THE PASSAGE FROM FOLK PSYCHOLOGY TO COGNITIVE SCIENCE: A CRITICAL EVALUATION OF STEPHEN STICH'S VIEWS

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I, SANITHA, T. K., hereby declare that this thesis entitled **"THE PASSAGE FROM FOLK PSYCHOLOGY TO COGNITIVE SCIENCE: A CRITICAL EVALUATION OF STEPHEN STICH'S VIEWS"** has not previously formed the basis for the award of any Degree, Diploma, Associate Fellow Ship, or other similar Recognition .

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Sanitha. T.K.

CONTENTS

PREFACE

The title can be read with a question tag. This question is whether Stephen Stich, one of the two major eliminativists, makes a passage from folk psychology to Cognitive Science, as he often claims to be, along with Churchland. The above question is answered by critically evaluating the three-pronged attack he has set out to do in three of his major books (From Folk Psychology to Cognitive Science: The Case Against Belief (1983) The Fragmentation of Reason (1990), Deconstructing the Mind (1996). They are distinguished as three major steps for the wholesome project called eliminativism.

The first major step: Stich's Case Against Belief.

The second major step: The Second Major Step in Eliminativism.

Third major step: Naturalism and its Kins.

The question it self is answered by holding that Stich takes a major effort to rechristian folk psychology as scientific psychology slowly transforming some of the major traits which are acting as blocks to the project.

Such a transformation is executed by looking at the way we integrate the self-ascription and other ascription in to one single theory. In Stich's sense, this single theory they called theory of Mental Mechanism (used in the external sense) is poised to accommodate the internal sense (TT) which together form an eclectic model consisting of two components. This model lies more on the side of simulationists and reject TT (mind reading) so folk psychology in a sense is rejected and folk psychology in yet another sense (intra mental sense) is preserved for science. A curious turn in Stich's reasoning is found in his transforming folk psychology in to a project that aligned to deconstruction. Folk psychology (theory-theory) is a posit: it cannot be rendered in to science; and hence it has to be treated as false. Now this original argument is some what not adequately valid. What is needed is a premise about semantics (reference/truth). So, we add that semantics is indeterminate (all theories of semantics are indeterminate) but there are a plurality of semantic theories (just like plurality of folk subjects) and hence we need a device of deconstructing the deconstruction (plurality). This is the theme that informs much of Stich's theorizing. The question whether Stich takes it beyond is answered in the positive. Certainly, he takes it beyond this awful sense of deconstruction (may be to the post-post-level) in which he becomes interested in cultural diversity (all cognitive systems are not functioning in the same uniform way) and uses the dictum that reference itself

is culturally determined. So in a sense Stich is an echt-eleminativist and echt deconstructionist.

After mapping the varied positions of FP in an effort to obtain a thorough review of the past literature on FP, with whatever amendments it needs for completion, we are moving to consider the three major steps in the next three chapters, where our efforts lie in the scheme within which, we are not able to miss a single strand of his reasoning. The above map is completed by looking at the exact relation between instrumentalistic and revisiomist (Bermudez) account of FP (Clark, Dennett). This follows the positive defense of FP especially in two forms namely Fodor's, Intentional realism and Carruther's Folk psychological realism, which is waiting for a final draw with Stich. In fact, they espouse rival paradigms, as it is clear from the state-of-the art-reviews and discussions. The instrumentalists hybridize. The revisionist, Bermudez offers the greatest challenge to all these accounts and its not with out justification. We find it necessary to extend the map given in the Companion Volume on the philosophy, which according to our view, is out dated.

So, in a sense Eliminativism collapses in to deconstruction, but the latter is not collapsing in to social constructivism as alleged by some critics (Tim Crain) who provides an escape hatch for Stich. But in our view, he doesnot use the escape hatch. If he is understood to be so, then he may share

views of folk psychology which are typically social-scientific. In our understanding Stich has to face a final challenge from Bermudez, who models social co-ordination on folk psychological grounds, while at the same de limits FP on experimental grounds. It may be hypothesized that if he cannot face the challenge, he has to come to terms with it. This is our conclusion in the through shake-up where we draw the lines of argumentation in such a way as to offset a theory of self- ascription it- self.

CHAPTER 1

FOLK PSYCHOLOGY: MAPPING THE DEBATE BETWEEN REALISM AND ANTI-REALISM

1.1. What is Folk Psychology?

Folk Psychology (henceforth FP) is a conceptual framework used by ordinary people to understand, explain, and predict their own and other people's behaviour and mental states. It is a loose knit network of largely tacit principles, platitudes and paradigms which makes a sort of folk theory. We invoke a variety of commonsense psychological terms including 'believe', 'remember', 'feel', 'think', 'desire', 'prefer', 'imagine,' 'fear', hope and many others in our everyday discourse. Our everyday conception of mentality mixes with these notions. Philosophers group these together and call them 'propositional attitudes.' F P is called Propositional Attitude Psychology (PAT). PAT has: (a) Syntax: I believe that p; (b) Semantics: Mental states (M) have content p. The syntax-semantics co-ordination generates a problem.

FP consists of at a minimum of (a) a set of attributive, explanatory, and predictive practices and (b) a set of notions or concepts used in those practices. So FP plays a central role in our capacity to predict and explain the behaviour of ourselves and others.

Many philosophers and cognitive scientists claim that our folk understanding of mental states constitutes a theory of mind. Stich makes two different senses of "FP" - an *externalist sense* and an *internalist sense*[1].

On the *externalist* account of FP (hereafter " FP (external)"), FP is a theory of mind implicit in our everyday talk about mental states. In our day-today life, we make remarks linking sensory experiences to mental states; mental states to other mental states and mental states to behaviour. Consider an example of an everyday commonsense psychological explanation: Jane went to the refrigerator because she wanted a beer and she believed there was beer in the refrigerator.

On the *internalist* account of FP (hereafter " FP (internal)", FP is a theory of human psychology which is represented in the mind-brain and which underpins our everyday capacity to predict and explain the behaviour of ourselves and others. On this view, FP is a *data structure or knowledge representation* which mediates between our observations of behaviour in circumstances and our predictions and explanations of that behaviour. The two senses need distinguishing because some philosophers who acknowledge the existence of FP in the second sense hold that commonsense psychological explanations do not employ empirical generalizations, and hence that there is no such *theory* as folk (psychology).

The claim that our everyday understanding of mental states constitutes a folk theory of mind is often called the "theory- theory" (TT hereafter). Correspondingly, there are two senses of "TT". On the *externalist* reading of "TT" our everyday talk about mental states implicitly constitutes a theory of mind: FP (external). On the *internalist* reading of "TT", our everyday capacity to predict and explain behaviour is underpinned by an internally represented theory of mind.

David Lewis,the principal architect of TT (external) develops a platitudinal account of FP, rendering it in terms of a functionalist theory through the following steps:

Collect all the platitudes . . . regarding the causal relations of mental states, sensory stimuli, and motor responses. . . Add also all the platitudes to the effect that one mental state falls under another . . . Perhaps there are platitudes of other forms as well. Include only the platitudes which are common knowledge amongst us: everyone knows them, every one knows that every one else knows them, and so on (Lewis, 1972)[2].

Let m_1, ..., m_n be the mental state terms used in these platitudes. We can then express the conjunction of platitudes as:

$s_1(m_1, ..., m_n)$ & $s_2(m_1, ... m_n)$, where each s_1 $(m_1, ...m_n)$ is a sentence in which some or all of the mental state terms m_1 occur. This conjunction will also contain a variety of terms which name non-mental

states. For example, it will contain terms referring to types of sensory input (sharp blows: bright lights; gentle strokings) and to types of behavioural output (saying "ouch"; shielding the eyes; smiling). Following Lewis, we can call these terms the o-terms (o_1, ... o_n). In the interests of clarity, these terms have been suppressed. We can now replace mental state term m_1 by a corresponding free variable x_1:

S_1 (x_1, ..., x_n) & S_2 (x_1, ...x_n) & ..... & S_1 (x_1, ... x_n). Prefixing an existential quantifier, we obtain the Ramsey-sentence for FP:

($\exists x_1$ ..... x_n) [S_1 (x_1,....., x_n) & S_2 (x_1, ...x_n) & ..... & S_1 (x_1, ...x_n). The Ramsey-sentence says that there exists a set of entities x_1, ...,.x_n which exhibit just those relations which the states named by the term m_1, ..., m_n exhibit. It is possible to obtain from the Ramsey sentence an explicit definition of any mental state term m_1. Lewis has thus, shown how to obtain an <u>explicit</u> definition of any mental state term m_1, from the collected platitudes; in other words, he has shown how we can treat our everyday talk about mental states as a term introducing theory of mind.

These platitudes express the <u>causal relationships</u> between bodily damage and pain; between pain and states of acute distress; and between pain and a certain sort of behaviour (nursing the afflicted body part). Using "m_1" for "pain" and "m_2" for "acute distress", we can write the conjunction of P1 to

P3 (Bodily damage causes pain; people who are in pain are in distress; people who are in pain nurse the afflicted part) as:

$$S_1 (m_1) \& S_2 (m_1 \& m_2) \& S_3 (m_1)$$

Now, replacing m_1 and m_2 with free variables x_1 and x_2, respectively, we obtain:

$$S_1 (x_1) \& S_2 (x_1, x_2) \& S_3 (x_1).$$

Prefixing an existential quantifiers we obtain the Ramsey-sentence for our theory:

$$(\exists x_1, x_2) [S_1(x_1) \& S_2 (x_1, x_2) \& S_3 (x_1)].$$

From the Ramsey-sentence, we can obtain an explicit definition of say,m_1.

m_1 (i.e., pain) = the unique x_1 such that x_1 is caused by bodily damage,

causes acute distress, and causes the nursing of the afflicted body part.

Lewis is primarily concerned with those platitudes which detail "the causal relations of mental states, sensory stimuli, and motor responses." Lewis interprets FP as a *functionalist* theory; that is, as a theory which identifies mental states in terms of their causal-functional relations. Some times the terms “theory-theory” and “functionalism” are used interchangeably. Although attractive, Lewis's position plays hostage to

fortune. For it is an open question whether the theory implicit in our everyday platitudes about mental states really is a strictly functionalist one. Indeed it is an open question whether our everyday talk about mental states is sufficiently systematic to support Lewis's- Ramsey- sentence approach.

Moreover, there is a largely empirical question to be raised about FP (external). For even if we accept that our everyday talk about mental states implicitly constitutes a theory of mind, it remains to be determined if that theory is *true* Stich says that may be future research in psychology or neuroscience will establish that FP (external) is false. And if FP (external) is false, it follows that there are no such thing as beliefs and desires, pains, hungers and tickles.

According to the TT (internal), our capacity for mentalization crucially involves an internally represented theory of mind: FP (internal). This view holds that predicting and explaining human behaviour is related to predicting and explaining the movements of the heavenly bodies using Newton's mechanics. This analogy emphasizes the central place given to theorizing on the TT model.

There are four important issues to emphasize:

1. Internal theory-theorists need not be committed to any particular theory of mental representation. In particular, they need not be committed to the language of thought hypothesis. Stich claims that FP

(internal) may be represented in the language of thought, or by a distributed connectionist network, to which it is compatible, or by some other means like a Theory of Mental Mechanism[4]. This raises the important question of the sufficient conditions for possession of an internally represented theory.

2. It is also important to note that internal theory-theorists need not be committed to the claim that FP (internal) is learned the way that we learn, say, physics or chemistry. It is here that the analogy with Newtonian mechanics breaks down. Some internalist theory theorists have argued that FP (internal) is largely learned (Gopnik & Wellman 1992; Gopnik & Melzoff, 1997)[5]. According to Gopnik & Andrew Meltzoff, the young child develops a theory of human behaviour in much the same way that a scientist develops a scientific theory. This hypothesis has been called the "child as little scientist" position, although Gopnik and Meltzoff prefer the label "scientist as big child".[6]

Fodor and Carruthers argue that FP (internal) is largely innate, or at least that we are born with a mechanism dedicated to its acquisition. Some internalist theory-theorists argue that our capacity to mentalize is a product of natural selection, and evolution can be integrated with PAT. In the debate about linguistic nativism, the poverty of stimulus arguments have played an important role. Linguistic nativists have

argued that the child's linguistic environment is too informationally impoverished to account for the acquisition of language and so genetic inheritance must play a role. Similarly, a poverty of stimulus argument can be advanced in the case of FP (internal).

3. The internalist version of the theory- theory raises an important issue in psycho-pathology. Developmental psychologists have developed tests for young children's capacity to mentalize. People with autism perform badly on those tests, even when the studies take into account IQ and mental age. This shows that people with autism either lack FP (internal), or lack the ability to make full use of FP (internal).

4. The empirical investigation of FP (internal) has largely been conducted within the field of social psychology. Social psychologists have emphasized the role played by the attribution of character traits and behavioural dispositions, and then impact of appearance on such attributions. For example, individuals who are judged to be baby-faced are typically assumed to lack physical strength, social status and intellectual astuteness (Von Eckardt)[7].

The debate between simulation theorists and internal theory-theorists has both conceptual and empirical dimensions. An important empirical issue concerns the kinds of errors to which mentalizing is prone. An important conceptual issue concerns the potential "collapse" of simulation theory into

internal TT. This debate is driven by the issue of the sufficient conditions for possession of an internally represented theory. On some accounts of theory representation, simulation theory turns out to involve possession of an internally represented theory of human behaviour, thus threatening to collapse simulation theory into the theory- theory (internal).

Thus, Stich has identified two distinct senses of FP. What is the relationship between the theories to which those terms refer? FP (internal) is partly inaccessible to consciousness, and that FP (external) is an articulation of that fragment of FP (internal) which is available to conscious reflection. It follows that our everyday talk about the mind is only a rough guide to FP (internal). This view is contested today by Bermudez.

Finally, the TT is true on both its internalist and its externalist readings. But if ST is true, our capacity to mentalize is not underpinned by FP (internal) and so the theory-theory (internal) is false. Note, though, that the TT (external) could remain true even if the internalist version were false: ST is compatible with the idea that our everyday talk about mental states implicitly, constitutes a theory of mind.

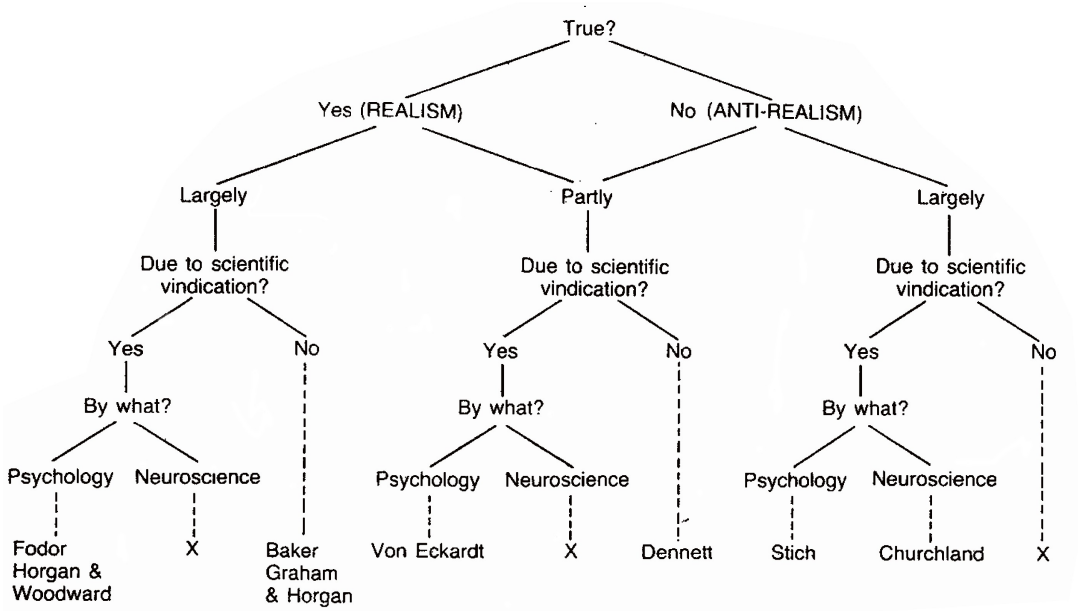


Figure 1

The map shows the different schools of thinking that are prevalent today[8]. The legend reads:

Folk-psychological Realism holds that,

(1) there is a fact of the matter about beliefs.

Folk psychological Anti-Realism holds that,

(2) there is no fact of the matter about belief.

In other words:

(1) holds that there is something in the world that corresponds to belief.

or

beliefs exist (ontology)

or

believers exist/intentional objects exist.

(2) denies all the above and holds that beliefs are myths.

(1) finds it difficult to explain the nature and the ontological states of belief, how to attribute beliefs to one's own mental states or to others.

(2) finds it difficult to deny that there is any intentional states and finds equally problematic about the scientific states of belief. It holds that 'belief does not play role in the best and most sophisticated theories.

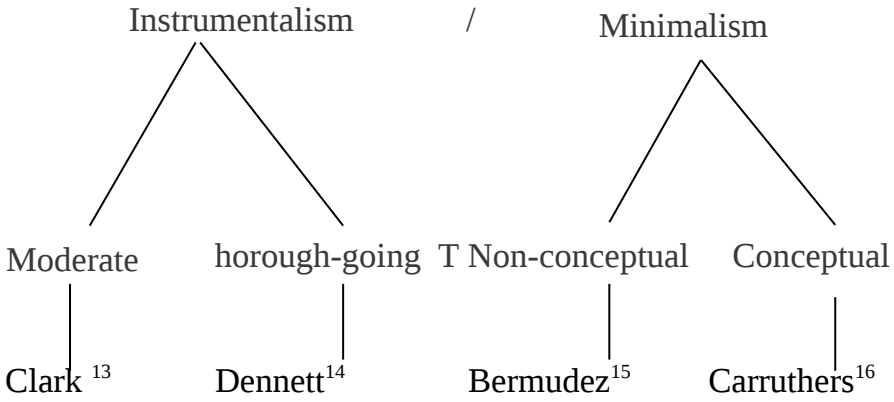
The debate is raging and controversies remain at the forefront of cognitive science.

(1) Eliminative Materialism(EM, hereafter): Eliminativists deny the existence of specific types of mental states like beliefs and desires. Its roots can be found in the writings of Wilfred Sellars, Quine, Paul Feyerabend and Richard Rorty[9]. EM is concerned not only with the metaphysics of the mind, but also the process of theory change, the status of semantic properties, the nature of psychological explanation and recent developments in cognitive science. In his (1981) classic article, Churchland presents several arguments to eliminate commonsense psychology. Patricia Churchlands (1986) suggests that developments in neuroscience point to a bleak future for commonsense mental states[11]. Stephen Stich, in his important (1983) book, From FP to Cognitive Science: The Case Against Belief, argues that even conventional computational psychology- which is often assumed to

vindicate commonsense psychology should reject taxonomies for cognitive states that correspond with belief-desire psychology, including Freudian account of psychopathology[12].

(2) Neutralists (Minimalists): They appear either in the form of instrumentalism or minimalism.

We can extend the map roughly as follows:



(3) Theory – theory (Mind-reading): Those who defend the TT maintain that people have a rich body of mentally represented information about the mind, and that this information plays a central role in guiding the mental mechanisms that generate our attributions, predictions and explanations.

(4) Simulationism: Simulationism claims that human beings are able to predict and explain each other's actions by using the resources of their own minds to simulate the psychological etiology of the actions of

others. Accordingly, human beings are not theorizers, but simulators. For them, we understand others by using our own mentation in a process of simulation.

According to Churchland, FP, like astrology, phlogistic chemistry, and Aristotelian Kinematics, provides a clear cut example of a "stagnant or degenerating program" (Lakatos). Attempts to refine and extend it reveal that "it suffers explanatory failures on an epic scale"[17] (Churchland,1981). The argument may be summarized as follows:

1. Beliefs, wants, images, and the like belong to a folk theory.

2. This folk theory seems bound to be replaced by better theories.

3. These better theories are likely to omit reference to beliefs, wants, and images.

4. There are no intentional entities, like beliefs, wants or images.

Conclusion: The mature cognitive science will not smoothly isomorphic with every day folk terminology.

According to the everyday understanding of the mind (FP), people's belief and desire causally combine to determine their intention, which in turn controls their action. However, recent empirical investigations have shown that there is a potential gap between FP and the scientific view of the mind. The scientific view wants to displace or falsify the folk theory. Eliminativists

bemoan the explanatory failures and limitations of FP, and maintain that these shortcomings indicate that mature science will be quite at odds with FP. Their proposal is that what is displaced is folk. They hold that despite the self-evidence, it is a hopelessly misconceived theory. A proposition specifying content follows:

Mental states (m) have content (p)

Propositional Attitude Sentence has syntax but no semantics. The question is how to analyse these? How to give truth-values? Unless we know how to change these propositional attitudes to numerical attitudes, FP has no prospects.

A. **smooth reduction**: x has mass (folk predicate in physics) = x has mass kg of n (property which is stated in numbers).

df: this is complex prediction, but determinate, then we can quantify over numbers. But we cannot quantify over propositional attitudes, because we cannot quantify over propositions. Churchland analyzes the propositional attitudes in the following way:

B. **'bumpy' reduction**: I believe that p (p is not a singular term but a sentence). But such laws involve quantification over propositions (so a 'bumpy' reduction results). We cannot quantify over propositions or sentences.

e.g.; (x) (p) [(x fears that p) > (x desires that ~ p)] 'p' is a propositional quantifier i.e., quantifier over propositions. 'x' is the numerical quantifier is a sentence operator. Since 'P' is not an object, there is no objectional quantification. 'P' is not a property. Therefore, there is no substitutional quantification. So, Churchland argues that FP has no content.

But, if it is to become a complex, determination predicate we can allow FP. Then, we can quantify without knowing the nature of objects.

1.2. Eliminativist Band-Wagon:

Eliminative materialism has two major forms. The first is propagated by P.M. Churchland and the second is due to Stephen Stich. Churchland's eliminativism is termed as 'Elimination Now' while those of Stich's is known as 'Elimination in Prospects' (due to P. Carruthers)[18] because it is developed as a Panglossian Project.

Churchland argues that matured sciences are in a secure condition to eliminate FP while Stich holds that future researchers will reveal some aids to eliminate FP. Unlike Churchland, Stich takes eliminativism in the direction of deconstruction: eliminativism is a species of 'deconstructionism'. It is proposed to argue that Stich joins the bandwagon, even while he has differences with Churchland, some of the differences can be captured by the following chart.

	Churchland	Stich
1.	FP should be reduced to mature Neuroscience (no one-to-one match)	distrust in the progress of science (heuristics)
2.	against sentential account of theory (connectionist)	connectionism is compatible.
3.	FP, as a theory is false	epistemic problems of reference needs to be addressed
4.	Scientific naturalism	micro-practices of society
5.	inter-theoretic reduction	culturally determined.

And he sticks to the project through out. On this, opinions differ:

Argument 1: Against Sentential Kinematics (not sentence-crunching, but number-crunching): Churchland dismisses the theoretical side of FP by attacking its sentential kinematics. He holds that they do not constitute the basic kinematics and dynamics of human and animal cognition.

Churchland views that the basic kinematics of cognitive activity does not consist of sentences but consists of vectors. Corresponding to the representation and computation, we have (a) vector cording (b) vector transformation which occur in vector state resulting in state - space. They are high-dimensional activation vectors. Giving evidence from neuroscience, he argues that mind is not sentence-crunching(symbolicist) but number-crunching (imagist/connectionist). They are rival paradigms because they posit different cognitive architectures. The connectionist has micro-features

and hence generate a prima facie case for understanding the architecture of the brain. His arguments are multi-pronged, where he passes from Pragmatic Realism to Neural Realism.

In its classical form, FP dealt with 'raw feels' 'qualia' which is the content of our experience or in its modern form, 'intentional' or 'propositional attitude' with corresponding ontologies. Qualia are experiential properties of mental states or the phenomenal experience. The state is what it is to be state of myself. It is connected with the following problems: The semantics of mental predicates, action theory, problem of causal exclusion, the problem of other minds, the intentionality of mental states, the nature of introspection and the mind-body problem.

Argument 2: The Explanatory Impotency of FP: According to Church-land, FP fails to explain in detail many of the psychological phenomena, e.g.; mental illness, creativity, intelligence difference among individuals, the nature and function of sleep and dreams, our perceptual illusions and the nature of learning processes. And he argues that a true theory should not have such shortcomings. This argument from explanatory poverty wants to avoid the mysterious character of FP.

Churchland maintains that since FP has no adequate set of concepts, it suffers from conceptual inertia. FP is therefore, a sterile theory.

Argument 3: The Stagnation of FP: It is unproductive and stagnant for the last two thousand years and it has not succeeded to explain any of our mental phenomena. Churchland says, “the story of FP is one of retreat, infertility, and decadence." Agreeing with Imre Lakatos, he maintains that FP is a stagnant or degenerating research programme.

Argument 4: **Impossibility of a smooth Inter-Theoretic Reduction:** Like identity theorists, Churchland also believes in the reduction of the mental to the physical (brain). But in case of FP, eliminativists doubt that a nice one-to-one match ups between the concept of FP and theoretical neuro-science will occur.

Churchland holds that our commonsense psychological framework is a false and radically misleading conception of the causes of human behaviour and the nature of cognitive activity. It is not only an incomplete representation of our inner nature but also is an outright misrepresentation of our internal states and activities.

To prove his point, Churchland presents three scanarios. The first two counter Chomsky's assumptions about innate structure called theory-theory and the third is a thought-experiment.

Scenario 1: Our brain indeed contains innate structures, but those structures have their primary function in perceptual organization.

What follows from this is that the language is just an additional function and incidental.

Scenario 2: The underlying structures of our cognitive activities outstrip that of natural language capacities:

Churchland's earlier stand was to argue that cognitive science provides an alternative system – i.e., language-like system, but it is to be called 'Ubersetzonal' (surveyable) attitudes, which contain no truth and no entailment relations. Now, he is ready to give up this former stand. With this denial, along with affirmation of truth and entailment, there is little doubt that he will favour a view, according to which, compositional states are language like syntactical states (quasi-sentential). These quasi-sentential states are gradually forced on him. He is, therefore, inclined to admit the plurality of FP.

Scenario 3: If our intra-brain communication between two hemispheres takes place, why not inter-brain communication between different cognitive systems takes place naturally? In what way language a stumbling-block to this must be told as an accompaniment of the language-oriented theories of interpretation. It is the semantics that requires an expulsion if the above question is answered in the negative.

Argument 5: (Identity or non-identity?): As an eliminativist per se, Churchland's main supposition may be understood as one about the non-

identity (it is a judgement on the identity form of the judgement) as demonstrated by the following mode of presentation.

1. The properties of my brain states are known by the various external senses as having such and such physical properties.

2. The qualia of my sensations are not known by the various external senses, as having such and such physical properties.

3. Therefore, the qualia of my sensation ≠ the properties of my brain states.

Churchland wants to refute the above argument:

(1) Fa

(2) ~ Fb

(3) Therefore, Fa ≠ Fb.

Churchland concludes that such an argument is valid but proves non-identity. On the other hand, if you make (2) as true, then the argument becomes invalid but identity is preserved. So, what the argument proves is: neither identity nor non-identity can be proved. Again, in response to Putam's critique (1988)[19] of eliminativism, Churchland is ready to modify his anti-realism and present it in the form of pragmatic realism.

Argument 6: The Error-Theoretic Case: So also, if FP is not a theory, it cannot be false.

It is false.

FP is a theory, (but an unsuccessful one).

After all, FP can be falsified. The upshot is to prove that eliminativists are not to be regarded as eliminating so long as they are indulged in revisionary motives, accepting the impossibility of one-to-one translation from one state (mental) to another state (brain). Churchland does not agree that there is a final theory in the sense of FIRST PHILOSOPHY and accepts plurality of theories, in the way Stich does.

Argument 7 : The Reductio Argument:Eliminativists are against beliefs. But they have belief in this attitude. What kind of belief? Why this belief survives eliminativist enterprise? This is case for reductio which anti-eliminativists use against eliminativists. This has to be met. Does Churchland meet it? Churchland clarifies that the above argument involves additional assumptions about a theory of meaning and much depends on how this is understood. The only existing option is to modify the assumption of meaning or reference, since we have no acceptable theory of meaning or reference at present. Once this is transformed the above reductio will be proved to have no formal impact. Thus, the case against eliminativists cannot

be proceeded against. This position is roughly similar to Stich, though the argument advanced by the latter has a different structure.

Stich's 'Panglossian Project' exercises the eliminativist option from an epistemological angle. Stich views that it is likely that once we learn about the real underlying process of cognition, then folk psychological categories, particularly belief, cannot be empirically defended. Stich was tempted by the following argument from Quine: "Since cognitive science does not invoke the language or concepts of FP, the states of FP are not among the entities over which it quantifies. So these putative steps do not exist."[20]

Argument 1: The Compatibility Argument: The first argument focuses on the structure of the cognitive processes and mechanisms portrayed by FP. Such structures of cognition, as the arguments go, are incompatible with the structures posited in one or another putatively promising scientific paradigm. The major argument here was originally put forward by Ramsey, Stich and Garon (1990)[21], in what is called a 'Stichian forecast of the doom of FP.'

