphysical position. So it is clear that the subjects of mental states could not be non-physical states (person thesis: souls are persons). This is
supported by a strong physicalism which upholds that mental states are as much physical as the physical or brain states which of course rejects strong dualism. Since selves are physical, mental states are physical states (souls are persons with bodies). Does this represent a sort of weak dualism with a metaphysics that is reconcilable with an epistemology of other minds? The question is left open because weak dualism cannot support the argument from analogy. Neither it is possible to know other minds through perceptual knowledge alone nor by means of induction. Nor reliabilism (knowledge from reliable sources) will help here. The best way is develop this as an integrated theory of one’s own and other minds. Such an integrated theory needs an inference to the best explanation. The structure of this theory will have a different shape from that of knowledge of one’s own mind which is often regarded as immediate, infallible, and certain. This is also duly supported by strong dualism. A sketch of the argument which is ready to concede that ‘dualism is a conceptual possibility, even if it is actually false’ is formulated below:

1. Dualist premise: persons are souls or better selves;
2. Weak physicalist premise: selves are physical things;
3. Weak dualism: mental states are non-physical states of a self.
4. Strong dualism: mental states are non-physical states;
5. (4) is the denial of (3);
6. Mental states are physical or brain-like states;
7. (3) implies the rejection of (4);
8. So, the subjects of mental states could not be non-physical ones.

The first is sanctioned by a person concept: everyone has a self. (2) is an assumption. (3) again assumes the self. (4) is stronger than (3). The opposition between weak and strong dualism is that while the former entail no independence, between body and mind the latter entails strict independence. So, if (3) is denied, then (4) also must be denied. The denial comes in the light of a comprehensive claim about other persons. (6) is to be
read in terms of identity in which the identity speaks of identity between persons. Once it is granted that it is matter of necessity, and then we can reach the physicalist case for other minds. The solution is a partial one in tune with the revision of any scientific theory.

The Cartesian defence of theory-theory supports an ego (higher order) within the cogito which unfortunately Hume denies. Carruthers foresees that, Cartesian position (in which the phenomenological feel is defined) is to be a conception of the ‘meaning of consciousness terms’. It is further supported by token -identity thesis as opposed to type- identity which is proved as false. The crucial role of language is sustained by a thorough discussion of narrow and wide content, neither of which Carruthers accepts completely. It refers to the subjective feel of the corresponding states. The whole project cannot be stereotyped as a category of any known theory. Carruthers' position comes to full circle starting from persons (1986) and ending up with persons once again (2002). Carruthers designs his position in relation to every other position that has been in the market. Though it is presented as a perspective, there is no inbuilt guarantee that it is immune to criticism. It is open to further development.

At final phase of his theory, Carruthers introduces ‘flexibility’ or ‘malleability’ of mind-reading that is to be integrated with modularity of the type Carruthers envisages. On Carruthers’ view, this modularity is both ‘massive’ as well as ‘moderate’. Here the role of language is one of ‘integrative’ function. Language is both an input and output module having two subsystems of ‘production’ and ‘comprehension’. Carruthers claims that his account of massive modularity can meet heuristic method which is taken to subserve at least one form of eliminativism (Stich). The idea of module along with the hotness of HOT undergoes change almost to the point of rejection. At this juncture, Carruthers opens himself to other cognitive models such as emulator model, (emulates even while constructing a self
given by Grush), neural engineering model (Anderson and Eliasmith) along with the model that includes neural seat of emotions (Damasio).

Chalmers well-known distinction between the easy or soft and hard problems of consciousness tells us that the former is associated with explanation of various cognitive functions like discriminatory abilities, reportability of mental states, the focus of attention, the control of behaviour etc. This phenomenon can be explained scientifically and all of them can be explained through computational or neural mechanism. The hard problem is the problem of bridging the explanatory gap between accounts of causal functional physical sort and the happenings of particular phenomenal features. Chalmers asks “even when we have explained the performance of all the behavioural functions in the vicinity of experience—perceptual discrimination, categorization internal access, verbal report—a further unanswered question remains: why is the performance of these functions accompanied by experience?” This further question is the key in the problem of consciousness. Put it in Nagelian terms, there is something it is like to be a conscious organism and have experiences implies that, subjective part of experience must get on with some scientific explanation.

Following Chalmers, Block identifies three important problems of consciousness; easy, hard, and harder. Hard and harder problems are diverse facet of a single problem which can be divided into two ingredients. For him, the ‘hard’ problem of consciousness cannot suggest an appropriate explanation to the epistemological worry or it involves an epistemic discomfort. The ‘harder’ problem is an epistemological addition ('epistemic add-on') to the hard problem and so the solution to harder problem entails hard problem. The phenomena which each one has must give way to phenomenality of each, which cannot be explained without what is shared by each of us. This is what is called as ‘shared’ phenomenality. As Block argues “The hard problem is one of explaining why the neural basis of a phenomenal quality is the neural basis of that phenomenal quality rather
than another phenomenal quality or no phenomenal quality at all. We have no idea about how it could be that one property could be identical both to phenomenal consciousness and cortico-thalamic oscillation. How could one property be both subjective and objective? We can get rid of confusion by explaining how an identity can be true, most clearly, how it is that the two concepts involved can pick out the same thing. The New mysterianist thinkers like, McGinn, Chalmers and Jackson reject the putative identity theory. Ned Block criticizes Jackson and says that Jackson conflates the concept/property distinction. In relation to the hard problem of consciousness, Block says there is no problem about how a subjective property can be identical to an objective property. Subjectivity and objectivity are better seen as properties of concepts (Concept F = Concept G) rather than of properties (Property F = Property G). The claim that an objective property is identical to a subjective property would be more clearly expressed as the claim that an objective concept of a property picks out the same property as a subjective concept of that property. But Block argues that it is not a form of dualism. Granted that identity cannot be explained, the only option is to explain it in terms of correlations. For Carruthers, the picture is different and expressed in terms of the concept of purely recognitional capacity which picks out the property even under circumstances that it does not connect up to the concept, it lends credence to reductionist explanation. The token-identity can partially solve the problem.

Carruthers maintains that Nagel’s distinctions between two types of concepts and facts (subjective and objective facts) are not separate. They are two modes of presentation and the ‘myness’ facts are having introspective awareness about the experience. It is argued that the duty of a naturalistic project is to seek how the way things seems from the first-person point of view fit with data from other impersonal sources like third-person phenomenology, evolutionary theory, cognitive psychology and neuroscience. Block treats the explanatory power of correlation between phenomenal states and physical states and considered it as inference to the
best explanation which Carruthers also shares. On Carruthers’ view, this includes the following requirements such as accuracy, simplicity, consistency, coherence, fruitfulness and explanatory scope.

1.2. Situating Carruthers’ Naturalization Project

Block discusses three diverse positions on consciousness like deflationism, phenomenal realism (inflationism) and naturalism almost to dismiss them:

1. Philosophical reductionism or Deflationism stand for a-priori or armchair conceptual analysis. They prefer to explain phenomenal consciousness, in non-phenomenal terms (like representation, thought or function).

2. Scientific Reductionism or Phenomenal realism defends that consciousness is metaphysically real. Phenomenal realism is based on one’s first person grasp of consciousness and defend that there are two types of facts: first person and third person facts. First person facts are not available to us even though the related functional, cognitive and representational facts are accessible. Phenomenal realism rejects the philosophical reductive analyses of consciousness (phenomenal properties are real properties and we cannot reduce it through analytical functionalism) but have no brief against scientific reduction of consciousness.

3. Naturalism is the view that it is a default that consciousness has a scientific nature. Naturalism = default physicalism.

Besides Block demonstrates how physicalism becomes doubly problematic because it is the default and also inaccessible (physicalism) and meta-inaccessible (even the form of physicalism). This is the harder problem. So he opts for the fourth choice. Like Block, Carruthers cannot make any progress in the three fronts listed above, since all are forms of
‘default’ theories. Block also mentions the ‘tensions’ between these positions especially between (1) and (2).

Many non-reductionists believe that phenomenal realism will have positive implications for armchair analysis followed by philosophical reductionists. But then the denial of conceptual analysis thesis will have serious consequence for phenomenal realism. Phenomenal realism cannot have anything against scientific naturalism. But as ‘closest dualists’ (Dennett’s term), they enter into tension with scientific naturalism. So Block has alternative to the following conditional:

Phenomenal Realism and Scientific Naturalism will imply the ‘tension’.

