SUMMARY AND EVALUATION

It is unquestionable fact that Carruthers has had a great influence on the development of cognitive science research even within our country because of his leaning towards dualism. His journey started with realism (folk- psychological states are real) and passing through naturalism (folk psychological states are not other than what science could possibly describe them) and finally reaching at the physicalist position (folk psychological states depend on certain architectural states of brain, the casual laws which are waiting to unfolded e.g. mirror neurons). Carruthers has many vicissitudes of reflections. We have constituted a grand perspective of his so called naturalistic theory of phenomenal consciousness (feel) pulling together many of the subtlety and twists of his arguments which are otherwise not available to any general reader. To attain this such a reader have to come through the entire corpus of his work and extensive selection of articles mainly from 2000 – 2009. For convenience, we have classified the developments of his overall project into the proto-naturalistic (upto 1998), naturalistic (upto 2000/2002), and post-naturalistic stages (upto 2008/2009). What is called post- naturalistic is only an indicator to the technique he carries forward the argument ‘beyond’ naturalism. Naturalism hardly leaves a trace but for the strong scientifically oriented theory of mind, which is based on brain research with a metaphysical tinge of its own. The central piece and the first stage in his naturalization project is Dispositionalist variant of HOT Theory (Carruthers (2000). In his ‘The Cognitive Functions of Language’(2002) and after words, Carruthers makes a strong integrationist approach to natural language as the medium for non-domain-specific thinking, thus serving to integrate the outputs of a variety of domain-specific conceptual faculties(or central-cognitive quasi-modules”). Here he is relying on the past to complete a linguistically oriented perspective. Carruthers
rejects strong cognitive conception of language and propounds the thesis that natural language is the medium of intra-modular integration. Carruthers’ integrated approach of bringing together language, thought and consciousness radicalizes the earlier views of modularity of the sort defended by Fodor. He uses Chomsky’s minimalist program as launching pad and claims that, natural language syntax 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 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 that phenomenal consciousness can actually be reductively explained by microphysics, 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; which is strongly supported by dual system theory. The major phase of departure after 2000, his theory adds many ramifying structures to the naturalization ending up with Cartesian epistemology. He goes outwardly to meet Stich’s program, which exploits heuristics rather than scientific method. By introducing ‘flexibility’ and ‘malleability’in an effort to achieve a moderately massive modularity, but in
the end to turn it against Stich- Nicholas paradigm. Thus he is trying to keep alive the age-old controversy between nativism and empiricism .as well as controversy between 'mind- reading' and 'metacognition'. The greatest merit of this perspective is to show how Carruthers plot his points in relation to every other theory of consciousness (naturalistic or otherwise ) that are developing today. Thus he is placing himself in the reductionist camp which integrates pheneomenology with science of mind,(neurobiology). A priori speculation is not the only the methods to reach metaphysical conclusions about the nature of mind; but the scientific developments in fields such as computer science and neuroscience give their share in this regard.It is argued that epistemology depends on the research related to mental structures and learning procedured rather than mere conceptual excercises.Carruthers also shares this view. The explanatory gap is closable in principle contra Chalmers via third person phenomenology.

Thus, we find that in the later stages of development of Carruthers’ theory the question about consciousness is gradually transformed in to one about language and thinking. So his earlier thesis on language is replaced with a more naturalistic consideration of language as integral. In his 2002, Carruthers defends the idea that natural language is the medium for non-domain specific thinking, serving to integrate the outputs of a variety of human domain- specific conceptual faculties.(or central cognitive, domain quasi-modules).This is radically different from his earlier view where he merely distinguished between the communicative and cognitive conception of language and invariably supported the latter. It is argued that natural language syntax is crucially necessary for intra- modular integration. The central cognition functions accessing, controlling and influencing the representations of language capacity. Caruthers project is strongly supported from the data collected from psychology and psychopathology thereby accommodates folk psychology within the framework of scientific psychology.
Carruthers' 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 by 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 but at the same time he supports dualism of interactionist type. 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 without advancing any claim about brute identity. 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 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. Carruthers is Cartesian in the sense that he accepts narrow content of mental states; that is Cartesian view influences Carruthers’ way of understanding the nature of mind. Carruthers’ defense of theory-theory shows the post-naturalistic implications of a variety of Cartesian dualism. He realized that it is necessary to travel beyond naturalism, physicalism and reductionism and in its extended form he supports weak dualism which is more epistemic than ontological and paves the way for integration of metaphysical epistemic and semantic claims. Carruthers joined to qualia irrealist camp through changing the
phenomenal consciousness into one about ‘phenomenal feel’ without embracing the non-reductionism. 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.

In the developments after 2002, Carruthers went on to absorb all these later developments before defending a weak form of dualism or minimal rationalism. In case of modularity of mind Carruthers, defends Chomsky against Fodor, which seems to be a disguised criticism against modularity itself. Massive modularity thesis modifies the nature of modules in relation to central modules. Its encapsulation requires a new base and rules become frugal. This gets explained in terms of wide ambiguity (wide and narrow). For him, theory of mind is innately endowed and in turn in our belief in self-transparency of mind that is innate or embedded in theory of mind module. But although moderate, it is pitched towards the massively modular end of the spectrum, which is the hybrid or moderate view between peripheral-systems modularity and massive modularity. Our observation is that Carruthers deviates from the orbit of naturalism to embrace a scientifically – oriented minimalist program offered by Chomsky. Still physicalism is an option, but the combination of brain research and language provides an advance that reached its completion in minimal rationalism.