Their main argument is the connectionist networks do not contain anything corresponding to beliefs, because beliefs are functionally discrete, whereas the information contained in a connectionist network is holistically distributed throughout the network. So if our brains are connectionist networks, they do not contain any beliefs. Stich argues, along with Ramsey and Gordon that:

(1) FP is committed to the claim that propositional attitudes like belief and desire are functionally discrete, semantically interpretable states that play a causal role in the production of other propositional attitudes (this is what Stich calls at the propositional modularity).

(2) There are no such states in connectionist modelling of our cognitive system.

(3) Connectionist models are correct in their modelling.

(4) The propositional attitudes posited by FP do not exist.

(5) Folks are not theoretically committed to any common mechanisms that underlies grasp and exercise of the concept.

(6) Propositional attitudes are no threat to FP.

According to Stich, if (5) and (6) embody a correct view then, the argument put forward by Ramsey, Gordon and Garon (1991)[22] cannot even get started. Moreover if (5) is correct then,

(7) The connectionist models could not be incompatible with FP.

Stich closes this review by commenting that the way whether connectionist models pose a threat to FP or not, is an empirical matter to decide, and it is not to be disposed in an *a priori* way.

Argument 2: The Error-Theoretic Argument: Stich presents less complicated argument while citing the psychological evidences that go against the rejection of FP. This works against the elimination in the following way. Eliminativists claim that there are no such things as beliefs, and desires because the FP that posits them, is a radically false theory. But, for Gordon and Goldman, the theory which posits a tacitly known FP is itself radically false. This is what is called a theory about a theory (or simply theory-theory). Now, since theory-theory is false, there is no FP. The argument can be turned against by holding that since there is no theory, it cannot be radically false. If FP makes no claims, it makes no false claims. This means that targeting a non-existent theory gets us nowhere. Hence, the critique against FP, inaugurated by eliminativists, will turn out to be false. On Stich's view, eliminativists can aim a theory only if either it is an internally posited system consisting of rules or it is just like a connectionist model which does not map propositions on one another. Otherwise, eliminativism can become compatible with an externalist (as opposed to the internalist which posits a cognitive mechanism, an externalist locates it in the external environment) account of epistemology and a connectionist account of neural system which maps propositions with one another. Given the psychological evidence that goes against any wholesale rejection of FP, FP cannot be totally rejected.

Argument 3: The Ontological Claim: If eliminativists make a stronger ontological claim like the one given below:

(1) Commonsense psychology makes any false claims about beliefs and desires.

(2) There are no such things as beliefs and desires (ontological thesis)

(3) Therefore, true believers do not exist.

Then, the only way one can pass from (1) to (2) is to trivialize it as in (3). Stich views it as a maddening version of eliminativism (pan-eliminativism) and clearly a false theory (Stich, 1992). Stich's attack is three-pronged[22];

I[st] Major Step: case against belief (deducting or attributing) is a separatable component from inferential mechanism and hence a purely syntactic theory of representation (syntacticism). It counter poses his syntacticism against a strong as well as a weak Representational Theory of Mind.

II[nd] Major Step: The case against Epistemology (Traditional as well as Analytical varieties): The key is that the epistemic status of belief requires sameness or difference of content. No content → No FP& Syntactic content → FP is reduced to science. Content yields pluralism.

III[rd] Major Step : Chary of Pluralism:(first sub-thesis of deconstruction). Against this: deconstruct the deconstruction :(second sub-thesis).

I + II + III yields what is called Epistemic pragmatism as an alternative. What Stich says on the semantics of propositional attitudes is extremely challenging. His overall argument has its exclusive focus on the semantics or intentional properties of mental states. According to Stich, some of these arguments are 'fairly fussy' and 'technical'. They exploit at least three key notions, namely, supervenience, individuation, and holism all of which we shall review later. The fussiness is due to the fact that philosophers have no theory of content. This is sufficient to doom for FP.

1.3. F.P as a Philosophical Project : Fodor (Symbolicist Model)

The Language of Thought Hypothesis (LOTH) is proposed as an empirical thesis about thought and thinking[23]. It claims to vindicate FP as scientific cognitive psychology. LOTH is presented as a naturalistic attempt. It represents the classicist model of propositional attitude psychology with a classic architecture that obeys systematicity, productivity, inferential coherence in its twin functions of representation and computation. It is the conjunction of the following three main theses:

(A) Representational Theory of Mind (RTM):

Thesis (1) Representational Theory of Thought tokens assert that for any subject S, any propositional attitude relation A toward any proposition P, S has A that P IF AND ONLY IF there is a relation R and a mental representation # P # such that

(a) S bear R to # P # (syntax)

(b) # P # means that P (semantics)

Thesis (2) Representational Theory of Thinking holds that mental processes, thinking in particular consist of causal sequences of tokenings of mental representations.

(B) Mental representations, which as per (A1), constitute the direct "objects" of prepositional attitudes, belong to a representational or symbolic *system* which is such that**:**

Thesis (1) asserts that representations of the system have a combinatorial syntax and semantics: structurally complex (molecular) representations are systematically built up out of structurally simple (atomic) constituents, and the semantic content of a molecular representation is a function of the semantic content of its atomic constituents together with its syntactic/formal structure; ‘syntax mirrors semantics’ (syntax-semantics parallelism by dint of translational adequacy); and

Thesis (2) holds that the operations on representations (constituting, as per (A2), the domain of mental processes, thinking) are causally sensitive to the syntactic/formal structure of representations defined by this combinatorial syntax.

Thesis (3) enjoins the modularity hypothesis; that is, a mind may be composed of seperate innate structures which have established evolutionarily developed functional purposes, just like Chomskey's notion of an underlying "language acquisition device" structure in the brain[24]. This device is postulated to be autonomous and specialized for learning language rapidly.

Thesis (4) stipulates that modules have the following properties namely that they are domain specific (operate only on certain kinds of input), informationally encapsulated (no reference to other modules), mandatory, fast, shallow output, limited accessibility, regularity of development, and fixed neural architecture.

(C) Functionalist Materialism:

Thesis (1) holds that mental representations are functionally characterizable entities that are realized by the physical properties of the subject and the realizing properties are presumably the neuro-physiological properties in the brain (architectural assumption). The relation R in (A1), when RTM is combined with (B), becomes a computational, functional relation. The idea is that each, attitude is identified with a characteristic

computational/functional role played by the mental sentence that is the direct object of that kind of attitude. For instance, what makes a certain mental sentence an occurrent belief might be that it is characteristically the output of perceptual output systems and input to an inferential system that interacts decision - theoretically with desires to produce further sentences or actions. (Belief sentences are accessible only to certain sorts of computational operations suitable for beliefs, but not to others; similarly, desire sentences are characterized by a different set of operations).[25]

Thesis (2) asserts that LOT is sometimes called *Mentalese* because tokens of mental representations have a syntactically and semantically organized constituent structure, having its own syntax and semantics.

Thesis (3) holds that LOTH has explanatory advantages because the postulated LOT has a constituent structure with an interpretation. Thus LOTH is called the Computational/Representational theory of Mind or thought.

Thesis (4) enjoins that contrary to the orthodox view that takes the belief relation as a dyadic relation between an agent and a proposition, LOTH takes it to be a triadic relation among an agent, a Mentalese symbol, and a proposition. The Mentalese sentence can then be said to have the proposition as its semantic/intentional content. It is only in this indirect/derivative sense, we can say that what is believed is a proposition. This triadic view seems to have an advantage over the orthodox view in which it is a puzzle in the dyadic

view how what are thought to be purely physical organisms can stand in direct relation to abstract objects like propositions in such a way as to influence their causal powers. According to the folk, it is because those states have the propositional content they do that they have the causal powers they do.

[A] + [B] + [C] entail the status of LOTH in *some sort of a protoscience.* Fodor defended it on the ground that it was assumed by our best scientific theories or models in cognitive psychology and psycholinguistics. Against B (compositionality requirement):

p_1 : cognitive representation is systematic.

p_2 : systematicity of representation is an automatic consequence of language-like representation.

p_3 : systematicity of representation is not a free parameter in the theory of mental representation.

p_4 : the systematicity of mental representation is not guaranteed by the basic architecture of connectionist theory, though in any particular case, it can be wired in by hand.

C : connectionist models offer no explanation of the systematicity of cognitive representation.

There is a curious argument (called ‘implementational challenge’) within the connectionist classicist debate (as given by Fodor, Pylyshyn, 1988)[26] which exploits that the connectionist model is structureless which is presented as a dilemma:-

Many writers on connectionism emphasize that distributed representation does not give you an invariant, context-independent represetnation. How ‘coffee’ is represented will depend on at least

a) the representation coded in the network;

b) the initial weights on the connection between nodes in the network;

c) its particular learning history.

Similarly, the network called NETTALK (due to Sejnowski and Rosenberg, 1988[27]) is <u>a family</u> of networks that have

Inscription (in put) $\rightarrow$ phonological representation (output)
$\downarrow$ $\downarrow$
Vowels and constants $\rightarrow$ sound (pronunciation)

Smolensky makes a similar point[28]:

“If you want to talk about the connectionist representation of ‘coffee’ in this distributed scheme you have to talk about a <u>family of distributed activity patterns</u>. What knits together all these particular representation of ‘coffee’ is nothing other than a “family resemblance” (emphasis added).

Assuming that (B) is satisfied, then, the above dilemma is stated as follows:-

1. if it does, connectionist models are merely implementation of LOT architecture (not radically different).

2. if it does not, connectionism is empirically false (systematic productivity compositionally inferential coherence).

3. ∴ connectionism is either true as implementing or empirically false as a theory of structure.

Clark finesses this into a distinction between semantically transparent/opaque system thus[29]:

(1) Symbolicist: semantically transparent system (STS).

(2) Microfunctionalism (substructure): the internal functional profile of the system is a vast, flexible structural variability that warrants symbolic flexibility so as to be called semantically opaque systems. Smolensky calls it 'subsymbolic' paradigm. Clark is avowedly speaking from a dynamicist point of view.

As Clark tells us, in the subsymbolic paradigm, cognition is not modelled by the manipulation of machine states that neatly match (or stand for) our daily symbolic descriptions of mental states and processes. Rather, these high-level descriptions (Smolensky cites, goal, concepts, knowledge,

perception, beliefs, schemata, inferences, actions) turn out to be useful labels that bear only approximate relations to the underlying computational structure. This is because work in the subsymbolic (distributed connectionist) paradigm aims to do justice to the "real data on human intelligent performance," i.e. to clinical and experimental results, while settling for merely emergent approximations to our high level descriptive categories.

The essential difference between the 'subsymbolic' and the 'symbolic', that is the symbolicist and the connectionist by implication, as Smolensky points it, concerns the question:

Are the semantically interpretable entities the very same objects as those governed by the rules of computational manifestations that define the system?

In the symbolic paradigm, the answer is yes. The subsymbolic theorist urges that the entities need not share the semantics of task descriptions. Clark quotes the passage from Smolensky:

In the symbolic approach, symbols (atoms) are used to denote the semantically interpretable entities (concepts). These same symbols are the objects governed by symbolic manipulations in the rules which define the system. The entities which are capable of being semantically interpreted are also the entities governed by the formal laws that define the system. In the subsymbolic paradigm, this is no longer fine.

Clark concludes saying that the claim, in effect, is that PDP (Parallel - Data Processing) systems need not (and typically will not) be semantically transparent. Clark elaborates further: there need not be an all-or-nothing divide between the semantically transparent processing of the conscious rule-interprets and semantically opaque processing of the intuitive processor.

Clark develops a lemma, that he calls the lemma of unstructured representations and formulates the case of Pylyshyn - Fodor-Argument:

Thought is systematic;

So, internal representations are structural;

Connectionist models posit unstructured representation;

So connectionist accounts are inadequate as distinctive cognitive models.

Seen in conjunction with his own instrumentalist handling, it will give rise to a certain priority to other-ascription in FP. This is the point that is important in the present context. Instrumentalism is the view that the conceptual framework of FP is just a convenient tool for imposing order on observable behaviour rather than a description of genuinely existing entities.

The instrumentalistic response arises out of reflection on the received distinction between narrow and wide content.

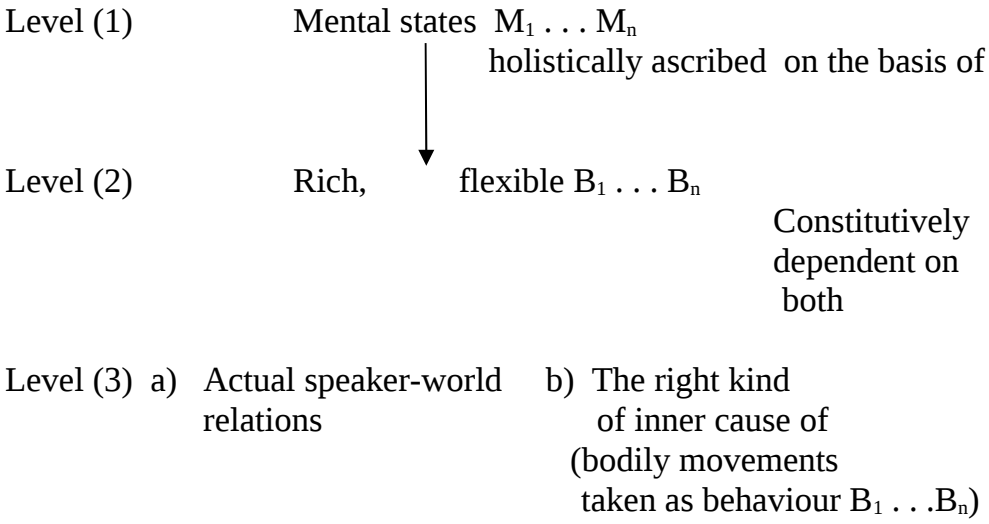
1. Narrow content is defined as the way we ascribe belief states from the solipsistic study that determine bodily moments.

2. Wide/broad content is defined as the way we ascribe mental content (belief, desire, fear, hope etc.) by appeal to the broad, world-involving notions of content.

(1) according to Clark, carves reality at joints differently from (2); that is, there is every reason to believe that semantic, world-involving accounts will carve nature at the way it manifests in the external behaviour.

If this involves holism, the way one can appropriate ascriptive holism is by throwing a kind of interpretative net over the whole body of behaviour. The internal structure must be conceptually related to the very possibility of rich flexible actual and counter-factual behaviours required for the ascription of mental states. That is to say, an internal structure is deeply implicated in the rich flexible behaviour, which warrants simultaneously ascribing a whole host of mental states to the subject. This does not require any neat boundary - preserving mapping between each of the holistically ascribed mental states and scientific stores about the inner causes of the bodily movements involve.

In short, after rejecting the picture of some neat, boundary preserving mapping between common-sense mental states M_1 ... M_n and narrowly specified scientific states S_1 ... S_n. And instead, Clark adopts the following schema:



We must not that the relation between levels (1) and (2) is holistic. We are warranted in ascribing groups of mental states on the basis of overall behaviour. The relation between (3b) and (1) is far from a neat, boundary respecting isomorphism. Such isomorphism is sabotaged by both the role of (3a) and the holistic nature of the relation between (1) and (2). This simply demonstrates in my opinion the priority of the other-ascription to self-ascription.

In a more or less similar vein, Dennett's thorough-going instrumentalism (Bermudez)[30] also uses intentional stance only for the purpose of other-ascriptions. Dennett posits: (1) physical stance; (2) design stance; (3) intentional stance; to which one can add the <u>fourth</u> namely the <u>mimetic</u> stance. For, Dennett adds a 'mimetic' stance which enables him to analyze belief from a mimetic point of view[31] (meme: cultural artifact). Dennett is called thorough-going because he makes a distinction between two

levels, the sub-personal and personal level, as sharp as possible as to allow personal level representational states to be causally efficacious. He achieves this through what he calls ‘reverse engineering’ which is nothing but ‘retrospective’ explanation.

1.4. Carruthers (Folk Psychological Realism): Massive modularity

Peter Carruthers argues that the mind has been shaped by natural selection and that the result of that shaping process is a modular mental architecture. All his arguments are empirical in nature, based on evidence offered by biologists, neuroscientists, psychologists, and researchers in artificial intelligence[32].

For Carruthers, the mind consists largely of evolved modules - is the claim of 'massive modularity' which has been proposed and argued for in recent decades by evolutionary psychologists. Evolutionary psychology is a broad church (somewhat like utilitarianism), embracing a variety of different theoretical claims and approaches. According to Lakatos, evolutionary psychology is best seen as a *research program*, not a fixed body of theory.

For Fodor, modules are stipulated to be domain-specific innately specified processing systems, with their own proprietory transducers, and delivering 'shallow' (non-conceptual) outputs; they are held to be mandatory in their operation, swift in their processing, encapsulated from and inaccessible to the rest of cognition, associated with particular neural

structures, liable to specific and characteristic patterns of break down, and to develop according to a paced and distinctively arranged sequence of growth.

But, Carruther considers the module in its weakest and loosest every-day sense and it means something like 'isolable functional sub-component.' Thus, a company organized in modular fashion has separate units which operate independently and perform distinct functions.

Carruthers: (Phenomenal Experience). Phenomenal consciousness is the kind of conscious mental state which is like something to have, which has a distinctive subjective feel or phenomenology (henceforth p-consciousness). In this also, there is a distinction. Rosenthal, Dretske, Block, Lycan[32] etc. agree to distinguish *creature* consciousness from *mental-state* consciousness.

The major distinction is between p-consciousness and various functionally definable notions, such as Block's access consciousness, on the other. Most theorists believe that there are mental states - such as occurrent thoughts or judgments which are conscious, but which are not p-conscious. Carruthers says that occurrent propositional thoughts are conscious by being tokened in imaged natural language sentences, which will them possess phenomenal properties.

The term "phenomenally-conscious" can be understood as either just *phenomenal*, i.e., having a qualitative character or more strongly, having *conscious* qualitative character (‘feel’) in that the subject is aware of that

phenomenal property. Michael Tye[33] means the former only and Carruthers means the latter.

In "Natural Theories of Consciousness", Carruthers describes a model that he claims will show the "hard problem" to be not so hard after all. The model contains the following elements and stipulations:

(1) First order representations (FORs) - brain events that track properties of physical objects.

   a) Neither these events nor anything they cause has non-relational properties corresponding to phenomenal properties of experience.

   b) For bodily sensations, the tracked properties are properties of our own body parts.

   c) FORs are analogous.

   d) FORs causally contribute to behaviour appropriate to the tracked properties.

(2) Higher-order representations (HORs; in particular, higher order thoughts, or HOTs) - brain events that track first-order representations.

   a) HOTs are not analogous.

b. HOTs contribute to making the appearance reality distinction, e.g., to judgments about a thing's seeming red while known not to really be red.

Carruthers and Qualia Realists (Qualia states are real states) agree that what is provided under (1) is not sufficient for phenomenal consciousness. Qualia realists want to add particular occurrances of phenomenal consciousness that literally resemble and differ in non-relational ways.

The core idea in phenomenal consciousness in Carruthers's model is that the relevant HOTs are ones that apply recognitional concepts.

Carruthers's account of folk psychological realism replaces Fodor's modularity thesis with massive modularity and thence forward takes it in the direction of moderately massive modularity introducing 'flexibility' on the way so as to partly 'eliminate' introspection. Carruthers's paradigm mind-reading as prior to metacognition obtains it in such a way as to start from the other ascription. On the whole, he develops a self-model of mental activity (cycle of inner speech rehearsal).

Carruthers's main thesis is directly derived from the three ways of accounting for the relation between third-person mind-reading and first-person metacognition.

1) self-model theory of mental action: mind reading (third-personal) depends on introspection (I^{st} model, Carruthers's).

2) assent routine : metacognition depends on third-personal mind reading (2^{nd} model, Goldman's).

3) eclectic model : mind reading and meta cognition are independent capacities (Stephen - Nichols model).

4) mind-reading is outwardly focused or other-directed.

5) introspection (mind's model of its own access) is a by-product.

6) the Cartesian step: mind's own access to itself is innate/transparent.

7) descent routine step: it is not innate/transparent.

∴ 8) self attribution is interpretational (confabulatory)

Mind's own access to itself is transparent is radically false. We have no subjectively accessible reasons for believing in introspection. Agonality of innatism is due to the agonality of inner speech (occurs in cycles in parallel system 1) before they become narrative in system 2 issuing in a set of propositional attitudes. This results in partial eliminativism of conscious propositional attitudes.

Carruthers's Minimalism[34] can meet instrumentalism half-way just as Clark's minimal rationalism is willing to take us beyond eliminativism. Carruthers can overcome the asymmetry between self-ascription and other-ascription by having a recourse to eliminativism of conscious propositional

attitudes in a partial sense. Minimal rationalism thus becomes a tool for interpersonal cognition. Let us have an interim review before we pass on.

While Fodor follows a causal co-variance semantics (invariant connection between stimulus and response) which ultimately yields a 'slightly less crude form' of a classical theory of representation, which involves some sort of isomorphism between syntax and semantics; the instrumentalists (moderate as well as thorough-going) have recourse to use a theory of other ascriptions. For the specific purpose to meet the 'implementation challenge' meted out by Fodor and Pylyshyn[35]. So it is surmised that they do not assign priority for self-model (self-ascription). Fodor however attacks only the 'computationally tractable' clause even under massive modularity case which is sought after by Carruthers. Bermudez on the other hand, meets all the above clauses head-on by refusing to distinguish between two-levels, namely, the personal and sub-personal and makes content common to both levels.

Bermudez's Minimalism[36] FP identifies the skills underlying social behaviour and social co-ordination on the basis of conceptual content of one's phenomenology which we shall review when we wind up the discussion.

We can take the controversy further as between Theory-Theory and Simulationism. The overview is stated as follows: The most widely accepted view about the cognitive mechanism underlying mind reading is that people have a rich body of mentally represented information about the mind, and that

this information plays a central role in guiding the mental mechanisms that generate our attributions, predictions and explanations. The defenders of this view maintain that the information exploited in mind-reading has much the same structure as a scientific theory, and that it is acquired, stored and used in much the same way that other commonsense and scientific theories are. Although originally proposed by philosophers, this view is now endorsed by the empirical researchers, especially developmental psychologists and cognitive anthropologists and is known by the label "the theory-theory" (due to Morton). Others argue that much of information utilized in mind reading is innate and is stored in mental "modules" where it can only interact in very limited ways with the information stored in other components of the mind. Since modularity theorists and theory-theorists agree that mind reading depends on a rich body of information about how the mind works, will use the term *information-rich theories* as a label for both of them. These theories suggest another way to specify the theory that fixes the meaning of mental state terms – it is the theory (or body of information) that underlies mind-reading. We'll call this the *mind-reading account* of FP.

The "simulation" theory, introduced by Robert M. Gordon and Jane Heal and further developed by Alvin Goldman[37], Paul Harris and others, is usually, though not always, taken to present a serious challenges to the very assumption that a theory underlies every day psychological competence. According to this account, human beings are able to use the resources of their

own minds to simulate the psychological etiology of the behaviour of others, typically by making decisions within a "pretend" context. Gordon argues that human competence in predicting and explaining behavior depends chiefly on a capacity for mental simulation, particularly for decision-making within a pretend context. And the simulated practical reasoning would work as a device for predicting one's own behavior in hypothetical situations and, with the aid of 'hypothetico-practical' reasoning, for predicting the actual behavior of others .

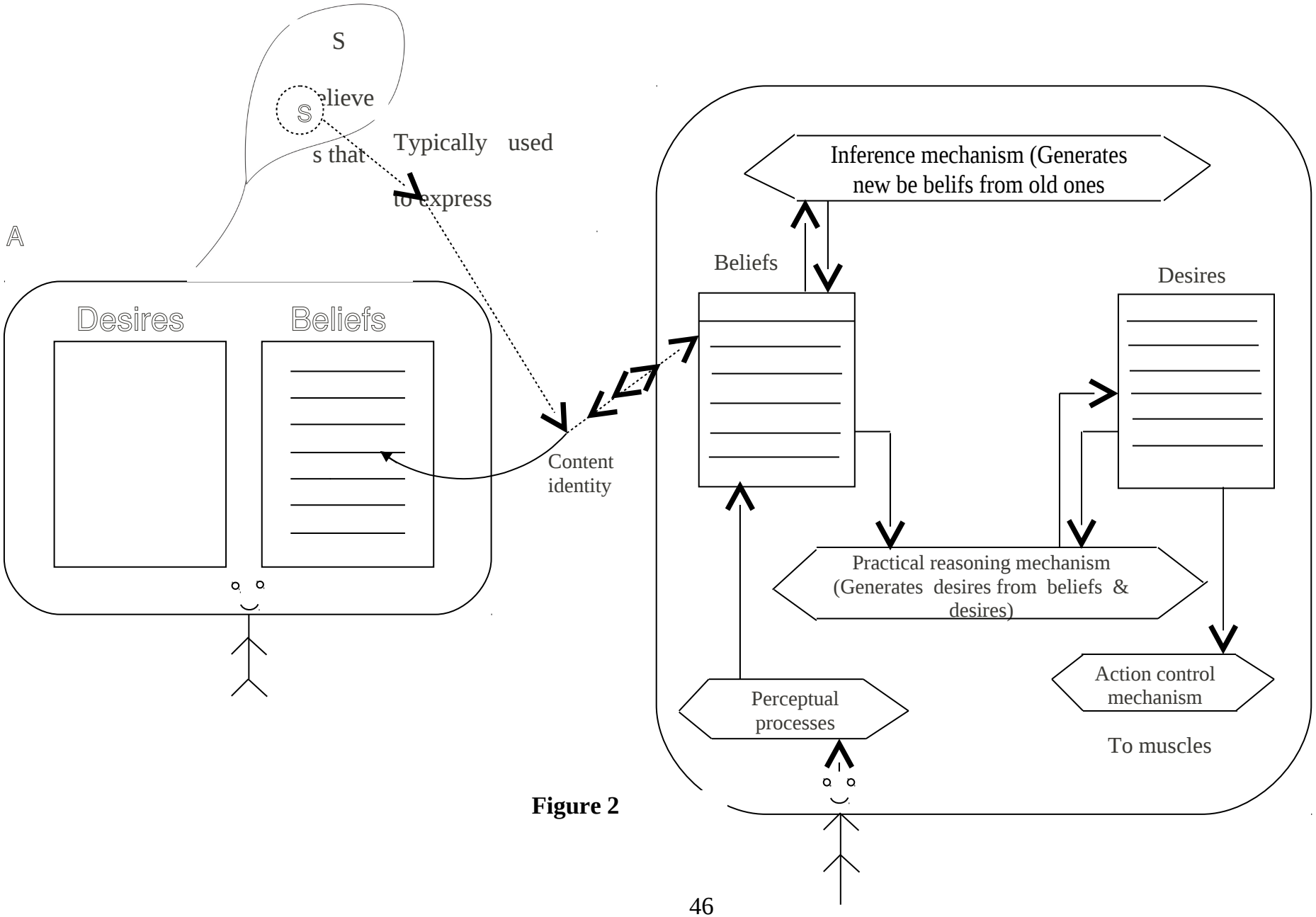
Unlike the 'Theory' Theory (TT), which holds that a common-sense psychological theory, a 'FP', underlies human competence in explaining and predicting behaviour and implicitly defines our concepts of the various mental states, simulation theory does not use a psychological theory in predicting a target's behaviour. But rather, one pretends to have the mental states of the target and then runs one's own decision making mechanisms "off-line" using these pretend inputs. The resulting decision is then used to predict what the target will do.

'Putting oneself in the other's place' would pose a problem for simulationism. Because, we often explain and predict another's behaviour without putting ourselves in the other's place. So it would follow that we often explain and predict another's behaviour without simulating the other.

The problem is how then could human competence in predicting and explaining behaviour depend chiefly on a capacity for simulation?

Debiting an idea from the theory- theory, simulationists respond to this. TT typically extends the notion of having and using a theory, to allow *unconscious* theorizing, where the theorizer is unaware of applying or even having the theory. Likewise, ST may extend the notion of putting oneself in another's place, by allowing it to go on unconsciously. Also, TT may further extend the notion of having and using a theory to include a kind of information processing in the brain, a computational operation on quantified sentences in a so-called language of thought. ST may hypothesize that when I put myself in another's place at least, when I do so *successfully* or *correctly* my own brain actually begins to function like the other's brain, to resemble it *functionally* and perhaps c*omputationally*, at least up to a point. Again, such functional simulation may conceivably go on even when it wouldn't be correct to say that *I am doing* it, even unconsciously.