Block overcomes the tension by rejecting phenomenal realism and derive the conclusion which hold that consciousness is both real (phenomenally real) and can be assumed to have scientific nature. The way to resolve the ‘tension’ between the phenomenal realism and scientific realism requires us to exercise one of the following two options: live with the ‘tension’ or else, seek to overcome it by including a theory of other minds. The way Block and Carruthers attacks this problem to choose the later horn and execute it at different levels within the physicalist option. While Block recommends an epistemic add-on of the problem of other minds and disposes of the zombie problem (a zombie is physical duplicate without consciousness) by using epistemic notions, Carruthers develops a scientific theory of other minds.

This warrants that he has to extend the naturalistic project in various ways collecting empirical evidence in support of a more extended form of naturalism. As a ramified model, it is presented as a self-model theory of mental activity rather than a self-model theory of mental representation. Naturalistic phenomenal realism has to confront an epistemic pressure or harder problem; because it has no suggestion about a rational ground for accepting that other creatures are conscious or not. Block starts with the epistemic possibility of multiple realizations and uses it to argue for the
The epistemic possibility of multiple constitution of mentality and he further adds that the epistemic possibility of multiple constitutions of phenomenal properties makes the problem of consciousness harder. The two parts of this harder problem are stated as follows: Naturalism states that physicalism is the default, but also inaccessible and meta-inaccessible; together with, in the “subjective” sense mentioned earlier. It is the default that Commander Data is not conscious, but at the same time phenomenal realists regard his consciousness as an open issue. Block introduces science fiction case of Commander Data, who is superficially and functionally comparable to us, who shares same folk psychological notions with us, but different in its psychological and neuropsychological functions. It shows that Data is unlike us in the physical nature and organization of the control mechanisms of the folk-psychological functions. We have good but defeasible grounds for believing that Data is conscious because he acts like us, and we act the way we do in part because we are conscious. The grounds are defeasible because we might find that Data’s physical constitution shares none of our neural correlates of consciousness. If Commander Data is conscious, then we have a choice of Superficialism (supervenient properties), Disjunctivism (disjunctive properties) and Dualism. The naturalist will want to reject Dualism, but it is not desirable to say that the only alternatives are doctrines that are epistemically inaccessible. So this may lead us to want to say that Commander Data is not conscious. But we have no evidence that he is or is not conscious.

This leaves a legacy to the problem of other minds without attempting to solve it. Furthermore, it is the subjective default that other creatures are not conscious, but the phenomenal realist must leave it an open question whether they are. This again leaves open a route to non-reductive physicalism which attracts thinkers like Block. Another option would be to reject or restrict the assumption of naturalism or of phenomenal realism. One way to slightly degrade naturalism would be to take the problem itself as a reason to believe the Disjunctivist or Superficialist variety of naturalism.
Disjunctivism is a form of physicalism that allows that consciousness is a physical state that is disjunctive by the standards of physics. Disjunctivism allows that if Commander Data is conscious, the shared phenomenality is constituted by the property of having Commander Data’s electronic realization of our shared functional state or our electro-chemical realization. Kim advances a variant of this to locate mind in the physical world without implying dualism. Superficialism is the *phenomenal realist* claim that consciousness is identical to the superficial functional organization that we share with Commander Data. To some extent, Kim also uses the concept of supervenience to achieve his end. Neither one succeeds.

For example, as Block argues, the Hard Problem arises for someone who has no idea of another person, while the Harder Problem is tied closely to the problem of other minds. There is no clear-cut demarcating line between hard and harder problem as Carruthers argues, the question concerning the problem of other mind is inevitably related to the question of nature of mind\(^{17}\). Since Carruthers’ attempt is to see what extent we can know other minds besides our own mind; his theory mainly deals with the so-called harder problem of consciousness and we must see whether he is able to solve the harder problem of consciousness with his integrative approach to the problem of one’s own and other minds.

In what follows, we must now see how different Carruthers’ project from other equally viable projects. For this, we can use the Tye’s classification of all types of naturalistic theory\(^{18}\) as the backdrop. Tye classifies naturalistic theories into four types; they are: analytic naturalism (Fred Dretske 1988) conceptually-regulated scientific naturalism (Daniel Dennett 1969) and conceptually-indifferent scientific naturalism (William Lycan 1998) conceptually-based naturalism (Jerry Fodor 1999a, 1999b, 1999c). Tye,\(^{19}\) has rejected all of the above mentioned naturalism for him, the first three are forms of reductive naturalism and fourth is the theoretically motivated reductionism which is moderately reductive and still
believes that mind has place in the natural world. He chooses this as the fifth option namely that mental states enter into constitutive relation with the world. He observes whether psychological naturalism entails proper genus of lower level reduction or analysis is a dogma that need to be explained away. Four types namely, the Analytic Naturalism (a priori), Conceptually Regulated Scientific Naturalism (future science is likely to regulate), Conceptually Indifferent Scientific Naturalism (neural), and Conceptually Based Naturalism (Fodor). Might also be in tension with each other.

1. **Analytic Naturalism:** This naturalism proposes a philosophical reductive analysis of the essences of mental states through direct appraisal of mental concepts and the necessary and sufficient conditions that govern their application. As argued the aim of naturalism is to explain the features of both non-intentional (such as pain) intentional mental states (such as the state of believing that flower is red). In case of intentional mental states, naturalization is obliged to explicate both their species and their representational characteristics. Carnap (1932), Armstrong (1968) and Lewis (1972) hold this view for both intentional non-intentional aspect of mental. Thinkers like Dretske (1988) and Stalnaker (1984) suggest this type of naturalism for intentional aspect of mental states. This is roughly equivalent to conceptual analysis.

2. **Conceptually Regulated Scientific Naturalism:** In this type of naturalism, equal importance is given to conceptual and scientific analysis. In other words, this naturalism defends that the philosophical project of naturalizing the mental can be no longer depending upon the conceptual analysis alone. The naturalization project should seek what type of non-mental fundamentals, mental state type posses (it may be physical, functional, behavioural etc). Moreover naturalization should point out where the rest of the story lies (in cognitive science? neuropsychology?). It maintains that
scientific investigation of mental together with philosophical reflection regulated by our pre-theoretical conception of mental is required for a complete understanding of mental. As we have discussed above, one of the important problems facing this type of naturalism is that commonsense and scientific explanation is uncomfortable bedfellows. As Block says, naturalistic phenomenal realism is not a trouble-free position. We cannot entirely comfortably assume both that consciousness is real and that it has a scientific nature.  

3. **Conceptually Indifferent Scientific Naturalism:** Psychological explanation is the playing card in this type of explanation and it holds, mental states possess certain concealed essences which are explicable in non-mental language and this position abstain from any conceptual or common sense conceptual regulation. This is reductionism but accepts intentionality. This view is defended by William Lycan. For him, the real nature of common sense mental words like 'belief', 'desire' etc are explicates by psychology and there is not much for the philosophers to do.

4. **Conceptually Based Naturalism:** It is the position supported by later Fodor. He claims in order to explain intentionality of mental states in naturalistic terms we need only a priori naturalistic sufficient conditions. Tye, rejects all these four types of naturalism and argues that intentionality is already naturalistic and capacity to think about things which do not exist is a natural phenomenon whose operation we cannot explain by conceptual reflection. Tye is the best target for projecting Carruthers' own standpoint but at the same time, he might be classified as a 'methodological naturalist' like Devitt and Chomsky. Devitt builds a narrow theory of mental representation while Chomsky advocates mental aspects of the world, a comparison no one has spotted before. Carruthers and Tye, however have to part ways since
both represent rival models. We can represent all naturalistic theories of consciousness explained by Tye, as branching tree structure.

**Figure: 1.2 Tye’s Classification of Naturalistic Theories**

![Diagram of Tye's Classification of Naturalistic Theories]

Carruthers' central strategy is to counterpose his higher-(second) order theory to the lower-(first) order theories. The two camps are occupied by first-order and second-order theorists respectively by Tye and Carruthers. Since Carruthers defends a higher-order thought theory which is the satisfactory explanation of phenomenal feel of our perceptual content, he shadows the lower-order branches making the rival explanations as sharp as possible. We shall counterpose the latter theory to the former after reviewing the numerous challenges Carruthers confront, in order to evaluate the plausibility of naturalistic theory of phenomenal consciousness before moving on to consider the extended forms such a theory takes. In a sense, we shall occupy ourselves with a certain unacknowledged change of guard in the later development of the theory which is not at all found in the earlier portrayal of the theory.
Two sets of desiderata\textsuperscript{23} for a viable theory are presented at different stages before taking the dispositionalist variety of HOT in certain specific directions. Thus his overall project also aim to analyze issues such as, the nature and status of folk psychology; issues to do with evolutionary psychology, cognitive architecture, nativism and modularity, theories of intentional content, and defense of a notion of narrow content for psychological explanation. On the whole, it is suitable to have a scrutiny of these developments by dividing his overall project into the realistic or proto-naturalistic (upto 1998), naturalistic (upto 2000/2002), and post-naturalistic or minimalist stages (upto 2008). Thus he was led up to a naturalistic theory and then again was led away from it into a more plausible form of a self-model theory which is still a developed form of higher-order theory. The question before us is whether he follows a weakened form of dualism without anything similar to conceptual dualism as indicated by Block or followed by Papineau.