We have analyzed Block’s arguments against phenomenal naturalism and shown that how Carruthers pass from phenomenology to a shared phenomenology. Carruthers aim is to combine physicalist identity theory (token identity theory) with functionalism, which will also vindicate mentalist psychology without ineffable non-representational qualia. What ever may be the interpretation of harder problem of consciousness. His theory mainly deals with the so-called harder problems of consciousness
with the help of inference to the best explanation. The credentials are still left open for further research. Carruthers has no reason to accept both phenomenal consciousness as well as access consciousness, but uses access-consciousness to develop two stages of his reasoning. He uses the ‘phenomenal feel’ and the availability of it (first) to develop a reflexive thinking theory and (then) again a higher-order theory. Since Block criticizes any attempts to identify P-consciousness with any of these cognitive notions and for him, Carruthers’ is a theory of monitoring consciousness rather than phenomenal consciousness. Block thinks that to identify P-consciousness with internal scanning is really tilting towards eliminativism about P-consciousness. As Block maintains, access consciousness is system-relative. But for Carruthers, phenomenal consciousness is also system relative and he argues that function of representational content in system 2 makes a state phenomenal consciousness. Here Carruthers appears to conflate different notions of consciousness or he tries to explain one notion of consciousness in terms of other (phenomenal consciousness in terms of reflexive or monitoring consciousness). So, if the distinction between different notions of consciousness by Block is accepted as true that will leave Carruthers theory in trouble. I think Carruthers support a hybrid of phenomenal dispositional stereotype and cognitive stereotype.

Still we have left upon the question about language. Carruthers views that the role of language in cognition isn’t to unify the outputs of some otherwise unconnected modules. Rather, language is playing a quasi-executive function, serving to manipulate the subject’s attention and on-line goals. Vygotsky argues that language and speech serve to scaffold the development of cognitive capacities in the growing child. According to Vygotsky, overt speech of children, plays an important role in problem solving, partly by serving to focus their attention, and partly through repetition and rehearsal of adult guidance. It is argued that they have found that children tend to verbalize more when task demands are greater, and that those who verbalize most tend to be more successful in problem-
solving. So I think Carruthers takes a Vygotskian stand in this regard because now he accepts rehearsals of inner speech, which needs the support of dual system theory, which added many new contours to his theory. So I think Carruthers in the final run takes blend of Vygotskian and Whorfian (which he have not fully accepted earlier) stand in this regard because now he accepts rehearsals of inner speech, which depend on the dual system theory. Our observation is that his views on the question of flexibility, malleability and plasticity of human thinking must be lauded. Consequently the very idea of modularity goes through tremendous changes. His notion of modularity is a veiled criticism to modularity. So the question: ‘is it unified theory in the making’ is justifiable only in this background and answered in the affirmative, but then since it is premature to arbitrate the full extent without more input from research from cognitive science.

Some of the major findings of the researchers are stated as follows;

1. Though Carruthers takes rationalism and empiricism as distinct, he it leaves open whether the distinction needs a more integrated set-up. Carruthers says that social instruction or enculturation surely does help shape the more refined features of fully developed folk psychology or theory of mind but it contributes little to the construction of the core theory which is already employed in four year old children. In relation to the core theory, he adopts a nativist version but he says that our environment has a very definite role to play in the further development of theory of mind capacity. So the difference of domain between rationalism and empiricism does not get resolved here, the issue is one of nativism but a scientific ensure is yet to emerge.

2. Likewise Carruthers' ambivalence towards strong and weak (property dualism) remains rather mysterious.

3. Carruthers systematically connects his mind reading with the practical reasoning but the full connotation of which remains in the dark.
4. The way he allows modularity to meet heuristic brings in its train the question about scientific methodology that remains unresolved.

5. In a similar way one can subject his closing of explanatory gap (in principle) as not conducive to the perspective.

6. Despite traces, Carruthers cannot escape from the large-scale dealing with various other cognitive modeling such as dynamic emulator neural engineering models on the one hand thus reason and emotion view of the sort defended by Damasio on the other..

7. His integration of folk psychology with physics calls for a fresh review.

The scope for future research can be envisaged as follows:

1. In philosophy integration of epistemology, metaphysics, and semantics still await future input. The challenges to integrate these three disciplines have not seen fruition.

2. In the wake of recently emerged skepticism of dual system theory, Caruthers project needs a thorough research. If dual system theory fails to explicate certain issues, so much the worst for the perspective.

3. The relying on the mirror neuron particularly on the side of language and the ongoing debate between Chomsky and Jackendoff has to be channeled into the perspective, for the sake of greater clarity.

4. The question about modularity, nativism and minimalist account may indicate change of views in the face of strong criticism.

5. Criticizing the self-model of mental activity needs more extensive comparative study with sponsored research in other labs.

6. Explanation of outer body experiences show that this experience is to be incorporated in cognitive science research in a much more philosophical way.

7. The large implication for Indian theories remain hazy at present.