Here is the fundamental problem with equating simulating another with putting oneself in the other's place. 'Put yourself in her place' presupposes that you are not already in her 'place'. You are being asked to make imaginative adjustments for relevant *differences* between her situation and psychology, and your own: for example, differences in upbringing, education, social role, values, temperament, or epistemic situation.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to express
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Inference mechanism (Generates
new be belifs from old ones
Beliefs
Desires
Practical reasoning mechanism
(Generates desires from beliefs &
desires)
Action control
mechanism
Perceptual
processes
To muscles

Figure 2

Here is a quick sketch of how the process might work. Suppose that you want to predict what the target will decide to do about some important matter. The target's mind, we'll assume, will make the decision by utilizing a decision making or "practical reasoning" system which takes his relevant beliefs and desires as input and comes up with a decision about what to do. The lighter lines in figure are a sketch of the sort of cognitive architecture that might underlie the normal process of decision making. Suppose further that in this offline mode your mind can provide your decision making system with some hypothetical or "pretend" beliefs and desires- beliefs and desires that you may not actually have but that the target does. Your mind could then simply sit back and let your decision making system generate a decision. If your decision making system is similar to the target's, and if the hypothetical beliefs and desires that you've fed into the off-line system are close to the ones that the target has, then the decision that your decision making system generates will be similar or identical to the one that the target's decision making system will produce. If that off-line decision is now sent on to the part of your mind that generates predictions about what other people will do, you will predict that that's the decision the target will make, and there is a good chance that your prediction will be correct. According to simulation theorists, all of this happens with little or no conscious awareness on your part. Here, the process does not utilize any theory or rich body of information about how the decision making system works. Rather, you have simply used

your own decision making system to simulate the decision that the target will actually make. The darklines in figure sketch the sort of cognitive architecture that might underlie this kind of simulation based prediction[38].

The process we just described takes the decision making system offline and uses simulation to predict decisions. But much the same sort of process might be used to take the inference mechanism or other components of the mind off-line, and thus to make predictions about other sorts of mental processes. Some of the more enthusiastic defenders of simulation theory have suggested that all mind reading skills could be accomplished by something like this process of simulation, and thus that we need not suppose folk psychological theory plays any important role in mind reading. If this is right, then both functionalism and eliminativism are in trouble. We shall see how Stich's 'coordination'(information-rich theory that is based on both 'deflecting' and 'reasoning') is not adequate to meet the rival paradigm even with an abstract Syntactic Theory of Mind (without semantics).

1.5. Folk Psychology :The Challenge from Minimal Instrumentalism

The question here: does ersatz FP require social understanding ? To answer these question, let us begin with that there are two distinct conceptions of the domain of folk psychology – the narrow and the broad construals. Narrow construal holds that "the domain of folk psychology should not be presumed to extend further than those occasions on which we explicity and

consciously deploy the concepts of folk psychology in the services of explanation and/or prediction." According to the broad construal, all social understanding is a matter of the attribution of mental states and the distribution of those attributed states to explain and predict behavior.

The broad construal of folk psychology dominates in contemporary philosophy of mind rather than narrow. Because, the philosophy of mind distinguishes between two ways of understanding behavior. We can understand behavior either in intentional terms or in non-intentional terms.

The folk psychological construal of social understanding is connected with the dominant understanding of the 'springs of action.' Our actions are in virtue of our beliefs and desires and understand the 'in virtue of' to be causal in nature. Bermudez says, "to the extent, then, that the activities of social co-ordination are thinking activities, the folk psychological construal seems to follow immediately."[39]

We treat persons in a fundamentally different manner from the way that we treat non-persons. This distinctive way of treating persons is related to the distinctive explanation which is appropriate for the behavior of persons and no appropriate to other parts of the animate world. And to treat persons as persons we should explain their behavior in terms of the broadly normative concepts of folk psychology.

The narrow and broad construal of the domain of folk psychology has

a tie-up with the theory-theory and simulationist conceptions of folk psychology. Likewise, we can understand the TT and simulationist conceptions either in broad or narrow terms, although, they are understood in broad terms.

Those who advocate the TT opine that there is an application of a tacitly known network of principles connecting mental states to each other and to behavior in the folk psychological understanding. At the same time, simulationists think that we explain and predict the behavior of other agents by projecting ourselves into the situation of the person whose behavior is to be explained/predicted and then using our own mind as a model of theirs. This involves running our own decision making processes off-line taking as inputs the mental states that it seems appropriate for the other person to have in that situation. Both the simulation theory and the theory-theory claim that social understanding proceeds essentially by the attribution of beliefs and desires.

The debate between simulationists and theory-theorists is orthogonal to the question of whether we should construct folk psychology in narrow or broad terms. The question of the domain of folk psychology is the question of whether we should make sense of our unreflective practices of social coordination in terms of simulationist and theory-theory accounts. The simulation theory is opposed to the broad construal of folk psychology. In the broad construct, social coordination would be supported by the off-line

simulations of the mental status and processes of other participants. But the simulation theory can equally be interpreted in narrow terms, "as applying only to the relatively infrequent occasions when we make an explicit effort to make sense out of someone's behavior."[40] The same holds of the theory-theory. Theory-theory can be applied broadly rather than narrowly.

Following are some reasons for accepting narrow rather than a broad conception of folk psychology.

(1) Considerations of cognitive architecture and the structure of the mind.

(2) Considerations of computational complexity.

The computational argument maintains that "the vast majority of our social interactions involve almost instantaneous adjustments to the behavior of others, whereas folk psychological explanation is a complicated and protracted business, whether it is understood according to the simulation theory or the theory-theory."[41]

According to the simulation theorists, the issues of computational tractability is in favour of the simulation theory. Facing the frame problem in computer science, the theory-theorists encounter some difficulties according to Jane Heal. Dennett says, "the frame problem is essentially the problem of determining which, among the myriad aspects and deductive consequences of a principle or of a belief, are relevant in a given situation."[42]

The computational worry is about the combinatorial explosion. Combinatorical explosion occurs when the situation in question involves several potentially collaborating individuals. Bermudez maintains that the key problem arises from the fact that the "application of folk psychological explanation to a multi-agent interaction will require a computationally intractable set of multiply embedded higher-order beliefs about beliefs."

Without assuming a theory, the simulation simply involves using one's own mind as a model of the minds of the other participants in the interaction. The idea of multiple simultaneous simulations faces some difficulties. The simultaneous simulations are interdependent. So adopting the broad construct, the simulation theory confronts problems of computational tractability.

Folk psychological reasoning is a paradigm of meta-representational thinking. Meta-representational thinking is the thinking about thoughts – taking thoughts as the objects of thought, attributing them to other subjects, evaluating their inferential connections with other thoughts, and so on. The meta-representational thinking is in some sense language-dependent. In meta-representational thinking thoughts are carried by linguistically Ex hypothesis, this social understanding cannot be involved the concepts and explanatory/predictive strategies of folk psychology.

Bermudez's challenges come in the form of ersatz FP with the

following question in mind:

How social understanding might be modelled on folk-psychological terms? Bermudez expounds the following definition[43]:

1) Folk psychology = df.(a) certain practices of ascribing prepositional attitudes(and other mental states)to other agents; and

(b) to explain and predict their behaviour on the basis of those attributions.

2) General form: folk psychology is a theory to subserve a model for social understanding;

3) Social co-ordination is modelled on folk psychology;

4) FP is currently our dominant tool for interpersonal cognition;

5) Modelling coordinative social understanding in folk psychological terms;

6) FP is a paradigm of meta -representational thinking(meta-representation is not as the main stay of our social understanding but as a last resort to which we tuen when normativity breaks down); meta representation is language-dependent, but not necessarily so (animal cognition).

6) is a ‘natural corollary’ to Sellarsian theory of mental ascription: it occurs only when people are ‘inscrutable’.

7. It is not the case that most of our social interaction can be modelled on FP;

8. Computational intractability: the application of folk psychological explanation to multi-agent interaction will require a computationally intractable set of multiply embedded higher-order beliefs about beliefs;

9. There will be multiple simultaneous simulations that are interdependent.

As a consequence, we have the two levels defined as:

10) Folk psychology → sub-personal;

Social psychology → personal (meta-representation);

11) Social world may be either transparent or opaque;

12) Social interaction is not based on ‘rule-as- rails’ policy

13) There are potential pay-offs and trade-offs;

14) So, the proper domain of FP entails that we are not ‘folk-psychologically blind’ to the above.

To substantiate this, Bermudez expounds two theses[44]:

(a) The Autonomy Thesis: It is possible for a creature to be in states with non-conceptual content, even though that creature possesses no concepts at all;

(b) The Priority Thesis: Conceptual abilities are not available to non-linguistic creatures.

The conclusion is stated as (1) held along with (2) yields that there is constitutive connection between concept-possession and language. This he calls an 'inherently unstable position' and so we side-step the autonomy thesis to allow non-linguistic representational states. This is called 'non-conceptual content', that remains a frontier area of research. This is also consistent with Marr's computational theory of vision (2.5 D sketch especially at zero-crossings where sudden changes in light intensity occurs). Marr's theory posts 3 stages as computational, algorithmic, and implementational stages. The first describes the light coming from the external object, the second includes an account of anatomical complexity of the eye, while the third is the realization in the 'wetware' of the brain. If what Marr says is to be believed, we can develop a minimalist account of content possession without granting the autonomy thesis. A crucial assumption plays a role here; it is stated as: no state could count as representational state unless it was possible for it to misrepresent the environment. What all it yields is that there is a requirement

for flexibility or plasticity because,

a) in the interaction between internal states and behaviour there do not exist law-like correlation between input and output.

b) there is an interactive complexity;

c) (a) and (b) account for certain flexibility and plasticity, as contended by the phenomenon of illusion (misrepresentation).

The fall-out of the above line of thinking is stated as:

(1) there must be pathways enabling a given representational state to connect up with other states, both representational and motivational. There must be cognitive integration of relevant states.

(2)the appropriate sort of flexibility requires being able to register that in certain respects there is a match in the environment as represented, although in other respects there is no such match, picking out what is common and what is different so that a suitable response can be determined by integrating the relevant match with previous experience and current motivational states.

From this, Bermudez lays down four criteria for mental representation[45]. They are:

1. They should serve to explain behaviour in situations where the connections between sensory input and behavioural output cannot be

plotted in a lawlike manner.

2. They should admit of cognitive integration.

3. They should be compositionally structured in such a way that their elements can be constituents of other representational states.

4. They should permit the possibility of misrepresentation.

If they are satisfied by the conceptual content, then they are objects of folk psychological propositional attitudes.

(1) - (4) are according to Bermudez are strong enough to understand the thorough-going instrumentalism discussed earlier. The following critique is in order against Stich. Stich's theory is explicitly designed to be content-free. Stich's theory as it stands is not really a suitable way of pressing a distinction between sub-personal computational states and genuinely content-bearing propositional attitudes, because his concern is to eliminate content from all areas of psychological explanation. If we want to use the syntactic theory to press a distinction between computational and thought we need something weaker. One plausbile candidate here would be a dual component theory of the form that Frances Egan (1992) thinks best describes Marr's theory of vision. The first part of such a theory is an independent and free-standing syntactic explanation of events at the subpersonal level. Such an explanation does not advert to any semantic features of those events. It treats cognitive processes as sets of formal operations defined over symbol

structures, where a symbol is understood as being individuated by a realisation function mapping equivalence classes of physical features onto computable symbolic features. Such a free-standing syntactic explanation is not itself intentional, but it does have intentional interpretations, and specifying an intended interpretation is the second task of the dual component theory. Here the theory appeals to an interpretation function specifying an isomorphism between the computable symbolic features given by the realization function and features of the represented domain.

It is not possible to individuate computational states without any reference to their semantic features. The analogy to language is clear-cut.

We can begin with an anology from the more familiar project of the radical interpretation of a completely unknown language. No radical interpreter could formulate hypotheses about the syntax of a completely unfamiliar language without at the same time forming hypotheses about its semantics. How one takes the words to fit together depends on what one takes the words to mean. The question of which syntactic category a word falls into, and hence the possibilities that it has for being combined with other words according to syntactic rules, is determined by semantic considerations. To take a very basic example, one has to determine at the very least that a word is referring expression before deciding that it falls into the category of nouns, and hence can be qualified by adjectives etc. It would be absurd in talking about natural languages to hold that a word is individuated by its syntactic

features, if syntactic features are taken to include membership of appropriate lexical categories, and the consequent rules indicating what combinations of words it can enter.

Of course, if a purely syntactic theory in the strong sense ever emerges then appeal to such states will be 'nugatory'.

Stich's claim that subpersonal computational states (which he terms subdoxastic states) 'are largely inferentially isolated from the large body of inferentially integrated beliefs to which a subject has access'[45], needs to be evaluated. Two points go against Stich about cognitive integration.

1. The first point is uncontroversial one that subpersonal computational states are to be inferentially cognitively integrated with proportional attitudes.

2. It depends upon a strong version of the modularity principle, and claims that each subpersonal information state falls into one of a set of dedicated cognitive modules which do not communicate with each other, and hence that subpersonal computational states are to be cognitively integrated with each other.

So we are not sure whether the revisionist challenge against eliminiativism can be met; if not, it is time to come to terms with it. This is what is unfolded in the entire thesis.

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CHAPTER II

FIRST MAJOR STEP: STICH'S CASE AGAINST BELIEF

2.1. Against Language and Representation: the plurality of theories

In the article "What Is a Theory of Mental Representation?" Stich tries to answer some questions such as: What question (or questions) is a theory of mental representation supposed to answer? And what would count as getting the answer right? Why do so many people want a theory of mental representation, what makes the project of producing such a theory seem so urgent.

Stich suggests that the quest for an adequate theory of mental representation is a vitally important one. For Fodor, it is an essential step in vindicating commonsense intentional psychology. And "if commonsense intentional psychology really were to collapse, that would be beyond comparison, the greatest catastrophe in the history of our species[1]." Similarly, Fred Dretske holds that without a suitably naturalistic theory of mental content we might ultimately have to "relinquish a conception of ourselves as human agents[2]."

For Stich, there are variety of answers to the question what a theory of mental representation is supposed to do. These projects divide into two

different families. These projects are intrinsically interdisciplinary projects in which the construction and testing of empirical theories play a central role. To make serious progress on these projects the sort of interdisciplinary work would be necessary, according to him.

The first family of project is to describe a commonsense concept of mental representation[3]. Identifying mental states by adverting to their content is an important feature of our everyday discourse about ourselves and other people. And this practice needs a mental mechanism which includes a store of largely tacit knowledge to characterize a mental state as the belief or the desire that P. This practice involves a concept of mental representation to describe that concept is the one important goal of a theory of mental content. To get the theory right is to give an accurate description of the concept, or the body of tacit knowledge, that underlies our quotidian practice[4].

The project of describing the conceptual structure underlying judgements about content has been pursued in philosophy and cognitive science. For example, generative linguistics holds that a speaker's linguistic judgements and practice are subserved by a substantial body of tacit grammatical knowledge and that the task of the linguist is to give an explicit account of what the speaker tacitly knows. Cognitive psychology also aims to explain the concepts and knowledge structures underlying various social and practical skills and to uncover the concepts and principles of "folk physics."

Eleanor Rosch criticized this approach along the lines of the traditional analysis. Rosch says, "the mental structures that underlie people's judgments when they classify items into categories do not exploit tacitly known necessary and sufficient conditions for category membership, or anything roughly equivalent[5]".

Stich asserts that there has been no systematic empirical study of intentional categories-categories like *believing that p*, or *desiring that q*. And the mental mechanism underlying intentional categorization may be the sort that can be defined with a set of necessary and sufficient conditions. This argument is inductive: "No commonsense concept that has been studied has turned out to be analyzable into a set of necessary and sufficient conditions[6]." The concepts or "knowledge structures" underlying intentional categorization are much more complex than those traditionally offered in philosophical analyses.

According to Stich, we have to abandon the traditional philosophical method (methodological individualism a la Fodor) to build a theory of mental representation.

(a) mental states are representational (a represents b)

(b) mental states are computational (logic-like)

(c) they are computational in the sense in which they are manipulations performed on representations (inferential activities)

Stich concludes that "if using the method of definition and counter-example is the hallmark of a philosophical theory in this area, and if the commonsense concept of mental representation is like every other concept that has been studied empirically[7]", then what job there is for a philosopher to do so. If the answer to this is not clear, then a philosopher has no means to fall back on a philosophical theory of content. So, the theory of mental representation tries to describe the concept or knowledge structure underlying people's ordinary judgements about the content of beliefs, desires and other intentional states. On Stich's view, the philosophers have to give up "doing philosophy (as traditionally conceived) and start doing cognitive science instead"[8].

The second family of project is to 'naturalize' the notion of mental representation. It suggests that the commonsense conception doesn't play any role in the theory of mental representation. The layman intuitions and tacit knowledge are treated as irrelevant in this account. Instead of the mental representation begins as part of the cognitive psychology of cognitive science. Robert Cummins, for example, in his book, Meaning and Mental Representation undertakes one such project. An explication of the

explanatory strategy of computational theories of cognition is an essential part of Cummin's project. Cummin's approach is given as:

First, determine what explanatory role representation plays in some particular representation invoking scientific theory or theoretical framework; then ask what representation has to be – how it is to be explicated – if it is to play that role[10]. But Cummins accepts other research traditions in cognitive science. These include orthodox computationalism, connectionism, neuroscience etc. So the question arises as to how to go about constructing a viable theory of representation and computation to subserve folk psychology.

The many such projects have the objective such as

(a) Folk psychology can be vindicated in some form of intentional realism.

(b) Folk psychology can be integrated into science so as to yield folk psychological realism (Carruthers)

(c) Folk psychology can be incorporated into scientific psychology (Clark, Dennett)

(d) Folk psychology can be eliminated (Churchland, Stich)

Stich also advocates the pluralistic picture. According to him, there will be lots of theories. There is no competition between these theories. These theories provide different notions of mental representation from different branches of cognitive science. Therefore, there will be a variety of

correct accounts of mental representation. He doesn't believe in a unique correct framework for theories in cognitive science Stich says, "there are lots of phenomena to explain, and lots of levels at which illuminating and scientifically respectable explanations can be given. Thus I am inclined to be a pluralist in this domain as well[11]". Stich's worry is that how to choose anyone theory as the best theory of representation. Stich remarks:

"There is not one project...but several. Those projects divide into two important families, though every within a single family, there are important differences to be noted"[12]. Just so. Fodor's is different from Cummin's. Cummin's is not like Dretske's theory of representations which is part of the endeavour to naturalize misrepresentation.

Stich expresses a skepticism. He says that the darker conclusion is that most players in this field have no coherent project. In short, one hardly knows what is a ' theory of' in a theory of mental representation. Fodor appears to be persisting in his theory of representation and as we later find, he becomes the chief target for Stich's attack.

In Stich's own Panglossian Project, the manifest image of mind is a live issue. This is true of contemporary cognitivism which makes no use of the folkpsychological notion (belief / desire) and its intentional kin. If the case against belief is a serious option then, the propositional attitude

I believe that p

Must be characterized as ‘uniformly false’.

I believe that p’ is false (Error Theory)

It is an open question whether it is false since to be false is one of the truth values. A more appropriate way seems to be

‘I believe that p’ is neither true nor false.

The question before us is that if deflationary theory of truth which upholds that truth is not a property then, we will be forced to agree that while the former represents an ‘error’ theory, according to which there is no fact of the matter about belief, the latter is open for a more thorough investigation. If you deny that it is ‘neither true nor false’ we will be back to a position in which we have to ascribe either one of the truth-values to the former statement. So, we are back once again to error theory or better in vicious circle.

Stich’s answer to the above question is that we can say that ‘a belief that p’ is identical with some syntactic state token, the converse which says

‘belief - like syntactic token’

can’t yield

‘a belief that p’

Assuming that the above work like a property, we reach a position that is held similar to the above by Fodor. Fodor calls this as a ‘modifier rapture’. This is quite analogous to

‘ a desire that p’

‘a hope that p’ etc...

The question what is property of believing that p to be identified is answered by saying that it is identical with some syntactic types. Thus the sentence

‘I believe that p’

is identical to some belief - like syntactic state - token while believing that p is a type. Stich contends that this will involve a correlation thesis. The correlation thesis advocates that they are ‘functionally identical’. Accordingly, mental states which behave in the same way must have the same content. But the correlation thesis is false.

In this context of STM (his alternative theory) Stich expounds a thesis and a converse thesis as a consequence of the rejection of the correlation thesis:

Thesis: It is possible for a pair of syntactic state tokens to share the same syntactic type even though one of those tokens would be a belief that p, while the other would not[13].

Converse thesis: It is possible for a pair of belief like syntactic state tokens both to count as belief that p in a given context even though the syntactic states in question are different in syntactic type[14].

It is only here Stich wants to split the problem about the same (or similarity) of content into three types, namely, ideological similarity, referential similarity, and causal pattern similarity. With these tools in hand, he mounts his attack on the predicate 'the belief that p'.

One may christen the character of folk psychology as involving

Mental State(s) has content p.

On Stich's view, the former should be read as

Mental state (the belief that p) have the same content p. For any theory of mental representation, the following presupposition must be true. The presupposition is that there is a correlation between an organism (knower) and the syntactic object. So the property 'the belief that p' must be ascribable to different organisms iff they have the same content. By virtue of this, they get the same truth-conditions. But, as Stich contents, this is pretty 'vague' and 'context-sensitive'. Hence this gives rise to not only problems of mental representations (tokens of the same type) but also other such similarities mentioned above.

The entire project of Stich in extending the case against belief (starting from a stance against theory-theory) may be captured in terms of his opposition to strong RTM as well as weak RTM while advocating his own alternative in the form of STM, which seeks a middle course between these two extremes.

This makes it convenient for Stich to set a front against Fodor who is understood to be an advocate of both extremes and hence he is inconsistent in his approach. Fodor according to this reading expounds two contradictory theses:

1) Stronung RTM: the generalization of cognitive science advert to content[15]

2) Weak RTM; the generalization of cognitive science do not advert to content[16].

Now, (1) and (2) are <u>prima facie</u> inconsistent.

The following gives a schema of his project, which is a variety of conceptual analysis

Strong RTM	STM	Weak RTM
takes tokens of syntactic objects (uninterpreted object).	tokens of a type abstract object types ↓ <u>only</u> formal relations between syntactic objects → can be mapped on to the	similar properties (content) syntactic tokens of the same type

neurological states

↓

agnostic about content
(neither content nor no content)

↓

eliminates middlemen

1. Cognitive dissimilarity entails cultural dissimilarity (referential dissimilarities are culturally determined).

2. Syntax-semantic interface (Fodor uses mirror metaphor).

3. Uninterpreted - interpreted (following (2)).

4. Cognitive differences entail cultural diversity (relatives)

2.2. Against the Strong and Weak Representational Theories of the Mind

Strong RTM - Folk pychological notion of belief plays a role

STM (Stich's) - Folk Psychological notions have no any role to play. No need to postulate semantic properties.

Weak RTM – Folk pychological notion of belief plays a role

The term cognitive science encompass much of the contemporary work on memory, language processing, reasoning, problem solving, decision making and higher perceptual processing.

What a cognitive theory would be like which made serious use of the language and concepts of folk psychology? There are two different answers to this question. The first Stich calls the Strong Representational Theory of the Mind and the other is the Weak Representational Theory of the Mind. In both these theories, folk psychological notion of belief plays a role. An alternative paradigm for these cognitive theories Stich proffers the Syntactic Theory of the Mind. The folk psychological concepts have no any role to play in the Syntactic Theory of the Mind. It doesn't need to postulate content or other semantic properties.

The Strong RTM is a model or a paradigm for cognitive theories. The generalizations of a Strong RTM theory enumerate the causal interactions of mental states by their contents. The theory claims that mental states are relations between organisms and content-ful or semantically interpreted mental sentences. Stich argues that the Strong RTM is a 'bad idea'.

Jerry Fodor is a staunch advocate of Strong RTM, He offers three features of cognitive generalizations couched in terms of content.

The first feature of Fodor's theory of mental representation is that "We were driven to functionalism . . . by the suspicion that there are empirical generalizations about mental states that can't be formulated in the vocabulary of neurological or physical theories…. But now if we think about what these generalizations are like, what is striking is that all of the candidates literally

all of them – are generalizations that apply to propositional attitudes in virtue of the content of the propositional attitudes[17]". We don't need the clever examples from linguistics or psychology to make this point; commonsense psychological etiologies will do. Fodor considers: a is F is a normal cause of believing *that a is* F; [statements that p are normally caused by beliefs that p; ..... and so on and on]. Fodor tells us that the point of such examples is not, of course, that any of them are likely to figure in a serious cognitive psychology. Fodor thinks that this kind of generalization can be systematized and made rigorous in serious cognitive psychology. He opines that we can't save these generalizations without appealing to the notion of the emphasis of a mental state. This is because these generalizations are precisely such as apply to mental states in virtue of their contents.

This passage asserts that "serious cognitive psychology" is founded on the hope that the empirical generalizations of commonsense psychology can be systematized and made rigorous.

The <u>second</u> feature is that the paradigm situation – the grist for the cognitivist's mill – is the one where propositional attitudes <u>interact causally</u> (emphasis) and do so in virtue of their content.

. . . If there are true, contingent counterfactuals which relate mental state tokens in virtue of their contents, that is presumably because there are

true, contingent generalizations which relate mental state types in virtue of their contents[18].

The passage indicates that the generalizations of commonsense psychology and thus also the generalizations of cognitive science will advert to the contents of mental states.

The third featue is that " There have been three strands to this discussion . . . : the idea that mental states are functionally defined; the idea that in order to specify the generalizations that mentalistic etiologies instantiate, we need to advert to the contents of mental states; and the idea that mental states are relations to mental representations, the latter being viewed as, inter alia, semantically interpreted objects[19].

This is the core idea which claims that cognitive science seeks (or ought to seek) "generalizations which relate mental state types in virtue of their contents" is what makes the strong RTM strong[20].

Now, Stich wants to show us that what makes the strong RTM representational. The basic idea is that the mental states postulated by both folk psychology and cognitive science are to be viewed as relations to some sort of representational entities. The strong RTM need not insist that the representations be sentences.

In a theoretical construction of commonsense generalizations two generalizations - low and higher level-are important.

1. Low level generalization (banal generalizations)

For all subjects S, if S desires to leave the building he is in, if the building is on fire and S comes to believe that the building is on fire then S will acquire a desire to leave the building he is in. This is what Ross calls 'belief perseverance[21].'

What is important here is that how beliefs of this general form interact with desires of this general form.

2. Higher Level (generalizations (form of the above)

(1) For all S, P and Q if S desires P if Q and S comes to believe that Q then S will come to desire P.

There are serious problems with generalizing low level of generalization in this way. Here, if the variables 'P' and 'Q' are supposed to range over. As the strong RTM reject, the representations as sentences, then higher level is 'literally incoherent.' And the variables must be replaced by the names of objects over which the variables range. This is formulated as follows:

If Tom desires ‘I leave the building I am in’ if ‘the building is on fire’ and Tom comes to believe that ‘the building is onfire’, then Tom will come to desire ‘I leave the building I am in.’

One way out of this nonsensical difficulty is to say that the variables ‘P’, ‘Q’ range over *propositions*. If so, then we have to accept the view that sentences (at least in belief and desire contexts) name propositions. In this case, one claim is that abstract entities (propositions) are related to psychological states and developing a semantic theory which claims that sentences in belief and desire contexts name propositions. Expressed in terms of the structure of the content sentences, this comes to like:

(1) For all subjects S, and all declarative sentences P and Q in our language, if

S has a desire which can be attributed by a sentence of the form.

‘S desires ‘p if q’

where ‘p’ is replaced by p and ‘q’ is replaced by q,

and if

S comes to have a belief which can be attributed by a sentence of the form

‘S believes that q’

where ‘q’ is replaced by q

then

S will come to have a desire which can be attributed by a sentence of the form

‘S desires p’

where ‘p’ is replaced by p.

Calling this structural approach a fussy and cumbersome way, Stich points out that “cognitive scientist who takes seriously the idea of discovering generalizations relating mental states “in virtue of their contents” must capture those generalizations by quantifying over the content sentences”[22].

To reject the strong RTM Stich shows that if we follow the strong RTM “we will miss significant and powerful generalizations and we will struggle with an endemic and often crippling vagueness.”[23] Rather he convinces us that the cognitive scientist must pay a very heavy price for adhering to the strong RTM.

Following are some prima facie reasons to be suspicious about the scientific utility of generalizations coached in terms of content.

(a) Similarity claim: There is an appeal to <u>similarity</u> involved in commonsense ascriptions of content. Thus, predicates of the form

'believes that P' are both vague and context-sensitive, rather like such predicates as 'looks like Abraham Lincoln[24].'

(b) Standard or examplar (our selves are the standards): That is belief that p = p are equivocated, and it is observer – relativity[25]. Another prima facie reason to be suspicious of the strong RTM generalizations is the role of ideological and reference similarity in individuating beliefs. Both impose a more fine-grained individuative scheme than the notions individuated on narrow causal lines.