Carruthers continued to associate with the Hang Seng Centre through his attachment culminating in a large three-year interdisciplinary research project on ‘Innateness and Structure of Mind’, and he was the co-editor of three volumes with Stephen Laurence and Stephen Stich\textsuperscript{24}. It is here he takes issue with other equally viable alternatives of theory-of-mind module like the one advanced by Stich and Nichols and also by others (e.g. Chomsky). He calls attention to the former theory of mental mechanism which hybridizes theory-theory and simulationism as the dual-component theory. On Carruthers’ understanding, the basic assumption of such a theory entails the independence of these components. Once this independence assumption becomes questionable, we will be able to maintain the consistency of theory-of-mind module by suitably amending the dual system hypothesis. They are not independently dissociable and hence they are to be architecturally integrated by the above hypothesis. In between these two (nearly rival paradigms), there is another one which takes simulationism seriously and holds that mind-reading depends on metacognition that forms
the larger component. Carruthers on the other hand, takes a Model which upholds ‘metacognition depends on mind-reading’ and consequently denies that we have exclusive access to our own mind through introspection which is partly eliminable.

Starting from a person concept, he slowly descends into various positions before completing the circle in the form of dualism which is poised to offer a ‘proof of the soul’. Carruthers passes from the earlier theory-theory claim where he considers the language-thought in various forms, and then moves onto consider the higher-order theory even while paying lip-service to the cognitive basis of science which attempts to establish out scientific knowledge is innately channeled, before arriving at a latter theory-of-mind module that is supported by dual system hypothesis. The central piece and the first stage in his naturalization project is Dispositionalist variant of HOT Theory that has been illustrated mainly in Carruthers (2000). With a swift move, in his (2002), Carruthers says that natural language is the medium for non-domain-specific thinking, serving to integrate the outputs of a variety of domain-specific conceptual faculties (or central-cognitive “quasi-modules”).

Here he is focusing his attention on the cognitive function of language. Carruthers rejects the strong cognitive conception of language and subscribe to the thesis that natural language is the medium of intra-modular integration. It is natural language syntax which is crucially necessary for intra-modular integration. More specifically, the claim is that non-domain-specific thoughts implicate representations in what Chomsky (1995) calls “logical form”. At the second stage of development it is an extended naturalized project or dual aspect theory. At this stage, Carruthers realizes that his “dispositional HOT theory” to be a form of HOP theory. He explains that it is because dual content theory “proposes a set of higher-order analog or ‘experiential’ states, which represent the existence and content of our first-order perceptual states, that the theory deserves the title of ‘higher-order perception’ theory, despite the absence of any postulated organs of higher-order perception”.

He says reductive explanations are successful
when (a) all of the questions that puzzle us are answered, either directly or indirectly by showing why the facts should seem a certain puzzling way to us when they are not; and when (b) every thickly individuated fact described at the target level can be reductively explained. His view is not to defend the view that phenomenal consciousness can actually be reductively explained by micro-physics, but just that it is reductively explicable in principle. The third stage is the recent development of Carruthers’ so-called “dispositional higher-order thought (HOT) theory of consciousness,” which he now prefers to call “dual-content theory and it is a strong defence of theory-theory supported by dual system hypothesis. There is a fourth stage in which he refuses to accept an explanatory gap and here he joins hand with Block. The explanatory gap is closable in principle contra Chalmers via third person phenomenology. Chalmers defends a strong form of a priori conceptual analysis and proceeds to show that even if everything is added to it, still something is left-out causing explanatory gap. Carruthers counters everything-clause by including the phenomenal feel of the first-person and the third-person-feel and hence the gap is closed in principle.

1.3. The Route-Map to the TREE of Consciousness

As one of the vital steps towards the naturalization project, Carruthers presents all the available theories of consciousnesses in a branching tree structure. The tree of consciousness is really a route map of the naturalistic theory proposed by him. Here he portrays all endeavors to offer a reductive explanation of phenomenal consciousness in a branching tree structure. It is useful to look at his summary of all theories in the form of tree structure which he calls as tree of consciousness. There are three versions that deposit the way he makes fresh departure. An earlier version of this tree of consciousness has been given in two of his books. The Philosophy of Psychology (1999) and Phenomenal Consciousness: A Naturalistic Theory (2000). Later he visualizes the branches in modified ways. Now he has slightly altered his tree of consciousness. The first choice point is the
deference between non-reductive explanation and reductive explanation. Carruthers explains away the arguments of various non-explanation theories of thinkers like Nagel (1974), McGinn (1991), Chalmers (1996) and Jackson (1986). (The next chapter will elaborately discuss Carruthers stand on the same). The failure of these theories to achieve allocated duty, that is to provide a satisfactory explanation of phenomenal consciousness makes Carruthers to move towards the second branch of the tree.

The second choice point is between neurological theories and cognitive/functional theories. Crick and Koch maintain a neurologically supported physicalistic theory. For them, the phenomenal consciousness is 35-to 75-hertz neural oscillations in the sensory areas of the brain. The third option is pure boxological theories vs representational boxological theory. Pure boxological theories are silent about the question: why the contents of a box at particular point in the system should have feel? Then the option before us is to accept a representational theory. So Carruthers continues to analyze the next choice. He asks ‘For what brand of representational theory we should give the signal to go?’ He says that our vote should be to higher-order representational theory rather than first-order representational theory because phenomenal consciousness is really experiential subjectivity or having an intentional content in addition to its worldly subjectivity. So the first-order representation theory is not adequate to elucidate experiential subjectivity. The next choice comes under the higher-order representational theories are HOE (HOP) and HOT. HOE theory is defended by thinkers like Armstrong, Lycan etc. For them, the capability to experience our own mental states is the basis of phenomenal consciousness; rather HOT theorists believe that it is capacity to have a thought about mental states makes our experience phenomenally conscious. Versions of this view are defended by thinkers like Rosenthal (1986, 1993), Dennett (1978, 1991) Carruthers (1996, 2000) etc. It is argued that HOT theory has evolutionary as well as explanatory potential. The two varieties of HOT theory are: the actualist HOT and dispositionalistic HOT theory. Rosenthal takes the former alternative.
Dennett and Carruthers support the second option. Then last choice in this tree of consciousness is *linguistic* or *non-linguistic* HOT theory. For example, Dennett maintained that higher-order thoughts are higher-order descriptions or for him, all higher-order thoughts are structured in natural language. In his 1978, Dennett endorses the view that phenomenal conscious states are those which are accessible for reporting in speech but the problem of Dennett's view is that he denies determinacy of consciousness. While Carruthers' theory accepts that consciousness in general have determinate content. Now in its extended form Carruthers argues that, his dispositionalist HOT version (which is also a form of HOT theory) when combined with consumer semantics, can count as a kind of HOP theory, emerges as the overall winner. HOP is not a parallelism but an integrated form. Only dispositionalist HOT version of HOP can give us a reductive account of phenomenal consciousness which is both successful in it and reasonable on other grounds.
Figure: 1.3. The Earlier Version of Tree of Consciousness

Phenomenal Consciousness

No Explanation Theories

Naturalistic Theories

Neurological Theories

Cognitive/Functional Theories

Pure Boxological Theories

Boxological/Representational Theories

FOR Theories

HOR theories

HOE theories

HOT theories

Actualist HOT theories

Dispositionalist HOT theories

Linguistic (HOD) theories

Non-linguistic (HOT) theories

Figure: 1.4. The Latter Modification of Tree of Consciousness

HOR theories

Higher-Order Perception Theories (HOP)

Higher-Order Thought Theories (HOT)

Inner Sense Theory (Armstrong, Lycan)

Dispositionalist HOT Dual-Content Theory (Carruthers)

Actualist HOT Theory (Rosenthal)
A rather diverse classification of naturalism is due to Flanagan. For him, there are mainly four philosophical positions on the issue of naturalization of phenomenal consciousness. They are Non-naturalism, Principled Agnosticism, Anti-constructivist Naturalism, Eliminative Naturalism, Constructive Naturalism etc. Non-naturalism, does not accept natural status of consciousness, whereas principled agnosticism argues that naturalism is a position which we do not comprehend, because we do not understand that the relation between consciousness and brain can be made intelligible in naturalistic terms. The third is anti-constructive naturalism or noumenal naturalism, which accepts naturalistic position of consciousness but maintains that we cannot grasp the properties of the brain that related to consciousness and cannot explain how consciousness depends upon brain states. Eliminativist naturalism also accepts naturalism as viable position; according which the story of brain is identical with story of mind. According to this position, explanation will be best one, if we eliminate mentalistic concepts. Constructive naturalism is a position defended by Flanagan. For him, phenomenal qualitative aspect of consciousness is what needs to be explained. Like Flanagan, Carruthers also believes that phenomenology (subjective feel: layer 1) meets neurology (layer 4) through intentional psychology (layer 2) and computational psychology (layer 3) through the linkage of realization relations. This is made possible at the higher or second-order level. This is briefly the brain’s architecture.

Carruthers' theory is naturalistic in two senses; firstly, he borrows evidences from various disciplines to defend his theory. Secondly, he shares the two important views with the contemporary thinkers that, mental states are physical states of brain characterized in terms of their causal role and our common sense conception of mind can be intergraded to scientific view. The most crucial task is to work out a satisfactory semantic theory. For this, Carruthers appeals to naturalistic variants such as consumer or teleosemantics (Millikan) and their functional role or conceptual role theories (Block) over that of causal covariance theory or functional/inferential-role
semantics (Fodor). The former variety has to confront the possibility of misrepresentation whereas the latter is a species of consumer semantics.

The causal covariance theory explains the causal relationship between states of the mind (such as signs in mentalese) and the world in terms of causal laws which is not what is required. The second theory claims that mind and body are evolved systems and each of our mental states has 'proper' functions. Functional role semantics is related with inferential or functional role of mental states within cognition. These theories try to give a fully reductive explanation of intentional content. But Carruthers argues that naturalization requires neither reduction nor successful reduction. For him, in order to elucidate the natural reality of intentionality or phenomenal consciousness, it is sufficient to show that intentional properties or phenomenal conscious properties are presenting to some set of causal laws. Intentional properties are predicate terms of both folk psychology and scientific psychology. Carruthers argues that in order to accept biology as science we cannot demand successful reduction of biology into chemistry. Likewise in order to explain intentional content we needn't aim a successful reduction of it. Carruthers maintains that reality of causal-intentional psychology is sufficient to ensure the natural status of intentional content.

Consumer semantics fix contents in terms of availability to consumer systems.

In Language Thought Consciousness, Carruthers provides a language-involving paradigm. He argued that natural language sentences may be directly engaged in some type of human thinking especially, conscious propositional thinking. The topic of this book is whether thought is independent of language or whether our thinking on the contrary, necessarily requires or involves natural language. Carruthers’ aim here is not to investigate the nature of thought in general but to investigate propositional thinking. He says that the evidences collected from science and developmental psychology are far away from conclusion and he puts forward
an introspection-based argument in order to support the claim that much of the propositional thinking takes place in natural language sentences. Carruthers considers the best way to understand consciousness is through a language-thought hypothesis.

Most of the core points of his theory are presented in his book, *The Philosophy of Psychology* (1999), in which his approach is depicted as the best the account of the philosophy of psychology. There are two extreme views about the role of language in thought; *cognitive conception of language* and *communicative conception of language*. According to communicative conception of language, the only duty of natural language is to make possible communication. Thus functions of language are limited to the public realm. And it has nothing to do with domain of individual cognition. This view maintains that processing and representation of language in individual cognitions only to support the exchange of information and interpersonal co-ordination of action. It has no direct executive role in cognition. (more specifically, thinking and practical reasoning). While cognitive conception of language supports the view that the structure and contents of minds are substantially innate and it implies a rationalistic approach towards mind and its content. The communicative conception of language has been associated with a radical empiricism about mind, according to which many human concepts and the constitution of human mind itself are acquired through experience. More accurately, it is simultaneously acquired with the process of language learning. Carruthers favours the cognitive as against the communicative and what he calls the ‘supra-communicative’conceptions of language(we manipulate language and language is scaffold). But this picture gets slowly modified into one which the production and comprehension sub-systems were introduced.

But in his *Phenomenal Consciousness*, he dropped this natural language paradigm and claims that phenomenal conscious states consist of analog representations. Carruthers also argues for the independence of
phenomenal consciousness from language. In his first step towards naturalization of phenomenal consciousness; Carruthers argues that our capacity for mind-reading or folk psychology is really the capacity for the reflexive thinking. It works through a central module. For him, our mind-reading ability based on a core theoretical knowledge and is a product of maturation rather than learning. Carruthers argues that mind-reading ability is innate in nature. Folk psychological notions are sufficient in order to answer the question how it is some perceptual content possess phenomenal consciousness while some others lack. Carruthers’ position is that, phenomenal consciousness consists of certain sort of intentional content, held in particular sort of memory store, which makes the intentional content to available to the higher-order thoughts about the occurrence of and nature of those contents and as a result of such availability all those contents are at the same time higher-order ones, acquiring an aspect of seeming or subjectivity. He argues that in order to be phenomenal consciousness, a perceptual state should be available to conscious higher-order thought. The early version of his theory is known as Reflective Thinking Theory which defends the view that conscious state is one which is made available to higher-order thought and which in turn again made available to higher-order thinking reflexively. This reflexive availability is necessary for conscious phenomenal state. That is, the higher-order thought should be a conscious thought or a reflexive thought. In his earlier books, Carruthers has proposed that the real structure of human conscious mind may be characterized by reflexive thinking theory. He claims that this account is not enough to explain phenomenal part of mental states; the reasons given by him are as follows. There exist some creatures, which lack that type of cognitive structure, but possessing phenomenally conscious states. Structured thoughts can be entertained in the absence of language, the higher mammals like chimpanzees have structured HOTs and in relation to language they are incapable. Carruthers was forced to maintain that phenomenal consciousness is independent of and prior to natural language.
Later, he re-introduced language as having an important cognitive function, and opted for relative independence, finally to integrate them into a perspective. Thus he assigned the integrative function to language and gradually moved out of the modular view by allowing it ‘flexibility’ or ‘context sensitivity’ where he has also absorbed the higher-order theory into the perspective on minimal rationalism.

Carruthers says that the endeavor to explicate scientific cognition elevates fascinating and perplexing questions about the nature, development and operations of the human mind and its connections to culture. In his Cognitive Basis of Science, he tries to give the answers to the questions like: what make science possible? What characteristics of mind, human cognitive development and human social measures make easy conduct of science? In order to understand how science is possible, we must understand how our capacity for scientific reasoning fits into the structure of mind? And how it is related to the scientific practice? It is useful to compare this to Chomsky’s own. For Chomsky the initial language, called I-Language together with the language faculty yields the facility for the development of ‘science-forming faculty’, where as Carruthers thinks that it would not be possible without assuming that science is ‘innately (genetically) channeled’. Thus all the varieties of folk themes (Folk grammar, folk biology, folk physics) are innately channeled before they are developed into scientific varieties. This is precisely what underlies his integrationist picture of folk and scientific psychology.

Two crucial developments in his post-2000 writings assisted his protracted march towards naturalism and it is not easy to comprehend his standpoint without them. One is the realization of the role of language in cognition within the dispositional variety of higher-order thought theory of consciousness and the second is the introduction of dual system hypothesis that has come to be regarded as a ‘paradigm’ in current theorizing. The
broader question of theory of mind which is proposed as an extended form of naturalism ultimately led him towards minimal rationalism.

Carruthers' aim is to seek whether phenomenal consciousness can be explainable in terms of functional or representational terms. Carruthers distinguishes mental states and mental state concepts. Carruthers has two basic commitments; one is folk psychology and other is physicalism. His aim is to offer a justification of folk psychology within physicalist schema. Carruthers supports the view of token-physicalism; which maintains that all mental states are at the same time most probably neuro-physiological.