Stich calls the third view as *Weak Representational Theory of the Mind* which is midway between the strong RTM and the STM. While weak RTM adopts the strong RTM's claim that mental states are relations between organisms and contentful or semantically interpreted mental sentences, it also adopts the STM view according to which, the generalizations of cognitive science will be purely formal in virtue of their syntax. The weak RTM agrees with the STM in viewing mental states as relations between organisms and syntactic objects. Unlike the STM, the weak RTM insists that these syntactic objects *must have content or semantic properties.* This doctrine has the stronger and weaker versions. According to the weak version, every token mental state has some content or some truth condition. Agreeing with weaker version that all mental state tokens have content or truth-conditions, the stronger version claims that these semantic features are correlated with the

syntactic type of the token. The stronger version claims that if a pair of mental state tokens are of the same syntactic type, then they must have the same content or truth conditions.

To support the correlation thesis, Fodor presents a pair of arguments.

1. The computational theory of the mind requires that two thoughts can be distinct in content only if they can be identified with relations to formally distinct representations[26].

2. That taxonomy in respect of content is compatible with the formality condition, plus or minus a bit, is perhaps the basic idea of modern cognitive theory".

According to Fodor, the functional properties of a system is not sufficient to determine the intentional (semantic) properties of the symbols manipulated. Fodor is inconsistent to hold the correlation thesis, because sometimes he rejects it. Stich ascribes that Fodor has fallen "victim to an endemic ambiguity" in both endorsing and rejecting the correlation thesis.

The folk ascriptions of content behave like multidimensional similarity judgements. Stich says, "one of the factors that is relevant to these folk ascriptions and judgements is the functional profile, or what we earlier called the narrow causal p*attern* of the state in question – i.e. its pattern of causal interactions with stimuli, behavior, and other mental states."[27] If mental states

are the tokens of syntactic types, the functional profile of a mental state is its formal or syntactic properties. Like other similarity judgements, content judgements exhibit a pronounced context sensitivity. A suitable content ascription in one conversational context may not be acceptable in another. These two facts show source of confusion.

A *minimal functional* reading of content ascriptions claims about content, a reading on which nonfunctional factors are systematically ignored. This reading holds that, the correlation thesis is tautologous. According to this reading, a pair of state tokens shares the same content is that they are suitably similar in their functional or syntactic properties and this content correlates with syntactic type. The *non-minimal* reading also claims about content on which non-functional factors like reference and ideological similarity are relevant. On this reading, the correlation thesis is false. According to Stich, when Fodor accepts both the correlation thesis and the strong RTM, he approves the content in minimal functional terms. But, when he is urging the weak RTM, puzzling over the "semanticity" of mental representations and denying the correlation thesis, he is construing content along non-minimal lines. Stich maintains, "though the equivocation between minimal and non-minimal readings of content talk is encouraged by the context sensitivity of our commonsense notion of content, I think it is clear that when he is most serious about the semanticity of mental states, Fodor must cleave to the full-blooded non-minimal reading[28].

Stich thinks that it is the STM that cognitive psychology presupposes. But for Fodor, cognitive psychology presupposes the weak RTM. As a defense of the weak RTM, Fodor offers the argument in his *The Language of Thought*. It follows:

1. The only psychological models of cognitive processes that seem even remotely plausible represent such processes as computational.

2. Computation presupposes a medium of computation: a representational system[29].

In these, the first argument shows that cognitive psychological theories construe mental processes as computations or symbol manipulations and its principles must be sensitive to the form or syntax of the symbolic structures involved in the computations. Fodor's second claim tells us that there is, "No representations, no computations[30]." Fodor insists that these "representations" are not simply uninterpreted syntactic objects. In his words, "such familiar semantic properties as truth and reference are exhibited by formulae in the representational system."[31]

But, in Stich's opinion, it is the Syntactic Theory of the Mind that cognitive psychology presupposes. He says, "what the weak RTM adds to the STM is the semanticity of mental sentences, and this, Fodor concedes, has played no role in the cognitive science literature"[32]. And, he continues,

"however, I want to note briefly one motive for requiring that mental sentences have content which should be rejected".

According to Pylyshyn, Fodor offers a pair of claims:

1) utterance-tokens are semantically interpreted[33].

2) we can explain why an internal state leads to an interpreted utterance only by interpreting the internal states itself[34].

Although Stich thinks that both of these claims are correct, they don't provide any serious support for the weak RTM. Based on this, Stich gives two arguments.

1. Although Fodor and Pylyshyn are surely right that much linguistic behaviour can be described in intentional or semantic terms, it is far from clear that cognitive psychology ought to aim at explaining this behaviour described in this way[35].

2. Even if it is necessary to "carry the intentional interpretation inward" in order to explain behaviour described in semantic terms, this does not justify requiring that all mental sentences be semantically interpreted, nor does it justify requiring that all tokens of the same mental sentence type have the same semantic interpretation[36].

2.3. The Triple Problems : targeting content similarity view

The core feature of content style mental sentence theories is the relation of content identity that links the belief state of the believer with the hypothetical or counterfactually characterized belief state of the attributor. First, Stich gave a definition of the content-identity relation along familiar analytic lines which involved seeking a set of necessary and sufficient conditions for content-identity, then testing the proposal against intuitions about cases. Stich argues, "if the proposed definition rules that a pare of beliefs are content-identical and intuition agrees or if the definition (along with the nest of our analysis) agrees with intuition in describing a given belief as the belief that P, than we have some evidence that our definition has captured our intuitive concept. If the definition departs from the dictates of intuition, then it must be reworked"[37]. So, he concludes that there are no necessary and sufficient conditions for the application of this intuitive concept.

For Stich, the relation "content-identity" is actually a similarity relation, one which admits of a gradation of degrees[38]. The content identity as a similarity relation is reinforced by the context dependence of many intuitions about how beliefs are appropriately described. The analogous similarity relations play a large role in the empirical study of the mental representation of concepts and the use of concepts in categorization. It is a

reaction to the traditional view that concepts are represented by definitions. Opposing the tradition the theories claim that a concept is represented by a set of features few if any of which are necessary. Stich maintains, "in deciding whether a given object falls under a concept, the theories claim that a subject performs a similarity match, determining the extent to which the features in his representation of the object coincide with the features in his representation of the concept"[39]. Here, the concepts are stored not as a set of features but, rather, as one or more stored prototypes or exemplars.

Stich examines the three features which are most salient in our mental characterization of beliefs:

The first feature assesses similarity of beliefs which is called ideological similarity. In the ideological similarity of a pair of beliefs, the beliefs are embedded in similar net works of belief. Thus, the ideological similarity measures the similarity of the doxastic neighborhood in which a given pair of belief states find themselves. In the causal pattern similarity, partial ideological similarity is often much more important than global ideological similarity. Belief states are compound entities so we have to assess the ideological similarity separately for the several concepts that composes a belief. And context can determine which concepts are salient in the situation.

The second feature is reference similarity. The key idea is that "a pair of beliefs count as reference similar if the terms the subjects use to express the beliefs are identical in reference[40]." The reference is determined by the set of statements involving the term that the speaker takes to be true. But recent work shows that other factors are involved in determining the reference of a term. A first prime candidate is the causal history of the use of the term, causal chain stretching back through the user's concept, through the concept of the person from whom he acquired the term, and so to the person or stuff denoted.

The third and the most central feature is functional or causal-pattern similarity. In Stich's own words, "A pair of belief states count as similar along this dimension if they have similar patterns of potential causal interaction with (actual or possible) stimuli, with other (actual or possible) mental states, and with (actual or possible) behavior. A strong causal-pattern similarity is the single standard for sameness of belief proposed by the narrow causal version of the mental sentence theory"[41]. There are global causal pattern similarity stressed by causal accounts and various dimensions along which a pair of belief status can be partially causal-pattern similar. For example, a pair of belief states may interact similarly with other beliefs in inference but not similar with stimuli. These beliefs are highly similar when the context primes for inferential connections but rather dissimilar when the context focuses interest on the connections between belief and perception.

Considering causal pattern similarity as the basic sort of similarity Stich suggests that we have to locate a pair of belief states which are passingly similar in causal pattern, then, when relevant, attend to other features in our representation of belief.

A second candidate is the use of the term in the speaker's linguistic community. Burge defends this. Accordingly, neither the causal nor the linguistic community story is free from problems, and neither is a paradigm of clarity. The reference similarity is defined by appeal to the expression of a belief in language, so this component of belief state similarity plays no roles in our judgements about the beliefs of animals or paralinguistic children.

Ideological similarity is defined as "a measure of the extent to which the beliefs are embedded in similar networks of belief."[42] It estimates the similarity of the doxastic neighbourhood in which a given pair of belief states find themselves. Belief states are compound entities. So ideological similarity can be understood separately for the several concepts that compose a belief. Stich maintains that the doxastic surroundings of the subject's belief grow increasingly unlike the doxastic surroundings of the belief and as the ideological similarity between the subject and ourselves diminishes, it becomes quite unclear whether or not the subject's belief can be characterized by the content sentence we would use to characterize the belief which a less ideologically exotic subject expresses with the same sentence. Stich asserts,

"this vagueness in the language of folk psychology makes it quite unclear whether or not the generalizations of a cognitive theory couched in terms of content can be applied to subjects whose beliefs differ significantly from our own.[43]" This vagueness is gradually resolved and becomes clear considering increasingly ideologically exotic cases. When the subject's doxastic network has been made quite radically different from our own in this domain, there simply is no sentence in our language that will serve as a content sentence in characterizing the subject's belief[44]. So there is what is called an 'ideological divide' between us. There is no way by which I can ascribe 'that p' clause to characterize his belief. This ideological divide causes way 'doxastic oddity' because of its vagueness. Stich concludes that the price for adopting the strong RTM is alarmingly high.

Like ideological similarity, reference similarity also plays a major role in determining what content sentence can be used in characterizing a belief. The basic idea is that a pair of beliefs count as reference similar if the terms the subjects use to express the beliefs are identical in reference. And, there are different and potentially competing factors contributing to our judgement about the reference of a term. So, Stich asserts that context may single out one or another of these for special emphasis in the assessment of belief state similarity and the cases of this sort of context sensitivity can be constructed. Burge discusses such case of referential oddity in his Twin Earth thought experiments[44].

For an illustration of the sort of vagueness referential similarity can introduce, I borrow, with a few changes, an example due to Burge. Burge asks that we imagine a society quite like our own in all respects save one. In the imagined society the word ‘ arthritis’ is applied not only to inflammations of the joints but also to various other ailments including inflammations of the long bones and surrounding tissue. This usage of ‘arthritis’ is well known to physicians, lexicographers, and other knowledgeable people in this society. However, many common folk in this society, as in our own, have only a rather hazy idea of the extension of ‘arthritis’. One -such-less-than-learned fellow, call him Bob, will be the protogonist in our tale. Bob has long suffered from painful inflammation of the joints, and his Physician has told him, “You have arthritis.” On a certain morning, Bob awakes with pains in the calves of his legs, and says to himself, “Drat, the arthritis is in my calves.” Now, as it happens, Bob is quite right; his diagnosis will later be confirmed by his physician. How Bob’s belief is to be described? Does Bob believe that he has arthritis in his calves? On Burge’s view, the answer is no; others have conflicting intuitions.” Stich thinks the best answer is that there is no answer. It is one of those many vague cases which folk psychology leaves unresolved. This example assumes a gradual

> modification to accommodate varying intuitions. For the strong RTM cognitive scientist, the problem resulting form vagueness traceable to reference similarity is much the same as the problem traceable to ideological similarity. The application of putative laws which generalize over content sentences, is, in these cases, *left indeterminate*. According to Stich, "to remove the indeterminacy, the cognitive scientist must adopt a taxonomy which is not sensitive to sociolinguistic setting or to the causal history of the terms the subject uses[45]".

The problem of causal similarity arises in the context of individuation of beliefs. More precisely, the problem is stated as follows: "In the case of the subject who is markedly causal-pattern dissimilar from us we do not expect to find causal generalizations applicable to both his cognitive states and our own"[46]. As in the case of ideological and reference similarity, increasingly exotic causal-patterns produce cases of vagueness. These cases of vagueness gradually evolve into cases where the descriptive resources of folk psychology are assessed beyond their limit. The problems of the strong RTM by increased causal pattern dissimilarity are not quite parallel to those posed by ideological and reference dissimilarity.

Piaget and his colleagues point that as children develop, the pattern of causal interactions among their cognitive states changes in a systematic way.

If the differences that divide us from the young child turn out to be quite radical ones, then developmental cognitive scientists rely on Strong RTM will find themselves constrained by the limitations of folk description. Thus, there is no comfortable folk characterization of belief states whose patterns of interaction with one another and with other cognitive states differ radically from the pattern manifested by our beliefs.

The upshot of all these three problems show that if we adopt a solution by adopting narrow causal lines which doesnot take into account the cognitive differences our cognitive theory will be in peril.

2.4. Critique of Theory-Theory

Stich's stance against belief (theory-theory) amalgamates many tools of analysis such as sentential kinematics, sentences in the head, holism, and the distinction between de re and de dicto ambiguity. Making use of the notions of sameness of content within what he calls a correct account of belief, Stich subjects to criticism both the functionalist account of mental state term as well as the 'mental sentence' view of sentence (sentences are in the head) along with a critique of the narrow causal version of the mental sentence theory.

We can see the overall analysis of propositional attitude sentence by classifying it into three types:

(1) Stich's: Propositional attitude-sentences depict a relation between an organism and the corresponding syntactic objects (external environment includes language).

(2) Quine's : Propositional attitude-sentences bringout the relation between the speaker and the objects of belief (proposition). (Propositions are mysterious or abstract entities).

(3) Propositional attitude-sentences are analysed in the model of one-place predicate, taking 'the belief that p' as the property.

Stich dwells on the difficulties of (3) which is also Quinean. While favouring (1) Quine suggests 3 answers[47].

1. First order predicate (property)

2. Two place predicate (relational)

3. Attitudinatives: x believes that Darwin erred : x believes that Darwin erred.

Stich takes 'belief that p' as an exemplar in 'standard'. The standard is prescribed by us ('I').

To believe that p is to be in a belief state similar to the one underlying our own sincere assertion of 'p'. There is, thus, a sort of *observer relativity* built into our folk notion, and a cognitive theory written in the folk language

of belief would inherit this observer relativity. There are two drawbacks to this. First and most obvious is the fact that different observers may differ substantially from one another, and when this happens they may be led to describe the subject's beliefs differently. Or, what is perhaps easier to illustrate, there may be cases in which one observer simply has no content sentence available to him which he can comfortably use to characterize the subject's belief. This last observation suggests another, and I think more serious, difficulty. Since the folk language of belief characterizes a subject's cognitive state by comparing it to our own, subjects who differ fairly radically from us will simply fall outside the reach of folk description altogether. Thus if our cognitive theory relies essentially on the content ascriptive vocabulary of folk psychology, these subjects will beyond its purview.

Following are four observations about implicit functional definitions:

1. Rylean behavioural analysis = If 'S is in pain' means 'S is disposed to behave in certain ways,' then, trivially, pain is a behavorial disposition[48].

2. Carnapian behavioural analysis = 'John believes that snow is white' can be analyzed as John is disposed to respond affirmatively to 'Snow is white' or some sentence which is L-equivalent to 'Snow is white.[49]'

3. Lewis's implicit functional definition of theoretical terms = the story the detective tells about X, Y and 2 would be essentially unchanged if,

instead of simply plunging into his narrative, he had prefaced his remarks by saying: "There exist three people whom I shall call 'X', 'Y', and 'Z'. The "theoretical terms" 'X', 'Y', and 'Z' in the story would then function as variable bound by an existential quantifier[50]. This has the other features as noted below:

a. An implicit functional definition of a set of terms is quite non-committal about various facts concerning the "theoretical entities" it introduces.

b. Implicit functional definitions remain silent about some of the theoretical entities denoted by theoretical terms. So it need a further elaboration.

c. Various kinds of relations may play a role in implicit functional definitions. In Lewis's story characters are described in terms of their conversations, their business relations, their spatial locations at certain times, and so forth.

4. Theory theory is an attempt to apply the idea of implicit functional definition in the philosophy of mind.

Commonsense mental terms gain their meaning just as 'X', 'Y', and 'Z' did in Lewis's detective story. They are "theoretical terms" embedded in a folk theory which provides an explanation of people's behaviour. The folk

theory hypothesizes the existence of a number of mental states and specifies some of the causal relations into which mental states enter – relations with other mental states, with environmental stimuli, and with behaviour.

Certain points have to be emphasized about the theory-theory account of the meaning of commonsense mental terms:

1. Step 1: M_1, M_2, …… (mental states) → S_1, S_2, …. (stimuli) → B_1, B_2, …… (behavioural manifestations)

   Step 2: Quantify (x)

   Other ways : (x) M_1, M_2, ….. → B_1, B_2, …..

   Ramsey's form: $(\exists m_1)(\exists m_2) \ldots (\exists m_k)$ x

   If the account is correct, then the ordinary use of mental state terms carries a commitment to the truth of our folk theory.

2. Theory-theory is ontologically non-committal. Mental states are characterized by the role they play in a complex causal network which explains behaviour.

3. This "topic neutrality"[50] is a singular virtue whether the fillers of the various causal roles are physical states, Cartesian mental states, or what have you.

4. It explains behaviour in terms of the causal relations among stimuli, hypothesized mental states, and behaviour in FP.

5. Theory-theory is committed to the narrow causal individuation of a mental states. Stich calls the accounts of causal individuation "narrow accounts[51]."

For Stich, narrow causal account is a 'fundamental mistake[52]' because it can't do justice to our folk psychological concept of belief.

Thus the theory-theory is a general account of the meaning of mental terms. They locate the theory-theory account to belief ascriptions he offers an illustration of pain like a toothache. There is a variety of differences between belief and pain ascriptions.

1. Pain has relatively strong and direct links to both environmental stimuli and to behaviour; the links between belief and stimuli or behaviour are much more tenuous.

2. FP specifies relatively few links between pains and other mental states; beliefs, by contrast bristle with causal links to other mental states (including other beliefs).

3. FP provides standard destinations for an endless variety of beliefs that no one has ever held.

4. Pain is not prima facie a relational notion; ‘has a toothache’ is a one-place predicate. But belief at least appears to be a relational notion.

There are some problems for the strategy of analyzing belief ascriptions in terms of intramental causal links. There are infinitely many inferences with a claim to being embedded in commonsense. And there are also infinitely many logically valid inferences which people neither draw nor expect others to draw. Stich asks, ‘which of these are we to take as part of the body of platitudes which define belief predicates[53]?’ And suspects that any answer to this will be ad-hoc and implausible.

For Stich, folk psychology = df. analysis of ascription of mental content.

This can systematically be transformed into

folk psychology = df. analysis of belief ascriptions in terms of intramental causal links.

So the problem for the intramental definition strategy emerges when we reflect on the motive for invoking the notions of typical cause and typical effect in theory-theoretic accounts. Folk psychology acknowledges that the causal regularities from which it is woven do not always obtain:

a) Sentential kinematics:

1) It presupposes some structure of scientific theory.

2) Sentential kinematics = df. it is defined as sentences, truth-values, a set of sentences, inferential relations.

Churchland is totally against sentential kinematics.

3) This leads to 'intra-linguistic catastrophe[54]', according to Stich. So Stich's confrontation with semantics is explainable in this light.

(b) Sentences in the Head:

On a close examination of the contents of the head, we can discover there a tiny blackboard on which English sentences are literally inscribed in chalk. Or we can discover a tiny television monitor or CRT with thousands of English sentences displayed on the screen.

According to Stich, even if we all have CRTS covered with sentence inside our heads, this is not sufficient to establish that beliefs are sentences in our head. At a bare minimum, the sentences on the screen would have to stand in some plausible correlation to what the owner of the head actually believes. Suppose, then, that the sentences found in my head are the right ones-that for every true sentence of the form Stich believes that P there is a token up of P on my internal CRT. Suppose, further, that the screen is regularly updated. When an elephant comes into view, a token of 'there is an

elephant in front of me' is added to the sentences on the screen, and when the elephant ambles away, the sentence disappears from the screen. This makes it much more plausible that these sentences could be identified as the objects of my beliefs. It requires something more. For suppose that the sentences on my CRT, while keeping an accurate record of what I believe, play no causal role in the dynamics of my mental and behavioral life. Surgically removing the screen has no effect on my behavior or on my stream of consciousness. Here, Stich thinks that we have to treat the sentences not as objects of belief but as some sort of epiphenomenona, a psychologically irrelevant causal product of my beliefs. But, if the sentences on my CRT played causal roles of our folk psychology, the situation would be different. Suppose, for example, that inference is causally dependent on what appears on the screen. Imagine that there is an "inference device" which scans the screen, causing new sentences to appear on the screen depending on what it has scanned. Thus, if the inference device scanned tokens of 'All Ialians love pasta,' and 'Sven is an Italian,' it would cause a token of 'Sven loves pasta' to appear on the screen To test whether the token on the screen was really causally involved in the inference process, we might obscure the bit of the screen displaying 'Sven is Italian' and seen if this breaks the causal chain, so that the inference device now does not cause 'Sven loves pasta' to be added to the display. Stich maintains that we have to imagine that the sentences on the internal CRT play

the right sort of causal role in practical reasoning and concludes that beliefs are relations between persons and internal sentences[55].

c) Holism:

Stich suggests that our intuitions about how a belief is to be described depend in part on the other beliefs the subject has. This dependency leads to intuitive distinctions that cannot be involved by a narrow causal theory. Stich says, "intuitive judgements about whether a subject's belief can be characterized in a given way and intuitive judgements about whether a pair of subjects have the same belief are often very sensitive not only to the potential causal interactions of the belief(s) in question but also to other beliefs that the subject(s) are assumed to have."[56] The content we ascribe to a belief depends holistically on the subject's entire network of related beliefs.

d) de re/ de dicto :

The failure of belief sentences to mirror the entailments of their content sentences deserves special note when the content sentence inference is of the following form:

Fa (e.g., Bart is a spy)

$$\frac{a = b \quad \text{e.g., Bart is the president of Yale)}}{Fb \quad \text{e.g., The president of Yale is a spy.)}}$$

If we embed the first premise in a belief sentence, we get the following inference:

S believes that Fa	(e.g., David believes that Bart is a spy)
a = b	(e.g., Bart is the president of Yale)
S believes that Fb	(e.g., David believes that the president of Yale is a spy)

And this latter inference is certainly not generally valid. However, a venerable tradition insists that there is a *sense* of 'believes that' on which the second inference is valid This (alleged) sense is called the *relational* or *de sense*, and referring expressions (like 'Bart' or 'the president of Yale) are said to occur *transparently* in the content sentences of *de re* belief sentences. In contrast, the sense of 'believes that' on which this last inference is not valid is labeled the *de dicto* sense, and referring expressions are said to occur *opaquely* in the content sentences of *de dicto belief sentences*. One of the less orthodox theses of this book is that the putative distinction between *de dicto* and *de re* belief sentences is a philosophers' myth, corresponding to nothing sanctioned by folk psychology[57].

2.5 Stich's Alternative Paradigm : A Syntactic Theory of the Mind (STM)

Stich claims that the STM provides a 'better paradigm'[58] for cognitive theorizing and the explanatory benefits of the strong RTM without its deficits.

Like the strong RTM, the STM is not itself a cognitive theory but, rather, a view about what cognitive theories are or ought to be. Not confident about the use of folk psychological notions in cognitive science, the STM does not advocate cognitive theories whose generalizations appeal to the notion of content.

Stich explains, "the basic idea of the STM is that the cognitive states whose interaction is responsible for behaviour can be systematically mapped to abstract syntactic object in such a way that causal interactions among cognitive states, as well as causal links with stimuli and behavioural events, can be described in terms of the syntactic properties and relations of the abstract objects to which the cognitive states are mapped[59]." Expanding the definition, we can say that in the STM causal relations among cognitive states mirror formal relations among syntactic objects. If it is so, cognitive state tokens are tokens of abstract syntactic objects and a category of particulars, not properties.

The formal structure of the STM cognitive theory has <u>three</u> parts. To formulate this, Stich defines language thus = df. an infinite class of syntactic objects (and no semantics).

a) given as one-place, two-place, three-place predicates.

b) a finite stock of individual constants.

c) quantifiers

d) truth-functional connectives

i) wffs: specifies a class of syntactic objects (types and not tokens)

ii) grammar: assign a formal or syntactic structure to each of these objects.

iii) functionalist clauses for B-state and D-state → behavioural events :-type tokens are causally mapped in the production of behaviour, given in terms of the following hypotheses.

(a) The state tokens are physical states of the brain and thus the properties are neurological properties.

(b) In this mapping, the order of quantifiers is important and so in different subjects, quite different neurological state types turn to a given syntactic object.

(c) The theorist asserts a single mapping from neurological states to the class of formal objects.

iv) It specifies the theory's generalizations. These generalizations specify causal relations between neurological states and behaviour.

(i) + (ii) + (iii) + (iv) → inter-theoretic relations. This converges with Churchland's claim about inter-theoretic reduction.

v) **Holism** : For typing mental tokens, these three strategies share a sort of holism. It is only against the background of a systematic mapping of state types to sentence types. Stich explains, "no one neurological state can count as a token of a sentence type unless many neurological states count as tokens of many different sentence types."[60] This holism is different from the folk psychological holism. And, the three strategies exhibit the inter-theoretic relations.

vi) Testing of the theory: In the *testing of syntactic theory*[61], there arises a question, how are these generalizations to confront behavioral data?

The two assumptions are:

1) An STM theorist delivers not only the intratheoretic generalizations but also the genralizations that tie stimuli to B and D states or that link the latter to behaviour[62].

2) In the experimental setting, the syntactic theorist will have to make a significant number of ad hoc assumptions about causal links between B- and D- states on the onehand, and stimuli and behaviour on the other[63].

By generalizing over the content sentences, the strong RTM theories take belief and other folk constructs seriously. The figure shows that "a subject's belief counts as the belief that p if it is content similar to the belief that would underlie *our own* normal assertion of 'p'. Content similarity, in turn, resolves into causal pattern similarity, ideological similarity, reference similarity, and perhaps some others. The virtue of STM theories is that they eliminate the middleman[64]. An STM theory is the simplest and most powerful account of the causal links among stimuli, mental states, and behaviour. Unlike the content-based theories, STM theories evade the similarities or dissimilarities between the subject and the theorist. By the elimination of the middleman, STM theories are competent to trait the cognitive states of a subject in terms of the subject rather than a comparison between the subject and ourselves.

Stich illustrates the above with some examples:

1) For a syntactic theory, ideological similarity poses no problem since the deficiency of the dependence between a B-state and the other B-states. Stich asserts, "A B-state will count as a token of wff if its potential causal links fit the pattern detailed in the theorist's generalizations, regardless of the further B-states the subject may have or lack."[65] Thus, Stich maintains that a cognitive science that adopts the STM paradigm can aspire to broadly applicable developmental,

clinical, and comparative theories, which are enigmatic for a content based theory due to its constraints of ideological similarity.

2) For an STM theory, the odd causal history of the concept poses no problem. The taxonomy of the STM theory is a narrow causal taxonomy which is not sensitive to those reference-fixing-relations that extend beyond the cognitive states, stimuli and behavior of the subject.

3) Considering children the problem is their ideological distance from us. But an STM theorist doesn't meet any special problems like causal or ideological distance Stich expands his idea, "to handle subjects whose basic cognitive processes differ from our own, the syntactic theorist may specify a distinct set of wffs (a different "mental language") and a distinct set of generalizations exploiting the syntactic structure of these wffs"[66]. An STM theorist seeks a diachronic or developmental generalizations which detail regularities in the sequence of mental languages cum-generalizations that characterize children as they mature.

Avoiding the content in cognitive generalizations, the STM side steps the difficulties that be-set the strong RTM. Stich develops a pair of arguments to buttress the case in favour of the STM. Both arguments are committed to what psychological theories should be like. The principles of methodological solipsism and the principle of autonomy are due to Jerry

Fodor and Stich respectively. These principles are very closely related and each clearly entails that cognitive psychology should not aspire to couch its generalizations in terms of content. Stich thinks that the argument to be developed for the autonomy principle is significantly more persuasive than the argument for methodological solipsism - (a term that was originally introduced by Putnam[67]. Stich argues that the principle of methodological individualism is 'thoroughly congenial to the STM'. It also entails the rejection of the strong RTM, because it relegates semantics. While the psychological states in the wide sense presuppose the existence of some other object or individual, the other do not presuppose existence of any individual other than the subject to whom the state is ascribed, pain is a natural example of a narrow psychological state. Methodological solipsism holds that psychology ought to be concerned exclusively with psychological states in the narrow sense).

Stich cites Fodor's defense of methodological solipsism as a research strategy in cognitive psychology, by calling mental states and processes as "computational." "Computational processes are both *symbolic* and *formal*. They are symbolic because they are defined over representations, and they are formed because they apply to representations in virtue of (roughly) their syntax[68]." Being syntactic is a way of not being semantic. "Formal operations are the ones which are specified without reference to such semantic properties of representations as truth, reference and meaning."[69] For Fodor,

methodological solipsism holds that *Cognitive psychology ought to restrict itself to postulating formal operations on mental states*. It ought not to postulate processes which apply top mental states in virtue of their semantic properties. Fodor's defense lacks perspicuity for the following reasons:

1. If a mental state has semantic properties, these are presumably fixed by one or more "organism/environment relations."[70]

2. Those psychologists who would flout the formality condition and reject methodological solipsism (Fodor calls them "naturalists") "propose to make science out of the organism/environment relations which (presumably) fix semantic properties."[71]

3. To do this the naturalist "would have to define generalizations over mental status on the one hand and environmental entities on the other."[72]

4. To define such generalizations, the naturalist must have some "canonical way of referring to the latter," and this way must make the generalizations "law-instantiating."[73] When the environmental entities are so described. That is, the characterization of the objects on the environmental side of organism/environment interaction must be "projectable" characterizations, which "express nomologically necessary properties" of the objects."[74]

5. To get such projectable or law-instantiating characterizations, we have to wait for timely developments in the science which studies that object.[75]

Reconstructing Fodor's argument, Stich rejects two steps i.e., (3) & (2). The first is step three, which claims that "to make science" out of those organism/environment relations which determine reference amounts to seeking *nomological generalizations* linking environmental entities and mental states." Stich views that "there is no necessity for those who would make science of the organism/environment interactions which underlie reference to do so by seeking causal laws."[76] There are many respectable scientific domains, from descriptive botany, ethology, and paleobiology to anthropology and linguistics, in which the quest for nomological generalizations plays a relatively minor role. Stich approves the second step of Fodor's argument which holds that if psychologist couches his generalizations in terms of the content sentences appropriate to various states, then his theory will involve those organism/environment relations which contribute to determining the propriety of content sentences.[77]

Calling (5) as vulnerable, Stich proceeds to claim that appropriate projectable characterizations of the objects of the environment side of organism/environment interactions will be imminent only from the sciences

that study these objects. So Stich dismisses Fodor's argument for methodological solipsism.[78]

Stich demonstrates that, like methodological solipsism, the autonomy principle is also incompatible with the explanatory strategy urged in the strong RTM.

Stich's reason is that both reference and semantics are culturally determined. Thus a pair of subjects may differ "in the reference of some term they use even though there is no corresponding difference in their current, internal, physical states."[79]

Although the autonomy principle seemed to have substantial intuitive plausibility, in subsequent discussion it's intuitive appeal became bloodless about the use of folk psychological notions in scientific psychology. Stich thinks the best defense of the autonomy principle begins with the replacement argument. The replacement argument maintains that an organism and its replica would behave identically and thus should be regarded as psychologically identical. Stich introduces the term *autonomous behavioral description* for any behavioral description which satisfies the following condition. "If it applies to an organism in a given setting, then it would also apply to any replica of the organism in that setting."[80]

All non-autonomous descriptions of robot behavior are conceptually complex hybrids. That behavioral explanation divide into two parts. The first

is a theory of "robot psychology" which explains autonomously described behavioral events and the second is a heterogeneous collection of considerations from history, law. Stich holds the view that non-autonomous commonsense descriptions of behavior are typically conceptual hybrids.[81] Sometimes it is possible to avail the commonsense description of the autonomous component of a non-autonomous act.

In evolving hybrid non-autonomous behavioral descriptions, commonsense produces behavioral descriptions that even more grained than those that would be available if we restricted ourselves to autonomous descriptions. Folk psychology has followed the commonsense strategy by evolving a set of hybrid descriptions for *mental status* which build in various historical, contextual and comparative features of the organism.

But the STM requires purely formal generalizations which ignore those historical and environmental factors that may distinguish an organism from its replica in the eyes of folk psychology.

Critics argue that theories in the syntactic paradigm will miss generalizations that can be captured by the strong RTM strategy. Stich consider three arguments by Pylyshyn, P. Churchland and Fodor respectively aimed to show that STM theories are <u>important</u> generalizations. According to Stich, each of these arguments are mistaken.

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CHAPTER III

THE SECOND MAJOR STEP IN ELIMINATIVISM

3.1 The Dreary Corners of Philosophy: Against traditional and analytic epistemology

Stich attacks two pairs of three interrelated traditional epistemological projects, including reliability and relativist epistemology.

Ist project: The foundationalist model aims at the evaluation of methods of inquiry. It examines the ways of going about the quest for knowledge - which ways of building and rebuilding one's doxastic house - are the good ones, which are the bad ones, and why."[1] As the reasoning is central to the quest for knowledge, the evaluation of various strategies of reasoning often plays a major role in the assessment of inquiry. The epistemological writings of Francis Bacon (inductive method in science) and Descartes (method of inquiry from mathematics) undertake the project of evaluating and criticizing strategies of inquiry. Modern epistemological writers like Mill (inductive logic methods of experimental inquiry), Carnap (verificationism/

confirmationism) and Popper (falsificationism using modus tollens) have also emphasized this aspect of epistemological theory.

1. Verificationism tells us that all synthetic statements are statements about the world.

2. All synthetic statements are to be verified to be true or false with reference to the world.

3. Confirmationism: all synthetic statements are confirmed/disconfirmed with reference to experience.

4. Modus Ponens: used in covering law model.

5. Reconstruction of the Empirical Knowledge of the world (Constitutions systems a la Carnap)

They also developed the accounts of good reasoning and proper strategies of inquiry. This leads him further on to cast aspersion on the very idea of scientific rationality as ensconced in the covering-law model (hypothetico-deductive method) and substitute a heuristics of reasoning as a substitute.

IInd Project: This epistemological model aims to understand what knowledge is and how it is to be distinguished from other cognitive states like mere opinion or false belief. This project has been reinterpreted as a quest for the correct definition of the word 'knowledge' or for the correct analysis of the

concept of knowledge, with the linguistic turn in twentieth-century philosophy. Gettier attacks the view that knowledge can be defined as 'justified true belief' developed by the analytic enterprise.

IIIrd Project: It is the anti-skeptical model. Skeptics deny that we have knowledge or certainty or some other epistemologically valuable commodity. This model focuses on devising replies to the argument of the skeptics. A good illustration here is Moore's Reputation of Idealism. These three projects are linked together in a variety of ways. Stich views the latter two projects to be the 'Dreary Corners of Philosophy'[2].

Later on the second critique is expanded to cover another three projects which are either analytical or off-shoots of such an epistemology.

IVth Project: The project has been advanced by Alvin Goldman, in his *Epistemology and Cognition*. His theory of epistemic justification is called 'bare-bones' reliabilism. Reliabilism was developed in a response to the definition of epistemology as given as

Knowledge = Justified/Certified true belief

The above definition was wrecked by the famous counter example advanced by Edmund Gettier, who proved that the above definition is neitheranalytic (a priori) or conceptual analysis alone nor synthetic (aposteriori)[3]. The above equivalence is not *a priori* in a very obvious sense,

but it is not a posteriori because it is countered by a case of justified true belief that is not knowledge.

The cognitive states of the former is in doubt because it is limited to conceptual explication whereas the cognitive status of the latter is shattered by the lack of relation between 'justification' and 'truth'.

Vth Project: Reliabalism enjoins justification rules and takes epistemology in the direction of secondary epistemics were social determinants of knowledge are allowed a key role rather than in the direction of primary epistemics where it is said to be related to one's own cognition.

Goldman maintains that both classical and contemporary epistemology is to have been developing theories of epistemic justification. They were interested to say which cognitive states are epistemically justified and which are not. So, their major project was to enunciate a system of rules or principles evaluating the justificatory status beliefs and other cognitive states to make a theory of justification. Goldman calls these rules justificational rules or J-rules. In hiw own words, J-rules "permit or prohibit beliefs directly or indirectly, as a function of some states, relations, or processes of the cognizer."[4]

J-rules = df. Necessary and sufficient conditions for justification (truth-ratio meets high threshold - greater than 50).

But there could be more than one set of J- rules. So we need criterion of rightness which is given as:

criterion of rightness = df. set of conditions that are necessary and sufficient for a set of J -rules to be correct.

This is a higher order justification. Thus according to Goldman, there may be an illuminating taxonomy of epistemological theories such as:

a. Coherentist theories

b. Truth-linked reliability theories

c. Reflective Equilibrium theories

The correctness is to be decided by ‘conceptual analysis’ or ‘conceptual explication’. There is there fore a proper way to decide among ‘competing criteria of rightness’. This is conceptual because it has conform to ‘every day thought and language’, despite its vagueness. Thus there is a cluster of alternatives to choose from. So our concept of justification occupies a small region in large space of more or less similar concepts (many possible worlds). We are under constraint to choose one among many possible alternative notions so as to make our belief in question as intrinsically valuable. This is nothing but an epistemological chauvinism.

Stich produces a battery of arguments to prove that the analytical enterprise of epistemology leads either to ‘epistemic chauvinism’ or to

downright vagueness of coherentist variety. Thus analytic epistemology gives rise to a family of project and hence it becomes a non-starter[5].

VI[th] Project: The former was proposed to overcome this by means of 'reflective equilibrium' test. This reflective equilibrium test needs to be strengthened by newer criteria of justification. Sometimes one hears of notion of 'weak' and 'wide' reflective equilibrium that are grafted on from practical reasoning in ethics (Cf. Goodman/Rawls)[6]. Similarly the so-called Goodman's equilibrium test is likely to play hostage to our ordinary concepts. If so, different people mean different things when they call a cognitive process justified. Even if we discount interpersonal differences, we never reach any exemplar. Empirical research on psychology of reasoning shows that we think differently. It is called reflective equilibrium test as this is also an attempt to explain what is called deduction or induction by relating it to a theory of good reasoning. Reflective equilibrium according to Goodman's understanding is constitutive of justification in the sense that to call a system of inferential rules to be justifies is for them to be in reflective equilibrium and hence it is known a priri (i.e. a conceptual truth)[8]. So also Rawlsian wide equilibrium, in it's modified form cannot pass the test because it is constrained by other considerations. Stich comments that it requires our system of inferential rules to cohere with our semantic or epistemological or metaphysical or psychological convictions, just as Dummett's views on alternative logic is constrained by his semantic. So he concludes:

1. that reflective equilibrium, both in its narrow and broadened form, is not the touch stone of normative principles about cognitive processes[9].

2. that the decision among alternative systems is embedded in ordinary language, it is not likely to interest any one than an epistemic chauvinist[10].

An illustration of (2)is found in Strawson's justification on inductive reasoning. He argued that inductive reasoning is part of what we mean when we say that an empirical belief is reasonable[11]. To which Salmon reacted by asking that this whether this pushes inductive method itself as 'intrinsic good'.[12] There is a parallel complaint about epistemologies.

But on Stich's view, this raises a question about

'how are we to decide between various criteria of justification[13]'?

Since no answer is forthcoming, one has to recourse to a new sense of analytic epistemology. In Stich's words, such an epistemology is to be defined as:

"an epistemological project that takes the choice between competing justificational rules or competing criteria of reghtness to turn on conceptual or linguistic analysis."[14]

The novel use of analytic epistemology is to be taken as part of normative enquiry (some sort of virtue epistemology as it has been come to be called later).

So Stich lays his emphasis squarely on cognitive diversity as against cognitive uniformity.

The monistic stance enjoins: all people exploit the same cognitive mechanism. The pluralistic stance denies the above. The question is how best the host of analytic epistemologies will meet the challenge from cognitive diversity. The failure to meet this will ultimately lead to cognitive pluralism, cognitive relativism or simply genetic diversity. Stich defends a position which is 'floridly pluralistic': different systems of reasoning may be normatively appropriate for different people. The question before him: how to escape from the inherent relativism?

From Stich's point of view, our epistemologies are culturally conditioned. The beliefs we acquire are "culturally acquired and vary from culture to culture"[15]. The novel use of analytic epistemology should tell us how the notions of evaluation prevailing in one culture differs from that of others. In other words, the question is: if we have true beliefs, whether they are intrinsic or instrumental, how much should we care for them. More pointedly, the question is whether we should really care for true beliefs in preference to false beliefs. That is, "a cognitive process is sanctioned by the

venerable standards embedded in our language of epistemic evaluation or that it is sanctioned by the equally venerable standards embedded in some quite different language, is no more reason to value it than the fact that it is sanctioned by the standards of a religious tradition or an ancient text."[16] Moreover, such standards may be idiosyncrcratic '*ad hoc'* or 'arbitrary'. The notion of justified true belief may generate alternative justification - like notions within which it is impossible to make a choice. This leads to epistemic chauvinism.

So long as such standards are the basic of a small linguistic community (as Austin used it in a particular way), we have no means by which we can evaluate intrinsic or instrumental beliefs. Stich concludes saying that even such notions as reflective equilibrium.

(1) "is not the touch-stone for normative principles about cognitive processes."[17]

(2) "when it comes to deciding among alternative systems of cognitive processes,"[18] it will be of no interest to anyone else than the epistemic chauvinist.

The case against beliefs is extended to cover the case against one's own beliefs, when they come to occupy a common set of beliefs and thence forward to suggest that they are "reasonable." Even Strawson's escape hatch to recoil inductive generalizations under the meaning of

what we say when we say that an empirical belief is reasonable, cannot save us. Because as Salmon tells us that if Strawson is right about the meaning of reasonable, then

'It is not at all clear, why every one should want to be reasonable.'[19]

Stich's critique is thus gradually extended to cover other aspects of rationality finally to propose a heuristic method of rationality in the place of scientific rationality. This is what he calls minimal rationality.

For Stich, the term *analytic epistemology* denotes "any epistemological project that takes the choice between competing justificational rules or competing criteria of rightness to turn on conceptual or linguistic analysis." And he continues, "it is my contention that if an analytic epistemological theory is taken to be part of the serious normative inquiry whose goal is to tell people which cognitive processes are good one or which ones they should use, than for most people it will prove to be an irrelevant failure."

According to Stich, evaluative epistemic concepts are culturally acquired and vary from culture to culture. "The analytic epistemologist offers us no reason whatever to think that the notions of evaluation prevailing in our own language and culture are any better than the alternative evaluative notions that might or do prevail in other cultures." Stich thinks that pluralism about intrinsic value is vastly

more plausible than monism and will assume that people can and do intrinsically value a variety of things. For an analytic epistemologist, our choice between alternative cognitive processes should be guided by the epistemic evaluative concepts embedded in everyday thought and language.

To consider intrinsic value, there are a pair of assumptions.

Other languges and cultures invoke concepts of cognitive evaluation that are different from our own (Assumption I).

We may have quite different concepts of epistemic evaluation and their concepts we have are quite arbitrary and idiosyncratic (Assumption II)

According to Goldmans' "reliabilist" account of justification, the rightness of a system of justificational rules is determined by the percentage of true beliefs that would be produced using the psychological processes sanctioned by those rules. It has a cluster of alternatives.

1. The account relativizes the criterion of rightness to the world in which the system is operating.

2. It has rightness conceptually tied to the actual world.

3. It has rightness conceptually linked to worlds with certain specified characteristics.

There is nothing logically incoherent about the sort of Epistemic Chauvinism. Most of the people don't say that they find having justified beliefs to be intrinsically valuable. If we are pluralists about intrinsic value we get a negative conclusion. To support such a conclusion Stich offers two lines of argument.

(1) A first line of argument for the instrumental value of beliefs sanctioned by our ordinary notions of epistemic evaluation appeals to the evolution of those notions (Biological).

(2) The processes involved are more social than biological (social).

The conclusion is that neither biological nor social evolution can be relied upon to produce the best of all possible options. So our intuitive notions of epistemic evolutions are the product of an extended process of social and biological evolution. But it is not enough to show that they are more conducive survival or thriving.

3.2. Against Logic : Heuristics ?

While passing, we must note that the efforts to sustain logic or analytic philosophy requires us to more in the direction of bringing them approximately to 'normative' type of reasoning, as exemplified in ethics. Characteristically Stich discusses 'intrinsic' and 'instrumental' beliefs which is quite relevant in the context. It is the singular target of Stich's overall

enquiry. Eliminativism is only a stepping-stone towards an approach to deconstruct ethics, that while rejecting universalism, embraces relativism or cultural differences.

Stich presents Cohen's account of logical reasoning which makes an attempt to smoothen over the above quandary by having recourse to Chomskyan account of grammar. Cohen assigns the notion of competence to the underlying mental or psychological part of reasoning (inferential canon) and assigns the notion of performance to the way we commit 'errors' in reasoning that could be called 'performance errors'[20]. Thus Cohen's understanding operates the following scheme:

competence	→	performance
[internalized rules]	[violation of rules of grammar]	[amended rules]
psycho-logic	→	performance-errors
[internalized rules]	[violation of rules of inference]	[amended rules]

There is no reason why Stich can find a way out of the above though the schema. He is ready to concede that Cohen acknowledges that people make inferential errors. But Cohen however insists that performance errors reflect nothing about the underlying normative rules which are

‘unimpeachable’. They are impeachable and thus posing a challenge to Stich. Stich locates the ‘paradox’ which enjoins that systematically irrational cognition is impossible because people’s competence is normatively impeccable. But it does not follow that the idea systematic irrationality is ‘demonstrably incoherent’.

According to Stich, the case against belief must therefore be examined a-fresh from the psychology of reasoning where experiments were conducted with a purport to show that we more often think irrationally than rationally. This is what is altered to by Watson - Johnson Laird Selection Task and what has come to be called the ‘conjunction fallacy’ discovered by Tversky and Kahneman. Collectively they are all addressed to what is called the Nisbett problem. Nisbett’s problem is stated as:

‘how a subject is a particular experiment on psychological reasoning could be shown to by reasoning badly?’[21]

In other words, how could we diagnose that someone is reasoning correctly according to correct rules of reasoning, which takes us straight to the logical procedures of correct reasoning (deduction, induction, abduction, inference to the best explanation and what not).

The experiment designed by Tversky and Kahneman to test the probability of logically compound events or state of affairs from two instances, where the likelihood of a compound events or state of affairs must

be less than or equal to the likelihood of the component events or state of affairs. They are schematized as[22]

(a) If the components are probabilistically independent, then probability of the compound is equal to the probabilities of the components (supported by probability theory).

or else,

(b) If the components are not probabilistically independent, matter are much more complicated.

The experiment is discussed as follows[23]:

Linda is 31 years old, single, out spoken and very bright. She majored in philosophy. As a student she was deeply concerned with issues of discrimination and social justice, and also participated in antinuclear demonstrations.

Please rank the following statements by their probability, using 1 for the most probable and 8 for the least probable.

(i) Linda is a teacher in an elementary school.

(ii) Linda works in a bookstore and takes Yoga classes.

(iii) Linda is active in the feminist movement.

(iv) Linda is a psychiatric social worker.

(v) Linda is a member of the League of Women Voters.

(vi) Linda is a bank teller.

(vii) Linda is an insurance salesperson.

(viii) Linda is a bank teller and is active in the feminist movement.

In this experiment, 89 percent of the subjects ranked (viii) as more likely than (vi). Moreover, the result turns out to be very robust. Concerned that subjects might tacitly suppose that (vi) really meant Linda is a bank teller and is not active in the feminist movement.

Tversky and Kahneman placed (vi) with

(vi') Linda is a bank teller whether or not she is active in the feminist movement and tried the new material on a second set of subjects. The results were essentially the same. But perhaps subjects were distracted by all the other options and failed to notice the relationship between (vi) and (viii). To test this, 142 subjects were given the original problem with all the alternatives except (vi) and (viii) deleted and asked to indicate which of the two alternatives was more likely. Eighty-five percent said that the conjunction was more likely than the conjunct[24].

This is called the 'conjunction fallacy'. Stich and Nisbett (1980) has demonstrated that no amount of smoothening through 'Goodman's method which enjoins that it is done via 'mutually adjustment,'[25] will work because it

will entail that some very strange inferences are justified. Even a fine tuning to Goodman's Criterion will not escape counter- intuitive consequences. So Stich is ready to substitute a neo-Goodmanian project which is based on the distinction between 'narrow' and 'wide' reflective equilibrium. The latter notion is understood to broaden the scope in that it must entail rules that cohere with our semantic or epistemological or metaphysical or psychological views. But if what is said above is correct, it cannot cohere.

The neo-Goodmanian line visualises that when our current procedures of inferential practice do not adequately capture the processes of justification, then we must revise them. A rough and ready distinction between conservativism and revisionism is what it entails. A giant step like this in epistemology will have immediate bearings on cognitive diversity.

For once we have of clear specification of what justification amounts to, we can go on to ask whether our own cognitive processes are justified or whether, perhaps, those of some other culture come closer to the mark.

As Stich acknowledges, this only opens up a problem without solving it.

He concludes:

'Neither the neo-Goodmanian programme nor any alternative programme that proposes to analyze or explicate our pre-systematic notions of epistemic evaluation will be of any help at all in deciding whether and how then cognitive processes or those of others might be improved (revised)? [26]

Having established that the notion of reflective equilibrium in all its various forms is a 'non-starter', Stich indulges in some introspection: are we not using something like this neo-Goodmanian strategy in our assessment of justification in the context of the different schools of epistemology. It might be that different people mean different things when they call a cognitive process as 'justified' because there are different notions of justification. This criticism can be met, according to him, by stipulating that we have some sort of 'prototype exemplar. If so, it might be a mistake to look for the common notion of justification. It will not be the case that there is any single test passed by all cognitive processes we judge to be justified. He endorses a Wittgenstenean idea that there might be a common sense notion of justification. No convincing case could however be given in support of this.

The final difficulty with the Neo-Goomanian project is that it is not an exhaustive one. Rather it might be the case that our procrustean conception is an amalgam composed of both folk psychological as well as scientific epistemology. In which case the notion of justification would turn out to be a

‘cluster concept.’ So one should be forced to conclude that in the face of many alternative notions of justification, the theory of mental representation of concept will turn out to be a ‘very messy business’. This happens especially when we do not know how to make a choice upon rational considerations. Stich is inclined to admit that it is true that there are many alternatives, but then there is nothing also common between them. So what transpire from the above is that we cannot separate the commonsense concepts from the folk theories in which they are enmeshed. A good response to the plurality of theories is to hold that there is n o possibility of separating the wheat from the chaff. So no neo-Goodmanian reflective equilibrium test may succeed in their endeavour. Two apparently contradictory conclusions emerge.

(1) There are alternative notions.

Now (1) admits plurality but (2) it is an amalgam of singularity and plurality. But this will not serve as a point of refutation of (1). The only way out is to arrange them on a spectrum, and grading them so that we can choose the one which is less coloured by folk psychological admixtures.

3.3 A Typology of Cognitive Pluralism.

One offshoot of analytical epistemology is the way it considers alternative conceptual schemes as an answer to cognitive pluralism. Stich distinguishes the following variants of cognitive pluralism.

1. Descriptive cognitive pluralism: different people form or revise beliefs (and other cognitive states) in significantly different ways;

2. Descriptive cognitive monism: all people exploit the same cognitive mechanisms (2 is the denial of 1);

3. Normative cognitive pluralism: it is a claim about how different people ought to use their cognitive processes. There is no unique system of cognitive processes.

4. Normative cognitive monism: it is a claim that people use their cognitive mechanisms with minor variations of one another.

The (1) and (2) appear to be empirical theses. They are not really empirical. (3) represents a minority view. This is because one of the premises in this argument where monism aims at the pluralism is a conceptual claim about rationality. Stich's efforts lie to show that none would prove the falsity of(1)

This is what is true of Davidson's theory of ascription of content,[27] which lies close to Dennett. Both seem to undermine the empirical exploration of irrationality.

(3) Represents a minority view.

Stich wants to defend a thesis according to which different systems of reasoning may be normatively appropriate for different people which is opposed to (4).

5) Relativism: different systems of reasoning may be normatively appropriate for different people.

6) Instrumentalism or pragmatism: it holds that all cognitive value is instrumental or pragmatic. (6) is called the normative theory of cognition.

7) Evolutionism (Evolutionary Panglossianism): Even if we assume that innate cognitive systems are optimally designed by natural selection to be rationally the same, still it would not follow that all normal cognitive systems are innately the same; (it would not follow that our system of inferential strategies is also optimally well designed)

8) Innatism : The mere fact that your cognitive processes and mine are innate would not establish that they are the same: there is no parallel

between language acquisition and inferential systems, and so there is no universal grammar.

9) Jamesian pragmatism: There are no intrinsic virtues.

10) Simulationism: Through out, Stich wants to add strength to the thesis that there must be some theory of mental mechanism that would help us to say that we can ascribe believes to others in much the same way as to ours.

11) Relativism leads to ‘anything goes’ (Feyerabend). The relativist is just like the nihilist or a skeptic.

It boils down to the claim that none of the claim can be empirically supported. Stich’s main argument is directed against the following version of Davidson

Davidson theory of ascription of content:for propositional attitudes

Davidson’s basic question is: how to ascribe truth values to proposition we hear from other people’s utterances. This is not possible without having a theory - like mechanism we have. It consists of

Presumption : Human beings are optimally rational (others are rational as per charity view: they normally don’t lie)

Explanans : 1. Initial condition observation of others token utterances

to Anomalous Laws (in lieu of Causal laws/ Bridge laws)

(Non - equivalence of psychological and physical predicate

Explanandum : Conclusion: It occurs at to the way it does so we can attribute truth to other people utterances

Following is the idea of a Alternative Conceptual schemes:

'It is impossible to be irrational'

So, in a sense, Stich might favour alternativism but in the same sense he may also deny it. This is the nub. There is a certain ambiguity about the position which begins to manifest towards the end of the book where he discusses cultural relativism.

His argument exploits Quine's maxim of translation[28] towards this end:

Stich takes Quine's commonsense precept about silliness, as supporting his maxim of translation. He wants us to suppose that our interlocutor, S, sincerely asserts a sentence, 'q'. From this we can infer S believes that P, where 'p' is replaced by the sentence which we take to be the (possibly homophonic) translation of 'q' into our language. Now let us further suppose the 'p' is so patently false that believing that p would be absurdly silly. Quine's precept against silly belief tells us that silliness of this magnitude is very unlikely. But if it is so very unlikely that s believes that p,

we have no option but to impugn our translation. Quinean argument is parallel to Schiffer's argument.

Stephen Schiffer holds that an ordinary person has a huge, transparent head in which two boxes are plainly visible – one marked 'Belief', the other 'Desires'[30]. Having adopted this myth, stich asks that "how we would go about interpreting or determining the content of the various mental inscriptions in our hyper-cephalic subject's Belief Box. How must a mental inscription be related to other mental sentences, to behaviour, and to objects and events outside the head in order for the sentence to count as a token of the belief that Socrates is wise?"[31] Stich's answer is that two boxes work similarly to each other. So,

'I desire that p' may be more or less similar to 'I believe that p' and both contain similar predicates. He further suggests that 'simulation' will provide an appropriate answer. Stich concludes with a stronger vein : the persons cognitive states to be intentionally characterizable, the states, the interactions among them, and their interaction with the environment must be similar to our own.

Incidentally we must note that we can turn the argument into a positive case for translation or (alternative schemes)

To say that $\frac{\text{S asserts that q}}{\therefore \text{S asserts that p}}$,

we need ,

S asserts that p.

$$\frac{p = q}{\therefore S \text{ asserts } q}$$ (homophonic translations are positive)

P is ‘absurdly silly’

We attribute silly belief or even a silly logic than we cannot draw the above conclusion. What we do; we impugn our translation[29].

‘We impugn our translation’ here means that we have to moderate the translate so as to fit into this scheme.

Look at the other argument which deals with Quine’s strictures on silliness.

Suppose our translation manual (or our scheme of interpreting mutual sentences) leads us to attribute to a person the belief that is P, then q (where again p and q are replaced by perspicuous sentences). Suppose further that some perceptual experience causes the person to believe (and perhaps sincerely assent) that p. And suppose finally that from these two beliefs, he infers (or is led to believe) that not - q.

We are not likely to rest content with the translation or interpretation scheme that entails these irrational characterization of our subject’s sincere assertion and beliefs.

So what to do; can we smoothen out the translation?

Let us reformulate Quine's argument as follows in tune with Stich's criticism:

1. We need a translation manual

2. The translation manual must be acceptable.

3. We can avoid 'silliness precept'.

4. We can ascribe p and ~p to others (ascription of silly belief).

5. So, acceptable translation cannot give acceptable scheme of intentional interpretation.

Can we accept it as such? No

Stich clarifies a few pages later an elaboration on the structure of propositional attitude:

1. When we use a sentence of the form 'S believes that p', we are making a pair of interrelated claims about S. First, we are attributing to S a kind of cognitive state, a belief this category of state can be distinguished from other categories by the role such states play in the subject's overall cognitive economy. Believes are the sorts of states which interact with desires, perceptions, and behaviour in certain systematic ways. Thus intentional description presupposes that the

cognitive economy of the organism whose states we are describing can be carved more or less smoothly into categories of states which play belief-like and desir-like roles.[32]

2. We are, using the content sentence, ‘p’, to identify the particular belief we are attributing. The way this works, I argue, is by first picking out a hypothetical belief state that we ourselves might have - the one which in this setting we would express by uttering ‘p’ and then by attributing to S a belief state which is similar to this one. To say ‘S believes that p’, then, is to say S has a belief state similar to the one which would underlie my own assertion of ‘p’ were I (just now) to have uttered ‘p’ in earnest of course, any two things will be similar to one another in some respect or another. Own my account, as on Quine’s, both the relevant respects and the requisite degree of similarity are largely determined by context, though in typical contexts similarity of inferential pattern and similarity of the surrounding set of beliefs are of great importance. Plainly this account of intentional description requires a fair amount of polishing to make it precise and a fair amount of argument to make it plausible. I have attended to both tasks at some length else where.[33]

Our search was not complete without considering the question whether there are arguments for evolutionary accounts to prove that we are designed

or selected to behave like rational individuals. According to Stich's assessment, human's reasoning is not that much bad, if evolutionary considerations weigh with us. It is not conceptually possible for us to maintain that widespread systematic irrationality. So, this is conceptually impossible. Evolutionists content that it is empirically impossible that all of us are irrelational. As Dennett states, natural selection guarantees that most of the organism's beliefs will be true, most of its strategies, rational.