According to Carruthers, theory-of-mind has a causal structure. All mental events occur in accordance with causal laws, and we can explain the operations and properties of causal laws in lower (physical) level terms. The physicalist option may not be readily agreed as no such causal closure is available for mental world. However, Carruthers like any other scientist is optimistic about the discovery of these laws in the future. He admits that there may be drawbacks to functionalism; even though he prefers it due to its metaphysical neutrality and its solutions to the problem of other minds. 'Metaphysically neutral' means it allows interactive dualism as a possibility. One of the objections against dualism is the problem of causal connection. Even though, according to Carruthers, in principle there is no problem in understanding the causal connection between mental and physical. In contrast to causal overdeterminist like Lowe who is ready to concede that overdeterminism (an action is causally over-determined if it includes both mental as well as physical causes, and granting that they are identical that will convey that causation is both necessary and sufficient), Carruthers thinks that overdeterminism is acceptable if it sufficient even while it is not necessary. Lowe is a non-Cartesian in contrast to Carruthers who is Cartesian\textsuperscript{37}. The real problem for Carruthers is how such causation arises. Let us analyse arguments for and against different theories of mind like dualism (both strong and weak version), physicalism, functionalism etc.
1.4. The Empirical Evidence for the Soul

Carruthers' outlook does not get completed without integrating a sort of causal interaction between mind and body which is best achieved by holding that theory-theory has an underlying causal structure. So the argument goes by the following motions:

1. Our bodily movements are caused by brain-events.
2. Each event in the brain has a sufficient physical cause.
3. Our decisions are sometimes necessary conditions for some of our movements.
4. Our decisions sometimes form part of the true causal explanation of some of our movements.
5. So, decisions are brain-events.

Thus (1) and (2) are upward and downward causations while others take the premises in the direction of ‘bottom-up’ approach. They support interactionist dualism while (3) rejects causal over-determination and (4) rules out epiphenomenalism. Thus the set leaves physicalism as the remaining possibility. This requires that mental events and physical events are integrated by an interactionist view according to which there is necessary identity between these events that will support strong dualism. It appears that he goes back and forth between strong and weak varieties of dualism. Such identity is apparent in the following domains: knowledge of other minds which supports no asymmetry, or infallibility, privacy, value, colour experience, felt quality, explanatory gap, complete knowledge, intentionality, freewill, spatial positions etc. Thus wherever the non-identity is proved, this may become questionable from Carruthers’ point of view. This is supported by the empirical proof of the soul which makes its appearance from his stand on dualism.

In the philosophy of mind, dualism holds that mind and body are, in some sense, radically different kinds of things. Even though Descartes was limited in his knowledge about the brain his view is a combination of the
neurological and cognitive. Dualism embraces the view that, in a sense mental phenomena are metaphysical in nature. Generally two forms of dualism are distinguished, namely *Substance dualism* and *Property dualism*.

The theory of *substance dualism* (Cartesian dualism or psychophysical dualism, or strong dualism) claims that humans are divided into two distinct types of substances: “physical substances” which are directly observable and obey the well-known laws of physics, and “mental substances” that are not directly observable using any known measurement technique. Mind, Descartes claimed, is not mere collections of mental states, but is essentially unified. So we cannot even conceive of a mind’s being divided into parts. A satisfactory characterization of the mental, therefore, implies that minds are non-physical. There are three doctrines stand as pillars of Cartesian dualism. The first two of them are interrelated. They are stated as follows:

1. **Epistemological doctrine**: This argues for the primacy of the mental, and maintains that we can know our own mind other than physical world and other minds.

2. **Metaphysical doctrine**: This argues for mind’s independence; mind has an autonomous existence independently of bodies. The relationship between mind and body is external and contingent.

3. **Semantic doctrine**: This involves the meaning of mental terms.

The point of the above enumeration is to see that the last-mentioned can be maintained relatively independent. This is exactly where Carruthers has much to offer. Thus while he was passing through the relative independence, he has contributed to the development of a perspective. Cartesianist is an internalist about the content of mental states, because the existence of mental substance is constituted by its continuous self-scrutiny. Functionalist are also internalist, even though they are not supporting the self scrutiny. Descartes maintains that our mental states possess content
irrespective of how the world is, then it assumes that mental states are narrow as opposed to broad in terms of what determines their content. Carruthers is Cartesian in the sense that he accepts narrow content of mental states; that is the Cartesian view influences Carruthers' way of understanding of the nature of mind. Descartes maintains that core characteristic of our mind is its subjectivity. It is particular subjective perspective of person who posses mental states. For Descartes, the content of mental states is not determined by external world. More accurately, there is no physical cause behind intentional states. According to dualism, the fundamental nature of soul is consciousness. Then the criticism raised is; what about the soul while we are sleeping. During sleep how self exists in a state of complete unconsciousness?  

A dualist may respond in following way;

a) The Soul (person) is always in fact thinking or experiencing. According to this view, sleep or unconsciousness is in fact periods of consciousness in which nothing can later be remembered.

b) According to another response, during the periods of unconsciousness no soul exists that is soul has a discontinuous existence (contrary to the Indian view which holds that only in deep or dreamless sleep consciousness appears in pure form).

What type of relation exists between body and soul? The dualist reply is that it is causal relationship rather than spatial. Then the further difficulties arise; how the causal relation between soul and body is possible? Thinkers who are rejecting dualism argue that soul-body interaction is impossible. So according to dualist, the causal connection between soul and body is inexplicable just like the casual connection which has been treated as basic in developing science. But the critics refuted that there is no general laws in case of mind-body interaction, while gravitational force has such general laws. The dualist has a reply to this criticism also. For them, at present there is no general law is to be the reason to refute dualism and reasonableness
of our belief in the causal connection between mind and body. It is our ignorance which prevents us from such universal laws. The main uncertainty of dualism is how two things as different as thought and extension could interact at all. In order to trace the development of Carruthers views on Cartesianism, let us analyze Carruthers’ argument for and against strong dualism

The argument for strong dualism:

1. It is logically possible that thinking (or experiencing) should take place while no physical thinker exists.
2. It isn’t logically possible that thinking (or experiencing) while no thinking thing exists.
   
   (C1) therefore it is logically possible that thinking things aren’t physical things.
3. All physical things are such that their physicality is a logically necessary attribute of them.
   
   (C2) So (from C1 and 3) thinking things aren’t physical things.
4. Every kind of thing must possess some essential (logically necessary attributes)
   
   (C3) So (from (C2) and (4)) thinking things are essentially thinking or conscious, non-physical entities.

That is to say: souls exist, and persons are souls.

The argument against strong dualism:

1. The dualist believes that selves (persons) are non-physical souls.
2. Selves are distinct individual entities
So the dualist must believe that souls are distinct individual entities.

3. There must be a criterion of individuation in connection with every kind of individual thinking.

(C 2) So from (C 1) and (3), if dualism is true, then there must be a criterion of individuation for souls.

4. Any conceivable criterion of soul-individuation will entail that it is logically impossible for two distinct souls to possess qualitatively identical mental states, either in general or for some restricted range of such states.

5. It is, on the other hand, logically possible for two reasons people to possess qualitatively identical mental states, either in general or for some restricted range of such states.

(C 3) So from (C 2), (4) and (5) either no such things as souls exist, or soul aren’t selves.

(C 4) So either way, strong dualism is false.

Strong dualism argues that, thought require a thinker and so, soul exists. Carruthers argues that, there exists a fallacy in the argument of existence of soul made by dualist. The fallacy is located in the premise (4) which can be understood in a different way so as to sustain dualism. If we have criteria for self-identification, then (C2) may be true and this should be supported by a distinct idea of identity of souls across the board. (5) is enough to counter, then we could neutralize (4) by rejecting it. Together with individuation and identity conditions, the argument’s counter-example can be supposed to be overcome. If we suppose that we need some form of identity theory as well as a distinct form of behaviourism to reach a form of functionalism which is rich enough to sustain the integrated theory, then we are on the right way to achieve this. There is no absolute necessity to deny
interactionism and similarly behaviourism can be read as explaining how we move from one self to others. This is the reason why he argues that neither empiricism nor rationalism support the independent existence of soul.⁴¹ Rationalists do not have any reason to deny experience and evolutionary empiricists have no reason to deny evolutionary versions of nativism. Says he: ‘Empiricists in the twentieth and twenty-first centuries have no principled reason for denying the existence of innate knowledge’⁴². Carruthers advocates an architectural view according to which mind-reading capacity can be understood at the neuro-computational level. Cartesian philosophy of mind stands on the distinction drawn between our knowledge of the world in general and (our knowledge of others, physical world etc) our knowledge of ourselves. Carruthers defends that that our knowledge of our own attitudes results from turning our mind-reading capacities upon ourselves. So the first person and the third person aspects are unified in theory of mind⁴³.