Or Fodor remarks:

Darwinian selection guarantees that organisms either know the elements of logic or become posthumous. But we have no clear argument to establish that from the facts of evolution that irrational systems of inference is unlikely to be impossible. We set a modest goal to prove that evolutionary consideration cannot impose restrictions s upon our rationality. But the onus is on those who dispute to prove the contrary.

There are two key ideas that we can consider in this section.

1) evolution produces a good approximation of optimally well-designed system.

2) that well-designed system is a rational one.

3) that system can improve rationality by cognitive enhancement. They are 'fitness enhancing'

(1) and (2) can yield a conceptual truth that a well-designed system can be optimally rational. (3) upholds that such a fitness could be enhanced over a period of time. According to Stich, both of these assumptions could be questioned.

One way of questioning this is to ask whether our inferential system is the by-product of evolution or it is some thing close to it. The main reason that gives against this is that there is no good reason to suppose that all normal cognitive systems are alike. We are not genetically endowed or genetically programmed in a way that we should behave exactly similar ways. What we call gene is a biological category but it is an abstraction. As Sober calls it is a 'cyber-netic abstraction.' The geno-types are programmed to generate phenotypes of varied character through internal and external fitness. The distinction between internal and external fitness cannot be drawn on a hard and fair ground. It will serve only as a heuristic device.

Stich proposes the following argument:

1. Let G_1 and G_2 be two genetically programmed inferential systems.
2. G_1 is more reliable.
3. Nonetheless, G_2 can exceed G_1, both in internal and external fitness.
4. So, natural selection prefer G_2 and G_1, despite G_1's greater reliability.

This argument leads to what is called “evolutionary Panglossianism to absurdity’. The argument which holds that evolution will insure rationality could be understood to go through the following motions:

1) Evolution is caused by natural selection.

2) Natural selection will choose the best designed (i.e. fitness enhancing system).

3) There is a huge and varied set of options for natural selection to choose from.

∴4) Systems, so chosen, are expected to be as well designed as it is possible to be. Stich doubts the premises (1), (2) and (3) and remarks that we need the following premise (5) to make argument to work.

5) Our inferential system was produced by evolution.

The above argument can be applied mutatis mutandis to language:

1) Consider inference as analogous to language.

2) Assume that there is one single inferential system.

3) We can not conclude that this system is fitness-enhancing.

(3) is not a valid conclusion because just as a single language may spread throughout a population that has nothing to do with evolution, so to a

single inferential system could have become universal for reason quite independent of how well it does at enhancing fitness. The weakness of the argument is that since we do know which inferential system is optimal or near optimal based on empirical evidence. This is what worries Stich throughout. His worry is that we cannot know how a particular Bildung will enhance the character of the human being to the optimal level. In other words, we do not have any metanarrative (standard) by which to assess the standard of any inferential systems.

A similar parallel can be drawn about Chomsky's account of grammar. Just as we know next to nothing about the way people come to have their inferential system. (For Carruthers, science is innately channelled and reaches its level with the faculty for doing science. Chomsky calls this as science-forming faculty). Likewise, given what little we know, it might be the case that language acquisition and inferential system are parallel. So what Stich is harping on is genetic diversity and cognitive diversity.

Stich puts forward a simple argument to prove this:

1) Just suppose that your cognitive processes are as 'mine' as my cognitive systems.

2) That is, your cognitive systems are as much innate as my own (similarity of content).

From (1) and (2), it does not follow that

3) They are the same (the sameness of the capacity cannot be derived from the above).

So one had to admit cognitive pluralism without demur. This brings us to the question: how to evaluate alternative cognitive systems which is addressed in the last chapter.

3.4 The Case for Minimal Rationality : Fixed Bridgeheads v/s Floating Bridgeheads

Stich offers a critique of perfect rationality which is called Fixed Bridge Head.The term floating bridge head[34] is used in the sense that there are some specific inferential principles and stimulus-belief links that are presupposed in all translation and interpretation.Hollis is an advocate of this but his view of a priori universals is dubious,if what Quine says is correct.Stich's aim is to show that the fixed bridge head view is false.

1st Answer:

D.C. Dennett offers that the intentional description requires "perfect rationality". In his words, "there is no coherent intentional description" of a person who "falls short of perfect rationality and avows beliefs that either are strongly disconfirmed by the available empirical evidence or are self-contradictory or contradict other avowals he has made"[35]. But Gilbert Harman

points out, “the laws of logic do not tell us how we ought to go about revising our beliefs. Suppose that you already hold beliefs of the form ‘if p and q’ and ‘not-q’, and suppose further that as a result of your observations you come to believe that p. Logic suggests that something will have to go. But what? Should you change your belief on q? or give up your belief in the conditional? Or perhaps concludes that despite appearances p is false? The laws of logic offer no guidance”[36]. Harman strikes a congenial chord with Quine by saying that even laws of logic bear revision (e.g.,law of excluded middle). Revisionism suffers constraints and hence it is ‘legalistic’ according to Quine.

Dennett considers consistency and closure under logical implication as the two necessary features of perfect rationality. But perfect rationality is not a necessary condition for intentional description.

2nd Answer:

We can weaken the above requirement. The consequent view may maintain that subjects may infer irrationally but insists that there are limits to that irrationality. A staunchest defender of this view Martin Hollis views, “the identification of beliefs requires a ‘bridgehead’ of true and rational beliefs”.[37] For Hollis this is a ‘fixed’ rather than a ‘floating’ bridgehead. And these are ‘universal among mankind’ and a priori universals.

3rd Answer:

The third, still weaker, one is what Cherniak called the 'minimal rationality' view. Against Davidson, he views that there is no one inference nor any specific set of inferences that a person's mental states must manifest in order to quality for an intentional description.

The Minimalist Rationalist View = df: there is no one inference (nor any specific set of inferences) that a person's mental states must manifest in order to qualify for an intentional description. A corollary follows from the above. That is, what is required is that the mental states manifest some reasonably subset of the inferences that would be required of a perfectly rational cognitive agent.

The minimal rationality idea can be divided into two different ways: The first is to suppose that questions about the intentional characterizability of mental states always deliver a clear answer atleast in principle. This give holds: "for any cluster of inferences, whether they were rich enough to pass the minimal rationality test - with an affirmative answer indicating that the person whose beliefs manifested these inferences would satisfy a necessary condition for intentional description"[38]. The second idea is to reject the notion that questions of intentional characterizability always have a clear yes or no answer. On this view, intentional characterizability is a mater of degree. When the distance between perfect rationality and the rationality displayed by the system increases the intentional characterizability of the system decreases.

In his recent book *Minimal Rationality*, Cherniak develops a pair of arguments against the Perfect Rationality and Fixed Bridge Head views.

I. Argument The finitary predicament view:- The core idea against the perfect rationality is the observation, supported by both theory and commonsense, that for all of us some inferences are harder than others. For Cherniak, our brains and our lifetimes are finite, and any finite system will be able to handle at best a finite number of inferences. Cherniak calls it the "finitary predicament." our brains and our lifetimes are lamentably finite, and we would expect that any finite system will be able to handle at best a finite number of inferences[39]. With reference to the idea of working out the truth table for proposition, this is presented has follows: supposing each line could be checked in the time that it takes a photon of light to travel the diameter of a photon, then even after 20billion years, the truth-table for a set of 138 prepositions still would not have been completed (Cherniak, 1986). Stich is not in agreement with this entirely.

1. Intentional description do not presuppose perfect rationality. It does not follow from the above (1) that
2. None of us has intentionally characterizable states.

   Rather the conclusion should be
3. We cannot ascribe perfect rationality to intentional descriptions

   Such a conclusion will not seem 'absurd'

II argument: It is against the fixed bridge head view. It maintains that for each of us some inferences are harder than others. Cherniak asks that we imagine a variety of hypothetical people whose inference feasibility ordering is very different from our own. The most radical case holds that the hypothetical subject's feasibility ordering is inverted.

Against the second argument, Stich proposes that if we allow translation, we can not feel 'overwhelming' intuitive resistance to a scheme of intentional characterization.

In fact this is the summary of Hollis's protest against the above view. He uses the line of fixed bridge head. Without the fixed bridge head view, the Quinean field linguist or the field investigator would never discover which native consideration to translate has conjunctions, conditionals, and so forth. Thus even the 'clearest and most persuasive' arguments that prove the relation between perfect rationality and intentional description calls for fresh review.

Following is a case for inverted order of inferential feasibility:

For a person whose feasibility ordering of inferences is inverted, inferring 'Socrates is male' from 'Socrates is an uncle' and 'If socrates is an uncle, then Socrates ismale' would not be possible, though inferences like determining the independence of the axiom of choice "would be an easy task, performed reliably and without prolonged investigation."[40]

Cherniak claims that despite the peculiarity in the inferential behaviour of this imaginary subject, we would not find it totally beyond the bounds of intuitive plausibility to translate his sentence ‘If Socrates is an uncle, then Socrates is male.’ He maintains that the homophonic translation would not be possible. According to Charniak, we have to start with simple bridge head inferences and stimulus-belief links. Without the aid of the fixed bridge head, the field investigator would never discover which native constructions to translate as conjunctions, conditionals and so forth.

If it is implausible that anyone would have the belief that Socrates is wise and Socrates is not wise, it is equally implausible, or nearly so, that anyone would have the belief that Socrates is wise and also have the belief that Socrates is not wise.

Suppose our translation manual (or our scheme of interpreting mental sentences) leads us to attribute to person the belief that if p then q (where again ‘p’ and ‘q’ are replaced by perspicuous sentences). Suppose further that some perceptual experience causes the person to believe (and perhaps sincerely assert) that p. and suppose finally that from these two beliefs he infers (or is led to believe) that not-1. We are not likely for rest content with the translation or interpretation scheme that entails these intentional characterizations of our subject’s sincere assertions beliefs.

A direct consequence of the above illustration is some thing like the principle of charity (Davidson) or the principle of humanity (Grandy).Stich calls them as the principles of Intentional Chauvinism

Davidson's principle of Charity determines who frequently invokes the principle translation and intentional interpretation. Davidson insists, "charity is not an option, but a condition on having a workable theory (of translation)[41]. He continues, "charity is forced on us"[42]. According to this principle, when we translate a speaker's language most of this sincere assertions turn out to be true and most of his inferences turn out to be rational.

Grandy interprets the principle as an admonition to choose a translation that maximizes agreement between ourselves and our interlocutors, at least on obvious truths[43]. The principle of humanity holds that when we translate we should prefer the one on which "the imputed pattern of relations among beliefs, desires, and a world be as similar to our own as possible."[44] Grandy assumes that the principle of humanity is based on some pragmatic considerations dealing with the purposes of translation. For Grandy, the aim of translation is "to enable the translator to make the best possible predictions and to offer the best possible explanations of the behaviour of the translate. And he admits that the principles of charity and humanity will coincide often.

No doubt these two principles help us to maximise argument. But both have counter examples.

The principle of humanity directs us to bear in mind that

1. The speaker is a person;

2. He has certain basic similarities to ourselves when we are choosing between translations.

Stich sketches a theory (rather than narrative) about the semantic properties of mental states in the penultimate chapter, where he addresses himself to the question whether we really care our beliefs are <u>our</u> beliefs. He concludes it in the Tasskistyle theory of truth, and as amended by Harty Field. He calls it a causal/functional rather than causal historical theory <u>a la</u> Putnam. Tarski's equivalance is given as (a) S is true if ___ p.

Where S is replaced by a structural descriptive name of a sentence (a la Davidson) and p is replaced by a meta language. It is commonly agreed that the notion of truth that is used here is deflationist (i.e. truth is not a property. This is actually a limitation of Tarski-style truth-condition of a sentence. Thus one may claim that

1 + 1 = 2 iff Socrates is wise.

The <u>second</u> limitation is derived from the listiform axioms like:

2(a) (x)x satisfies 'is red' iff x is red

2(b) (x)x satisfies 'is wise' iff x is wise

3(a) ‘Socrates denotes Socrates

3(b) ‘Plato’ denotes Plato etc.

The limitation of the listiform theory is that Tarski does not tell us what makes the axioms right. In other words, he does not explain the exact relation between the ‘name’ and the ‘person’. Nor does he tell us-what relation must obtain between a predicate and a satisfaction condition.

Now according to another interpretation, we can compensate the above by fitting a causal they of reference into the above theory. The whole apparatus can be grafted on the propositional attitude sentences, so as to see how we get semantics of mental states. This can be done by looking at the way they set truth-values. For this Stich asks we to consider two boxes as shown below, following Schiffer.

Belief Desire

The interpretation function is to specify the truth-condition for the sentences in these to boxes to make them true by making use of recurssive rules governing such constructions. This is the line of argument taken by Field.

Field argued that Tarski had not provided a <u>physically</u> acceptable account of truth because Tarsky-style truth theories are only <u>listiform</u> theories after all. Now, Field’s proposal that what is needed here is a causal theory of

reference to fill the ‘gap’. But Soames and Stalnaker voiced their opinion that an entirely parallel problem arises for the quantifiers and connectives of a language. The recursive clauses simply ‘list’ quantifiers and connectives and satisfaction condition could be derived from them. The recursive clauses tell us how to build satisfaction condition of compounds in the basis of satisfaction condition of their parts. Tarski has not given any clue to how to make the clause right. Infact no one has attempted this before. Thus there is no adequate theoretic recursive clauses, after all.

Now the causal/functional theory also cannot tell us which system of mental/states are to be interpreted with reference to possible states. Then the theory becomes highly idiosyncratic making it obvious the existence of alternatives. Thus the processes of reference - fixing and reference - preserving transmissions are completely diverse. Thus,

Reference (1)*

Reference (2)**

Reference (3)***

signify alternative notions of reference within the system.

Thus the point that is obvious in the foregoing discussion in that there are alternative systems which are idiosyncratic and it is difficult to choose among them. This pluralism is a stumbling - block for making sense of

reference as well as recursive clauses. Stich does not say that recursive clauses become non-recursive clauses in certain contexts, as as to admit flexibility. But he worries whether the right choice could be made. In fact both standpoints are not very far from each other. The former stance is similar to the one we have adopted in the case of flexibility or plasticity which is not what he is concerned with. It is not clear whether Stich will agree with this particular amendment we have proposed here. This brings as to the final chapter when we confront a similar problem of evaluating different cognitive systems.

3.5. Stich's Alternative Epistemic Pragmatism

Stich's main question through out has been: how to make an evaluation of alternative cognitive systems. His answer is formulated in terms of what he calls has Epistemic Pragmatism. Epistemic Pragmatism is presented as an alternative inter alia to the tradition of analytical epistemology.

Stich offers the pragmatic alternative rejecting analytic epistemology and those that tie cognitive evaluation to the generation of true beliefs. It is a perspective on cognition that grows out of the pragmatist tradition. Stich maintains that the cognitive processes supported by the pragmatists should not be thought of primarily as devices for generating truths. And, they should be considered an analogoues to tools or technologies or practices to achieve a

variety of goals. And these systems of cognitive processes are to be evaluated by a rich and varied class of intrinsically valuable things.

Here, Stich views a first pass[45] at a pragmatic account of cognitive evaluation. In the evaluation, the preferred system is the one which will achieve the intrinsically valued things by the person whose interests are relevant to the purposes of the evaluation. And the relevant person will use the system in most cases.

Value pluralism engenders relativism. The pragmatic account of cognitive evaluation is relativistic in a way that truth-generating accounts are not. Thus, "since relativism is widely viewed as a liability, I am doing myself no favor by assuming value-pluralism,"[46] Stich maintains. Stich introduces the term normative cognitive pluralism. According to normative cognitive pluralism, there is no uniquely good system of cognitive processes - no single system that people ought to use. And it assumes that there may be various system of cognitive processes that are significantly different from each other, though they are all equally good.

To be relativistic, a pragmatic account of cognitive evaluation has two different reasons. These sources are the plurality of values and the consequentialist character. The former is the most obvious source and a pragmatic assessment must be sensitive to it. And the latter is less obvious source of the pragmatic evaluation. Epistemic Pragmatism claims a

consequentialist account of inferential virtue - “the goodness or badness of a system of cognitive processes depends on the likelihood of the system leading to certain consequences.’[47] The consequentialist evaluations are potentially relativistic. The goodness or badness of a system of cognitive processes depends on the environment of the person using the system. Thus, the consequentialism in cognitive evaluation is capable of bringing relativism.

Based on the matters physical and metaphysical, cosmological, theological psychological, and social the consequentialist’s assessment vary significantly. Stich argues, “a consequentialist evaluation of cognitive processes is going to be actually sensitive to the cultural, technological and epistemic setting in which the processes are to function[48].

Stich sketches a pair of arguments to establish that epistemic relativism is an ominous or unwelcome doctrine.

(a) The first charge is relativism is nihilistic because it doesn’t distinguish good cognition from bad and holds a Feyerabandian cognition libertinism - the doctrine that “anything goes.” Contrary to it pragmatism embraces the project of assessing cognitive processes.

(b) The second charge ascribes that it threatens the connection between cognitive inquiry and truth.

We have seen rationalism (a priori reasoning : method of doubt, geometrical method), empiricism (method of philosophical psychology, skepticism), the transcendental (Kant), the dialectical (Hegel), the hermaneutical, the phenomenological, and the existential etc. If relativism is sustained here, then skeptics will have won the day.

To meet the first charge, he suggests the epistemic pragmatism because this keeps us to care about belief structures. Epistemic pragmatism offers an account of cognitive evaluation that is both demanding and designed to produce assessments that people will care about. Such a pragmatic evaluation will rank one cognitive system higher than the others. Occasionally they may treat two cognitive systems on par with one another.

Thus one cognitive system may be ‘alternative’ to the other, and it is equally plausible that one is the ‘same’ as the other, relativism not with standing. This happens in the realm of culture. The prevailing, system of cognitive processes in one culture does not ensure that it is the best one for that culture. The given cognitive processes may be exchanged for one another without being the better. Or else, the other system may be doing good job, even though it looks ‘disaster’ to us. So, pragmatism demands that we need to assess alternative cognitive processes just as we examine alternative technologies.

With regard to the second charge, Stich complain that between two alternative systems of cognitive processes, both can not be true. This is especially true if two cognitive systems are incompatible with one another. They are not logically incompatible as such, but sometimes . They are 'incommensurable' with one another. They are not incommensurable because they cannot be translatable to one another. Thus relativism is the bane because there are two cognitive systems which are equally good, and each is as good as the other, but then each have a perspective on reality which excludes the other. The real clash is between 'truth' and incommensurability.

The very fact they are incommensurable entails that those cognitive systems have no truth-conditions and thus they are neither true, not false. We have to show why it is that they are incommensurable with our own have no truth-conditions. What it entails is that there are number of alternative cognitive processes which are belief-like but not really true at all. They all occur in a larger space of possible worlds. Thus if epistemic relativism is right, then there is no hope of showing that good reasoning leads to the truth. Thus we should be no more concerned about the fact that good reasoning may not lead to truth anymore than we are about the fact that good reasoning may not lead to truth, to put it bluntly, that good reasoning may not lead to beliefs sanctioned by same ancient texts like Upanishads or Gita.

So inevitably now we have come to “the impasse”. The impasse is given in terms of the circularity in which we define.

Pragmatism = df epistemic relativism.

The onus is on us to prove that relativism is either not circular or least harmful. Towards which we shall now move. So Stich considers the charge of circularity in more detail. According to the pragmatic account, one system, of cognitive processes is better than another if it is more likely to achieve those things that are intrinsically good, as valued by the relevant person.

Here Stich’s thought experimental takes new direction. Supposing I am that relevant person, who is trying to determine whether my own system of cognitive processes is better than some alternative systems.

(1) that given two systems of cognitive processes, the Indian and the Western, how to cognitively evaluate one system as better suited than the other.

(2) In order to do this, I must use my cognitive system.

(3) Suppose I conclude that my system is better than other.

(4) This leads to ‘vicious circularity’ because I have used my system to assess that my own cognitive system is better than the other alternative.

I have used the very stem which is better to assess the other alternative system which is not up to the mark.

Supposing we turn the other way to reach an opposite conclusion:

(5) The proposed alternative is better than mine from my point of view. But this also is based on the 'meta-narrative' of my own system, and hence it cannot escape circularity. Thus it appears that we are trying to pull ourselves by our own bootstraps.

What is meant by 'pulling up with my own bootstraps?' Stich gives four replies in this context:

Reply 1: Supposing we use the alternative system itself to find out such that system comes out best. That is to say, we re-run the enquiry by excluding my own system, and adopting the other to discover that it comes out best. This is one prime example of 'bootstrapping' in which it should sub-serve the larger project of cognitive improvement. This is essentially because, we run a given system and its proposed alternative to end up with the conclusion that one is better than the other. The cognitive improvement strikes us as good because we can equally finish saying that mine is better after the re-run. This looks like a case of begging the question. But then Stich concludes saying that "obviously not all attempts at pragmatic cognitive assessment need turn out this way, nor is there any reason to think that such cases are going to be particularly common"[48].

Reply 2: What is wrong with the first reply is that I am using the very system as one of its premises to beg the very conclusion that says that mine is better. Instead, I use both systems to explore how they interact with my physical and social environment, without making this as a premise. Thus, I can use two systems to make a comparative assessment with a pair of non-cognitive tools. Such a comparison need not involve a premise about the efficacy of the cognitive system I am using and thus I avoid circularity. My interlocuter may retort saying that still my system is rather presupposed in a very tacit way. But now the onus is on the critic who waits to prove what I am actually presupposing. That is he should tell us, what exactly is meant by 'tacit' presupposition in this context. It is very likely that this can get an explanation along the following lines:

> We are supposing we have before us an empirical argument to the conclusion that our cognitive system is pragmatically better than a proposed alternative. (Let's call the alternative System A, and the conclusion Proposition A). It is claimed that because we are using our cognitive system in constructing and assessing the argument, the argument must tacitly presuppose Proposition A. But of course, we use our cognitive system in all our reasoning. So if the mere fact that we use our cognitive system in constructing and assesing an argument entails that the argument presupposes Proposition A, then all our arguments presuppose Proposition A, even those that have nothing to

do with the comparative merits of cognitive systems. Moreover, since proposition A is hardly unique, this is just the beginning of the critic's list of ubiquitous presuppositions. Consider the claim (call it Proposition B) that our cognitive system is better than some other alternative, System B. Presumably, the critic would claim that in using our cognitive system to construct arguments for Proposition B, we tacitly presuppose Proposition B. But, once again, if the mere fact that we use our cognitive system in constructing an argument entails that the argument presupposes Proposition B, then all our arguments presuppose Proposition B. And so on, for Proposition C, Proposition D, and indefinitely many more. Yet surely there is something more than a bit absurd about any view entailing that all our arguments have infinitely many presuppositions. To summarize, my second reply suns as follows: In applying the pragmatic account there will be no explicit circularity, and the critic who insists that there is a tacit circularity owes us some account of the notion of presupposition that does not lead to absurd consequences[49].

Reply 3. Assuming the circularity has no problem, and presuppositions can be ignored, now we open up our evaluation to the third reply:

> "my third reply is that this circularity is no special problem for the pragmatic account, since an entirely parallel circularity will beset attempts to apply any other account of cognitive evaluation. What motivates the charge of circularity in applying the pragmatic account is simply that we are using our cognitive system in the process of showing that it is pragmatically better than some proposed alternative. But now suppose that we reject pragmatic account in favour of some different account that says system A is better than system B if and only if A has property P and B doesn't . For any P that is even remotely plausible, we are going to have to use our cognitive system in order to determine whether our system has it and the alternative does not. And if that use of our cognitive system is all it takes to convict an account of cognitive evaluation of circularity, then any remotely plausible alternative to pragmatism is going to be circular, too. So the "circularity problem" gives us no reason to reject the pragmatic account in favour of some other account of cognitive evaluation[50].

This leads to the ubiquitous conclusion that all accounts of cognitive evaluations are circular. There fore, one needs to exercise one more options.

Reply 4. The punching of the critic:

> "Suppose we agree with the critic that pragmatism, along with all other accounts of cognitive evaluation, are "tacitly circular" when we attempt to apply them. Why is this circularity supposed to be a defect? The critic's answer, presumably, is that we should want something more from an account of cognitive evaluation; we would want an account that can be applied with out this sort of circularity. But let's think a bit more carefully about this. The "tacit circularity " arises simply in virtue of the fact that we use our cognitive system in assessing cognitive systems. So according to the critic, what we should want is an account of cognitive evaluation that can be applied without any cognitive activity at all. Surely, at this juncture, the right reply to make is that this is a perfectly preposterous thing to want. The defect that the critic has discovered in the pragmatic account (and all the others) is simply that we can't apply without thinking. and that, I submit, is not a defect that any sensible person should worry about [51].

Does this, together with human finitude (Cherniak) belief perseverence (a belief is preserved even if the person no longer accepts the evidence), and memory compartmentalization (failure to make the connection some times in the web of interconnected beliefs) entail a bleak implication for human reasoning?It is here heuristics comes to our aid because of the multiple constraints on our reasoning.But it is not clear whether Stich is on a clear line of thinking on cultural relativism and its consequences.

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CHAPTER IV
NATURALISM AND ITS KINS

4.1. The Game Plan for Normative Naturalism :

Stich's panglossian project succeeds if and only if future science can succeed to eliminate folk psychological states. For Stich, this would not happen if scientific theory is gradually being revised from time to time. That would only support what he calls 'pan-eliminativism'. We need both a theory of mental representation as well as content, where the content is defined by

R represents (means) S is true iff C.

where C stands for necessary and sufficient conditions.

There are a multitude of ways in which the right hand can be filled up but none would be satisfactory. It is no good arguing that meaning is a semantic property of a sentence (or proposition) in the way physical properties are (M. Devitt)[1]. Neither reductionism nor physicalism would be the options. Fodor chooses the option to fill up the right hand side with some variant of 'conceptual analysis' before taking them to be 'innate'. Fodor is responsible for causing disbelief while claiming that it would be satisfied with sufficient conditions, "for one bit of the world to be about (to express,

represent, or be true of) another bit" even if they are not necessary. But this is what he cannot hope to achieve in the face of intuitive counterexamples (where sufficient condition can be turned out to be one of the necessary conditions and reduces the whole argument to absurd consequences.

It appears at some point we have to theorize that content of natural kind terms would be available but that is also met with counterexamples (Putnam's Twin Earth examples illustrate this)[2]. But what is clear is that we have to meet necessary conditions somehow given as:

(x) (x is water iff x is H_2O)

which science (a posteriori) can discover Naturalism is not the default option. Naturalizing content of propositional attitude (I believe that p) or naturalizing semantics seems to the last choice in these circumstances Stich's game plan here to have recourse to a naturalistic content as defined by supervenience (strong or weak) so as to satisfy the two important constraints on naturalism, to be given below:

Constraint 1 : If intentional notions can't be naturalized, then we will be led into intentional irrealism.

Constraint 2 : If naturalism is unpacked in the way it is proposed, then intentional can't be naturalized.

Initially, Stich's way of overcoming is to change the argument into one in which

Premise : intentional notions cannot be naturalized.

Conclusion: no dire consequence would follow (as against something dreadful will follow

or,

Conclusion : no catastrophic consequence follows.[3]

because,

intentional irrealism would be a preposterous doctrine

or,

it would be quite absurd that non-supervenience entails irrealism.

But it can be shown that,

Irrealism does not even begin to follow[5].

Similarly, from

meaning-based sufficient conditions cannot be given for intentional terms, then

it will not follow that,

meaning is a myth.

Stich concludes:

If “there are good reasons to worry about intentional realism, then the fact that ‘R represents C’ can’t be defined surely is not one of them”.

Stich is not ready to accept:

a) naïve version: descriptive theories of meaning or reference (or truth)

b) sophisticated version : causal-historical theories of meaning and reference (or truth).

With regard to the above, Stich holds that they tend to ‘trivialize’ eliminativism. More precisely,

a) on the description theory, eliminativism is trivially true

and

b) on the causal-historical theory, eliminativism is trivially false.

What corresponds to the former is the proposal such as the one given by Cummins saying[6] that

a) beliefs cannot be specified in a way that is independent of environment (anti-individualistic claim)

and Lycan’s claim[7] saying that

b) beliefs can be eliminated from mature psychology (doxasta-phobe claim).

Stich wants to hold that given any intentional property, it is easy to find a 'narrow' surrogate (of that property which does supervene on the current, internal, physical state of the organism). That is, we can take,

the property of believing that (p)

to be the narrow surrogate of

_____ believing that p

The extension of the property

_____ believe that (p)

is just the class of all possible individuals who believe that p along with all of their current internal property doppelgangers. This is advanced as part of the scientific theory of other minds which is worked out as consisting of two coordinating mechanisms (called TT+TOM along with TMP) where TT → Theory, Theory, TOM → Theory of Mental Mechanism and TMP → Theory of Mental Precepts).

Stich proposes the following amendment in the footnote:

"But it will *not* entail that there are no pigs. Similarly, if it turns out that meaning-based sufficient conditions cannot be given for intentional locutions, it will not follow that meaning is a myth[9].

Stich may be in broad agreement with Tye who follows a variant of methodological naturalism but it is too hazardous to guess that there is an agreement between them. Tye acknowledges in a footnote that Stich comes closer to him[10]. Tye's attempt to naturalize the mental consider the following the four options before dismissing them out of court[11].

(1) analytical naturalism (a priori- reductive)

(2) conceptually regulated science (new science awaits us) → (Panglossian project approximates to this).

(3) Conceptually indifferent science (reductionist: sometimes accepts intentionality).

(4) conceptually sufficient (Fodor: nomologically sufficient) which we have seen that Stich is likely to reject.

Tye argues that the thesis which holds that mental states (including belief states) are natural phenomena must be approached as going through the following motives.

1) mental states are part of the natural world (just as much as chemical, biological, geological states (e.g. glacier, fossils etc.).

2) mental states participate in causal interactions which fall under scientific laws and theories[12].

3) mental states types may reasonably be taken as physical states (psychology is also physical science)[13].

4) mental state tokens are generally constructed by neural processes just as neural processes are constructed by molecular processes (such tokens may vary in its constitution in different possible worlds).

5) That is, higher-level types may be realized by more than one lower-level type within the actual world (higher-level tokens may be constituted by different lower-level tokens but only in different possible worlds).

6) Mental states participate in causal interactions which fall under scientific laws and are either ultimately constituted by or ultimately realized by micro-physical phenomena.

7) We can derive from (1) - (6) (even if they are partially or fully wrong) what is called world involving character of intentional content: mental states enter into constitutive relations with the world.

Then Tye claims to sponsor a project very similar to Stich but differing in essential respects (Tye adds more with which we are not concerned).

For Fodor, the "deepest motivation for intentional irrealism" is the suspicion "that the intentional can't be naturalized."[14] In recent years, philosophers are interested to give a very high priority to a "naturalistic" account of intentional categories. "Naturalizing the intentional isn't just an interesting project, it is vitally, important. Something dreadful will follow if it doesn't succeed."[15] Why would irrealism follow if "the intentional can't be naturalized?"[16] To get an answer we have to satisfy a pair of constraints. Let us discuss the two constraints first.

The First Constraint: Non-naturalizability entails irrealism:

Intentional notions can't be naturalized to the conclusion that intentional irrealism or some other deeply troubling doctrine is true.

The Second Constraint: Intentional properties are not physical properties:

Fred Dretske suggests that if intentional states are causally impotent, then we should not include them in our ontology at all. "If naturalization fails, then there could be no serious science of intentional psychology because there could be no laws that invoke intentional terms or intentional properties."[17]

There is an established tradition in the conceptual analysis which assumes that the concept or mental structure underlying the use of most predicates is actually a mentally represented definition - a set of necessary and sufficient conditions.

The "classical view" holds that we are either consciously or unconsciously determining whether the case at hand satisfies the conditions of the definition.

Fodor offers very different alternative to the classical account of concepts. He views that the concepts which underlie most of our one-word predicates have no structure at all - or at least none that is relevant to the semantic properties of the concept. Fodor thinks that they are all innate. Fodor maintains that the meaning of intentional predicates or intentional concepts can't be set out as a set of necessary and sufficient conditions which do not themselves invoke intentional terms[18]: And he is more adament than any one to pursue the argument that our intentional concepts can't be analyzed in non-intentional terms.

Fodor views that the attempts at conceptual analysis practically always fail. And he gives an example of the failure of the reductionist program within the study of language and he calls it the *Definition Hypothesis* which shares two versions:

(a) The weak version: many lexical concepts are definable.

(b) The strong version: These concepts are definable in a vocabulary of sensory-terms-plus-logical syntax

Contemporary philosophers reject the classical account and offer many alternatives. Following are two best known accounts.

(1) prototype and exemplar account:

These both accounts are developed by Eleanor Rosch[19]. Inspired by later Wittgenstein, Eleanor Rosch maintains that in the prototype account, concepts are weighted lists of features that are characteristic of the most typical members of the category, that the concept picks out. The list will generally include lots of features that are not necessary for category membership. The exemplar account assumes that concepts are detailed mental descriptions of particular members of the category.

(2) Natural Kinds and Essential Properties

The second account starts with some doctrines in the philosophy of language. Natural kind predicates like 'water' or 'gold' and what is it that determines which parts of the world are in the extension of such predicates are discussed here. According to the causal-historical account of reference, the answer must invoke the notion of "essential properties" of natural kinds - properties that everything in the extension of a natural kind term must have. The doctrine of essential properties is that individual items are grouped into natural kinds in virtue of the possession of certain essential properties, and it

is the job of science to discover what these properties are. In the form '<u>R represents S</u>' is true iff C' the vocabulary in which the condition C is couched contains neither intentional nor semantic expressions. It is a demand for a conceptual analysis. The property in virtue of which the predicate 'R represents S' applies to all and only those pairs of things in the universe such that the first represents the second.

Putnam formulates the constraint on necessity for natural kind terms[20] as,

(x)x is water iff x is H_2O.

It is a necessary scientific truth, but its necessity doesn't depend upon the structure of the concepts, that speakers invoke when they use the terms involved. It is not a matter of intuitions and psycholinguistics. For Stich and Laurence, the intentional irrealism is not plausible that the intentional predicates cannot be naturalized and the intentional predicates are not natural-kind terms. Therefore, the intentional properties are not essential properties.

If intentional irrealism doesn't follow from the fact that intentional predicates aren't natural-kind terms, we have a pair of possibilities.

Possibility No.1: It focusses on the causal efficacy of intentional states. If intentional predicates aren't natural-kind terms, they are not literally true causal claims. It is a singularly implausible suggestion[21].

Possibility No.2: If intentional predicates aren't natural kind terms, then there is no science of intentional psychology. The science of intentional psychology has to include intentional laws, and laws can only be stated with natural kind terms. No kind terms, no laws; no laws, no science. There is a link between kind terms and laws. And it is simply a stipulative definition: natural-kind terms just are the sorts of terms that can occur in law-like statements[22].

What other options left to sustain naturalism? At least two options come to my mind. The first option is epiphenomenalism (that requires upward or one-way causation). Non-reductionists like Searle uses this to obtain a framework for biological naturalism which holds that lower-order properties causes the higher-order properties to emerge. The second options is to tighten the causal relation in both ways to sustain some form of ontological naturalism (J.Kim). Kim uses supervenience to locate mind in the physical world[23].

Stich uses a third option called supervenience which was originally used by Moore to talk about the emergent moral property. Supervenience is generally defined as the relation between two properties Stich distinguishes between strong, weak and global supervenience.

4.2.Does Supervenience Support Normative Naturalism?

To avoid irrealism, there are two proposals:

1. Intentional properties must be identical with or supervene upon non intentional properties.

2. The naturalization should be explained in terms of property identity or supervenience.

Property identity entails supervenience, and thus non-supervenience entails non-identity. The intentional which supervenes on the non-intentional differs on a pair of dimensions.

1. The notion of one class of properties supervening on another can be expressed in two different ways namely *strong* supervenience and *weak* supervenience. Of these, one (strong) entails the other (weak).

2. There are various options that might be proposed as the "supervenience base" for intentional properties - the class of properties on which intentional properties are expected to supervene.

Since strong supervenience entails week supervenience, the failure of weak supervenience, entails the failure of strong. In both strong and weak supervenience the first constraint is not satisfied . Neither irrealism nor the other unwelcome consequence follow if supervenience fails. There is another notion of supervenience, called global supervenience and in this case, the second constraint isn't satisfied. For in this case, it is wildly implausible that supervenience fails.

As we have seen, supervenience is defined as a relation between two classes of properties. Consider following conventions:

"Let B and S be two classes of properties (think of them as the base class and the supervenient class) whose members are b_1, b_2, ...b_i, ... and s_1, s_2 .....s_i ..... respectively. Now, the basic idea is that one class of properties s, supervenes on a second, B, if the presence or absence of properties in the first class is completely determined by the presence or absence of properties in the second class.

(a) Weak Supervenience (S weakly supervenes on B)

Take the notion of a B- or S-doppelganger. A B-doppelganger of an object is an object that has exactly the same B properties as the original. An S-doppelganger is one which has exactly the same S properties. Using the picturesque language of possible worlds, we can express the idea that B properties determine S properties. If in all possible worlds, every pair of B-doppel gangers that exist in that world are also S-doppelgangers, then we will say that S weakly supervenes on B[24].

(b) Strong Supervenience (S strongly supervenes on B)

So, If S weakly supervenes on B, then in any possible world we select, if we know that a pair of objects in that world share the same B properties, we know they share the same S properties as well. And if a pair of objects in that

world do not share the same S properties, we know that there must be at least one B property that one has and the other doesn't. Now we can build a stronger notion of supervenience if we relax the restriction that is doppelgangers are in the same world. We will say that S strongly supervenes on B if all B-doppelgangers of an object, no matter what possible world they inhabit, are also S-doppelgangers.

The game-plan is stated in a pair of claims: since strong superveience entails weak supervenience, the failure of weak supervenience entails the failure of strong[25]. Thus, if we can show that no untoward consequences follow when weak supervenience does not obtain, the same conclusion will follow if strong supervenience fails.

c) Global Supervenience

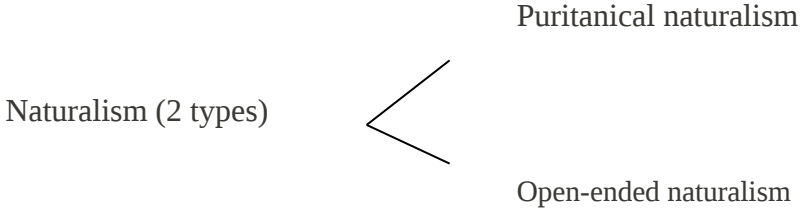
In global supervenience, the central notion is that of worlds that are doppelgangers of one another. Global supervenience can be defined as follows: A class of properties, S, globally supervenes on a class of properties, B, if and only if all possible worlds that are B-doppelgangers are also S-doppelgangers. So if S globally supervenes on B, then if a pair of worlds are indistinguishable with respect to the properties in B, they will also be indistinguishable with respect to the properties in S[26].

In each of these three cases, we will argue that the constraints set out in section 1 are not met. In the first two cases, it is the first constraint that

isn't satisfied: Neither irrealism nor the other unwelcome consequences follow if supervenience fails. In the third case, it is the second constraint that isn't satisfied. For in this case, it is wildly implausible that supervenience fails.We will follow all of this with a brief discussion of another notion of supervenience, so-called global supervenience, whose precise relation to the other two notions is a matter of some dispute[27]. Here again, we will argue, nothing catastrophic follows if intentional properties fail to supervene on the various bases that have been proposed. It is the end of the game plan.

Throwing the gauntlet, Stich concludes: Until some account of naturalizing is given that satisfies both constraints, the most plausible view is that the motivation that Fodor recounts is simply confused. There may be good reasons to take the prospect of intentional irrealism seriously, but the worry that the intentional can't be naturalized is not one of them[28].

Is there a defensible naturalism of the mental? It depends on the way we have a defensible criterion of empirical meaningfulness (legatee of positivism) or else, intentional properties stand in some sort of relation to the properties of physics (not necessarily 'special relation' which looks like a "singularly implausible proposal). So, Stich is forced to distinguish between



The first choice is the legatee of positivism.This is what is ultimately a base for Quine who denies that there is any mandatory between science (a class of a posteriori truth) and philosophy (a class of a priori truth) and its consequent denial of 'first' philosophy. The later asserts that knowledge does not rest on any foundation one can confidently assert that

1. epistemology is a branch of psychology
2. psychology is the branch of physiology
3. physiology is part of cognitive science
4. cognitive science becomes a niche subject

Puritanical naturalism becomes open-ended with the naturalization of epistemology which does not necessarily refute the Sceptic. But philosophy of science is philosophy enough (Quine's dictum)

The first choice is the legatee of positivism. Here Stich comments that this "puritanical naturalism will also suffer the same fate as positivism did: It will die the death of a thousand failures[29]."

With regard to the second choice, he calls attention to the fact how relations are cheap; everything is related to everything else in endlessly many

ways. Rather, what I am claiming is that there is no *single*, *special relation* that all and only the properties invoked in respectable sciences bear to physical properties. There are, no doubt, lots of interesting relations between physical properties and properties like being a buckminsterfullerene; some but not all of these also obtain between physical properties and the property of being a cheating gene; and some but not all of these obtain between physical properties and the property of being a strange attractor"[30]. Perhaps there is no single relation in which all naturalistically *kosher* properties must stand to the physical. So he feigns a definition.

A property is naturalistically acceptable if and only if it is related to physical properties by relation R_1, or by relation R_2, . . . or by relation R_n.

S comments: "It is not only the case that different sciences invoke properties that are related to physical properties in different ways, it is also the case that as science progresses, *new* properties are found to be useful, and some of these are related to physical properties in important *new* ways." "There is no way of specifying the relations in advance, nor is there any reason to suppose that the list might not grow indefinitely." [31]

Panglossian project is saved. Stich concludes, "since naturalists are making a very strong and (by my lights) very implausible claim, I am inclined to think that the burden of argument is on them."[32]

There is no more reason to suppose that there *must* be some fixed relation in which all scientifically legitimate properties stand to the physical than there is to suppose that there must be a fixed relation in which all empirically meaningful sentences stand to physical-object sentences or sense-data reports. The problem is that they play no role in any successful scientific theory. I don't claim to have an account of what it takes to be a successful scientific theory. Indeed, I suspect that too, is a pluralistic, open-ended, and evolving notion. But on the picture I am urging, being invoked in a successful science is all that it takes to render a property scientifically legitimate.

4.3. Ontological Eliminativism as a Paradigmatically Deconstructionist Programme:

From the foregoing, we can surmise that doppelganger account warrants a scientific theory of mind in which we can treat 'believe that - p' is a syntactic type (without semantics as suggested by his earlier theory of mental representation) and naturalism is to be foisted on this. The domain of reasoning is not that of pure reason where Stich can argue folk psychology is still a science at its a earlier stages and it can mature into cognitive science. So this project looks more plausible in the realm of practical reasoning. So, what we need in the domain of practical reasoning in which TOM + TOMM are incorporated. This is what is defended by Stich in his hybrid account of

theory-theory and simulationism which has been decisively rejected in the light of many criticisms altered by Carruthers and others. This is what that issues in normative naturalism which is presented in terms of a multiple lines of argument. We unfold the nuances of the argument with our own comments with a large scale reconstruction and this is adequate enough to preempt critics like Tim Crane[33] who charges Stich as retreating from eliminativism. We do not agree.

Premise 1: FP is a Tacit Theory of Theory-Theory (mental states are posits of the commonsense psychological theory).

2: FP is a Defective Theory (some of the crucial presuppositions it makes are false or incoherent).

3: FP is to be eliminated.

(3a): Science will not explain FP (Science is only heuristics)

(3b): FP will not enter into Science (It can enter into heuristics)

Stich finds out that some additional premises are necessary, to make it valid.

Additional Pr. 3* (deconstructive step) : Referential Opacity/Referential Plurality/Referential indeterminacy: a belief ‘refers to x’ is neither true nor false. Therefore it is indeterminate (that we get here is:

eliminativism itself is neither true nor false). This line of thinking is closed.

(it is derived from: (2) descriptive theory of reference or causal- historical theory of reference.

3* may entail : a wide account of content-identity: a pair of belief tokens are type-identical if they have the same content (sameness of content).

Lewis's Strategy : Theoretical Terms :

For Lewis, a theory offers an "implicit functional definition" of the terms of it. And these terms are definable functionally, by reference to causal roles. Theoretical terms are "defined as the occupants of the causal roles specified by the theory . . . ; as the entities, whatever those may be, that bear certain causal relations to one another and to the referents of the O (observation) -terms."[34] Lewis maintains that we have specified the sense of a term when we have specified its denotation in all possible worlds.

Lewis's account shares two notable features. The first feature is the strategy Lewis instigates to deal with terms of mistaken theories. According to him, theoretical terms are implicity defined by the causal patterns specified in the theory that introduces the terms. This will lead to blurry of the distinction between realized theory and 'newly realized' theory making eliminativism itself indeterminate.

The second feature holds that if we "think of commonsense psychology as a term-introducing scientific theory, though one invented before there was any such institution as professional science," then everything he has claimed about theoretical terms can be applied to theoretical terms in folk psychology.

Lewis points out that if folk psychology turns out to be seriously mistaken, we have to give up not just beliefs and desires but pains, pleasures, and other conscious states from our ontology. Lewis identifies commonsense psychology with the psychological "platitudes which are common knowledge among us - everyone knows them, and so on."[35] And most these platitudes will turn out to be correct (platitude view of FP). So FP is mistaken.

Lycan's Deconstructive Step (this is to be deconstructed further):

Both theories of semantics are defective; but causal-historical theory survives because of 'error' theory[36]

. They refer but erroneously. Thus it moves reference to centre stage.

1) Now we have 4 options:-

Ist Option : The sameness of content is met with supervenience as follows: if two organism believe, they are psychologically identical.

IInd Option : Lewis is met with holism: Same doxastic surround. Folk Psychology takes the content of a propositional attitude to be

dependent in part on the network of other propositional attitudes that a person has. Thus, if the doxastic networks surrounding a pair of belief tokens are sufficiently different, the tokens will differ in content. Although the change in the doxastic surround has altered, perhaps even destroyed, the content of the belief that remains.

The stronger version of holism holds that a pair of belief tokens are identical in content only if they are embedded in identical doxastic surrounds. If that is right, then no two people will have beliefs that are identical in content. The heavy-duty assumption entails that Two beliefs an identical in content only if they are embedded in the same doxastic surround.

IIIrd Option : Heterogenous (clear/damaged distinction is warranted):

Now, the analogy between folk grammar and folk physics bring to the open what is called the 'performance error,' (competence is the same but performatively different). This 'hits a snag' because we have same content and different content that could be attributed to different individuals or even, to one and the same individual. That is, heterogeneous properties are attributable.

In suitable conditions, folk psychology attributes a belief with the same content/different content to the clever, the retarded, and the brain damaged. So this requires that our theory of mind is split in the middle to accommodate

the basal ‘conflict’ (e.g., autism). But folk grammar has a definite way of explaining this problem (epistemic problem).

4th Option : Naturalize content in the normative way:

It begins with the claim that content (and related intentional notions) can't be "naturalized" - there is "no place for intentional categories in the physicalistic view of the world."

This should answer at least three clusters of questions.

a) What exactly would be required to "naturalize" content?

b) This set of questions focuses on the relation between naturalizing and being real. It makes questions such that is everything real reducible to the physical?

c) What reason do we have to think that content can't be naturalized? Is it simply that no one has figured out how to do it?

Twin Proposals:

1. Reference as an account of folk semantics

   [gives error theory (1)].

2. Reference as an account of proto-science

   [gives error theory (2)].

   (1) entails that the analogy between the theory of reference and theory of grammar has to pulled apart.

(2) entails that these analogy between folk physics and theory of reference may be correct.

So, (1) and (2) introduces what is called the folk semantics.

Correspondingly, we have :

(1) If two people have different internalized folk semantics then the notions of reference they are using are different.

(2) We have a way of accounting for the difference by taking that there is no real disagreement. That is, they are both right (one's man's modus ponens is another man's modus tollens).

We thus move to holding that reference is culturally determined, just as everything else.

Explanation : Linguists like Chomsky hold that a sequence of phonemes is grammatical in a dialect if and only if it is classified as grammatical by the grammar inside the heads of the speakers[37]. Unlike the folk physics, the grammatical principles inside a speaker's head can't be wrong. A phoneme sequence is grammatical by the rules or principles inside the speaker's head.

Following Chomsky, Stich says that this would not count as an error on the part of the non-conforming speaker or his grammar, and the non-conforming speaker or his grammar. And the non-conforming speaker spoke

a different dialect. Because, he may be the only one who spoke the dialect, in which case, it is known as idiolect.

5. Pluralistic Step: Consider now:

So, reference is culturally transmitted and acquired by individuals from the surrounding society. Eliminativism claims that beliefs and other intentional states do not exist. But that claim is true if and only if predicates like '---- is a belief' refer to nothing. Well, suppose that '------ is a belief' doesn't refer to anything. Eliminativism is true if and only if '------ is a belief' refers to nothing.

6. 'New' theory: (Strategy of semantic ascent) from deflationary standpoint:

(1) (x) Px iff 'p ----' refers to (or is satisfied by) x.

(2) (x) x is a blackhole iff 'blackhole' refers to x (There is no blackhole)

(3) (x) x is a belief iff 'belief' refers to x. (There is no belief)

(4) ~ (∃x) 'black hole' refers to x

(5) ~(∃x) x is a black hole.

(6) ~ (∃x) 'belief' refers to x

(7) ~ (∃x) x is a belief.

Equally, 6 gives non-deflationary account of reference.

Reference = df. ___ C-H link R to

REFERENCE 1, called Reference *

REFERENCE 2, called Reference **

REFERENCE 3, called Reference *** etc.,

Harty Field suggests that the semantic ascent is a constraint.

1) It must be a relation that does a good job at capturing our intuitions about a wide range of cases.

2) It must satisfy the semantic-ascent principle, Field notes that the strategy of semantic ascent just hides the problem, it doesn't solve it.

7. Dialethic Step ('Dialethic' means contradictory statements; that is p . ~ p

Theorist [A] : "The predicate ' ------ is a belief' stands in the R relation to certain neurophysiological status (or functional states). Field argues, "we can conclude that beliefs do exists, since 'belief' stands in the R relation to these neurophysiological states, and R is the reference relation, and the reference relation satisfies the principle of semantic ascent Q.E.D."[38]

Theorist [B] : No reference

therefore no belief exists Q.E.D.

This is a patent contradiction.

Stich finds out that the alternative strategy is the notion of constitutive or conceptually necessary properties. A certain property is conceptually necessary for having beliefs. Stich views that this strategy is even less promising than descriptive theories of reference. This posses a much deeper problem about the distinction between analytic synthetic statement. But according to Quine, there is no distinction between analytic and synthetic, so this adds to the difficulty.

8. Normative Naturalism (turns the tables against Churchland)

Stich suggests that we have to proceed with some normative principles - principles of rational ontological inference or decision making based on reflective equilibrium.

Robert McCauley explains the theories at "levels of analysis" lead to theoretical and ontological elimination McCauley provides an interesting and provocative conclusion that holds, "the superior theory eliminates its competitor (and its ontology)[39]." Both common sense psychology and cognitive psychology operate at different levels of analysis from neuroscience. Agreeing with Churchland, McCauley maintains that the neuroscience and commonsense psychology are "incommensurable" and it would be incorrect to "conclude . . . that such incommensurability requires the elimination of one or the other."[40]

9. Two Skeptical Counters:

(1) There is not one normative-naturalist strategy but many whose relation to one another is based on the family resemblance.

(2) The normative credentials of normative naturalist procedures have a relativist flavor.

10. Social/Political argument (Social Constructivist view)

Personalities and the micropolitics of scientific communities often play an important role in situations like this.

The skeptical conjecture Stich proffers is that the normative naturalist strategy will not uncover principles of rational ontological influence that are rich enough to tell as that what ontological conclusions we will draw from this.

The descriptive claim is that in which the ontological questions have been resolved. At the most, it is only belief revision in science.

11. Corrallary : Papineau's Argument : (Theoretical terms are unsettled and hence eliminated)

Papineau argues that the theoretical terms are eliminable: "any claims formulated using such terms are simply a shorthand for claims that can be formulated without such terms."[41] Thus, "we can *eliminate* theoretically

defined terms from any claims in which they appeal."[42] Unlike Quine he thinks that there are some "cove assumptions" of the theory. He also thinks that there are so theoretical assumptions whose definitional status is indeterminate.

Corallary 2: We can change the above into Quinean counter, leaving the only clause that it is sociologically determined which of not Quinean in any respect. This is what is called the Quinean version of pragmatism.

The question is : Does the eliminativist conclusion follow? It appears that it does; but also, it does not. It does because the 'dialethic' step (p.~p) warrants that the contradiction is overcome only at the expense of reducing the whole argument about similarity of content for absurdity.

It does not because the normative naturalism is poised to accommodate the disagreement, and we get a Quinean conclusion[43]. What this warrants is the construction of a theory of mind plus a theory of mental mechanism by which we attribute similarity of content by identifying the type. The whole argument began with what is called the folk psychological capacities whic`h include a cluster of abilities (common folk physics and folk psychology even while keeping out folk semantics). All of which seek agreement between people: Beliefs are identical iff they have the same content (Two belief tokens have the same content).

The above argument is completely reformulated but not without much consternation. It is too complex but once it is formulated it sustains our original hypothesis. This is very difficult in structure from the one which Tim Crane formulates in simplistic terms, in which he charges Stich as proposing a retreat from eliminativism. What we have proved thus far shows that the contrary is true. The actual argument:

Premise 1: Intentional states are postulates of a proto-scientific theory, folk psychology.

Premise 2: Folk psychology is largely false.

Conclusion : Intentional states do not exists.

His comments are enumerated below:

1) The above argument is invalid (it is not invalid but it contains gaps to be filled up).

2) It leads to social constructionist view but there is no reason to believe that there is a" possible source of harmony between eliminativism and social constructivism"

(1) and (2) warrants a "clear departure" from eliminativism

Stich's argument according to his reading lacks consistency because it is an assemblage of many authors. This is not true since all the others share a

similar conclusions, as their recent writings attest. Stich's use of Lycan for "waking up from his dogmatic slumbers"[44] will not pay off as there are 'hidden' sources of agreement about facts. Moreover, the right conclusion to draw here is that the theory of reference is "not the heart of the issue." We may need a positive theory which will escape the distinction between deflationary and non-deflationist theories.

Moreover, Crane comments further that Stich and Lawrence fail to dissolve the question of naturalism. This is not true. What they try to achieve is turn it in the direction of normative naturalism and then by making it compatible with Quinean pragmatism, they persevere in their outlook on eliminativism. The positive outcome of course lies in the defence of a hybrid-theory of theory-theory and simulationism. This two theories are purported to explain clearly what is called the sameness of content in as much as technical a way as it would be possible. Stich may be wrong but he is not wrong on account of the reason that he is an eliminativist. Thus we make a natural transition to his overall theoretical account, where we have more scope to consider a blurry of objections.

4.4. Hybridizing Theory Theory and Simulationism

Sellars's myth can be viewed as having three stages:

1. **Inscrutability Premise :** "A stage in pre-history in which humans are limited to what I shall call a Rylean language, of which the

fundamental descriptive vocabulary speaks of public properties of public objects located in Space and enduring through Time."[45] For our purposes, Sellars's myth can be viewed as having three stages. The first of these is "a stage in pre-history in which humans are limited to what I shall call a Rylean language, a language of which the the fundamental descriptive vocabulary speaks of public properties of public objects located in Space and enduring through Time." At this stage in the myth, our "Rylean ancestors" have no terms in their language for beliefs, thoughts, or other "inner mental episodes."

2. **Other-Ascription Premise:** The second stage in the myth begins with the appearance in this "Neo-Rylean culture" of "a genius - let us call him Jones.": Jones develops a *theory* according to which overt utterances are but the culmination of a process which begins with certain inner episodes. *And let us suppose that his model for these episodes* which initiate the events which culminate in overt verbal behaviour is that *of overt verbal behaviour itself. In other words, using the language of the model, the theory is to the effect that overt verbal behaviour is the culmination of a process which begins with "inner speech."*[47] In this stage, the theory is *only* applied to other people (we can call this as Stich-Stage 1).

3. **Self-Ascription premise:** The third stage shows that Jones and his compatriots learn to apply the theory to themselves. They apply it to themselves in much the same way they apply it to others inferring various theoretical claims by attending to their own behavior. And, they discover a new way of applying the language of the theory to themselves (we can call this Stich-Stage 2).