Property dualism (weak dualism) upholds that we are physical substances but have mental properties those do not possess physical characteristics. It is more scientifically accepted theory and count as judicious theory between dualism and materialism which is actually creating a 'best of both worlds' scenario. One of the main attractions for property dualism is that it allows for the first-person perspective. Being materialist, property dualism also allows for the scientific exploration and public third-party access to the causes of mental states. Property dualism may give rise to the following schools:

1. Non-reductive Physicalism: Although property dualism recognizes the supremacy of the physical over the mental and it also want to defend the claim that the mental properties are ontologically different from physical properties. In other words, the idea that mental states are non-reducible properties of brain states is the basic idea behind property dualism. Since it turns down an ontological reduction of mental properties, it is associated with non-reductive physicalism.
2. Epi-phenomenalism: Property dualists argue that consciousness is an emergent phenomenon of the physical processes of the brain and thus it is significant to note that, this leads to an idea in unbalanced causation. Property dualism support token-identity theory, while rejects type-identity theory and maintains that the qualitative nature of consciousness or phenomenal consciousness is not simply another type of understanding of states of the brain, but it is definitely an evolving phenomenon. So the ontology of physics (or neuroscience) is inadequate to take account of what is there.

3. Biological Naturalism: Property dualism allows that the matter or body to cause mental states, which in turn rejects two independent substances or stuffs. The objects' physical properties can cause a change in its physical properties, but its mental properties cannot cause a change in physical properties.

4. Cartesian Materialism: Property dualism also allows for the dominance of the physical over the mental. If the reality of property dualism is not to be denied, but the problem of how the immaterial is to affect the material is to be avoided, or causation from mental to physical is denied, then epiphenomenalism may seem to be the answer; according to which mental events are non-physical and are caused by bodily events, but are themselves causally inert. An even more extreme variant of dualism, known as parallelism, also avoids causal difficulty, and denying that any causal interaction between mental and bodily events occurs at all.

The problems of property dualism are highlighted as follows:

1. One of the strong attacks against property dualism is that mental properties supervene physical properties does not explain where they are. Furthermore, if mental states are properties of physical matter in the same way that physical states are, then how is it so that we can scientifically measure physical properties, but not the mental states
that they give rise to? It seems highly problematic that property dualism is claim that there are facts that cannot be considered scientifically.

2. Another attack is from the evolutionary viewpoint. Paradoxically, property dualism support the view that mind is evolved from matter as an emergent property. However, by proposing an asymmetrical psycho-physical causal relationship whereby mental states cannot cause physical states, then question arises; why did mental states evolve at all? Frank Jackson⁴⁴ replies that brain states evolved to react to external stimuli and that mental states were simply a derivative of emergent property and that as such there was no evolutionary demands for them to evolve. However, Jackson's response seems rather unnatural and counter-intuitive; it would appear simpler and well-matched with existing knowledge to say that consciousness does have an evolutionary advantage and thus developed as an outcome.

Property dualism is not a reliable theory of mind because it fails to explain how emergent non-reducible properties really form consciousness, or why these properties might be facts that cannot be empirically reputable. This creates a mass of practical problems concerning the evolutionary development of consciousness and which systems can be said to be conscious.

Carruthers suggests three different arguments for weak dualism.⁴⁵

1. **Argument from phenomenal quality**: It is argued that physical states and conscious mental states are dissimilar in their property. Our conscious experience possesses a unique phenomenal or qualitative feel completely different from brain function related to that particular experience.
2  **Argument from intentionality:** Most of the mental states are intentional. If they are physical states; it can represent something without doing so via intentionality of some other state.

3  **Arguments from spatial position:** Mental states (say belief) lack spatial positions. So it is non-physical thing.

Carruthers explains away all the above three arguments, by having an alternative to arguing that such a non-identity can never be proved. Neither there is a brute identity. This leaves the unique dimension of identity which brings identity of other minds. The felt quality is not identical with brain states. But we can see that it is true if there is brute identity and since there is no such identity the way to see it either in the first person way or third person way. This lends certain latitude to see that non-identity can never be proved. That means the premise that shows the non-identity is false. Similarly, for intentionality, we can show that there is no convincing reason to believe that the premise which holds that ‘no brain state can be intentional’ is true. Similarly for spatial position: We cannot prove the premise that it is meaningless to attribute spatial position to mental state. In his recent book, 46 Carruthers proposes a deductive argument for dualism, based on Cartesian argument for non-physical nature of the soul. Carruthers argues that we can imagine ourselves as incorporeal. The reason proposed by him is that we can imagine our thought and experiences in separation from our body. There exists a logical possibility of occurrence of thinking without a physical body. This is a non-philosophical argument that can be experimentally supported by out-of-the-body or near-death experiences. But it serves a philosophical argument for other cognitive scientist. There is robust empirical evidence today for this. But it does not imply that thinking could occur without a physical body. Carruthers’ handling of the person concept cannot totally exclude dynamic models of cognition. Carruthers is in no position to reject strong dualism even if it is false and so, weak dualism too remains an option. (Those mental states are non physical states of
The dependence of weak dualism on physical causes implies determinism of mental states by physical states. The physical world is causally closed but it can be kept open for the future to discover causal laws operating in the realm of the mental.

According to identity theory the essential characteristics of mental states turn out to be physical ones or mental states are brain states. In other words, our mental states are states of a complex physical system. It is argued that mental properties must be identical to or supervene upon physical properties. Mental states are product of physical nature and/or physical relations that bear to external physical phenomena. Identity theory is some sort of reductionism. It maintains that there seem to exist two entities, properties, or explanations it turns out that there is only one. Mainly there are two kinds of identity theory.

1. Type-type identity theory
2. Token-token identity theory

Since the 1960s to give a philosophical account of mind has concentrated on some combination of physicalist identity theory with functionalism. Type identity theory, which identifies mental states with internal states of person (usually brain states) has been prominent in philosophy of mind in the 1950's and much of 1960's is still regarded by many as the only way of ensuring genuine causal role for the mental in a way compatible with ontological and explanatory physicalism. Thinkers like U.T Place (1956), Smart (1959) and Armstrong (1968) support this view. According to type identity theory, each type of mental state is identical with some type of brain state. For example, pain is the firing of C-fibers. It is a hypothesis about correlations between sensations and brain process which was discovered by neuroscience and it is like other scientific discoveries of, Heat=molecular motion, Lightening=electrical discharge, Water= H₂O, etc. It proposes that identity relations are contingent and so can be discovered only by means of
empirical investigations. The main motivations for type-identity theory are causal considerations and its scientific orientation.

Churchland’s identity theory depends upon connectionism, according to which there are sub-net works of the brain, operating in an essentially connectionist fashion, which corresponds to states of sensory consciousness. The problem for Churchland is that he identifies the source of the conscious experience with conscious experience itself\textsuperscript{48}. Vector coding identity theory reveals something about structural properties of visual colour qualia. One problem of this identity theory is that it cannot explain conscious/non-conscious distinction, or same vector coding are present both in conscious and non-conscious experience\textsuperscript{49}. Kim who rejects the type-identity theory says that pain is C-fiber firing, and that unless an organism has C-fibers or brain of an appropriate biological structure, it can’t have pain. But aren’t these pain capable organism like reptiles and mollusks with brain different from the human brain. Moreover the neural substance of certain mental function can differ from person to person and may change over time even in single individual through maturation, learning and injuries to the brain.\textsuperscript{50} This is a restricted version of identity theory, so it can’t consider the generality of the concept pain. It restricts us to capturing the characteristics of other mind including animals and our fellow beings.

Type-identity theory is criticized by Putnam. \textsuperscript{51} For him, this theory seems to deny mentality to animals. Putnam argues that many animals have distinctive brain structure but possess pain contrary to the view; pain is C-fiber firing. It faces then so-called generation problem, which is the problem of explaining a certain kind of functional description or functioning of system at this level is appropriately identified with consciousness.\textsuperscript{52} If we identify consciousness\textsuperscript{(C)} with brain state \textsuperscript{(B)} then C=B. But there are certain creatures operated by Non-B and the physical system B can be duplicated by some physical system which is Non-B. So Putnam says that mental properties are multiply realized and that pave the way for functionalism. The
multiple realisability argument argues that type identity theory is an unsatisfactory claim about mental because it stands for the claim that correlation between mental states types and physical state types is only one-one correlation. It is argued any single kind of psychological state can (for example pain) be realized differently in different creatures, different people or even in the same person at different times.