Sellars tells:

> Once our fictitious ancestor, Jones has developed the theory that overt verbal behaviour is the expression of thoughts, and taught his compatriots to make use of the theory in interpreting each other's behaviour, it is but a short step to the use of this language in self-description. Thus, when Tom, watching Dick, has behavioral evidence which warrants the use of the sentence (in the language of the theory) "Dick is thinking 'p'" . . . Dick, using the same behavioral evidence, can say, in the language of the theory, "I am thinking 'p'" . . . And it now turns out-need it have? - the Dick can be trained to give reasonably reliable self-descriptions, using the language of the theory, without having to observe his overt behavior. Jones brings this about, roughly, by applauding utterances by Dick of "I am thinking that p" when the behavioral evidence strongly supports the theoretical

> statement “Dick is thinking that p”; and by frowning on utterances of “I am thinking that p,” when the evidence does not support this theoretical statement. Our ancestors begins to speak of the privileged access each of us has to his own thoughts. *What began as a language with a purely theoretical use has gained a reporting role*[48].

So, in Sellar’s myth, expressions of the form *“I am thinking that P”* are theoretical expressions which have acquired a “reporting use in which one is not dreaming inferences from behavioral evidence.” [49]

1) As the myth indicates, one can use the overt verbal behaviour (which expresses ones own thought) is a short-step. The use of self-ascription.

2) This warrants that we can pass from other ascription: Dick is thinking of p for self-ascription : I am thinking of p.

3) Now, Dick is trained to use self-ascriptions without using his behaviour as evidence. The behavioral evidence supports only the other-ascriptions.

4) Obviously, the evidence does not support self-ascriptions. But this can be arrived at from the other ascriptions.

5) So, the self ascription is a reporting use in which one is not drawing inferences from behavioural evidence.

(1) to (4) give us a rule for reporting without inner episode requirement.

Now, Stich turns this to his advantage. He argues that:

1) One can use the above myth to connect self-ascriptions with one's own behaviour.

2) Such self ascriptions may at times be mistaken causing 'discrepant' beliefs.

He says: 'occassionally, an anomalous event may cause the observed behaviour in the absence of the hypothesized internal state.' Likewise, reasonably reliable self-ascription without observable behaviour may misfire and that we describe ourselves as thinking that P, in the absence of the *hypothesized* internal state. Stich's comment that says that though Sellars himself did not stress the point, there is a more pervasive way in which our self-descriptions might turn out to be wrong, is beside the point.

This is just to muster evidence for cases of Autism or Down's Syndrome. In fact, the psycho-pathological evidences Stich seeks may not materialize from the above conceptual analysis. The evidences from psycho-pathology on the otherhand might illuminate conceptual analysis.

From this, Stich has recourse to a pair of problems:

1) The myth is actually a myth for the very reason that it embodies, infallible knowledge that is available twin self ascription.

2) It is not consistent with the practice of self and other ascriptions because ascription in one ordinary day-to-day world are not based on such theory (or narrative).

Thus, Stich is not happy with the myth and passes on to neo-Sellarsian myth (of his own) overlooking the Stich-states we have termed as Stich (1) and Stich (2). This actually lends a different colouration to his approach, which is briefly captured below form his latest reflections.

Mind-reading skills in both the first person and the third person cases, can be divided into two categories - detecting and reasoning.

1. Detecting: It is the capacity to *attribute* current mental states to someone.

2. Reasoning: This capacity is to use information about a person's mental states (typically along with other information) to make predictions about the person's past and future mental states, her behaviour, and her environment.

For example, "one might detect that another person wants ice cream and that the person thinks the closest place to get ice cream is at the corner shop. Then one might reason from this information that, since the person

wants ice cream and thinks that she can get it at the corner shop, she will go to the shop."[50]

Explanation (1) "the obvious facts about self-attribution (e.g. that normal adults do it easily and often, that they are generally accurate, and that they have no clear idea of how they do it.)"[51]

Explanation (2): "the often rather un-obvious facts about self-attribution that have been uncovered by cognitive and developmental psychologists." [52]

Two basic assumptions about the mind are given as below:

a) The Basic Architecture Assumption:

It claims that a well known commonsense account of the architecture of the cognitive mind is largely correct, though obviously incomplete. The basic architecture assumption maintains that in normal humans, and probably in other organisms as well, the mind contains two quite different kinds of representational states, beliefs and desires. The beliefs and desires differ "functionally" because they are caused in different ways and have different patterns of interaction with other components of the mind.

b) The Representational account of Cognition

It maintains that beliefs and desires and other propositional attitudes are relational states. To have a belief or a desire with a particular content is to

have a representation token with that content stored in the functionally appropriate way in the mind.

So, for instance, to believe that Socrates was an Athenian is to have a representation tokens whose content is Socrates was an Athenian stored in one's Belief Box, and to desire that it will be sunny tomorrow is to have a representation whose content is *It will be sunny tomorrow* in one's Desire Box.

The representational account of cognition assumes that the representation tokens subserving propositional attitudes are linguistic or quasi-linguistics in form.

Stich discusses the three models of the TT account as follows:

The central of the TT account of self-awareness is that the process of reading one's own mind is largely or entirely parallel to the process of reading someone else's mind. Those who defend the TT account of self-awareness maintain that "knowledge of one's own mind, like knowledge of other minds comes from a theory-mediated inference, and the theory that mediates the inferences is the same for self and other - it's the Theory of Mind,"[53] according to the TT:

i) Detecting one's own mental states is a theory-mediated inferential process. The theory, here as in the third person case, is ToM (either a

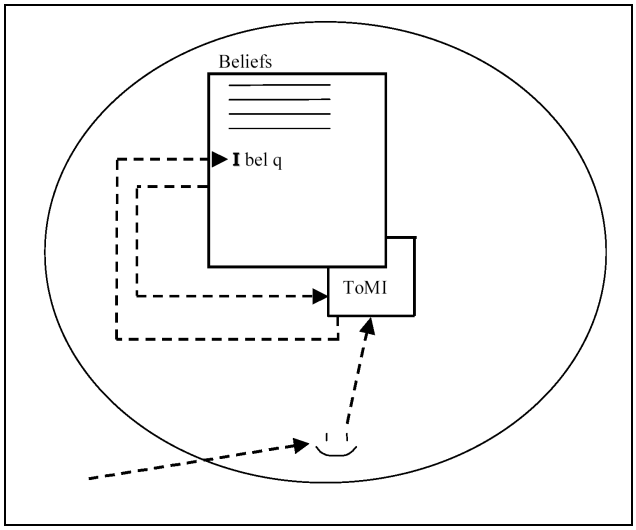
modular version or a just-like-other (scientific)-theories version or something in between).

ii) As in the 3rd person case, the capacity to detect one's own mental states relies on a theory-mediated inference which draws on perceptually available information about one's own behaviour and environment. The inference also draws on information stored in memory about oneself and one's environment.

1. The Crazy Version:

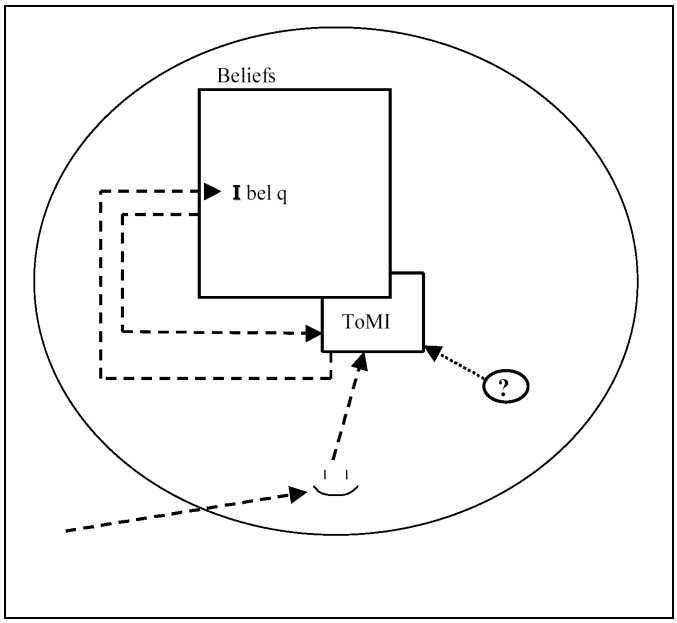
It proposes to maintain the parallel between detecting one's own mental states and detecting another person's mental states quite strictly.

The crazy version denies the widely held view that an individual has some kind of special or privileged access to his own mental states. This version of TT is sketched in figure.



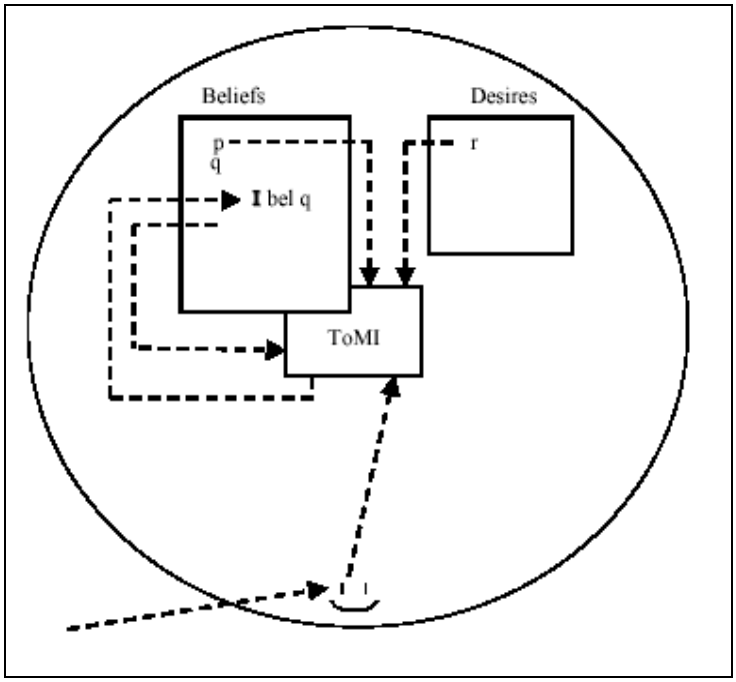
2. The Under-described Version:

The theory-theory version 2 allows that in using ToM to infer to conclusions about one's own mind there is information available in addition to the information provided by perception and one's background beliefs. This additional information is available only in the I[st] person case, not in the 3rd person case. A sketch of the under-described version is given in Figure



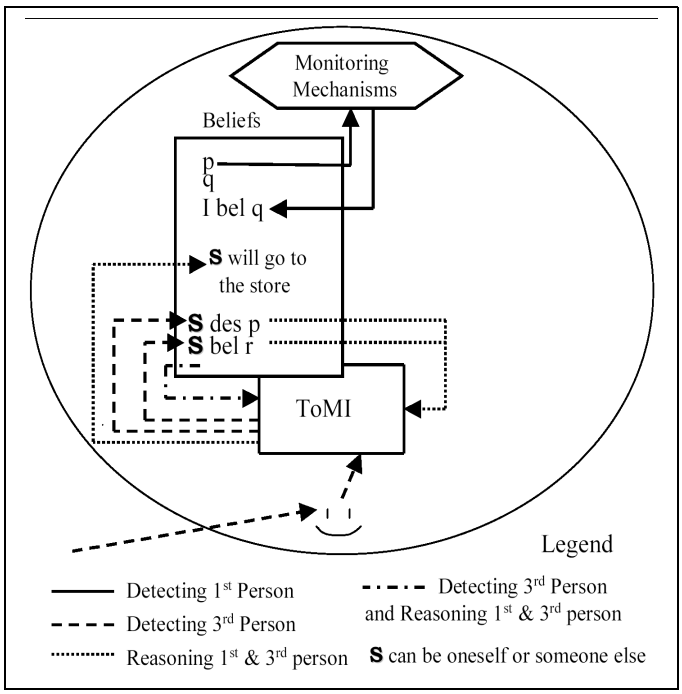
3. ToM version

On the TT version 3, the ToM has access to information provided by perception, information provided by background beliefs, and information about the representations contained in the Belief Box, the Desire Box, etc. This version of the TT is sketched in Figure.



The Monitoring Mechanism Theory:

It is a mechanism that serves the function of monitoring one's own mental states. Eg., when normal adults believe that p, they can quickly and accurately form the belief I believe that p; when normal adults desire that p, they can quickly and accurately form the belief I desire that p; and so on for the rest of the propositional attitudes. In order to implement this ability we have to require a Monitoring Mechanism (MM) that, when activated, takes representation p in the Belief Box as input and produces the representation I believe that p as out put. This account of the process of self-awareness is sketched in Figure



Developmental evidence and the Theory Theory

Stich cites Autism as a support for a Theory Theory account of self-awareness.

Stich and Nichols assume that the empirical evidence produced by developmental psychologists does not support the TT over our Monitoring Mechanism Theory. Rather, they argue that in some cases both theories can explain the data about equally well, while in other cases the Monitoring Mechanism theory has a clear advantage over the TT. They show some problems of the TT versions,

1. Version 1 looks to be hopelessly implausible; it cannot handle some of the most obvious facts about self-awareness.

2. Version 2 is a mystery theory; it maintains that there is a special source of information exploited in reading one's own mind, but it leaves the source of this additional information unexplained.

3. Version 3 faces the embarrassment that if information about the representations in the Belief Box and Desire Box is available, then no theory is needed to explain self-awareness; ToM has nothing to do.

Stich rejects all the three versions on account of the criticism about 'extensive parallelism' which is next described.

The extensive parallelism:

It shows that "our knowledge of ourselves, like our knowledge of others, is the result of a theory."[54] The argument establishes a broad based empirical case for the TT of self-awareness.

If Gopnik and Meltzoff are right that there is an "extensive parallelism," that would support the TT since the TT predicts that there will be a parallel performance on parallel theory of mind tasks for self and other. For TT, in order to determine one's own mental states, one must exploit the same Theory of Mind that one uses to determine another's mental states. So, if a child's Theory of Mind is not yet equipped to solve certain third person

tasks, then the child should also be unable to solve the parallel first person task.

In recent years, Stich's eclectic model draws fire from critics especially from those who are defending a new paradigm of mind-reading as involving self-monitoring mechanism. Carruthers, for example, presents his case for self-model theory of mental activity as part of introspectionism or a revisionary introspectionism. Carruthers distinguishes three accounts of the relationship between third-person mind-reading and first person metacognition. While two of these accounts (Stich and Goldman) endorse the existence of introspection of propositional attitudes, and the third (Carruthers's) depends on mind-reading upon ourselves. What is conveyed in this review is that mind-reading is neutral between self-ascription and other-ascriptions.

This is just to make it convenient to endorse a claim that our knowledge of our attitudes results from turning our mind-reading capacities upon ourselves however 'partial' it might be. Carruthers cites two major observations (experimentally supported) in support of this,

1) We have no subjectively accessible reasons for believing in introspection.

2) The mind-reading system's model of its own access to its own mind (self-modelling).

Put together, (1) and (2) implies that our introspection is 'divided'. It is divided in the sense that out access to our own mind is not transparent. What is argued for in received interpretations that I have a mind, I introspect, and my knowledge about myself is infallible, are to be taken with a pinch of salt. Carruthers proves that my mind is transparent (to myself) is not so transparent. Such a conclusion is not very far from the position maintained in the thesis, and stands neutral to both Carruthers and even so, to Stich, or to Bermudez who lays stress on misrepresentation as one of the criteria.

4.5. Folk Psychology: An Interim Review:

Circularity Problem: It holds that if ordinary mental state terms like belief, desire and pain are to be meaningful, they argued, they can't refer to unobservable events taking place inside a person (or, worse still not located in space at all). Rather, the meaning of sentences invoking these terms must be analysed in terms of conditional sentences specifying how someone would behave under various circumstances[55]. So for example, a philosophical behaviorists might suggest that the meaning of

1. John believes that snow is white

Could be captured by something like the following:

2. If you ask John, 'Is snow white' he will respond affirmatively

Functionalist account

According to the functionalism, the meaning of ordinary mental state terms is determined by the role they play in a commonsense psychological theory. Influenced by Sellar's myth, Lewis holds, "we think of commonsense psychology as a term-introducing scientific theory, though one invented before there was any such institution as professional science."[56] Thus the "functional definition" account of the meaning of theoretical terms in science can be applied straight-forwardly to the mental state terms used in commonsense psychology:

Imagine our ancestors first speaking only of external things, stimuli, and responses . . . until some genius invented the theory of mental states, with its newly introduced T(heoretical) terms, to explain the regularities among stimuli and responses. But that did not happen. Our commonsense psychology was never a newly invented term-introducing scientific theory-not even of prehistoric folk-science. The story that mental terms were introduced as theoretical terms, is a myth Stich holds, .

"It is, in fact, Sellars's myth . . . And though it is a myth, it may be a good myth or a bad one. It is a good myth if our names of mental states do in-fact mean just what they would mean if the myth were true. I adopt the working hypothesis that it is a good myth"[57].

Functionalists maintain that the meanings of mental state terms are given by functional definitions. For this view, *folk psychology is the theory that gives ordinary mental state terms their meaning*.

Two possible answers:

1. Platitude account:

Lewis expounds the idea of the "platitudes" of commonsense psychology. Accordingly, these are generalizations that are "common knowledge" among ordinary folk. These platitudes are the intuitively obvious generalizations. On Lewis view, these platitudes constitute an implicit definition of the terms of commonsense psychology and they are the consciously accessible consequence of a substantially richer set of mostly tacit or unconscious psychological rules and generalizations that people in our culture share. These tacit rules and generalizations also play a central role in explaining folk psychological capacities.

Thus, on this approach, folk psychology is just a collection of platitudes. We'll call this the *platitude account* of folk psychology.

2. Mind-reading account:

The mind-reading account holds that people have a rich body of mentally represented information about the mind, and that this information plays a central role in guiding the mental mechanisms that generate our attributions, predictions and explanations. Some psychologists like Gopnik, Wellman and Meltzoff defend this view and use the term 'theory-theory' for

it. They maintain that the information exploited in mind-reading has much the same structure as a scientific theory, and that it is acquired, stored and used in much the same way that other commonsense and scientific theories are. But Scholl and Leslie argue that much of the information utilized in mind-reading is innate and is stored in mental "modules" where it can only interact in very limited ways with the information stored in other components of the mind. And, both the modularity theorists and theory-theorists agree that mind-reading depends on a rich body of information about how the mind works. Both these theories share the label i*nformation-rich theories*. Thus, folk psychology is the rich body of information or theory that underlies people's skill in attributing mental states and in predicting and explaining behavior.

3. Three accounts of mind reading: Information rich, simulation based and hybrid

Simulation theorists and theory-theorists (information-rich) offer competing empirical theories about the mental processes underlying mind reading. But, recently, an hybrid approach has been accepted by a number of philosophers.

According to this approach, mind reading is a complex and multi-faceted phenomenon, many facets of which are best explained by an information rich approach, while many other facets are best explained by simulation[58].

a) Argument from simplicity:

The argument from simplicity is the only reason to prefer a simulation based account of inference prediction over an information rich account. Harris points out that it plays an essential role to convince us that a comprehensive theory of mind reading would have to invoke many different sorts of processes, and that simulation processes would be among them.

b) Argument from accuracy:

The argument holds that the inference prediction is remarkably accurate over a wide range of cases, including cases that are quite different from anything that most mind readers are likely to have encountered before.

1. Desire Attribution:

It is an essential capacity of mind-reading to attribute desires to other people. The desire attribution capacity is necessary for knowing what other people want and to predict or explain their actions. Stich and Nichols maintain that the desire attribution skills do not depend on simulation but rather are subserved by information rich processes.

Stich and Nichols provide two quite different reasons for their claim:

a) desire attribution exhibits a pattern of systematic inaccuracy and that supports atleast an initial presumption that the process is not simulation based.

b) for thinking that the mental mechanisms subserving desire attribution use information-rich processes rather than simulation is that it is hard

to see how the work done by these mechanisms could be accomplished by simulation.

2) Discrepant Belief Attribution:

It is an important capacity of mind reading to attribute beliefs that we ourselves do not hold. The discrepant belief attribution includes some relying on beliefs about the target's perceptual states, others exploiting information about the target's verbal behavior, and still others relying on information about the target's non-verbal behavior. All these processes are subserved by information-rich mechanisms, rather than by a simulation mechanism.

Stich and Nichols offer a pair of reasons for this[59] :

a) there is abundant evidence that the discrepant belief attribution system exhibits systematic inaccuracies of the sort we would expect from an information rich system that is not quite rich enough and does not contain information about the process generating certain categories of discrepant beliefs.

b) there is no plausible way in which prototypical simulation mechanisms could do what the discrepant belief attribution system does.

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CHAPTER V

SOME REFLECTIONS ON RESEARCH FINDINGS: SUMMARY AND CONCLUSIONS

"I am touched by deconstruction" –Gayathri Spivak.

We are in for final evaluation and conclusions. We have noted in the extensive review (chapter1) how some sort of functionalist materialism (Fodor and Carruthers) can be counter posed to eliminativist proposal, especially in the case of Eliminativism in Prospects (Stich). We noted that two major challenges before Stich were the first is on middle course syntacticism, a representational theory which tries to combine the internalist and externalist senses that stood in opposition to strong and weak theories of Mental Representation.The second challenge was on his hybrid variety of Simulationalism and Theory-Theory that was contested by Puritan type of mind reading paradigm (a self model theory from Carruthers[1]). Sandwiched in between them is the trend about instrumentalism which made eliminativist to sit and reconsider the eliminativist option by hybridizing folk-psychology and neural based scientific–psychology and took it in the direction of the distinction between semantic transparency, semantic opaque models as obtaining between symbolicist and connectionist paradigms respectively. That instrumentalist response was again challenged by a revisionist strategy

from Bermudez[2] who brought in the transparent or opaque distinction at the social level after giving up the 'autonomy' thesis even while defining the relation in terms of non conceptual content. This was seen as a major challenge to protagonists as well as antagonists of EM. In the course of which we spotlighted Stich's opposition to analytic epistemology (various traditional and analytical models, wide and narrow equilibrium models) and his stance against rationalism (heuristics), truth, semantics, reference ending up with his four replies to cultural relativism.

Tim Crane alleged that Stich has already retreated from EM even in the second or third book. We have reiterated our stand by refuting this. We are right since Stich takes us beyond eliminativism by opening his eliminativist lines in two directions.

1. One was to take it in the direction of practical reasoning, moral relativism, where moral values bear the stamp of cultural diversity. There he talks about how psychological investigation into cognition are culturally determined. He led an investigation team in to this questions (Nicod Lectures 2007[1]). The finer point is that moral rules are kledgy.

2. On the other hand, he takes it in the other direction in which he was leading an investigation team to assess how referential function of language is again culturally determined.

In the context of eliminativism, the latter investigation leaves an extreme relevance. This is exactly where his earlier argument comes in for review:

His official position on EM was,

FP is a posit;

FP cannot be brought in to the fold of scientific psychology.

There fore,FP should be eliminated.

This is an invalid argument because at least one premise is mising: the premise about . So, he added that premise in the subsequent review.

Referential theory takes descriptive or causal theory found (Lycan's deconstructive premise)

In the case of Lycan, it led to the opposite conclusion that belief and desire exist in the light of the veracity of causal - historical theory of reference.

Lycan's deconstructive step exploits the referential pluralism found in different theories. So, the deconstructive step needs to be deconstructed by adopting a third version.

That it cannot be shown which referential theory is the best and hence he has recourse to various options including naturalism (not puritanical but

open ended) They are given as sub-doxastic holism, heterogenuity, and we finally nominated dialethic step (P. ~ P).It is only in this context, Stich has a worry about sameness, or difference in content. He was led to the question about how our cognitive processes are to be evaluate and thus he was ultimately led to say that this is not possible unless we evaluated it from a cultural relativistic point of view. This led him to articulate four replies to cultural relativism before giving it up.

These various options come in for further review in the final run.

Now, this dialethic step (P ~ P) retains its flavour (we have already encountered in the " corollary" from Papineau earlier in our original formulation. So, Stich's final conclusion emerges by saying that,

1. Theorist 1 (Descriptive theorist) defines reference in one way (a historical view)

2. Theorist 2 (Causal-historical theorist) defines reference is yet another way (historical view).

Now, according to Stich, we can draw another metaphysical conclusion from this. We shall capture the essential step of the argument below:

1. Belief or desire terms are theoretical terms;

2. They can be either defined descriptively or causal – historically;

3. FP about belief is massively erroneous ;

4. The notions of belief/desire does not exist.

Now, Stich argues that if they are taken as theoretical terms, then even if pluralism about reference cannot gives us any clue, they open up an avenue for theory-change in science. Accordingly, the referent of these theoretical term may change from one scientific theory to another scientific theories (Kuhn, Feyeraband). This is what is visible when science progresses. This is very much in tune with scientific realism . The term 'mass' has changed its meaning from Newtonian to Einsteinean paradigm.

So, what metaphysical conclusion does it warrant? Since reference is culturally determined, it warrants a different metaphysical (meta-metaphysical?) conclusion.

This is seen in the way each theorist about belief (treated as a theoretical term) offers his own definition as:

1. The folk psychologist claims that 'beliefs exist' (P).

2. The eliminativists claim that beliefs do not exist (~ P).

In this,there is an underlying dialethic logic.

Thus, there is a systematic variation of intuition of reference of belief. This tells us that there is a dramatic role of culture in shaping human

cognition. In other words, there is a systematic 'cross-cultural difference' in epistemic intuition. Even the term 'knowledge' (like reference) is culturally determined. There may be culturally determined differences between Indian and Western epistemology. This conclusion can be empixically supported by cross- cultural investigation on reference (Nisbett. et al 2001, 2003; Nisbett et al 2005)

These experiments showed that two culturally distinguishable set of people (East Asian, Chinese, Western cultures) differ in the way they conceptualize about epistemology. Where as, the East, Asian sect understand reference from a 'similarity' point of view, the Western counter-part looks at from a causal point of view. These experiments were widely tested in the case of perception, attention and memory and others.

Thus, what the cultural diversity hypotheses tells us is that pluralism about reference, knowledge etc. is a larger question about culture and they are similar to the way we use language within a particular cultural 'form' of life, a la Wittgenstein.

To some extent the above conclusion denies that referential pluralism lead us to variations in intution about reference and thus eliminativists are not prevented from drawing their own conclusion.

The question is whether Stich has changed his mind to offer a social constructivist stand point as alleged by critics like Tim Crane, which was

dismissed earlier in the thesis. Tim Crane alleged that Stich passes from eleminative materialism toward a social constructivist view of FP and thus he does not eliminate FP, after all. We must pause to consider once again whether the argument, as it is reviewed. Briefly, the argument goes through the following motions:

1. Cultural variation does not rule out cultural diversity;

2. Cultural variation may also engender ‘ theoretical’ variation;

3. Cultural variation may also contribute to individual variation;

4. The individual variations may sometimes be subsumed under a use of language (eg. in a dialect)

So, what is called sameness of content cannot be legitimised; but difference of content is critically warranted.

What follows from the above is a further conclusion that folk concepts/as well as scientific concepts (eg. epistemic concepts) are subjected to theoretical change or meaning change, at the cross-cultural level.

Thus those who claim that beliefs can be naturalized say one thing about beliefs (beliefs exist) where as eliminativists who claim that beliefs cannot be naturalised say yet another theory about belief (beliefs do not exist)

On the one hand, the intentional realists must therefore account for sameness of content. On the other hand, the eliminativists must account for differences in content that are cultural.

Folk notions like belief and desire can be absconded in to science. The Panglossian project gets completed here. There may not be any mechanism to account for (Theory of Mind Mechanism) to account for sameness of content, in folk psychological terms. On the other hand, there may be a mechanism (Theory of Mind Mechanism) to account for difference of content from a scientific point of view. Thus, scientific psychology invades cultural anthropology is exactly the same way as FP is sucked in to science.

Thus, eliminativism is attuned to a future project. The project is to study cultural variations which are 'ubiquitous'. The question whether eliminativism is a special case of deconstruction may now be answered by saying that it can lead to two hypothesis:

1. As in Lycan's argument: that beliefs do exist (opposite conclusion);

2. As in Stich's case, that beliefs do not exist (except as a cultural variation)

Now, incidentally consider;

the belief in god's existence:

Is it true or false?

Group 1 may claim that those beliefs exist

Group 2 may claim that those beliefs do not exist

The difference between group 1 & 2 are cultural and this is what deconstruction should aim at studying. The so-called freedom of faith (viswasa swathanthriam) is a lingo except when we have differences at the level of cultures. Jean L. Nancy suggests that deconstruction must be pursued in cultural studies departments than in comparative literature departments.

So, the conclusion is reinforced but in a different way than the original, but it is very similar to these case of 'late' Derrida who claims that referential practices are culturally determined.

The consensus between Derrida and Stich apart, the point that eliminativism doesn't rest on diversity (or plurality of referential theories or plurality of theories of representation), but on the possibility of variations of the theories themselves. From pluralism about reference, we must pass on to the pluralism about culture or language or what ever. The revealing lesson is that these differences are 'ubiquitous' as well as 'systematic'. Psychology rests on anthropology. But one question Stich doesn't answer is: how should one cross the boundaries? More importantly, Stich fails to explain how evolution plays a role in the process?

Stich is critical of a unified science of cultural evolution (He is equally critical of sober and others). He is not convinced that the structure of culture should broadly resemble the structure of evolutionary biology. But, Stich agrees that culture exhibits key Darwinian properties and research on culture takes broadly a Darwinian stance. But he is hardly able to foresee which stance this might be.

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