Many thinkers like Carruthers tried to satisfy their materialist intuition by implementing token-identity theory and rejects type-identity theory, because token-identity theory accepts multiple realizability of mental states and argues that any single kind of psychological state can have multiple correlates (not only one as type identity theory assumes) in different peoples, different organisms or even in the same person at different times. The concept of token-identity theory is introduced by Donald Davidson53, and when defending a token/token- identity theory he was faced with a question of how mental states and physical characteristics of these token events are related to each other. His answer was that mental character supervenes on physical. Davidson attaches to his interpretationism to a claim of token-identity between intentional states and physical states. So token-identity theory maintains that every token of given mental will be identical to a token physical state. (For example a token brain state). According to token-identity theory, each mental state have dual characteristics; mental and physical. The problem persisting here is that there is no systematic link between physical states which in different occasions are identified with one mental kind or state. It is criticized that since token identity theory cannot explain the relation between mental and physical properties, it seems that a dualism of substance has been substituted by dualism of properties and in turn token identity facing the dilemma of causal explanation. The question before us is how the psychological and physical casual properties relate to each other without our behaviour being over-determined. Failure to answer this question leads thinkers like Churchland to defend an eliminativist view of mental54.
Carruthers thinks neurological data which claims identity is not enough to prove the identity between phenomenal consciousness and brain activities. There is however a putative identity between or one to one correlation between brain activities and phenomenal consciousness. Brain scanning data shows that certain sorts of brain activities are a necessary condition for phenomenal experience and these activities are sufficient in normal surroundings for phenomenal consciousness. Carruthers argues that in the case of phenomenal consciousness, higher-order thoughts are tokened in ‘the theory of mind brain centers’ in frontal cortex area are also has a part to play in the drama of phenomenally conscious experience but they are involved in subtraction tasks; since, the brain scanning considers only differential brain activity. Double dissociation data is also argued for neural identity. Blindsight shows that neural activity in the particular area VI is a necessary condition of phenomenally conscious visual experience. The putative identity between phenomenal conscious experience and corresponding brain activity in area VI has no capacity to provide a correct explanation to phenomenal consciousness. Since identities are tautologies it needn’t any further explanation. But for Carruthers, the postulated identity does not have the credentials to provide answers to the questions like: why should certain events posses subjective feel why they should seem to possess properties which are intrinsic ineffable and private. McGinn says that phenomenal consciousness is inherently inexplicable and he rejects neural identity thesis. Carruthers accepts somewhat similar position and argues that the real problem here is to consider the problem of phenomenal consciousness as mind-brain problem.

Carruthers concedes that neural identities which embedded in some sort of story about functional role of phenomenal consciousness. Crick and Koch suggest phenomenal consciousness is resulted at the stage of perceptual re-integration or synchronized neural oscillation. But Carruthers argues that there are integrated experiences that lack phenomenal consciousness. For example, take the case of absent-minded perception of
a driver. While driving, driver may think about some problem at work or enjoying music, even though he gives side to overtaking vehicles. But latter driver is asked questions like: how many vehicles were passed his vehicle or what is the colour of third vehicle passed? etc. Sometimes he may not be conscious of seeing them, either at the time or later in memory. So he has an integrated experience without phenomenally conscious of it. The second criticism to this theory is that why the neural events which constitute perceptual integration should possess the properties of distinctive phenomenal consciousness? Let us move to functionalism.

1.5. Carruthers' Response to Functionalism and Behaviourism

Functionalism in philosophy has antecedents both in modern and ancient philosophy. Functionalism tries to characterize mental states in terms of their causal roles or relational properties. For example, Aristotle argued that the (human) soul is the form of a natural, organized human body. Functionalism is introduced in modern philosophy mind by Putnam. The critics demand an analysis which considers the feelings involved in experience say for example, feelings involved in pain. Functionalists often put it; pain can be realized by different types of physical states in different kinds of creatures, or multiply realized. So functionalism is compatible with the sort of dualism that takes mental states to cause, and be caused by, physical states. Functional states are causal states and the mental property is functional property which individuated by means of functional role. In other words, mental states are some internal states with particular kinds of functional role. According to functionalism, we can classify physical states in terms of their relational properties and their over all functional roles within the organization of the systems they are part of, then it will be possible to reduce psychological states to them.

Functionalism gives a satisfactory explanation of multiple realizations of mental states and has advantage over type–identity theory. Functionalism says that internal structure of mental state is nothing to do with what makes
mental state of a particular type and maintain that, what makes something a thought or propositional thought is not related to its internal constitution, but exclusively to its functional role. It stands as a materialistic alternative to the ‘Psycho-Physical Identity Thesis’; the thesis that each type of mental state is identical with a particular type of neural state. Identity theory entails that no creatures with brains unlike ours can share our sensations, beliefs, and desires, no matter how similar their behaviour and internal organization may be to our own although functionalism is officially neutral between materialism and dualism, it has been particularly attractive to materialists. The functionalist theory permits creatures with very different physical constitutions to have very same mental states as well. The functionalist views that, mental states can be multiply realized, is commonly considered as providing a more comprehensive, more credible theory that is attuned with materialism.

There are mainly two different types of functionalism: Machine State Functionalism, Psycho-Functionalism and Analytic Functionalism. Putman compared mental states to the functional or logical states of computer: In many respects, mental states as characterized by functionalism are rather like soft ware states of computers. Computational model provided an important source of inspiration for functionalism. Just as the computer program can be realized or instantiated by any of number of physically diverse hardware configurations, so can a psychological ‘program’ be realized by different organisms of various physiochemical composition, and that is why different physiological states of organisms of different species can realize one and the same mental state type. This view is known as machine functionalism. Machine functionalism supposed that human brain may be described three distinct levels of description; namely

1. Neurophysiological description
2. Functional description
3. Common sense or folk psychological description
The first is the biological description; it gives explanation of a physical state in some one’s brain at a particular time. The second tries to explain the machine program that brain happens to realize. The common sense description is everyday explanation. Unlike behaviourism and identity theory, functionalism does not strictly entail that minds are physical.

Behaviourism tries to solve the problem of other minds through analyzing the behaviour. As it is claimed there is nothing more and above the behaviour and dispositions to behave. Some of the attractive features of behaviorism are it situate mind in natural world rather than mere ghost in the machine, it abstain from ontological dualism of mind-body and it gives satisfactory picture of our knowledge of others as knowledge of behavioural dispositions. Carruthers concedes that some of our mental states are dispositional rather than episodic. But he further adds that, mental states cannot in general be identified with behavioural states (actual/dispositional) because they are rather causes of behaviour. The development of two important brands of Functionalism psycho functionalism and analytical functionalism can both be advantageously viewed as endeavor to unravel the problems of empirical and logical behaviourism, while retaining certain important approach of those theories. Functionalism claims that it is not possible to identify types of mental states with types of behavioural dispositions and characterize mental states by referring it to behaviours indirectly. That is by characterizing them through their causal roles. There are three types of causal relationship behind a mental state.

1. The subject’s environment may cause mental state
2. Other mental state can cause mental state
3. Mental state can contribute causally to bodily behaviour of subject
Functionalism claims that mental concepts are concepts of states or process with a certain function (Putnam 1960, 1967; Lewis 1966). It is an answer to the problem of multiple realizability and it allows mental states to interact and influence each other rather than being directly tied to behavioural disposition. So we can conceptualize mental states in terms of their casual roles. It can be a conditional matter what actually engages those causal roles and it was conceptual possibility that the role occupiers might have turned out to be composed of some sort of mind stuff or dualism will be a conceptual possibility. This form of functionalism is known as analytic functionalism. There are two main problems to this form of functionalism. It is committed to analytic-synthetic distinction, but philosophers like Quine (1951) rejects it as unviable. It is hard to decide which axiom related to the causal role of the mental state should count as analytic and synthetic. Another criticism is that functionalism stumped block in front of felt nature of consciousness (it is the view shared by Block and Fodor (1972) Nagel (1974)

In response to such criticisms, there arises another variant of functionalism is known as psycho-functionalism. Theory-theory is an extreme form of psycho-functionalism. It defends that mental state concepts get their life and sense from their position in a substantive theory of causal structure and functioning of the mind. To know what a belief (or grasp the concept of belief) is to know the theory of mind within which that concept is embedded. Our mind-reading faculty functions like a central module and it is a product of maturation. Theory-of-mind module is an innate module and
nativist version of modularism is the correct version according to Carruthers and he considers Theory-theory as an outcome of functionalism.

This type of functionalism discards the analytic-synthetic distinction. Theory-theory is naturalistic theory which considers philosophical and scientific enquires are continuous with one another. From this viewpoint, both philosophy and cognitive psychology are occupied with basically the same venture. Carruthers accepts a sort of psycho-functionalism. Although functionalism is formally neutral between materialism and dualism, it can stand as a materialistic alternative to the psycho-physical identity thesis, the thesis that each type of mental state is identical with a particular type of neural state. It is criticized that functionalism is not capable of give a better explanation to qualia, because it explains mental states, exclusively in relational terms. The “inverted qualia” objection to functionalism maintains that there could be an individual who (for example) satisfies the functional definition of our experience of red, but is experiencing green instead. That is what the tokens of any distinct mental types have in common in virtue of which they belong to that type is the functional or causal role that play. In functionalism our concern is intentional states rather than phenomenal states. Functionalism coheres with the view of minds that motivate the cognitive revolution in psychology. Functional descriptions are available to us simply by refection on our every day explanatory practices. Here functional descriptions are thought as ontologically derivable from our every day psychological ones. These functional definitions are not reducible, however do not identify properties at the psychological level with properties described non-mentalistically. The causal role of our psychological kind will be articulated utilizing psychological vocabulary. Related to the content of psychology there are two extreme views; they are:

1. Narrow content
2. Broad content.
Narrow content: It is the content individuated in abstraction from relation to the world. Theorist should agree that each token thought will have truth conditions which involve worldly states and affairs. According to them, very same thought in different circumstances, could have different truth-conditions. Some thinkers suggest that that even though there are broad contents, narrow content is important to psychology.

Since consciousness and intentionality are two important phenomena discussed in his theory, Carruthers maintains that conscious mental state is a combination of intentional states and causal role; man’s mental state is both intentional and phenomenal in character. That is, its nature is representational and phenomenal at the same time. According to Carruthers, the content of our intentional states (propositional states) are narrow which allow the same intentional state to individuals in different environment. The narrow intentional content is independent of the external environment. According to this view, inputs and outputs may be better characterized as activity in specific sensory receptors and motor neurons. But it denies consciousness to creatures with different neural structures than ours. Carruthers argues that comparatively strong view is narrow content. For him, if we say contents of folk psychology and scientific psychology is different there arises confusion.

According to McDowell, narrow content theorists presuppose an intermediary between mind and the world. For Carruthers, the debate is about the individuation conditions of content and not about the referential relations or about the phenomenology. According to some internalists, the relevant facts about the individual may also include facts about the internal states of our body such as state of the central nervous system. According to Frege, sense is determined by reference. It means reference on the other hand does not determine sense. For him, sense is supposed to determine the reference., that is mode of presentation or manner of thinking determine thought content (reference)which is constituted by the status of affairs and
objects in the world which our thoughts concern. For example ‘Indira Gandhi is India’s first women prime minister’ and Rajeev Gandhi’s mother is India’s first women prime minister’ share the same truth-conditions and they have same thought content Accordingly, the criticism to Frege’s view is that that indexical term ‘I’ seems to same sense to each one of us; but picks out a different person in each case, because they refer to different person in each case. So there are two possible views. The first view is that sense does not determine reference and second is that the actual reference is also one of the conditions of individuation of a sense.

The first view is defended by narrow content theorist. While narrow content theorists reject the Frege’s theory of content and claim that sense does not determine reference. For Carruthers, the thought ‘I am cold’ has same mode of presentation or sense (meaning) but those senses are about different things. In other words, according to them, different tokens of the very same (narrow) thought can have different worldly truth-conditions? According to wide content theorist, in the case of expression ‘I am cold’ we are engaging different content and they believe that actual reference belongs amongst the individuation of a sense. On the issue of the content of psychology, Carruthers keeps intermediate position.

The two important objections to functionalism are; absent-qualia argument and inverted-qualia argument; which considered as the direct criticisms to functionalism. Conscious experience have distinctive phenomenal feel or there is something like to the subject of that experience. But Carruthers rejects that there exist some subjectively available intrinsic non-representational non–relationally individuated, properties or qualia. Carruthers accepts that there are distinctive ways of representing the world. Qualia are non-representational means it does not represent any other than itself. It is ineffable and private. If our experience have qualia in its strong sense functionalism will be a failure. If there are qualia then the problem of phenomenal consciousness will be hard, because this qualitative aspect of
consciousness cannot be explainable in terms of functional or representational terms.\textsuperscript{62}

According to externalist, thoughts are individuated in terms of the objects and properties in the world that they are about. In other words the existence and identity of the objects and properties thought about that determine the existence and identity of the thought. \textit{Twin Earth Argument} put forward by Hilary Putnam\textsuperscript{63} is a famous argument for externalism. It maintains that content of thought is not determined by or does not supervene on the intrinsic properties of the brain of subjects or according to Putnam content of thought is not ‘in the head’, because they are partially constituted by the objects and properties they are about. According to Putnam’s \textit{Twin Earth Argument}; two identical twins that are physical duplicates dwelling in earth and twin earth respectively. Their environments are different in some significant respect, for example in twin earth water is some other chemical substance, formula of which is XYZ while in earth the chemical formula is H2O.Suppose that the twins utter the word ‘water’ they are thinking different thoughts, because they are talking about different things, even though they utter the same word ‘water’. But there is no difference in their internal (physical or psychological) structure. So they possess dissimilar thoughts even though their heads are identical. In effect the externalists conclude that thoughts cannot be in the head. The argument of twin earth as follows:

1. The content of thought decides what the thought is about? Or what it refers to? (Or the indexical content);

2. The twins are referring to or the index of their thought is different when they using the word water.

Therefore, the twins are thinking different thoughts. Since thoughts are individuate by their contents. Since the twins are physical duplicates, but differ in their thoughts, their thoughts are not determined by the physical
nature of their bodies and heads. Therefore their thoughts are not ‘in their heads’ internalist could deny premise (2) and premise (1).

The current functionalist materialist paradigm in philosophy of mind resulted from adopting a Cartesian account of the causal relations between mind and actions, while dropping mental substance. In the above case, it is shown that subjective aspect of our experience must be non-representational and not functionally defined. Carruthers argues that the absent and inverted feelings are conceptually possible. But they are both naturally and logically impossible. On theory-theory account, Carruthers argues that there are recognitional concepts of experience and these concepts themselves are not relationally or causally defined; and maintains that the properties which those concepts accept are relational or intentional properties. On a HOT account it is possible; our mental states acquire phenomenal properties by virtue of having HOT about the perceptual states by deploying recognitional concepts of experience. So in response to inverted qualia, Carruthers argues that any creature which can perceive red can make all the visual discrimination and can recognize its own perceptual representations of red and will definitely be subject of just the same phenomenal feelings as me and he conclude that there are no qualia. The recent forms of functionalism argue that both the inverted and absent qualia objections can be explained away without harming functionalism and commonsense view. As this view maintains, both X’s and Y’s mental states are standardly caused by red tomato and whatever their qualitative character these two states standardly cause to the two persons to believe that tomato is red. But according to Churchland\(^{64}\), this form of functionalism admits the reality of qualia. Churchland suggests eliminative materialism as viable position comparing to functionalism. According to eliminative materialism, our common sense psychological framework will not enjoy the inter-theoretic reduction because our commonsense psychological framework is a false and radically misleading conception of the causes of human behaviour and the nature of cognitive activity. Eliminativism argues that ontology of older
theory should be eliminated in favor of the ontology of new theory. There is no inter-theoretic reduction in this case.

To be conclude that we have given a very comprehensive view of the several stages through which Carruthers has developed a perspective of his own. We have used Block’s reflections as a counterfoil to clarify the several turns Carruthers makes in his naturalistic theory of phenomenal consciousness. We have claimed that he is undoubtedly passing from realism, naturalism and then passing towards a more possible physicalistic theory. We have recounted how Carruthers designs his position in the light of a deep scrutiny and criticism of different traditional theories of mind and modern theories of consciousness. It is also shown that Carruthers has a certain ambivalent relation to strong and weak dualism. In all these, Carruthers remained a faithful theory-theorist from a physicalist point of view having his focus of interest on the problem of other minds. The HOT is a noticeable defence of the above even if this gets plunged in to the copious development of his later theory through a series of ramification. After seeing more of the challenges in the subsequent Chapter and the way of meeting them we shall move further to query whether it is plausible to develop the naturalistic account in the way Carruthers attempts. As a consequence, his modular view shall be criticized in the light of his later version of theory. His theory mainly deals with the so-called harder problems of consciousness with the help of inference to best explanation. With a firm grasp of background assumption, we are now in a place to revolve our attention straightly to the major challenges before Carruthers’ theory that will be discussed in next chapter.
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